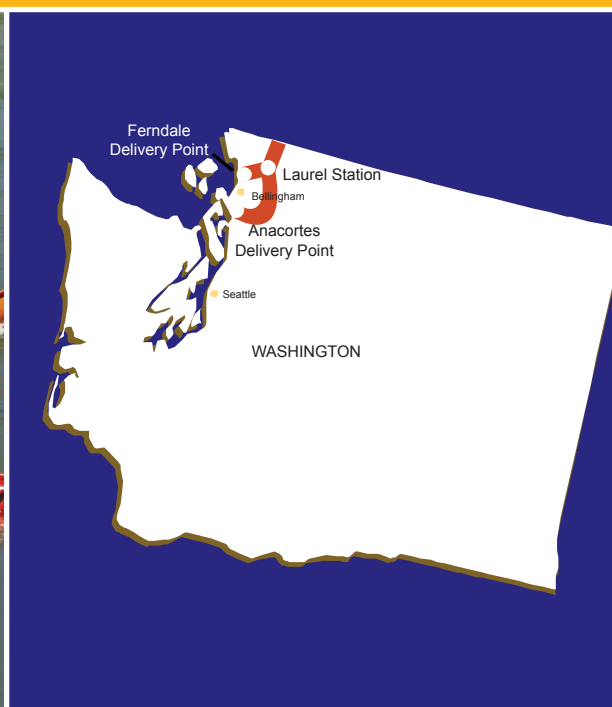




Emergency Response Plan - E.R.P.

Puget Sound

Exhibit 8021

TABLE OF CONTENTS

TABLE OF CONTENTS	I
PLAN IMPLEMENTATION	IX
PLAN MAINTENANCE	IX
RESPONSIBILITY	IX
PLAN REVISIONS	IX
INITIATING REVISIONS	IX
REVISION DISTRIBUTION	IX
REVISIONS AFTER A RELEASE OR AN EXERCISE	X
CHANGES IN OPERATING CONDITIONS	X
REVISION REQUEST FORM	XI
CONTROL SHEET	XII
DISTRIBUTION	XIV
ACRONYMS	XV
INTRODUCTION	1
INITIAL INCIDENT ACTIONS	1
HOW TO USE THIS PLAN	1
PURPOSE OF THE PLAN	2
REGULATORY SCOPE OF THE PLAN	2
SCOPE OF THE PLAN	2
PLAN IMPLEMENTATION	2
EMERGENCY DEFINITION	2
EMERGENCY RESPONSE PHILOSOPHY	3
EMERGENCY LEVELS	5
1.0 RESPONDER HEALTH AND SAFETY	1
1.1 SAFETY GUIDELINES	2
1.1.1 <i>Skin Contact</i>	2
1.1.2 <i>Inhalation of Vapors</i>	2
1.1.3 <i>Fire/Explosion</i>	2
1.1.4 <i>Other Hazards</i>	2
1.2 INITIAL HEALTH AND SAFETY PLAN	2
1.3 HEALTH AND SAFETY PLAN	2
2.0 INTERNAL AND EXTERNAL NOTIFICATION	1
2.1 INCIDENT VERIFICATION	1
2.1.1 <i>Automated -Spill Detection</i>	1
2.1.2 <i>Automated - Fire Detection</i>	2
2.1.3 <i>Automated – Intrusion Alarm</i>	2
2.1.4 <i>Automated/Complaint Detection Verification</i>	2
2.1.5 <i>Early Detection Methods</i>	2
2.1.6 <i>Detection in Adverse Weather</i>	2
2.1.7 <i>Detection of Spills to Groundwater</i>	3
2.1.8 <i>Shutdown Events</i>	3
2.1.9 <i>Spill Verification Flowchart</i>	3

2.2	INTERNAL NOTIFICATION CHART	4
2.3	INTERNAL NOTIFICATION PROCEDURE	4
2.3.1	Information to Report	4
2.3.2	How to report.....	4
2.4	INCIDENT MANAGEMENT TEAM (IMT) NOTIFICATION/ACTIVATION.....	5
2.5	IMT FAN-OUT	5
2.6	EMERGENCY RESPONSE LINE (ERL/ERL+) INITIAL CONTACTS.....	6
2.7	KINDER MORGAN CONTACTS.....	6
2.8	EXTERNAL NOTIFICATION	8
2.8.1	Interface With Other Plans	8
2.8.2	External Notification – Potential Emergency Condition	9
2.8.3	External Notification Chart – Confirmed Emergency Condition.....	10
2.8.4	Initial Notification Requirements – Confirmed Emergency Condition.....	11
2.8.5	Emergency Condition Agency Report Form.....	12
2.9	ADDITIONAL GOVERNMENT CONTACTS	13
2.10	SUPPORT SERVICES - PRIMARY RESPONSE CONTRACTORS (PRC)	14
2.11	OIL COMPANY CONTACTS	15
2.12	ADDITIONAL RESOURCES SUPPLIERS	15
3.0	SPILL/SITE ASSESSMENT	1
3.1	SITE ASSESSMENT GUIDELINES.....	2
3.1.1	Safety Checklist	2
3.1.2	Incident Intelligence checklist.....	2
3.1.3	Incident Mitigation Checklist.....	2
3.2	VAPOR MONITORING ON MARINE SPILLS.....	2
3.2.1	Pre-Assessment Preparation	2
3.2.2	Site Assessment Procedures	3
3.3	VAPOR MONITORING ON LAND SPILLS	3
3.3.1	Site Assessment Procedures	3
3.4	VAPOR MONITORING FLOWCHART	4
3.5	SPILL OBSERVATION/ASSESSMENT/ESTIMATION FACTORS	5
3.5.1	Spill Surveillance	5
3.5.2	Estimating Spill Trajectories.....	5
3.5.3	Estimating River/Stream Velocity.....	6
3.5.4	Estimating Spill Volume	7
4.0	SPILL CONTAINMENT AND RECOVERY	1
4.1	INITIAL CONTAINMENT ACTIONS.....	1
4.2	SPILL MITIGATION PROCEDURES	2
4.3	SPILLS TO LAND.....	3
4.3.1	Interceptor/Trench	3
4.3.2	Trench/Berm	3
4.4	OPEN WATER CONTAINMENT	4
4.4.1	Open Water Booming.....	4
4.4.2	U-Booming (Open Water Containment)	4
4.4.3	J-Booming	4
4.4.4	V-Booming	4
4.5	SPILLS TO CREEKS AND RIVERS	5
4.5.1	Small Creeks.....	5
4.5.2	Ditches/Culverts	5
4.5.3	Inverted Weir Dam	6

4.5.4	Deflection Booms	6
4.5.5	Boom Angles in High Currents	6
4.6	SPILLS IN COLD WEATHER	7
4.6.1	Oil Fate in Cold Weather	7
4.6.2	Spill Response	7
4.6.3	Biological Issues in Cold Conditions	7
4.6.4	Trenches and Berms	7
4.6.5	Oil on Ice	7
4.6.6	Oil Under Ice	8
4.6.7	Ice Augering	8
4.6.8	Ice Trenching/Slotting	8
4.7	RESPONSE TACTICS FOR SHORELINES	9
4.8	RECOVERY	10
4.8.1	Sorbents	10
4.8.2	Skimmers	10
4.8.3	Cleanup Techniques – Removal	11
4.8.4	Cleanup Techniques - Washing	12
4.8.5	Cleanup Techniques – Dispersant	13
4.8.6	Cleanup Techniques – In-Situ Treatment	17
4.8.7	Cleanup Techniques - Decanting	18
4.9	CREDIT FOR OIL RECOVERY	18
5.0	PROTECTION OF SENSITIVE AREAS	1
5.1	AREA DESCRIPTION	2
5.1.1	Marine Mammals	2
5.1.2	Birds	2
5.1.3	Bird Colonies	3
5.1.4	Eelgrass	3
5.1.5	Inlets, Intakes, Harbors and Marinas	3
5.1.6	Recreational Areas	4
5.1.7	Salmon and other Spawning Streams	4
5.2	SPILL CONTAINMENT AND RECOVERY	4
5.3	BOOMING TECHNIQUES	5
5.3.1	Exclusion Booming	5
5.3.2	Deflection Booming	5
5.3.3	Along-Shore Booming	6
5.3.4	Shore-Seal Booming	6
5.3.5	Use of Passive Sorbents	7
5.4	SPILL MOVEMENT ESTIMATES	7
5.5	HISTORICAL CLIMATIC DATA	8
6.0	MULTIPLE HAZARDS	1
6.1	FIRE AND EXPLOSION CHECKLIST	2
6.1.1	Fire Prevention	3
6.2	NATURAL DISASTER – TORNADO	4
6.2.1	Tornado Action Checklist	5
6.3	EARTHQUAKE ACTION CHECKLIST	6
6.4	FLOOD ACTION CHECKLIST	7
6.5	AVALANCHE CHECKLIST	8
6.5.1	Avalanche Rescue Card	8
6.5.2	Avalanche – Preliminary Accident Details	9

6.6	BOMB THREAT ACTION CHECKLIST	10
6.7	BREACH OF SECURITY ACTION CHECKLIST	11
7.0	SITE INFORMATION.....	1
7.1	PIPELINE OVERVIEW MAP	1
7.2	PUGET SOUND AREA DESCRIPTION	2
7.3	OWNER/OPERATOR INFORMATION	3
7.4	INCIDENT COMMAND POST LOCATIONS	4
7.5	RESPONSE ZONES	5
7.6	PUGET SOUND TANK DATA.....	5
7.7	TRANS MOUNTAIN PRODUCTS SUMMARY	5
7.8	BLOCK VALVES AND DIRECTIONS.....	7
7.9	RESPONSE ZONE DESCRIPTIONS, MAPS AND SITE PLANS	9
7.9.1	<i>Zone 1 -Border Scraper Trap to Laurel Station</i>	<i>9</i>
7.9.1.1	Response Zone 1 – Relief map	10
7.9.1.2	Border Scraper Trap – Site Plan	11
7.9.2	<i>Zone 2 - Laurel Station to Ferndale Meter Station</i>	<i>12</i>
7.9.2.1	Response Zone 2 – Relief Map	13
7.9.2.2	Ferndale Meter Station – Site Plan.....	14
7.9.3	<i>Zone 3 – Laurel Station to Burlington Scraper Trap.....</i>	<i>15</i>
7.9.3.1	Response Zone 3 – Relief Map	16
7.9.3.2	Burlington Scraper Trap – Site Plan	17
7.9.4	<i>Zone 4 – Burlington Scraper Trap to Anacortes Meter Station</i>	<i>18</i>
7.9.4.1	Response Zone 4 – Relief Map	19
7.9.4.2	Anacortes Meter Station – Site Plan.....	20
7.9.5	<i>Zone 5 – Laurel Station.....</i>	<i>21</i>
7.9.5.1	Response Zone 5 – Relief Map	22
7.9.5.2	Laurel Station – Site Plan	23
8.0	INCIDENT MANAGEMENT	1
8.1	INITIAL RESPONSE TEAM	1
8.2	LOCAL INCIDENT MANAGEMENT TEAM	1
8.3	KINDER MORGAN INCIDENT MANAGEMENT TEAM	1
8.4	RESPONSE TEAM ORGANIZATION	2
8.5	INITIAL RESPONSE	3
8.6	TRANSFER OF COMMAND	3
8.7	UNIFIED COMMAND	4
8.8	QUALIFIED INDIVIDUAL.....	5
8.9	INCIDENT COMMANDER/DEPUTY INCIDENT COMMANDER	5
8.10	SAFETY OFFICER	6
8.11	CONTROL CENTRE OPERATOR (CCO) AND SCCO (SUPERVISOR).....	6
8.12	INFORMATION OFFICER	7
8.13	LIAISON OFFICER.....	7
8.14	GOVERNMENT AGENCY REPRESENTATIVES	8
8.14.1	<i>Agency Representatives Responsibilities</i>	<i>8</i>
8.15	LEGAL OFFICER	8
8.16	RESPONSE PLANNING (SHORT-TERM AND INITIAL PHASE OF LONG-TERM EVENTS).....	8
8.16.1	<i>Incident Briefing</i>	<i>9</i>
8.17	RESPONSE PLANNING (LONG-TERM EVENTS)	9
8.18	TERMINATING/DOWNGRADING THE RESPONSE.....	9
9.0	OPERATIONS SECTION	1

9.1	RESPONSE OBJECTIVES.....	1
9.2	OPERATIONS SECTION ORGANIZATION CHART	2
9.3	OPERATIONS SECTION CHIEF/DEPUTY OPERATIONS SECTION CHIEF.....	2
9.4	AIR OPERATIONS BRANCH.....	2
9.5	TEMPORARY STORAGE	3
9.5.1	<i>Temporary Storage Methods</i>	3
9.5.1.1	<i>Initial Handling and Storage</i>	4
9.6	WASTE DISPOSAL	5
9.6.1	<i>Types of Spill-Related Waste Materials</i>	5
9.6.2	<i>Waste Management Plan.....</i>	5
9.6.3	<i>Waste Transport Procedures</i>	5
9.7	DECONTAMINATION PLAN	5
9.8	PUBLIC EVACUATION PLAN.....	5
9.9	SPILL RESPONSE EQUIPMENT	6
9.9.1	<i>Puget Sound Spill Response Equipment</i>	6
9.9.2	<i>Nearby Kinder Morgan Canada Spill Response Equipment</i>	6
9.9.3	<i>Primary Response Contractor Spill Response Equipment.....</i>	7
9.9.4	<i>Western Response Resource List (WRRL).....</i>	7
9.9.5	<i>Response Equipment Maintenance</i>	7
9.9.6	<i>Contractors, Contractor Equipment and Labor.....</i>	7
10.0	PLANNING SECTION	1
10.1	PLANNING SECTION ORGANIZATION CHART	1
10.2	PLANNING SECTION CHIEF	2
10.3	ENVIRONMENTAL UNIT LEADER	2
10.4	MONITORING AND SAMPLING	2
10.4.1	<i>Spill Monitoring.....</i>	2
10.4.2	<i>Sampling</i>	2
10.4.3	<i>Air Monitoring</i>	2
10.5	DEMOBILIZATION.....	3
10.5.1	<i>Demobilization Procedures</i>	3
10.6	PLANNING SECTION RESOURCES	3
10.6.1	<i>Northwest Area Contingency Plan</i>	3
10.6.2	<i>Washington State Geographic Response Plans</i>	4
10.7	FATE OF SPILLED OIL	4
10.8	SHORELINE CLEANUP ASSESSMENT TECHNIQUE (SCAT).....	4
10.9	REGIONAL ENVIRONMENTAL EMERGENCY TEAM (REET).....	5
11.0	LOGISTICS SECTION	1
11.1	LOGISTICS SECTION ORGANIZATION CHART.....	1
11.2	LOGISTICS SECTION CHIEF.....	1
11.3	FACILITIES	2
11.3.1	<i>Incident Command Post.....</i>	2
11.3.2	<i>Media Relations Centre.....</i>	2
11.3.3	<i>Staging Areas.....</i>	2
11.4	COMMUNICATIONS	2
11.4.1	<i>Emergency Communications System</i>	2
11.4.2	<i>Telephone Communications.....</i>	3
11.4.3	<i>Radio Communications</i>	3
11.4.4	<i>Additional Resource Suppliers</i>	3
11.5	SECURITY	3

12.0	FINANCE AND ADMINISTRATION SECTION	1
12.1	FINANCE SECTION ORGANIZATION CHART	1
12.2	FINANCE SECTION CHIEF	1
12.3	MANAGING SPILL LIABILITY CLAIMS –CLAIMS UNIT LEADER	2
12.4	MANAGING SPILL LIABILITY CLAIMS – INFORMAL CLAIMS PROCESS	2
12.5	MANAGING SPILL LIABILITY CLAIMS –FORMAL CLAIMS PROCESS	3
12.5.1	<i>Oil Spill Claims Event Tiers</i>	<i>3</i>
12.5.2	<i>7.2 Oil Spill Claims Management</i>	<i>3</i>
12.5.3	<i>Insurance</i>	<i>3</i>
12.5.4	<i>Oil Spill Claims Handling Process</i>	<i>3</i>
12.5.5	<i>Oil Spill Claims Advertisements</i>	<i>3</i>
12.5.6	<i>Oil Spill Claims Contact Information</i>	<i>4</i>
12.5.7	<i>Local Claims Centers</i>	<i>4</i>
12.5.8	<i>Oil Spill Claims Forms</i>	<i>4</i>
12.5.9	<i>Oil Spill Claims Adjudication and Timeframe</i>	<i>4</i>
12.5.10	<i>Oil Spill Claims Documentation</i>	<i>4</i>
12.5.11	<i>Removal Costs</i>	<i>5</i>
12.5.12	<i>Property Damage</i>	<i>5</i>
12.5.13	<i>Loss of Profits or Earning Capacity</i>	<i>6</i>
12.5.13.1	<i>Loss of Subsistence Use of Natural Resources</i>	<i>7</i>
12.5.13.2	<i>Loss of Government Revenue:</i>	<i>7</i>
12.5.13.3	<i>Increased Public Service Costs</i>	<i>8</i>
12.5.14	<i>Oil Spill Claims Forms</i>	<i>9</i>
12.5.14.1	<i>ACORD General Liability Notice of Occurrence/Claim - SAMPLE</i>	<i>9</i>
12.5.14.2	<i>Claims Tracking Sheet- SAMPLE</i>	<i>13</i>
12.5.14.3	<i>Claims Check Sheet - SAMPLE</i>	<i>14</i>
12.5.14.4	<i>Claims Advertisement - SAMPLE</i>	<i>20</i>
13.0	WILDLIFE CARE	1
13.2	WILDLIFE RESPONSE STRATEGIES	2
13.3	OPERATIONAL ASPECTS	2
13.3.1	<i>Mobilization</i>	<i>2</i>
13.3.2	<i>Coordination</i>	<i>2</i>
13.3.3	<i>Facilities</i>	<i>2</i>
13.3.4	<i>Phasing</i>	<i>2</i>
13.3.5	<i>Workforce</i>	<i>3</i>
13.3.6	<i>Health and Safety</i>	<i>3</i>
13.4	WILDLIFE ASSISTANCE	3
13.4.1	<i>US Fish and Wildlife Contact</i>	<i>3</i>
13.4.2	<i>Wildlife Contractors</i>	<i>3</i>
13.5	WASHINGTON DEPARTMENT OF FISH AND WILDLIFE	4
13.5.1	<i>Priority Habitats and Species List</i>	<i>4</i>
13.5.2	<i>Species of Concern</i>	<i>4</i>
13.6	WILDLIFE PROTECTION AND REHAB	9
13.6.1	<i>Notifications</i>	<i>9</i>
13.6.2	<i>Permits</i>	<i>10</i>
13.6.3	<i>Migratory Bird Treaty Act (Federal)</i>	<i>10</i>
13.6.4	<i>Endangered Species Act (Federal)</i>	<i>10</i>
13.7	MARINE MAMMAL PROTECTION ACT (FEDERAL)	10
13.7.1	<i>Washington State Rehabilitation Permit (Washington State)</i>	<i>10</i>
13.7.2	<i>Wildlife Branch</i>	<i>11</i>

13.8	OILED WILDLIFE CARE PROCEDURES	11
13.8.1	<i>Oiled Wildlife Facilities, Equipment and Personnel</i>	11
13.8.2	<i>Facilities</i>	11
13.8.3	<i>Equipment</i>	12
13.8.4	<i>Personnel</i>	12
14.0	MATERIAL SAFETY DATA SHEETS.....	1
15.0	ENVIRONMENT, HEALTH AND SAFETY POLICY	1
16.0	REGULATORY BACKGROUND	1
16.1	FEDERAL	1
16.1.1	<i>Statement of Significant and Substantial Harm</i>	1
16.1.2	<i>DOT/PHMSA Cross Reference</i>	1
16.2	WASHINGTON STATE REGULATIONS	5
17.0	TRAINING AND EXERCISES	1
17.1	TRAINING	1
17.1.1	<i>Employee Training Records</i>	1
17.1.2	<i>Contractors Training Records</i>	1
17.1.3	<i>Instructors</i>	1
17.2	EXERCISES	2
17.2.1	<i>Company Policy</i>	2
17.2.2	<i>Type and Frequency of Exercises</i>	2
17.2.3	<i>Exercise Program Evaluation Criteria</i>	4
17.2.4	<i>Alternative Drill Credit</i>	5
17.2.5	<i>Exercise Component Checklist</i>	5
18.0	WORST CASE DISCHARGE	1
18.1	WORST CASE DISCHARGE CALCULATIONS	3
18.1.1	<i>Pipeline Calculation</i>	3
18.1.1.1	Section 1 – Response Zone 1 and 3	5
18.1.1.2	Section 2 – Response Zone 4	6
18.1.1.3	Section 3 – Response Zone 2	7
18.1.2	<i>Tank Calculation</i>	8
18.1.3	<i>Historic Releases</i>	8
18.1.4	<i>Response Zone Worst Case Discharge Volumes</i>	8
18.2	PLANNING STANDARDS	9
18.2.1	<i>Planning Spreadsheets</i>	9
18.2.1.1	Zone 1 – Bellingham Bay	9
18.2.1.2	Zone 1 – Nooksack River	11
18.2.1.3	Zone 2 – Bellingham Bay	12
18.2.1.4	Zone 2 – Nooksack River	14
18.2.1.5	Zone 3 – Bellingham Bay	16
18.2.1.6	Zone 3 – Samish Bay	17
18.2.1.7	Zone 3 – Samish River	19
18.2.1.8	Zone 3 – Whatcom Creek	21
18.2.1.9	Zone 4 – Padilla Bay	22
18.2.1.10	Zone 4 – Padilla Bay Standard	24
18.2.1.11	Zone 5 – Bellingham Bay	26
18.2.1.12	Zone 5 – Laurel Station	27
18.2.2	<i>Vac Truck to Storage Tank Off-loading of Recovered Oil</i>	30
18.2.3	<i>Oil Recovery Rate</i>	30
18.2.4	<i>KMC Owned Recovered Liquid Storage</i>	31

18.2.5	KMC Owned Boom	31
18.3	WORST CASE DISCHARGE MAP.....	32
19.0	CERTIFICATIONS.....	1
19.1	KINDER MORGAN CERTIFICATION	1
19.2	KINDER MORGAN CERTIFICATION – BINDING AGREEMENT	2
19.3	UNITED STATES DEPARTMENT OF TRANSPORTATION	3
19.4	WASHINGTON STATE DEPARTMENT OF ECOLOGY	4
19.5	PRC – CONTRACTS/LETTERS OF INTENT	5

PLAN IMPLEMENTATION

This Emergency Response plan will be implemented for any response to any emergency in the Puget Sound operating area either real or simulated. If another plan is deemed more appropriate to the situation the decision to use such plan will be first approved by the state and federal on-scene coordinators along with the incident commander from Kinder Morgan.

PLAN MAINTENANCE

Responsibility

Single point accountability for the Puget Sound Pipeline Emergency Response Plan development and maintenance rests with the Emergency Response and Security Advisor. This accountability is for:

- Ensuring the systems (ICS) and response structure are in place and able to meet the requirements set out in the Plan, and
- Ensuring a minimum annual audit of the Plan takes place, and that the plan is reviewed in full every 5 years. Any revisions will be distributed to WDOE and PHMSA for review and approval or if no plan changes are needed a letter will be sent to the WDOE and PHMSA confirming the existing plan is still accurate as per WAC 173-182-140.
- Annually reviewing all Letters of Intent (LOI) and Primary Response Contractor (PRC) contracts to ensure no lapse in coverage exists, and documenting the review of contracts and letters of intent.

Manual holders are responsible for:

- Keeping their copies current and ensuring that all revisions are appropriately filed
- Studying all new material issued and incorporating it into their work practice
- Suggesting changes/corrections to existing material and contributing new text material to improve the quality of the manual

PLAN REVISIONS

Initiating Revisions

All requests for change must be made through the Emergency Response and Security Advisor using the Revision Request Form located in this section of the manual.

Revision Distribution

Plan revisions are issued with an Acknowledgement of Receipt Form and a brief description of the changes itemized by chapter. The Acknowledgment of Receipt form must be signed and returned to the Emergency Response and Security Group as specified. Only revisions to the Distribution List will not be distributed to all manual holders, however they will be maintained electronically. All other changes will be distributed to all manual holders in a timely manner. A revised date is shown at the bottom of each updated or new page. The original revision date of the manual is 07/2013. All revisions will be tracked on the Control Sheet.

Revisions after a Release or an Exercise

In the event that Kinder Morgan Canada experiences a release (worst case or otherwise), or conducts an exercise or training session, the effectiveness of the plan will be evaluated and updated as necessary. The review of the plan may include a debrief with WDOE and/or PHMSA and/or other responding agencies, if appropriate especially when significant plan updates are identified or significant lessons can be recorded and implemented. The changes will be submitted to U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) and Washington Department of Ecology (WDOE) within 30 days.

Changes in Operating Conditions

If a new or different operating condition or information would substantially affect the implementation of the plan, Kinder Morgan Canada will modify the plan to address such a change, and within 30 days of making such a change, submit the change to PHMSA and WDOE, in addition to a 24 Hour notice of such changes occurring.

If at any point there is a permanent or temporary change in the personnel or response equipment described in this ERP, Kinder Morgan Canada will notify WDOE in writing within 24 hours of the change and provide a schedule for the prompt return of the plan to full operational status and a proposal for any backfill to compensate for the temporary significant changes. Changes that are considered significant include:

- the loss of equipment that results in being out of compliance with the planning standard either due to transfer out-of-region for spill response, or great than 10% of equipment is moved from its current location (boom, recovery and storage);
- a change or permanent loss of response personnel including initial response personnel, command and general staff, the binding agreement signer;
- changes to the type of oil handled, storage capacity, handling transporting or processing of products;
- change in equipment ownership if used to satisfy planning standards; or
- modification or discontinuation of any mutual aid, letter of intent or contract agreement.

Notes: If the proposed change to the plan is to be made permanent, KMC will have 30 days from notification to distribute the amended pages of this ERP for review and approval by WDOE. If WDOE finds that the ERP no longer meets approval criteria, WDOE may place conditions on approval or disapprove the ERP.

The resulting changes to the plan will also be submitted to PHMSA within 30 days of the change occurring.

REVISION REQUEST FORM

Requested by:	Date:
Dept/ Agency:	Phone No.:
Revision Type: ☐ Addition ☐ Deletion ☐ Correction	
Manual Section:	Page:
Revision (attach separate sheet if necessary):	
Signature of Requestor:	
Send to: Emergency Response and Security Advisor Kinder Morgan Canada 2700-300 - 5 th Avenue S.W. Calgary, AB T2P 5J2 Canada Fax: (403) 514-6401	

To be completed by Emergency Response and Security Advisor	
Date Received:	Comments:
Date Reviewed:	
Issued as Revision: Y/ N	
If No, reason for Rejection:	
Signature Emergency Response and Security Advisor	

CONTROL SHEET

The control sheet will record revisions and updates to the plan. The log sheet will identify the section amended including date, and verification of notification to WDOE and PHMSA and the person who made the changes and the purpose of the changes, where applicable.

Revision Number	Date of Revision	Change(s)	Name
1	October 2012	New Issue ERP	KM
2	July 16 2013	Updates to all sections to incorporate requirements for WDOE, and issue for approval. Updates to QI back-up and RSPA references in Section 16 as outlined in PHMSA letter dated June 18, 2013.	KM
3	November, 2013	All Changes to incorporate requirements for WDOE approval: Regulatory Scope of the plan – reworded for EPA Region X Section 16.2 correction to wording Washington State Geographic Response Plans Letter of Intent – Global Diving and Salvage has been renewed and inserted to Section 18. Section 7.7 removed disclaimer wording. Section 10.3.1 added wording regarding tracking buoys. Section 9.9.5 has been updated to make maintenance records available to ecology on request. Section 8.0 added wording identify difference in ICS structure below the section chief level and Washington staffing policies Section 8.12 updated wording. Section 8.13 updated wording Section 10.7 added reference to Area Plan guidance on SCAT. Section 10.3 added section on Environmental Unit Leader. Section 10.4.3 added Air Monitoring Description Section 10.8 removed air monitoring plans, Section 10.9 added section on REET. Section 9.9.3 added statement regarding in-situ burn. Section 10.5.2 – changed title of section Section 5.1 revised wording for cultural sites Section 19.3 added PHMSA approval letter Updated Table of Contents for new chapter titles Updated Control Sheet Updated Distribution List	KM

Revision Number	Date of Revision	Change(s)	Name
4	January, 2014	Preface: update to distribution list, and revision record Section 2 updated telephone number for WDFW, verified KMC telephone numbers, and numbers for OSRO's, updated diagram in section 2.8.1 to show link between NWACP and KMC plans. Section 5.1 and 5.2 updated species classification Section 8 added Wildlife Branch Director to list of positions that could be filled by agency representation Section 19.4 Added Department of Ecology Plan Certificate.	KM
5	December 2014	Updates throughout manual for new Primary Response contractor including the following: Preface – Plan Maintenance – added annual requirement to review and document contracts and letters of intent for Primary response contractors/oil spill response organizations cited in the plan. Updated distribution listing and revision record. References to MSRC replaced with references to NRCES in the following sections: 2.8.1, 2.8.4, 2.10, 4.4.1, 4.7, 9.9.1, 9.9.3, 10.4.1, 16.2, 18.2.1 (.1-.12) and 19.5 Section 7.4 updated for new ICP location KMC Contact information in Sections 2.6 and 2.7	KM

DISTRIBUTION

This Plan is a controlled document and all copies have been numbered prior to distribution. Copies are found in the locations shown below, or have been given to the person/organization listed.

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1	U.S. Department of Transportation – PHMSA		X
2	U.S. Department of Transportation – PHMSA		X
3	Department of Ecology, Washington		
4	Department of Ecology, Washington*	X	X
5	Whatcom County Emergency Management		X
6	Skagit County Emergency Management		X
7	Utilities and Transportation Commission		X
8	Control Centre		
9	Control Centre (back up)		
10	Director, EHS Department		
11	Manager, Emergency Response & Security		
12	Manager, Environment		
13	Manager, Health and Safety		
14	EHS Coordinator (Puget Sound)		
15	Emergency Response and Security Advisor		
16	Director, Western Region		
17	Western Region Burnaby Office		
18	Sumas Station		
19	Supervisor, Puget Sound		
20	Laurel Station Control Room		
21	Anacortes Control Room		
22	Ferndale Station		
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ACRONYMS

Acronym	Meaning
ADIOS	Automated Data Inquiry for Oil Spills
API	American Petroleum Institute
ASTM	American Society for Testing and Materials
ATV	All Terrain Vehicle
bbl	Barrel
C	Centigrade (temperature)
CCG	Canadian Coast Guard
CHS	Canadian Hydrographic Service
cm	Centimetre
cm/s	Centimetre per second
cp	Centipoises
cs (cSt)	Centistokes
decon	Decontamination
DHP	Duty Harbour Pilot
DWT	Deadweight
EHS	Environment, Health and Safety
EMT	Emergency Medical Technician
ESI	Environmental Sensitivity Index
F	Fahrenheit (temperature)
FOSET	Fisherman's Oil Spill Emergencies Team
FSA	Forward Staging Area
ft	Feet
GIS	Geographic Information System
gpm	Gallons per Minute
GPS	Global Positioning Satellite
GRT	Gross Registered Tons
H ₂ S	Hydrogen Sulphide
Ha	Hectare
HAZMAT	Hazardous Materials
HAZWOPER	Hazardous Waste Operations and Emergency Response
HF	High Frequency
HFO	Heavy Fuel Oil
HP	Horsepower
HQ	Headquarters
HR	Human Resources
IACS	International Association of Classification Societies
IBRRC	International Bird Rescue and Rehabilitation Centre
IC	Incident Command (Commander)
ICLL	International Convention on Load Lines
ICP	Incident Command Post
ICS	Incident Command System

Acronym	Meaning
IMO	International Maritime Organisation
IMT	Incident Management Team
IPIECA	International Petroleum Industry Environmental Conservation Association
IR	Infra Red
IRG	Incident Response Guide
IRT	Initial Response Team (Tier 1)
ISF	International Shipping Federation
ISGOTT	International Safety Guide for Oil Tankers and Terminals
ISM	International Management Code for Safe Operations of Ships and for Pollution Prevention
ITOPF	International Tanker Owners Pollution Federation
ITZ	Intertidal Zone
IUCN	International Union for Conservation of Nature and Natural Resources
KBOD	Thousand Barrels of Oil per Day
kg	Kilogram
km	Kilometre
kts	Knots (nautical miles per hour)
kW	Kilowatt
l	Litre
LFO	Light Fuel Oil
LOA	Length Over all
LR	Lloyd's Register of Shipping
m	Metre
m ³	Cubic Meter
m/s	Metres per Second
MARPOL	Marine Pollution (International Convention for the Prevention of Pollution from Ships)
MB	Million Barrels
MCTS	Marine Communications and Traffic Services
MFO	Medium Fuel Oil
MGO	Marine Gas Oil
MHz	Megahertz
min	Minute
mm	Millimetre
MOV	Manually Operated Valve
MSDS	Material Safety Data Sheet
NAPL	Non-Aqueous Phase Liquids
NCP	National Contingency Plan
NEBA	Net Environmental Benefit Analysis
NGL	Natural Gas Liquid
NO ₂	Nitrogen Oxides
NOAA	National Oceanic and Atmospheric Administration (USA)
O ₂	Oxygen
OEL	Occupational Exposure Limit

Acronym	Meaning
OGC	Oil and Gas Commission
OHF	Oil Handling Facility
OPRC	Oil Pollution Preparedness, Response and Co-operation Convention 1990
Ops	Operations
OSC	On-Scene Commander
OSCP	Oil Spill Contingency Plan
OSHA	Occupational Safety and Health Administration (USA)
OSIC	On-Scene Incident Commander (Facility Manager/Designated IRT Supervisor)
OSR	Oil Spill Response
OSRL	Oil Spill Response Limited (UK)
OSRPs	Oil Spill Response Plans
OSRV	Oil Spill Response Vessel
PAHs	Polynuclear Aromatic Hydrocarbons
PC	Personal Computer (IBM based)
PEL	Permissible Exposure Limits
PEP	Provincial Emergency Program
PFD	Personal Flotation Device
PIC	Person In Charge
PM10	Particulate Matter having a diameter less than 10 microns
PPE	Personal Protective Equipment
ppm	Parts per Million
psi	Pounds per square inch (pressure)
PVC	Poly Vinyl Chloride
REET	Regional Environmental Emergencies Team
RO	Response Organization
SCAT	Shoreline Cleanup Assessment Team
SCBA	Self-Contained Breathing Apparatus
sec	Second
SO ₂	Sulfur Dioxide
SOLAS	(International Convention for) Safety of Life at Sea
SOS	Shoreline Oiling Summary
SSB	Single Side Band (Radio)
STEL	Short-term Exposure Limit
TLV	Threshold Limit Value
TRS	Tiered Response System
TWA	Time-weighted Average
UHF	Ultra High Frequency
UK	United Kingdom
USA	United States of America
UV	Ultra Violet
VCR	Videotape Cassette Recorder
VHF	Very High Frequency
VOSS	Vessel of Opportunity Skimming System

Acronym	Meaning
VRP	Vessel Response Plan
VTC	Vessel Traffic Control
VTs	Vessel Traffic Services
WCB	WorkSafe BC
WCMRC	Western Canada Marine Response Corporation

INTRODUCTION

Initial Incident Actions

The initial responder to arrive at a spill site will take some immediate actions to ensure responder and public safety and to protect the environment. The initial responder will complete the following tasks, if appropriate and safe to do so while waiting for the Qualified Individual(QI).

1. Ensure the safety of all workers and public in the area of the spill
2. Assess the situation (i.e., incident size, severity, likely impacts)
3. Notify the Control Centre and/or Supervisor immediately to activate the Emergency Response Line (ERL/ERL+) System as outlined in Section 2.
4. Take appropriate action to mitigate the impacts to life safety, the environment, and property prior to the arrival of the Qualified Individual (QI)

Note: the initial responder will begin documentation on an ICS 201 form, and/or notes on other paper, or will relay the information to personnel at the Control Centre or to the District Supervisor who will initiate an ICS 201 form. This initial documentation will be kept with all other incident documentation.

How to use this Plan

This Plan is divided into 3 Sections:



Emergency Actions

- 1 Responder Health & Safety
- 2 Alert Others (Internal and External Notifications)
- 3 Spill and Site Assessment
- 4 Spill Containment & Recovery
- 5 Protection of Sensitive Areas
- 6 Multiple Hazards

Support Information

- 7 Site Information
- 8 Incident Management
- 9 Operations/Response Equipment
- 10 Planning
- 11 Logistics
- 12 Finance/Administration
- 13 Wildlife Care
- 14 MSDS

Regulatory Information

- 15 Environmental Policy
- 16 Regulatory Background
- 17 Training and Exercises
- 18 Worst Case Calculations
- 19 Certifications

In the event of an incident, Kinder Morgan Canada will utilize the Incident Command System (ICS) to ensure a safe, comprehensive and effective response. This Plan includes initial objectives for the first Operational Period of the incident (to be captured on the ICS 201) as well as objectives and strategies for subsequent Operational Periods.

Purpose of the Plan

This is the Emergency Response Plan (Spill Contingency Plan) for the assets operated by Trans Mountain Pipeline (Puget Sound) LLC. These entities are all referred to as "Kinder Morgan", "Kinder Morgan Canada" or "The Company".

The purpose of this Plan is to provide guidelines to quickly, safely and effectively respond to an emergency, in order to protect:

- Public and Company Personnel
- Public and Company Property
- The Environment

Regulatory Scope of the Plan

This Plan is intended to satisfy the requirements of the Oil Pollution Act of 1990 (OPA 90), and has been prepared in accordance with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) and applicable Area Contingency Plans (ACP), EPA Region X Regional Contingency Plans. Specifically, this Plan is intended to satisfy The Pipeline Hazardous Material Safety Administration (PHMSA), and the Washington Department of Ecology (WDOE) requirements under Washington Administrative Code (WAC) 173-182.

Scope of the Plan

This Emergency Response Plan (ERP) will cover all emergencies that originate on the Puget Sound pipeline and/or associated stations in Washington State including spills, security incidents, natural hazards, explosions and fires. This plan will not cover the tactical response techniques for a fire, however it will cover the response actions for the effects of radiant heat and air monitoring for plumes (smoke or otherwise), on the public, that result from a fire event, and rate as requiring specific response actions as set out in the Emergency Response Risk Assessment. Detailed response actions including tactical information for fires can be found in the site specific "Fire Pre-Plan".

Plan Implementation

This Emergency Response Plan (ERP) will be implemented for any emergency or drill within Washington State. If a different plan is identified as more applicable it may be used if the decision to use an alternate plan is first approved by the state and federal on-scene coordinators.

Emergency Definition

An emergency is defined as any condition that results in or may result in:

- Death or injury requiring hospitalization
- Explosion or fire
- Leak, rupture or spill
- Any significant event such as; earthquake, flood, severe storm or bomb threat

Emergency Response Philosophy

On all emergency incidents, Kinder Morgan will follow the following basic response approach:

1. Control the Incident Site

- The incident scene must first be controlled to ensure a safe and effective response to any incident:
 - Don't rush in; hazards must first be fully assessed
 - Establish and announce command at the ICP, either at the incident scene location or, if necessary at a remote location
 - Establish and maintain an isolation perimeter, with hot, warm and cold zones
 - Establish staging area(s)

2. Size up the Situation

- A site assessment will identify the scope and nature of the incident, as well as any potential hazards to responders:
 - Recognize and identify any hazardous materials involved
 - Source of any releases
 - Potential exposures

3. Evaluate the Hazards and Risks

- An assessment must be conducted to evaluate the level of risk to responders and the public:
 - Assess health, physical and chemical hazards
 - Gather technical data (MSDSs, etc.)
 - Conduct vapor monitoring

4. Establish Initial Objectives

- After the potential hazards have been identified, the Incident Commander(s) can establish the initial objectives for the response. Typical initial objectives include:
 - Control the incident Scene
 - Ensure the safety of responders and the public
 - Establish Incident Command Post

5. Select and Don PPE

- All incident responders must be protected with the PPE appropriate to the hazards present:
 - Approved Fire-Resistant Coveralls
 - Hard Hats (where overhead hazards are present)
 - Gloves
 - Splash Goggles
 - Rubber Steel-Toed Boots

Also:

- PPE must be worn properly in order to fully protect responders.
- Damaged or heavily-oiled PPE should be replaced as soon as possible.
- All responders leaving the *Hot Zone* must go through a decontamination zone (*Warm Zone*) to ensure that contamination is not spread into the *Cold Zone*.

6. Manage Information and Coordinate Resources

- It is essential that information flows quickly and freely to all resources to ensure a safe and coordinated response:
 - Expand the ICS as needed, especially if a Unified Command is established
 - Ensure that all (internal and external) notifications are made
 - Conduct briefings
 - Confirm all communications to ensure that they are fully understood and implemented

7. Implement Response Objectives

- Once initial objectives have been established, it will be possible to develop, and implement, strategies and tactics to achieve these objectives. These may be:
 - Offensive (i.e., emergency rescue, fire-fighting, spill source control)
 - Defensive (i.e., protecting the public, fire control, spill response)
 - Non-intervention (protecting the public)

8. Manage the Incident

- On larger incidents, it will be necessary to operate over a number of Operational Periods. In these cases, it will be necessary to fully-staff the Incident Management Team, especially the Planning Section:
 - Establish Incident Objectives for each Operational Period
 - Conduct Tactics and Planning Meetings
 - Develop and approve Incident Action Plans
 - Conduct Operations Briefings

9. Terminate the Incident Response

- Once the emergency phase of the incident is over, the Incident Commander will stand down the Incident Management Team and ensure that all post-incident activities are completed:
 - Transition to, and conduct the post-emergency phase of the response
 - Conduct an incident debrief
 - Ensure that all incident documentation is completed
 - Ensure that all equipment, PPE and ICP supplies are replenished
 - Transition from Emergency Phase to Project Phase with adequate documentation and continue any required project phase activities.

Emergency Levels

The Kinder Morgan Canada Emergency Response Organization is based on a three-tiered response structure. Incidents are identified and categorized into one of the three tiers. Each Tier is managed by an escalating degree of management seniority and authority, and assistance from outside the initial response organization. The standardization of the ICS Structure and Incident Management Process provides the flexibility to tailor the size of the response organization to the specifics of the incident and allows for rapid adjustments as an incident evolves. Where appropriate, the Kinder Morgan Incident Commander will invite the participation of Federal, State and local Agencies to form a Unified Command.

Level	Definition	Examples
1	The Company has the capability to manage and control a Level I emergency using company resources available within the area. The District Supervisor will assume the Incident Commander position.	- Oil spills confined to company property (pipeline station, terminal, or scraper trap) - Public, contractor, or employee safety not endangered - Public property not endangered - Local response handled by District personnel - Notification may not be required to regulatory authorities
2	The Company has the capability to manage and control a Level II emergency using company resources and expertise, with some assistance from local contractors. The Region Director or designate may assume the Incident Commander position.	- Oil has migrated beyond company property (pipeline station, terminal, or scraper trap) but not into a waterway - Emergency services may be required (e.g., fire, police, ambulance) - Public, contractor, or employee safety and/or property may be endangered - Notification required to regulatory authorities - May use a unified command organizational structure in the emergency
3	The Company may request assistance from other Industry, Municipal, or State Agency personnel to support the response to the incident. The Region Director will assume the Incident Commander position.	- Major emergency condition such as: - uncontrolled leak - spill on a watercourse - large fire at an operating facility or office building - fatality or serious injury to an employee, contractor, or the public - spill of hazardous substances - Major off-site environmental impact has occurred - Public, contractor, or employee safety and/ or property is endangered - Emergency services are required (e.g., police, fire, ambulance) - Notification required to regulatory authorities - Use of a Unified Command organizational structure in the emergency, as required, to facilitate coordination of company, government and other agency response to the emergency.

1.0 RESPONDER HEALTH AND SAFETY

It is important to understand that the different crude oils handled pose different hazards when spilled, depending on their chemical composition. Therefore, the primary hazards, and the need for vapor monitoring, and the cleanup techniques will depend on the characteristics and volume of crude oil spilled.

Many crude oils (including "sweet" crudes) can emit potentially dangerous levels of H₂S, and most crude oils also contain Benzene. Some crude oils have low flash points, especially during the initial hours after being spilled. In all of these cases, the risk of accidental ignition and/or the inhalation of toxic vapors must be mitigated, and a detailed site assessment (see Section 3) must be completed before on-scene operations are initiated. This assessment will be made by the Safety Officer.

Typically, the risks associated with the concentration of potentially-dangerous vapors will diminish with time, due to reduced vapor production as the lighter components volatilize, and vapors disperse. There are exceptions to this however; i.e., in some cases, where crude oil pools into thick layers, a skin may develop on the surface, trapping vapors. Later, if the skin is broken and the oil disturbed, the oil might emit vapors normally associated with freshly-spilled oil. In all cases, the results of the initial site assessment should be used to develop a Safety and Health Plan.

The Initial Site Health & Safety Plan (ISHSP – Section 1.2) should be completed as soon as possible by one of the initial responders, and updated as required. When completing the ISHSP some of the information may not apply during the initial stages of the response, but may change within a short period, thereby altering the PPE and/ or other requirements.

The ISHSP:

- Aids the initial responders in assessing hazards related to the incident
- States the required PPE to be used
- Documents important health and safety information
- Serves as an interim "Plan" until the Site Health & Safety Plan (Section 1.3) is developed
- Assigns responsibilities, i.e., completion of the ICS 201 and notification
- Identifies "site set-up" features that may be required
- Authorizes work to be completed (in lieu of a Safe Work Permit)

Upon the completion and delivery of the Site Health & Safety Plan, the Initial Site Health & Safety Plan becomes void.

1.1 Safety Guidelines

1.1.1 Skin Contact

The accidental absorption of toxins through skin/eye contact can be greatly reduced through the wearing of oil-resistant Personal Protective Equipment (PPE). These include:

- Approved Fire-Resistant Coveralls
- Hard Hats (where overhead hazards are present)
- Gloves
- Splash Goggles
- Rubber Steel-Toed Boots

Also:

- PPE must be worn properly in order to fully protect responders.
- Damaged or heavily-oiled PPE should be replaced as soon as possible.
- All responders leaving the *Hot Zone* must go through a decontamination zone (*Warm Zone*) to ensure that contamination is not spread into the *Cold Zone*.

1.1.2 Inhalation of Vapors

The need for respiratory protection will be determined by the Safety Officer after a review of the MSDS and data retrieved from the initial site assessment (see Section 3). If toxic vapor levels are determined to exceed safe working limits (see Section 3.4 for details), it might be possible for responders to work while wearing half-face respirators fitted with Organic cartridges. In this case, on-going vapor monitoring is essential to ensure that vapor levels do not exceed safe working limits.

1.1.3 Fire/Explosion

All hydrocarbon products are capable of ignition if certain conditions are met. It is important to review the MSDS to determine the flash point of the material spilled and to perform vapor monitoring (for LEL). However, the MSDS does not replace the need for vapor monitoring. Whenever vapor levels are approaching 10% of the LEL for any spilled product, responders should leave the area immediately.

1.1.4 Other Hazards

There are a number of additional potential hazards faced during spill response including slips, trips and falls, and working around vessels/water and equipment. Special care should be taken when walking on oiled surfaces or shoreline, especially during night-time operations. The Site-Specific Health and Safety Plan shall identify these potential hazards, and they must be clearly communicated to responders.

1.2 Initial Health and Safety Plan

The Initial Health and Safety Plan form is available on the intranet site:

http://kmonline/business_units/KMC/Pages/EHS_Forms.aspx 

1.3 Health and Safety Plan

The Health and Safety Plan form is available on the intranet site:

http://kmonline/business_units/KMC/Pages/EHS_Forms.aspx 

INITIAL SITE HEALTH & SAFETY PLAN

INCIDENT PARTICULARS

Incident Name:		Date/ Time:	
Command Post Location:		Site Phone Number:	
Product:	Est. Vol: m ³	MSDS Available: ☐ Yes ☐ No	
ICS 201 Form Initiated:	☐ Yes ☐ No	Person Responsible:	
Internal/ External Notifications Made:	☐ Yes ☐ No	Person Responsible:	

SITE CHARACTERIZATION

☐ Pipeline	☐ Storage Facility	☐ Truck	☐ Land	☐ Water	☐ Other (please specify)
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SITE SECURITY & ACCESS POINTS

Description:

SITE HAZARDS

☐ Fire Explosion	☐ Equipment Operations	☐ Trenching Excavation	☐ Fatigue	☐ Slips, Trips, and Falls
☐ Chemicals	☐ Motor Vehicles	☐ Confined Spaces	☐ Heat Stress	☐ Restricted Work Area
☐ Electrical	☐ Boat Operations	☐ UV Radiation	☐ Cold Stress	☐ Heavy Lifting
☐ Steam/ Hot Water	☐ Helicopter Operations	☐ Overhead/ Buried Utilities	☐ Weather	☐ Drum Handling
☐ Noise	☐ Shore Line Operations	☐ Pumps and Hoses	☐ Visibility	☐ Plants/ Wildlife
☐ Other:				

ATMOSPHERIC MONITORING – INITIAL READING

O ₂	%	LEL	%	Other (specify):
H ₂ S	ppm	Benzene	ppm	

NOTE: Additional results to be recorded in 'Emergency Response/ Safety Watch Log'

CONTROL MEASURES

☐ Source of Release Secured	☐ Communications Established	☐ Yes ☐ No
☐ Site Secured	☐ Hot Zone Established	☐ Yes ☐ No
☐ Valve(s) Closed	☐ Fire Extinguisher Accessible	☐ Yes ☐ No
☐ Energy Sources Locked/ Tagged Out	☐ Decontamination Stations Established	☐ Yes ☐ No
☐ Facility Shut Down	☐ Illumination Equipment Provided	☐ Yes ☐ No
☐ Other:	☐ Medical Surveillance Provided	☐ Yes ☐ No
	☐ Sanitation Facilities Provided	☐ Yes ☐ No

HOT ZONE PPE REQUIREMENTS

General	Other			Respiratory		
☐ Hard Hat	☐ Face Shield	☐ Rubber boots	☐ Leather gloves	☐ SABA/ Air Line w/ Esc	☐ Cartridge Type	OV
☐ FR Clothing	☐ Tinted Lens	☐ High Vis. Vests	☐ Nitrile gloves	☐ SCBA to be worn	☐ Cartridge Type	P(M)-100
☐ Steel toes	☐ Impact Goggles	☐ PFD's	☐ Rubber gloves	☐ SCBA to be avail. #	☐ Cartridge Type	P(M)-100/OV
☐ Safety Glasses	☐ Chemical Res. Clothing	☐ Safety Harness	☐ Hearing Protection	☐ Air Purifying (full mask)		
		☐ FR Rain Gear	☐ FR Tyvek	☐ Air Purifying (half mask)		

WARM ZONE PPE REQUIREMENTS

General	Other			Respiratory		
☐ Hard Hat	☐ Face Shield	☐ Rubber boots	☐ Leather gloves	☐ SABA/ Air Line w/ Esc	☐ Cartridge Type	OV
☐ FR Clothing	☐ Tinted Lens	☐ High Vis. Vests	☐ Nitrile gloves	☐ SCBA to be worn	☐ Cartridge Type	P(M)-100
☐ Steel toes	☐ Impact Goggles	☐ PFD's	☐ Rubber gloves	☐ SCBA to be avail. #	☐ Cartridge Type	P(M)-100/OV
☐ Safety Glasses	☐ Chemical Res. Clothing	☐ Safety Harness	☐ Hearing Protection	☐ Air Purifying (full mask)		
		☐ FR Rain Gear	☐ FR Tyvek	☐ Air Purifying (half mask)		

TRAINING AND REVIEW

Hazwoper Training Records Verified for U.S.A. Operations ☐ Yes ☐ No

All Responders have reviewed this Plan ☐ Yes ☐ No

Completed by:

SITE HEALTH & SAFETY PLAN

This document is intended to facilitate the rapid development of a written site health and safety plan (SHSP) during the emergency and post emergency phases of an incident response. It is intended to address all health & safety aspects for response personnel. SHSPs help mount a rapid response to an oil release, or other type of incident in a safe manner, as well as, provide readily available information to all affected parties.

INCIDENT PARTICULARS					
Incident Name:				Date/ Time:	
Command Post Location:				Site Phone Number:	
Product:		Estimated Volume:		MSDS Available:	☐ Yes ☐ No
ICS 201 Form Initiated:		☐ Yes ☐ No		Person Responsible:	
Internal/ External Notifications Made:		☐ Yes ☐ No		Person Responsible:	
SITE CHARACTERIZATION					
☐ Land		☐ Water		☐ Other (please specify)	
IMPACTED ASSETS					
☐ Pipeline		☐ Storage Facility		☐ Truck ☐ Other (please specify)	
WEATHER			WIND		
☐ Clear	☐ Cloudy	☐ Fog	☐ Calm (0.5 km/ hr; 0.3 mi./ hr)		
☐ Rain	☐ Freezing Rain	☐ Hail	☐ Light (5-15 km/ hr; 3-10 mi./ hr)		
☐ Snow	☐ Lightning		☐ Moderate (15-30 km/ hr; 10-20 mi./ hr)		
			☐ Strong (30+ km/ hr; 20+ mi./ hr)		
SITE SECURITY & ACCESS POINTS					
Description:					
SITE HAZARDS					
☐ Fire/ Explosion ☐ Chemicals ☐ Electrical ☐ Steam/ Hot Water ☐ Noise		☐ Equipment Operations ☐ Motor Vehicles ☐ Boat Operations ☐ Helicopter Operations ☐ Shore Line Operations		☐ Trenching/ Excavation ☐ Confined Spaces ☐ UV Radiation ☐ Overhead/ Buried Utilities ☐ Pumps and Hoses	
				☐ Fatigue ☐ Heat Stress ☐ Cold Stress ☐ Weather ☐ Visibility	
				☐ Slips, Trips, and Falls ☐ Restricted Work Area ☐ Heavy Lifting ☐ Drum Handling ☐ Plants/ Wildlife ☐ Other:	
ATMOSPHERIC MONITORING – INITIAL READING					
O ₂	%	LEL	%	Other (specify):	
H ₂ S	ppm	Benzene	ppm		
NOTE: Additional results to be recorded in 'Event/ Safety Watch Log'					
CONTROL MEASURES			SITE SETUP		
☐ Source of Release Secured			Communications Established ☐ Yes ☐ No		
☐ Site Secured			Work Zones Established ☐ Yes ☐ No		
☐ Valve(s) Closed			Fire Extinguisher Accessible ☐ Yes ☐ No		
☐ Energy Sources Locked/ Tagged Out			Decontamination Stations Established ☐ Yes ☐ No		
☐ Facility Shut Down			First Aid Stations Established ☐ Yes ☐ No		
☐ Other			Illumination Equipment Provided ☐ Yes ☐ No		
			Medical Surveillance Provided ☐ Yes ☐ No		
			Sanitation Facilities Provided ☐ Yes ☐ No		

SITE HEALTH & SAFETY PLAN

GENERAL SITE REQUIREMENTS

- 1) Personnel entering the site must **Sign-in** at the Field Command Post or designated area, and must **Sign-out** before leaving the site.
- 2) Personnel entering the site for the first time must attend a **Pre-Entry Briefing** at the Field Command Post before they will be permitted site entry. The briefing will cover the Site Health and Safety Plan and the site specific hazards present.
- 3) The spill site has a “No Smoking” policy – Security at the Field Command Post will give directions to the designated “Smoking Area”.
- 4) Cameras and other electronic devices are not permitted on the Site unless approval has been given by the Health and Safety Department
- 5) All Injuries or Unsafe Activities/ Conditions shall be immediately reported to the Work Leader or the Safety Watch.
- 6) Site Emergency – 3 blasts of air horn or megaphone (unless otherwise advised) – all personnel must immediately leave the area and report to the Field Command Post.
- 7) The site will be divided into work zones with access control points. As a minimum, personnel will always work in pairs. Personnel must follow decontamination procedures when exiting the work zones.

THE BUDDY SYSTEM IS MANDATORY FOR EVERYONE ON SITE

HEALTH & SAFETY BRIEFINGS/ MEETINGS

1. All personnel, employees, contractors, and subcontractors shall be provided with an initial site safety briefing to communicate the nature, level and degree of hazards expected on site.
2. Personnel will also receive regular briefings before and after each shift, before making a hot zone level entry, or when significant changes are made in the work procedures or safety plans. These site safety meetings/ briefings shall be held by the on-scene commander or safety watch. At a minimum these meeting will describe the work to be accomplished, discuss safety procedure changes, and note any items which need to be passed to other crews. General safety training topics should also be covered based on points raised in previous meetings and the site health and safety plan attachments.
 - The Tailgate Meeting Form should be utilized for this purpose.

LOCAL SOURCES OF ASSISTANCE

General: When calling emergency responders provide the following information to the responding agency: *(see Emergency Numbers for Ambulance, Fire and Police)*

Type of Emergency:

Incident Location and directions to incident: (e.g. SW25-53-11-W5, Highway 16, South RR 11)

Ambulance	Name:		Telephone:	
Fire Dept.	Name:		Telephone:	
Police Dept.	Name:		Telephone:	
Hospital	Name:		Telephone:	

Directions To Hospital:

Travel Time:

PRODUCT INFORMATION

Hazardous Material (Known or Suspected): The following are the products that could be expected to be in the vicinity of the incident. (Obtain copies of MSDS)

Material:		MSDS Number:		Quantity:	
Material:		MSDS Number:		Quantity:	

SITE HEALTH & SAFETY PLAN

Toxicological Hazards:			
☐ Inhalation			
☐ Ingestion			
☐ Skin			
Substance:	PEL/ TLV:	IDLH:	
Substance:	PEL/ TLV:	IDLH:	
Substance:	PEL/ TLV:	IDLH:	
Future weather conditions that may affect Incident Site:			

Job Assignment/ Task	Cold Zone	Warm Zone	Hot Zone
General Labour on Land			
General Labour on Water			
Equipment Operator			
Vac-Truck Operator/ Crew			
Site Assessment/ Investigation			
Boom Deployment/ Maintenance			
Welder			
Corrosion/ Coating			
Wildlife Hazing			
Decon Workers			
Land/ Water Surveillance			
Supervisory Personnel			

Select the appropriate level of PPE for each of the applicable Job Assignment/ Tasks from the following list, as well as, any additional PPE that is required. (e.g. Level C, 7 and 11).

PPE REQUIREMENTS				
Level A	Level B	Level C	Level D	Additional PPE
Not used by Company Employees	SCBA (or Air Line with escape back)	Full/ Half face air purifying respirator	Flame Resistant or normal work clothing	1. Hard hat 2. FR Clothing 3. Steel toes 4. Safety Glasses 5. Face Shield 6. Tinted Lens 7. Splash Goggles 8. Chemical resist. clothing 9. Rubber boots 10. High Vis vests 11. PFD's 12. Safety Harness 13. FR rain gear 14. Leather Gloves 15. Nitrile gloves 16. Rubber Gloves 17. Hearing Protection 18. FR Tyvek 19. SABA/ air lines w/Esc 20. SCBA to be worn 22. SCBA to be avail. # 23. Air Purifying (full mask) 24. Air Purifying (half mask) 25. Cartridge Type OV 26. Cartridge Type P(M) – 100 27. Cartridge Type P(M)-100/ OV
	Flame Resistant or Coated Tyvex	Flame Resistant or Coated Tyvex	Eye & face protection	
	Chemical resistant steel toe boots	Chemical resistant steel toe boots	Protective footwear	
	Chemical resistant gloves	Chemical resistant or leather gloves	Gloves	
		Eye protection		
		Hard hat		

WORK ZONES

Control boundaries have been established in the site safety map below according to the following guidelines:

- The **HOT ZONE**, or **EXCLUSION ZONE**, is the area where contamination or product hazards are expected.
- The **WARM ZONE**, or **CONTAMINATION REDUCTION ZONE**, is a transition area between the **HOT ZONE** and the **COLD ZONE**. It is the area where a **DECONTAMINATION** is conducted for personnel and equipment leaving the **HOT ZONE**.
- The **COLD ZONE**, or **SUPPORT ZONE**, is an area adjacent to the **WARM ZONE** that is intended to remain safe and as free of contamination as possible.

SITE DIAGRAM

☐ See Site diagram or Site Map from ICS form 201.

GENERAL DIAGRAM INSTRUCTIONS

1. Site Diagram should include the following:

a. Sketch with major feature locations (buildings, drainage paths, roads, etc.) b. Hazardous substance location c. Work zones (exclusion, contamination reduction, support) d. Command center and decontamination area e. Access and access restrictions f. Routes of entry	f. Wind direction g. Emergency evacuation routes h. Assembly points i. First aid locations j. Communication system
--	--

CONTINGENCY PLANS

In the event of an emergency (at this incident site) the person first noticing the emergency is to notify other workers in the immediate area. Evacuation must commence at once if the emergency poses any threat to the safety of the workers. Upon receiving notification of an emergency, the individual in charge of the work area is to take appropriate measures to protect human life, the environment (including wildlife) and property.

Escape Routes:

Evacuation Procedures:

Alerting Methods:

Muster Point:

MEDICAL SURVEILLANCE

Special medical monitoring required:

☐ Urinary/ Phenol
 ☐ Blood Test
 ☐ Chest X-ray
 ☐ Other:

Procedure:

Facility to perform medical testing/ monitoring

NAME:

LOCATION:

HAZWOPER (US OPERATIONS ONLY)

Personnel are required to be trained in accordance with 29CFR 1910.120 for the level at which they are performing duties. Personnel approaching the release and performing offensive actions are to meet the Hazardous Materials Technician Level. Personnel working away from the release area performing defensive actions are to be trained at the First Responder – Operational Level.

Site specific training required: In addition to the training requirements above, the following site specific training topics are to be reviewed prior to work on the site:

☐ Site Hazards (material released, physical hazards, etc.)

☐ Work areas/ activities identified

☐ Site Emergency Alerting/ Contingency Plan

☐ Evacuation Route/ Assembly Areas

☐ Required PPE

☐ Obtaining Medical Treatment/ First Aid

☐ Decontamination procedures

SITE HEALTH & SAFETY PLAN

Other Types of Training:

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

INCLUDED ATTACHMENTS:

Amendment form

Tailgate meeting form

- ☐ Wild Animals: Ungulates, Reptiles & Insects; ref. H&S Standards Manual Section 4, #417
- ☐ Boat operation; ref. H&S Standards Manual Section 6, #603
- ☐ Thermal Stress (Cold & Hypothermia); ref. H&S Standards Manual Section 4, #423, #424
- ☐ Confined Space Entry; ref. H&S Standards Manual Section 7, #701
- ☐ Cranes & Mechanical Lifting Equipment; ref. H&S Standards Manual Section 5, #511
- ☐ Manual lifting; ref. H&S Standards Manual Section 5, #523
- ☐ Organic Solvents; ref. H&S Standards Manual Section 4, #409
- ☐ Hydrogen Sulfide; ref. H&S Standards Manual Section 4, #406
- ☐ Helicopter Safety; ref. H&S Standards Manual Section 6, #605
- ☐ PPE; ref. H&S Standards Manual Section 5, #527
- ☐ Sanitation Requirement; ref. H&S Standards Manual Section 5, #532
- ☐ Traffic Safety; ref. H&S Standards Manual Section 6, #609
- ☐ Action levels; ref. H&S Standards Manual Section 5, #502
- ☐ MSDS
- ☐ Medical Monitoring Form
- ☐
- ☐

Note: Air Monitoring Results, and Hot Zone Personnel Tracking is to be documented in the Emergency Response/ Safety Watch Log

PLAN PREPARATION

Prepared by:

Date:

Time:

Signature:

Prepared by:

Date:

Time:

Signature:

ALL RESPONSE PERSONNEL ARE TO REVIEW THE SITE HEALTH & SAFETY PLAN

AMENDMENTS TO SITE SPECIFIC HEALTH & SAFETY PLAN

This Site Health and Safety Plan is based on information available at the time of preparation. Unexpected conditions may arise which necessitate changes to this plan. It is important that personal protective measures be thoroughly assessed prior to and during the planned activities. Unplanned activities and/ or changes in the hazard status should initiate a review of major changes in this plan.

Changes in the hazard status or unplanned activities are to be submitted on "Amendments to Site Health and Safety Plan" which is included as Page ____ of this plan.

Amendments must be approved by the Safety Officer prior to implementation of amendment.

All notes, documentation and records must NOT be discarded after their use. Documents are to be submitted to Documentation (Planning Section) for records retention.

AMENDMENTS TO SITE HEALTH & SAFETY PLAN

Changes in field activities or hazards:

Proposed Amendment:

Proposed By:

Date:

Approved By:

Date:

Amendment
Number

Amendment
Effective Date

Time:

TAILGATE MEETING MINUTES

Location:	Date	MM DD YYYY	Time	HH MM																					
Description of work to be performed:																									
HAZARD IDENTIFICATION AND SAFETY DISCUSSION <i>(Check and discuss all relevant hazards)</i>																									
<table style="width:100%; border: none;"> <tr> <td>☐ Flammables/ Combustibles/ Explosives</td> <td>☐ Overhead Work/ Suspended Loads/ Chains/ Slings</td> <td>☐ High Noise Levels</td> </tr> <tr> <td>☐ Trapped or Stored Pressure/ Energy</td> <td>☐ Falling from Heights</td> <td>☐ Walking/ working surfaces</td> </tr> <tr> <td>☐ Hazardous/ Toxic Substances</td> <td>☐ Slips/ trips and falls</td> <td>☐ Insect bites/ bird droppings</td> </tr> <tr> <td>☐ Pinch Points/ Moving/ Rotating Equipment</td> <td>☐ Radiation</td> <td>☐ Sharp Edges</td> </tr> <tr> <td>☐ Electrical Current</td> <td>☐ Extreme Heat/ Cold</td> <td>☐ Animals</td> </tr> <tr> <td>☐ Traffic</td> <td>☐ Exertion/ Heavy Lifting</td> <td>☐ Other</td> </tr> <tr> <td>☐ Working in awkward positions</td> <td>☐ Weather (ice, snow, rain)</td> <td>☐ Other</td> </tr> </table>					☐ Flammables/ Combustibles/ Explosives	☐ Overhead Work/ Suspended Loads/ Chains/ Slings	☐ High Noise Levels	☐ Trapped or Stored Pressure/ Energy	☐ Falling from Heights	☐ Walking/ working surfaces	☐ Hazardous/ Toxic Substances	☐ Slips/ trips and falls	☐ Insect bites/ bird droppings	☐ Pinch Points/ Moving/ Rotating Equipment	☐ Radiation	☐ Sharp Edges	☐ Electrical Current	☐ Extreme Heat/ Cold	☐ Animals	☐ Traffic	☐ Exertion/ Heavy Lifting	☐ Other	☐ Working in awkward positions	☐ Weather (ice, snow, rain)	☐ Other
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☐ Traffic	☐ Exertion/ Heavy Lifting	☐ Other																							
☐ Working in awkward positions	☐ Weather (ice, snow, rain)	☐ Other																							
REQUIRED HAZARD CONTROLS <i>(Check applicable)</i>																									
<table style="width:100%; border: none;"> <tr> <td>☐ Gas Detection (Available & Calibrated)</td> <td>☐ Signage and/ or Barricades Provided</td> <td>☐ Emergency Retrieval Equipment</td> </tr> <tr> <td>☐ Mechanical & Electrical Lockout Complete</td> <td>☐ Traffic Control</td> <td>☐ Full Body Harness w/ "D" Ring</td> </tr> <tr> <td>☐ Safety Watch</td> <td>☐ Grounding and/ or bonding in place</td> <td>☐ Life Lines & Lanyards</td> </tr> <tr> <td>☐ Proper Ventilation</td> <td>☐ MSDS Available & Reviewed</td> <td>☐ 2 Way Radios</td> </tr> <tr> <td>☐ Piping/ Vessel Isolated</td> <td>☐ Fire Extinguishers</td> <td>☐ Other</td> </tr> <tr> <td>☐ Trained/ Cert. Personnel Available</td> <td>☐ Lighting (Class 1, Div. 1- Explosion Proof)</td> <td>☐ Other</td> </tr> </table>					☐ Gas Detection (Available & Calibrated)	☐ Signage and/ or Barricades Provided	☐ Emergency Retrieval Equipment	☐ Mechanical & Electrical Lockout Complete	☐ Traffic Control	☐ Full Body Harness w/ "D" Ring	☐ Safety Watch	☐ Grounding and/ or bonding in place	☐ Life Lines & Lanyards	☐ Proper Ventilation	☐ MSDS Available & Reviewed	☐ 2 Way Radios	☐ Piping/ Vessel Isolated	☐ Fire Extinguishers	☐ Other	☐ Trained/ Cert. Personnel Available	☐ Lighting (Class 1, Div. 1- Explosion Proof)	☐ Other			
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☐ Trained/ Cert. Personnel Available	☐ Lighting (Class 1, Div. 1- Explosion Proof)	☐ Other																							
REQUIRED PERSONAL PROTECTIVE EQUIPMENT <i>(Check applicable)</i>																									
General	Other			Respiratory																					
☐ Hard Hat ☐ FR Clothing ☐ Steel toe boots ☐ Safety Glasses	☐ Face Shield ☐ Tinted Lens ☐ Impact Goggles ☐ Chemical Res. Clothing	☐ Rubber boots ☐ High Vis. Vests ☐ PFD's ☐ Safety Harness	☐ Leather gloves ☐ Nitrile gloves ☐ Rubber gloves ☐ Ear Protection	☐ SABA/ Air Line w/ Esc ☐ SCBA to be worn ☐ SCBA to be avail. # ☐ Air Purifying (full mask) ☐ Air Purifying (half mask)																					
				☐ Cartridge Type OV ☐ Cartridge Type P-100 ☐ Cartridge Type P-100/ OV																					
ADDITIONAL TOPICS/ HAZARDS & HAZARD CONTROLS – identified and discussed																									
EMERGENCY PREPARATION																									
☐ ERP	☐ Muster Areas	☐ Communication Equipment	☐ Means of Egress	☐ Emergency Equipment																					
☐ Designated First Aid Attendant:			☐ First Aid equipment available	☐ Other																					
JOB INTERRUPTION																									
Were additional hazards identified during the work?		☐ Yes	☐ No																						
If yes, list them here:																									
Additional Comments:																									
Company Meeting Facilitator:																									

TAILGATE MEETING MINUTES

Name	Company
1.	
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GAS DETECTION EQUIPMENT INFORMATION

[illegible]

2.0 INTERNAL AND EXTERNAL NOTIFICATION

Immediate notification is a key element of any emergency response action. The health and safety of employees and the public is paramount and, as a result, immediate notification is essential. This section describes both the internal and external notification processes, and includes the contact information for Kinder Morgan resources, and external resources.

2.1 Incident Verification

The first step in many incidents is to confirm that an emergency condition exists. Reports may come from a number of sources including automated detection systems, on-site KMC or other personnel, and members of the public and/or Emergency Services (Police, Ambulance, Fire).

2.1.1 *Automated -Spill Detection*

The tanks and pipeline are equipped with pressure and flow monitors, which exercise local control and transmit data to the Control Centre. These systems are set to alarm or shut down on preset deviations of pressure flow. In case of an alarm, the Control Centre personnel will take the appropriate actions in accordance with operating procedures. The following is a summary of the operating procedures for automated spill detection:

- SCADA System 10-Second Data Access –monitors and controls pipeline operations with the SCADA system in the Control Centre. The ultimate decision on leak detection lies with the Control Centre.
- Communication Flexibility/Redundancy – the SCADA system acquires data via a satellite network. Satellite communications allow large volumes of data to be transmitted very rapidly both to and from all field locations. Network configuration and transmission protocols provide the flexibility to establish guaranteed delivery transmissions as required. Communication system redundancy provides accurate and reliable data to pipeline operators.
- Parameter Alarms – a parameter alarm is a data value limit (high or low) which can be set by the Control Centre operator to alert upset conditions regardless of whether the Operator is actively monitoring the data point in question.
- Operators are required to establish parameter alarm settings on mainline pressures and flow rates for all operating line segments. In combination with ten-second data acquisition rates, parameter alarms provide near instantaneous notification of potential upset conditions on all operation mainlines.
- Trending – the SCADA system includes a trending facility which graphically displays pressures, temperature, and flow rate data for each mainline pump and oil receiving location on the system. This system can provide valuable insight into operations history and can help the operator proactively address potential upset conditions.
- Tank Gauging with Parameter Alarms – tank gauge data is available to the Control Centre for use by pipeline operators. The systems are gauged automatically by the SCADA computer and the data is made available to the operator on demand. Parameter alarms (see above) are also available for tank levels to ensure no potential tank discharge.
- Training – all operators are compliant with DOT 195 Operator Qualification Requirements.

2.1.2 Automated - Fire Detection

Fire detection at Laurel Station consists of fire wire alarms in the foam dam area on the top of the two tanks. If a fire was to occur along the rim seal of either tank it will melt the wire which then alarms to the Control Centre and Laurel Station. All enclosed buildings on site have fire alarms which also alarm to the Control Centre and Laurel station.

2.1.3 Automated – Intrusion Alarm

All buildings at Laurel Station have intrusion alarms which send a signal to the alarm monitoring company who then begins a callout starting with the on-call person, district supervisor and finally the Control Centre.

2.1.4 Automated/Complaint Detection Verification

If the detection method comes from alarms to the CCO or a member of the public the potential incident must then be visually verified by KMC personnel. If a leak, fire or other emergency event is confirmed the on-site operator will inform CCO of the incident and CCO will initiate the internal notification procedure.

2.1.5 Early Detection Methods

Aerial patrol flights will be made at least 26 times a year, and will not to exceed 21 days apart. The intent of the patrol is to observe the area directly over the pipeline right-of-way for leaks, exposed pipes, washes, missing markers and other unusual conditions. Construction on the right-of-way, or adjacent to the right-of-way is also closely monitored.

Discharge to the land and/or surface waters may also be detected by company personnel at Laurel Station when employees perform daily scheduled inspections of the site. At Anacortes and Ferndale locations, inspections are performed during scheduled deliveries.

Right-of-way marker signs are installed and maintained at road crossings and other noticeable points and provide an emergency telephone number for reporting emergency situations. The company also participates in the “call before you dig” or “One Call” utility notification services which can be contacted to report a leak and determine the owner/operator of the pipeline.

If a notification is made to a local office or pump station, the Kinder Morgan representative receiving the call will generally implement the following actions:

- Notify the Control Centre and Regional Office/Qualified Individual
- Dispatch field personnel to the site to confirm a discharge and conduct preliminary assessment
- Notify their immediate supervisor and provide assessment results.

2.1.6 Detection in Adverse Weather

A conservative shutdown time of 15 minutes has been established for calculating worst case discharge. Line ruptures and tank failures that cause worst case spills in adverse weather conditions would normally be detected and acted upon within 5 minutes. In the event that visual detection cannot occur due to adverse weather, and/or low visibility the pipeline will be shut down for safety until detection can occur. Equipment that may be used in these situations includes vapor detection, and thermal/infrared imagery.

2.1.7 Detection of Spills to Groundwater

In an area where a spill occurs that is not on impermeable ground a contractor will be contacted to assist with the detection and ongoing evaluation of a spill that may impact groundwater. The contacts for the specific contractors can be found in Section 2.10 Support Services - Primary Response Contractors (PRC).

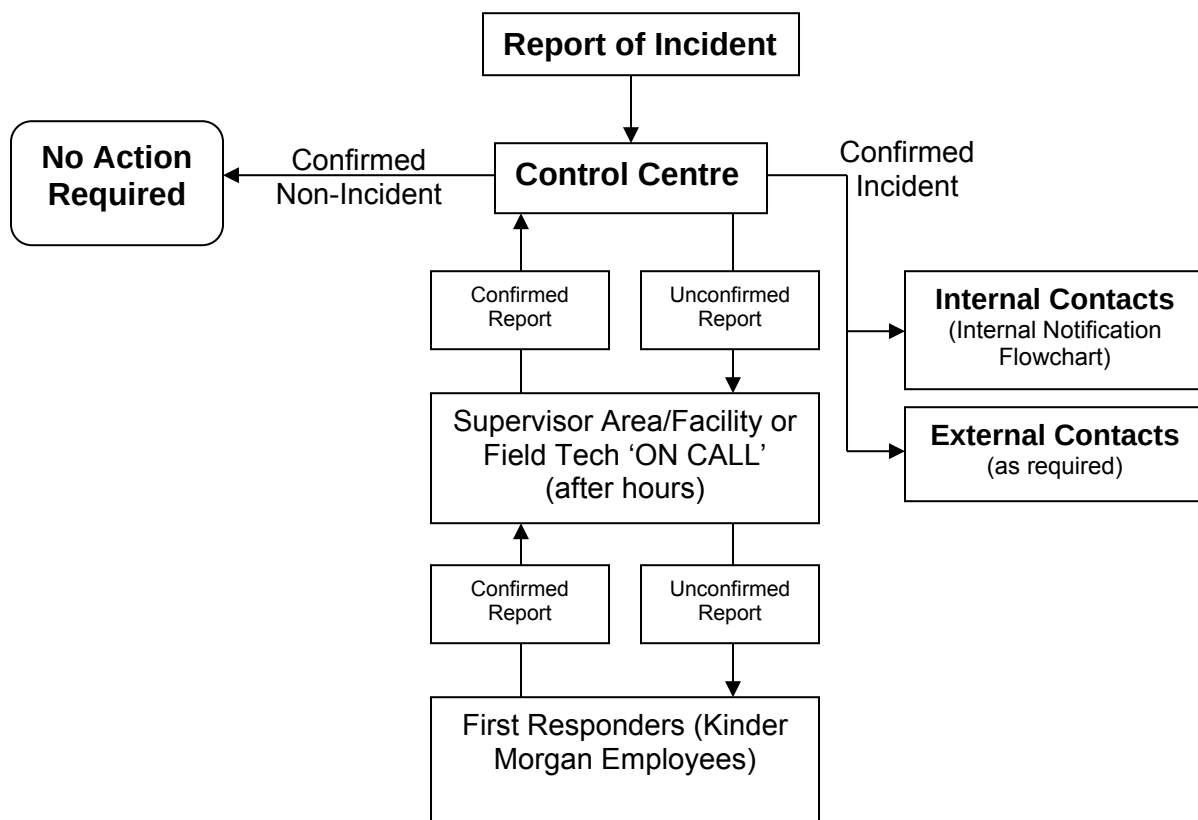
2.1.8 Shutdown Events

If abnormal conditions exist, the Control Centre will take the appropriate actions to ensure that a release does not occur. If a discharge has occurred, the Control Centre will take actions to limit the magnitude. In either case appropriate actions taken by the Control Centre personnel may include, but are not limited to:

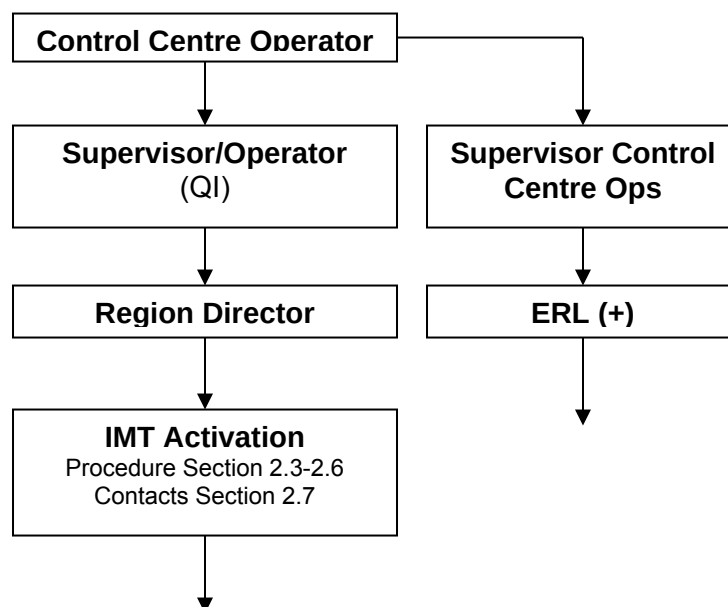
- Shut down affected line segment if there is an indication of a leak
- Isolate line segment
- Depressurize line
- Start internal and external notifications
- Mobilize additional personnel as required.

2.1.9 Spill Verification Flowchart

The first step in many incidents is to confirm that a spill has actually occurred. Spill reports may come from a number of sources including the public, and First Responders (Police, Fire and Ambulance). Once received the following flowchart shows the direction of communication to verify an incident.



2.2 Internal Notification Chart



2.3 Internal Notification Procedure

All spills, regardless of size, must be reported immediately to the Control Center, who will:

- Contact the District Supervisor to verify and Assess the situation
- Determine the Response Level (i.e., Level 1, 2 or 3 - See Introduction for a description of the 3 Response Levels)
- Initiate the notification of company and external personnel

2.3.1 Information to Report

Information about the spill should be as clear, concise, accurate and timely as possible. The minimum information reported, for initial report and update reports, should be:

- Name and Telephone Number of the Caller
- Date and Time of the call
- Name of Pipeline
- Location of the Spill
- Product(s) Spilled
- Estimated Quantity
- Actions Taken To-Date
- Assistance Required
- Injuries
- Weather Conditions
- Reason for discharge (if known)

2.3.2 How to report

- **Call the Control Centre at 1-888-876-6711**

Note: The Control Centre number is monitored 24 hours a day.

2.4 Incident Management Team (IMT) Notification/Activation

Upon being notified of the incident, the CC Supervisor will issue an ERL or ERL+. The ERL system is an online tool that delivers an automated group text message to designated Kinder Morgan personnel when notification of an emergency or non-emergency event is required. The CCO fills in the Emergency Condition Report and issues an ERL/ERL+ call. Once received the mandatory call in personnel will participate in a conference call to determine next actions, and the IMT members that need further contact/mobilization. An initial IMT will be set up using these individuals. The mandatory callers are as follows:

- Regional Director, affected area
 - The following people are contacted at the discretion of the Regional Director
 - Pipeline Protection Supervisor, affected area
 - Director, External Relations
 - Scheduler, Shipper Services, affected area
- Director, Central Region and Control Centre
- Director, Technical Services
- Field Representative
- EHS, regional contact
- Director, EHS (Calgary)
- Legal Representative
- Manager, Emergency Response & Security

If the on-line system is not operational the CCO will begin a manual call down of the above individuals and request they join the conference call. If the conferencing telephone lines are not operational the flow of information will occur via individual telephone calls until an alternate conferencing solution is available.

The following positions, at a minimum, will be assigned during this call:

- Safety Officer
- Information Officer
- Liaison Officer
- Legal Officer
- Operations Section Chief
- Planning Section Chief
- Logistics Section Chief
- Finance/Administration Section Chief

As core IMT members arrive at the site or are assigned, they are responsible for contacting the remaining members of their respective sections/units/groups/division, deemed necessary based on the size and nature of the incident.

2.5 IMT Fan-Out

As core IMT members arrive at the site or are assigned, they are responsible for contacting the remaining members of their respective sections/units/groups/division, deemed necessary based on the size and nature of the incident/

2.6 Emergency Response Line (ERL/ERL+) Initial Contacts

This listing serves as the manual back-up ERL and ERL+ call down list for the Puget Sound Operating Area.

Position	Names)	Office	Cell
Qualified Individual Field Representative			
Director, Western Region			
Director, Central Region and Control Centre			
Director, Technical Services			
Director, EHS			
Manager Emergency Response and Security			
Legal Representative			
Director, External Relations			
EHS Reginal Contact			
Pipeline Protection Supervisor			

2.7 Kinder Morgan Contacts

The IMT is only listed to the Section Chief level, a full listing of IMT members can be obtained from the Emergency Response and Security Advisor. A Section Chief is also classed as a Deputy Section Chief.

Position	Name	Office	Cell
Command Staff			
Incident Commander			
Incident Commander			
Incident Commander			
Incident Commander			
Incident Commander			
Incident Commander			
Incident Commander			
Information Officer			
Information Officer			
Information Officer			
Legal Officer			
Legal Officer			
Liaison Officer			
Liaison Officer			
Safety Officer			
Safety Officer			

Position	Name	Office	Cell
Safety Officer			
Safety Officer			
Safety Officer			
Operations Section			
Section Chief			
Section Chief			
Section Chief			
Section Chief			
Section Chief			
Section Chief			
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Planning Section			
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Logistics Section			
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Finance Section			
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Section Chief			

2.8 External Notification

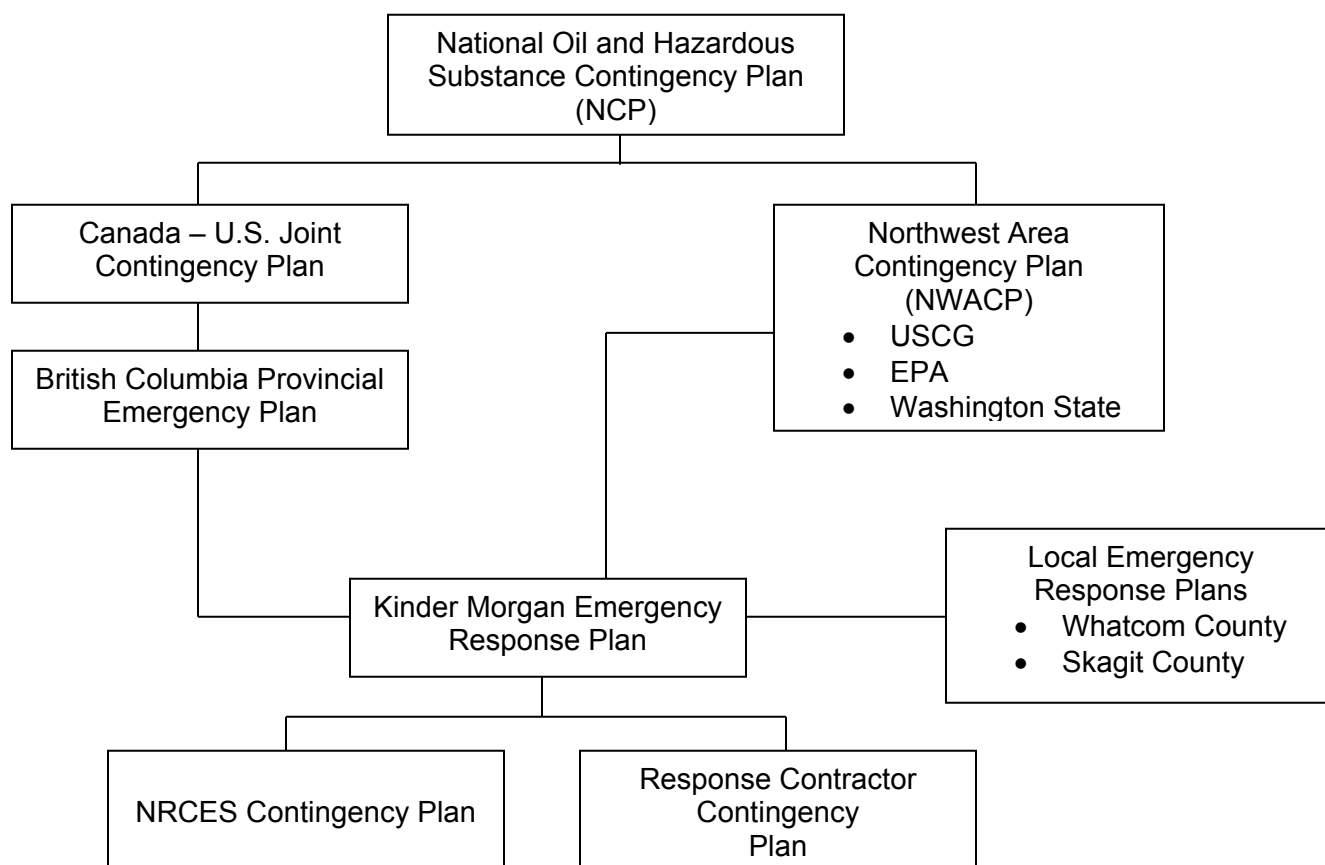
2.8.1 Interface With Other Plans

Kinder Morgan will respond to spills from its pipeline system to the best of its ability. In the event of a worst case spill, Kinder Morgan may require assistance, advice or direction from state and federal agencies regarding shoreline protection and cleanup measures. The relationship of the emergency Response Plan to federal, state and local plans is shown on the chart below.

Kinder Morgan has a contract with National Response Corporation (NRCES), an oil spill primary response contractor in Washington State. The NRCES area of operation includes all of the inland water and marine areas that could be impacted by a spill from the pipeline system.

Kinder Morgan will rely on NRCES to provide response assistance for inland water and marine waters that may be impacted by potential spills from its pipeline system.

The British Columbia Provincial Emergency Program is identified on the following chart due to the possible migration of petroleum from Washington State into Canada should a spill occur from the pipeline system into the Sumas River upstream of the international boundary.



2.8.2 External Notification – Potential Emergency Condition

In the case of a potential emergency condition¹ Washington State Department of Ecology will be contacted as per WAC 173-182-264(2) when any of the following conditions are met:

1. Emergency Shutdown – is an event or situation that could imminently be hazardous to persons, property or the environment. This includes but is not limited to component malfunction or personnel error that could cause a hazard to persons, property or the environment, an operational failure causing a hazardous condition, natural disaster, a terrorist threat, third party damage that could affect pipeline operations, leaks or spills, fires or a response to the activation of an emergency system.
2. Safety Shutdown – is a situation where a pipeline is shutdown due to an emergency or abnormal operating condition along a pipeline, or at a terminal, station or other facility. The automated shutdown of a pipeline due to the activation of a protective device in response to an abnormal operating condition is also considered a Safety Shutdown.
3. Odor Complaint – in the event of multiple complaints and/or a single complaint in conjunction with available operating data, the CCO has a reason to suspect a release of product and decides to do a Safety Shutdown of the pipeline and/or station.

WDOE Reporting Line: (800) 258-5990

The on site supervisor will make contact with the WDOE while investigating the potential spill location(s) prior to the confirmation of an incident to allow WDOE maximum response time possible.

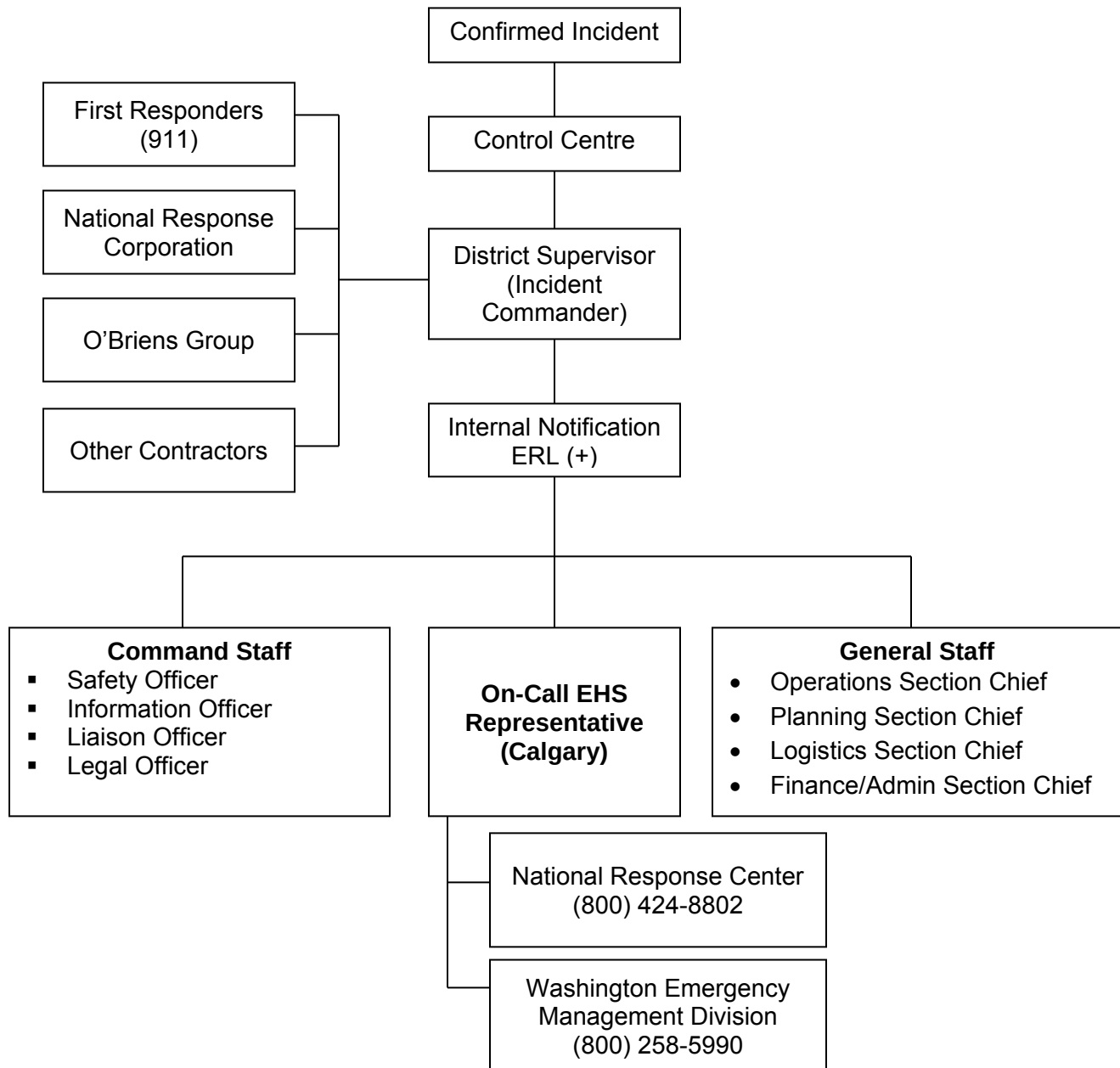
Notes: The CCO has the authority and the responsibility to shutdown a pipeline, station, or terminal during an emergency or as a precaution when in his/her judgment, further operation is unsafe. The CCO will not be faulted for shutting down under these conditions.

An Operator or District Supervisor may request a shutdown as the result of local conditions in response to the investigation of a complaint or regular duties where a release or other abnormal operating condition is suspected. The CCO will comply with the request and initiate the Emergency Condition Response Procedures.

¹ A potential emergency can be defined as a spill of unknown volume, unconfirmed and is adjacent to waters of the state or where there is a pathway to waters of the state, and the environmental conditions, such as rain events or known shallow groundwater make impacts to waters of the state likely.

2.8.3 External Notification Chart – Confirmed Emergency Condition

In the case of a confirmed or known emergency condition the following chart will be used to identify who is to be contacted upon confirmation of the incident.



2.8.4 Initial Notification Requirements – Confirmed Emergency Condition

Kinder Morgan's policy is to make all of the calls directly to ensure that all appropriate government agencies are notified. This would be done by the EHS Department, and/or the on-site representative as needed.

Order of Call	Agency	Reporting Requirements	Comments
District Supervisor/Incident Commander Initial Calls			
1	911 Call Centre (911) or (9911 from a company land line)		The local 911 call centre will be notified of any incident to inform the call centre operators of the problem or potential problem so they do not allocate additional unneeded resources to the event.
2	NRCES 800-899-4672		Primary Response Contractor to assist with equipment and personnel.
KMC On-Call EHS Representative			
1	U.S. National Response Center (NRC) 1-800-424-8802 (24 Hour Number) (Covers PHMSA, EPA and USCG)	The NRC must be notified as soon as possible by telephone of any failure that causes death or injury, results in a fire or explosion, damage exceeds 50,000 US, pollutes any water body or is significant even though it did not meet the criteria of any other paragraph of this section. A report must also be made for any failure that results in a loss of 5 or more US gallons of hazardous liquid.	Use the form on the following page to make the initial report to ensure all known information is included. Following initial report PHMSA requires the F-7000-1 Accident Report Form to be filed electronically. The form and instructions can be found online http://www.phmsa.dot.gov/pipeline/library/forms
2	Washington State Emergency Management Division 1-800-258-5990 Northwest Regional Office (WDOE) 1-425-649-7000	All spills are required to be reported to WDOE if it has the potential to impact waters of the state ² except where the spill is less than 42 Gallons (1 bbl) which does not/cannot impact waters of the state. WAC 173-182-264	State and local authorities must be notified immediately if there is a release of hazardous substances under Superfund Regulations in excess of reportable quantities and which could result in exposure of persons outside the boundaries of the facility site. A follow up written notification is required to the LEPC as soon as practical after the release.

² Waters of the State means all lakes, rivers, ponds, streams, inland waters, underground water, salt waters, estuaries, tidal flats, beaches and lands adjoining the seacoast of the state, sewers, and all other surface waters and watercourses within the jurisdiction of the state of Washington. WAC 173-182-030(67)

2.8.5 Emergency Condition Agency Report Form

Name and Address of Company
Name of Pipeline
Time of Discharge
Location of Discharge
Name of Oil Involved
Reason for Discharge (i.e., Material Failure, Excavation Damage, Corrosion)
Estimated Volume of Discharge
Weather Conditions On-Scene
Actions Taken or Planned by Persons On Scene

2.9 Additional Government Contacts

These agencies may be contacted on an as-needed basis.

Agency	Contact
Federal Government – U.S.A.	
National Response Center (NRC)	(800) 424-8802 (202) 267-2675
Occupational Safety & Health Administration (OSHA)	(800) 321-6742
Poison Center Emergency Contact	(800) 222-1222
United States Coast Guard	(800) 424-8802
Federal Government - Canada	
National Energy Board (NEB)	(403) 807-9473
Transportation Safety Board Occurrence Hotline	(819) 997-7887
Washington State Government	
Washington Call Before You Dig	(800) 424-5555
Washington Department of Natural Resources	(360) 902-1000
Washington Emergency Management Agency, Spill Reporting Line and Burn Permits	(800) 258-5990
Northwest Air Pollution Authority	(800) 622-4627
Washington Department of Fish & Wildlife	(360) 534-8233
Washington State Department of Ecology	(425) 649-7000
Washington State Department of Transportation	(360) 676-2100
Washington State Police	911
Provincial Government – British Columbia	
Provincial Emergency Program (PEP)	(800) 663-3456
Skagit County	
Skagit County Emergency Management (LEPC)	(360) 428-3250
Skagit County Sheriff Department	(360) 336-3131 (911)
Skagit Valley Hospital Switchboard	(360) 424-4111
Whatcom County	
Whatcom County Sheriffs Office - Division of Emergency Management (LEPC)	(360) 676-6681 (911)
St. Joseph's Hospital	(360) 734-5400
Lummi Tribe	
Ronald Tso, Chief of Police	(360) 384-2266

2.10 Support Services - Primary Response Contractors (PRC)

<i>Name/Agency</i>	<i>Services/Personnel</i>	<i>Contact</i>
Washington State Approved - Primary Response Contractors		
National Response Corporation (NRCES)*	- Spill Management Teams and Response Supervisors - Equipment Decontamination and Management - Waste Minimization, Management and Disposal - Contact NRCES for current list of trained individuals.	(800) 899-4672
Global Diving, Salvage Inc	- Provides personnel and equipment for subsurface marine environments, and shoreline cleanup. - Equipment is located in Anacortes, WA - Contact Global for current list of trained individuals	(800) 441-3483
Additional Kinder Morgan Response Contractors		
O'Brien's Group*	Provides personnel for ICS and expertise currently trained individual lists can be obtained by contacting O'Brien's	(985) 781-0804
Focus Wildlife*	- Provides Wildlife support for Washington State - Contact Focus for current list of trained individuals	(800) 578-3048 (310) 386-5965 (778) 574-1501
Polaris Applied Sciences, Inc*	Provides SCAT services for Washington State and British Columbia Canada	(425) 823-4841 (206) 369-5686
CTEH*	Air Monitoring, Air Modeling, environmental sampling, data management and toxicology consulting services.	(866) 869-2834 (317) 473-0688
URS Corporation*	Environmental Plan development, Field Sampling/support, Data management, waste management, groundwater spills and regulatory support	(206) 438-2700
BAI Environmental Services*	Provides Vacuum Truck, and other response equipment/personnel	(360) 354-1134 Ivan DeVries Cell (360) 815-0238 Jeff TenPas (360) 815-0270 (360) 354-3822
Baker Tanks*	Provides temporary storage tanks.	(800) 225-3712 (425) 347-8811

* Contract or letter of intent on file available in Section 19.

1-888-876-6711

Emergency Response Plan

** No formal work directive, or letter of intent specific to Trans Mountain (Puget Sound) ULC, however there is an MSA in place covering Kinder Morgan and its subsidiaries for further creation of work directives in the event of an emergency.

2.11 Oil Company Contacts

<i>Name/Office</i>	<i>Emergency/24-Hour Phone</i>	<i>Description</i>
BP Cherry Point Refinery	(360) 371-1500	The Laurel Station to Ferndale Meter Station and delivers to a BP pipeline that then delivers to the Cherry Point Refinery
Phillips 66 Ferndale Refinery	(360) 384-1011	The Laurel Station to Ferndale Meter Station delivers to the Phillips 66 Ferndale Refinery.
Shell Oil Products Refinery	(360) 293-0800	The Laurel Station to Anacortes Pipeline delivers to the Shell Oil Products Refinery
Tesoro Refinery	(360) 293-9119	The Laurel Station to Anacortes Pipeline delivers to the Tesoro Refinery

2.12 Additional Resources Suppliers

Name	Location	Contact
Equipment/Construction		
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
Aviation		

Name	Location	Contact
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
Security		
[REDACTED]	[REDACTED]	[REDACTED]
Transportation		
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
Pipeline Repair		
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
Waste Management		
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
Wildlife Specialists		
[REDACTED]	[REDACTED]	[REDACTED]
Environmental Specialists		
[REDACTED]	[REDACTED]	[REDACTED]

3.0 SPILL/SITE ASSESSMENT

The primary purpose of a spill/site assessment is to evaluate the presence of risk to both incident responders and the public. However, if it is safe to do so, information about the spill should be gathered as quickly as possible in order to evaluate the situation and develop an initial response plan. It might also be possible for the Site Assessment Team to take measures to reduce possible spill impacts.

The nature of Spill/Site Assessments will depend on the product spilled, the spill size and the location (i.e., land, groundwater or marine).

Site Assessment Team members should don half-face respirators for all spill until the nature of the material can be assessed for safety.

Product	Spill Size	Vapor Monitoring	Assessment Team PPE	
			Skin/Eyes	Respiratory
Crude	All	LEL, O ₂ and Toxins (see Sections 3.2 - 3.4)		

NOTE: If vapor levels reach 10% of the LEL, Site Assessment Team members should leave the area immediately

3.1 Site Assessment Guidelines

3.1.1 Safety Checklist

- Conduct Pre-Entry Safety Checklist
- Remove all non intrinsically-safe radios, pagers, etc.
- Establish communications procedures/schedules
- Don appropriate PPE
- Refer to MSDS
- Determine wind speed and direction
- Determine current direction
- Approach spill from upwind/up current if possible
- Conduct vapor monitoring

3.1.2 Incident Intelligence checklist

- Determine status of any injured personnel
- Determine spill source
- Confirm spilled product (if different, leave the area)
- Determine if source is isolated
- Estimate spill rate/volume
- Determine if product has or will reach the water
- Determine if product has escaped local containment

3.1.3 Incident Mitigation Checklist

- Evacuate and attend to any injured personnel
- Isolate spill source
- Close all valves
- Block escaping product

3.2 Vapor Monitoring on Marine Spills

3.2.1 Pre-Assessment Preparation

A trained team should conduct an initial site assessment from land and, if available and spill impacts water, a second team in a workboat should conduct an assessment. If only one team is available, they will be required to make both assessments. The site assessment team(s) should wear appropriate PPE for the initial site assessment unless specifically instructed otherwise by the Incident Commander. The Incident Commander may downgrade the level of PPE required by the site assessment team if the product and amount spilled are known, and a lesser level of PPE is deemed appropriate.

- Calibrate and check battery charge levels on each air monitoring instrument.
- Complete an *Initial Health and Safety Plan*. Conduct the pre-entry briefing, using the completed *Permit to Work Form* and any other relevant documentation. Select and use the *Gas Testing Certificate* that matches the level of respiratory protection in use by the assessment team.
- Ensure that all air monitoring instruments are well secured and protected from weather. Be careful that any "protection" does not cover any of the meters' ports that require continuous airflow.

3.2.2 Site Assessment Procedures

The on-water team should move toward the spill and stop at an upwind location to make final preparations for the assessment. Air monitoring requires accurate position information. A global positioning system (GPS) is the preferred method for determining positions.

Due to the lack of elevation and the rapid spread of the oil on water, the site assessment team may not be able to accurately judge the spill parameters. Lacking any other guidance, the assessment team must make judgments on where the main body of oil may be, and how to approach it. Vapor readings should be taken frequently.

The survey should continue as long as air monitoring instrument readings remain within acceptable limits, with the objective of (a) obtaining readings across the zone and (b) locating a significant accumulation to provide a "worst case" assessment. A safe and effective site assessment will require caution, persistence and field decisions.

As the assessment team moves toward the oil, or its anticipated location, periodic stops will be made to record results. The team leader must take immediate action if at any time the air monitoring instrument readings meet or exceed "evacuation" levels (see Vapor Monitoring Flowchart - Section 3.4). If "evacuation" levels are met or exceeded, move upwind from the spill and halt the assessment. Notify the Incident Commander.

When sufficient representative locations have been recorded, the air-monitoring phase of the initial spill characterization is complete. The identification of physical, environmental, chemical or other hazards will complete the assessment.

3.3 Vapor Monitoring on Land Spills

3.3.1 Site Assessment Procedures

The team should move toward the area and stop at an acceptable location, preferably upwind, to make final preparations for assessment. The GPS is the preferred method for determining position of air sampling results ashore.

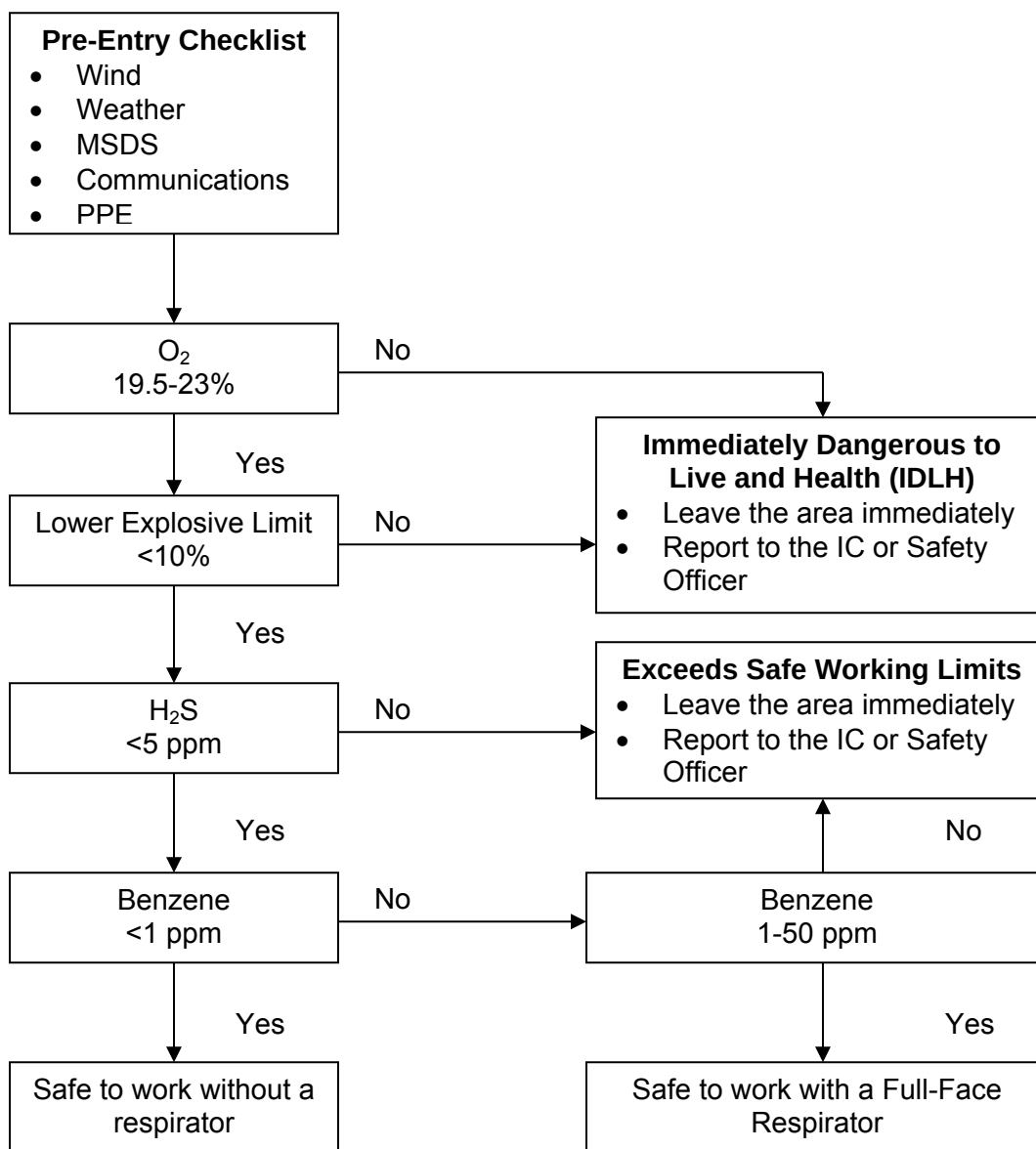
On shoreline assessments, the team will likely have accurate information or visual sightings of the extent of the oil in the zone. Local geography, access roads, and other features may limit the team's ability to approach the impacted area from upwind. The team must evaluate its options and decide the best approach route. Frequent reading of air monitoring instruments can ensure the safety of the survey party during the approach. The assessment team leader needs to exercise caution and use controls that will best protect the team.

The survey should continue as long as air monitoring instrument readings remain within acceptable limits, with the objective of (a) obtaining readings across the zone and (b) locating a significant accumulation to provide a "worst case" assessment. A safe and effective site assessment will require caution, persistence and field decisions.

The team leader must take immediate action if at any time the air monitoring instrument readings meet or exceed "evacuation" levels. If "evacuation" levels are met or exceeded, move upwind from the spill and halt the assessment. Notify the Incident Commander.

When sufficient representative locations have been recorded, the air-monitoring phase of the initial oil spill characterization is complete. The identification of physical, environmental, or other hazards will complete the assessment.

3.4 Vapor Monitoring Flowchart



Note: This flowchart should be used as a guideline only. If there are any questions about safe working vapor levels, consult the Safety Officer.

3.5 Spill Observation/Assessment/Estimation Factors

3.5.1 Spill Surveillance

The following guideline assists in spill surveillance:

- Surveillance of an oil spill should begin as soon as possible following discovery to enable response personnel to assess spill size, movement, and potential impact locations. Dispatch observers to crossings downstream or down gradient to determine the spill's maximum spread.
- Clouds, shadows, sediment, floating organic matter, submerged sand banks or wind-induced patterns on the water may resemble an oil slick if viewed from a distance.
- Use surface vessels to confirm the presence of any suspected oil slicks (if safe to do so); consider directing the vessels and photographing the vessels from the air, the latter to show their position and size relative to the slick.
- Spill surveillance is best accomplished through the use of helicopters or small planes; helicopters are preferred due to their superior visibility and manoeuvrability.
- All observations should be documented in writing and with photographs and/ or videotapes.
- Describe the approximate dimensions of the oil slick based on available reference points (i.e. vessel, shoreline features and facilities); use the aircraft or vessel to traverse the length and width of the slick while timing each pass; calculate the approximate size and area of the slick by multiplying speed and time.
- Record aerial observations on detailed maps, such as topographic maps.
- In the event of reduced visibility, such as dense fog or cloud cover, boats may be used to patrol the area and document the location and movements of the spill, however, this method may not be safe if the spill involves a highly flammable product.
- Surveillance is required during spill response operations to gauge the effectiveness of response operations; to assist in locating skimmers; and assess the spill size, movement, and impact.

3.5.2 Estimating Spill Trajectories

Oil spill trajectories should be estimated in order to predict direction and speed of the slick movement. Trajectory calculations provide an estimate of where oil slicks may impact shorelines and other sensitive areas, and also provide an estimate of the most effective location in which to mobilize spill response resources for protection, containment and recovery.

Oil spill trajectories can be estimated using vector addition or with computer programs such as CAMEO. Hand calculations typically utilize the following assumptions:

- Oil moves at approximately the same direction and speed as the water currents, unless the winds are strong.
- Wind speed can be multiplied by 0.034 to determine the effect of winds on speed and direction of spill movement.
- The combined effects of winds and currents can be added to estimate spill movement speed and direction.

More sophisticated predictions can be obtained from computer programs. Oil spill trajectory services can be obtained from:

- National Oceanic and Atmospheric Administration (NOAA) through the Federal On-Scene Commander (FOSC)
- Private Consulting Firms

3.5.3 Estimating River/Stream Velocity

Time Required for Stick/Floating Object to go 100 feet (seconds)	Stream Velocity (mph) ¹
136	0.5
68	1.0
45	1.5
34	2.0
27	2.5
23	3.0
19	3.5
17	4.0
15	4.5
14	5.0
11	6.0
10	7.0
9	8.0
8	9.0
7	10.0

Multiply mph x 1.6 to obtain current speed in kilometers per hour (km/ h)

To estimate the total time until recovery can start (in hours):

1. Estimate: the time since the spill occurred
2. Add: the time required to mobilize personnel and equipment to a control point
3. Add: the time to set up

To estimate the distance that the spill has advanced downstream:

1. Take: total time in hours (estimated above)
2. Multiple by: oil slick velocity in mile/ hour

To estimate the location of the front of the oil spill:

1. Determine: location (mile) on stream where spill occurred
2. Subtract: distance (estimate above)
3. To Get: location (mile) of the oil slick when the recovery team is ready

3.5.4 Estimating Spill Volume

If possible the initial assessment should also include an estimate of the volume of oil spilled. Oil volumes can be estimated by multiplying the area of the slick by the average estimated thickness. See below figured for estimating slick thickness.

Appearance	Slick Thickness	Spill Volume
 Barely visible	0.05 µm	50 L/km ²
 Visible as silvery sheen	0.08 µm	80 L/km ²
 First trace of colours	0.15 µm	150 L/km ²
 Bright bands of colour	0.3 µm	300 L/km ²
 Colours begin to turn dull	1 µm	1,000 L/km ²
 Colours are much darker	2 µm	2,000 L/km ²

Early in a spill response, estimation of spill volume is required in order to:

- Report to agencies
- Determine liquid recovery requirements
- Determine personnel and equipment requirements
- Estimate disposal and interim storage requirements.

Some rapid methods to estimate spill size are:

- Transfer operations: Multiply the pumping rate by the elapsed time that the leak was in progress, plus the drainage volume of the line between the two closest valves or isolation points (volume loss = pump rate [bbls/ min] x elapsed time [min] + line contents [bbl])
- Tank overfills: Elapsed time multiplied by the pumping rate
- Visual assessment of the surface area and thickness (note that this method may yield unreliable results):
 - Interpretation of sheen color varies with different observers
 - Appearance of a slick varies depending upon amount of available sunlight, sea-state/turbulence, and viewing angle
 - Different products may behave differently, depending upon their properties.

4.0 SPILL CONTAINMENT AND RECOVERY

The containment of spilled oil will:

- Reduce the spread of slicks and their impacts beyond the property
- Reduce potential impacts to the surrounding environment
- Reduce potential economic impacts
- Maximize the thickness of floating slicks
- Maximize the effectiveness of mechanical countermeasures (i.e., skimmers and sorbents)

Where safety allows, every effort should be made to limit the quantity of released product into adjacent waterways:

- Conduct site assessment (see Section 3.1)
- Act quickly and carefully
- Activate the Emergency Shut Down (ESD) from the Control Centre
- Stop all pumps
- Close all valves
- Block potential escape points using sorbent booms

4.1 Initial Containment Actions

Initial containment actions will focus on utilizing containment on site in the most effective manner to:

- Prevent the oil from impacting water, thereby reduce the surface area and shoreline to be cleaned
- Concentrate the oil (when safe to do so), making physical recovery more efficient
- Limit the environmental impact to the immediate spill area.

Selection of the appropriate location and method will depend upon

- Length of time since the spill occurred
- Amount and type of spilled material
- Area of coverage
- Environmental factors such as wind speed and direction

4.2 Spill Mitigation Procedures

Failure	Procedure
Failure of Transfer Equipment	- Personnel safety is the first priority. Evacuate nonessential personnel or personnel at high risk. - Terminate transfer operations and close block valves. - Drain product into containment areas if possible. - Eliminate sources of vapor cloud ignition by shutting down all engines and motors.
Tank/ Cavern Overfill/ Failure	- Personnel safety is the first priority. Evacuate nonessential personnel or personnel at high risk. - Shut down or divert source of incoming flow to tank. - Transfer fluid to another tank with adequate storage capacity (if possible). - Shut down source of vapor cloud ignition by shutting down all engines and motors. - Ensure that dike discharge valves are closed. - Monitor containment area for leaks and potential capacity limitations. - Begin transferring spilled product to another tank as soon as possible.
Piping Rupture/ Leak (under pressure and no pressure)	- Personnel safety is the first priority. Evacuate nonessential personnel or personnel at high risk. - Shut down pumps. Close the closest block valves on each side of the rupture. - Drain the line back into contained areas (if possible). Alert nearby personnel of potential safety hazards. - Shut down source of vapor cloud ignition by shutting down all engines and motors. - If piping is leaking and under pressure, then relieve pressure by draining into a containment area or back to a tank (if possible). Then repair line according to established procedures.
Fire/ Explosion	- Personnel safety is the first priority. Evacuate nonessential personnel or personnel at risk of injury. - Notify local fire and police departments. - Attempt to extinguish fire if it is in incipient (early) stage. - Shut down transfer or pumping operation. Attempt to divert or stop flow of product to the hazardous area (if it can be done safely). - Eliminate sources of vapor cloud ignition shutting down all engines and motors. - Control fire before taking steps to contain spill.
Manifold Failure	- Personnel safety is the first priority. Evacuate nonessential personnel or personnel at high risk. - Terminate transfer operations immediately. - Isolate the damaged area by closing block valves on both sides of the leak/ rupture. - Shut down source of vapor cloud ignition by shutting down all engines and motors. - Drain fluids back into containment areas (if possible).

4.3 Spills to Land

The penetration of oil into soil depends on a number of factors, including:

- Oil viscosity
- Soil type, wetness, and permeability
- Ground temperature

Normally, the amount of oil in saturated soil will range from 0.1 to 0.3 gallons/ft³, however, the amount may exceed 0.4 gallons/ft³ in dry soils, i.e., beneath structures. Also, low viscosity oils will tend to penetrate deeply into coarse sediments. In homogenous soils, the deepest penetration will normally be located below pooled oil. In the event that oil reaches groundwater, the oil will typically move relatively slowly - typically 1.5 to 3 ft/day.

On impermeable ground, immediately block drain inlets, drain tiles, conduits, sewage systems, and pipe/cable ducts (limit the spread to waterways).

On permeable ground, pump out pooled oil as soon as possible to temporary storage and move contaminated soil to an impermeable surface (HDPE liner).

4.3.1 Interceptor/Trench

The construction of an interceptor/trench requires:

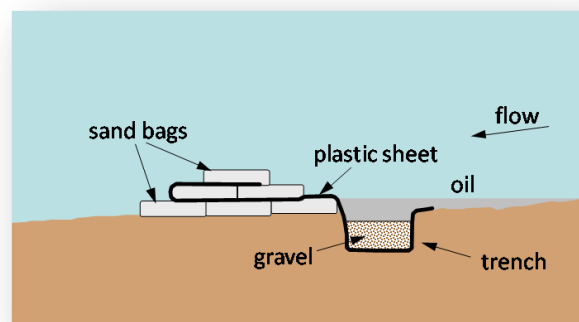
- Excavators/hand tools
- Wood planks (depending on soil type)
- Water pumps

Only use a trench if the water table is less than 10 ft. below ground. Dig the trench approximately 3 ft. below oil level, then reduce the water level in trench about 2 ft.



4.3.2 Trench/Berm

Berms can be built from sorbents, earth, or snow to block the spread of oil. Where time allows, an HDPE liner can be used to line a trench.



4.4 Open Water Containment

4.4.1 Open Water Booming

In cases where significant amounts of spilled oil enter a lake type environment, it might be necessary to attempt to contain free-floating oil in open water using the U, J or V-booming techniques. This activity will be conducted by NRCES.

4.4.2 U-Booming (Open Water Containment)

A single boom can be towed at a low speed (around 0.5 knots) allowing the oil to collect/concentrate in the apex of the boom. The collected oil can then be towed to a location where conditions allow the mechanical recovery of the oil.



4.4.3 J-Booming

A single boom can be towed at a low speed (around 0.5 knots) allowing the oil to collect/concentrate in the apex.

Once oil is collected, the second vessel drops back and deploys a skimmer into the thickest patches of oil.



4.4.4 V-Booming

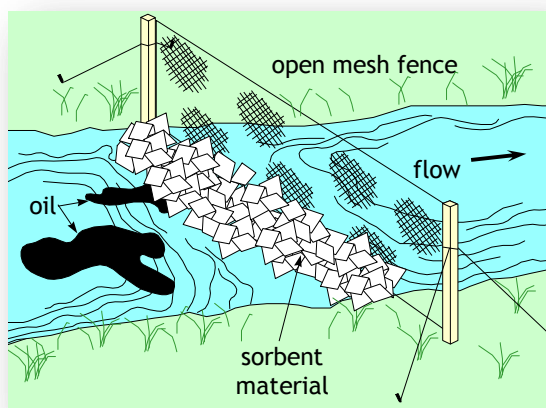
Two booms are towed at a low speed (around 1 knot) funneling the oil into the mouth of a skimming vessel.

Collected oil is then transferred to a barge or other floating oil storage device. The recovered product could then be transferred to slop oil tanks or to a vacuum truck.

4.5 Spills to Creeks and Rivers

4.5.1 Small Creeks

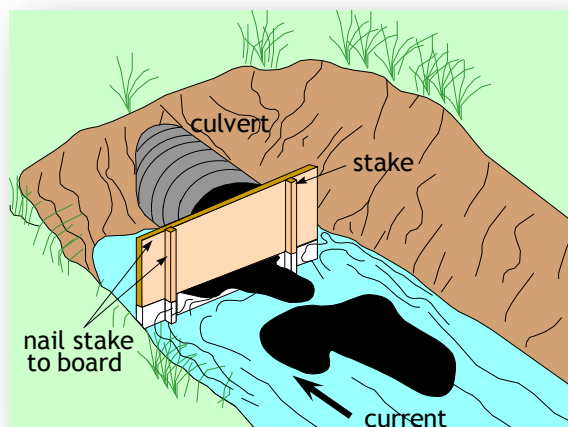
On spills to small (less than 0.5 ft/sec.) creeks, a board can be placed across the creek in order to block the surface flow. This technique will only work on very low velocity flow creeks.



Another option on slowly-flowing creeks and rivers (less than 0.5 ft/sec.) is a filter fence. Chicken wire, or open mesh fence material is placed across the waterway, and sorbent pads of booms are positioned against the fence. Sorbents should be monitored as once they water-wet, they will no longer absorb oil.

4.5.2 Ditches/Culverts

Spills into ditches can be blocked at culverts by placing a plywood board against the culvert opening. The plywood should be nailed to stakes to maintain its position. Also, care should be taken to ensure that the board does not block the water flow under the board into the culvert. The board can be repositioned vertically to reduce/increase the water flow under the board.



4.5.3 Inverted Weir Dam

On higher-flow creeks and rivers, angled pipes can be placed in sand bag or earthen dams to allow clean water to flow from the bottom (allowing floating oil to be blocked at the surface).

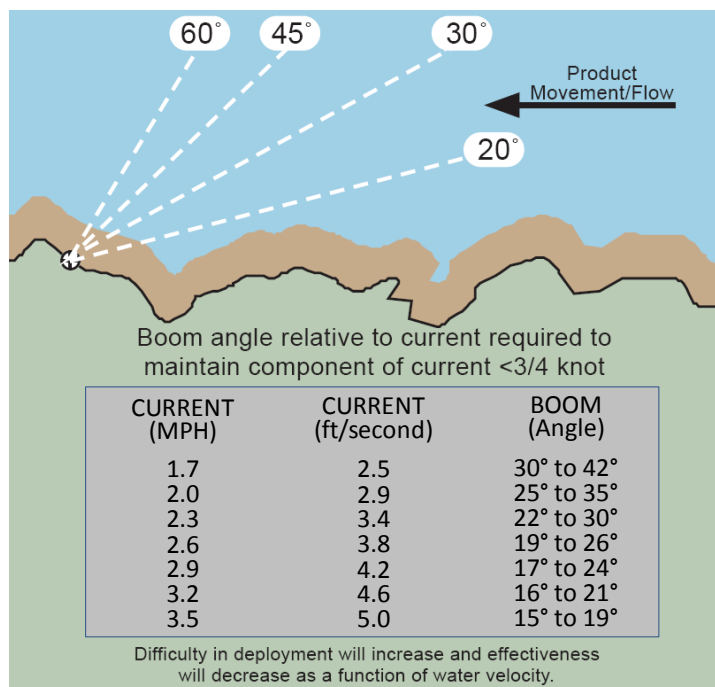


4.5.4 Deflection Booms

On fast-flowing rivers (exceeding 1 knot), booms should be angled in order to deflect floating oil towards shore. In some cases, it might be necessary to use multiple booms. When booming in rivers, take advantage of natural eddies and collection points.



4.5.5 Boom Angles in High Currents



4.6 Spills in Cold Weather

4.6.1 Oil Fate in Cold Weather

Cold weather will have a significant impact on the response. Loss of light ends (weathering) slows down at lower temperatures, which can offset some of the temperature effect on viscosity. The evaporation rate at 41°F is approximately 1/3 of what it is at 86°F. As a result, oils may remain amenable to treatment by recovery or burning for a longer period. Water is at or near its maximum density in near-freezing temperatures. Cold, viscous oil will spread slower providing additional time for response.

4.6.2 Spill Response

Frozen conditions can actually serve to facilitate recovery operations by providing a solid working platform over the oil and by creating natural barriers, which can be used to contain and immobilize oil. Downward-growing ice may quickly encapsulate oil under ice, additionally there may be many under-ice pockets where oil can accumulate in natural depressions, providing access for recovery.

Snow and ice can be used to contain oil. Snow is also an effective sorbent. Equipment such as pumps and hoses must be thoroughly dried after use to minimize residual water that can freeze, causing damage or limiting use.

Any available snow near a spill can be used by forming snow berms to help contain oil and minimize its spreading prior to removal by mechanical means.

4.6.3 Biological Issues in Cold Conditions

Biological recovery on shorelines may be slower, although many organisms grow well at near-freezing temperatures. Biodegradation is likely to stop if shorelines freeze solid. Also, vulnerable times for key sensitivities typically are shorter than in temperate settings. Therefore, planning protective strategies requires specialized teams, and tactics related to shoreline protection.

4.6.4 Trenches and Berms

In cases where spilled oil has pooled on snow and ice, efforts should be made to block the spread of oil using trenches and/or berms.

Where possible, trenches should be lined using a HDPE liner or ice layer, using a water spray.

4.6.5 Oil on Ice



Oil that has pooled on top of ice should be removed as soon as possible using Vac trucks or transfer pumps.



The transfer of highly-viscous weathered oil may be difficult, especially in cold temperatures. In this case,

steam-injected screw auger pumps should be used to transfer oil to temporary storage.

4.6.6 Oil Under Ice

Courtesy BCO

The containment and recovery of oil under ice involves numerous safety and operational issues. The combination of pre-planning and safe practices will increase the likelihood of success.

Ice safety will be assessed immediately prior to flooding and if weather conditions change during the flooding where personnel are required to be deployed on ice.

4.6.7 Ice Augering

On spills under lake ice, or where oil is trapped and/or migrating slowly, ice augering can be used to create pathways for the oil to float to the surface for removal.

4.6.8 Ice Trenching/Slotting

Where safety allows, ice trenching/slotting can be employed in flowing rivers to provide a means of allowing under ice oil to float to the surface for recovery.



Trenches should be angled relative to the water flow to reduce losses due to entrainment. Note that specialized equipment is required to cut trenches and is available in the OSCAR units in Canada.

4.7 Response Tactics for Shorelines

Kinder Morgan and all contractors/consultants will conduct shoreline assessments and clean-up through the appropriate method on a site-specific basis using pre-existing mapping of shorelines and Geographic Response plans, the North West Area Contingency Plan, overflights and SCAT teams. Shoreline protection and clean-up resources are available via Kinder Morgan's contract with NRCES and per Appendix W of the approved PRC application. Additionally Kinder Morgan can meet the requirements of WAC 173-182-510(2) and WAC 173-182-520 by utilizing environmental consultants Polaris and URS. The following table is a summary of shoreline types and response tactics.

Type of Shoreline	Recommended Cleanup Activity
Developed or unforested Land	May require high pressure spraying: - To remove oil. - To prepare substrate for recolonization of barnacle and oyster communities. - For aesthetic reasons.
Freshwater Flat	- These areas require high priority for protection against oil contamination - Cleanup of freshwater flats is nearly impossible because of soft substrate - Cleanup is usually not even considered because of the likelihood of mixing oil deeper into the sediments during clean up effort - Passive efforts such as sorbent boom can be used to retain oil as it is naturally removed.
Fresh marsh	- Marshes require the highest priority for shoreline protection. - Natural recovery is recommended when: - a small extent of marsh is affected. - as small amount of oil impacts the marsh fringe. - The preferred cleanup method is a combination of low-pressure flushing, sorption, and vacuum pumping performed from boats. - Any cleanup activities should be supervised closely to avoid excessive disturbances of the marsh surface or roots. - Oil wrack and other debris may be removed by hand.
Swamp	- No cleanup recommended under light conditions. - Under moderate to heavy accumulations to prevent chronic oil pollution of the surrounding areas placement sorbent along the fringe swamp forest may be effective under close scientific supervision. - Proper strategic boom placement may be highly effective in trapping large quantities of oil, thus reducing oil impact to interior swamp forests. - Oil trapped by boom can be reclaimed through the use of skimmers and vacuums.

4.8 Recovery

It is Kinder Morgan Canada's policy that, wherever possible, spilled oil be mechanically removed from the environment, using sorbents and/or oil skimmers.

4.8.1 Sorbents

On small spills, sorbent pads should be deployed into the thickest areas of the collected slicks. On heavy oil, the pads should be flipped over to maximize oil recovery. Oil-only pads will water-saturate if left in the water too long. Once pads are oil-soaked, they should be removed using pitch forks, pike poles or debris scoops. Care should be taken when recovering oiled sorbents, i.e., personnel should wear gloves, oil-resistance coveralls and splash goggles.

Sorbent booms can also be used, either to sweep oil within the contained area to increase the oil thickness or they can be positioned, as a liner, inside skirted booms.

Recovered sorbents should be placed in 6 mil poly bags, with the bag weight limited to 25 - 30 lbs. Bags should then be sealed and then double-bagged and placed in lined bins to avoid secondary contamination.



4.8.2 Skimmers

Where pooled oil is concentrated in sufficient quantities, mechanical skimmers should be used. This activity, would focus on areas where oil has collected, either in down-wind/current boom pockets or in near-shore boom pockets. Where possible, recovery efforts should be mounted where recovered oil could be stored temporarily on shore.



4.8.3 Cleanup Techniques – Removal

Technique	Description	Recommended Equipment	Applicability	Potential Environmental Impacts
Manual Removal	Hand tool (scrapers, wire brushes, shovels, cutting tools, wheel barrows, etc.) are used to scrape oil off surfaces or recover oiled sediments, vegetation, or debris where oil conditions are light or sporadic and/ or access is limited.	<u>Equipment</u> misc. hand tools <u>Personnel</u> 10-20 workers	- Can be used on all habitat types - Light to moderate oiling conditions for stranded oil or heavy oils that have formed semi-solid to solid masses - In areas where roosting or birthing animals cannot or should not be disturbed.	Sediment disturbance and erosion potential.
Mechanical Removal	Mechanical earthmoving equipment is used to remove oiled sediments and debris from heavily impacted areas with suitable access.	<u>Equipment</u> motor grader, backhoe, dump truck elevating scrapers <u>Personnel</u> 2-4 workers plus equipment operators	- On land, wherever surface sediments are accessible to heavy equipment - Large amounts of oiled materials.	Removes upper 2 to 12 inches of sediments.
Sorbent Use	Sorbents are applied manually to oil accumulations, coatings, sheens, etc. to remove and recover the oil.	<u>Equipment</u> misc. hand tools misc. sorbents <u>Personnel</u> 2-10 workers	- Can be used on all habitat types - Free-floating oil close to shore or stranded on shore, secondary treatment method after gross oil removal - Sensitive areas where access is restricted.	- Sediment disturbance and erosion potential - Trampling of vegetation and organisms - Foot traffic can work oil deeper into soft sediments.
Vacuum/ Pumps/ Skimmers	Pumps, vacuum trucks, skimmers are used to remove oil accumulations from land or relatively thick floating layers from the water.	<u>Equipment</u> 1-2 50- to 100-bbl vacuum trucks w/ hoses 1-2 nozzle screens or skimmer heads <u>Personnel</u> 2-6 workers plus truck operators	- Can be used on all habitat types - Stranded oil on the substrate - Shoreline access points.	- Typically does not remove all oil - Can remove some surface organisms, sediments, and vegetation.

4.8.4 Cleanup Techniques - Washing

Technique	Description	Recommended Equipment	Applicability	Potential Environmental Impacts
Flooding	High volumes of water at low pressure are used to flood the oiled area to float oil off and out of sediments and back into the water or to a containment area where it can be recovered. Frequently used with flushing.	Equipment 1-5 100- to 200-gpm pumping systems 1 100-ft perforated header hose per system 1-2 200-ft containment booms per system 1 oil recovery device per system Personnel 6-8 workers per system	- All shoreline types except steep intertidal areas - Heavily oiled areas where the oil is still fluid and adheres loosely to the substrate - Where oil has penetrated into gravel sediments - Used with other washing techniques.	- Can impact clean downgradient areas - Can displace some surface organisms if present - Sediments transported into water can affect water quality.
Flushing	Water streams at low to moderate pressure, and possibly elevated temperatures, are used to remove oil from surface or near-surface sediments through agitation and direct contact. Oil is flushed back into the water or a collection point for subsequent recovery. May also be used to flush out oil trapped by shoreline or aquatic vegetation.	Equipment 1-5 50- to 100-gpm/100-psi pumping systems with manifold 1-4 100-ft hoses and nozzles per system 1-2 200-ft containment booms per system 1 oil recovery device per system Personnel 8-10 workers per system	- Substrates, riprap, and solid man-made structures - Oil stranded onshore - Floating oil on shallow intertidal areas.	- Can impact clean downgradient areas - Will displace many surface organisms if present - Sediments transported into water can affect water quality - Hot water can be lethal to many organisms - Can increase oil penetration depth.
Spot (High Pressure Washing)	High pressure water streams are used to remove oil coatings from hard surfaces in small areas where flushing is ineffective. Oil is directed back into water or collection point for subsequent recovery.	Equipment 1-5 1,200- to 4,000-psi units with hose and spray wand 1-2 100-ft containment booms per unit 1 oil recovery device per unit Personnel 2-4 workers per unit	- Bedrock, man-made structures, and gravel substrates - When low-pressure flushing is not effective - Directed water jet can remove oil from hard to reach sites.	- Will remove most organisms if present - Can damage surface being cleaned - Can affect clean down gradient or nearby areas.

4.8.5 Cleanup Techniques – Dispersant

This checklist is intended to aid the Unified Commander (UC) in reaching a decision on whether the use of dispersants is the best course of action for potential or actual oil spill mitigation. It also provides a familiar listing of data to all Regional Response Team (RRT) members involved with the decision to allow the use of dispersants. The following sequence of events should normally be followed for an oil spill in which the UC wishes to use dispersants.

The decision to use dispersants must be made as soon as possible after a spill occurs before substantial weathering takes place or the oil has spread. Therefore, early in the spill response the UR should evaluate the potential use of dispersants. If the UC feels the potential for dispersant use exists, he/she should have their staff gather the information necessary to complete the dispersant checklist. He/she also should request RRT activation to prepare the RRT for review.

If upon completion of the dispersant checklist the UC decides the use of dispersants is the best course of action the checklist information should be passed to the RRT for final decision on its use.

The following steps should be utilized in deciding if the use of dispersants will be required. (An immediate threat to life which can be substantially lessened by the use of dispersants pre-empts the following matrix by the UC).

Dispersant applications in the region will be monitored as a general practice. The UC is responsible for designating monitors. The Pacific Strike Team may serve as monitors when available. There are two criteria suggested: required and desirable.

Compilation of Data	
(1) Spill data	
	(a) Circumstances (fire, grounding, collision, etc):
	(b) Time/Date of incident:
	(c) Type of oil product:
	(d) List bulk chemicals carried and their volumes:
	(e) Volume of product released:
	(f) Total potential of release:
	(g) Type of release (instantaneous, continuous, intermittent etc)
(2) Characteristics of the spilled oil	
	(a) Specific gravity:
	(b) Viscosity:
	(c) Pour point:
	(d) Volatility (flash point):
	(e) Relative toxicity:
(3) Weather and water condition/forecasts	
	(a) Air temperature, wind speed, direction:
	(b) Tide and current information:
	(c) Sea conditions:
	(d) Water temperature and salinity:
	(e) Water depth and depth of mixed layer:
(4) Trajectory information	
	(a) 48 hour oil trajectory forecast:
	1. Surface area slick:
	2. Expected areas of landfall:
	(b) 48-hour dispersed oil trajectory forecast:

Compilation of Data			
	1. Oil movement in water column:		
	2. Surface oil movement in water column:		
	3. Concentrate of dispersant/oil mixture in water column:		
(5) Characteristics of available dispersants			
	(a) Characteristics of available dispersants		
	Product 1	Product 2	Product 3
	1. Name		
	2. Manufacturer		
	3. When available		
	4. Location(s)		
	5. Amount available		
	6. Type of containers		
	7. Characteristics		
	a. Toxicity		
	b. Effectiveness		
	c. Reactions		
	d. Applicability to spilled oil		
	e. Other		
	8. Application methods		
	9. Miscellaneous		
	(b) Type of transportation and dispersing equipment:		
	Company 1	Company 2	Company 3
	1. Name		
	2. Location		
	3. Time to arrive		
	4. Equipment available		
	5. Other		
(6) Info about available dispersant and dispersing equipment			
	(a) Name of proposed dispersant on EPA and State acceptance lists:		
	(b) Type: (self-mix, concentrate, etc)		
	(c) Proposed application methods and rates:		
	(d) Efficiency under existing conditions: (% dispersed and volume dispersed)		
	(e) Location of the area to be treated:		
	(f) Surface area of slick treatable in scheduled time period:		
	(g) Estimated time interval between dispersant application and sensitive environments/resources:		
(7) Comparison of effectiveness of conventional cleanup methods vs. the use of dispersants:			
	(a) Containment at the source:		
	(b) Shoreline protection strategies:		
	(c) Shoreline cleanup strategies:		
	(d) Time necessary to execute response:		
(8) Habitats and resources at risk			
	(a) Shoreline habitat type and rea of impact:		
	Dispersant treated spill	Untreated spill	
	1.		
	2.		
	3.		

Dispersant Monitoring	
Required	
(1) Records	
	(a) Dispersant brand
	(b) Equipment and methods used in application
	(c) Dilution of dispersant prior to application, if any
	(d) Rate of application (gallons per acre, dispersant to oil ratio)
	(e) Times and area of application
	(f) Tracts of vessels or aircraft during application
	(g) Wind and wave conditions during application
Effectiveness: Visual and photographic documentation, by qualified observers of:	
	(a) Oil before and after dispersant application and
	(b) Re-surfacing of dispersed oil.
Environmental Impacts: Visual and photographic surveys of:	
	(a) The extent of shoreline impact by dispersed and undispersed oil
	(b) Mortality or abnormal behavior by fish, birds or mammals.
Desirable	
(1) Effectiveness: Sampling of the water beneath the oil slick and the oil and dispersant combination to determine the level of petroleum hydrocarbons in the water. This sampling could include "in-situ" measurements or sample collection for layer analysis.	
(2) Environmental impacts:	
	(a) Comparison of shoreline areas impacted by oil and oil and dispersant mixtures
	(b) Analysis of oil concentrations in sediments under dispersed oil
	(c) Investigation of water column organisms for signs of adverse impacts due to dispersed oil
	(d) Collection and analysis of birds affected by dispersants or dispersants and oil mixtures.

4.8.6 Cleanup Techniques – In-Situ Treatment

Technique	Description	Recommended Equipment	Applicability	Potential Environmental Impacts
Sediment Tilling	Mechanical equipment or hand tools are used to till lightly to moderately oiled surface sediments to maximize natural degradation processes.	Equipment 1 tractor fitted with tines, dicer, ripper blades, etc. or 1-4 rototillers or 1 set of hand tools Personnel 2-10 workers	- Any sedimentary substrate that can support heavy equipment - Sand and gravel beaches with subsurface oil - Where sediment is stained or lightly oiled - Where oil is stranded above normal high waterline.	- Significant amounts of oil can remain on the shoreline for extended periods of time - Disturbs surface sediments and organisms.
In Situ Bioremediation	Fertilizer is applied to lightly to moderately oiled areas to enhance microbial growth and subsequent biodegradation of oil.	Equipment 1-2 fertilizer applicators 1 tilling device if required Personnel 2-4 workers	Any shoreline habitat type where nutrients are deficient Moderate to heavily oiled substrates After other techniques have been used to remove free product on lightly oiled shorelines Where other techniques are destructive or ineffective.	- Significant amounts of oil can remain on the shoreline for extended periods of time - Can disturb surface sediments and organisms.
Log/ Debris Burning	Oiled logs, driftwood, vegetation, and debris are burned to minimize material handling and disposal requirements. Material should be stacked in tall piles and fans used to ensure a hot, clean burn.	Equipment 1 set of fire control equipment 2-4 fans 1 supply of combustion promoter Personnel 2-4 workers	- On most habitats except dry muddy substrates where heat may impact the biological productivity of the habitat - Where heavily oiled items are difficult or impossible to move - Many potential applications on ice.	- Heat may impact local near-surface organisms - Substantial smoke may be generated - Heat may impact adjacent vegetation.
Natural Recovery	No action is taken and oil is allowed to degrade naturally.	None required	- All habitat types - When natural removal rates are fast - Oiling is light - Access is severely restricted or dangerous to cleanup crews - When cleanup actions will do more harm than natural removal.	- Oil may persist for significant periods of time - Remobilized oil or sheens may impact other areas - Higher probability of impacting wildlife.

4.8.7 Cleanup Techniques - Decanting

Large quantities of oily fluids can be generated during an oil spill response. These fluids include the products of skimming and vacuuming operations, and usually contain some amount of water. Oil recovery operations can only continue as long as there is place to store the recovered fluids, as such when the field storage capacity is reached, skimming/recovery operations must then cease until additional storage is available.

Decanting is an option for increasing on-site storage capacity by removing the water once the liquids have separated. Separation may occur through the use of on-site vacuum trucks equipped with separator equipment or by allowing the collected fluids to sit in a quiescent state long enough to separate. The separated water can then be siphoned out back to the collection point thus freeing up storage capacity.

The criteria for decanting are outlined below:

- All equipment intended for use in a decanting operation should be inspected to insure that it contains no harmful chemicals from prior use, and cleaned if necessary;
- All decanting should be done in a designated response area within a collection area, skimmer collection well, recovery belt, weir area, or directly in front of a recovery system
- Vessels or operations employing booms with skimmer in the apex of the boom should decant forward of the skimmer;
- All vessels, motor vehicles and other equipment not equipped with an oil/water separator should allow adequate retention time for oil held in internal or portable tanks before decanting commences
- A containment boom should be deployed around the collection area to minimize potential loss of decanted oil;
- Visual monitoring of the decanting area shall be maintained so that discharge of oil in the decanted water is detected promptly; and
- Records of volumes of oily water processes and oil recovered should be maintained

NOTE: Decanting requires regulatory approval.

4.9 Credit for Oil Recovery

If oil is spilled into Washington State waters Kinder Morgan may receive credit for oil that has been recovered. Please see the following pages with information on how to receive this credit and the process of applying for the credit.



Washington Oil Spill Compensation Schedule

Credit for Oil Recovery

From Ecology's Spill Prevention, Preparedness, and Response Program

If you spill oil into state waters, you can receive credit for any oil you recover, IF you follow these guidelines. The volume of oil you recover can directly and significantly affect the amount of the Resource Damage Assessment (RDA) claim made against you. Following these guidelines will make estimating the volume of oil recovered generally simple and cost effective, even for small spills.

- 1) Weighing is the easiest and least expensive method for determining the volume of oil recovered in absorbent material. Keep an accurate record of the size and number of each type of absorbent materials used because you must be able to determine how much the material weighed before it absorbed the oil. For recovery credit purposes, you do not need to extract the oil from the absorbent material by compression (squeezing) or washing.
- 2) Place oiled absorbent material in doubled plastic bags so the recovered oil does not leak out or evaporate. Keep absorbent material (pads, sweeps, booms, etc.) separate from other material (garbage, PPE, oiled debris, etc.).
- 3) Keep track of the length of time the absorbent materials are left in the water. This will help to estimate the amount of water absorbed.
- 4) Keep the water content as low as possible by allowing surface water to drain off absorbent material before placing it in the bags. Keep the bags closed as much as possible when working in the rain. Close lids on dumpsters to keep out rainwater.
- 5) In order to receive recovery credit, the oil must be recovered within 24 hours of the time oil first spills into state waters. Keep oil recovered within the first 24 hours separate from oil recovered after that time.
- 6) You cannot receive credit for oil recovered from areas other than water, such as soil, vegetation, road surfaces, ship decks, etc. Keep oil recovered from water separate from oil recovered from other areas.
- 7) Store primary and secondary recovery liquids separately. (See attached guidelines for definitions).
- 8) Do not collect or store recovered oil in tanks or vacuum trucks containing oil from other sources. Do not put oil from other sources into tanks or vacuum trucks containing recovered oil.
- 9) Oil collected in tanks or vacuum trucks must be allowed to physically separate from any water. The recovered oil volume must be derived using volumetric methods. You cannot use an estimate of the percent of oil in a tank or truck to derive recovery volume.

Washington Oil Spill Compensation Schedule Credit for Oil Recovery

RDA COMMITTEE RESOLUTION 96-1.1

Adopted May 8, 1996 (Revised May 12, 2004)

Intent: The RDA Committee recognizes that early containment and recovery of oil from the environment directly reduces the expected natural resource injuries caused by a spill. In order to acknowledge this fact in the compensation schedule, the RDA Committee developed the following credit provision. The credit reflects the direct avoidance of persistence effects, and likely reduction in mechanical effects, of each gallon of oil **recovered from the water within 24 hours of the time oil first spills into state waters**. The credit also recognizes that the acute impacts of oil in the water column begin immediately and are not sufficiently avoided even by rapid recovery efforts to warrant reduction under the compensation schedule.

Relationship to Other Resolutions: This resolution supersedes Resolution 95-1.

Credit Provision: Formula A shown below shall be used in compensation schedule applications to provide credit for the volume of spilled oil recovered from the water by responders within 24 hours, for any incident which meets the following criteria:

- 1) Recovered oil is stored and measured in accordance with the attached guidance document, and recorded on the attached data sheet;
- 2) Oil spilled to water is contained and recovered inside primary containment and within 1,000 feet of either the spill source or the point where the oil first enters state waters (Primary Recovery Liquids).

Formula A: Pursuant to the calculation of damages under WAC 173-183-830(3), WAC 173-183-840(2), WAC 173-183-850(2), and WAC 173-183-860(2), the mechanical injury and persistence components shall be multiplied by the difference between the spill-to-water volume and the total volume of oil recovered from the water by spill responders within 24 hours, such that:

$$\text{Damages}(\$) = \text{Scaling coefficient} * [(SVS_{at} * Oil_{at} * \text{Spill to water volume}) + (SVS_{mi} * Oil_{mi} * \{ \text{Spill to water volume} - \text{Total 24 hour recovery volume} \}) + (SVS_{per} * Oil_{per} * \{ \text{Spill to water volume} - \text{Total 24 hour recovery volume} \})]$$

If criterion 1 above is met but criterion 2 is not, Formula B shall be used to provide credit for the volume of spilled oil contained and recovered inside primary containment (Primary Recovery Liquids), which is applied to the Mechanical Injury portion of the calculation. The volume of any other oil recovered from the water within 24 hours (Secondary Recovery Liquids) is added to the Primary Recovery Liquids volume and credit for the total volume recovered from the water is applied to the Persistence portion of the calculation.

Formula B: Pursuant to the calculation of damages under WAC 173-183-830(3), WAC 173-183-840(2), WAC 173-183-850(2), and WAC 173-183-860(2), the mechanical injury component shall be multiplied by the difference between the spill to water volume and the Primary Recovery Liquids volume, and the persistence component shall be multiplied by the difference between the spill volume to water and the total volume of oil recovered by spill responders within 24 hours of the time oil first spills into state waters (Primary Recovery Liquids plus Secondary Recovery Liquids), such that:

$$\text{Damages}(\$) = \text{Scaling coefficient} * [(SVS_{at} * Oil_{at} * \text{Spill to water volume}) + (SVS_{mi} * Oil_{mi} * \{ \text{Spill to water volume} - \text{Primary Recovery Volume} \}) + (SVS_{per} * Oil_{per} * \{ \text{Spill to water volume} - \text{Total 24 hour recovery volume} \})]$$

This provision applies to all compensation schedule applications which occur after the adoption date of this resolution. Criterion 1 does not apply to spills for which the preassessment screening occurred before the adoption date of this resolution.

Washington Oil Spill Compensation Schedule Credit for Oil Recovery GUIDELINES

The following guidelines define how recovered oil must be handled, stored, and measured in order to receive credit under the Oil Spill Compensation Schedule. Given the scope of this credit, the guidelines focus on oil and oil-water mixtures recovered within 24 hours of the time oil first enters state waters. The state on-scene coordinator must confirm on the attached documentation form that these guidelines were met.

1. Definitions

- Primary recovery liquids: Oil and oil-water mixes recovered from the water inside the primary containment boom, and within 1,000 feet of either the spill source or the point where oil first spills into state waters, within 24 hours of the time oil first enters state waters.
- Secondary recovery liquids: Any other oil and oil-water mixes recovered from the water within 24 hours of the time oil first enters state waters.

2. General Guidelines

- The volume of primary recovery liquids and secondary recovery liquids shall be measured and recorded on the attached data form. Measurements must be reviewed and accepted by the state/federal OSC or their designee. Primary recovery liquids and secondary recovery liquids shall each be stored separately from each other and from all other materials collected during the spill response (such as oil recovered directly from the spill source) until such time that these measurements are completed.
- Primary and secondary recovery liquids should be stored in containers which have been verified as empty. If it is necessary to use a storage container which already contains water and/or petroleum products, the contents of that container must be identified and properly measured prior to the addition of primary or secondary recovery liquids.

3. Measurement Guidelines – Skimmers/Vacuum Trucks

- The volume of primary and secondary recovery liquids recovered by skimmers and vacuum trucks must be derived from volumetric methods rather than from estimates of removal performance.
- The percentage of oil contained in oil-water mixtures (including emulsions) recovered from the water shall not be measured until debris has been removed and the components have been allowed to physically separate.

4. Measurement Guidelines – Sorbents (boom, pads, etc.) and other oiled materials

- The volume of primary and secondary recovery liquids recovered from sorbents and other oiled materials must be derived from one of the following methods rather than from estimates of removal performance:
 1. **Volumetric:** Liquid shall be extracted from materials by compression or washing. The recovered oil-water mixture shall be measured as described above for skimmers/vacuum trucks.
 2. **Gravimetric:** Weighing of sorbents and other oiled materials shall take into account the pre-oiled weight of the material itself, any absorbed water, and accumulated debris. Density of the recovered oil shall be measured and used to convert the weight of the oil component into a volume.

Rather than measuring all applicable recovered sorbents and other oiled materials, representative sampling and statistical analysis may be used to estimate the volume of primary and secondary recovery liquids if that analysis meets the attached criteria.

Sampling and statistical analysis of recovered sorbents and other oiled materials

Measurement of each and every sorbent recovered during the first 24 hours is often infeasible for larger spills. In such cases, measuring a representative sample of oiled materials is the most effective way to estimate the total recovery. Unfortunately, many sampling and statistical analysis methods - some quite complex - could apply to this effort. Each requires assuming or knowing certain things about the total population of oiled materials from which representative samples are being drawn. For example, does the population follow a normal distribution? How much variance is expected? These attributes will largely be unknown and vary among spills. As a result, it is not practical to provide a “cookbook” approach to collecting and analyzing sample data for oil recovery. In fact, it is difficult to even prescribe acceptable margins of error. Therefore, the below guidelines simply set forth some basic sampling and analysis principles designed to control sampling error and avoid highly complex statistical analyses which would require extensive review. The responsible party must determine which sampling methods, sample sizes, and data analysis methods are most appropriate and provide written justification for those decisions. If a spill presents unusual or complex sampling issues, the responsible party is encouraged to seek approval of a sampling and analysis plan from Ecology staff before beginning to collect data.

Sampling

- Sample sets should be unbiased and representative of the total population. For example, sampling should be random without replacement and represent materials recovered during the entire first 24 hours of the spill event. The responsible party shall document in writing how they determined that the sample sets are unbiased representations of the total population.
- Sample sets should only be composed of like materials. For example, sorbent pad data should be collected and analyzed separately from sorbent boom data.

Two sample sets should be collected for each type of oiled material. The responsible party should determine the most appropriate test for determining sample size and justify that test in writing (e.g., citation of an equation from an acknowledged authority). At a minimum, the sample size for each set should be equal and large enough to be 80% certain (i.e., power $[1-\beta] = 0.80$) of detecting no greater than a 5% difference between the two sample means at the 5% level of significance (i.e., $\alpha = 0.05$). Most general statistics textbooks include equations for estimating required sample sizes, many using an iterative process and involving an estimation of expected variance. If an equation requires estimation of an expected variance or coefficient of variation, the estimate should be appropriate for the oil type, recovery material, and environmental conditions involved.

Analysis

- The total number of units in the population being sampled should be counted (an estimate may be acceptable under certain conditions if justified in writing).
- Once a sufficient sample size has been achieved, a mean volume of primary or secondary recovery liquids per unit of oiled material (e.g., # of gallons per sorbent pad) should be calculated for each sample set. The average of the two mean volumes should then be multiplied by the total number of units in the population in order to extrapolate the total recovery volume.
- Analysis of sampling data should result in an exact recovery volume as well as a range of volumes based on standard deviations from the mean.



Washington Oil Spill Compensation Schedule Credit for Oil Recovery

Recovered Oil Data Form

From Ecology's Spill Prevention, Preparedness, and Response Program

Spill Date: _____ Spill Source: _____

Total gallons spilled (current estimate) _____ Oil Type (one per page): _____

Where was recovered oil stored³:

Total gallons oil & water recovered from water:

Total gallons of water separated from recovered mixture:

Total gallons of oil recovered:

Where was recovered oil stored³:

Volumetric: Total gallons oil & water collected:

Total gallons of water separated from recovered mixture:

Total gallons of oil collected⁴:

Gravimetric: Total weight of oiled materials:

Total weight of pre-oiled materials, water, and debris:

Total weight of recovered oil:

Density of recovered oil:

Total gallons of oil collected⁴:

Total Recovered Oil (Gallons)

Skimmer & Vacuum Truck Recovery

Primary Recovery
Liquids¹

Secondary Recovery
Liquids²

Sorbents & Other Oiled Materials

Primary Recovery
Liquids¹

Secondary Recovery
Liquids²

¹ Oil and oil-water mixes recovered from the water inside the primary containment boom, and within 1,000 feet of either the spill source or the point where oil first spills into state waters, within 24 hours of the time oil first enters state waters.

² Any other oil and oil-water mixes recovered from the water within 24 hours of the time oil first enters state waters.

³ If not stored in empty container, record types/quantity of existing container contents (attach pages as needed).

⁴ If calculated using samples and statistical analysis, attach documentation.

Preparer's Name: _____ Organization: _____

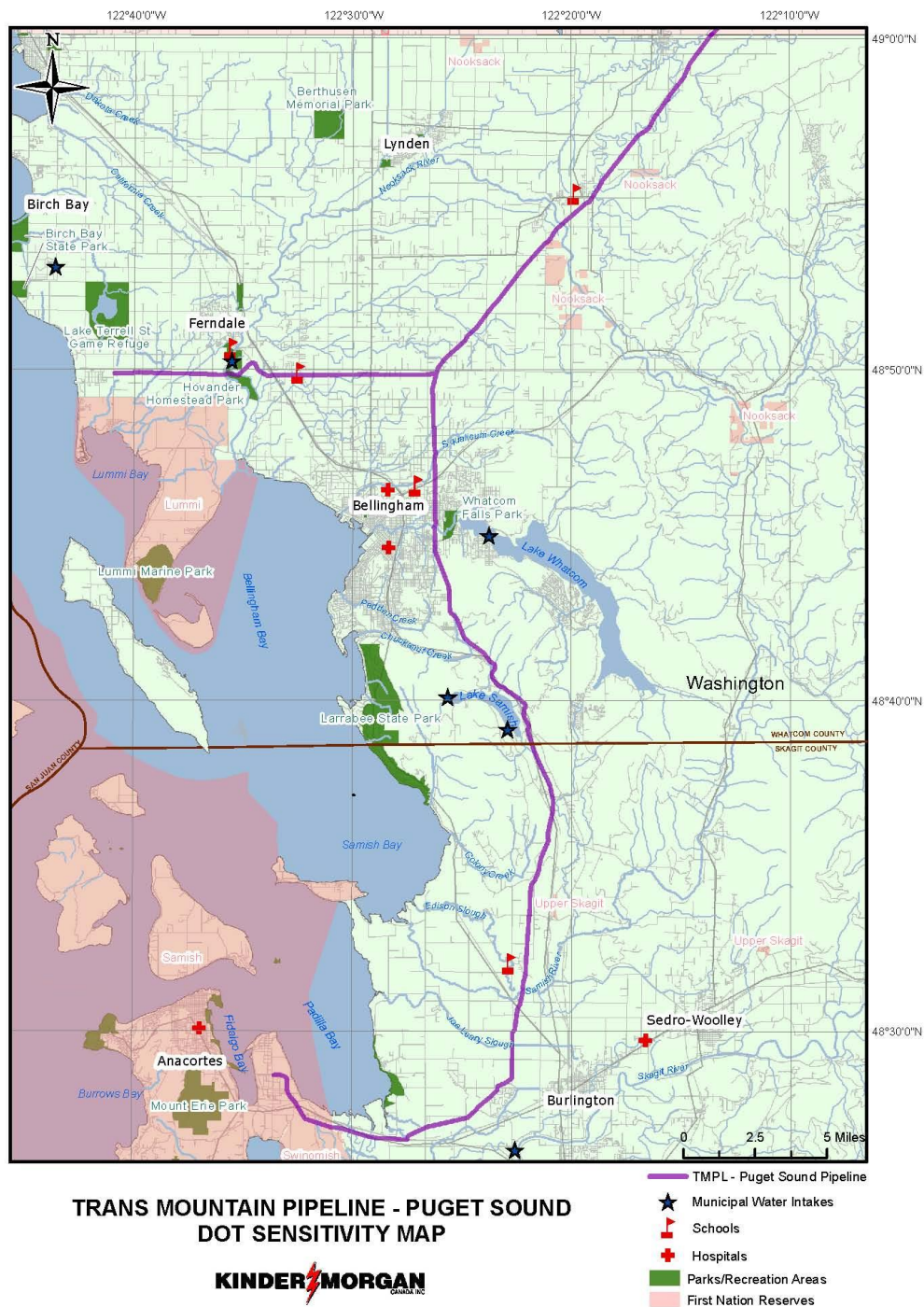
I attest that the above information is accurate to my best knowledge: _____
(signature)

I accept the above information: _____
(signature of state OSC) (date)

If you require this document in alternative format, please contact the Spills Program at (360) 407-7455 (Voice) or (TTY) at 711 or 1-800-833-6388.

5.0 PROTECTION OF SENSITIVE AREAS

Where safety allows, various techniques can be used to protect sensitive areas. Careful consideration of the oil and shoreline types must be given before decisions are made. This will be done through the Environmental Unit with oversight by Federal and/or State Regulatory Agencies. The following map identifies Department of Transportation sensitivities such as Municipal Water Intakes, Schools, Hospitals, Parks, Recreation Areas and First Nation Reserves.



5.1 Area Description

There are environmentally and economically important sites in the vicinity of this pipeline. During a spill event the presence or absence of cultural resources is determined by the Environmental Unit. Regulatory agencies will assist with the identifying of any cultural resources at risk from spills at the time of a spill event.

The marine and estuarine waters within the San Juan Islands and Puget Sound are among the most biologically rich and sensitive areas of the State of Washington. A wide diversity of shoreline and marine habitats (estuaries, rocks, reefs and islands), abundant food resources and exceptional water quality all contribute to making this area especially valuable to wildlife.

This region contains a number of small to medium-sized seabird nesting colonies, a multitude of marine mammal breeding and resting sites, rearing and feeding habitat for marine fish and one of the most impressive arrays of marine invertebrates in the world. The region is also a temporary home to many species of marine birds and mammals that are seasonal residents or pass through the area during migration. Flight restriction zones exist in the area to protect sensitive wildlife species.

In addition to this manual there is a Field Handbook and Control Points Manual which identifies control points and access points to water bodies for equipment deployment to prevent migration of oil downstream. In Sections 9 and 10 there is additional information in regards to available equipment. Section 13 has additional information for Wildlife Operations.

5.1.1 Marine Mammals

Common species of whales and dolphins found within the area include gray whale, orca, Dall's porpoise and harbor porpoise. In addition, the harbor seal is a permanent resident of the area. Three additional species occur as regular seasonal residents or migrants: the Steller sea lion, California sea lion and the northern elephant seal. Although relatively few Steller sea lions are found in this area, this species is of special concern because it is listed as a 'State Threatened Species'. This region also supports a large population of river otters which are largely marine in their habits.

The islands, nearshore rocks and beaches of the region provide pupping and resting sites for harbor seals. The largest concentrations are found in the vicinity of Boundary Bay and Padilla Bay. Other smaller sites are scattered throughout the entire area. Nearshore waters are also used as feeding areas by seals, seal lions, gray whales, harbor porpoise and river otters.

5.1.2 Birds

Many species of marine birds and shorebirds are either residents or seasonal visitors with this area. Much of the seabird nesting is scattered throughout the region on offshore rocks, exposed rocky coasts or on pilings.

Bald eagles and peregrine falcons nest in the area and are closely associated with the marine ecosystem because of their feeding habits and choice of resting sites. These birds are either listed as threatened or endangered and are therefore of particular concern. This area hosts a large wintering population of bald eagles.

Marbled murrelets are unique among the area's seabirds because they nest inland in old-growth forests, yet spend much of their time feeding and resting on marine waters in the nearshore environment. This species is of special concern since it's been shown to be highly vulnerable to oil spills and gillnet entanglement and is listed as a threatened species.

In addition to supporting a wide variety of resident birds, Puget Sound is recognized as one of the most important waterfowl wintering areas on the Pacific Flyway for waterfowl. This area has been identified as a key component in the North American waterfowl plan.

5.1.3 Bird Colonies

Most of these species follow the coast during their southward movement, many species winter around these bays, while others stop briefly to rest and feed before continuing their migration to Southern California, Mexico, Central America or South America. During fall and spring migration, as well as winter, large populations of shorebirds and waterfowl inhabit nearshore areas. Consequently in the event of a spill, certain protective measures may be required to minimize the effect on waterbirds. For example, during a critical spill situation, initial efforts should attempt to repel birds from the site with equipment such as bird canons. Depending on the species involved, some repelling devices will successfully deter individuals from the affected area while others will be ineffective.

Subsequent efforts can be reorganized on the basis of these results. The degree of effectiveness decreases as birds become accustomed to the sound system, this process is referred to as habitation. Activities such as people, boats and machinery usually are the most effective deterrents.

5.1.4 Eelgrass

Eelgrass meadows in protected bays provide food source for variety of species within the marine food chain. Additionally, it provides habitat and protection and acts as a nursery for many marine species. In the event of an oil spill near eelgrass meadows, protective measures should be implemented to reduce the impact.

Measures such as booms may be effective when conditions permit deployment. If placed from shore, minimize trampling and dragging equipment over the habitat. Dispersants may be applied in deeper water where dilution will be rapid. If applied in shallow water, use only in areas with adequate flushing from tidal or wave action. If applied directly over seagrass beds, dispersed oil may impact seagrass and organisms associated with seagrass beds. Herding agents may be used between the oil and shoreline.

For cleanup, natural cleansing is still preferable to most cleanup methods. Manual removal results in the removal of sediments and organisms and should be used in the 'wade zone' only. Trampling and dragging of equipment over the habitat should be minimized.

Substrate removal may delay or prevent re-establishment of the original ecosystem and vacuum pumping may result in the removal of organisms and sediment. Both methods are not advisable. In intertidal area, low pressure flushing may be viable. Vegetation cropping should be avoided since it modifies the habitat and may kill important habitat plants.

5.1.5 Inlets, Intakes, Harbors and Marinas

Inlet, intakes, harbors and marinas are inhabited by a variety of fish, invertebrates and waterbirds that would be at risk if an oil spill occurs near any of these facilities. Marinas have a great potential for public exposure to hazards and damage claims and should be boomed to exclude oil. Intakes for commercial, industrial and municipal water usage areas are subject to impact due to safety hazards, loss of use and damage claims. Protective measures could include exclusionary booming to prevent or exclude oil from entering these areas. Many of the entrances or channels have tidal currents exceeding 1 knot in the opening. In these cases, booms should be deployed landward from the entrance in quiescent areas. Booms should be placed at an angle to the current to guide oil to an area where it can be recovered.

The deployment of a second boom behind the first may be desirable to contain any oil that escaped under the primary boom.

Diversion booming should be used where the water current in an area greater than 1 knot or if the areas are too large to boom with available supplies. Diversion booms are deployed at an angle from the shoreline closest to the leading edge of the approaching oil slick to deflect oil towards shore, where pickup of pooled oil is more effective.

Since the area is predominantly environmentally sensitive, recommended response strategies are to attempt to limit the extent of shoreline fouling and to limit the area covered by the slick to the maximum extent possible. Since oil is the primary product handled, containment booming operations will be initiated. In addition, shoreline protection boom may be utilized in an attempt to prevent fouling of shorelines.

It is also important to recognize that while certain immediate environment protection response strategies must be planned for in advance, the ongoing protection and cleanup during a major spill would involve professional input from the company's oil spill advisors and the Federal and State On-Scene Coordinators.

5.1.6 Recreational Areas

Publicly accessible recreation areas generally have good water/shoreline access for logistical purposes.

5.1.7 Salmon and other Spawning Streams

Numerous streams throughout the area have been identified as environmentally sensitive due to the presence of spawning areas for salmon and other species.

The following factors are detrimental to spawning fishes, their nests and eggs:

- Changes in water temperature
- Increased siltation or turbidity
- Increased amount of dissolved gases in the water column
- Physical destruction of habitat by personnel and/or equipment.

To reduce the impact of an oil spill and response activities to streams identified as spawning habitat, the following steps would be taken:

- Attempt to contain spilled product as far upstream of spawning areas as possible
- Minimize or eliminate the use of overflow dams
- Minimize the number of personnel working at each response site
- Minimize use of heavy equipment at each response site
- Eliminate warm/hot water flushing tactics at response sites.

5.2 Spill Containment and Recovery

Containment and recovery refer to techniques that can be employed to contain and recover terrestrial and aquatic petroleum spills.

Terrestrial spills typically result from pipeline or tank leaks. The company is equipped with secondary containment systems for areas with no-pressurized breakout tanks. Spills occurring within the

secondary containment area or along the pipeline areas should be contained at or near their source to minimize the size of the cleanup area and quantity of soil affected.

Containment is most effective when conducted near the source of the spill, where the oil has not spread over a large area and the contained oil is of sufficient thickness to allow effective recovery and/or cleanup. The feasibility of effectively implementing containment and recovery techniques is generally dependent upon the size of the spill, available logistical resources, implementation time and environmental conditions or nature of the terrain in the spill area.

For terrestrial spills, trenches and earthen berms or other dams are most often used to contain oil migration on the ground service. Recovery of free oil is best achieved by using pumps, vacuum sources and/or sorbents.

Spills that reach water spread faster than those on land. They also have greater potential to contaminate water supplies, to affect wildlife and populated areas and to impact manmade structures and human activities. Responses on water should therefore emphasize stopping the spill, containing the oil near its source and protecting sensitive areas before they are impacted.

Sorbents are used to remove minor on water spills. For larger spills, booming is used to protect sensitive areas and to position oil so it can be removed with skimmers or vacuum trucks.

5.3 Booming Techniques

5.3.1 Exclusion Booming

Description

Boom is deployed across or around sensitive areas and anchored in place. Approaching oil is deflected or contained by boom.

Primary Uses

This method is often used across small bays, harbor entrances, inlets, river, and creek mouths with currents less than 1 knot (0.5 m/s) and breaking waves of less than 1.5 ft (0.5 m) high.

Environmental Effects

Typically, effects are limited to minor disturbance to substrate at shoreline anchor points.



5.3.2 Deflection Booming



Description

Boom is deployed at an angle to the approaching slick. Oil is diverted away from the sensitive area to a less sensitive location for recovery.

Primary Uses

Angle across small bays, harbor entrances, inlets, river and creek mouths with currents exceeding 1 kt (0.5 m/s) and breaking waves

of less than 1.5 ft (0.5 m). On straight coastline areas to protect specific sites, where breaking waves are less than 1.5 ft (0.5 m).

Environmental Effects

Typically, effects are limited to minor disturbance to substrate at shoreline anchor points, however, diverted oil may cause shoreline oil contamination down-wind and down-current. A Net Benefit Analysis should be conducted to determine if deflection booming should be conducted.

5.3.3 Along-Shore Booming

Description

Boom is positioned along the shoreline to provide a barrier to floating oil. Oil is diverted away from the sensitive area to a less-sensitive location for recovery. Along-shore booming might be difficult during a falling tide because constant attention is required to ensure the boom doesn't strand.



Primary Uses

This technique can be used in quiet areas with breaking waves of less than 1 ft (0.3 m).

Environmental Effects

Typically, effects are limited to possible shoreline oil contamination down-wind and down-current.

5.3.4 Shore-Seal Booming

Description

Specially-designed, shore-sealing boom is positioned in the inter-tidal zone to deflect oil.

Primary Uses

This technique can be used in a wide range of substrates, but is most often used on mud and sand flats.

Environmental Effects

Typically, effects are limited to minor disturbance to substrate at shoreline anchor points.



5.3.5 Use of Passive Sorbents

Description

Sorbents are positioned in the swash zone to absorb incoming oil.

Primary Uses

This technique can be used in a wide range of low-slope substrates. Pom-Poms normally work best on heavier, weathered crude oil, while sorbent rolls work best on lighter, fresher crudes.



Environmental Effects

The environmental effects of passive sorbents are typically limited to the minor disturbance to the substrate.

5.4 Spill Movement Estimates

Watercourse	Normal Seasonal Minimum Flow Rate (miles/hour)	Normal Seasonal Maximum Flow Rate(miles/hour)	Maximum Velocity Above Normal (miles/hour)
Chuckanut Creek	0.5	1.7	2.3
Deer Creek	0.1	0.8	1.2
Friday Creek	0.8	2.1	2.69
Nooksack River	0.9	2.5	3.1
Samish River	0.4	1.3	1.8
Siler Creek	0.1	0.6	0.9
Squalicum Creek	0.4	1.2	1.6
Sumas River	0.4	1.2	1.8
Tenmile Creek	0.3	0.9	1.3
Tributary to Squalicum Creek	0.3	0.9	1.2
Whatcom Creek	1.0	3.6	3.9

5.5 Historical Climatic Data

	Jan-Feb	Mar-Apr	May-Jun	Jul-Aug	Sept-Oct	Nov-Dec
Max Wind Speed (mph)	S 51	SW 44	SW 32	SW 29	SW 38	S 66
Average Wind Speed (mph)	9.4	9.4	8.7	7.9	8.4	9.2
Min Temperature (F)	36	39	47	55	46	36
Maximum Temperature (F)	49	58	69	75	70	50
Average Temperature (F)	42	48	58	65	57	42
Average Precipitation (inches)	4.6	3.2	1.6	0.9	2.4	5.7
Average Daylight (hours)	8.7	12	15.5	15.4	11.8	8.5

6.0 MULTIPLE HAZARDS

The pipeline and facilities are exposed to multiple types of hazards, including:

- Fire and explosion
- Natural Disasters:
 - Tornadoes
 - Earthquakes
 - Floods
 - Avalanches
- Security Incidents:
 - Bomb Threat
 - Breach of Security

6.1 Fire and Explosion Checklist

- ☐ Notify Control Center/Field Personnel of possible emergency situation
 - ☐ If applicable, refer to the facility-specific Fire Prevention Plan
- ☐ Notify nearest fire department (call 911)
- ☐ Evacuate all non essential personnel and secure area
- ☐ Muster company response personnel at a safe location
- ☐ Shut off fuel source that is feeding fire, if safe to do so
- ☐ If fire is small, use of hand held dry chemical extinguisher may be sufficient to control and extinguish the fire. **Do not take chances**
- ☐ Coordinate response with fire and/or police departments
- ☐ Apply foam and water if available and as directed by Fire Department Personnel
- ☐ Administer medical attention to any injured persons
- ☐ Monitor site weather conditions (particularly wind direction)

6.1.1 Fire Prevention

All company personnel are responsible for monitoring the accumulation of flammable and combustible waste materials and residues that contribute to fires.

- Flammable substances are those liquids, solids or vapors that have flashpoints below 38° C (100° F). Some of the more common flammables are gasoline, natural gas, propane, methanol and certain paints, primers and thinners.
- Combustible substances are those liquids, solids or vapors that have flashpoints greater than 38° C (100° F). Some of the more common combustibles include grasses, paper, wood, paint, certain lubricating oils and greases.

Good housekeeping and equipment maintenance are essential to keep fire hazards to a minimum. Listed below are housekeeping and maintenance requirements for controlling the supply and accumulation of flammable and combustible substances:

- Flammable liquids shall be stored in original or approved containers.
- Larger quantities (95 liters/25 gallons or more) of flammable liquids or vapors shall be stored in an approved container outside of the building or inside the building in an approved fire-rated storage cabinet.
- Each flammable liquid container shall have a bonding and grounding cable attached between it and the receiving container while liquids are being transferred or dispensed.
- Oil-soaked rags shall be stored in UL-approved, covered metal containers.
- Scrap paper and wrapping or packing materials shall be removed from the work area immediately after unpacking. Waste receptacles shall be emptied daily and contents placed in the trash containers provided.
- Weeds and grasses will not be allowed to grow or accumulate around flammable liquid storage facilities (tanks), pumping stations, or manifold areas.
- Using gasoline or condensate for cleaning agents is strictly prohibited.
- Site personnel are responsible for visually inspecting heat-producing equipment and ensuring that good housekeeping and equipment maintenance are being performed to keep fire hazards to a minimum.

6.2 Natural Disaster – Tornado

Definitions

Tornado Watch	A tornado formation is likely in the area
Tornado Warning	A tornado has been sighted or seen on radar

Look For

- Rotary motion at the base of the thundercloud system.
- Rotating cloud of debris or dust near ground.

Listen For

- The roar which can be heard for several miles described as jet aircraft or trains.
- If a natural disaster threatens the Primary Control Center, transfer of operation to the Secondary Control Center shall be initiated.

6.2.1 Tornado Action Checklist**Before the Storm**

- ☐ If you see a tornado approaching location, call your Supervisor.
- ☐ Seek shelter, preferably in a cellar, culvert or strong building. Stay away from windows. Take cover under heavy furniture in the center part of building, keep some windows open
- ☐ In open country move away from tornado's path at a right angle. If you cannot escape, lie flat in nearest depression such as a ditch or ravine. If you have to crawl into culverts or under small bridges, beware of flooding, snakes and other animals seeking shelter.
- ☐ Keep listening to radio or television if possible. If you see a tornado, call the weather bureau.

After the Storm

- ☐ Give aid to injured.
- ☐ If damage has occurred to pipeline, follow the Emergency Response Plan found on page I-4, and report to supervisor.
- ☐ Watch for:
 - Downed power lines
 - Flooding
 - Debris

6.3 Earthquake Action Checklist

- ☐ Shutdown petroleum transfer and secure facilities:
 - Close isolation valves and tank valves
 - Close storm-water discharge valves
 - Shut off nonessential power supplies
- ☐ Monitor site for evidence of leaks from pipeline facilities.
- ☐ Notify the Control Center Operator of steps taken and obtain further instructions.
- ☐ Evacuate all nonessential personnel and third parties to a safe location.
- ☐ In the event of earthquake damage:
 - Follow the Emergency Response Philosophy found on page I-4
- ☐ Secure facility for aftershocks; exercise caution when entering damaged buildings
- ☐ Watch for:
 - Downed power lines
 - Flooding
 - Debris

6.4 Flood Action Checklist

A flash flood watch means that flooding is possible - watch out for it and be alert.

A flash flood warning means flooding has been reported - immediately take precautions to insure your safety.

- ☐ Shut down and isolate the section of the pipeline at risk
- ☐ Monitor the pipeline route for potential damage
- ☐ Buoy any above-ground facilities that could become submerged to prevent damage from craft operating in flooded areas
- ☐ Never try to walk, swim or drive through swift water
- ☐ Evacuate if necessary
- ☐ When flooding subsides, perform survey to determine if there is sufficient cover over pipeline
- ☐ Notify landowners of areas of reduced cover
- ☐ In the event of flood damage, follow the Emergency Response Plan found on page I-4
- ☐ Conduct an aerial overflight

6.5 Avalanche Checklist

Response to an avalanche incident must be orderly and efficient, and keep the safety of rescuers uppermost at all times. A successful rescue depends on a rapid response by appropriately trained and equipped personnel.

- At the accident site, rescuers must be able to ensure their own safety while working as a team to accomplish the rescue as rapidly as possible.
- The initial response team may require additional resources to be deployed at the site as the rescue proceeds. In order to accomplish this, a plan has been developed to aid in conducting a rescue with the minimum of wasted time and effort.
- Rescue participants should be trained in and practice rescue techniques utilizing the avalanche rescue equipment available.

The full Avalanche Safety Plan is available by request or on KMonline EHS - Manuals

6.5.1 Avalanche Rescue Card

Avalanche Rescue Card - KMC Emergency 1-888-876-6711

If you are caught in a vehicle – Remain in the vehicle. Shut off engine and headlights - Leave flashers and radio on. Confirm location, Call for help. Ensure transceiver is sending. Push sectional avalanche probe to the surface. Await Rescue Team	If you witness an avalanche: Move people to a safe place Note: Time, Location, If persons missing or injured, vehicles involved Notify KMC Emergency 1-888-876-6711 Plan for rescue and hazards, see below & over
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Avalanche Search Instructions

1. Move all personnel to a safe location. Avoid contamination of the search area.
2. Retain and question witness.
3. Evaluate further hazard. Can you see the whole slope? Is the weather a factor?
4. Establish escape routes - use spotter and warning signal.
5. Mark the last seen point (if witnessed). Switch transceivers to Receive.
6. Transceiver search below the last seen point, watch for surface clues.
7. Random probe of likely burial locations, use transceivers if applicable.
8. Systematic coarse probe if transceiver search does not locate victims.
9. Mark outline of avalanche deposit and all probed areas with flagging wands.
10. Draw a map of the avalanche showing all areas as they are searched/probed, noting pertinent details (last seen point, clues, victim location).
11. Brief arriving rescuers.
12. Document - arrivals, evacuations, departures, environmental concerns (shelter, food/water, lights), site sketch and photos etc.
13. Maintain communication with rescue base/team.

Signal Search

TRANSCIVERS TO RECEIVE

Spotter?

Last Seen Point

Single Searcher

Multiple Searchers

Coarse Search

Fine Search

Probing - The "Three Hole per Step" Technique
 If a transceiver search is unsuccessful set up a probe line. Establish the most likely area of burial. Line up searchers in a straight line, spaced approximately 1.5 metres apart. Probe three times, once in front of the sternum, then left and right about 50 cm on either side. Take one step forward (~70cm) and repeat the process.

Multiple Hazards

Revised: 07/2013

Page 8 of 11

6.5.2 Avalanche – Preliminary Accident Details

Initial Response

If you witness an avalanche, or an avalanche incident is reported to you:

- 1 **Retain Witness(es) and ensure safety of personnel**
- 2 **Note and Record Preliminary Accident Details**

Time and Date	
Reporting Persons Name	
Witness Name (hold witness)	
Time of Accident	
Location of accident (ROW KP or access route) GPS	
Number of persons involved, injured and/or missing	
Number of responders with avalanche equipment	
Vehicular involvement	
Additional relevant information (weather [flyable?] and road condition, special requirements)	
A call back number for reporting personnel.	

- 3 **Relay the above Preliminary Accident Details to**

Base Control Centre at (Kinder Morgan Emergency 1-888-876-6711)

Initial Responder/Incident Commander **MAY BE PROMPTED FOR ADDITIONAL INFORMATION** by the Base Control Centre.

6.6 Bomb Threat Action Checklist

[REDACTED]

[REDACTED]

■ [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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6.7 Breach of Security Action Checklist

- [illegible]

7.0 SITE INFORMATION

7.1 Pipeline Overview Map



7.2 Puget Sound Area Description

The Trans Mountain mainline system from Edmonton to Burnaby transports crude petroleum, refined and semi-refined products together in the same line using a process called batching. The system goes through Kamloops Station which receives crude oil and refined products for shipment to the west coast. The Puget Sound Pipeline system connects with the Trans Mountain mainline system at Sumas, BC on the Canada/USA International Boundary. It delivers Canadian crude oil to four refineries at Ferndale and Anacortes on the west coast of Washington State. Laurel station has two breakout tanks that are used to temporarily store oil while awaiting delivery at refineries in Ferndale and Anacortes.

The geographic area covered by this Oil Spill Contingency Plan extends from the international boundary with Canada near Sumas to Ferndale and Anacortes in northwest Washington State. The land use around the pipeline varies between forested areas, urban areas and agricultural land use.

Spills entering water bodies, with the exception of the Sumas River, flow towards the sea between Lummi Bay and Padilla Bay, including Bellingham Bay, Samish Bay and shorelines in between these coastal areas. Offsite migration of land spills from the pipeline system that does not enter water bodies are likely to be confined to the pipeline right-of-way or immediately adjacent areas. Spills entering the Sumas River flow north into Canada, eventually entering the Fraser River.

The pipeline system facilities include:

- Laurel Station
- Ferndale Meter Station
- Burlington Scraper Trap
- Anacortes Meter Station
- NPS 20 (inch) pipeline from the Canada/ U.S. Border (Mile 5.5) approximately 3 miles east of Sumas, Washington to the Burlington Scraper Trap near Burlington (Mile 48).
- NPS 16 (inch) branch pipeline from the Laurel Station (Mile 20.6) approximately 12 miles to the Ferndale Meter Station adjacent to the ConocoPhillips refinery at Neptune Beach near Ferndale. There is also a connection to the refinery at Cherry Point via a delivery pipeline owned by BP.
- NPS 16 (inch) pipeline connected to the NPS 20 pipeline at the Burlington Scraper Trap, approximately 9 miles to the Anacortes Meter Station adjacent to the Shell and Tesoro Refineries on March Point near Anacortes, Washington.

7.3 Owner/Operator Information

Owner	Trans Mountain Pipeline (Puget Sound) LLC #2700, 300-5th Avenue S.W. Calgary, AB T2P 5J2
Operator	Kinder Morgan Canada Inc. #2700, 300-5th Avenue S.W. Calgary, AB T2P 5J2
Zone Name	Puget Sound
Zone Mailing Address	1009 East Smith Road Bellingham, WA 98226
Zone Telephone/FAX	Phone: 360-398-1541 Fax: 360-398-7432
Qualified Individual	Patrick Davis [REDACTED]
Alternate Qualified Individual	Dale McClary [REDACTED]
Start of Operations	The Puget Sound Pipeline has been in operation since 1956.
Response Zones Consists of the Following Counties	Whatcom and Skagit (Washington)
Alignment Maps, etc.	Maintained at: Calgary Head Office, in the Drafting Department
Statement of Significant and Substantial Harm	The response zones in this system all contain pipelines greater than 6 5/8 inches and are longer than ten miles. At least one section of pipeline in each response zone crosses a major waterway or comes within five miles of a public drinking water intake. Therefore, in accordance with 49 CFR 194.103(c), each entire response zone described in this Plan will be treated as if expected to cause significant and substantial harm.
Worst case discharge	Varies based on response zone, see Section 7.5.
PHMSA #	587
Facilities	
Border Scraper Trap	[REDACTED]
Laurel Station	[REDACTED]
Ferndale Meter Station	[REDACTED]
Burlington Scraper Trap	[REDACTED]
Anacortes Meter Station	[REDACTED]

7.4 Incident Command Post Location

Kinder Morgan Canada is a private partner in the Whatcom Emergency Joint Coordination Center which will be used for the incident command post for any incident involving the Trans Mountain Pipeline – Puget Sound operations.

This location can accommodate the Incident Management Team, contractors, and agency personnel. The coordination centre has multiple telephone lines already installed, pre-defined setup for the ICS sections, and breakout rooms for Government agencies, Unified Command meetings, etc.

In the unlikely event that the Whatcom Emergency Joint Coordination Center is unavailable one of the following locations may be used.

Name	Meeting Rooms	Phone lines	Rooms	Business Services Available	Cooking Facilities	Nearest City & Distance
[REDACTED]	20' X 30' 40' X 48' Plus various smaller offices	2 5	None	Yes	Limited None	Bellingham 5 Miles
[REDACTED]	40' X 60'	1	None	Yes	Full	Bellingham 8 Miles
[REDACTED]	65' X 36' 44' X 36'	1	None	Yes	Full	Anacortes 7 miles Mount Vernon 5 miles
[REDACTED]	92' X 70' ballroom 40' X 70' Whatcom 53' X 35' Sehome or Fairhaven 17' X 48' San Juan 38' X 40' Mt. Baker 32' X 60' Board Room	3 1 1 1 1 1	132	Yes	Yes	
[REDACTED]	22X66 Courtyard 60X56 Pacific 67X49 Northwest	3 6 8	102 rooms	Yes 24 hour business center	Yes	

7.5 Response Zones

Zone	Pipeline Section	Diameter	Product	WCD (bbl)
1	Border Scraper Trap to Laurel Station	20"	Crude Oil Blends	6,656
2	Laurel Station to Ferndale Meter Station	16"	Crude Oil Blends	10,500
3	Laurel Station to Burlington Trap	20"	Crude Oil Blends	10,405
4	Burlington Trap to Anacortes Meter Station	16"	Crude Oil Blends	4,500
5	Laurel Station	n/a	Crude Oil Blends	89,455

7.6 Puget Sound Tank Data

Location	Description	Capacity (US Gallons)	Capacity (barrels)
Ferndale Relief Tank (130)	1x Relief Tank	126,000	3000
Laurel Relief Tank (120)	1x Relief Tank	126,000	3000
Laurel Tank 170	Breakout Tank	3,757,110	89,455
Laurel Tank 180	Breakout Tank	3,716,244	85,482

7.7 Trans Mountain Products Summary

Product Name	Product Identifier	Vapor Density	Specific Gravity	API	Oil Group Number	Total Sulfur (wt%)
SUPER LIGHTS						
Caroline Condensate	CCA	>1	0.75	56.0	2	0.49
Fort Sask Condensate	FSC	>1	0.68	76.7	2	0.06
Rangeland Condensate	CRL	>1	0.74	59.9	2	0.35
Premium Gasoline	G91	>1	0.70	70.9	2	0.02
Pembina Condensate	CPM	>1	0.76	54.5	2	0.16
Peace River Condensate	PCON	>1	0.75	57.3	2	0.15
LIGHTS						
BC Light Crude	BCL	>1	0.83	39.8	2	0.60
Boundary Lake Crude	BLK	>1	0.84	36.1	2	0.83
Bonnie Glen Crude	BOG	>1	0.82	41.3	2	0.41
Bonnie Glen Sour Crude	BGS	>1	0.88	29.3	3	1.22
Horizon Synthetic	CNS	>1	0.85	34.4	3	0.08
Central Alberta KOC	KOC	>1	0.85	35.4	3	1.07
Light Sour Oil	LSO	>1	0.83	39.4	2	0.76
Suncor Synthetic A	OSA	>1	0.86	32.7	3	0.20
Suncor Synthetic C	OSC	>1	0.88	30.0	3	0.22
Premium Albion Synthetic	PAS	>1	0.86	33.1	3	0.10
Peace River Crude	PCR	>1	0.83	39.8	2	0.54
Peace River Sour	PCSR	>1	0.87	31.8	3	2.59
Pembina Crude	PEM	>1	0.83	38.9	2	0.43
Pembina North	PNC	>1	0.83	40.0	2	0.45

Product Name	Product Identifier	Vapor Density	Specific Gravity	API	Oil Group Number	Total Sulfur (wt%)
Premium Synthetic	PSC	>1	0.84	37.0	2	0.08
Rainbow Crude	RBW	>1	0.84	37.8	2	0.49
Mixed Sweet Blend	SW	>1	0.84	37.6	2	0.47
Shell Synthetic Light	SSX	>1	0.87	31.6	3	0.22
Syncrude	SYN	>1	0.86	32.4	3	0.18
MEDIUM						
Strathcona Special Stream	SSS	>1	0.90	26.0	3	1.08
HEAVY						
Suncor Synthetic PTCN	OSP	>1	0.91	23.8	3	3.26
Suncor Synthetic S	OSS	>1	0.91	24.0	3	2.83
SUPER HEAVY						
Albian Residual Blend	ARB	>1	0.93	20.5	3	2.70
Albian Heavy Synthetic	AHS	>1	0.94	19.6	3	2.47
Albian Muskeg Heavy	AMH	>1	0.93	20.7	3	3.95
Albian Vacuum Gas Oil	AVB	>1	0.92	22.3	3	3.16
Access Western Blend	AWB	>1	0.92	22.6	3	3.82
Borealis Heavy Blend	BHB	>1	0.92	22.0	3	3.60
Cold Lake Blend	CL	>1	0.93	21.4	3	3.72
Kearl	KRL	>1	0.91	23.7	3	3.29
McKay Heavy	MKH	>1	0.93	21.0	3	2.60
Oil Sands Q	OSQ	>1	0.92	22.3	3	3.90
Long Lake Heavy	PSH	>1	0.93	20.4	3	3.22
Peace Heavy	PH	>1	0.93	21.3	3	5.11
Seal Heavy	SH	>1	0.93	20.5	3	4.79
Statoil Cheecham Blend	SCB	>1	0.93	20.5	3	3.83
Statoil Cheecham Syn-Bit	SCS	>1	0.94	19.0	3	2.86
Statoil Cheecham Mixed Blend	SCM	>1	0.94	19.8	3	3.3
Suncor Synthetic H	OSH	>1	0.94	19.8	3	3.09
Surmont Heavy	SHB	>1	0.94	19.7	3	2.97
Wabasca Crude	WH	>1	0.93	21.2	3	4.02

7.8 Block Valves and Directions

Valve Number	Location
MU 14	[REDACTED]
MU 15	[REDACTED]
R-16 D	[REDACTED]
R-16 M	[REDACTED]
R-MU 20 Q	[REDACTED]
ML 6	[REDACTED]
ML 8	[REDACTED]
R-16 D	[REDACTED]
RLTM CNPH	[REDACTED]
RLTM BP	[REDACTED]

Valve Number	Location
MU 27	[REDACTED]
R-MU 43	[REDACTED]
R-MU 48	[REDACTED]
MB 3	[REDACTED]
MB 7	[REDACTED]
MB 9	[REDACTED]
R-16 D	[REDACTED]
R-TM Tesoro	[REDACTED]
R-TM Shell	[REDACTED]

7.9 Response Zone Descriptions, Maps and Site Plans

7.9.1 Zone 1 -Border Scraper Trap to Laurel Station

The Border Scraper Trap is located on the Canadian side of the USA/Canada border. The surrounding topography is primarily flat agricultural land. This location has pig loading/unloading facilities. Water is controlled on-site via surface drainage and ditches. If a spill were to occur at the Border Scraper Trap it would likely be very small in size and is not likely to leave the site. Using spill modeling and trajectory analysis any oil migrating off-site from the Border Scraper Trap is most likely to remain on land in the immediate vicinity of the site, within Canada.

The pipeline segment from the Border Scraper Trap to Laurel station is approximately 15.39 miles long and is a 20" diameter pipeline. The worst case spill volume for this segment of line is 6,656 bbl. The land surrounding the section of pipeline is mostly flat agricultural lands less than 100 ft above sea level. The segment of pipeline is within Whatcom County. There are two vales which can be closed remotely, one is north of the Nooksack River and the second is south of the Nooksack River. The 48 hour spill model indicates that the majority of this section will be contained to the pipeline right of way or immediately adjacent, however there are several stream crossings in this section of the pipeline. A spill into the Sumas River would be expected to cross the border into Canada within 48 hours, likewise a spill to the Nooksack River, Tennille Creek, Deer Creek and any of the tributaries/ditches that empty into those bodies of water would be expected to reach Bellingham Bay within 48 hours.

1-888-876-6711

Emergency Response Plan

7.9.1.1 Response Zone 1 – Relief map

Removed for security reasons.

1-888-876-6711

Emergency Response Plan

7.9.1.2 Border Scraper Trap – Site Plan

Removed for security reasons.

7.9.2 Zone 2 - Laurel Station to Ferndale Meter Station

The pipeline segment from Laurel Station to the Ferndale Meter Station is approximately 11.65 miles long and is a 16" diameter pipeline. The worst case spill volume for this segment of line is 10,500 bbl. The land surrounding the section of pipeline is mostly flat agricultural lands with higher populated areas around Ferndale and Bellingham. The Pipeline also passes through the Lummi Indian Reservation and is located in an area that is 100ft above sea level to the east and nearly at sea level in the west. There are two check valves located midway along this segment of pipeline bordering the Hovander Homestead Park, and Tennant Lake Park. The pipeline segment is located in Whatcom County. The 48 hour spill model indicates that the majority of this section will be contained to the pipeline right of way or immediately adjacent, however there are several stream crossings along this route and a spill into the Nooksack River or one of its tributaries or storm water system would be expected to enter Bellingham Bay within 48 hours. Additionally spills to the Lummi River or any of its tributaries or drainage ditches would result in a spill reaching Lummi Bay. The surface water flow direction for the Ferndale Meter Station can be viewed on the Ferndale Meter Station Site Plan

1-888-876-6711

Emergency Response Plan

7.9.2.1 Response Zone 2 – Relief Map

Removed for security reasons.

1-888-876-6711

Emergency Response Plan

7.9.2.2 Ferndale Meter Station – Site Plan

Removed for security reasons.

7.9.3 Zone 3 – Laurel Station to Burlington Scraper Trap

The pipeline segment from Laurel Station to the Burlington Scraper Trap is approximately 27.63 miles long and is a 20" diameter pipeline. The worst case spill volume for this segment of line is 10,405 bbl. The land surrounding the section of pipeline varies from flat agriculture near Laurel Station to steep hillsides from 100 to 300 ft above sea level back to flat agricultural use land and near sea level at the Burlington Scrap. The pipeline also passes through Bellingham, and densely populated rural areas, Whatcom County and Skagit County. There one check valve, and one manual block valve near mile 27. The 48 hour spill model indicates that a spill in several sections of pipe will be contained to the pipeline right of way or immediately adjacent, however there are several stream crossings along this route. A spill into Squalicum Creek, Whatcom Creek, or one of the many tributaries, ditches, and Bellingham storm water system would be expected to reach Bellingham Bay within 48 hours. Spills to Chuckanut Creek its tributaries, drainage ditches or storm water drains would be expected to reach Chuckanut Bay within 48 hours. Spills between MP31 and 35 would be expected to enter Lake Samish within 48 hours. Spills entering Friday Creek, Samish River, Joe Leary Slough, any of the tributaries, drainage ditches or storm water systems would also be expected to reach Samish Bay and/or Padilla Bay within 48 hours. The surface water flow direction for the Burlington Scraper Trap can be viewed on the Burlington Scraper Trap Site Plan

1-888-876-6711

Emergency Response Plan

7.9.3.1 Response Zone 3 – Relief Map

Removed for security reasons.

1-888-876-6711

Emergency Response Plan

7.9.3.2 Burlington Scraper Trap – Site Plan

Removed for security reasons.

7.9.4 Zone 4 – Burlington Scraper Trap to Anacortes Meter Station

The pipeline segment from the Burlington Scraper Trap to the Anacortes Meter Station is approximately 9.09 miles long and is a 16" diameter pipeline. The worst case spill volume for this segment of line is 4,500 bbl. The land surrounding the section of pipeline is mostly flat agriculture with some steep hillsides less than 100 ft above sea level. This portion of pipeline is in Skagit County. There are two manual block valves near mile 3 and 7. The 48 hour spill model indicates that a spill in several sections of pipe will be contained to the pipeline right of way or immediately adjacent, however there are several stream crossings along this route and a spill into any of the creeks, or one of the many tributaries or storm water ditches would be expected to reach Padilla Bay within 48 hours. Additionally if a spill were to occur between mile 4 and 7 it would likely enter the Swinomish Chanel, Skagit Bay and Padilla Bay within 48 hours. The surface water flow direction for the Anacortes Meter Station can be viewed on the Anacortes Meter Station Site Plan.

1-888-876-6711

Emergency Response Plan

7.9.4.1 Response Zone 4 – Relief Map

Removed for security reasons.

1-888-876-6711

Emergency Response Plan

7.9.4.2 Anacortes Meter Station – Site Plan

Removed for security reasons.

7.9.5 Zone 5 – Laurel Station

Laurel Station is a response zone. There are two 90,000 bbl, and one 3,000 bbl relief tanks on site, with a working capacity of 89,455 bbl, 85,482 bbl, and 0 bbl. The worst case spill volume for Laurel Station is 89,455 bbl. The land surrounding Laurel Station is flat agricultural land less than 100 ft above sea level. Laurel Station is in Whatcom County. The tanks at Laurel Station are within containment which can hold 110% of the tank volume, as such a spill from the tanks is not expected to leave the site, or enter waters of the state³. Water is managed on-site through a system of ditches and sumps. All sumps are equipped with hydrocarbon alarms which sound if there is product mixed into the water. The water is tested to ensure when it leaves the site it falls within acceptable environmental guidelines. The combination of surface water runoff control and containment berms around the tanks means that a spill would not be expected to leave the Laurel Station site within 48 hours. The surface water flow direction for the Laurel Station can be viewed on the Laurel Station Site Plan.

³ Waters of the State means all lakes, rivers, ponds, streams, inland waters, underground water, salt waters, estuaries, tidal flats, beaches and lands adjoining the seacoast of the state, sewers and all other surface waters and watercourse within the jurisdiction of the state of Washington.

1-888-876-6711

Emergency Response Plan

7.9.5.1 Response Zone 5 – Relief Map

Removed for security reasons.

1-888-876-6711

Emergency Response Plan

7.9.5.2 Laurel Station – Site Plan

Removed for security reasons.

8.0 INCIDENT MANAGEMENT

Kinder Morgan Canada has a pre-defined Incident Command Structure with role descriptions defined and personnel pre-assigned to the key roles. The ICS structure is similar in nature to the Northwest Area Contingency Plan and uses the same terminology to the Section Chief level. Below the Section Chief level the teams and positions outlined in this emergency response plan are an example of how things may be set up, in accordance with previous experience with spill response. However, during an actual incident each section will determine the best set up in accordance with the principals of ICS with the direction of the Section Chief, taking into account the section roles and responsibilities contained in the Northwest Area Contingency Plan.

In the state of Washington the Information Officer, Liaison Officer, Wildlife Branch Director, and the Environmental Unit Leader may be lead by a state agency or trustee of the state if they are best qualified. Please refer to the Northwest Area Contingency Plan and the Kinder Morgan ICS Guide for the staffing policies of the Washington State Department of Ecology for these positions.

8.1 Initial Response Team

Initial Response resources are managed by the Senior On-Site Individual who assumes the role of Incident Commander until such time as a more senior employee takes over.

8.2 Local Incident Management Team

The Local Incident Management Team (IMT), which is comprised of District personnel in each response area, will respond to incidents beyond the capability of the Initial Responders.

If deployed, the Local IMT's primary tasks are to:

- Ensure the safety of all workers in the area of the spill
- Assess the situation (i.e., incident size, severity, likely impacts)
- Take appropriate action to mitigate the impacts to life safety, the environment, and property

The Local IMT will perform these tasks until relieved or replaced by a higher level of management within the response organization

8.3 Kinder Morgan Incident Management Team

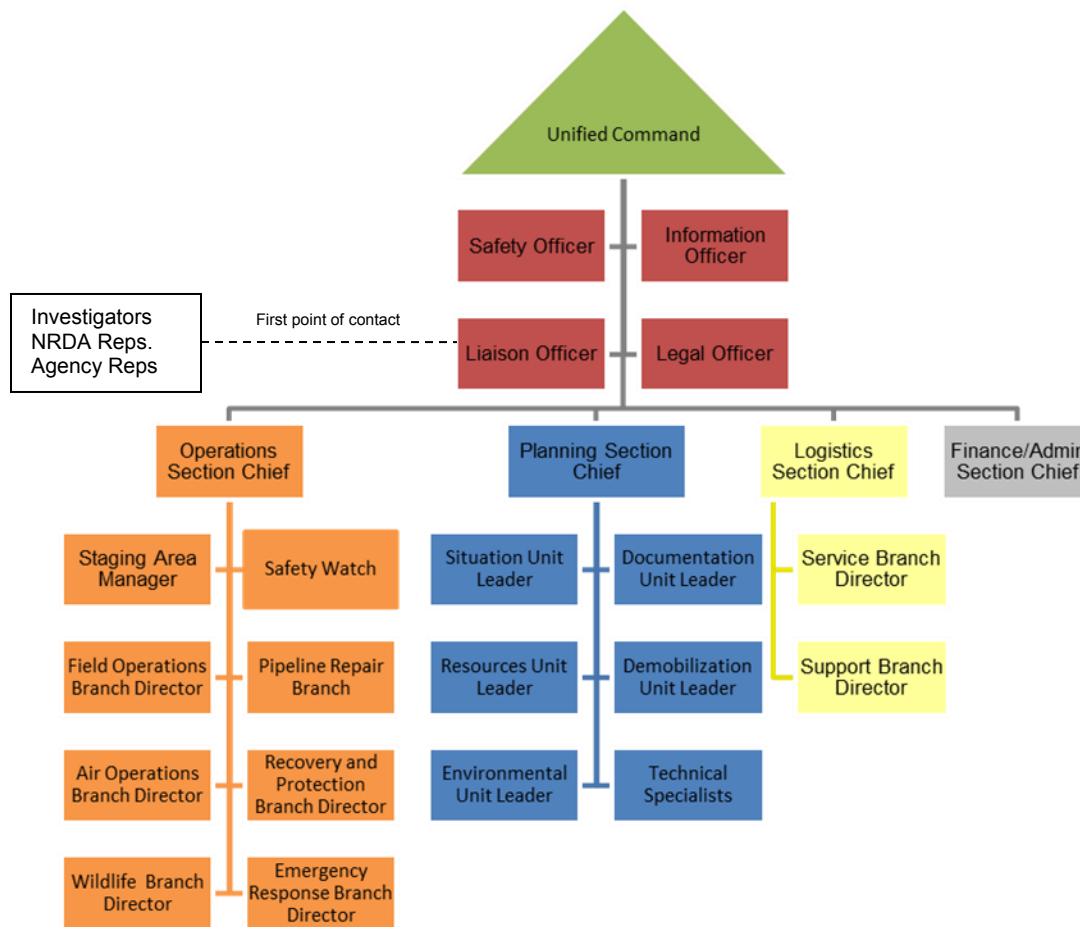
On larger spills, where the local IMT cannot manage a response without assistance, additional IMT personnel will be asked to attend from within Kinder-Morgan's company-wide support system.

The IMT is headed by the Incident Commander who directs and coordinates all response activities and resources. The Deputy Incident Commander provides on-site staff support to the Incident Commander through the Command Staff and relieves the Incident Commander as required.

Each Section is headed by a Section Chief reporting directly to the Incident Commander. The Initial Response Team and initial IMT may be absorbed into the response organization as additional IMT personnel arrive on the scene. The Operations Section Chief is also responsible for directing the activities of outside contractors called in to assist with the response.

8.4 Response Team Organization

The following diagram depicts a typical response organization to the branch director/unit leader level. If a position below a specific chief, director, supervisor, manager, or unit leader is not filled then the chief, director, supervisor, manager, or unit leader must complete the tasks of reporting position as well. For further information on each position and the supporting roles, please see the Kinder Morgan ICS Guide or the Northwest Area Contingency Plan.



8.5 Initial Response

The initial response will be carried out by local Kinder Morgan personnel.

These are employees who are present at or near the scene of a spill who are properly trained in emergency response, defensive fire-fighting, safety and first aid. All other employees should be cleared from the incident scene immediately.

The senior person at the scene is automatically designated as the Incident Commander. Depending on the circumstances, the person-in-charge may be replaced by the Supervisor.

The initial responder's primary tasks are to:

- Ensure the safety of all workers and public in the area of the spill
- Assess the situation (i.e., incident size, severity, likely impacts)
- Notify the Supervisor immediately to activate the response organization and resources
- Take appropriate action to mitigate the impacts to life safety, the environment, and property until the Qualified Individual arrives.

Initial responders will perform these tasks until relieved or replaced by a higher level of management within the response organization.

In the event of a Level 1 incident, the initial responders may conduct the entire response effort.

On larger incidents, the initial responders will typically be incorporated into the Operations Section of the IMT organization.

8.6 Transfer of Command

The Kinder Morgan Response Organization is designed to work on a 24-hour basis. If 24-hour coverage is required, Command Staff and other response personnel will normally be relieved on a 12-hour shift schedule. Briefing meetings for Command Staff and other essential response personnel will be held at the time of each shift change. The Planning Section will be responsible for providing a summary of the ending shift activities along with a plan for the next shift. Written plans will be made in consultation with government agencies. Key ICS positions will be transferred on a 4-7 day rotation as needed after the initial transfer of command. The resources unit has the responsibility to identify and obtain any additional personnel required.

Whether internal or external, transfers of command for ICS positions will overlap to ensure that operations are not interrupted. The individual incoming and the individual leaving are required to meet and discuss any relevant information so that the position can be properly filled in and necessary task accomplished.

8.7 Unified Command

Wherever possible, the IMT will establish, and operate within, a Unified Command structure as warranted by the circumstances of an incident. When a federal or state agency arrives on-scene to participate in managing a response action, the agencies will utilize a unified command structure to jointly manage the spill incident. In the unified command, decisions with regard to the response will be made by consensus and documented through a single Incident Action Plan (IAP) for each operational period. In the event that the Unified Command is unable to reach consensus, the FOSC has ultimate decision making authority. The unified command may incorporate additional tribal or local government on-scene coordinators into the command structure as appropriate.

Incident Commanders for oil discharges and hazardous substance releases will, whenever possible and practical be organized under the Unified Command Structure which includes, but not limited to:

- The pre-designated Federal On Scene Coordinator (FOSC);
- The State On Scene Coordinator (SOSC);
- The representative of the Responsible Party (RP); and
- The local and/or tribal On Scene Coordinators, as appropriate.

To be considered for inclusion as a UC member, the following criteria must be considered:

- The organization must have jurisdictional authority or functional responsibility under a law or ordinance for the incident; and
- The organization must be specifically charged by law or ordinance with commanding, coordinating or managing a major aspect of the incident response; and
- The incident or response operations must have impact on the organization's Area Of Responsibility; and
- The organization should have the resources to support participation in the response organization.

Actual Unified Command makeup for a specific incident will be determined on a case-by-case basis taking into account:

- The specifics of the incident;
- Determinations outlined in the four criteria listed above; and
- Decisions reached during the initial meeting of the Unified Command.

The Unified Command is responsible for the overall management of the incident. The Unified Command directs incident activities including the development and implementation of strategic decisions, approval of the incident action plan, and approves the ordering and releasing of resources. It is expected that each Unified Command member will have the authority to make decisions and commit resources on behalf of their organization.



8.8 Qualified Individual

Response Plans for Onshore Oil Pipelines (49 CFR Part 194) defines Qualified Individual as "An English-speaking representative of an operator, located in the United States, available on a 24 hour basis, with full authority to: activate personnel and equipment maintained by the operator; act as liaison with the Incident Commander; and obligate any funds required to carry out all required or directed oil response activities".

The QI has the following responsibilities and authorities as required by the Oil Pollution Act of 1990 (OPA 90):

- Activate internal alarms and hazard communication systems to notify all appropriate personnel
- Notify all response personnel as needed
- Identify character, exact source, amount and extent of the release and other necessary items needed for notifications
- Notify and provide information to appropriate Federal, State and Local authorities
- Assess the interaction of the spilled substance with water and/or other substances stored at the Facility and notify on-scene response personnel of assessment
- Assess possible hazards to human health and the environment
- Coordinate rescue and response actions
- Assess and implement prompt removal actions
- Access company funds to initiate cleanup activities
- Direct cleanup activities until properly relieved of responsibility or incident is terminated
- Maintain contact with the OSC responsible for monitoring or directing the response actions via the Operations Section Chief.
- The QI may fill the role of Incident Commander, Deputy Incident Commander, as such the QI will be monitoring all response actions.

8.9 Incident Commander/Deputy Incident Commander

The Incident Commander's responsibility is the overall management of the incident. On Level 1 incidents, the command activity will likely be carried out by a single (Kinder Morgan Canada) Incident Commander. On larger, Level 2 and 3 incidents, a Unified Command structure will be employed, with additional Incident Commanders from key agencies.

The initial IC is the senior person witnessing the incident. One or more changes of the IC role might take place during the initial phase of the incident, as more-senior personnel arrive on-scene until the ultimate IC takes over and the ICP is established.

The Incident Commander may have a deputy, who may be from Kinder Morgan Canada, or from an assisting agency. Deputies must be fully qualified to take over that position at any time.

The Incident Commander/Deputy IC Responsibilities can be found in the ICS Guide; in general the duties are to:

- Ensure that adequate safety measures are in place.
- Assess the situation and/or obtains a briefing from the prior Incident Commander.
- Determine Incident Objectives and strategy.
- Establish the immediate priorities.
- Establish an Incident Command Post.

- Establish an appropriate organization.
- Ensure planning meetings are scheduled as required.
- Approve and authorize the implementation of an Incident Action Plan.
- Coordinate activity for all Command and General Staff.
- Coordinate with key people and officials.
- Approve requests for additional resources or for the release of resources.
- Keep agency administrator informed of incident status.
- Approve the use of trainees, volunteers, and auxiliary personnel.
- Authorize release of information to the news media.
- Order the demobilization of the incident when appropriate.

8.10 Safety Officer

The Safety Officer's function on the Command Staff is to develop and recommend measures for assuring personnel safety, and to assist and/or anticipate hazardous and unsafe situations.

Only one Safety Officer will be assigned for each incident. The Safety Officer may have assistants as necessary, and the assistants may also represent assisting agencies or jurisdictions. Safety assistants may have specific responsibilities such as air operations, hazardous materials, etc.

The specific duties related to the Safety Officer's responsibilities can be found in the ICS Guide, in general the duties are to:

- Develop a Site-Specific Health and Safety Plan.
- Participate in planning meetings.
- Identify hazardous situations associated with the incident.
- Review the Incident Action Plan for safety implications.
- Exercise emergency authority to stop and prevent unsafe acts.
- Investigate accidents that have occurred within the incident area.
- Assign assistants as needed.
- Review and approve the Medical Plan.

8.11 Control Centre Operator (CCO) and SCCO (Supervisor)

The Control Centre Operator will:

- Initiate the ECR
- Advise caller as appropriate
- Contact first responders, as required
- Contact "affected" Field Supervisor(s)
- Contact the Supervisor, Control Centre Operations
- Record all events in the "Additional Information" section of the ECR for the full duration of the incident
- Assume notification role of the Supervisor, Control Centre Operations, if no contact acknowledgment is received

The Supervisor, Control Centre Operations (SCCO) will:

- Send an ERL/ERL + using the appropriate ERL list
- If the ERL system is unavailable, contact personnel as shown on the ECR by phone using E-Contacts, and notify Incident Commander of notification status within 30 minutes

- Call into 1 800-525-3752, 73005 to start the Initial Information Exchange
- Participate in conference calls as required
- Send additional ERL updates as needed or required
- Forward the completed ECR to the Manager, Technical Services and Control Centre, for approval

8.12 Information Officer

The Information Officer is responsible for implementing the external communications plan during any emergency incident.

The external communications plan objectives are to:

- Provide information about the incident and the related response effort to all stakeholders in a timely, accurate, and responsible fashion.
- Ensure that information about the incident is clear, factual and consistent with that provided by other responders and government agencies.
- Minimize unnecessary speculation, rumour, or concerns about the incident and potential risks to the public.

The Information Officer is supported by a team of pre-assigned employees to assist in implementing the communications plan. This group is known as the External Communications Team. The specific duties related to the Information Officer can be found in the ICS Guide including activation of the JIC.

Note: The Information Officer position is a Government Representative or other individual designated by Unified Command for incidents within Washington State.

8.13 Liaison Officer

The Liaison Officer is the contact point for agency representatives assigned to the incident by assisting or cooperating agencies. These are personnel other than those on direct tactical assignments or those involved in a Unified Command. The specific duties for the Liaison Officer can be found in the ICS Guide.

In General the Liaison Officer's responsibilities are to:

- Be a contact point for Agency representatives.
- Maintain a list of assisting and cooperating agencies and Agency Representatives.
- Assist in establishing and coordinating interagency contacts.
- Keep agencies supporting the incident aware of the incident status.
- Monitor incident operations to identify current or potential inter-organizational problems.
- Participate in Planning Meetings, providing current resource status, including limitations and capability of assisting agency resources.

Note: Liaison Officer position is a Government Representative or other individual designated by Unified Command for incidents within Washington State.

8.14 Government Agency Representatives

Agency Representatives assigned to an incident from Federal, State or local government agency report to the Liaison Officer or to the Incident Commander in the absence of a Liaison Officer. These representatives should have full authority to make decisions on all matters affecting that agency's participation at the incident.

8.14.1 Agency Representatives Responsibilities

- Ensure that all agency resources are properly checked-in at the incident.
- Attend briefings and planning meetings as required.
- Provide input on the use of agency resources unless resource technical specialists are assigned from the agency.
- Cooperate fully with the Incident Commander and the General Staff on agency involvement at the incident.
- Ensure the well-being of agency personnel assigned to the incident.
- Advise the Liaison Officer of any special agency needs or requirements.
- Report to home agency dispatch or headquarters on a prearranged schedule.

Ensure that all agency personnel and equipment are properly accounted for and released prior to departure.

8.15 Legal Officer

The Legal Officer is responsible for providing advice and direction on all matters that may have a legal impact on Kinder Morgan Canada. The specific duties for the Legal Officer can be found in the ICS Guide, in general the duties include:

- Legal requirements in execution of agreements
- Incident investigation report reviews/meetings
- Environmental damage assessments
- Claims, where applicable
- Any major contracts that are not standard to the operation
- Any insurance issues/concerns
- Major health & safety issues/injuries
- Information releases
- Government Agency requests
- Reporting to Incident Commander

Note: Legal maintains contact information for Insurance other agencies for claims in the Calgary office.

8.16 Response Planning (Short-Term and Initial Phase of Long-Term Events)

Short-term responses that are small in scope and/or duration, and require few resources can often be managed using only the Incident Command Briefing (ICS 201 Form). Responses to longer-term events will also begin with the completion of the ICS 201 and Incident Briefing.

8.16.1 Incident Briefing

During the transfer of command process, an Incident Briefing provides the incoming Incident Commander with basic information regarding the incident situation and the resources allotted to the incident. Most importantly, it is the de facto Incident Action Plan (IAP) for the initial response and remains in force and continues to develop until the response ends or the Planning Section generates the incident's first IAP. It is also suitable for briefing individuals newly assigned to Command and General Staff, as well as needed assessment briefings for the staff.

When	• Upon the arrival of a new Incident Commander a transfer of Command will take place. The Incident Briefing also serves as an opportunity to provide initial information to incoming key IMT and agency personnel.
Facilitator	• The Incident Briefing is facilitated by the Current (and often initial) Incident Commander.
Attendees	• The Incident Briefing is attended by the incoming IC, the Command and General Staffs, as well as any senior responding Government Agency personnel and senior contractor representatives.
Agenda	• Situation (note territory, exposures, safety concerns, etc. use map/charts) • Objectives and priorities • Strategy(s) and tactics • Current organization • Resource assignments • Resources enroute and/or ordered • Facilities established

8.17 Response Planning (Long-Term Events)

Kinder Morgan Canada follows the ICS model for incident response planning. The planning cycle and associated meetings can be found in the Kinder Morgan Canada Incident Command System Guide located on e:\manuals.

8.18 Terminating/Downgrading the Response

The decision to terminate and/or downgrade emergency operations and to demobilize personnel and equipment shall be made on a site-specific basis, based on the status of the incident. Factors that may affect the decision to terminate the response include the following:

- The emergency condition has been controlled and immediate threats to the health and safety of the public have been eliminated
- Any leaks or spills have been contained, and all remaining free oil, petroleum products, or hazardous materials have been recovered from the site
- Repair operations have been undertaken to prevent further leaks or spills from occurring
- Further emergency operations at the site will cause more damage to property and the environment than that which resulted from the leak or spill initially.

The Regional Director or designee shall consult appropriate government agencies and other involved parties before making any decisions related to terminating response activities. These agencies and involved parties include representatives from federal, state and/or municipal agencies with jurisdiction in the emergency.

Prior to terminating the response the following issues should be considered by the Unified Command:

- Demobilize equipment and personnel at the first opportunity in order to reduce cost
- Consider which resources should be demobilized first; for example, berthing expenses can be saved by demobilizing out-of-area contractors before local ones
- Equipment may need both maintenance and decontamination before being demobilized
- All facilities (staging area, Incident Command Post, etc.) should be returned to their pre-spill condition before terminating operations
- Determine what documentation should be maintained, where, and for how long
- Contract personnel may be more susceptible to "suffering" injuries as they approach termination
- Some activities will continue after the cleanup ends; examples include incident debriefing, bioremediation, claims, and legal actions
- Consider expressing gratitude to the community, police department, fire department, and emergency crews for their work during the response.

9.0 OPERATIONS SECTION

The Operations Section is responsible for the oversight of all tactical assignments in the response. These include all contractors or other agencies that supply tactical resources in response to the incident. These might include representatives from the Fire Department, the police, the Ambulance Service as well as response organizations. Detailed duties and responsibilities for individuals in the Operations Section can be found in the Kinder Morgan Canada Incident Command System Guide on e:\manuals. The Operations Section may consist of numerous (functional) Groups and Branches, (geographic) Divisions. If Staging Areas are used, these are also managed by the Operations Section.

9.1 Response Objectives

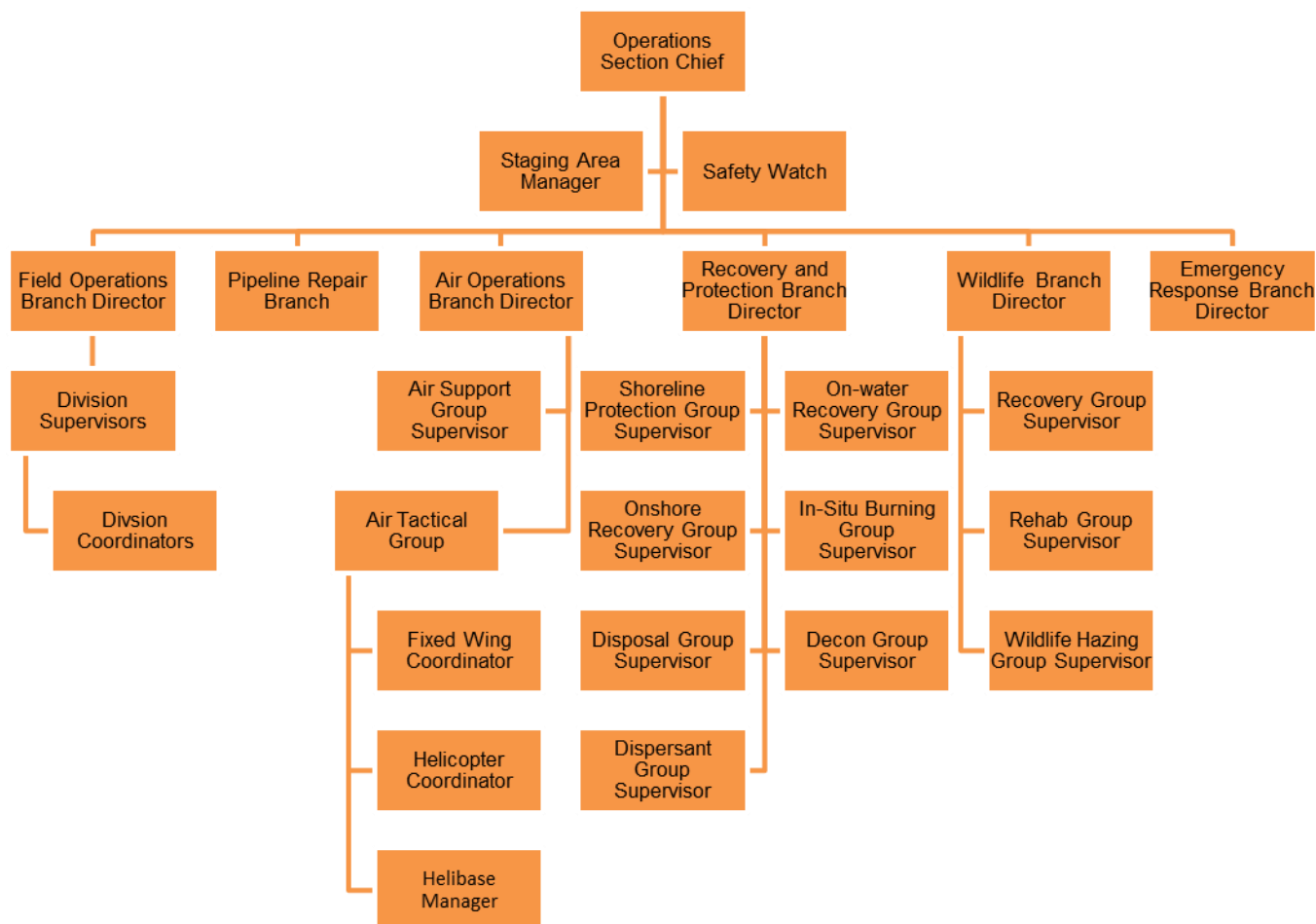
Once the safety of all personnel has been ensured, the source of discharge is secured, and initial notification has been activated, the overall tactical priorities covered are:

- Containment and Recovery of Spilled Oil
- Protection of Sensitive Resources
- Site and Shoreline Clean-Up

Response objectives and priorities will be determined by the Incident Commander, Unified Command, and the Planning and Operations Section members. Critical advice will be provided by representatives of key government agencies.

9.2 Operations Section Organization Chart

Not all roles will be filled for all incidents; however the following chart is an outline of the possible positions to be filled. Detailed descriptions of each position and its duties can be found in the Kinder Morgan ICS Guide (e:\manuals) and the Northwest Area Contingency Plan (<http://rrt10nwac.com/NWACP/Default.aspx>)



9.3 Operations Section Chief/Deputy Operations Section Chief

The Operations Section Chief, a member of the general staff, is responsible for managing all operations directly applicable to the primary mission. The Operations Chief activates and supervises elements in accordance with the Incident Action Plan and directs its execution; activates and executes the Site Safety and Health Plan; directs the preparation of unit operational plans, requests or releases resources, makes expedient changes to the Incident Action Plans as necessary, and reports such to the Incident Commander.

9.4 Air Operations Branch

Surveillance and tracking is used to monitor spill movement in both near-shore and offshore areas using visual observations. Typically air surveillance from helicopters is used to track oil movement and to direct on-water booming and skimming operations. Air surveillance will be used at a minimum of

three ten hour operational periods during the initial seventy-two hours of the discharge. For information on aviation companies please see *Section 2.12 Additional Resources Suppliers*, or this service will be provided by one of the Primary Resource Contractors listed in *Section 2.10 Support Services - Primary Response Contractors (PRC)*.

9.5 Temporary Storage

All waste materials collected from a spill should be sorted and stored in separate containers or piles that are clearly marked showing the type of waste they contain. Temporary storage locations on the premises should be totally contained and secure to prevent further leakage or migration of spilled product.

9.5.1 Temporary Storage Methods

Method of Containment	Product						Capacity
	OIL	Oily Water	Oily Soil	Oil/Debris (Small)	Oil/Debris (Medium)	Oil/Debris (Large)	
Drums	✓	✓	✓				0.2-0.5 yd ³
Bags		✓	✓	✓			1.0-2.0 yd ³
Boxes			✓	✓			1-5 yd ³
Open top roll-off	✓	✓	✓	✓	✓	✓	8-40 yd ³
Roll top roll-off	✓	✓	✓	✓	✓	✓	15-25 yd ³
Vacuum box	✓	✓					15-25 yd ³
Frac tank	✓	✓					500-20,000 gal
Poly tank	✓	✓					200-4,000 gal
Vacuum truck	✓	✓	✓				2,000-5,000 gal
Tank trailer	✓	✓					2,000-4,000 gal
Barge	✓	✓					3,000+gal
Berm, 4 ft		✓	✓	✓	✓	✓	1 yd ³
Bladders	✓	✓					25 gal-1,500 gal

9.5.1.1 Initial Handling and Storage

Initial oil handling and storage needs may be overlooked in the emergency phase of a response, which could result in delays and interruptions of cleanup operations. Initially, waste management concerns should address:

- Equipment capacity
- Periodic recovery of contained oil
- Adequate supply of temporary storage capacity and materials.

The following action items should be conducted during a spill response:

- Development of a Site Health and Safety Plan (see Section 1)
- Development of a Disposal Plan in accordance with any federal, provincial, and/or local regulations
- Continuous tracking of oil disposition in order to better estimate amount of waste that could be generated over the short and long-term
- Organization of waste collection, segregation, storage, transportation, and proper disposal
- Minimization of risk of any additional pollution
- Regulatory review of applicable laws to ensure compliance and (if appropriate) obtain permits
- Documentation of all waste handling and disposal activities
- Disposal of all waste in a safe and approved manner.

Good hazardous waste management includes:

- Reusing materials when possible
- Recycling or reclaiming waste
- Treating waste to reduce hazards or reducing amount of waste generated.

The management of the wastes generated in cleanup and recovery activities must be conducted with the overall objective of ensuring:

- Worker safety
- Waste minimization
- Cost effectiveness
- Minimization of environmental impacts
- Proper disposal
- Minimization of present and future environmental liability.

Solid wastes such as sorbents, PPE, debris, and equipment will typically be transported from the collection site to a designated facility for:

- Storage
- Waste segregation
- Packaging
- Transportation

Once this process is complete, the waste will be shipped off-site to an approved facility for required disposal.

9.6 Waste Disposal

9.6.1 Types of Spill-Related Waste Materials

The most common types of waste likely to be generated from an oil spill are:

- Contaminated Liquids - Mixture of oil and water recovered from the surface of the water usually by skimmer
- Contaminated Debris - Twigs, leaves, vegetation/seaweed, dead animals or birds coated with pollutant
- Contaminated Sediment - Sand or gravel removed from the shoreline or spill site
- Clean-up Materials - Oily/contaminated rags, oiled sorbents, oil PPE and clothing worn by response team personnel

9.6.2 Waste Management Plan

Before any waste materials are transported off the site for disposal, a Waste Management Plan should be prepared in consultation with the state agencies. Responsibility for working with the state authorities to develop a proper Waste Management Plan lies with the Environmental Unit Leader. More information on the duties of the Disposal (Waste Management) Technical Specialist can be found in the Incident Command System Guide on e:\manuals. The generic Disposal Plan will be provided to WDOE on request. A copy of the generic Disposal Plan, which includes forms for tracking, can be found in e:\manuals or on:

http://kmonline/business_units/KMC/Pages/EHS_Emergency_Response.aspx

9.6.3 Waste Transport Procedures

Once a decision has been made to transport wastes off the site for final disposal, KMC, as the Consignor or generator of the waste, is responsible for:

- Ensuring that the person or company transporting the waste is qualified and licensed.
- Ensuring that the place where the waste is transported to is approved as a waste storage and/or disposal site.
- Completing all necessary documentation (e.g., transport manifest) and retaining records for two years.

9.7 Decontamination Plan

All personnel and equipment must go through a decontamination process to ensure spilled material does not contaminate a larger area than needed. The Decontamination Group Supervisor will work under the Recovery and Protection Branch Director. The Decontamination Group Supervisor is responsible for creating and implementing the Decontamination Plan. A copy of the Decontamination Plan form can be found in e:\manuals or on:

http://kmonline/business_units/KMC/Pages/EHS_Emergency_Response.aspx

9.8 Public Evacuation Plan

If the public is immediately threatened in the initial stages of the incident and evacuation is required before local response agencies arrive at the scene of the emergency, the Incident Commander must ensure public protection and may request available company personnel to initiate an evacuation. Evacuation duties should be turned over to local response agencies as soon as possible.

The Incident Commander and other company employees shall cooperate and work closely with responding emergency agencies. Appropriate information will be provided as required to enable community emergency operations to be conducted.

KM personnel, together with local authorities, i.e., police/fire, will prepare an initial plan of evacuation. This plan will take into consideration the following:

- Weather conditions
- Evacuation sites for receiving evacuees
- Ensuring that all residents of the area to be evacuated receive emergency instructions
- Time it will take for evacuation
- Method for evacuation
- Evacuation routes
- Capacity of the evacuation routes
- Awareness of the needs of "special needs" people
- Awareness of the needs of farm animals and pets
- Security of evacuated properties
- Notification for controlled re-entry into the area.

9.8.1 Post Evacuation Procedures

The Incident Commander, together with local emergency agencies and pertinent government agencies, will make the decision to return residents to the area. The company will notify the affected people and ensure that:

- Residences are ventilated and checked
- Return transportation to the homes is provided
- Follow up meetings are conducted with the evacuees to address any concerns they may have.

9.9 Spill Response Equipment

9.9.1 Puget Sound Spill Response Equipment

Kinder Morgan owns and maintains response equipment placed strategically for easy access and deployment during an incident. There are two response trailers located in the Puget Sound Region and other equipment available via NRCES and Kinder Morgan operations in Canada. There is 2000 ft of boom available for fast water deployment within 2 hours at any point on the pipeline per WAC 173-182-365 (2), stored at Laurel Station 1200ft and 800ft at Anacortes Station. In addition to available boom there is recovery and storage equipment available in the two OSCAR units. The equipment used to meet the planning standards for this ERP is outlined in Section 18.2 Planning Standards. For a full detailed list of the OSCAR contents please refer to the spreadsheet associated with this plan on e:\manuals.

9.9.2 Nearby Kinder Morgan Canada Spill Response Equipment

In addition to the OSCAR trailers in the Puget Sound Region there are trailers located at Sumas Station, Burnaby, Westridge, Kamloops in Canada. The estimated response time to Laurel Station from Sumas Station is about 2 hours, and up to 6 hours from Kamloops. The OSCAR units in each of these locations contain similar equipment to those at Laurel Station and Anacortes Meter Station. Additionally Kinder Morgan Canada has equipment in Blue River, BC, and the following Alberta locations; Jasper, and Edmonton which could be deployed if needed.

9.9.3 Primary Response Contractor Spill Response Equipment

Kinder Morgan Canada relies upon third party contractors to supply additional manpower and equipment to meet the planning standards set out by the Washington State Department of Ecology and the Department of Transportation Pipeline Hazardous Material Safety Administration. In doing so the equipment available is listed in Section 18 of this document.

Note: the area in which the Puget Sound pipeline operates, in-situ burn would not normally be considered as a response tactic, however if in the planning process in consultation with WDOE it is determined that in-situ burn is the most effective tactic, the equipment will be supplied by NRCES, and the processes in the Northwest Area Contingency Plan will be followed.

9.9.4 Western Response Resource List (WRRL)

The WRRL is a database that stores data on various types of oil spill response equipment in the Pacific Northwest. The advantage of the WRRL is that it provides a uniform system to describe and list equipment. Each piece of equipment that is entered in the database is given a unique "WRRL ID" that provides a standard way of tracking and listing equipment in the region. The database can be accessed via the internet and downloaded in a variety of formats. Once the information is downloaded the data can be used in a number of different ways. The WRRL can be used to locate and order response equipment during a drill or spill, provide an overall picture of the regions response resources, be used for developing and reviewing oil spill contingency plans, assist in cost accounting, or by an organization to track their own resources.

The WRRL list can be located at: <http://www.wrri.us>

9.9.5 Response Equipment Maintenance

KM response equipment is tested and inspected as noted below. The Manager of Operations is responsible for ensuring that the following response equipment and testing procedures are implemented, and records kept for a period of at least 5 years. Equipment maintenance records will be made available to Ecology personnel, if requested. These consist of:

- **Containment boom** - During boom deployment exercises, boom will be inspected for signs of structural deficiencies. If a tear in fabric or rotting is observed, boom will be repaired or replaced. In addition, end connectors will be inspected for evidence of corrosion. If severe corrosion is detected, equipment will be repaired or replaced.
- **Miscellaneous equipment** - Other response equipment identified in this Plan will be inventoried and tested on an annual basis to ensure that the stated quantities are in inventory and in proper working order. The equipment inspection and deployment exercises are recorded and maintained at the facility and retained for a period of five years.

9.9.6 Contractors, Contractor Equipment and Labor

Kinder Morgan's primary response contractors' names and phone numbers, as well as other companies who can provide spill response services are provided in Section 2. Kinder Morgan has ensured by contract the availability of private personnel and equipment necessary to respond, to the maximum extent practicable, to the worst case discharge or the substantial threat of such discharge.

DECONTAMINATION PLAN - PERSONNEL

Incident Name	Location
Effective Date of Plan	Effective Time Period of Plan
Spill Location	Plan Prepared By

Work Zones:

Hot (Exclusion) Zone:

- This zone is where contamination does or could occur
- All access and egress will be through a designated control point
- All personnel entering the Exclusion Zone must use the buddy system and must wear the required level of protection
- Personal protective equipment worn will be based on site-specific conditions including the type of work to be done, weather and the hazards that might be encountered
- When the outer edge of the Exclusion Zone has been determined it shall be physically secured, fenced or well-defined by land markers and/ or tape
- A safety station is set up in this zone with the following items: a wind sock, an emergency eye-wash bottle, and a megaphone or air-horn.

Warm (Contamination Reduction) Zone:

- This zone is situated between the Exclusion Zone and the Support Zone and provides a transition between contaminated and clean zones
- Decontamination stations will be established for personnel and equipment
- Exit from the Exclusion Zone will be through a decontamination station.

Cold (Support) Zone:

- This zone is at the outermost area of the spill site and will be considered a non-contaminated or clean area
- The support equipment (Field Command Post, etc.) will be located in this zone. Traffic is restricted to authorized response personnel in this zone.

These zones are identified by signs, barrier tape or other means. Decontamination is performed in the contamination reduction zone. When responders exit the exclusion zone they must be decontaminated. Crews are available to assist in decontamination procedures as needed. The crews must wear appropriate personal protective equipment (PPE), and are responsible for packaging and labelling of contaminated PPE.

Decontamination Stations:

Decontamination is performed within the contamination reduction zone, which is appropriately lined to prevent the spread of contaminants. Dikes are installed under the lining to contain runoff.

DECONTAMINATION PLAN - PERSONNEL

MEASURES FOR DECONTAMINATION		
STATION 1	Segregated Equipment drop	Deposit equipment used on site (tools, sampling devices and containers, monitoring instruments, radios, clipboards, etc.) on plastic drop cloths. Segregation at the drop reduces the probability of cross contamination. During hot weather operations, a cool down station may be set up within this area.
STATION 2	Outer garment/boots/gloves rinse and wash	Scrub outer boots, outer gloves, and splash suit with decontamination solution or detergent and water. Rinse off using copious amounts of water.
STATION 3	Outer boot and glove removal	Remove outer boots and gloves. Deposit in container with plastic liner.
STATION 4	Tank change	If worker leaves exclusion zone to change canister (or mask) or this is the last step in the decontamination procedures; worker's canister is exchanged, new outer gloves and boot covers are donned, joints are taped, the worker returns to duty.
STATION 5	Inner boots/gloves/garment removal	Boots, chemical-resistant splash suit, inner gloves removed and deposited in separate containers lined with plastic.
STATION 6	SCBA/respirator removal	Face piece is removed. Avoid touching face with fingers. Face piece deposited on plastic sheet.
STATION 7	Field wash	Hands and face are thoroughly washed. Shower as soon as possible.

DECONTAMINATION PLAN - EQUIPMENT

Incident Name	Location
Effective Date of Plan	Effective Time Period of Plan
Spill Location	Plan Prepared By

PURPOSE

This plan identifies the general procedures to be followed for the decontamination of response vessels, equipment and boom involved in the response to the _____ spill.

This plan will be used for all Kinder Morgan-owned and support equipment, either contaminated or suspected of being contaminated with oil, to return it to a non-oiled state.

SAFETY

Health and safety for the site will be the responsibility of _____.
Describe the health and safety plan and where it will be posted.

DECON SITE SPECIFICS (describe for each site)

Site Location:
Description:
Contact Person:

OVERVIEW

Provide a brief overview of the decontamination project and methods.

CLEANING METHODS AND EQUIPMENT

Describe cleaning methods, equipment and personnel requirements

PROJECT TIMING

Describe schedule from start to finish.

EQUIPMENT TO BE CLEANED AND PRIORITY

Describe and prioritize equipment to be cleaned. Consider operational need and cost when setting priorities.

DISPOSAL PLAN

INCIDENT INFORMATION				
Incident Name:				
Spilled Material:				☐ MSDS Attached
Spill Volume (estimate):				
Spill Location:				
Spill Date/Time:				
Submitted by:				
Report Update Date/Time:				
Disposal Plan Authorization				
Kinder Morgan ("The Company") will recover the maximum feasible amount of oil spilled during the above named incident while minimizing impacts to human health and the environment. In addition an unknown quantity of oily waste debris (including plastics, sands, etc.) will be recovered. When disposing of this material, The Company will abide by all applicable laws and regulations. Disposed material will be tracked to provide an accurate means of estimating total oil recovered. This plan may be amended as necessary to ensure compliance with all applicable laws and regulations. Amendment may occur only upon mutual agreement of The Company and Federal and/or Province/State On Scene Commanders.				
Plan Reviewed/Approved by:				
	Agency/Representative	Name	Signature	Date
Federal				
Provincial/State				
Other (optional)				
Other (optional)				
Kinder Morgan IC	Kinder Morgan			
SECTION I WASTE HANDLERS				
The following licensed transporters and approved treatment and disposal facilities are to be used for waste handling and disposition unless otherwise directed. All waste handlers must have read and are working in accordance with this plan.				
Company Name	Disposal Functions	Company Representative Signature		

DISPOSAL PLAN

SECTION II WASTE CLASSIFICATION

The material was classified as Designation (F1 for help) waste based on the following:

A. Waste Analyticals

The following wastes were tested to confirm disposal criteria and contamination levels.

Lab reports attached ☐

Sample No./Description	Lab	COC Form	Analyte	Disposal Method	Disposal Criteria

SECTION III INTERIM STORAGE, SEGREGATION AND TRACKING

A. Interim Storage

Interim Storage sites will be located at:

- 1.
- 2.
- 3.
- 4.

Below provide a description of each of the above sites, lined roll-off boxes, etc. Describe how each site was constructed, bermed, covered, etc. to minimize infiltration of rainwater and prevent leaching.

1.

2.

3.

4.

DISPOSAL PLAN

B. Segregation

Material recovered must be segregated in the following manner unless otherwise directed by the State/Provincial or Federal On Scene Commander. (Washington State requires further segregation for volume of oil recovered during the first 24 hours (see Attachment 2 – Area 6 Only).

1. Oil collected from sources other than waters/shorelines (e.g. on vessels or pier).
2. Oil and oil/water mixtures recovered from waters/shorelines.
3. Oiled organic debris: wood, aquatic vegetation. Oily debris must be of should be placed in clear plastic bags for ease of identifying contents and segregation. To the extent possible efforts should be made to homogenize recovered organic debris e.g., heavy oiled eel grass should be kept separate from dissimilar debris.
4. Oiled sorbent material: oil snares, pads and booms.
5. PPE and other typically non-sorbent materials.

Describe measures taken to ensure material recovered was properly segregated.

C. Tracking

Wastes generated, stored and requiring treatment/disposal will be tracked by shipment on the tracking forms (Attachment 1). Any transported waste will be accompanied by the appropriate documentation (i.e. bill of lading, waste manifest, etc.) Copies of the waste tracking forms and consignor copies of shipping documentation must be submitted to the Disposal Technical Specialist (or Environmental Team) in Incident Command at the end of each operational period.

SECTION IV PERMITS/AUTHORIZATIONS

List all permits that have been considered/obtained for any waste management activities to be executed (i.e. decanting, in-situ burning, soil relocation, etc.)

Agency	Permit	Obtained (Date/Time)	Comments

SECTION V DECONTAMINATION

Describe the areas designated for decontamination including location, set up and pollution prevention measures.

DISPOSAL PLAN

SECTION VI ANIMAL CARCASSES

If applicable describe the number of animal carcasses disposed of and methods used for their disposal.

SECTION VII WASTE DISPOSITION AND FINAL DISPOSAL

A. Waste Disposition

The following priorities for the collection, handling and management of wastes should be followed in descending order as applicable and practical:

1. Recovery/recycling
2. Bioremediation
3. Incineration/Thermal Treatment
4. Burial/Landfill

Copies of completed waste tracking forms, transportation documentation and receipts from disposal facilities must be appended to this plan. The ICS Form 209 Final Waste Status Summary will be used to track the total oil liquids recovered, stored and disposed on a "real time" basis.

B. Final Disposal

Describe the types of waste that will be generated and their final disposal.

Waste	Waste Disposal/ Treatment Method	Transporter(s)		Facility
Oil/water	Oil recovery			
Oily absorbents				
Oily soil				

Attachment 1

Tracking Forms

INCIDENT INFORMATION			
Incident Name:		Spill Location:	
Spilled Material:		Spill Date:	
Spill Volume (estimate):		Report Update Date/Time:	

RECOVERY TRACKING

Recovery Location(s)	Source	Time Recovered		Total Volume (Gallons*)	Volume as Product	Volume as Aqueous	Type of Waste	Projected Interim Storage Demand**
		From:	To:					

* Cubic yards for solids

** Means to address demand per location per time

INCIDENT INFORMATION			
Incident Name:		Spill Location:	
Spilled Material:		Spill Date:	
Spill Volume (estimate):		Report Update Date/Time:	

INTERIM STORAGE TRACKING

Interim Storage Location(s)	Received From Location(s):	Transportation*:		Time Received:	Volume (Gallons**)	Type of Waste
		Document Type:	Number(s):			

* If applicable

** Cubic yards for solids

INCIDENT INFORMATION			
Incident Name:		Spill Location:	
Spilled Material:		Spill Date:	
Spill Volume (estimate):		Report Update Date/Time:	

FINAL DISPOSAL TRACKING

Disposal Facility Location:	Receipt Number(s)*:	Received From Location(s):	Transportation		Time Received:	Volume (Gallons**)	Type of Waste
			Document Type:	Number(s):			

* If applicable

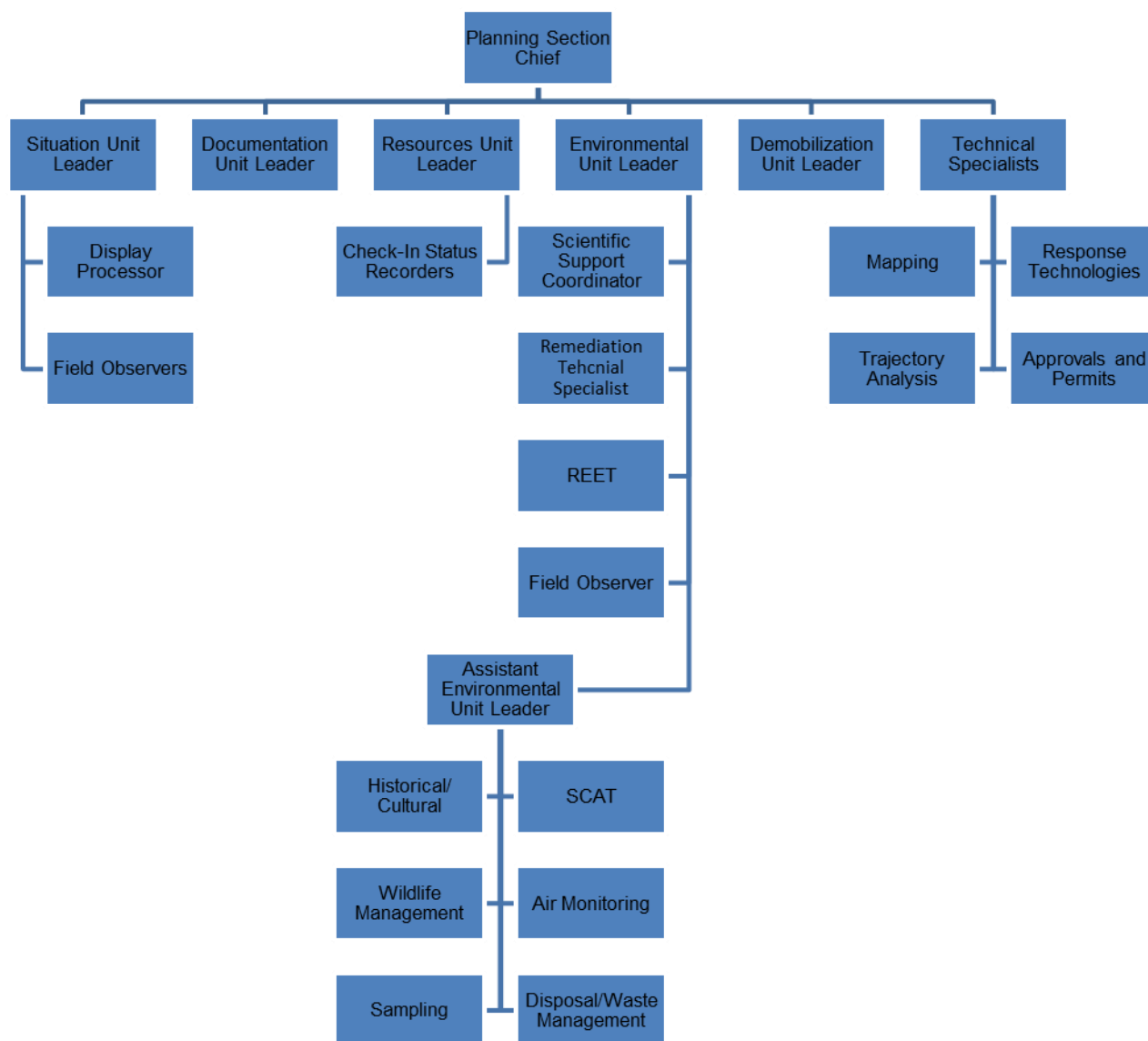
** Cubic yards for solids

10.0 PLANNING SECTION

The Planning Section is responsible for the gathering of incident intelligence, and the development of Incident Action Plans. This includes the tracking of incident information and resources, and the documentation of the incident. Detailed duties and responsibilities for individuals in the Planning Section can be found in the Kinder Morgan Canada Incident Command System Guide on e:\manuals. Technical Specialists, i.e., fire or oil spill specialists will also be assigned to the Planning Section.

10.1 Planning Section Organization Chart

Not all roles will be filled for all incidents; however the following chart is an outline of the possible positions, and reporting structure. Detailed descriptions of each position and its duties can be found in the Kinder Morgan ICS Guide (e:\manuals) and the Northwest Area Contingency Plan (<http://rrt10nwac.com/NWACP/Default.aspx>).



NOTE: This is an example of possible reporting structure, the actual reporting structure will be determined at the time of an incident by the Section Chief and Unit Leaders.

10.2 Planning Section Chief

The Planning Section Chief, a member of the General Staff, is responsible for collecting, evaluating, disseminating, and using information about the incident and status of resources. Information is needed to:

- 1) understand the current situation,
- 2) predict probable course of incident events, and
- 3) prepare alternative strategies for the incident.

10.3 Environmental Unit Leader

The Environmental Unit Leader is responsible for environmental matters associated with the response, including strategic assessment, modeling, surveillance, and environmental monitoring and permitting. The Environmental Unit prepares environmental data for the Situation Unit. Most Technical Specialists engaged during the response will be assigned to the EUL. For a detail description of the duties associated with the Environmental Unit Leader please see the Kinder Morgan ICS Guide (e:\manuals) and the Northwest Area Contingency Plan (<http://rrt10nwac.com/NWACP/Default.aspx>).

Note: In Washington State, the Environment Unit Leader is a government natural resource trustee agency representative OR other individual designated by Unified Command.

10.4 Monitoring and Sampling

10.4.1 Spill Monitoring

Visual observations of spilled product will be reported using a standard format on a map. If weather allows, the best surveillance is done from helicopter overflights. Overflights should be planned at least twice per day; at first light and just prior to sunset to provide timely input to operations plans. Overflight observations should be annotated on maps or charts of the area, and preferably include photography or video recordings of the oiled and non-oiled areas. In low light and/or fog conditions KMC will request NRCES to deploy their tracking buoys in marine waters and/or rivers to assist with tracking oil movements.

10.4.2 Sampling

Oil samples will be collected from the source of the spill and from key concentrations of oil in the environment. Source samples should be collected as soon as possible after the incident to help characterize the spilled oil. Field samples should be collected to characterize the oil that has impacted shorelines or sensitive areas.

All samples for chemical analysis must be collected in chemically clean jars, sealed, labelled, and kept refrigerated until processed in the laboratory. **Chain-of-Custody** forms must be initiated by the person collecting the samples and maintained through delivery to the laboratory. Specific lab analyses to be performed will depend on the situation and needs to be established at the time of the incident. Accredited laboratories, to be recommended by Technical Advisors at the time of an incident, are to be used for all analyses.

10.4.3 Air Monitoring

Air monitoring will take place immediately upon confirmation of a release. Initial monitoring will occur downwind of the incident using personal air monitoring equipment carried by all KMC personnel. The initial air monitoring will occur continuously, and results recorded if the personal air monitor alarms. Any

alarm levels will be recorded along with the location and time on the gas detection record form. The person responsible for air monitoring will then begin to move away from the source in a down wind direction to determine the extent of potential air contamination. This will assist first responders with setting up a response zone. As more equipment and personnel arrive in the area a more detailed air monitoring plan will be developed under the direction of Unified Command to allow responders to evaluate air contamination for human health impacts. Air monitoring contractors will be called to assist with the development of the air monitoring plan, and collect field samples with additional specialized equipment. All records will be forwarded to the Command Post at the end of each shift. Real time air monitoring will be reported directly to Safety Watch immediately if occupational and/or human health criteria are exceeded, or upon request. Safety Watch will report any result that exceeds occupational health criteria to the Safety Officer immediately, and any other air monitoring results upon requested by the Safety Officer, as needed. The public will be informed of air monitoring results, as they become available via regular updates from the Information Officer and/or the Joint Information Center.

10.5 Demobilization

KMC will develop a Demobilization Plan, to ensure the resources available are what is required. Therefore, emphasis must be placed on establishing efficient demobilization procedures. Further information on the Demobilization Unit Leader is available in the Incident Command System Guide located on e:\manuals

10.5.1 Demobilization Procedures

- Operations Section will determine which resources are ready for release from a specific collection site
- The Planning Section will provide guidance on release priorities and demobilization recommendations
- Information maintained by the Planning Section will be utilized to assist in the prioritization
- Decontaminated equipment will be returned to appropriate staging area for release or re-deployment
- Transports for equipment will be required if remote from staging area
- The Planning Section will document all demobilization and decontamination activities
- Equipment designated for re-assignment will be mobilized to the appropriate staging area
- The Division Supervisor will ensure a log is maintained documenting that proper decontamination procedures are performed for each piece of equipment
- The Operations Section will ensure that redeployed personnel receive proper rest prior to returning to duty. The Planning Section Chief will monitor personnel redeployment activities to ensure number of hours worked is within acceptable guidelines Planning Section Resources

10.6 Planning Section Resources

10.6.1 Northwest Area Contingency Plan

This plan is intended for use as a guideline for coordination of spill response actions and to ensure consistency in response to spills. Federal and state rules require that a Responsible Party (RP), or spiller, must be able to manage spills with a pre-designated response management organization that accommodates a unified command structure in recognition of federal, state, tribal or local jurisdiction.

The plan will assist the Planning Section with area specific information and can be found at:

<http://rrt10nwac.com/NWACP/Default.aspx>

10.6.2 Washington State Geographic Response Plans

Geographic Response Plans (GRPs) are geographic-specific response plans for oil spills to water. They include response strategies tailored to a specific beach, shore, or waterway and meant to minimize impact on sensitive resources threatened by the spill. Each GRP has two main priorities:

- To identify sensitive natural, cultural or significant economic resources.
- To describe and prioritize response strategies in an effort to minimize injury to sensitive natural, cultural, and certain economic resources at risk from oil spills.

More information and the GRPs can be found at:

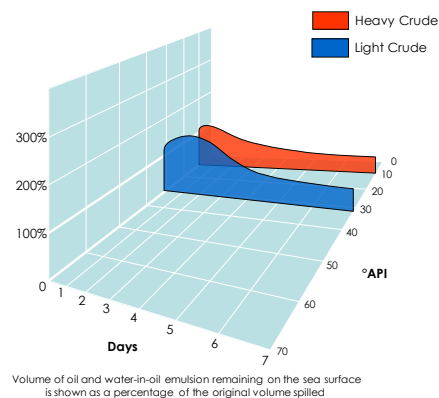
<http://www.ecy.wa.gov/programs/spills/preparedness/GRP/Introduction/introduction.htm>

10.6.3 Washington State Department of Ecology – Spills

The Spill Program's **vision** is to prevent, prepare for and respond aggressively to oil spills; to be our best for the State of Washington. Our goal is “**zero spills**”. The Spills Program's **mission** is to protect Washington's environment, public health, and safety through a comprehensive spill prevention, preparedness, and response program. The Spills Program was created by the Washington Legislature in 1997 to prevent, prepare for and respond to oil and hazardous material releases from regulated oil-handling facilities and vessels. The spills website has many links that may be useful, which is found at: <http://www.ecy.wa.gov/programs/spills/spills.html>

10.7 Fate of Spilled Oil

Different oil products behave very differently when spilled. The below chart provides an estimate of how each product would behave in a marine spill. In some cases, i.e., a Jet Fuel spill, emulsification can increase the volume of oily mixture to be recovered. With heavier products, such as Crude Oil, evaporation will reduce the volume of oil requiring recovery to a maximum of about 50%. In all cases, predictive models, should be run in the event of a spill, based on specific spill conditions.



10.8 Shoreline Cleanup Assessment Technique (SCAT)

The SCAT process is conducted as part of the overall planning activity to identify sensitive shoreline resources, develop appropriate protection plans as outlined above, and identify recommended pre-treatment and cleanup techniques. A SCAT Team Leader, under the Environmental Unit Leader, is responsible for coordinating and directing these activities.

The specific goals of the SCAT process are to:

- identify the shoreline areas that are, and are not, oiled as a result of the spill through aerial surveys
- conduct ground surveys of these areas if necessary to define precise oil conditions, operational limitations, and to establish clean-up locations and priorities
- determine the most environmentally-suitable methods of clean-up based on shoreline type and characteristics
- conduct and monitor shoreline clean-up operations

A comprehensive, practical description of the SCAT process is contained in Environment Canada's *Oil Spill SCAT Manual for the Coastlines of British Columbia*, and in the Northwest Area Contingency Plan Section 9421 – Shoreline Cleanup and Assessment (SCAT) Response Tools

10.9 Regional Environmental Emergency Team (REET)

The Regional Environmental Emergencies Team (REET) provides consolidated and coordinated environmental advice, information and assistance in the event of an environmental emergency. REET is normally used in Canada; however it may be applicable during a spill event that crosses the Canada, USA border, most likely if the event originates in Canada. REET members represent several federal, provincial and municipal government departments, aboriginal communities, private sector agencies, and local individuals.

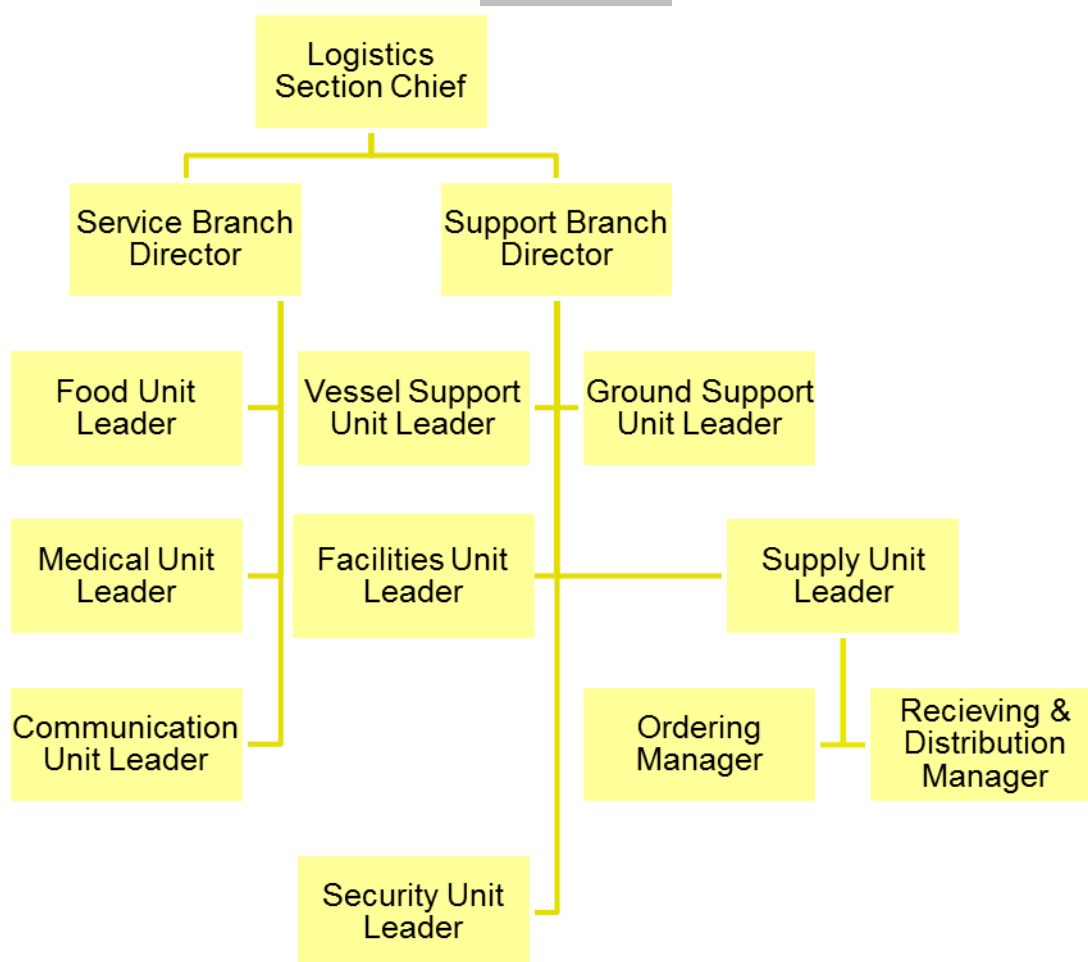
In an emergency situation REET operates as a multi-disciplinary and multi-agency team that provides comprehensive and coordinated environmental advice, information and assistance to the Unified Command, REET can address and prioritize the environmental, cultural, economic, property and human issues. REET effectively eliminates agency overlap and utilizes all resources to identify and action the resources at risk.

11.0 LOGISTICS SECTION

The Logistics Section is responsible for providing support to the incident, including all incident facilities (including the Incident Command Post). The Logistics Section will also source all required resources, including both personnel and equipment, accommodations, food and supplies. Detailed duties and responsibilities for individuals in the Logistics Section can be found in the Kinder Morgan Canada Incident Command System Guide on e:\manuals.

11.1 Logistics Section Organization Chart

Not all roles will be filled for all incidents; however the following chart is an outline of the possible positions to be filled. Detailed descriptions of each position and its duties can be found in the Kinder Morgan ICS Guide (e:\manuals) and the Northwest Area Contingency Plan (<http://rrt10nwac.com/NWACP/Default.aspx>)



11.2 Logistics Section Chief

The Logistics Section Chief, a member of the General Staff, is responsible for providing facilities, services, and material in support of the incident response. The Logistics Section Chief participates in developing and implementing the Incident Action Plan and activates and supervises Branches and Units within the Logistics Section.

11.3 Facilities

11.3.1 Incident Command Post

Typically, the ICP is located near the incident site and is the focus for the conduct of direct, on-scene control of tactical operations. Incident planning is also conducted at the ICP; an incident communications center also would normally be established at this location. The ICP may be collocated with the incident base, if the communications requirements can be met. The ICP may perform local Emergency Operations Center-like functions in the context of smaller jurisdictions or less complex incident scenarios.

Upon arrival at the site, IMT members should go directly to the primary ICP location. The IMT will assemble at the designated Command Post as soon as possible following notification. If another location is being utilized, team members will be notified upon arrival.

11.3.2 Media Relations Centre

The designated Media Relations Centre in the event of an emergency will be designated at the time of an emergency, based on the location of the ICP.

11.3.3 Staging Areas

A number of locations may serve as the key staging areas for response activities, the actual location of the staging area will depend on the type of emergency event. It is important to note that Logistics is responsible for establishing staging areas but once established, Operations is responsible for their continued operation and staffing.

Factors considered in the selection of staging areas include:

- Safety and security
- Accessibility by road, water
- Available space for storing equipment
- Suitability for landing helicopters
- Ease of providing long-term logistics support (personnel changes, fueling, and provisioning)

11.4 Communications

11.4.1 Emergency Communications System

During a spill response, communications will take place through one of the following modes:

- Landline and/or cellular telephones
- Radio System
- Satellite Communication

This section describes the overall communications plan and procedures followed in the event of an oil spill or other emergency.

11.4.2 Telephone Communications

Regular or cellular telephones will be the primary mode of communications between team members to whom cellular or car phones have been assigned, and the Incident Command Post, and between the Incident Command Post and various outside agencies and organizations. Regular and cellular telephone contacts for all IMT personnel and agencies are provided in Section 2.

11.4.3 Radio Communications

The radio system utilizes Motorola portable radio units. Separate channels may be used for the incident response and normal operations. Also, different contractors operate a number of radios on separate channel. When necessary to facilitate communications between Kinder Morgan and contract personnel, radios may be shared during an incident. During an incident, all radio frequencies used will be tracked using the ICS 205.

11.4.4 Additional Resource Suppliers

Suppliers and contact information is provide for a range of resources that might be required in the event of a spill in Section 2.

11.5 Security

Due to the large amount of public attention created at an incident site, additional security measures are required. Security needs to be considered for any command post, staging area as well as the incident site. Additional duties for security can be found in the Incident Command System Guide located on e:\manuals and additionally the security plan form can be found on http://kmonline/business_units/KMC/Pages/EHS_Emergency_Response.aspx or e:\manuals or in hardcopy with the documentation unit. 

INCIDENT SECURITY PLAN (Complete form for each location requiring security)		
Incident name:		Date:
Incident location:		
Prepared by:	Position:	Date:
Indicate type of incident facility or area:		
☐ Command post	☐ Offshore zone	
☐ Joint information center	☐ Onshore work site	
☐ Media briefing room	☐ Other:	
☐ Staging area		
Incident facility location:		
Hours security required at this location:	☐ Daylight	☐ Night ☐ 24 hours
Security forces at this location:		
☐ Private	☐ Local agency	☐ State agency ☐ Federal agency
Description:		
Off-site traffic control required: ☐ Yes ☐ No		
If yes, describe:		
Site access controlled by:		
☐ Personnel	☐ Barricades	☐ Gates ☐ Other:
Describe:		
Security forces at this location:		
☐ Check-in list	☐ Badges	☐ ID Card ☐ Other:
Describe:		

INCIDENT SECURITY PLAN, CONTINUED
(Complete form for each location requiring security)

Security forces at this location:

☐ Personnel ☐ Locked storage ☐ 24 hr manned site ☐ Other:

Describe:

Describe EPA, USCG, FAA, or other agency implemented safety or security zones:

Additional comments:

Security issue notifications:

Site security manager:	Phone number:
------------------------	---------------

Local law enforcement:	Phone number:
------------------------	---------------

State law enforcement:	Phone number:
------------------------	---------------

Federal law enforcement:	Phone number:
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Incident security officer:	Phone number:
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12.0 FINANCE AND ADMINISTRATION SECTION

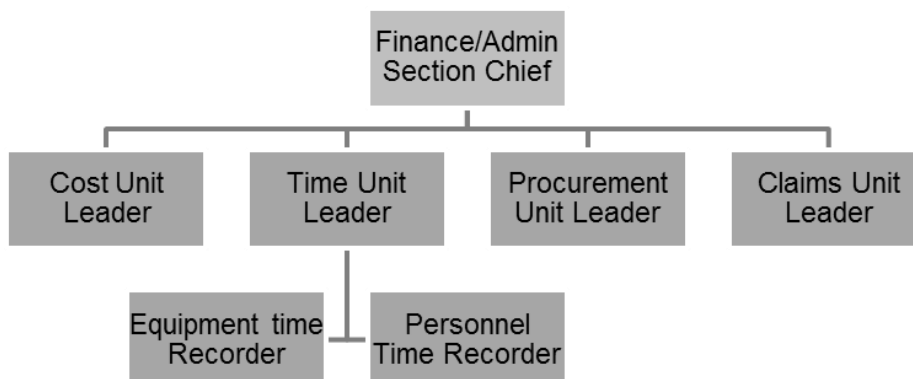
The Finance and Administration Section is responsible for all financial aspects of the response, including assisting in establishing contracts with suppliers, and setting up systems to monitor time and costs. Detailed duties and responsibilities for individuals in the Finance Section can be found in the Kinder Morgan Canada Incident Command System Guide on e:\manuals.

12.1 Finance Section Organization Chart

Not all roles will be filled for all incidents; however the following chart is an outline of the possible positions to be filled. Detailed descriptions of each position and its duties can be found in the Kinder Morgan ICS Guide (e:\manuals) and the Northwest Area Contingency Plan (<http://rrt10nwac.com/NWACP/Default.aspx>)

12.2 Finance Section Chief

The Finance/Administration Section Chief, a member of the General Staff, is responsible for all financial and cost analysis aspects of the incident and for supervising members of the Finance/Administration Section. In the absence of a Claims Unit Leader the Finance/Administration Section Chief will begin the claims process.



12.3 Managing Spill Liability Claims –Claims Unit Leader

The Insurance/Risk Management Department will do the following things while managing spill liability claims. The Claims unit leader will work closely with the Kinder Morgan Insurance Risk Management Department, or the Insurance/Risk Management Department will deploy specific personnel to the ICP. There is a formal and informal claims process, whenever possible KMC will use the informal process as a means of directly and immediately compensating individuals impacted by the incident.

- Participation in the initial ERL+ conference call to gather information.
- Provide notice of incident to appropriate insurers.
- Coordinate with legal, operations & procurement to investigate any contractual protections available.
- Establish contact with the Risk Management group
- Establish contact with liability adjuster and instruct them to proceed immediately to the incident site. Adjuster(s) can be on site within 4-12 hours of notification.
- Member of Risk Management group will travel to site to work with the adjuster and act as the liaison with the incident commander on site.
- Adjuster can make contact with the displaced residents at the discretion of KM or the local authorities. Adjuster will gather pertinent information (phone no., address, damage assessments, costs incurred) and will provide contact information to them for later follow-up.
- Set up an 800 number for the intake of damage claims to be funneled back through the adjuster for processing. This would be coordinated through the Communications Department, and advertised with public information communications and on the website.
- Adjuster and/or Risk Management to follow-up with displaced residents to address concerns regarding damage claims or out of pocket expenses that resulted from the incident.
- Risk Management to coordinate with the business unit to set up a property damage/liability AFE to cover the costs of damage claims of third parties.
- Instruct adjuster to gather documentation from third party claimants in order to settle and/or resolve any damage claims arising from the incident.
- Risk Management to coordinate with legal department on those third party claims in which KM is sued or third party has legal representation.
- Claims will be processed in the order they are received.
- Each claim will be given a unique tracking number and claimants will be able to track the progress of their claim with this number.
- If incomplete, claimants will be provided a thorough explanation of the deficiencies and a timeframe to submit the necessary information to continue processing the documents.
- Once processed, will a release need to be signed by claimant before payment.

12.4 Managing Spill Liability Claims – Informal Claims Process

A land agent (“Adjustor” in this context) enters the field as soon as possible after the report of the incident, often within hours. The land agent begins identifying and communicating with parties that are either directly affected by the incident or close enough to warrant communications on what is occurring. This land agent has the authority to immediately compensate or make arrangements with affected parties to mitigate the negative effect the event has had on their lives. Examples of this “immediate compensation” might be: Short term accommodations for displaced persons; water, food or groceries provision or compensation; short term lost income payment (in cases where the party has limited resources); payment for boarding of livestock or household pets; rental vehicle compensation necessitated due to loss of access to their own car; travel costs to stay with relatives or to get away

from trauma of situation; compensation for short term counseling; payment for destroyed tools/equipment that might prevent the person from carrying on their livelihood until replaced.

These immediate “claims” are identified in the field, settled immediately (with consultation with the Claims Unit Leader, or under agreed terms of reference) and either cash or check is done up on the spot, or company credit cards are used to procure things like hotel rooms. Formal paperwork is not required on these payments, the party must sign a receipt acknowledging the payment. If there are additional claims, the formal process in Section 12.5 will be followed.

12.5 Managing Spill Liability Claims –Formal Claims Process

In the event that the informal process cannot settle claims by individuals, this formal process will be followed.

12.5.1 Oil Spill Claims Event Tiers

Oil spill claims events can be generally classified by the number of claims anticipated rather than the quantity of product released. These tiers are defined as follows:

- Tier 1 – up to 50 oil spill claims anticipated
- Tier 2 – between 50 and 500 spill claims are anticipated
- Tier 3 – over 500 spill claims are anticipated

12.5.2 7.2 Oil Spill Claims Management

Management of oil spill claims will be provided by the Claims Unit Leader and the KM Insurance/Risk Management Department representatives in cooperation with the Incident Commander (Refer to Section 2 for contact information). Outside contractors will support claims processing during all events.

12.5.3 Insurance

KMC is insured in excess of the oil spill liability requirements for onshore facilities outlined in the Oil Pollution Act of 1990.

12.5.4 Oil Spill Claims Handling Process

After an oil spill occurs, KMC will advertise for claims following the information provided in Section 12.5.5. Oil spill claims information and forms will be made available through local claims centers, if established, or via the internet. Sample claims forms and internal claim check and tracking forms are presented in Section 12.5.11. Examples of documentation needed for various types of claims can be found in Section 12.5.10. Section 12.5.9 explains the KMC claims adjudication process and provides related timeframes. Depending on the anticipated number of claims related to the spill, KMC will establish local claim centers. Oil spill claims will be accepted by KMC up to 3-years from the date that KMC began advertising for claims or 3-years from the date that the injury or damage being claimed was reasonably discovered – whichever date is earlier. Natural Resources Damage Assessment (NRDA) claims are handled separately from other claims, and may be accepted by KMC in a manner and timeframe agreed to by the company and the lead federal and/or state trustee agency.

12.5.5 Oil Spill Claims Advertisements

KMC will advertise for claims after being advised to do so by our legal department, or within 15-days after being designated as the Responsible Party for an oil spill by the Federal On-Scene Coordinator (FOSC) or the USCG National Pollution Funds Center (NPFC). The geographic extent of the oil spill will dictate the publications in which claim advertisements will be placed. The length of time

advertisements will run in local publications will be based on recommendations provided by our legal department or the length of time specified by FOSC or the NPFC. A sample claims advertisement is presented in Section 12.5.11.4.

12.5.6 Oil Spill Claims Contact Information

In the event of an oil spill contact information for oil spill claims, location of local claim centers and mailing address for claims submission will be available via the toll free Public Information Line, established at the time of an incident, and on the website established at the time of an incident, as well as in advertisements placed in local publications.

12.5.7 Local Claims Centers

Local claims centers will be established based on community need and/or the number anticipated claims. Local claims centers will remain in operation for as long as warranted by workload and community need.

12.5.8 Oil Spill Claims Forms

The claims form used by KMC is presented in Section 12.5.11.1. A sample Claims Tracking Form is presented in Section 12.5.11.2. Other forms may be used if they provide an equivalent level of information as that found in Section 12.5.11.1. Information entered in the claim form must be typed or legibly hand-written in blue or blue-black ink. The claim form must include the “sum-certain” monetary amount being claimed and be signed by the claimant in black or blue-black ink. The Claims Tracking Sheet presented in Section 12.5.11.2 is used in the claims adjudication process to track the status of claims received and Claim Check Sheet presented in Section 12.5.11.3 is used to record the type of documentation provided with each claim.

12.5.9 Oil Spill Claims Adjudication and Timeframe

KMC will process claims in the order they are received. Each claim will be assigned a unique identification number which will be used to track the claim internally. The identification number can also be used by claimants who wish to provide additional information to support their claim, or inquire about the status of a claim. KMC will review each claim received to ensure, as much as possible, that all needed information to make a claim decision has been provided by the claimant. If additional information is needed, we will request that the claimant forward that information to us so it can be added to the claim and considered during adjudication. If the information requested is not received within 90 days, KMC will adjudicate the claim with the available information. This may result in a reduction of possible claim compensation or an outright denial of the claim.

Once KMC sends the claimant a claim determination, the claimant must either accept or reject the offer within 60 days. The claimant must sign a release before the claim will be processed for payment. If the claimant takes no action within 60 days after receiving the claim determination, the offer to pay the claim will be voided and the claim will be closed. If the claimant rejects the offer, they can provide additional information and ask KMC to reconsider the claim determination; typically, this would start an entirely new review process with another claim determination made as a result of the reconsideration. Claims submitted to KMC will be paid in the order that accepted offers (with signed releases) are received. Claims are usually paid within 30-days from the date KMC receives the claimant's signed release.

12.5.10 Oil Spill Claims Documentation

The amount and type of documentation needed to make a claim determination depends on many factors, including the claim type and the monetary amount claimed.

The following types of claims may be submitted to KMC. Example types of documentation are also included below within the listing of each claim type. The examples provided are for reference only; they may or may not represent everything needed to adjudicate a claim.

12.5.11 Removal Costs

Costs to prevent, minimize, mitigate, or clean up the oil spill. Examples of Proof and Documentation that may be needed:

- Proof that actions were coordinated with the FOSC.
- Witness statements
- Detailed description of actions
- Dates on which work was performed
- Analysis of spill substance
- Map of area
- Pictures of area, damage, and spill
- Receipts, invoices, or similar records with description of work
- How rates were determined and any comparison of rates
- Daily records of personnel costs including details on labor rates, hours, travel, and transportation
- Daily records of equipment costs including description and use
- Signed disposal manifests and proof of payment for disposal
- Payroll verification of hourly rate at the time of spill
- Verification of equipment rates for equipment used

12.5.12 Property Damage

Injury or damage to or economic loss resulting from destruction of real property (land or buildings) or other personal property including a boat. Examples of Proof and Documentation that may be needed:

- Proof of ownership or leasehold interest in the property; lease or rental agreement of any substitute property used
- Proof or evidence that property was injured, destroyed, or not usable because of the oil spill
- Report of any expenses or money lost while the property was unavailable because of spill damage
- Proof of value of property both before and after the spill or injury
- Documented cost of repair or replacement of the property
- Proof of value of property before and after the spill
- Documentation that shows whether or not substitute property was available, and related costs of substitute property if used.
- Documentation that shows how claimant lost money from the damage to the property
- Witness statements
- Copy of title, deed, lease, or license to property in claimant's name
- Pictures or videotape of property and/or damage
- Maps or legal documents showing the location of the property within the spill area
- Professional property appraisals for the value of the property prior to and after the spill, actual selling price of the property, and evidence connecting the depressed selling price to the oil spill rather than to other economic or real property factors
- Copies of bills paid for repair of damage or two estimates showing activities and costs to repair the damage

12.5.13 *Loss of Profits or Earning Capacity*

Damages equal to the loss of profits or impairment of earning capacity due to the injury, destruction, or loss of property or natural resources. Examples of Proof and Documentation that may be needed:

- Proof that property or natural resources that were damaged, destroyed or lost, resulted in claimant's loss
- Proof the claimant's income was reduced due to the damage or loss of the property or natural resources and how much it was reduced
- Documentation showing the amount of profits and earnings in similar time periods
- Documentation showing any alternative employment or business during the period claimed and any income received during that period
- Documentation showing and savings to overhead costs or other normal expenses - those not paid as a result of the spill (commuting costs, utility fees, employee salaries)
- Photos of damaged property (before and after the spill)
- Witness Statements on how the spill led to loss of business income or earning capacity; explain any earnings anomalies
- Statement on how the spill caused a loss in income
- Affidavit from claimant's employer about the impact the spill had on an employees work or income, and if the employer intends to file a claim for lost profits or earning capacity.
- Copies of pay stubs, receipts, timesheets from before, during, and after the spill
- Personnel records from claimant's employer before, during, and after the spill, showing employment
- Claimant's description of efforts to reduce loss, including job search
- Copies of any job-hunting expenses (e.g., travel costs)
- Signed copies of income tax returns and schedules for at least two years prior to spill
- Details of employment expenses not paid during period being claimed (e.g., commuting costs)
- Copies of pay stubs, receipts, timesheets from alternative employment during time of spill (including unemployment compensation)
- Description and documentation of business losses due to spill
- Copies of letters of business cancellations caused by the spill damage
- Maps or descriptions of the area showing the business location and the spill impact area
- Financial statements for at least two years prior to spill and from the year of the spill
- Signed copies of business income tax returns and schedules for at least three years prior to spill
- Details on efforts to mitigate business losses or why no efforts were taken
- For hotels, daily and monthly occupancy information for two years prior to spill and the year of the spill
- Description of marine charter business losses caused by the spill
- Evidence that charter vessel(s) was in the area impacted by the spill and were unable to carry on their business due to the spill
- Maps or descriptions of the area showing charter business location within spill area
- Signed copies of income tax returns (for charter boat business) and schedules for at least three years prior to spill
- Details on expenses not paid out during period being claimed (e.g., wages)
- Booking records for three years prior to spill and year of spill
- List of charter rates, including any services the business specializes in (e.g., sport fishing)
- Copies of any logs relating to boating activities for the year prior to and the year of the spill
- Registration documents for the vessel

12.5.13.1 *Loss of Subsistence Use of Natural Resources*

Loss of subsistence use claim if natural resources claimants depend on for subsistence use purposes that have been injured, destroyed, or lost by an oil spill event. Examples of Proof and Documentation that may be needed:

- Proof that injury, destruction, or loss of natural resources would have been used by the claimant to obtain food, shelter, clothing, medicine, or other minimum necessities of life.
- Documentation identifying each specific natural resource for which compensation for loss of subsistence use is being claimed
- Description of the actual subsistence use you make of each specific natural resource you identify;
- Description of how and to what extent claimant's subsistence use of the natural resource was affected by the injury to, destruction of, or loss of, each specific natural resource;
- Description of claimant's efforts to mitigate subsistence use loss
- Description of alternative source(s) or means of subsistence available to claimant during the period

12.5.13.2 *Loss of Government Revenue:*

Net loss by Federal, State, or Local Governments of taxes, royalties, rents, fees, or net profit shares due to the injury, destruction, or loss of real property, personal property, or natural resources. Examples of Proof and Documentation that may be needed:

- Information showing that the loss of revenue was caused by the injury to, destruction of, or loss of real or personal property or natural resources caused by the discharge
- Information showing the amount, identity, and description of the revenue loss for which compensation is claimed, including the applicable authority for collecting the revenue, method of assessment, applicable rate, and dates of collection or periods of loss
- Documentation showing expenditures saved because revenue was not collected
- The total assessment or revenue collected and related expenditures for comparable revenue periods, typically covering two years
- Description of what revenues were impacted and how the spill caused a loss of revenues
- Copies of statutes, regulations, ordinances, etc., outlining applicable authority to raise such revenues, property affected, method of assessment, rate of assessment, and method and dates of collection of assessment
- Government financial reports showing total assessment or revenue collected for comparable periods, typically covering two years
- Details of any expenses not paid out by government

12.5.13.3 Increased Public Service Costs

Net costs by State & Local Governments for providing increased or additional public services during or after removal activities, including protection from fire, safety, or health hazards, caused by a discharge of oil or directly attributable to response to the oil spill Event. *Examples of Proof and Documentation that may be needed:*

- Documentation showing justification for the public services provided, including documentation of what specific services were provided and the relationship to the spill.
- Documentation showing when services were provided during and after the oil spill removal.
- Documentation showing services were in addition to services normally provided
- Documentation showing the net cost for the services and the methods used to compute those costs
- Reports showing the increased public services were required and if the services were due to fire, health, or safety hazards
- Detailed description of what increased services were necessary and why, including a distinction between removal activities, safety acts, and law enforcement acts, and if the increase was actually incurred or if normal resources were diverted for use
- Daily reports on the activities of the government personnel and equipment involved
- Government Labor and Equipment Rates:
 - Payroll verification of the government hourly rate at the time
 - Verification of the standard government equipment rates for any equipment claimed
 - Signed and dated records of the spill including hourly rates for labor and equipment
 - Explanation as to whether rates are fully loaded or not and formulas used
 - Certification that rates used reflected actual costs incurred and did not include punitive damages or fees

1-888-876-6711

Emergency Response Plan

12.5.14 Oil Spill Claims Forms
12.5.14.1 ACORD General Liability Notice of Occurrence/Claim - SAMPLE

GENERAL LIABILITY NOTICE OF OCCURRENCE / CLAIM		DATE (MM/DD/YYYY)
AGENCY		INSURED LOCATION CODE
CONTACT NAME: PHONE (A/C, No, Ext): FAX (A/C, No): E-MAIL ADDRESS: CODE: SUBCODE:		DATE OF LOSS AND TIME AM PM
AGENCY CUSTOMER ID:		CARRIER NAIC CODE POLICY NUMBER
INSURED		
NAME OF INSURED (First, Middle, Last) DATE OF BIRTH FEIN (if applicable)		INSURED'S MAILING ADDRESS
PRIMARY PHONE # ☐ HOME ☐ BUS ☐ CELL SECONDARY PHONE # ☐ HOME ☐ BUS ☐ CELL		PRIMARY E-MAIL ADDRESS: SECONDARY E-MAIL ADDRESS:
CONTACT		
NAME OF CONTACT (First, Middle, Last) PRIMARY PHONE # ☐ HOME ☐ BUS ☐ CELL SECONDARY PHONE # ☐ HOME ☐ BUS ☐ CELL		CONTACT'S MAILING ADDRESS
WHEN TO CONTACT		PRIMARY E-MAIL ADDRESS: SECONDARY E-MAIL ADDRESS:
OCCURRENCE		
LOCATION OF OCCURRENCE STREET: CITY, STATE, ZIP: COUNTRY:		POLICE OR FIRE DEPARTMENT CONTACTED REPORT NUMBER
DESCRIBE LOCATION OF OCCURRENCE IF NOT AT SPECIFIC STREET ADDRESS: DESCRIPTION OF OCCURRENCE (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)		
TYPE OF LIABILITY		
PREMISES: INSURED IS ☐ OWNER ☐ TENANT ☐		TYPE OF PREMISES
OWNER'S NAME & ADDRESS (if not insured)		PRIMARY PHONE # ☐ HOME ☐ BUS ☐ CELL SECONDARY PHONE # ☐ HOME ☐ BUS ☐ CELL
PRODUCTS: INSURED IS ☐ MANUFACTURER ☐ VENDOR ☐		PRIMARY E-MAIL ADDRESS: SECONDARY E-MAIL ADDRESS:
MANUFACTURER'S NAME & ADDRESS (if not insured)		TYPE OF PRODUCT
WHERE CAN PRODUCT BE SEEN?		PRIMARY PHONE # ☐ HOME ☐ BUS ☐ CELL SECONDARY PHONE # ☐ HOME ☐ BUS ☐ CELL
ACORD 3 (2013/01)		PRIMARY E-MAIL ADDRESS: SECONDARY E-MAIL ADDRESS:

ACORD 3 (2013/01)

Page 1 of 4

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Emergency Response Plan

INJURED / PROPERTY DAMAGED

AGENCY CUSTOMER ID: _____

NAME & ADDRESS (Injured/Owner)			EMPLOYER'S NAME & ADDRESS		
PRIMARY PHONE #	☐ HOME ☐ BUS ☐ CELL	SECONDARY PHONE #	☐ HOME ☐ BUS ☐ CELL	PRIMARY PHONE #	☐ HOME ☐ BUS ☐ CELL
PRIMARY E-MAIL ADDRESS:			PRIMARY E-MAIL ADDRESS:		
SECONDARY E-MAIL ADDRESS:			SECONDARY E-MAIL ADDRESS:		
AGE	SEX	OCCUPATION			
WHERE TAKEN			DESCRIBE INJURY		
DESCRIBE PROPERTY (Type, model, etc.)			ESTIMATE AMOUNT	WHERE CAN PROPERTY BE SEEN?	

WITNESSES

NAME AND ADDRESS	PRIMARY PHONE # ☐ HOME ☐ BUS ☐ CELL	SECONDARY PHONE # ☐ HOME ☐ BUS ☐ CELL
PRIMARY E-MAIL ADDRESS:		
SECONDARY E-MAIL ADDRESS:		
NAME AND ADDRESS	PRIMARY PHONE # ☐ HOME ☐ BUS ☐ CELL	SECONDARY PHONE # ☐ HOME ☐ BUS ☐ CELL
PRIMARY E-MAIL ADDRESS:		
SECONDARY E-MAIL ADDRESS:		
NAME AND ADDRESS	PRIMARY PHONE # ☐ HOME ☐ BUS ☐ CELL	SECONDARY PHONE # ☐ HOME ☐ BUS ☐ CELL
PRIMARY E-MAIL ADDRESS:		
SECONDARY E-MAIL ADDRESS:		

REMARKS (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

REPORTED BY	REPORTED TO
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ACORD 3 (2013/01)

Page 2 of 4

AGENCY CUSTOMER ID: _____

APPLICABLE IN ALABAMA

Any person who knowingly presents a false or fraudulent claim for payment of a loss or benefit or who knowingly presents false information in an application for insurance is guilty of a crime and may be subject to restitution fines or confinement in prison, or any combination thereof.

APPLICABLE IN ALASKA

A person who knowingly and with intent to injure, defraud, or deceive an insurance company files a claim containing false, incomplete, or misleading information may be prosecuted under state law.

APPLICABLE IN ARIZONA

For your protection, Arizona law requires the following statement to appear on this form: Any person who knowingly presents a false or fraudulent claim for payment of a loss is subject to criminal and civil penalties.

**APPLICABLE IN ARKANSAS, DELAWARE, KENTUCKY, LOUISIANA, MAINE, MICHIGAN, NEW JERSEY,
NEW MEXICO, NEW YORK, NORTH DAKOTA, PENNSYLVANIA, RHODE ISLAND, SOUTH DAKOTA,
TENNESSEE, TEXAS, VIRGINIA, AND WEST VIRGINIA**

Any person who knowingly and with intent to defraud any insurance company or another person, files a statement of claim containing any materially false information, or conceals for the purpose of misleading, information concerning any fact, material thereto, commits a fraudulent insurance act, which is a crime, subject to criminal prosecution and [NY: substantial] civil penalties. In LA, ME, TN, and VA, insurance benefits may also be denied.

APPLICABLE IN CALIFORNIA

For your protection, California law requires the following to appear on this form: Any person who knowingly presents a false or fraudulent claim for payment of a loss is guilty of a crime and may be subject to fines and confinement in state prison.

APPLICABLE IN COLORADO

It is unlawful to knowingly provide false, incomplete, or misleading facts or information to an insurance company for the purpose of defrauding or attempting to defraud the company. Penalties may include imprisonment, fines, denial of insurance, and civil damages. Any insurance company or agent of an insurance company who knowingly provides false, incomplete, or misleading facts or information to a policy holder or claimant for the purpose of defrauding or attempting to defraud the policy holder or claimant with regard to a settlement or award payable from insurance proceeds shall be reported to the Colorado Division of Insurance within the Department of Regulatory Agencies.

APPLICABLE IN THE DISTRICT OF COLUMBIA

Warning: It is a crime to provide false or misleading information to an insurer for the purpose of defrauding the insurer or any other person. Penalties include imprisonment and/or fines. In addition, an insurer may deny insurance benefits, if false information materially related to a claim was provided by the applicant.

APPLICABLE IN FLORIDA

Pursuant to S. 817.234, Florida Statutes, any person who, with the intent to injure, defraud, or deceive any insurer or insured, prepares, presents, or causes to be presented a proof of loss or estimate of cost or repair of damaged property in support of a claim under an insurance policy knowing that the proof of loss or estimate of claim or repairs contains any false, incomplete, or misleading information concerning any fact or thing material to the claim commits a felony of the third degree, punishable as provided in S. 775.082, S. 775.083, or S. 775.084, Florida Statutes.

APPLICABLE IN HAWAII

For your protection, Hawaii law requires you to be informed that presenting a fraudulent claim for payment of a loss or benefit is a crime punishable by fines or imprisonment, or both.

APPLICABLE IN IDAHO

Any person who knowingly and with the intent to injure, defraud, or deceive any insurance company files a statement of claim containing any false, incomplete or misleading information is guilty of a felony.

APPLICABLE IN INDIANA

A person who knowingly and with intent to defraud an insurer files a statement of claim containing any false, incomplete, or misleading information commits a felony.

AGENCY CUSTOMER ID: _____

APPLICABLE IN KANSAS

Any person who, knowingly and with intent to defraud, presents, causes to be presented or prepares with knowledge or belief that it will be presented to or by an insurer, purported insurer, broker or any agent thereof, any written statement as part of, or in support of, an application for the issuance of, or the rating of an insurance policy for personal or commercial insurance, or a claim for payment or other benefit pursuant to an insurance policy for commercial or personal insurance which such person knows to contain materially false information concerning any fact material thereto; or conceals, for the purpose of misleading, information concerning any fact material thereto commits a fraudulent insurance act.

APPLICABLE IN MARYLAND

Any person who knowingly or willfully presents a false or fraudulent claim for payment of a loss or benefit or who knowingly or willfully presents false information in an application for insurance is guilty of a crime and may be subject to fines and confinement in prison.

APPLICABLE IN MINNESOTA

A person who files a claim with intent to defraud or helps commit a fraud against an insurer is guilty of a crime.

APPLICABLE IN NEVADA

Pursuant to NRS 686A.291, any person who knowingly and willfully files a statement of claim that contains any false, incomplete or misleading information concerning a material fact is guilty of a felony.

APPLICABLE IN NEW HAMPSHIRE

Any person who, with purpose to injure, defraud or deceive any insurance company, files a statement of claim containing any false, incomplete or misleading information is subject to prosecution and punishment for insurance fraud, as provided in RSA 638:20.

APPLICABLE IN OHIO

Any person who, with intent to defraud or knowing that he/she is facilitating a fraud against an insurer, submits an application or files a claim containing a false or deceptive statement is guilty of insurance fraud.

APPLICABLE IN OKLAHOMA

WARNING: Any person who knowingly and with intent to injure, defraud or deceive any insurer, makes any claim for the proceeds of an insurance policy containing any false, incomplete or misleading information is guilty of a felony.

APPLICABLE IN WASHINGTON

It is a crime to knowingly provide false, incomplete, or misleading information to an insurance company for the purpose of defrauding the company. Penalties include imprisonment, fines and denial of insurance benefits.

12.5.14.2 Claims Tracking Sheet- SAMPLE

Claims Number _____

Claimant's Name _____

Claimant's Address _____

Claimant's Contact Phone# _____

Claimant's Email _____

Claim Type _____

Amount Claimed (\$) _____

Date Claim Received _____

Name of Adjudicator (Lead) _____

Adjudicator Phone# _____

Adjudicator Email _____

Date Follow-Up _____

Information Requested (N/A if Not Applicable) _____

Claim Determination Date (Sent) _____

Claim Determination Amount (\$) _____

Date Release Received (N/A if Not Applicable) _____

Date Rejection Received (N/A if Not Applicable) _____

Date Payment Approved (N/A if Not Applicable) _____

Date Claim Closed _____

1-888-876-6711

Emergency Response Plan

12.5.14.3 Claims Check Sheet - SAMPLE

Claims Number _____

Claimant's Name _____

Date Claim Received _____

Documents Provided		
1	Claim Form - Signed (Accord, GL Notice of Occurrence or Equivalent)	
2	Affidavit from employer on the impact on work or income due to the spill and if the company will be filing a claim for lost profits	
3	Analysis of spill substance	
4	Any expenses or money lost while the property was unavailable because of spill damage	
5	Beach closures or fishing advisories	
6	Booking records for three years prior to spill and year of spill	
7	Certification that rates used reflected actual costs incurred and did not include punitive damages or fees	
8	Copies of any job-hunting expenses (e.g., travel costs)	
9	Copies of any logs relating to boating activities for the year prior to and the year of the spill	
10	Copies of bills paid for repair of damage or two estimates showing activities and costs to repair the damage	
11	Copies of letters of business cancellations caused by the spill damage	
12	Copies of pay stubs and other documentation showing income Claimant received before, during, and after the spill and oil spill response	
13	Copies of pay stubs, etc., from alternative employment during time of spill	
14	Copies of pay stubs, receipts, etc., from before, during, and after the spill	
15	Copies of statutes, regulations, ordinances, etc., outlining applicable authority to raise such revenues, property affected, method of assessment, rate of assessment, and method and dates of collection of assessment	
16	Copy of title, deed, lease, or license to property in Claimant's name	

Documents Provided		
17	Daily records of equipment costs including description and use	
18	Daily records of personnel costs including details on labor rates, hours, travel, and transportation	
19	Daily reports on the activities of the government personnel and equipment involved	
20	Dates on which work was performed	
21	Describe any compensation available to Claimant for the subsistence loss Claimant suffered	
22	Describe each alternative source or means of subsistence available to Claimant during the period of time for which Claimant claim a loss of subsistence	
23	Describe each effort Claimant made to mitigate Claimant's subsistence use loss	
24	Describe how and to what extent Claimant's subsistence use of the natural resource was affected by the injury to, destruction of, or loss of, each specific natural resource	
25	Describe the actual subsistence use Claimant make of each specific natural resource Claimant identify	
26	Description and documentation of business losses due to spill	
27	Description of business losses caused by the spill	
28	Description of efforts to reduce Claimant's loss, including job search	
29	Description of what revenues were impacted and how the spill caused a loss of revenues	
30	Detailed description of actions	
31	Detailed description of what increased services were necessary and why, including a distinction between removal activities, safety acts, and law enforcement acts, and if the increase was actually incurred or if normal resources were diverted for use	
32	Details and explanation of net loss of revenue	

Documents Provided		
33	Details of any expenses not paid out by government during the period being claimed	
34	Details of employment expenses not paid during period being claimed (e.g., commuting costs)	
35	Details on efforts to mitigate losses or why no efforts were taken	
36	Details on expenses not paid out during period being claimed (e.g., wages)	
37	Evidence connecting the depressed selling price of a property to the oil spill rather than to other economic or real property factors	
38	Evidence that vessel(s) were in the area impacted by the spill and were unable to carry on their business due to the spill	
39	Explanation as to whether rates are fully loaded or not and formulas used; states should provide rates under OMB Circular A-87	
40	Financial statements for at least two years prior to spill and from the year of the spill	
41	For hotels, daily and monthly occupancy information for two years prior to spill and the year of the spill	
42	FOSC report	
43	FOSC, natural resource trustee and newspaper reports describing the oil spill and response, and the resulting injury, destruction or loss of natural resources	
44	Government financial reports showing total assessment or revenue collected for comparable periods, typically covering two years	
45	Government Labor and Equipment Rates	
46	How rates were determined and any comparison of rates	
47	Identify each specific natural resource for which compensation for loss of subsistence use is being claimed	
48	Information in EPA or USCG notifications, and claims advertising	
49	Information on EPA or USCG notification	

Documents Provided		
50	Lease or rental agreement of any substitute property used	
51	List of charter rates, including any services the business specializes in (e.g., sport fishing)	
52	Map of area	
53	Maps or descriptions of the area showing business location within spill area	
54	Maps or descriptions of the area showing the business location and the spill impact area	
55	Maps or legal documents showing the location of the property within the spill area	
56	Maps	
57	Newspaper reports describing the spill	
58	Payroll verification of hourly rate at the time of spill	
59	Payroll verification of the government hourly rate at the time	
60	Personnel records from Claimant's employer before, during, and after the spill, showing employment	
61	Photographs and videos	
62	Photos of damaged property (before and after the spill)	
63	Pictures of area, damage, and spill	
64	Pictures or videotape of property and/or damage	
65	Professional property appraisals for the value of the property prior to and after the spill	
66	Published accounts, witness statements and other written records documenting Claimant's use of natural resources for subsistence purposes before, during, and after the spill and oil spill response	
67	Receipts, invoices, or similar records with description of work	
68	Records showing compensation Claimant received for Claimant's loss	

Documents Provided		
69	Records showing the expenses Claimant avoided during the time Claimant were not able to carry out Claimant's subsistence use of the affected natural resource	
70	Registration documents for the vessel(s), copies of business license, vessel license, fishing license, captain's license	
71	Reports showing the increased public services were required and if the services were due to fire, health, or safety hazards	
72	Signed and dated records of the spill including hourly rates for labor and equipment	
73	Signed copies of income tax returns and schedules for at least three years prior to spill	
74	Signed copies of income tax returns and schedules for at least two years prior to spill	
75	Signed disposal manifests and proof of payment for disposal	
76	Statement from Claimant or witnesses on how the spill caused the loss of income; explain any earnings anomalies	
77	Statement from Claimant or witnesses on how the spill led to loss of income or earning capacity; explain any earnings anomalies	
78	Statement on how the spill caused a loss in income	
79	Store and barter receipts showing the replacement costs Claimant claim;	
80	Verification of standard equipment rates for equipment used	
81	Verification of the standard government equipment rates for any equipment claimed	
82	Witness statements and documents showing the alternative sources of subsistence available to Claimant, and Claimant's efforts to reduce the damages resulting from Claimant's loss of subsistence use, including receipts from job-hunting expenses (e.g., travel costs)	
83	Witness statement(s)	

1-888-876-6711

Emergency Response Plan

Documents Provided		
84	Other	
85	Other	
86	Other	

12.5.14.4 Claims Advertisement - SAMPLE**Advertisement for Oil Spill Claims****CompanyX**

Oil Spill - January 24, 2010
4300 Gallons Heavy Oil
Budd Inlet (Olympia, WA)
South Puget Sound

The U.S. Coast Guard National Pollution Funds Center has designated CompanyX as the Responsible Party for an oil spill that occurred around 7:00AM (PST) on January 24, 2010, impacting the waters of Budd Inlet and South Puget Sound. An estimated 4,300 gallons of heavy fuel oil was released from our facility on Boston Harbor Road (in Olympia) into Budd Inlet and South Puget Sound.

CompanyX is receiving claims related to this incident. Information about claims and the claims process is available on-line at the CompanyX website (see link below). You can also call, email, or mail us if you need additional assistance or information.

Website: www.companyx.com/claims.htm

Email: claims@companyx.com

Phone: **(360) 407-0007** (Mon-Sat, 8am to 5pm PST)

Mail: CompanyX – Oil Spill Claims
PO Box 4912876, Olympia, WA 98503

13.0 WILDLIFE CARE

The key objective of wildlife response is to minimize animal suffering. Prompt initiation of oiled wildlife response operations will help achieve this objective by facilitating greater efficiency throughout the wildlife operations.

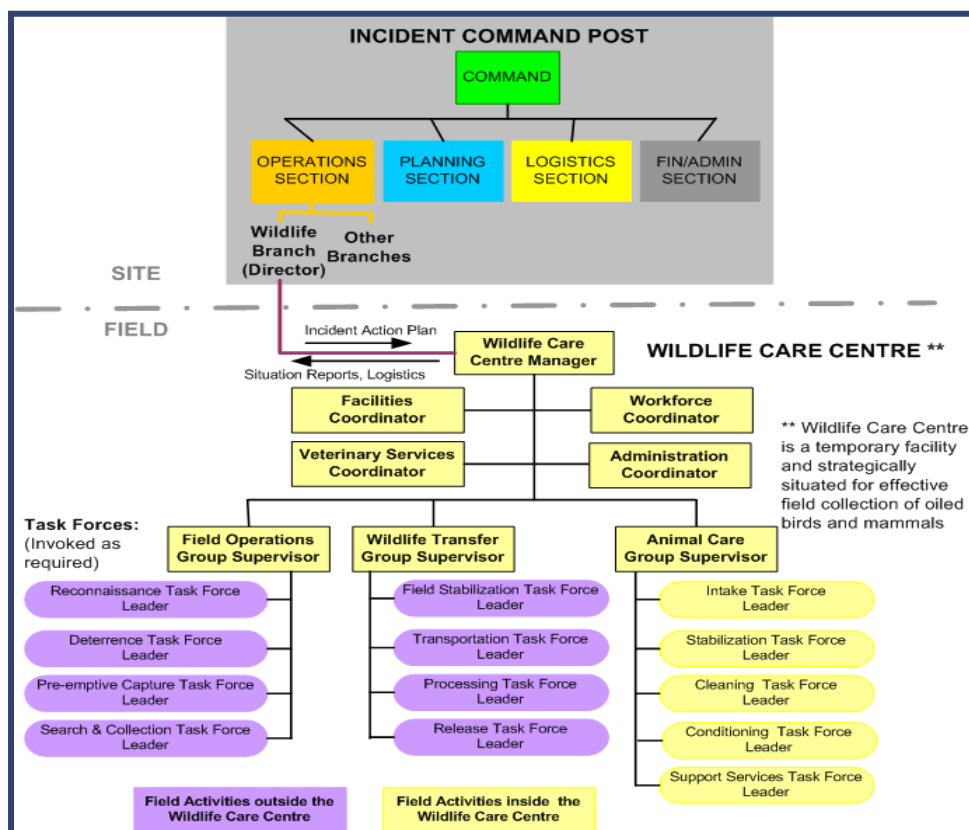
There are, however, other objectives to consider, including the provision of an organized, transparent, stakeholder-inclusive and fair process. Application of proven incident management and wildlife care protocols are fundamental in achieving these objectives.

Kinder Morgan Canada recognizes that a Wildlife Response Plan is essential in order to have systems and procedures in place with adequate resources to promote an effective response; thus reducing wildlife suffering.

When an oil spill occurs, wildlife can become a primary focus of the media and the general public and may be perceived as the highest priority for response attention. Birds are often the most visual of impacted and at-risk wildlife; however other groups of animals, including invertebrates, fish, reptiles and mammals can also be affected.

13.1 Wildlife Operations

The organizational structure of wildlife branch operations within the Incident Command System is depicted below. In addition to the full development of the Wildlife Branch within the Operations Section, wildlife might also have specialists in the Planning and Logistics sections of the ICS to ensure the unique needs of the wildlife response are met.



13.2 Wildlife Response Strategies

Proactive wildlife response strategies are the key to mounting a wildlife response that minimizes wildlife impacts. Immediate appraisal and monitoring of the spill in relation to wildlife resources allows for timely, efficient and effective activities. Generally, the best response strategy is to prevent wildlife from being impacted by the product via an effective monitoring, reconnaissance and hazing program. If wildlife impacts are unavoidable, proactive search and collection to quickly retrieve contaminated animals is imperative. The sooner an animal is brought into care for treatment, the healthier it is, and the faster it will progress through the wildlife care centre and return to the wild.

13.3 Operational Aspects

When live animals are impacted or potentially impacted by an oil spill, time is of the essence. There is also the matter of public attention, which can be greatly exaggerated by media interest. A number of operational aspects that require careful planning follow:

13.3.1 Mobilization

An initial wildlife impact assessment should be performed as soon as safely possible following the spill event. This initial assessment will provide information and opportunity for proactive deterrence activities to prevent wildlife impacts, while also providing invaluable information regarding the scale of potential response activities. If wildlife impact occurs, depending on the rate of recovery from the field, response will either occur while the organizational structure is being established, or after the response organization has had an opportunity to create the wildlife plan.

13.3.2 Coordination

The Wildlife Care Centre (WCC) is the place from where all oiled wildlife response activities are monitored and directed. It is a space where principal officers meet and where they can be contacted. The WCC is ideally integrated with the Incident Command Post in some way. The WCC is typically a temporary facility, developed at the time of a wildlife response to accommodate the particular needs of the spill.

Those managing the WCC need to be aware of, and have access to, every level of the wider response organization. In turn, each key player in the response organization needs to know how the WCC can be contacted. For the WCC to be an effective coordinating unit, communication and reporting protocols must be established. All response units must report in accordance with protocols to allow for efficient data processing.

13.3.3 Facilities

There are very specific and well-documented facility requirements for the successful care of oiled wildlife. These requirements must be incorporated into the development of the Wildlife Care Centre to ensure a successful response effort.

13.3.4 Phasing

Upon activation, responders and equipment must be mobilized and facilities developed. This is the emergency response phase of the wildlife response. At this point, decisions are guided by pre-defined priorities which will facilitate wildlife response managers to efficiently perform their duties.

The next phase of the response will arise gradually, incident-dependent. Once the operational structure is developed and effective, the main influx of wildlife will normally have peaked. Ongoing, but smaller,

intake peaks might occur according to weather, animal movements, fate and effects of the product, spill cleanup progress and degree of search and collection activities. At this stage, the WCC can begin to transition from emergency response to project management, including demobilization.

13.3.5 Workforce

Volunteer manpower is often required to ensure adequate operations of the time and energy intensive requirements of successful oiled wildlife response. For liability reasons, those interested and qualified to assist response operations volunteer to be 'hired' as workforce personnel. As such, these personnel receive a nominal fee in exchange for their participation in response operations. This group of people is referred to as workforce personnel.

13.3.6 Health and Safety

Oiled wildlife response presents many unique concerns regarding personnel health and safety. Along with general issues pertaining to product exposure, there are additional issues relating to exposure to wild animals. Considerations for zoonotic disease factors, personal protective equipment, safety protocols should be addressed in pre-determined guidelines for wildlife response personnel.

Cleanup personnel should also be made aware of health and safety concerns pertaining to wildlife in case they are exposed to them in the field. All field personnel should understand the reporting line to ensure that impacted wildlife discovered in the field is dealt with safely, efficiently and in accordance with the wildlife plan.

13.4 Wildlife Assistance

13.4.1 US Fish and Wildlife Contact

The Trans Mountain Pipeline runs through USFW Region 1

Region 1 - Pacific Region
Chief, Division of Endangered Species
U.S. Fish and Wildlife Service
911 NE 11th Ave
Portland, Oregon 97232
(503) 231-6120
<http://www.fws.gov/pacific/>

13.4.2 Wildlife Contractors

- Focus Wildlife 1-800-578-3048
- Tri-State Bird Rescue 1-302-737-9543

13.5 Washington Department of Fish and Wildlife

13.5.1 Priority Habitats and Species List

The Washington Department of Fish and Wildlife publishes a Priority Habitats and Species (PHS) list. The PHS List is a catalog of habitats and species considered to be priorities for conservation and management.

Priority species require protective measures for their survival due to their population status, sensitivity to habitat alteration, and/or recreational, commercial, or tribal importance. Priority species include State Endangered, Threatened, Sensitive, and Candidate species; animal aggregations (e.g., heron colonies, bat colonies) considered vulnerable; and species of recreational, commercial, or tribal importance that are vulnerable.

Priority habitats are habitat types or elements with unique or significant value to a diverse assemblage of species. A priority habitat may consist of a unique vegetation type (e.g., shrub-steppe) or dominant plant species (e.g., juniper savannah), a described succession stage (e.g., old-growth forest), or a specific habitat feature (e.g., cliffs).

There are 20 habitat types, 152 vertebrate species, 41 invertebrate species, and 10 species groups currently in the PHS List. These constitute about 17% of Washington's approximately 1000 vertebrate species and a fraction of the state's invertebrate fauna.

Numerous individuals and groups use the PHS List as well as associated PHS products (e.g., PHS Data) to inform conservation-related activities. Typical users include cities and counties that use PHS to fulfill planning requirements under the Growth Management Act and Shoreline Management Act, non-profit organizations such as land trusts that use PHS information to prioritize habitat protection, community groups working on local biodiversity planning initiatives, as well as other state and federal government agencies.

You can access the current list and online mapping at: <http://wdfw.wa.gov/conservation/phs/list/>

13.5.2 Species of Concern

The following list includes those species listed as State Endangered (SE), State Threatened (ST), State Sensitive (SS), or State Candidate (SC), as well as species listed or proposed for listing by the U.S. Fish and Wildlife Service or the National Marine Fisheries Service (Federal Endangered (FE), Federal Threatened (FT), Federal Candidate (FC), or Federal Species of Concern (FCo)). This list is current as of October 2012, the most current information can be obtained from the following website: <http://wdfw.wa.gov/conservation/endangered/All/>

			Species Status	
Common Name	Scientific Name	Type	State	Federal
American white pelican	Pelecanus erythrorhynchos	Bird	SE	none
Bald eagle	Haliaeetus leucocephalus	Bird	SS	FCo
Beller's ground beetle	Agonum belleri	Other Insect	SC	FCo
Black rockfish	Sebastes melanops	Fish	SC	none
Black-backed woodpecker	Picoides arcticus	Bird	SC	none
Black-tailed jackrabbit	Lepus californicus	Mammal	SC	none
Blue whale	Baleonoptera musculus	Mammal	SE	FE

			Species Status	
Common Name	Scientific Name	Type	State	Federal
Bluegray Taildropper	Prophysaon coeruleum	Mollusk	SC	none
Bocaccio rockfish	Sebastes paucispinis	Fish	SC	FE
Bog idol leaf beetle	Donacia idola	Other Insect	SC	none
Brandt's cormorant	Phalacrocorax penicillatus	Bird	SC	none
Brown pelican	Pelecanus occidentalis	Bird	SE	FCo
Brown rockfish	Sebastes auriculatus	Fish	SC	FCo
Bull trout	Salvelinus confluentus	Fish	SC	FT
Burrowing owl	Athene cunicularia	Bird	SC	FCo
California floater	Anodonta californiensis	Mollusk	SC	FCo
California mountain kingsnake	Lampropeltis zonata	Reptile	SC	none
Canary rockfish	Sebastes pinniger	Fish	SC	FT
Cascade red fox	Vulpes vulpes cascadenis	Mammal	SC	none
Cascade torrent salamander	Rhyacotriton cascadae	Amphibian	SC	none
Cassin's auklet	Ptychoramphus aleuticus	Bird	SC	FCo
China rockfish	Sebastes nebulosus	Fish	SC	none
Chinook salmon (Lower Columbia)	Oncorhynchus tshawytscha	Fish	SC	FT
Chinook salmon (Puget Sound)	Oncorhynchus tshawytscha	Fish	SC	FT
Chinook salmon (Snake R. Fall)	Oncorhynchus tshawytscha	Fish	SC	FT
Chinook salmon (Snake R. Sp/Su)	Oncorhynchus tshawytscha	Fish	SC	FT
Chinook salmon (Upper Columbia Sp)	Oncorhynchus tshawytscha	Fish	SC	FE
Chinquapin hairstreak	Habrodais grunus herri	Butterfly or Moth	SC	none
Chum salmon (Hood Canal Su)	Oncorhynchus keta	Fish	SC	FT
Chum salmon (Lower Columbia)	Oncorhynchus keta	Fish	SC	FT
Clark's grebe	Aechmophorus clarkii	Bird	SC	none
Coho salmon (Lower Columbia/SW WA)	Oncorhynchus kisutch	Fish	none	FT
Columbia clubtail (dragonfly)	Gomphus lynnae	Other Insect	SC	FCo
Columbia oregonian	Cryptomastix hendersoni	Mollusk	SC	none
Columbia pebblesnail	Fluminicola columbiana	Mollusk	SC	FCo
Columbia River tiger beetle	Cicindela columbica	Other Insect	SC	none
Columbia spotted frog	Rana luteiventris	Amphibian	SC	none
Columbian Sharp-tailed Grouse	Tympanuchus phasianellus	Bird	ST	FCo
Columbian white-tailed deer	Odocoileus virginianus leucurus	Mammal	SE	FE
Common loon	Gavia immer	Bird	SS	none
Common murre	Uria aalge	Bird	SC	none
Copper rockfish	Sebastes caurinus	Fish	SC	FCo

			Species Status	
Common Name	Scientific Name	Type	State	Federal
Dalle's Sideband	Monadenia fidelis minor	Mollusk	SC	none
Dunn's salamander	Plethodon dunni	Amphibian	SC	none
Eulachon	Thaleichthys pacificus	Fish	SC	FT
Ferruginous hawk	Buteo regalis	Bird	ST	FCo
Fin whale	Baleoptera physalus	Mammal	SE	FE
Fisher	Martes pennanti	Mammal	SE	FC
Flammulated owl	Otus flammeolus	Bird	SC	none
Giant Columbia River limpet	Fisherola nuttalli	Mollusk	SC	none
Giant Palouse earthworm	Driloleirus americanus	Annelid	SC	none
Golden eagle	Aquila chrysaetos	Bird	SC	none
Gray whale	Eschrichtius robustus	Mammal	SS	none
Gray wolf	Canis lupus	Mammal	SE	FE
Gray-tailed vole	Microtus canicaudus	Mammal	SC	none
Great arctic	Oeneis nevadensis gigas	Butterfly or Moth	SC	FCo
Greater Sage-grouse	Centrocercus urophasianus	Bird	ST	FC
Green sea turtle	Chelonia mydas	Reptile	ST	FT
Green sturgeon	Acipenser medirostris	Fish	none	FT
Greenstriped rockfish	Sebastes elongatus	Fish	SC	none
Grizzly bear	Ursus arctos	Mammal	SE	FT
Hatch's click beetle	Eanus hatchi	Other Insect	SC	FCo
Humpback whale	Megaptera novaeangliae	Mammal	SE	FE
Island Marble	Euchloe ausonides	Other Insect	SC	FCo
Johnson's hairstreak	Mitoura johnsoni	Butterfly or Moth	SC	none
Juniper hairstreak	Mitoura grynea barryi	Butterfly or Moth	SC	none
Keen's myotis	Myotis keenii	Mammal	SC	none
Killer whale	Orcinus orca	Mammal	SE	FE
Kokanee (Lk Sammamish)	Oncorhynchus nerka	Fish	none	FC
Lake chub	Couesius plumbeus	Fish	SC	none
Larch Mountain salamander	Plethodon larselli	Amphibian	SS	FCo
Leatherback sea turtle	Dermochelys coriacea	Reptile	SE	FE
Leopard dace	Rhinichthys falcatus	Fish	SC	none
Leschi's Millipede	Leschius mcallisteri	Arthropod	SC	none
Lewis' woodpecker	Melanerpes lewis	Bird	SC	none
Loggerhead sea turtle	Caretta caretta	Reptile	ST	FE
Loggerhead shrike	Lanius ludovicianus	Bird	SC	FCo

			Species Status	
Common Name	Scientific Name	Type	State	Federal
Lynx	Lynx canadensis	Mammal	ST	FT
Makah copper	Lycaena mariposa charlottensis	Butterfly or Moth	SC	FCo
Mann's Mollusk-eating Ground Beetle	Scaphinotus mannii	Other Insect	SC	none
Marbled murrelet	Brachyramphus marmoratus	Bird	ST	FT
Mardon skipper	Polites mardon	Butterfly or Moth	SE	FC
Margined sculpin	Cottus marginatus	Fish	SS	FCo
Mazama (Western) pocket gopher	Thomomys mazama	Mammal	ST	FC
Merriam's shrew	Sorex merriami	Mammal	SC	none
Mountain sucker	Catostomus platyrhynchus	Fish	SC	none
North Pacific Right Whale	Eubalaena japonica	Mammal	SE	FE
Northern abalone	Haliotis kamtschatkana	Mollusk	SC	FCo
Northern goshawk	Accipiter gentilis	Bird	SC	FCo
Northern leopard frog	Rana pipiens	Amphibian	SE	FCo
Northern Spotted Owl	Strix occidentalis	Bird	SE	FT
Olympia oyster	Ostrea lurida	Mollusk	SC	none
Olympic marmot	Marmota olympus	Mammal	SC	none
Olympic mudminnow	Novumbra hubbsi	Fish	SS	none
Oregon silverspot butterfly	Speyeria zerene hippolyta	Butterfly or Moth	SE	FT
Oregon spotted frog	Rana pretiosa	Amphibian	SE	FC
Oregon vesper sparrow	Poocetes gramineus affinis	Bird	SC	FCo
Pacific clubtail	Gomphus kurilis	Other Insect	SC	none
Pacific cod (S&C Puget Sound)	Gadus macrocephalus	Fish	SC	FCo
Pacific hake (Pacific-Georgia Basin DPS)	Merluccius productus	Fish	SC	FCo
Pacific harbor porpoise	Phocoena phocoena	Mammal	SC	none
Pacific herring	Clupea pallasii	Fish	SC	FCo
Peregrine falcon	Falco peregrinus	Bird	SS	FCo
Pileated woodpecker	Dryocopus pileatus	Bird	SC	none
Poplar oregonian	Cryptomastix populi	Mollusk	SC	none
Preble's shrew	Sorex preblei	Mammal	SC	FCo
Puget blue	Plebejus icarioides blackmorei	Butterfly or Moth	SC	none
Purple martin	Progne subis	Bird	SC	none
Pygmy rabbit	Brachylagus idahoensis	Mammal	SE	FE
Pygmy whitefish	Prosopium coulteri	Fish	SS	FCo

			Species Status	
Common Name	Scientific Name	Type	State	Federal
Quillback rockfish	Sebastes maliger	Fish	SC	FCo
Redstripe rockfish	Sebastes proriger	Fish	SC	none
River lamprey	Lampetra ayresi	Fish	SC	FCo
Rocky Mountain Tailed Frog	Ascaphus montanus	Amphibian	SC	FCo
Sage sparrow	Amphispiza belli	Bird	SC	none
Sage thrasher	Oreoscoptes montanus	Bird	SC	none
Sagebrush lizard	Sceloporus graciosus	Reptile	SC	FCo
Sand-verbena moth	Copablepharon fuscum	Butterfly or Moth	SC	none
Sandhill crane	Grus canadensis	Bird	SE	none
Sea otter	Enhydra lutris	Mammal	SE	FCo
Sei whale	Baleoptera borealis	Mammal	SE	FE
Sharptail snake	Contia tenuis	Reptile	SC	FCo
Shepard's parnassian	Parnassius clodius shepardii	Butterfly or Moth	SC	none
Short-tailed albatross	Diomedea albatrus	Bird	SC	FE
Silver-bordered fritillary	Boloria selene atrostalis	Other Insect	SC	none
Slender-billed white-breasted nuthatch	Sitta carolinensis aculeata	Bird	SC	FCo
Snowy plover	Charadrius nivosus	Bird	SE	FT
Sockeye salmon (Ozette Lake)	Oncorhynchus nerka	Fish	SC	FT
Sockeye salmon (Snake R.)	Oncorhynchus nerka	Fish	SC	FE
Sperm whale	Physeter macrocephalus	Mammal	SE	FE
Steelhead (Lower Columbia)	Oncorhynchus mykiss	Fish	SC	FT
Steelhead (Middle Columbia)	Oncorhynchus mykiss	Fish	SC	FT
Steelhead (Puget Sound)	Oncorhynchus mykiss	Fish	none	FT
Steelhead (Snake River)	Oncorhynchus mykiss	Fish	SC	FT
Steelhead (Upper Columbia)	Oncorhynchus mykiss	Fish	SC	FT
Steller sea lion	Eumetopias jubatus	Mammal	ST	FT
Streaked horned lark	Eremophila alpestris strigata	Bird	SE	FC
Striped whipsnake	Masticophis taeniatus	Reptile	SC	none
Tacoma pocket gopher - Mazama	Thomomys mazama tacomensis	Mammal	none	FC
Taylor's checkerspot	Euphydryas editha taylori	Butterfly or Moth	SE	FC
Tiger rockfish	Sebastes nigrocinctus	Fish	SC	none
Townsend's big-eared bat	Corynorhinus townsendii	Mammal	SC	FCo
Townsend's ground squirrel	Urocitellus townsendii townsendii	Mammal	SC	FCo

			Species Status	
Common Name	Scientific Name	Type	State	Federal
Tufted puffin	<i>Fratercula cirrhata</i>	Bird	SC	FCo
Umatilla dace	<i>Rhinichthys umatilla</i>	Fish	SC	none
Upland sandpiper	<i>Bartramia longicauda</i>	Bird	SE	none
Valley silverspot	<i>Speyeria zerene bremnerii</i>	Butterfly or Moth	SC	FCo
Van Dyke's salamander	<i>Plethodon vandykei</i>	Amphibian	SC	FCo
Vaux's swift	<i>Chaetura vauxi</i>	Bird	SC	none
Walleye pollock (So. Puget Sound)	<i>Theragra chalcogramma</i>	Fish	SC	FCo
Washington ground squirrel	<i>Urocitellus washingtoni</i>	Mammal	SC	FC
Western gray squirrel	<i>Sciurus griseus</i>	Mammal	ST	FCo
Western grebe	<i>Aechmophorus occidentalis</i>	Bird	SC	none
Western pond turtle	<i>Actinemys marmorata</i>	Reptile	SE	FCo
Western toad	<i>Anaxyrus boreas</i>	Amphibian	SC	FCo
White-headed woodpecker	<i>Picoides albolarvatus</i>	Bird	SC	none
White-tailed jackrabbit	<i>Lepus townsendii</i>	Mammal	SC	none
Widow rockfish	<i>Sebastes entomelas</i>	Fish	SC	none
Wolverine	<i>Gulo gulo</i>	Mammal	SC	FC
Woodland caribou	<i>Rangifer tarandus</i>	Mammal	SE	FE
Yellow-billed cuckoo	<i>Coccyzus americanus</i>	Bird	SC	FC
Yelloweye rockfish	<i>Sebastes ruberrimus</i>	Fish	SC	FT
Yellowtail rockfish	<i>Sebastes flavidus</i>	Fish	SC	none
Yuma skipper	<i>Ochlodes yuma</i>	Butterfly or Moth	SC	none

13.6 Wildlife Protection and Rehab

In the event of a spill, wildlife may come into contact with oil – especially on the surface of water or along shorelines. The numbers and types of animals affected will depend on factors such as: the size and distribution of the spill; the weather; wind and current conditions; the habitats affected by the oil; and the time of year that the spill occurs. Birds have historically been the most likely wildlife to be affected during on-water spills in Washington, but both aquatic and marine mammals may also come into contact with the oil. In addition to direct oiling, birds and mammals may become indirectly impacted if they feed on oiled animals.

All spill response personnel should refer to the Northwest Wildlife Response Plan and Policy, as found in Chapters 3000 and 9970 of the Northwest Area Contingency Plan (NWACP), regarding wildlife response operations, which are incorporated into this plan by reference.

13.6.1 Notifications

Report any observation of oiled wildlife to the Washington Emergency Management Division (800-258-5990) if an ICS has not been established. The Washington Emergency Management Division will forward any reports of oiled wildlife to the Washington State Department of Fish and Wildlife (WDFW).

Once an ICS has been established, all observations of oiled wildlife will be reported to the Wildlife Branch Director (or their designee) within the Operations Section.

Contact the United States Fish and Wildlife Service (USFWS) Response Coordinator to initiate the process of obtaining spill-specific authorizations related to oiled wildlife (see Migratory Bird Treaty Act below) prior to initiating any oiled wildlife activities other than reconnaissance.

Contact private oiled wildlife care contractors according to the number and type of species affected. These contractors have varying abilities to provide service and personnel during response activities and will be engaged as needed by the Wildlife Branch.

13.6.2 Permits

All wildlife collection and rehabilitation activities carried out during a spill response will be done in accordance with established NWACP procedures and all applicable federal and state laws. This section identifies the state and federal permits that are required and generally describes their purpose.

13.6.3 Migratory Bird Treaty Act (Federal)

The Migratory Bird Permit Act makes it illegal for anyone to ‘take’ or possess any migratory bird except under the terms of a valid Migratory Bird Permit. The USFWS is responsible for issuing Federal Migratory Bird Rehabilitation permits to qualified applicants for the recovery, temporary possession, transportation and rehabilitation of migratory birds.

In addition to the Federal Migratory Bird Rehabilitation permit, a rehabilitator must also secure a separate *spill-specific* authorization from the USFWS at the time of the spill for the recovery of both live and dead oiled bird. In Washington State, this authorization must be requested from the USFWS Response Coordinator in Lacey.

13.6.4 Endangered Species Act (Federal)

Listed species that become oiled are subject to Endangered Species Act requirements. For migratory birds, the Migratory Bird Rehabilitation Permit and the spill-specific authorization (see above) authorizes the recovery, temporary possession, transport and rehabilitation of *threatened and endangered* species of migratory birds that have become oiled with no additional ESA permits required. For marine mammals, all response actions will be coordinated by the Wildlife Branch Director and appropriate federal agencies.

13.7 Marine Mammal Protection Act (Federal)

Federal, state and local government officials, or designees of the relevant Secretaries of the Departments of the Interior and Commerce may ‘take’ marine mammals during the course of the official response duties under certain conditions. Contractors may also receive authorization to take marine mammals under special circumstances (see NWACP 9970). All marine mammal response actions will be coordinated by the Wildlife Branch Director and appropriate federal agencies.

13.7.1 Washington State Rehabilitation Permit (Washington State)

Washington State law makes it illegal for any person to possess wildlife for the purpose of rehabilitation unless they have a valid wildlife rehabilitation permit or they are working under the supervision of a person who has a valid wildlife rehabilitation permit. This rule (WAC 232-12-175) also required that any facilities used for oiled bird rehabilitation must meet certain infrastructure requirements.

As of this writing, the organizations listed below possess all permits needed to conduct oiled bird rehabilitation operations in Washington State. Note that the USFWS Spill specific authorizations will also be required:

- Focus Wildlife
- The International Bird Rescue Research Center (IBRRC)
- The Progressive Animal Welfare Society (PAWS)

13.7.2 Wildlife Branch

The Wildlife Branch functions within the Operations Section of the ICS and is more fully described in the NWACP. The Wildlife Branch Director is responsible for overseeing all activities related to oiled wildlife recovery and rehabilitation during a response. It is the policy of the Northwest Area Committee (NWAC) that representatives of the USFWS will assume the position of Director and Deputy Director of the Wildlife Branch.

Unless otherwise indicated, USFWS will delegate the Wildlife Branch Director and Deputy Branch Director positions to WDFW for spills that occur within Washington State. Appointment of other parties (including representatives of Responsible Parties) to one or both of these positions may be made by a USFWS representative or their designee at any time during an accident and for such periods of time as may be deemed appropriate.

The Wildlife Branch typically uses wildlife contractors to provide care of affected wildlife. All persons who serve as part of rehabilitation or field crews must be trained in accordance with the site safety plan established for the incident and should be familiar with generally accepted published guidelines for collecting, cleaning and rehabilitating oiled birds.

13.8 Oiled Wildlife Care Procedures

Federal (USFWS) policy requires that rehabilitation activities involving oiled birds comply with the care standards as described in *'Best Practices of Migratory Bird Care during Oil Spill Response'* (US Fish and Wildlife Service. 2002). This document is incorporated by reference as part of the NWACP. Additional animal care and husbandry information may also be obtained in the Oiled Wildlife Care Network manual *'Protocols for the Care of Oil Affected Birds'* (UC Davis.2000).

13.8.1 Oiled Wildlife Facilities, Equipment and Personnel

The equipment and personnel needed for oiled wildlife operations will be deployed through the ICS as needed during a spill response. The NWACP establishes four response levels for oiled bird operations: level 4 (up to 15 birds), level 3 (up to 100 birds), level 2 (up to 500 birds) and level 1 (more than 500 birds). Note: *The number of birds refers only to birds in captivity.*

13.8.2 Facilities

An oiled-wildlife mobile rehabilitation unit (MRU), capable of providing the equipment and infrastructure necessary to support a level 3 response has been jointly developed by the Clean Rivers Cooperative and the Marine Spill Response Corporation. When needed, this equipment will be deployed within 24 hours of spill awareness to a location approved by the Wildlife Branch Director. This equipment is included within the online Western Regional Response List (WRRL) and is available via the ICS or Primary Response Contractors. (http://www.wrri.us/fmi/wp_auth.html)

Wastewater generated by the wildlife cleaning and rehabilitation operations contaminants that may include surfactants, oil and biological waste and must be appropriately treated prior to discharge. All

wastewater produced by oiled wildlife operations will be stored using temporary storage tanks delivered to the site. Based upon the results of sampling and analysis, the wastewater will be treated and disposed of on-site or transported to an off-site facility. This determination will be made by the Disposal Group Supervisor and approved by the Washington Department of Ecology.

13.8.3 Equipment

The MRU described above is equipped with sufficient supplies and equipment to Support the initial few days of an oiled wildlife response. Replacement supplies and equipment will be obtained as needed using the established channel within the ICS.

Additional mobile wildlife equipment may be also available at the time of a spill incident from the Washington Department of Fish and Wildlife Oil Spill Team and National Response Corporation Environmental Services.

13.8.4 Personnel

The personnel requirements described in the NWACP will be met through the use of the oiled wildlife care contractors listed in the Oiled Wildlife contact information table (above). Personnel support space will be provided using existing buildings or mobile structures brought to the site for this purpose.

14.0 MATERIAL SAFETY DATA SHEETS

MSDSs for products shipped thru the Trans Mountain Pipeline are available at

- http://kmonline/business_units/kmc/pages/ehs_home.aspx or
- <https://www.whmis.com/msds/home.do?user=Kinder&pass=GHva8Gu765mp4TfG>

15.0 ENVIRONMENT, HEALTH AND SAFETY POLICY



Environment, Health and Safety Policy

Every employee is expected to share Kinder Morgan's commitment to pursue the goal of not harming people, protecting the environment, using material and energy efficiently and promoting best practices, thereby earning the confidence of customers, security holders and society at large, being a good neighbor and contributing to sustainable development. Kinder Morgan's policy is to comply with all health, safety, security and environmental laws, rules and regulations, not just because it is legally required but also because we believe it is the responsible way to conduct our business. Kinder Morgan has systems in place that prepare for emergencies and procedures that coordinate our response plans with emergency response organizations in the communities where we operate. Kinder Morgan has a systematic approach to health, safety, security and environmental management designed to ensure compliance with the law, to train employees to be aware of and meet their responsibility for protection of health, safety and the environment, and to achieve continuous performance improvement. In addition to the Kinder Morgan commitment, contractors are required and joint ventures under Kinder Morgan's operational control are expected to apply this policy. Employees, supervisors or operational managers who knowingly engage in or condone environmental health or safety violations are subject to disciplinary action including suspension or termination.

Ian D. Anderson

President

Kinder Morgan Canada

A Member of the Kinder Morgan Group of Companies

KINDER MORGAN
CANADA

November 2012

16.0 REGULATORY BACKGROUND

16.1 Federal

This Plan is intended to satisfy the requirements of the Oil Pollution Act of 1990 (OPA 90), and has been prepared in accordance with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) and applicable Area Contingency Plans (ACP), EPA Region I Regional Contingency Plan. Specifically, this Plan is intended to satisfy:

- PHMSA, U.S. Department of Transportation requirements for a Facility Response Plan (FRP).

16.1.1 Statement of Significant and Substantial Harm

The response zones in this system all contain pipelines greater than 6 5/8 inches and are longer than ten miles. At least one section of pipeline in each response zone crosses a major waterway or comes within five miles of a public drinking water intake. Therefore, in accordance with 49 CFR 194.103(c), each entire response zone described in this Plan will be treated as if expected to cause significant and substantial harm.

16.1.2 DOT/PHMSA Cross Reference

OPA 90 REQUIREMENTS (49 CFR 194)	LOCATION
• Name and address of operator	Section 7.3
• For each Response Area which contains one or more line sections that meet the criteria for determining significant and substantial harm (194.103), listing and description of Response Areas, including county(s) and state(s)	Section 7.9
• Information summary for core plan	Section 7.2
• QI names and telephone numbers, available on 24-hr basis	Section 7.3
• Description of Response Area, including county(s) and state(s) in which a worst case discharge could cause substantial harm to the environment	Section 7.3
• List of line sections contained in Response Area, identified by milepost or survey station or other operator designation	Section 7.5
• Basis for operator's determination of significant and substantial harm	Section 7.3
• The type of oil and volume of the worst case discharge	Section 7.5
• Certification that the operator has obtained, through contract or other approved means, the necessary private personnel and equipment to respond, to the maximum extent practicable, to a worst case discharge or threat of such discharge	Section 19
Notification Procedures	
• Notification requirements that apply in each area of operation of pipelines covered by the plan, including applicable state or local requirements	Section 2.8
• Checklist of notifications the operator or Qualified Individual is required to make under the response plan, listed in the order of priority	Section 2.8.4

Name of persons (individuals or organizations) to be notified of discharge, indicating whether notification is to be performed by operating personnel or other personnel	Section 2.8.4
Procedures for notifying Qualified Individuals	Section 2.3
Primary and secondary communication methods by which notifications can be made	Sections 2.4, 2.6, and 2.7
- Information to be provided in the initial and each follow-up notification, including the following: - name of pipeline - time of discharge - location of discharge - name of oil recovered - reason for discharge (e.g. material failure, excavation damage, corrosion) - estimated volume of oil discharged - weather conditions on scene - actions taken or planned by persons on scene	Section 2.3.1
Spill Detection and On-Scene Spill Mitigation Procedures	
Methods of initial discharge detection	Section 2.1
Procedures, listed in order of priority, that personnel are required to follow in responding to a pipeline emergency to mitigate or prevent any discharge from the pipeline	Introduction (Page 1 – Initial Response Actions)
- List of equipment that may be needed in response activities based on land and navigable waters including: - portable pumps and ancillary equipment - transfer hoses and pumps - facilities available to transport and receive oil from a leaking pipeline	Section 9.8
Identification of the availability, location, and contact phone numbers to obtain equipment for response activities on a 24-hour basis	Section 9.4 and 2.0
Identification of personnel and their location, telephone numbers, and responsibilities for use of equipment in response activities on a 24-hour basis	Sections 2.10 and 2.12
Response Activities	
Responsibilities of, and actions to be taken by, operating personnel to initiate and supervise response actions pending the arrival of the Qualified Individual or other response resources identified in the response plan	Introduction (Page 1 – Initial Response actions)
Qualified Individual's responsibilities and authority, including notification of the response resources identified in the response plan	Section 8.8
Procedures for coordinating the actions of the operator or Qualified Individual with the action of the OSC responsible for monitoring or directing those actions	Section 8.8

Oil spill response organizations (OSRO) available through contract or other approved means, to respond to a worst case discharge to the maximum extent practicable	Section 2.10
- For each organization identified under paragraph (d), a listing of: - equipment and supplies available - trained personnel necessary to continue operation of the equipment and staff the oil spill removal organization for the first seven days of the response	Section 2.10
List of Contacts	
List of persons the Plan requires the operator to contact	Sections 2.8, 2.9, 2.10, 2.11, and 2.12
Qualified individuals for the operator's areas of operation	Section 2.7, and 7.3
Applicable insurance representatives or surveyors for the operator's areas of operation	
Persons or organizations to notify for activation of response resources	Section 2.10 and 2.12
Training Procedures	
Description of training procedures and programs of the operations	Section 17.2.2
Drill Procedures	
Announced and unannounced drills	Section 17.2
- Types of drills and their frequencies; for example: - manned pipeline emergency procedures and qualified individual notification drills conducted quarterly - drills involving emergency actions by assigned operating or maintenance personnel and notification of qualified individual on pipeline facilities which are normally unmanned, conducted quarterly - shore-based Emergency Response Team (ERT) tabletop drills conducted yearly - oil spill removal organization field equipment deployment drills conducted yearly - a drill that exercises entire response plan for each Response Area, would be conducted at least once every three years	Section 17.2.2
Response Plan Review and Update Procedures	
Procedures to meet 194.121	Preface (Plan Maintenance)
Procedures to review plan after a worst case discharge and to evaluate and record the plan's effectiveness	Preface (Plan Maintenance)

Response Area Appendices	
Each response area appendix would provide the following information:	
• Name and telephone number of the qualified individual	Section 7.3
• Notification procedures	Section 2.0
• Spill detection and mitigation procedures	Section 2.1
• Name, address, and telephone number of oil spill response organization	Section 2.10
• Response activities and response resources including: ○ equipment and supplies necessary to meet 194.115 ○ trained personnel necessary to sustain operation of the equipment and to staff the oil spill response organization and spill management team for the first seven days of the response	Section 2.0
• Names and telephone numbers of federal, state, and local agencies which the operator expects to assume pollution response responsibilities	Sections 2.8, and 2.9
• Worst case discharge volume	Section 18.0
• Method used to determine the worst case discharge volume, with calculations	Section 18.1
• A map that clearly shows: ○ location of worst case discharge ○ distance between each line section in the Response Area: ▪ each potentially affected public drinking water intake, lake, river, and stream within a radius of five miles of the line section ▪ each potentially affected environmentally sensitive area within a radius of one mile of the line section	Section 18.2 and 18.3
• Piping diagram and plan-profile drawing of each line section; may be kept separate from the response plan if the location is identified	Section 18.2
• For every oil transported by each pipeline in the response area, emergency response data that: ○ include name, description, physical and chemical characteristics, health and safety hazards, and initial spill-handling and firefighting methods ○ meet 29 CFR 1910.1200 or 49 CFR 172.602	Sections 14.0 and 7.7

16.2 Washington State Regulations

This Plan is intended to satisfy the requirements of the Washington Administrative Code 173-182. The plan is also intended to work in conjunction with the Northwest Area Contingency Plan and the Washington State Geographic Response Plans. Specifically, this Plan is intended to satisfy the following criteria from WAC 173-182.

Washington Administrative Code	Comments
110 (3)(a)	The ERP is being submitted by KMC as the owner/operator of the Trans Mountain Pipeline (Puget Sound) system.
120 (3)	The ERP is being submitted as part of the five year cycle for review and approval.
130 (1), (2)(a)(b)(c)and (d)	The ERP is being submitted to comply with these sections, and will be addressed individually further in this cross check sheet
130 (2)(e-g),(3), (4) and (5)	Not Applicable
140 (1) and (2)	The ERP covers this in the Preface on page viii under “Plan Maintenance” “Responsibility” in point # 2.
142 (1-6)	This section is described in the Preface on page ix “Changes in Operating Condition” all portions of this chapter are described except 142(2)(f)(ii) as this is not applicable to KMC.
145	The situations for implementation of this ERP is described in the Introduction on page 2 under “Plan Implementation”
150	The post spill and review and documentation commitment is outlined in the Preface on page ix under “Revisions After Release or Exercise”
210	KMC is happy with the format of this ERP it contains checklist, reference materials, has detailed table of contents, is divided into chapters and sections and is formatted to allow for easy replacement of individual pages.
220	The binding agreement is included in the ERP in <i>Section 19.2 Kinder Morgan Certification – Binding Agreement</i>
230 (1) and (2)	The ERP has been written to be fully compliant with all applicable sections of WAC 173-182 and in accordance and with reference to the NWACP. The NWACP is referred to in various sections but specifically in <i>Section 10.6.1 Planning Section Resources Northwest Area Contingency Plan</i>
230 (3) (a)	The federal and state regulations covered by this plan are outlined in <i>Section 16</i> but specifically it has been designed to meet WAC 173-182 and OPA 90 Requirements (49 CFR 194). And is stated in the Introduction in “Regulatory Scope of the Plan” on page 2.
230 (3) (b) (i)	The WCD has been divided up into 5 response zones and is calculated and described in <i>Section 18.1 Worst Case Discharge Calculations</i>
230 (3) (b) (ii) and (iii)	Not Applicable, this ERP is not for a vessel nor is it an umbrella plan.
230 (3) (c)	The Control Sheet is located in the Preface on page xi including a description of the information to be included on the sheet during an amendment.
230 (3) (d)	This cross-reference table is required by this chapter. <i>Section 16.2</i>

Washington Administrative Code	Comments
	<i>Washington State Regulations</i>
230 (3) (e) (i) and (ii)	The Primary Response Contractors contact information is contained in <i>Section 2.10 Support Services - Primary Response Contractors (PRC)</i> the letters of intent or letters of contract are included in <i>Section 19.5 PRC – Contracts/Letters of Intent</i> .
230 (3) (e) (iii)	KMC does not rely on mutual aid agreements to meet the planning standards.
230 (3) (e) (iv) and (v)	KMC does not rely on a PRC to staff ICS positions, however an agreement is in place with Witt-O'Brien's to provide ICS staff when required and is specified in the contract letter available in <i>Section 19.5 PRC – Contracts/Letters of Intent</i> .
230 (3) (f)	The procedure to track and account for the entire volume of oil recovered and oily waste generated and disposed of during a spill including the commitment to provide to Ecology upon request is in <i>Section 9.6.2 Waste Management Plan</i> . Additional procedures are available in <i>Section 4.9 Credit for Oil Recovery</i> .
230 (4) (a)	<i>Section 7.3 Owner/Operator Information</i>
230 (4) (b)	<i>Section 7.3 Owner/Operator Information</i>
230 (4) (c) (i)	<i>Section 7.2 Puget Sound Area Description</i>
230 (4) (c) (ii)	<i>Section 7.6 Puget Sound Tank Data</i>
230 (4) (c) (iii)	<i>Section 7.7 Trans Mountain Products Summary</i>
230 (4) (c) (iv) and (v)	<i>Section 7.9 Response Zone Descriptions, Maps and Site Plans</i> or more specifically <i>Sections 7.9.1 Zone 1 -Border Scraper Trap to Laurel Station, 7.9.2 Zone 2 - Laurel Station to Ferndale Meter Station, 7.9.3 Zone 3 – Laurel Station to Burlington Scraper Trap, 7.9.4 Zone 4 – Burlington Scraper Trap to Anacortes Meter Station, and 7.9.5 Zone 5 – Laurel Station</i>
230 (5) and (6)	Not Applicable
230 (7)	<i>Section 0 Managing Spill Liability Claims</i>
232	Not Applicable
240	The field document for this ERP contains Sections 1-6 of this document plus more detailed maps and control point locations and information about those locations.
242	Not Applicable
250 (1)	The Initial Response Actions are described in the Introduction on Page 1 in the paragraph titled "Initial Response Actions"
250 (2), (3) and (4)	<i>Section 1</i> describes the method for health and safety plans. <i>Section 3</i> describes how to conduct spill assessment for all conditions and includes the types of equipment for recording the results. Spill Detection and Verification Procedures are located in <i>Section 2.1 Incident Verification</i>
260 (1)	Immediate notification and who is responsible for implementing the notification process is covered in <i>Section 2.8.4 Initial Notification Requirements – Confirmed Emergency Condition</i>
260 (2)	The Internal Call-down listing for Emergency Response Line is located in <i>Section 2.6</i> . The Internal Call-down listing for Emergency Response Personnel is located in <i>Section 2.7</i> . Government Agency Contact Listings

Washington Administrative Code	Comments
	are located in <i>Section 2.8.4 Initial Notification Requirements – Confirmed Emergency Condition</i> , and <i>Section 2.9 Additional Government Contacts</i> , Primary Response Contractors are located in <i>Section 2.10 Support Services - Primary Response Contractors (PRC)</i> , connecting facility contacts are located in <i>Section 2.11 Oil Company Contacts</i> , and other resources are located in <i>Section 2.12 Additional Resources Suppliers</i> .
260 (3)	Order of priority is established for immediate notification in <i>Section 2.8.4 Initial Notification Requirements – Confirmed Emergency Condition</i>
262	Not Applicable
264 (1)	The requirement to report spills that may impact waters of the state is outlined in the table located in <i>Section 2.8.4 Initial Notification Requirements – Confirmed Emergency Condition</i>
264 (2)	The requirement to report spills that are either unconfirmed or of an unknown size are covered by <i>Section 2.8.4 Initial Notification Requirements – Confirmed Emergency Condition AND 2.8.2 External Notification – Potential Emergency Condition</i>
270 (1) and (2)	The maintenance and record keeping of response equipment is outlined in <i>Section 9.9.5 Response Equipment Maintenance</i>
280 (1) (a)	The organizational diagram for chain of command for the Incident Management Team (Spill Management Team) is depicted in <i>Section 8.4 Response Team Organization</i> . The different Incident Management Teams are described in <i>Sections 8.1 Initial Response Team, 8.2 Local Incident Management Team, and 8.3 Kinder Morgan Incident Management Team</i> . Further breakdown of the sections is contained in <i>Sections 9.2 Operations Section Organization Chart, 10.1 Planning Section Organization Chart, 11.1 Logistics Section Organization Chart, and 12.1 Finance Section Organization Chart</i> .
280 (1) (b)	The personnel expected to fill the ICS roles and their alternates are listed in <i>Section 2.7</i>
280 (1) (c-d)	Kinder Morgan uses the ICS structure to manage incidents it is consistent with the NWACP except in the duties related to the Information Officer and Liaison Officer. The duties of the Information Officer (<i>Section 8.12 Information Officer</i>) and Liaison officer (<i>Section 8.13 Liaison Officer</i>) are outlined and have been altered to match those of the remainder of KMC's operations and the training the staff have received. The major difference is that the Information Office is responsible for public communications and the Liaison Officer is only tasked with agency liaison. The ICS Guide has the Liaison Officer assigning the Community Relations Coordinator to the JIC for consistent messaging; the duties these people perform are consistent with the NWACP, the reporting structure changes slightly. The ICS Sections are outlined in brief in this document (<i>Section 8.0</i> describes the Incident Management including the Planning Cycle, <i>Section 9.0</i> outlines general duties and function of the Operations Section, and provides additional background information. <i>Section 10.0</i> outlines the general duties and functions of the Planning Section and provides additional background information and planning information. <i>Section 11.0</i> describes the Logistics Section and <i>Section 12.0</i> describes the finance and administration section). Additionally, KMC has developed an ICS Guidebook that is available by request, which gives further checklists for

Washington Administrative Code	Comments
	every position in the ICS structure that KMC expects to utilize with reference to the NWACP and is consistent with the NWACP.
280 (2)	<i>Section 17.1 Training</i> outlines the basic training by each group of responders.
280 (3) and (5)	Not Applicable
280 (4)	<i>Section 8.6 Transfer of Command</i> outlines clear procedures on transferring command.
310 (1) and (2)	A short description of this section of the WAC has been provided in Section 18.2 Planning Standards for background.
315, 317	Not Applicable
320	<i>Section 9.4 Air Operations Branch</i> outlines the air surveillance requirements and how KMC intends to achieve them.
321, 324, 325, 330	Not Applicable
335	<i>Section 18.2</i>
345	<i>Section 18.2</i>
348	<i>Section 18.2</i>
349	Not Applicable
350	<i>Section 18.2</i>
355	Not Applicable
365	<i>Section 18.2</i>
375	<i>Section 18.2</i>
370, 380, 385, 390, 395, 400, 405, 410, 415, 420, 430, and 450	Not Applicable
510	<i>Section 4.0 Spill Containment and Recovery, and 5.0 Protection of Sensitive Areas, and reference to NWACP and GRP's and Section 7.4 Incident Command Post Location</i>
520	<i>Section 18.2</i>
522	Not Applicable
530	<i>Section 2.1.7 Detection of Spills to Groundwater</i>
540	KMC relies on NRCES to comply with wildlife rescue standards. Description of equipment and operations is found in <i>Section 13.0 Wildlife Care</i>
Section E	Not Applicable - Outlines plan evaluation and is informational for KMC.
700	<i>Section 17.2 Exercises</i> outlines the commitments to exercising
710	<i>Section 17.2.2 Type and Frequency of Exercises</i>
720	<i>Sections 17.2.3 Exercise Program Evaluation Criteria and 17.2.5 Exercise Component Checklist</i>
730	<i>Section 17.2.4 Alternative Drill Credit</i>
740	Informational, has not been included as an option as it is not the intent of KMC to request waivers for exercises.
Part IV	Not Applicable – specific to Primary Response Contractor Applications
Part V	Not Applicable – outlines record keeping and compliance information

17.0 TRAINING AND EXERCISES

17.1 Training

Training Element	Qualified Individual (QI)	Incident Management Team (IMT)	Initial Response Team
Review of Emergency Response Plan at least annually and includes: • ICS Overview • NWACP policies • Use and location of GRP's • Contents of ERP, Field Guide and ICS Guide	x	x	x
ICS 100 Level Certification	x	x	x
HAZWOPER Certification	x	Command Staff, Operations Section, Planning Section Chief, and Environment Unit	x

17.1.1 Employee Training Records

A training record shall be maintained for each employee that has been trained in accordance with requirements in 29 CFR 1910.120 and 49 CFR 194.117. The Training Department is responsible for maintaining training records for all Company employees, related to safety and emergency related training functions. Training records are maintained as long as the employment with Kinder Morgan continues.

In accordance with 49 CFR 195.403, and at intervals not exceeding 15 months but at least once each calendar year, the Emergency Response and Security Group will;

- Review with personnel their performance in meeting the objectives of the emergency response training program,
- Make appropriate changes to the emergency response training program, and
- Require and verify that supervisors maintain a thorough knowledge of the emergency response procedures for which they are responsible.

17.1.2 Contractors Training Records

The Kinder Morgan emergency response contractors are responsible for maintaining all training records for their employees. Periodic audits shall be conducted of contractor training records to ensure that they comply with the emergency training and exercise requirements. Audit documentation shall be retained in the KM emergency training and exercise files.

17.1.3 Instructors

HAZWOPER instructors and training organizations shall be required to provide a current record of instructor certification to the operator's headquarters prior to undertaking any training. These records shall be maintained at the Kinder Morgan Canada office located in Calgary, AB, as long as the instructor undertakes training, as required by 29 CFR 1910.120.

17.2 Exercises

17.2.1 Company Policy

Kinder Morgan participates in the National Preparedness for Response Exercise Program (PREP). During each triennial cycle, all components of the Plan will be exercised at least once. KMC will provide WDOE and any other stakeholder the opportunity to help design and evaluate all tabletop and deployment drills, which KMC is looking for credit. Objectives not successfully met at an exercise will be tested again within the triennial cycle with the exception of significant failures will be retested within 30 days. WDOE will provide a written evaluation of the exercise to KMC and will outline any objectives successfully met. If changes to the ERP or training program are identified or required KMC will request an informal review with WDOE within 30 days of receipt of a report requiring/suggesting such changes to determine an action plan for making the changes.

17.2.2 Type and Frequency of Exercises

The following drills will be conducted during the triennial cycle. These will be either evaluated by WDOE or self evaluated. In either case of evaluation the WDOE matrix will be used. The following table indicates the type of drill and frequency of the drill along with description and any additional scheduling information.

Drill Type	Frequency in Triennial Cycle	Definition	Scheduling Instruction
Tabletop Drill	2	Is intended to demonstrate the capability to manage a spill using the incident command system. Role playing may be required in the drill and all tabletop drills will include a master list of equipment and personnel identified to fill both command post and field operations roles. The master resources list will include; WRRL identification numbers for all resources, and personnel names, affiliation home base and command post or field role.	Must be scheduled at least 60 days in advance on the Drill Calendar https://fortress.wa.gov/ecy/naces/
Worst Case Tabletop Drill	1	Once in the triennial cycle the IMT as identified in this plan will be mobilized in state for a drill.	Must be scheduled at least 90 days in advance on the Drill Calendar https://fortress.wa.gov/ecy/naces/
Ecology Unannounced Drills	As Needed	Will be conducted on an as needed basis determined by WDOE. Immediately prior to the start of the drill KMC will be notified in writing of the objectives, expectation and	

		scenario. KMC may request to be excused if conducting the drill poses unreasonable safety or environmental risk, or significant economic hardship. More information around unannounced drills can be found in WAC 173-182-710 (9)	
KMC Unannounced Drills	3		Will not be scheduled, is a test of the ERL notification system. One call to occur annually, in the event a real call takes place, the drill will not be conducted during that calendar year.
Wildlife Deployment Drill	1	Once every three years regional mobile wildlife rehabilitation equipment and personnel necessary to set up the wildlife rehabilitation system found in the plan. This is an additional deployment drill or may be combined with a larger multi objective deployment drill.	Scheduled at least 30 days in advance, and entered on the Drill Calendar https://fortress.wa.gov/ecy/naces/
Deployment Drills	6	Deployment drills will be used to demonstrate the actions KMC would take in a spill including Notifications, safety actions, environmental assessment and response equipment deployment. The drills will include a combination of KMC owned assets, contracted PRC assets and non-dedicated assets, and vessels of opportunity (if appropriate, and applicable). Equipment dedicated in the plan and personnel responsible for operating the equipment will be tested during the triennial cycle, drills will be designed to demonstrate the ability to meet the planning standards, including recovery systems and system compatibility and the suitability of the system for the	Scheduled at least 30 days in advance on the Drill Calendar https://fortress.wa.gov/ecy/naces/

		operating environment. The drills will be conducted in all operating environments that could be impacted by a spill. At least twice in the triennial cycle a GRP will be deployed.	
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Notes: KMC may receive credit for a PRC drill and count as one of the above drills if the PRC is listed in this plan KMC operates in the area of the drill, it is scheduled on the drill calendar, and KMC participates in or observes the drill in person.

17.2.3 Exercise Program Evaluation Criteria

The following table outlines the 15 core components of the PREP. These core components also align with the Washington Administrative Code 173-182-720 Evaluation Criteria, which will be used to evaluate all exercises conducted in the triennial cycle.

Core components	Description
Notifications	Test the notifications procedures identified in the Area Contingency Plan (ACP) and the Spill Response Plan.
Staff mobilization	Demonstrate the ability to assemble the spill response organization identified in the ACP and the Spill Response Plan.
Ability to operate within the response management system described in the Plan: - Unified Command - Response management system	Demonstrate the ability of the spill response organization to work within a unified command. Demonstrate the ability of the response organization to operate within the framework of the response management system identified in their respective plans.
Source Control	Demonstrate the ability of the spill response organization to control and stop the discharge at the source.
Assessment	Demonstrate the ability of the spill response organization to provide initial assessment of the discharge and provide continuing assessments of the effectiveness of the tactical operations.
Containment	Demonstrate the ability of the spill response organization to contain the discharge at the source or in various locations for recovery operations.
Recovery	Demonstrate the ability of the spill response organization to recover the discharged product.
Protection	Demonstrate the ability of the spill response organization to protect the environmentally and economically sensitive areas identified in the ACP and the respective industry response plan.
Disposal	Demonstrate the ability of the spill response organization to dispose of the recovered material and contaminated debris.
Communications	Demonstrate the ability to establish an effective communications system for the spill response organization.

Transportation	Demonstrate the ability to establish multi-mode transportation both for execution of the discharge and support functions.
Personnel Support	Demonstrate the ability to provide the necessary support of all personnel associated with response.
Equipment maintenance and support	Demonstrate the ability to maintain and support all equipment associated with the response.
Procurement	Demonstrate the ability to establish an effective procurement system.
Documentation	Demonstrate the ability of the spill response organization to document all operational and support aspects of the response and provide detailed records of decisions and actions taken.

17.2.4 Alternative Drill Credit

KMC may request drill credit for a response to an actual spill, provided that WDOE has an opportunity to participate and evaluate the spill response. Credit from spills will not alleviate the necessity to drill as per WAC 173-182-730. In the event of an actual spill being used for credit KMC will refer to WAC 173-182-730 to understand the criteria and timeline of reporting to be used. Additionally KMC may request drill credit for drills held out of state if all of the requirements are met in WAC 173-182-730 (2).

17.2.5 Exercise Component Checklist

The following checklist is provided by WDOE and will be used for evaluation purposes. Each component must be checked off at least once in a three year period. The active/historical check sheets can be obtained from the Emergency Response and Security Group on request.

Plan Components – Table Top Drills	
1. Notifications	
1.1 - Internal spill response team notified (initial first responders)	
1.2 - Entire spill response organization notified including PRC	
1.3 - Timely government notifications made	
2. Staff Mobilization	
2.1 - Local/internal on site appropriate for scope of drill	
2.2 - Away team in state in last 3 years	
3. Initial Response Actions	
3.1 - Checklist(s) and field document used	
3.2 - Initial Site Safety addressed following plan procedures	
3.3 - Initial assessment of spill status performed	
3.4 - Population Protection	
3.5 - Water Intakes Protection	
3.6 - Documented early actions on ICS 201 form	
3.7 - SMT transition through Initial Incident Briefing	
4. Response Management (Cumulative A-J must be checked)	
A. Overall Staffing and Coordination:	

Plan Components – Table Top Drills
4.A1 - Expanded team plan task assignments followed
4.A2 - Coordination between ICS Sections
B. Unified Command and Command Staff
4.B1 - UC identified and Incident Briefing conducted
4.B2 - UC meet and discuss key issues
4.B3 - Operational Period established
4.B4 - UC established objectives & assessed planned actions
4.B5 - UC prepared and participates in Press Conference
4.B6 - Dedicated historian/scribe assigned to UC
4.B7 - UC approved news releases through Information Officer
C. Information Officer/JIC
4.C1 - Information Officer designated
4.C2 - JIC established
4.C3 - News releases
4.C4 - Preparation for press conference
4.C5 - Ensured appropriate representation at news briefings
4.C6 - Information Officer attended meetings as appropriate
D. Liaison Officer
4.D1 - Liaison Officer designated
4.D2 - Liaison Officer established contact w/stakeholders as appr.
4.D3 - Liaison Officer planned/conducted Local Officials Briefing
4.D4 - Liaison Officer provided information to citizens
4.D5 - Liaison Officer attended meetings as appropriate
E. Safety Officer
4.E1 - Safety Officer Designated
4.E2 - Safety plan developed in a timely manner
4.E3 - Site Safety Plan approved & communicated to field staff
4.E4 - Safety Officer attended meetings as appropriate
F. Operations Section
4.F1 - Operations Section established
4.F2 - Tactical assignments made
4.F3 - Ops section developed plan to provide aircraft support
4.F4 - Coordinated with Planning
4.F5 - Ops Section coordinated on resource orders & tracking
4.F6 - Ops Section worked with Planning on situation status
4.F7 - Ops Section worked with Planning on disposal
4.F8 - Ops Section Chief attended meetings as appropriate
4.F9 - Coordinated with agencies (If applicable)

Plan Components – Table Top Drills
4.F10- Wildlife Branch Leader designated
4.F11- Plan Holder assisted Wildlife Branch Leader w/activities
G. Planning Section
4.G1 - Planning Section established
4.G2 - Planning Section (PS) used appropriate tools
4.G3 - Planning Section Chief (PSC) established meeting schedule
4.G4 - PSC ensured attendance/participation at meetings
4.G5 - PS prepared meeting room displays or handouts
4.G6 - PS prepared and maintained situation displays
4.G7 - Master resource list developed, maintained, & posted
4.G8 - PS documented the spill response effort
H. Environmental Unit
4.H1 - Environmental Unit Leader was designated
4.H2 - Plan holder assisted EUL with unit activities
I. Logistics Section
4.I1 - Logistics Section established
4.I2 - Resource ordering process established
4.I3 - Managed Communication Plan/prepared Radio Plan
4.I4 - Developed Medical Plan for all areas of response
4.I5 - Plan for food/water/sanitary facilities for the response
4.I6 - Plan to provide personnel for response
4.I7 - Established command post
4.I8 - Identified and planned for staging & other areas as needed
4.I9 - Developed ground support/traffic plan
4.I10 - Developed response vessel support plan
4.I11 - Logistics Section Chief attended meetings as appropriate
J. Finance Section
4.J1 - Finance Section established
4.J2 - Finance Section is able to provide a cost estimate
4.J3 - Compensation and claims numbers established

Plan Components - Deployments
1. Notifications
1.1 - Internal spill response team notified (initial first responders)
1.2 - Entire spill response organization notified including PRC
1.3 - Timely government notifications made
5. Response Operations (Cumulative A-C must be checked)

Plan Components - Deployments
A. Initial Response Operations
5.A1 - Initial safety equip deployed & Safety Officer designated
5.A2 - Local/internal response team mobilized and on-site
5.A3 - Number of personnel appropriate
5.A4 - Emergency Shut Down Procedures conducted
5.A5 - Field tested plan holders communication equipment
5.A6 - PH & PRC field tested compatibility of communication equipment
B. Containment and Recovery
5.B1 - Drills conducted in all operating environments per plan
5.B2 - Initial deployment of plan holder owned equipment on-site
5.B3 - Deployed initial mechanical recovery resources
5.B4 - Set up and demonstrated skimmer to storage transfer ability
5.B5 - Demonstrated and described containment of a land spill
5.B6 - Demonstrated and described damage control procedures
C. Protection
5.C1 - Plan holder deployed GRP strategies
D. Wildlife Rehabilitation Equipment
5.D1 - All wildlife equipment deployed in various areas (triennially)

18.0 WORST CASE DISCHARGE

In order to calculate worst case discharge for the Puget Sound Pipeline system and associated breakout tanks the area has been divided up into 5 response zones. The response zones each have a different WCD calculation based on DOT 49 CFR 194.105(b) and Washington Administrative Code 173-182-030 (67)(d). In the event that either calculation results in a differential of WCD volume the higher of the two is used for this emergency response plan and to determine the planning standards applied to each response zone as identified by WAC173-182-365.

The five response zones are as follows:

- Zone 1 – Border Scraper Trap to Laurel Station
- Zone 2 – Laurel Station to Ferndale Metre Station
- Zone 3 – Laurel Station to Burlington Trap
- Zone 4 – Burlington Trap to Anacortes Metre Station
- Zone 5 – Laurel Station

Zones 1-4 are pipeline response zones, and have been broken down by the ability to be remotely controlled by the Control Centre located in Edmonton, Alberta Canada, which does not rely on a field response to shut down.

Zone 5 is the Laurel Station location which contains two breakout storage tanks. These tanks are in operation for temporary storage of oil awaiting delivery to refineries in Anacortes and Ferndale. These tanks are both available for recovered liquid storage and can receive liquid from vacuum trucks directly.

The worst case discharge (WCD) as defined in 49 CFR 194.105(b), as the largest volume of the following:

- The pipeline's maximum shut-down response time in hours (based on historic discharge data or in the absence of such data, the operators best estimate), multiplied by the maximum flow rate expressed in barrels per hour (based on the maximum daily capacity of the pipeline), plus the largest drainage volume after shutdown of the line section(s) in the response zone expressed in barrels; or
- The largest foreseeable discharge for the line section(s) within a response zone, expressed in barrels (cubic meters), based on the maximum historic discharge, if one exists, adjusted for any subsequent corrective or preventative action taken; or
- If the response zone contains one or more breakout tanks, the capacity of the single largest tank or battery of tanks within a single secondary containment system, adjusted for the capacity or size of the secondary containment system, expressed in barrels.

Under PHMSA's current policy, operators are allowed to reduce the worst case discharge volume derived from 49 CFR 194.105(b)(3) by no more than 75% if an operator is taking certain spill prevention measures for their breakout tanks and presents supporting information in the response plan. An operator can reduce the worst case discharge volume based on breakout tanks in the response zones as follows:

Spill Prevention Measures	Percent Reduction Allowed
Secondary containment capacity greater than 100% capacity of tank and designed according to NFPA 30	50%
Tank built, rebuilt, and repaired according to API Std 620/650/653	10%
Automatic high-level alarms/shutdowns designed according to NFPA/API RP 2350	5%
Testing/cathodic protection designed according to API Std 650/651/653	5%
Tertiary containment/drainage/treatment per NFPA 30	5%*
Maximum allowable credit or reduction	75%

The worst case discharge (WCD) as defined by WDOE in WAC 173-182-030 (67)(d) as; For pipelines, the size of the worst case spill is dependent on the location of pump stations, key block valves, geographic considerations, or volume of the largest breakout tank. The largest volume determined from three different methods, complicated by adverse weather conditions:

- The pipeline's maximum time to detect the release, plus the maximum shutdown response time multiplied by the maximum flow rate per hour, plus the largest line drainage volume after shutdown;
- The maximum historic discharge from the pipeline; and
- The largest single breakout tank or battery of breakout tanks without a single secondary containment system.

Each operator shall determine the worst case discharge and provide the methodology, including calculations used to arrive at the volume. The following section describes each calculation method and the final result for each response zone.

18.1 Worst Case Discharge Calculations

18.1.1 Pipeline Calculation

The worst case discharge volume is calculated based on the highest volume for each response zone using the highest volume for each of the 3 criteria in 49 CFR 194.105(b), and WAC 173-182-030 (67)(d) listed in the previous section.

The worst-case scenario (full mainline rupture with 100% potential rupture volume out) is used for calculating the potential spill volume in the event of rupture. Pipeline total spill volumes are comprised of two components:

- the shutdown volume or initial spill volume
- the drain-down volume or stabilization spill volume

The shutdown volume, also termed the initial spill volume, is the fluid that is pumped out after pipe failure and before the leak detection software detects the release, pumps are shut down and mainline automated valves are closed. At a given point along the pipeline, the initial loss is the amount of product that can be released before the rupture site is isolated, namely:

- Initial spill volume = time to isolate the rupture point × maximum flow rate

The shutdown volume is approximately 2360 bbls (375.21 m³) for the Puget Sound Pipeline assuming a time delay of 15 minutes to recognize a leak and shut down as indicated in the list below

- Release prior to leak detection 4 minutes
- Operator/system reaction time 2 minutes
- System shutdown 4 minutes
- Valve closure time 5 minutes
- Total release time 15 minutes

Note: Time for evaluation and shut-down during bad weather has not been included as it has been determined that the weather will not impact the shut-down time due to the automation in the system.

The drain-down volume, also termed the stabilization spill volume, is the potential amount of product that can be released after isolation of the rupture point. The magnitude of the drain-down volume is related to the following factors,

- the pipeline elevation profile
- the location of mainline valves including automatic valves, check valves and manual valves
- the expected emergency response time to the leak-related manual valves
- Pipeline diameter and wall thickness
- The fluid properties such as viscosity, density and vapor pressure

For a given leaking point in the pipeline, its maximum drain-down volume is calculated using the following steps:

- All mainline automatic block valves are assumed to be closed within the initial shut-down period of 15 minutes, and mainline check valves block the reversal flow automatically.
- The manual valves are left open

- The maximum possible drain-down volume from the isolated leaking point is calculated using a spill volume calculation software.

When emergency crews arrive on site within the emergency response time, they can reduce the cumulative flow by closing the leak-related manual valves. Manual valve closure will reduce the drain-down volume obtained. The maximum drain-down volumes, without the manual valves being automated or closed by emergency crews, is used for evaluation of the spill size potential in WCD calculations.

The liquid pipeline spill volume software was developed by an engineering firm to conservatively quantify liquid spill volume that would be released after a catastrophic failure of the pipeline. The worst case scenario spill volume in the event of a full mainline rupture is calculated. Essentially, the maximum drain-down volume is determined and added to the shutdown volume.

Input data for the software includes distance, elevation and valve type and location data. Both input and output data are in a specific spreadsheet format. Each and every location that has elevation data is considered as an isolated spill or leak location. The elevation profile is then tested both upstream and downstream of the selected spill location. Each segment of the pipeline is tested to determine how much fluid could leak from the line. The volume of leaked fluid is determined by the occurrence of locations at a higher elevation than the leak point within the segment.

The Puget Sound pipeline extends for about 57.46 miles (92.48 km) from the US Border trap to the Anacortes delivery terminal and about 11.64 miles (18.74 km) from Laurel station to Ferndale terminal. The pipeline size is NPS 20 from US Border trap to Burlington station while it is NPS 16 from Burlington station to Anacortes terminal and from Laurel station to Ferndale terminal. The pipeline has a maximum flow rate of about 226,560 bpd (1501 m³/h). KMC has identified all the HCAs in this pipeline system. Based on the HCAs, the pipeline was divided into 3 sections to simplify the spill volume calculations and analysis, however calculation section 1 will be divided into Response Zone 1 and Response Zone 2 for WCD in the respective response zones. To further simplify the calculations for the response zones, the highest potential spill volume in a given response zone will be used for the WCD for that response zone. The pipeline sections are below:

- Section 1 – US Border to Burlington 48.379 Miles. Zone 1 US Border to Laurel Station, and Zone 3 Laurel Station to Burlington.
- Section 2 – Burlington to Anacortes 9.085 miles. Zone 4
- Section 3 – Laurel to Ferndale 11.644 miles. Zone 2

The results of the spill volume calculations are as follows for the response zones. Each section is further outlined in the following sections.

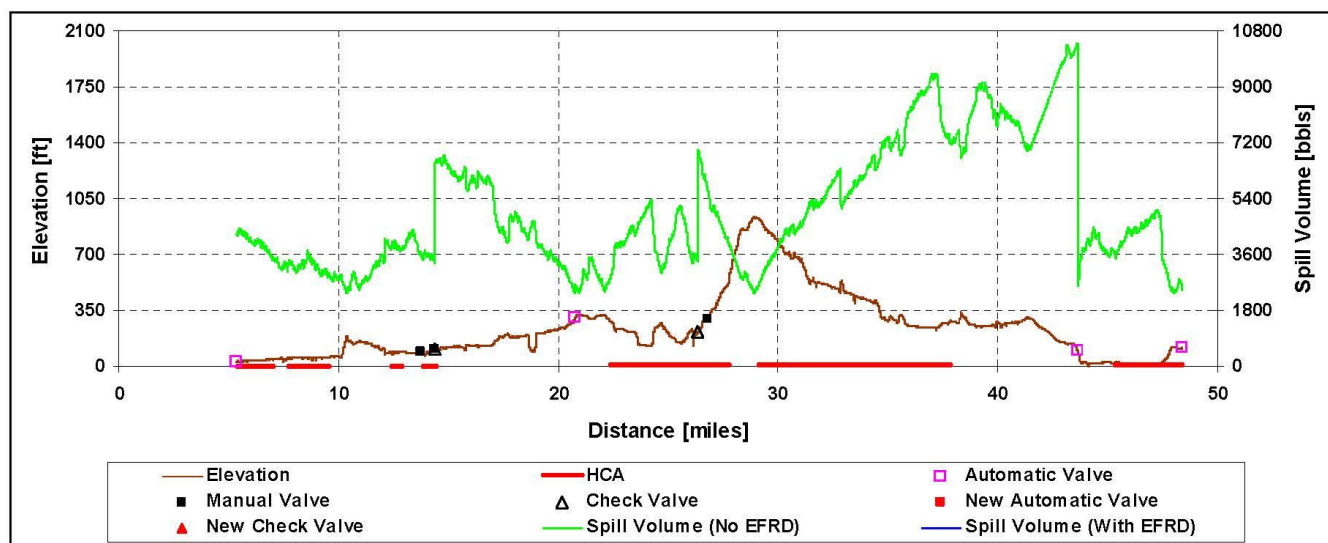
Response Zone	WCD Calculation (bbl)	Mile Post Location
1	6,656	14.45
2	7,186	8.832
3	10,405	43.61
4	4,500	0.887

18.1.1.1 Section 1 – Response Zone 1 and 3

Section one of the NPS 20 Puget Sound pipeline is approximately 48.38 miles (77.86 km) long from the US Border trap to Burlington MU 48 with a minimum wall thickness of 0.25 inch (6.35 mm). The below table presents the locations of existing mainline block valves (automatic and manual), and check valves in this section.

Response Zone	Valve Description	Valve Type	Chainage (miles)
1	US Border Trap	Automatic	5.359
1	MU 14	Manual	13.696
1	MU 15	Manual	14.395
1	Nooksack River	Check Valve	14.396
1	Laurel Station 20Q	Automatic	20.750
3	Whatcom Creek	Check Valve	26.357
3	MU 27	Manual	26.809
3	MU 43	Automatic	43.607
3	MU 48	Automatic	48.379

The spill volume profile for pipeline section one from US Border to Burlington is presented below. In this figure, the green line, labeled “Spill Volume (No EFRD)”, represents the calculated total spill volume profile based on the existing mainline valves assuming that all manual valves are open. An overall peak volume of 10,405 bbls occurs at MP-43.61 in Response Zone 3. The peak volume in Response Zone 1 is 6,656 bbl at MP-14.45.

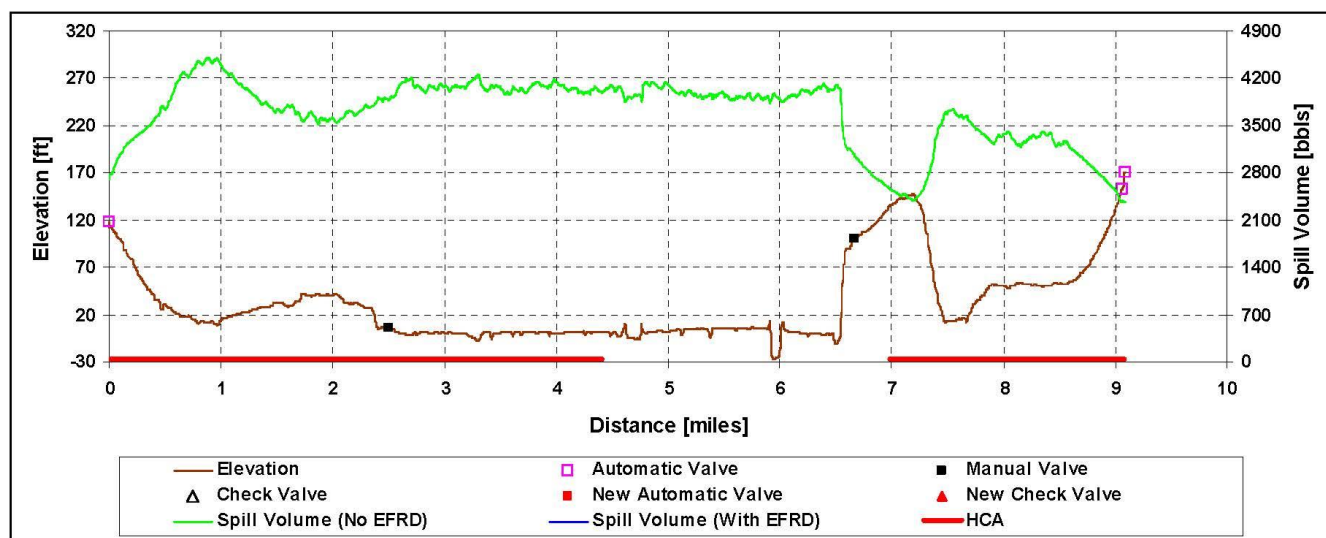


18.1.1.2 Section 2 – Response Zone 4

Section two of the Puget Sound pipeline is approximately 9.085 miles (14.62 km) long from Burlington MU 48 to Anacortes 16G with NPS 16 size and a minimum wall thickness of 0.25 inch (6.35 mm). The table below presents the locations of existing mainline block valves (automatic and manual), and check valves in this section.

Response Zone	Valve Description	Valve Type	Chainage (miles)
4	MU 48	Automatic	0.000
4	MB 3	Manual	2.501
4	MB 7	Manual	6.664
4	MB 9	Automatic	9.060
4	Anacortes 16G	Automatic	9.085

The spill volume profile for pipeline section two from Burlington to Anacortes is presented below. In this figure, the green line, labeled “Spill Volume (No EFRD)”, represents the calculated total spill volume profile based on the existing mainline valves assuming that all manual valves are open. An overall peak volume of 4,500 bbls occurs at MP-0.887 in Response Zone 4.

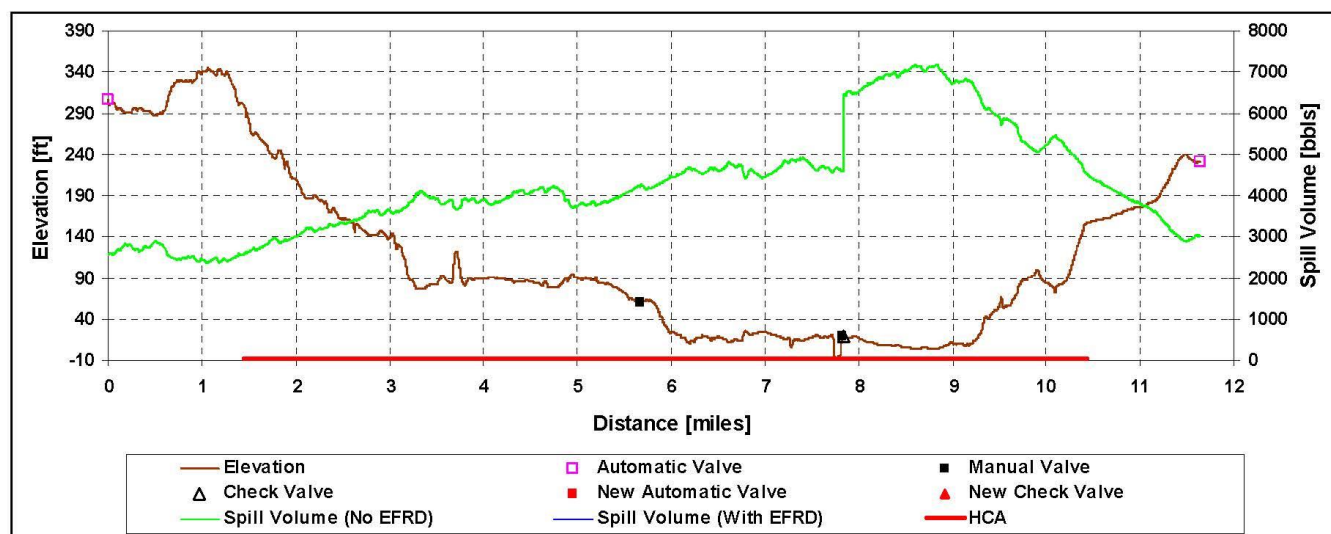


18.1.1.3 Section 3 – Response Zone 2

Section three of the Puget Sound pipeline is approximately 11.644 miles (18.739 km) long from Laurel Station 16N to Ferndale 16G with NPS 16 size and a minimum wall thickness of 0.25 inch (6.35 mm). The table below presents the locations of existing mainline block valves (automatic and manual), and check valves in this section.

Response Zone	Valve Description	Valve Type	Chainage (miles)
2	Laurel Station 16N	Automatic	0.000
2	ML 6	Manual	5.675
2	ML 8	Manual	7.831
2	Nooksak River Check	Check	7.833
2	Ferndale 16G	Automatic	11.644

The spill volume profile for pipeline section two from Laurel to Ferndale is presented below. In this figure, the green line, labeled “Spill Volume (No EFRD)”, represents the calculated total spill volume profile based on the existing mainline valves assuming that all manual valves are open. An overall peak volume of 7,186 bbls occurs at MP-8.832 in Response Zone 2.



18.1.2 Tank Calculation

The worst case discharges for breakout tanks have two sets of criteria under the two legislations. In Washington state under WAC 173-182-030 (67)(d) the WCD is the volume of the largest tank on site which amounts to 89,455 bbl. The WCD calculation under DOT regulation 49 CFR 194.105(b)(3) accounts for a reduction of 70% of the tank volume equalling 26,837 bbl. The WCD of Zone 5 is 89,455 bbl, because it is the largest worst case discharge volume of the two calculations.

18.1.3 Historic Releases

The WCD calculation under DOT regulation 49 CFR 194.105(b)(2) and WDOE regulation WAC 173-182-030 (67)(d) requires a look at historic spills. A spill in Zone 2 on January 10, 1973 equaled 10,500 bbl, which is larger than the calculated WCD of 7,186 bbl. Zones 1, and 3-5 do not have larger historic spills than the calculated WCD volumes. The following table outlines the historic spills for the Puget Sound Pipeline, and Laurel Station Response Zones:

Date	Response Zone	Material Released	Volume Released (bbl)
30-Jul-12	5	Crude	0.003
12-Apr-09	2	Crude	0.006
4-Jun-08	5	Crude	0.1
26-Oct-00	5	Crude	645
25-Nov-95	5	Crude	0.5
7-Mar-92	5	Crude	50
11-Dec-91	5	Crude	84
15-Jan-91	5	Condensate	75
1-Jun-88	5	Crude	0.1
7-Feb-83	3	Crude	1
1-Feb-79	5	Condensate	1149
3-Dec-75	5	Crude	0.1
23-Apr-74	2	Crude	100
10-Jan-73	2	Crude	10500
11-Aug-72	3	Crude	10
12-Jul-71	5	Crude	6300
15-Oct-56	5	Crude	1
5-Mar-55	2	Crude	10

18.1.4 Response Zone Worst Case Discharge Volumes

The following table outlines the WCD volume for each response zone based on the above calculations, and will be used to determine the planning standards under WAC 173-182-365:

Zone	Description	Worst Case Discharge (bbl)
1	Border Scraper Trap to Laurel Station	6,656
2	Laurel Station to Ferndale Metre Station	10,500
3	Laurel Station to Burlington Trap	10,405
4	Burlington Trap to Anacortes Metre Station	4,500
5	Laurel Station	89,455

18.2 Planning Standards

Washington State applies a planning standard that will be verified during drills. Should an actual spill event occur KMC understands that the initial response to the event is guided by safety considerations, and that KMC is responsible for addressing the entire volume of the spill regardless of the planning standard, also that the planning standards do not constitute cleanup standards that are to be met. In the event of an actual spill the failure to remove the discharge within the time periods set out in the plan will not constitute failure to comply with the ERP for the purposes of the planning standards or for the purpose of imposing administrative, civil, or criminal penalties under any other law. WAC 173-182-310.

18.2.1 Planning Spreadsheets

The following sections outlines the planning spreadsheets provided by WDOE to demonstrate how the planning standards are being met for each of the five response zones. These spreadsheets are also available electronically from the Emergency Response and Security Department.

18.2.1.1 Zone 1 – Bellingham Bay

Plan Holder: Kinder Morgan Canada (Trans Mountain Pipeline) Zone 1 Bellingham Bay
Planning Standard Summary Analysis: WAC 173-182-365 Transmission pipelines and pipeline tank farms
The summary analysis spreadsheet is based on a conceptual model of equipment that would be available based on the guidelines set forth in WAC 173-182 for; planning standards, determining effectiveness of recovery systems, documenting compliance with planning standards, and plan evaluation criteria. Actual times and performance in spills will depend on the conditions of the day. An electronic version of the equipment detail spreadsheet which lists all equipment can be made available by Ecology upon request. The planning standard summary analysis indicates total access to boom, storage and recovery resources required to meet the planning standard. Equipment access is based on information listed on the WRRL and information provided through the plan holder contingency plan and Primary Response Contractor applications as of 10/30/2014 . This information is subject to change as additional equipment is acquired and/or relocated. Substantive changes will result in an update of the spreadsheets.
PRC(s): NRCS
Plan Holder owned equipment: YES
Worst Case Spill Volume (bbls): 6,656
Oil Products Handled by Group (Group 1-5): Groups 2 and 3, crude oil, synthetic crudes, and diluted bitumen. A products summary is located in Section 7.7 of the plan.
Mutual Aid/Letters Of Intent: This is described in Section 19.5 of the plan.
Analysis point description: Where the Nooksack River enters Bellingham Bay
Marine 50% or Freshwater 65% shore side storage credit: No

Alternative Planning Standard: No.

	On- water Stora ge (bbls)	Shore side Stora ge (bbls)	Total Stora ge (bbls)	Calm Water (EDRC)	Protec ted Water (EDRC)	Open Water (EDRC)	Total Recov ery (EDRC)	B1 Boo m (ft)	B2 Boo m (ft)	B3 Boo m (ft)	Total Boom (ft)	Person nel (12 hour shift)
2 hr available	0	381	381	13,369	137	0	13,506	0	2,000	2,000	4,000	22
2 hr required			0				0				2,000	
meets standard			Yes				Yes				Yes	

6 hr available	2,044	909	2,953	14,821	8,455	17,534	40,810	1,000	38,150	2,000	41,150	137
6 hr required			666				666				7,000	
meets standard			Yes				Yes				Yes	

12 hr available	5,805	5,986	11,791	17,513	18,059	35,597	71,169	9,000	61,650	4,800	75,450	253
12 hr required			1,997				998				27,000	
meets standard			Yes				Yes				Yes	

24 hr available	36,605	14,966	51,571	18,175	18,059	35,597	71,831	9,000	61,650	5,800	76,450	262
24 hr required			3,994				1,331				27,000	
meets standard			Yes				Yes				Yes	

48 hr available	36,605	14,966	51,571	18,175	19,499	35,597	73,271	9,100	61,650	5,800	76,550	265
48 hr required			3,994				1,664				27,000	
meets standard			Yes				Yes				Yes	

18.2.1.2 Zone 1 – Nooksack River
**Plan Holder: Kinder Morgan Canada (Trans Mountain Pipeline) Zone 1
Nooksack River Crossing**
Planning Standard Summary Analysis: WAC 173-182-365 Transmission pipelines and pipeline tank farms

The summary analysis spreadsheet is based on a conceptual model of equipment that would be available based on the guidelines set forth in WAC 173-182 for; planning standards, determining effectiveness of recovery systems, documenting compliance with planning standards, and plan evaluation criteria. Actual times and performance in spills will depend on the conditions of the day. An electronic version of the equipment detail spreadsheet which lists all equipment can be made available by Ecology upon request. The planning standard summary analysis indicates total access to boom, storage and recovery resources required to meet the planning standard. Equipment access is based on information listed on the WRRL and information provided through the plan holder contingency plan and Primary Response Contractor applications as of **10/30/2014**. This information is subject to change as additional equipment is acquired and/or relocated. Substantive changes will result in an update of the spreadsheets.

PRC(s): NRCS

Plan Holder owned equipment: YES

Worst Case Spill Volume (bbls): 6656

Oil Products Handled by Group (Group 1-5): Groups 2 and 3, crude oil, synthetic crudes, and diluted bitumen. A products summary is located in Section 7.7 of the plan.

Mutual Aid/Letters Of Intent: PRC Letters of Intent are found in Section 19.5 of the plan.

Analysis point description: Zone 1 Nooksack River Crossing (North of Laurel)

Marine 50% or Freshwater 65% shore side storage credit: No

Alternative Planning Standard:No.

	On- water Stora ge (bbls)	Shore side Stora ge (bbls)	Total Stora ge (bbls)	Calm Water (EDRC)	Protec ted Water (EDRC)	Open Water (EDRC)	Total Recov ery (EDRC)	B1 Boo m (ft)	B2 Boo m (ft)	B3 Boo m (ft)	Total Boom (ft)	Person nel (12 hour shift)
2 hr available	0	381	381	13,369	137	0	13,506	0	0	2,000	2,000	18
2 hr required			0				0				2,000	
meets standard			Yes				Yes				Yes	

6 hr available	300	599	899	13,369	823	3,017	17,209	0	10,900	2,000	12,900	59
6 hr required			666				666				7,000	
meets standard			Yes				Yes				Yes	

12 hr available	4,260	5,986	10,246	16,979	18,059	24,118	59,156	8,700	50,450	4,800	63,950	211
12 hr required			1,997				998				27,000	
meets standard			Yes				Yes				Yes	

24 hr available	4,260	14,966	19,226	16,979	18,059	24,118	59,156	8,700	50,450	4,800	63,950	211
24 hr required			3,994				1,331				27,000	
meets standard			Yes				Yes				Yes	

48 hr available	4,260	14,966	19,226	16,979	18,059	24,118	59,156	8,700	50,450	4,800	63,950	211
48 hr required			3,994				1,664				27,000	
meets standard			Yes				Yes				Yes	

18.2.1.3 Zone 2 – Bellingham Bay

Plan Holder: Kinder Morgan Canada (Trans Mountain Pipeline) Zone 2 Bellingham Bay

Planning Standard Summary Analysis: WAC 173-182-365 Transmission pipelines and pipeline tank farms

The summary analysis spreadsheet is based on a conceptual model of equipment that would be available based on the guidelines set forth in WAC 173-182 for; planning standards, determining effectiveness of recovery systems, documenting compliance with planning standards, and plan evaluation criteria. Actual times and performance in spills will depend on the conditions of the day. An electronic version of the equipment detail spreadsheet which lists all equipment can be made available by Ecology upon request. The planning standard summary analysis indicates total access to boom, storage and recovery resources required to meet the planning standard. Equipment access is based on information listed on the WRRL and information provided through the plan holder contingency plan and Primary Response Contractor applications as of **10/30/2014**. This information is subject to change as additional equipment is acquired and/or relocated. Substantive changes will result in an update of the spreadsheets.

PRC(s): NRCES
Plan Holder owned equipment: YES
Worst Case Spill Volume (bbls): 10,500
Oil Products Handled by Group (Group 1-5): Groups 2 and 3, crude oil, synthetic crudes, and diluted bitumen. A products summary is located in Section 7.7 of the plan.
Mutual Aid/Letters Of Intent: PRC Letters of Intent are found in Section 19.5 of the plan
Analysis point description: Where the Nooksack River enters Bellingham Bay
Marine 50% or Freshwater 65% shore side storage credit: No
Alternative Planning Standard: No

	On- water Stora ge (bbls)	Shore side Stora ge (bbls)	Total Stora ge (bbls)	Calm Water (EDRC)	Protec ted Water (EDRC)	Open Water (EDRC)	Total Recov ery (EDRC)	B1 Boo m (ft)	B2 Boo m (ft)	B3 Boo m (ft)	Total Boom (ft)	Person nel (12 hour shift)
2 hr available	0	381	381	13,369	137	0	13,506	0	2,000	2,000	4,000	22
2 hr required			0				0				2,000	
meets standard			Yes				Yes				Yes	

6 hr available	2,044	909	2,953	14,821	8,455	17,534	40,810	1,000	38,150	2,000	41,150	137
6 hr required			1,050				1,050				7,000	
meets standard			Yes				Yes				Yes	

12 hr available	5,805	5,986	11,791	17,513	18,059	35,597	71,169	9,000	61,650	4,800	75,450	253
12 hr required			3,150				1,575				27,000	
meets standard			Yes				Yes				Yes	

24 hr available	36,605	14,966	51,571	18,175	18,059	35,597	71,831	9,000	61,650	5,800	76,450	262
24 hr required			6,300				2,100				27,000	

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Emergency Response Plan

meets standard			Yes				Yes				Yes	
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48 hr available	36,60 5	14,96 6	51,57 1	18,175	19,499	35,59 7	73,27 1	9,1 00	61,6 50	5,8 00	76,550	265
48 hr required			6,300				2,625				27,000	
meets standard			Yes				Yes				Yes	

18.2.1.4 Zone 2 – Nooksack River

Plan Holder: Kinder Morgan Canada (Trans Mountain Pipeline) Zone 2 Nooksack

Planning Standard Summary Analysis: WAC 173-182-365 Transmission pipelines and pipeline tank farms

The summary analysis spreadsheet is based on a conceptual model of equipment that would be available based on the guidelines set forth in WAC 173-182 for; planning standards, determining effectiveness of recovery systems, documenting compliance with planning standards, and plan evaluation criteria. Actual times and performance in spills will depend on the conditions of the day. An electronic version of the equipment detail spreadsheet which lists all equipment can be made available by Ecology upon request. The planning standard summary analysis indicates total access to boom, storage and recovery resources required to meet the planning standard. Equipment access is based on information listed on the WRRL and information provided through the plan holder contingency plan and Primary Response Contractor applications as of **10/30/2014**. This information is subject to change as additional equipment is acquired and/or relocated. Substantive changes will result in an update of the spreadsheets.

PRC(s): NRCES

Plan Holder owned equipment: Yes

Worst Case Spill Volume (bbls): 10,500

Oil Products Handled by Group (Group 1-5): Groups 2 and 3, crude oil, synthetic crudes, and diluted bitumen. A products summary is located in Section 7.7 of the plan.

Mutual Aid/Letters Of Intent: PRC Letters of Intent are found in Section 19.5 of the plan.

Analysis point description: Zone 2 Nooksack River Crossing (near Ferndale)

Marine 50% or Freshwater 65% shore side storage credit: YES, Kinder Morgan plans to utilize their break out tanks at Laurel for recovered oil. This is discussed in the plan in Section 18.2.2.

Alternative Planning Standard: No.

	On- water Stora ge (bbls)	Shore side Stora ge (bbls)	Total Stora ge (bbls)	Calm Water (EDRC)	Protec ted Water (EDRC)	Open Water (EDRC)	Total Recov ery (EDRC)	B1 Boo m (ft)	B2 Boo m (ft)	B3 Boo m (ft)	Total Boom (ft)	Person nel (12 hour shift)
2 hr available	0	381	381	13,369	137	0	13,506	0	0	2,000	2,000	18
2 hr required			0				0				2,000	
meets standard			Yes				Yes				Yes	

6 hr available	1,194	909	2,103	14,287	8,095	8,482	30,864	1,000	26,150	2,000	29,150	103
6 hr required			368				1,050				7,000	
meets standard			Yes				Yes				Yes	

12 hr available	4,260	5,986	10,246	16,979	18,059	24,118	59,156	8,700	50,450	4,800	63,950	211
12 hr required			1,103				1,575				27,000	
meets standard			Yes				Yes				Yes	

24 hr available	4,260	14,966	19,226	16,979	18,059	24,118	59,156	8,700	50,450	4,800	63,950	211
24 hr required			2,205				2,100				27,000	
meets standard			Yes				Yes				Yes	

48 hr available	4,260	14,966	19,226	16,979	18,059	24,118	59,156	8,700	50,450	4,800	63,950	211
48 hr required			2,205				2,625				27,000	
meets standard			Yes				Yes				Yes	

18.2.1.5 Zone 3 – Bellingham Bay
Plan Holder: Kinder Morgan Canada (Trans Mountain Pipeline) Zone 3 Bellingham Bay
Planning Standard Summary Analysis: WAC 173-182-365 Transmission pipelines and pipeline tank farms

The summary analysis spreadsheet is based on a conceptual model of equipment that would be available based on the guidelines set forth in WAC 173-182 for; planning standards, determining effectiveness of recovery systems, documenting compliance with planning standards, and plan evaluation criteria. Actual times and performance in spills will depend on the conditions of the day. An electronic version of the equipment detail spreadsheet which lists all equipment can be made available by Ecology upon request. The planning standard summary analysis indicates total access to boom, storage and recovery resources required to meet the planning standard. Equipment access is based on information listed on the WRRL and information provided through the plan holder contingency plan and Primary Response Contractor applications as of **10/30/2014**. This information is subject to change as additional equipment is acquired and/or relocated. Substantive changes will result in an update of the spreadsheets.

PRC(s): NRCES
Plan Holder owned equipment: YES
Worst Case Spill Volume (bbls): 7000
Oil Products Handled by Group (Group 1-5): Groups 2 and 3, crude oil, synthetic crudes, and diluted bitumen. A products summary is located in Section 7.7 of the plan.

Mutual Aid/Letters Of Intent: PRC Letters of Intent are found in Section 19.5 of the plan.

Analysis point description: Zone 3, where Whatcom Creek discharges into Bellingham Bay

Marine 50% or Freshwater 65% shore side storage credit: No
Alternative Planning Standard: No

	On-water Storage (bbls)	Shore side Storage (bbls)	Total Storage (bbls)	Calm Water (EDRC)	Protected Water (EDRC)	Open Water (EDRC)	Total Recovery (EDRC)	B1 Boom (ft)	B2 Boom (ft)	B3 Boom (ft)	Total Boom (ft)	Personnel (12 hour shift)
2 hr available	0	381	381	13,369	137	0	13,506	0	2,000	2,000	4,000	22
2 hr required			0				0				2,000	
meets standard			Yes				Yes				Yes	

6 hr available	2,044	909	2,953	14,821	8,455	17,534	40,810	1,000	38,150	2,000	41,150	137
6 hr required			700				700				7,000	
meets standard			Yes				Yes				Yes	

12 hr available	5,805	5,986	11,791	17,513	18,059	35,597	71,169	9,000	61,650	4,800	75,450	253
12 hr required			2,100				1,050				27,000	
meets standard			Yes				Yes				Yes	

24 hr available	36,605	14,966	51,571	18,175	18,059	35,597	71,831	9,000	61,650	5,800	76,450	262
24 hr required			4,200				1,400				27,000	
meets standard			Yes				Yes				Yes	

48 hr available	36,605	14,966	51,571	18,175	19,499	35,597	73,271	9,100	61,650	5,800	76,550	265
48 hr required			4,200				1,750				27,000	
meets standard			Yes				Yes				Yes	

18.2.1.6 Zone 3 – Samish Bay

Plan Holder: Kinder Morgan Canada (Trans Mountain Pipeline) Zone 3 Samish Bay

Planning Standard Summary Analysis: WAC 173-182-365 Transmission pipelines and pipeline tank farms

The summary analysis spreadsheet is based on a conceptual model of equipment that would be available based on the guidelines set forth in WAC 173-182 for; planning standards, determining effectiveness of recovery systems, documenting compliance with planning standards, and plan evaluation criteria. Actual times and performance in spills will depend on the conditions of the day. An electronic version of the equipment detail spreadsheet which lists all equipment can be made available by Ecology upon request. The planning standard summary analysis indicates total access to boom, storage and recovery resources required to meet the planning standard. Equipment access is based on information listed on the WRRL and information provided through the plan holder contingency plan and Primary Response Contractor applications as of **10/30/2014**. This information is subject to change as additional equipment is acquired and/or relocated. Substantive changes will result in an update of the spreadsheets.

PRC(s): NRCES
Plan Holder owned equipment: Yes
Worst case discharge: 10,405 bbls
Oil Products Handled by Group (Group 1-5): Groups 2 and 3, crude oil, synthetic crudes, and diluted bitumen. A products summary is located in Section 7.7 of the plan.
Mutual Aid/Letters Of Intent: PRC Letters of Intent are found in Section 19.5 of the plan.
Analysis point description: Zone 3, where the Samish River discharges into Samish Bay.
Marine 50% or Freshwater 65% shore side storage credit: No
Alternative Planning Standard: No

	On- water Stora ge (bbls)	Shore side Stora ge (bbls)	Total Stora ge (bbls)	Calm Water (EDRC)	Protec ted Water (EDRC)	Open Water (EDRC)	Total Recov ery (EDRC)	B1 Boo m (ft)	B2 Boo m (ft)	B3 Boo m (ft)	Total Boom (ft)	Person nel (12 hour shift)
2 hr available	0	381	381	13,369	137	0	13,506	0	2,000	2,000	4,000	22
2 hr required			0				0				2,000	
meets standard			Yes				Yes				Yes	

6 hr available	2,044	909	2,953	14,821	8,455	17,534	40,810	1,000	38,150	2,000	41,150	137
6 hr required			1,041				1,041				7,000	
meets standard			Yes				Yes				Yes	

12 hr available	5,805	5,986	11,791	17,513	18,059	35,597	71,169	9,000	61,650	4,800	75,450	254
12 hr required			3,122				1,561				27,000	
meets standard			Yes				Yes				Yes	

24 hr available	36,605	14,966	51,571	18,175	18,059	35,597	71,831	9,000	61,650	5,800	76,450	262
24 hr required			6,243				2,081				27,000	

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Emergency Response Plan

meets standard			Yes				Yes				Yes	
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48 hr available	36,60 5	14,96 6	51,57 1	18,175	19,499	35,59 7	73,27 1	9,1 00	61,6 50	5,8 00	76,550	265
48 hr required			6,243				2,601				27,000	
meets standard			Yes				Yes				Yes	

18.2.1.7 Zone 3 – Samish River

Plan Holder: Kinder Morgan Canada (Trans Mountain Pipeline) Zone 3 Samish River

Planning Standard Summary Analysis: WAC 173-182-365 Transmission pipelines and pipeline tank farms

The summary analysis spreadsheet is based on a conceptual model of equipment that would be available based on the guidelines set forth in WAC 173-182 for; planning standards, determining effectiveness of recovery systems, documenting compliance with planning standards, and plan evaluation criteria. Actual times and performance in spills will depend on the conditions of the day. An electronic version of the equipment detail spreadsheet which lists all equipment can be made available by Ecology upon request. The planning standard summary analysis indicates total access to boom, storage and recovery resources required to meet the planning standard. Equipment access is based on information listed on the WRRL and information provided through the plan holder contingency plan and Primary Response Contractor applications as of **10/30/2014**. This information is subject to change as additional equipment is acquired and/or relocated. Substantive changes will result in an update of the spreadsheets.

PRC(s): NRCES

Plan Holder owned equipment: Yes

Worst Case Spill Volume (bbls): 10,405 bbls

Oil Products Handled by Group (Group 1-5): Groups 2 and 3, crude oil, synthetic crudes, and diluted bitumen. A products summary is located in Section 7.7 of the plan.

Mutual Aid/Letters Of Intent: PRC Letters of Intent are found in Section 19.5 of the plan.

Analysis point description: Zone 3 where the pipeline crosses the Samish River.

Marine 50% or Freshwater 65% shore side storage credit: YES, Kinder Morgan plans to utilize their break out tanks at Laurel for recovered oil. This is discussed in the plan in Section 18.2.2.

Alternative Planning Standard: No

	On- water Stora ge (bbls)	Shore side Stora ge (bbls)	Total Stora ge (bbls)	Calm Water (EDRC)	Protec ted Water (EDRC)	Open Water (EDRC)	Total Recov ery (EDRC)	B1 Boo m (ft)	B2 Boo m (ft)	B3 Boo m (ft)	Total Boom (ft)	Person nel (12 hour shift)
2 hr available	0	381	381	13,369	137	0	13,506	0	0	2,000	2,000	18
2 hr required			0				0				2,000	
meets standard			Yes				Yes				Yes	

6 hr available	1,194	909	2,103	14,287	9,141	8,482	31,910	1,000	30,150	2,000	33,150	111
6 hr required			364				1,041				7,000	
meets standard			Yes				Yes				Yes	

12 hr available	4,260	5,986	10,246	16,979	18,059	24,118	59,156	8,700	50,450	4,800	63,950	211
12 hr required			1,093				1,561				27,000	
meets standard			Yes				Yes				Yes	

24 hr available	4,260	14,966	19,226	16,979	18,059	24,118	59,156	8,700	50,450	4,800	63,950	211
24 hr required			2,185				2,081				27,000	
meets standard			Yes				Yes				Yes	

48 hr available	4,260	14,966	19,226	16,979	18,059	24,118	59,156	8,700	50,450	4,800	63,950	211
48 hr required			2,185				2,601				27,000	
meets standard			Yes				Yes				Yes	

18.2.1.8 Zone 3 – Whatcom Creek
**Plan Holder: Kinder Morgan Canada (Trans Mountain Pipeline) Zone 3
Whatcom Creek**
Planning Standard Summary Analysis: WAC 173-182-365 Transmission pipelines and pipeline tank farms

The summary analysis spreadsheet is based on a conceptual model of equipment that would be available based on the guidelines set forth in WAC 173-182 for; planning standards, determining effectiveness of recovery systems, documenting compliance with planning standards, and plan evaluation criteria. Actual times and performance in spills will depend on the conditions of the day. An electronic version of the equipment detail spreadsheet which lists all equipment can be made available by Ecology upon request. The planning standard summary analysis indicates total access to boom, storage and recovery resources required to meet the planning standard. Equipment access is based on information listed on the WRRL and information provided through the plan holder contingency plan and Primary Response Contractor applications as of **10/30/2014**. This information is subject to change as additional equipment is acquired and/or relocated. Substantive changes will result in an update of the spreadsheets.

PRC(s): NRCS

Plan Holder owned equipment: YES

Worst Case Spill Volume (bbls): 7000

Oil Products Handled by Group (Group 1-5): Groups 2 and 3, crude oil, synthetic crudes, and diluted bitumen. A products summary is located in Section 7.7 of the plan.

Mutual Aid/Letters Of Intent: PRC Letters of Intent are found in Section 19.5 of the plan.

Analysis point description: Zone 3, where the pipeline crosses Whatcom Creek

Marine 50% or Freshwater 65% shore side storage credit: No

Alternative Planning Standard: No

	On-water Storage (bbls)	Shore side Storage (bbls)	Total Storage (bbls)	Calm Water (EDRC)	Protected Water (EDRC)	Open Water (EDRC)	Total Recovery (EDRC)	B1 Boom (ft)	B2 Boom (ft)	B3 Boom (ft)	Total Boom (ft)	Personnel (12 hour shift)
2 hr available	0	381	381	13,369	137	0	13,506	0	0	2,000	2,000	18
2 hr required			0				0				2,000	
meets standard			Yes				Yes				Yes	

6 hr available	1,194	909	2,103	14,287	8,455	8,482	31,224	1,000	27,150	2,000	30,150	105
6 hr required			700				700				7,000	
meets standard			Yes				Yes				Yes	

12 hr available	4,260	5,986	10,246	16,979	18,059	24,118	59,156	8,700	50,450	4,800	63,950	211
12 hr required			2,100				1,050				27,000	
meets standard			Yes				Yes				Yes	

24 hr available	4,260	14,966	19,226	16,979	18,059	24,118	59,156	8,700	50,450	4,800	63,950	211
24 hr required			4,200				1,400				27,000	
meets standard			Yes				Yes				Yes	

48 hr available	4,260	14,966	19,226	16,979	18,059	24,118	59,156	8,700	50,450	4,800	63,950	211
48 hr required			4,200				1,750				27,000	
meets standard			Yes				Yes				Yes	

18.2.1.9 Zone 4 – Padilla Bay

Plan Holder: Kinder Morgan Canada (Trans Mountain Pipeline) Zone 4 Padilla Bay

Planning Standard Summary Analysis: WAC 173-182-365 Transmission pipelines and pipeline tank farms

The summary analysis spreadsheet is based on a conceptual model of equipment that would be available based on the guidelines set forth in WAC 173-182 for; planning standards, determining effectiveness of recovery systems, documenting compliance with planning standards, and plan evaluation criteria. Actual times and performance in spills will depend on the conditions of the day. An electronic version of the equipment detail spreadsheet which lists all equipment can be made available by Ecology upon request. The planning standard summary analysis indicates total access to boom, storage and recovery resources required to meet the planning standard. Equipment access is based on information listed on the WRRL and information provided through the plan holder contingency plan and Primary Response Contractor applications as of **10/30/2014**. This information is subject to change as additional equipment is acquired and/or relocated. Substantive changes will result in an update of the spreadsheets.

PRC(s): NRCES
Plan Holder owned equipment: YES
Worst Case Spill Volume (bbls): 4,200
Oil Products Handled by Group (Group 1-5): Groups 2 and 3, crude oil, synthetic crudes, and diluted bitumen. A products summary is located in Section 7.7 of the plan.
Mutual Aid/Letters Of Intent: PRC Letters of Intent are found in Section 19.5 of the plan.
Analysis point description: Zone 4, Padilla Bay
Marine 50% or Freshwater 65% shore side storage credit: No
Alternative Planning Standard: No

	On- water Stora ge (bbls)	Shore side Stora ge (bbls)	Total Stora ge (bbls)	Calm Water (EDRC)	Protec ted Water (EDRC)	Open Water (EDRC)	Total Recov ery (EDRC)	B1 Boo m (ft)	B2 Boo m (ft)	B3 Boo m (ft)	Total Boom (ft)	Person nel (12 hour shift)
2 hr available	0	381	381	13,369	137	0	13,506	0	2,000	2,000	4,000	24
2 hr required			0				0				2,000	
meets standard			Yes				Yes				Yes	

6 hr available	2,044	909	2,953	14,821	9,141	17,534	41,496	1,000	41,150	2,000	44,150	143
6 hr required			420				420				7,000	
meets standard			Yes				Yes				Yes	

12 hr available	5,805	5,986	11,791	17,513	18,059	35,597	71,169	9,000	61,650	4,800	75,450	254
12 hr required			1,260				630				27,000	
meets standard			Yes				Yes				Yes	

24 hr available	36,605	14,966	51,571	18,175	18,059	35,597	71,831	9,000	61,650	5,800	76,450	262
24 hr required			2,520				840				27,000	

1-888-876-6711

Emergency Response Plan

meets standard			Yes				Yes				Yes	
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48 hr available	36,60 5	14,96 6	51,57 1	18,175	19,499	35,59 7	73,27 1	9,1 00	61,6 50	5,8 00	76,550	265
48 hr required			2,520				1,050				27,000	
meets standard			Yes				Yes				Yes	

18.2.1.10 Zone 4 – Padilla Bay Standard

Plan Holder:Kinder Morgan Canada (Trans Mountain Pipeline) Zone 4 Padilla Bay

Planning Standard Summary Analysis: WAC 173-182-375 Padilla Bay Planning Standard

The summary analysis spreadsheet is based on a conceptual model of equipment that would be available based on the guidelines set forth in WAC 173-182 for; planning standards, determining effectiveness of recovery systems, documenting compliance with planning standards, and plan evaluation criteria. Actual times and performance in spills will depend on the conditions of the day. An electronic version of the equipment detail spreadsheet which lists all equipment can be made available by Ecology upon request. The planning standard summary analysis indicates total access to boom, storage and recovery resources required to meet the planning standard. Equipment access is based on information listed on the WRRRL and information provided through the plan holder contingency plan and Primary Response Contractor applications as of **10/30/2014**. This information is subject to change as additional equipment is acquired and/or relocated. Substantive changes will result in an update of the spreadsheets.

PRC(s): NRCES

Plan Holder owned equipment: YES

Worst Case Spill Volume (bbls): 4200

Oil Products Handled by Group (Group 1-5): Groups 2 and 3, crude oil, synthetic crudes, and diluted bitumen. A products summary is located in Section 7.7 of the plan.

Mutual Aid/Letters Of Intent: PRC Letteres of Intent can be found in Section 19.5 of the plan.

Analysis point description: Zone 4, Padilla Bay

Marine 50% or Freshwater 65% shore side storage credit: No

Alternative Planning Standard: No

	On- water Stora ge (bbls)	Shore side Stora ge (bbls)	Total Stora ge (bbls)	Calm Water (EDRC)	Protec ted Water (EDRC)	Open Water (EDRC)	Total Recov ery (EDRC)	B1 Boo m (ft)	B2 Boo m (ft)	B3 Boo m (ft)	Total Boom (ft)	Person nel (12 hour shift)
1.5 hr available	0	381	381	13,369	137	0	13,506	0	0	2,000	2,000	18
1.5 hr required			0				0				1,000	
meets standard			Yes				Yes				Yes	
2 hr available	0	381	381	13,369	137	0	13,506	0	2,000	2,000	4,000	24
2 hr required			0				0				3,000	
meets standard			Yes				Yes				Yes	

6 hr available	2,044	909	2,953	14,821	9,141	17,534	41,496	1,000	41,150	2,000	44,150	143
6 hr required			126	63			126				13,000	
meets standard			Yes	Yes			Yes				Yes	

12 hr available	5,805	5,986	11,791	17,513	18,059	35,597	71,169	9,000	61,650	4,800	75,450	254
12 hr required			630	84			420				33,000	
meets standard			Yes	Yes			Yes				Yes	

24 hr available	36,605	14,966	51,571	18,175	18,059	35,597	71,831	9,000	61,650	5,800	76,450	262
24 hr required			1,176				588				53,000	
meets standard			Yes				Yes				Yes	

48 hr available	36,605	14,966	51,571	18,175	19,499	35,597	73,271	9,100	61,650	5,800	76,550	265
48 hr required			1,176				1,050				53,000	
meets standard			Yes				Yes				Yes	

18.2.1.11 Zone 5 – Bellingham Bay
Plan Holder: Kinder Morgan Canada (Trans Mountain Pipeline) Zone 5 Bellingham Bay
Planning Standard Summary Analysis: WAC 173-182-365 Transmission pipelines and pipeline tank farms

The summary analysis spreadsheet is based on a conceptual model of equipment that would be available based on the guidelines set forth in WAC 173-182 for; planning standards, determining effectiveness of recovery systems, documenting compliance with planning standards, and plan evaluation criteria. Actual times and performance in spills will depend on the conditions of the day. An electronic version of the equipment detail spreadsheet which lists all equipment can be made available by Ecology upon request. The planning standard summary analysis indicates total access to boom, storage and recovery resources required to meet the planning standard. Equipment access is based on information listed on the WRRL and information provided through the plan holder contingency plan and Primary Response Contractor applications as of **10/30/2014**. This information is subject to change as additional equipment is acquired and/or relocated. Substantive changes will result in an update of the spreadsheets.

PRC(s): NRCS

Plan Holder owned equipment: YES

Worst Case Spill Volume (bbls): 89,455

Oil Products Handled by Group (Group 1-5): Groups 2 and 3, crude oil, synthetic crudes, and diluted bitumen. A products summary is located in Section 7.7 of the plan.

Mutual Aid/Letters Of Intent: PRC Letters of Intent are found in Section 19.5 of the plan.

Analysis point description: Zone 5, where the Nooksack River enters Bellingham Bay

Marine 50% or Freshwater 65% shore side storage credit: No

Alternative Planning Standard: No

	On-water Storage (bbls)	Shore side Storage (bbls)	Total Storage (bbls)	Calm Water (EDRC)	Protected Water (EDRC)	Open Water (EDRC)	Total Recovery (EDRC)	B1 Boom (ft)	B2 Boom (ft)	B3 Boom (ft)	Total Boom (ft)	Personnel (12 hour shift)
2 hr available	0	381	381	13,369	137	0	13,506	0	2,000	2,000	4,000	22
2 hr required			0				0				2,000	
meets standard			Yes				Yes				Yes	

6 hr available	29,752	909	30,661	14,821	8,455	17,534	40,810	1,000	38,150	2,000	41,150	137
6 hr required			8,946				8,946				7,000	
meets standard			Yes				Yes				Yes	

12 hr available	33,513	5,986	39,499	17,513	18,059	35,597	71,169	9,000	61,650	4,800	75,450	253
12 hr required			26,837				13,418				27,000	
meets standard			Yes				Yes				Yes	

24 hr available	64,313	14,966	79,279	18,175	18,059	35,597	71,831	9,000	61,650	5,800	76,450	262
24 hr required			53,673				17,891				27,000	
meets standard			Yes				Yes				Yes	

48 hr available	64,313	14,966	79,279	18,175	19,499	35,597	73,271	9,100	61,650	5,800	76,550	265
48 hr required			53,673				22,364				27,000	
meets standard			Yes				Yes				Yes	

18.2.1.12 Zone 5 – Laurel Station

Plan Holder: Kinder Morgan Canada (Trans Mountain Pipeline) Zone 5 Laurel Station

Planning Standard Summary Analysis: WAC 173-182-365 Transmission pipelines and pipeline tank farms

The summary analysis spreadsheet is based on a conceptual model of equipment that would be available based on the guidelines set forth in WAC 173-182 for; planning standards, determining effectiveness of recovery systems, documenting compliance with planning standards, and plan evaluation criteria. Actual times and performance in spills will depend on the conditions of the day. An electronic version of the equipment detail spreadsheet which lists all equipment can be made available by Ecology upon request. The planning standard summary analysis indicates total access to boom, storage and recovery resources required to meet the planning standard. Equipment access is based on information listed on the WRRL and information provided through the plan holder contingency plan and Primary Response Contractor applications as of **10/30/2014**. This information is subject to change as additional equipment is acquired and/or relocated. Substantive changes will result in an update of the spreadsheets.

PRC(s): NRCES
Plan Holder owned equipment: YES
Worst Case Spill Volume (bbls): 89,455
Oil Products Handled by Group (Group 1-5): Groups 2 and 3, crude oil, synthetic crudes, and diluted bitumen. A products summary is located in Section 7.7 of the plan.
Mutual Aid/Letters Of Intent: PRC Letters of Intent can be found in Section 19.5 of the plan.
Analysis point description: Zone 5, Laurel
Marine 50% or Freshwater 65% shore side storage credit: YES, Kinder Morgan plans to utilize their break out tanks at Laurel for recovered oil. This is discussed in the plan in Section 18.2.2.
Alternative Planning Standard: For this operating environment, Kinder Morgan meets the storage planning requirements at hour 6 through the use of shoreside storage devices appropriate to the operating environment. The storage is available via Kinder Morgan owned equipment, Kinder Morgan tanks at Laurel Station, PRC equipment and storage available through LOI.

	On-water Storage (bbls)	Shore side Storage (bbls)	Total Storage (bbls)	Calm Water (EDRC)	Protected Water (EDRC)	Open Water (EDRC)	Total Recovery (EDRC)	B1 Boom (ft)	B2 Boom (ft)	B3 Boom (ft)	Total Boom (ft)	Personnel (12 hour shift)
2 hr available	0	381	381	13,369	137	0	13,506	0	0	2,000	2,000	18
2 hr required			0				0				2,000	
meets standard			Yes				Yes				Yes	

6 hr available	1,194	1,939	3,133	14,287	8,455	8,482	31,224	1,000	27,150	2,000	30,150	105
6 hr required			3,131				8,946				7,000	
meets standard			Yes				Yes				Yes	

12 hr available	4,260	7,016	11,276	16,979	18,059	24,118	59,156	8,700	50,450	4,800	63,950	211
12 hr required			9,393				13,418				27,000	
meets standard			Yes				Yes				Yes	

24 hr available	4,260	15,996	20,256	16,979	18,059	24,118	59,156	8,700	50,450	4,800	63,950	211
24 hr required			18,786				17,891				27,000	

1-888-876-6711

Emergency Response Plan

meets standard			Yes				Yes				Yes	
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48 hr available	4,260	15,99 6	20,25 6	16,979	18,059	24,11 8	59,15 6	8,7 00	50,4 50	4,8 00	63,950	211
48 hr required			18,78 6				22,36 4				27,000	
meets standard			Yes				Yes				Yes	

18.2.2 Vac Truck to Storage Tank Off-loading of Recovered Oil

- Vac truck driver will enter facility and check in at Control building, and sign in on visitor log sheet.
- Day operator will confirm the driver is current with his year required KMC safety orientation.
- The day operator will fill out , and issue a safe work permit for the unloading of product into tankage.
- Vac truck driver will fill out a KMC “Vacuum and Tank Truck Pre-Job Checklist “ and review it with the day operator and obtain his signature.
- Day operator will attach checklist to the daily safe work permit and post prior to work commencing.
- Day operator will accompany the vac truck to the appropriate tank, and will gas check the entire area prior to allowing truck into the tank bay area.
- Day operator will guide vac truck in to tank bay, and act as a spotter while truck backs in to the appropriate location.
- The vac truck will be grounded to tank, and hoses run to the appropriate tank valve.
- The vac truck will build tank pressure prior to discharging into selected tank. Once pressure is reached, the day operator will open the tank valve to facilitate the off-loading.
- Once vac truck has transferred all product to the tank, the day operator will close and secure tank valve , and escort truck out of the tank bay.
- The vac truck driver will work under the same safe work permit for his entire shift, and sign out on the stations visitor log when leaving the site for the last time.
- A new safe work permit and “Vacuum and Tank Truck Pre- Job Checklist “ are required to be filled out and posted for each shift.

18.2.3 Oil Recovery Rate

OSCAR Unit	Nameplate Capacity (USGPM)	Efficiency Factor (%)	USGPD	Barrels per Day
Laurel OSCAR				
4' Pedco weir Skimmer with 2x3" pumps	338	20	194,688	4,635
2' Pedco Wier Skimmer with 1x3" pump	338	20	97,344	2,317
Canadyne Multiskimmer	(brush) 88	20	25,344	603
	(drum) 52	20	14,976	356
Anacortes OSCAR				
4' Peco Weir Skimmer with 2x3" pumps	338	20	194,688	4,635
2' Pedco Wier Skimmer with 1x2" pump	172	20	49,536	1,179
Morris M1-11/24 Disc Skimmer	20	20	5,760	137
Total 24 Hour Adjusted Rate w/ Brush			561,600	13,369
Total 24 Hour Adjusted Rate w/ Drum			551,232	13,122
Total 24 Hour Adjusted Rate w/ Disk			542,016	12,903

18.2.4 KMC Owned Recovered Liquid Storage

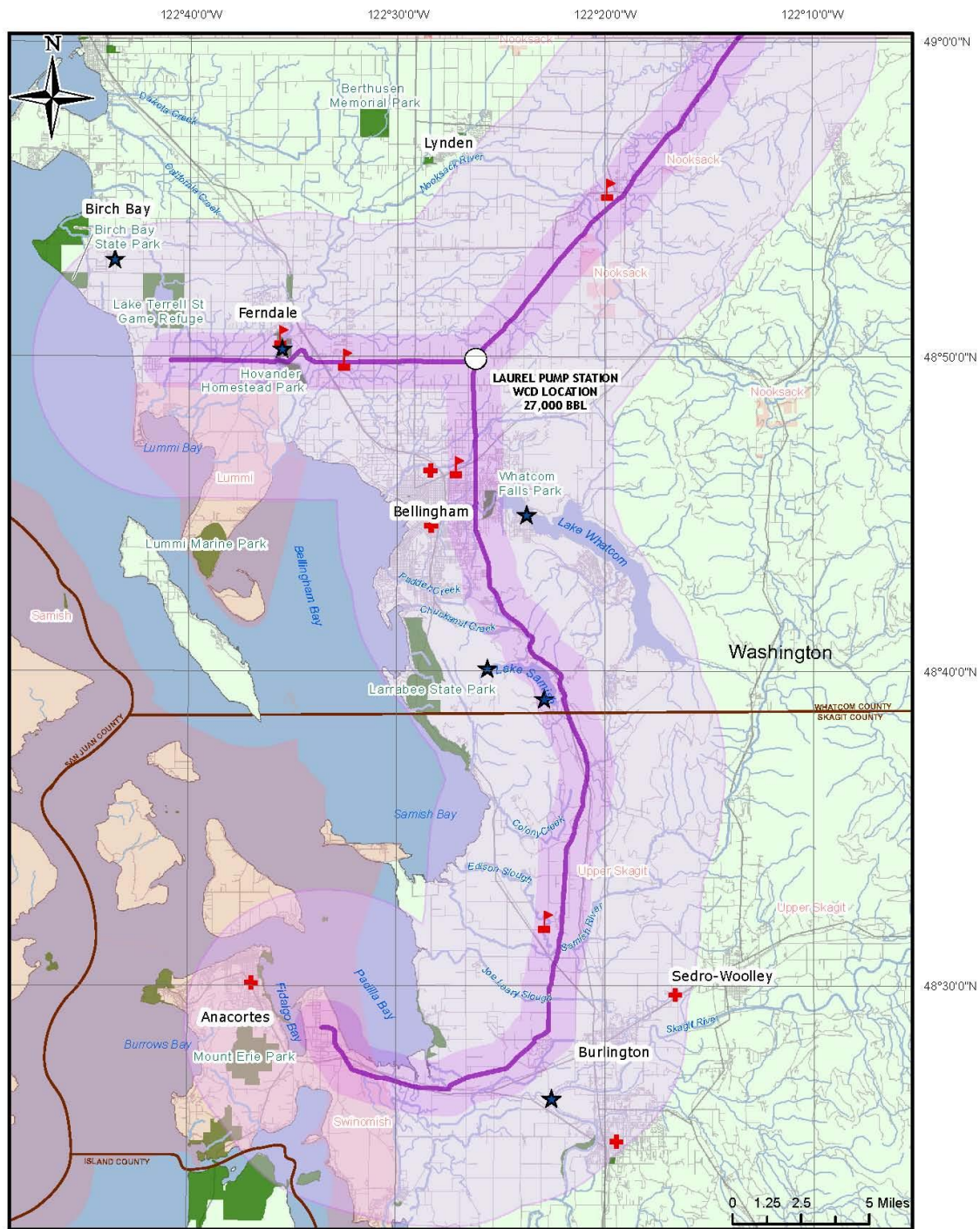
Kinder Morgan has several storage options available for use during an emergency these are listed below:

Location	Description	Capacity (US Gallons)	Capacity (barrels)
Laurel (OSCAR)	1x Portatank	1,000	23
	2x Pillow tanks	6,000	142
	1x Buoywall	1,500	35
Anacortes (OSCAR)	1x Bouywall	1,500	35
	2x Pillow Tanks	6,000	142
Ferndale Relief Tank (130)	1x Relief Tank	126,000	3000
Laurel Relief Tank (120)	1x Relief Tank	126,000	3000
Laurel Tank 170	Breakout Tank	3,757,110	89,455
Laurel Tank 180	Breakout Tank	3,716,244	85,482
Total Permanent Storage		7,725,354	183,937
Total Temporary Site Storage		16,000	380

18.2.5 KMC Owned Boom

Under WAC 173-182-365 (2) KMC maintains 2000 ft of boom in Washington State all of which is available anywhere along the pipeline within 2 hours. After the two hour window KMC relies upon our PRC's to provide additional boom capability for the 6, 12, 24, and 48 hour requirements.

18.3 Worst Case Discharge Map



**TRANS MOUNTAIN PIPELINE - PUGET SOUND
WORST CASE DISCHARGE MAP**

19.0 CERTIFICATIONS

19.1 Kinder Morgan Certification

Emergency Response Plan Certification

For the Trans Mountain Pipeline (Puget Sound) LLC from the Canada/U.S. Border to Laurel Station (Bellingham, WA), and from Laurel Station to Anacortes Meter Station (Anacortes, WA) and from Laurel Station to Ferndale Meter Station (Ferndale, WA), Kinder Morgan Canada Inc., as the operator certifies that:

- A spill response plan ("Plan") has been prepared that will be implemented in the event of a worst case discharge of oil
- The Plan is in effect for this pipeline and that Operator personnel are trained in the implementation of this Plan
- The availability of private personnel and equipment necessary to respond, to the maximum extent practicable, to a worst case discharge or a substantial threat of a discharge is ensured by contract or other approved means
- This Plan meets the applicable requirements of Research and Special Programs Administration, U.S. Department of Transportation (49 CFR 194).

Acceptance Verification: This verifies acceptance of this Spill Response Plan for Trans Mountain Pipeline (Puget Sound) LLC. This Plan will be used by facility personnel when responding to an oil spill. This Plan will be used in conjunction with the Emergency Response Field Guide, the Control Point Manual, and the Incident Command System Manual when necessary. The Supervisor, Puget Sound or designee has the authority to make appropriate expenditures in order to execute the provisions of this Plan. The Supervisor, Puget Sound or designee will be considered the "Qualified Individual."



Dan O'Rourke,
Director, Environmental, Health and Safety Department
July 8, 2013

19.2 Kinder Morgan Certification – Binding Agreement

Washington State Department of Ecology
Spill Prevention, Preparedness and Response Program
P.O. Box 47600, Olympia, WA 98504-7600
For information, please contact SPPR Program at 360-407-7455.

Plan Holder/Company Name:

WAC 173-182-220: Binding Agreement
Each plan shall contain a written statement binding the plan holder to its use. The binding agreement shall be signed by the owner or operator, or a designee with authority to bind the owners and operators of the facility or vessel covered by the plan. The agreement is submitted with the plan.

Submitting Party Information

Company Name: Kinder Morgan Canada – Trans Mountain Pipeline (Puget Sound) LLC	
Contact Name: Dan O'Rourke	
Address: 2700, 300 -5 Avenue SW, Calgary, AB T2P 5J2	
Phone Number: 403-514-6641	Fax #: 403-514-6401
Email: Dan_O'Rourke@kindermorgan.com	Website: kindermorgan.com

Binding Agreement

I certify that I reviewed and am familiar with the information submitted in this Plan. I verify acceptance of the plan and commit to (a) a safe and immediate response to spills and to substantial threats of spills that occur in, or could impact Washington waters or Washington's natural, cultural and economic resources; (b) having an incident commander in the state within six hours after notification of a spill; (c) the implementation and use of the plan during a spill and substantial threat of a spill, and to the training of personnel to implement the plan; (d) the authority and capability to make the necessary and appropriate expenditures in order to implement plan provisions; (e) working in unified command within the incident command system to ensure that all personnel and equipment resources necessary to the response will be called out to clean up the spill safely and to the maximum extent practicable.



Authorized Signature

July 8, 2013

Date

Dan O'Rourke

Print Name

Director, Environmental, Health and Safety Department

Title

19.3 United States Department of Transportation



U.S. Department
of Transportation
**Pipeline and Hazardous
Materials Safety Administration**

1200 New Jersey Avenue, S.E.
Washington, D.C. 20590

November 6, 2013

Ms. Megan Sartore
Kinder Morgan Canada, Inc.
300 5th Ave SW, Suite 2700
Calgary, Alberta T2P 5J2
Canada

**RE: LETTER OF APPROVAL: Kinder Morgan Canada, Inc. Trans Mountain
Pipeline, LLC, Puget Sound Response Plan, Sequence Number 0587
Dated: July 2013**

Dear Ms. Sartore:

The Pipeline and Hazardous Materials Safety Administration (PHMSA) has received and reviewed Kinder Morgan Canada, Inc.'s revised oil spill response plan for Kinder Morgan Canada, Inc. Trans Mountain Pipeline, LLC, Puget Sound Response Plan, dated July 2013. We conclude that the Plan complies with PHMSA's regulations concerning onshore oil pipelines found at 49 Code of Federal Regulations (CFR) Part 194. Your Response Plan has been approved.

This approval is valid for five years from the date of this letter. You must revise and resubmit a Response Plan for approval by **November 6, 2018**. If discrepancies are found during PHMSA inspections, or if new or different operating conditions or information would substantially affect the implementation of this plan, you are required to resubmit the plan before the above-listed date. See 49 CFR § 194.121(b).

Should you have any questions or concerns, please contact me at (202) 366-4595 or by email at PHMSA.OPA90@dot.gov. Please include the sequence number and your PHMSA Operator Identification Number on any future correspondence.

Sincerely,

A handwritten signature in black ink, appearing to read "David K. Lehman".

David K. Lehman, Acting Director
Emergency Support and Security Division
Office of Pipeline Safety

cc: PHMSA Western Region

19.4 Washington State Department of Ecology

Oil Spill Contingency Plan Approval Certificate



The Oil Spill Contingency Plan for

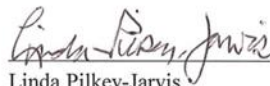
**Kinder Morgan Canada
Trans Mountain Pipeline (Puget Sound) LLC**

*has been APPROVED pursuant to Chapter 173-182
Washington Administrative Code
by the*

WASHINGTON STATE
DEPARTMENT OF ECOLOGY
Department of Ecology - Spill Preparedness Section

January 24, 2014
Date of Approval

January 24, 2019
Plan Expiration Date


Linda Pilkey-Jarvis
Preparedness Section Manager

19.5 PRC – Contracts/Letters of Intent

Letters of intent and/or letter of contract for each PRC are included in this section on the next several pages, where available as identified in Section 2.10 Support Services - Primary Response Contractors (PRC). The actual contract, where a contract exists is available to Washington State Department of Ecology for inspection upon request.



December 9, 2014

Kelly Malinoski
Sr. Emergency Response & Security Advisor
Kinder Morgan Canada
2700, 300 – 5 Avenue SW
Calgary, AB T2P 5J2

Via Email: Kelly_malinoski@kindermorgan.com

RE: PRC/OSRO Coverage

RESPONSE CONTRACTOR CERTIFICATION

This letter confirms that NRC Environmental Services Inc. (NRC) has a contract with Kinder Morgan Canada to provide oil spill response coverage for its Puget Sound Operations. NRC confirms that Kinder Morgan Canada is authorized to reference NRC resources and certifications in its state and/or federal contingency and response planning documents pursuant to terms of the contract for coverage commencing January 1, 2015.

NRC is a Washington State approved Primary Response Contractor (PRC) and has been rated by the U.S. Coast Guard as an Oil Spill Response Organization (OSRO) meeting all classification ratings for Rivers/Canals, Inland/Nearshore and Oceans environments, as well as providing Shoreline response capabilities. NRC is capable of beginning mobilization of response efforts within one hour of a spill notification.

If you have any questions, or if I can be of further assistance, please don't hesitate to contact me either by phone at 206-730-3993 or by e-mail at sbarton@nrcc.com.

Sincerely,

A handwritten signature in black ink that reads "Stephanie Barton". The signature is fluid and cursive, with the first name and last name clearly legible.

Stephanie Barton
Director, Emergency Response Programs
NRC Environmental Services Inc.

Copy: NRC Seattle



October 22, 2014

O'Brien's Response Management
2929 East Imperial Highway
Suite 290
Brea, California 92821

RESPONSE CERTIFICATION

This letter confirms that O'Brien's Response Management has a Response Resources Agreement with Kinder Morgan Canada. Pursuant to the terms of this Agreement, O'Brien's Response Management commits to provide resources to meet requirements the of WAC 173-182-280 spill management teams.

To support Kinder Morgan's spill Management Team regulatory requirement for "one primary and one alternate person to lead each ICS spill management position down to the section chief and command staff level as depicted in the NWACP standard ICS organizational chart," O'Brien's can supply, at a minimum, the following:

- Incident Commander
- Deputy Incident Commander
- Safety Officer
- Public Information Officer/Assistant
- Liaison Officer/Assistant
- Operations Section Chief or Deputy
- Planning Section Chief or Deputy
- Logistics Section Chief or Deputy
- Financial Section Chief or Deputy

O'Brien's Response Management is capable of beginning mobilization of initial response efforts within 30 minutes of spill notification.

If you have any questions, or need further assistance, please contact me either by phone at 206-679-3658 or by e-mail at jmorris@wittobriens.com. In the event of an emergency, please contact the O'Brien's Response Management 24-Hour Command Post at **985-781-0804**.

Signed,

A handwritten signature in black ink, appearing to read "James R. Morris", is written over the printed name and title.

James R. Morris
Manager, Consulting & Response Services



US Office | PO Box 944/1408 19th St Anacortes WA 98221 • CA Office | 4555 Stonehaven Ave, Vancouver BC V7G 1E7

Ms. Kelly Malinoski
Emergency Response & Security Advisor
Kinder Morgan
2700, 300 – 5 Avenue SW
Calgary, AB T2P 5J2

Re: Focus Wildlife Emergency Response Services

Ms. Malinoski,

Focus Wildlife International is pleased to provide Kinder Morgan with emergency wildlife spill response in the Puget Sound area, and throughout Washington State, the United States and Canada. Focus Wildlife has provided emergency oiled wildlife response for Kinder Morgan since 2007. Focus Wildlife also provides consultation services such as wildlife contingency planning and drill and exercise support for Kinder Morgan.

Focus Wildlife has specific expertise in the area of oiled wildlife response. Incorporated in Washington State, Focus Wildlife maintains an emergency response team and mobile emergency response equipment that can be immediately deployed in the event of an emergency.

In an emergency please contact the following personnel:

Chris Battaglia, Director

800-578-3048 or 310-386-5965

Jenny Schlieps, Program Manager

360-391-7777


Best regards,

Chris Battaglia
Director
Focus Wildlife
chris@focuswildlife.org
310-386-5965
www.focuswildlife.net



12525 131st Ct. N.E. Kirkland, Washington 98034 (425) 823-4841 fax (425) 823-3805

Ms. Kelly Malinoski
Emergency Response & Security Advisor
Kinder Morgan
2700, 300 – 5 Avenue SW
Calgary, AB T2P 5J2

Re: Polaris Applied Sciences Scientific Support to Spill Response

Ms. Malinoski.

Polaris Applied Sciences, Inc. (Polaris) is pleased to provide Kinder Morgan Canada with scientific support for spill response in Canada and the United States. As you are aware, we are involved in spill planning with Kinder Morgan for their proposed expansion of their Westridge facility in Burnaby, B.C. and provided Shoreline Cleanup Assessment Technique (SCAT) for the Westridge Delivery Line release in 2007. We also routinely provide drill and exercise support for Kinder Morgan Canada. Our staff is on call 24 hours a day to render assistance. We have been the Shoreline Cleanup Assessment Technique Coordinators for the Deepwater Horizon oil spill in the Gulf of Mexico for nearly 3 years and can handle a worst case scenario for Kinder Morgan in the unlikely event it may occur.

In an emergency please contact any of the following personnel:

Greg Challenger, Principal Marine Scientist	206-369-5686
Gary Mauseth, Principal Marina Scientists	206 954-9648
Elliott Taylor, Principal Marine Scientist	206 660-5753
Andy Graham, Marine Scientist	206-419-1745

Best regards,

Greg E. Challenger, M.S.
Principal Marine Scientist
Polaris Applied Sciences, Inc.
www.polarisappliedsciences.com

September 14, 2014

Kelly Malinoski
Kinder Morgan Canada
2700, 300 – 5 Avenue SW
Calgary, AB T2P 5J2

RE: Commitment to Respond

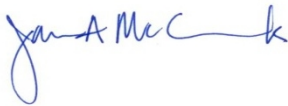
Dear Ms. Malinoski,

Center for Toxicology and Environmental Health, L.L.C. (CTEH®) has extended at a level of authority to commit the necessary resources to aid Kinder Morgan Canada (KMC) in the event of an incident necessitating external support. CTEH®'s experienced team of professionals is on call 24/7 to provide air monitoring, air modeling, environmental sampling, data management and toxicology consulting services during incidents. CTEH® maintains a well staffed/equipped office in the greater Seattle area and additionally owns a KingAir 200 airplane available for emergencies. Our flight time to Seattle from our corporate office in Little Rock, AR using the KingAir is approximately 6 hours, with our goal to be wheels up in 2 hours from the initial phone call for mobilization.

If you have any questions regarding this matter, please don't hesitate to call me at (317) 473-0688.

Regards,

Center for Toxicology and Environmental Health, L.L.C.



James A. McCormack
Member, Senior Environmental Consultant
Center for Toxicology and Environmental Health, L.L.C.



December 11, 2012

Ms. Kelly Malinoski
Kinder Morgan
300 5th Avenue SW, Suite 2700
Calgary, Alberta
Canada, T2P 5JZ

RE: Commitment to Emergency Response

Dear Ms. Malinoski:

As discussed with Mike Droppo over the last several months, URS Corporation (URS) will assist Kinder Morgan Canada as consultant of choice during emergency response incidents related to Kinder Morgan Canada facilities and operations located in Washington State. The core team will be located in our Seattle office with support, as needed, from other URS offices located in the Northwest. We will serve in the Environmental Unit providing consultation and personnel for environmental related issues including:

- Direct assistance to Kinder Morgan environmental unit lead
- Plan development
- Field sampling/support,
- Data management
- Waste management
- Regulatory support
- Tracking/Reporting

We currently are working at the Laurel Station site to complete a Remedial Investigation/Feasibility Study related to historical releases and have been assisting Kinder Morgan with work related to repairs/maintenance of pipeline over water bodies in Washington.

URS has participated in several of the spill drills for the Laurel Station facility located in Bellingham, Washington in the last 10 years. Typically, we provided services associated with waste management. In October 2012, at Mr. Droppo's request to act as primary consultant to Kinder Morgan in the environmental unit, we served in a broader capacity for emergency response during a worst case release scenario at the Laurel Station facility. This followed the

Kinder Morgan
December 11, 2012
Page 2

ICS training that Kinder Morgan provided to the core URS contact team assembled to serve as our emergency response team. Members of that contact team will also serve as project or task managers in office or in the field and be guiding other URS staff in the event an incident occurs. As work directives are provided by Kinder Morgan Canada referenced to URS' contract with Kinder Morgan effective June 2010, we will continue to augment resources, develop template plans, continue training with Kinder Morgan, and periodically assess that our contacts/resources are up-to-date and in place for use.

If you need additional information, please do not hesitate to contact me (206-438-2234) or Tom Abbott (206-438-2101) in our Seattle office.

Sincerely,
URS CORPORATION

A handwritten signature in blue ink, appearing to read "Karen L. Mixon".

Karen L. Mixon
Project Manager

A handwritten signature in blue ink, appearing to read "Katy Chaney".

Katy Chaney
Vice President

cc: Mike Droppo, Kinder Morgan Canada



September 15, 2014

Kinder Morgan Pipelines
1009 East Smith Road
Bellingham, WA 98226

Subject: BAI Environmental Services Letter of Intent

Patrick,

As per your request, please accept the following as BAI Environmental Services' commitment to Kinder Morgan to supply needed equipment and trained and experienced supervision and labor for your routine maintenance projects, and unforeseen emergency response needs.

Projects that BAI Environmental Services performs are as follows:

- Industrial cleaning with wet-mode and dry-mode vacuum trucks
- Vacuum / Excavation work and Line locating with Guzzler trucks
- Hydrocarbon/Pipeline vacuum services
- Hazardous material handling with DOT 412 vacuum trucks
- 10K, 15K and 20K p.s.i. hydroblasting
- Sewer line jetting
- Self-priming diesel pumps for sewer by-pass work or water transfer
- Industrial Maintenance
- Waste handling
- Street sweeping
- Confined space entry
- Spill response
- Steam cleaning and pressure washing
- Fresh air capabilities
- Operating dewatering presses (plate/frame and belt) and centrifuge
- Pond sediment cleaning
- Heavy equipment operation
- Wetland maintenance and mitigation
- Ditch and landscape maintenance
- Vegetation control
- Tree sawing and chipping
- Landfill maintenance
- Hydro seeding
- Straw blowing
- Excavation work

BAI Environmental Services
752 Loomis Trail Road, Lynden, WA 98264
Phone: 360-354-1134, Fax: 360-354-0593
www.bai-environmental.com



BAI is a member of the ISNetworld and safety on the jobsite is of prime importance to BAI during work performance.

BAI Environmental Services appreciates the opportunity to be of services to Kinder Morgan Canada. Please be assured that all work will be performed in a safe and professional manner and done to your satisfaction.

Thank you again, if you have any questions or concerns on this Letter of Intent or need any further information, please call me at (360) 815-0274.

Sincerely,

Ken Smith



September 18, 2014

Mr. Patrick Davis
Kinder Morgan
1009 E. Smith Road
Bellingham, WA 98226

Re: **Non-Binding Intent to Respond**

Dear Mr. Davis:

BakerCorp is pleased to offer our full range of liquid and solid containers for rent to Kinder Morgan in the event of a release of materials both hazardous and non-hazardous, to land or navigational waters.

BakerCorp has a full array of spill response equipment at its Everett, WA branch including over 300 tanks ranging in sizes from 550 gallon stainless steel totes up to 21,000 gallon carbon steel tanks. BakerCorp tank sizes include:

- 550 gallon stainless steel tanks
- 630 gallon poly tanks
- 4000 gallon trailer mounted poly tanks
- 4000 gallon poly tanks
- 6500 gallon poly tanks
- 19600 gallon tanks with epoxy coated lining
- 18000 gallon double wall tanks
- 21000 gallon tanks, some with heating coils
- 20 yard roll off containers for soils or other solids
- 7200 gallon secondary containment for our poly tanks
- 10 x 50 safe guard berms for larger tanks or to use as a deacon station for boom etc.

We also carry a full line of pumps, pipe and hose in various sizes that are capable of moving up to 6,300 GPM and several miles of 4, 6, 8 and 12' quick connect pipe and hose.

BakerCorp is a 24-hour emergency response company with key personnel on call at all times. We will utilize best efforts to respond to the first call within 1 hour. Our 24 hour contact number is 800-BAKER-12.

Baker will strive to deliver ten, 21,000 gallon tanks within 12 hours for a total of 194,000 gallons of capacity. In an extreme emergency situation we have the capability to have tanks delivered from BakerCorp branches in the U.S., utilizing common carriers bringing tanks from

both Seattle, WA and Portland, OR branches. If needed we can reach BakerCorp branches in San Francisco, Canada, Salt Lake City, and Los Angeles for additional manpower as well as more equipment.

With the combination of these branches and the full range of our equipment; BakerCorp can provide 13,599 barrels of storage at hrs 24 and 48. Transportation times will vary but this capacity can be brought to bear quickly and on short notice if inventory is available at the time of request.

This letter is not intended as a binding offer to rent equipment to Kinder Morgan Canada, but rather to provide an overview of BakerCorp ability to provide resources in the event of an incident necessitating external support. All equipment, materials, labor, and transportation rates and costs are offered on an “as available” basis only and are subject to the terms and conditions of BakerCorp standard rental agreement. Unless and until a validly executed rental agreement is entered into between the parties, neither BakerCorp nor Kinder Morgan Canada shall owe any legally binding obligation to the other.

If you have additional questions about BakerCorp or require its services please contact Searl LaChausse or Colin Linn at our Everett, WA office (425-347-8811)

Very truly yours,

BakerCorp Everett, WA



Incident Command System Guide

Table of Contents

TABLE OF CONTENTS	1
PURPOSE	8
SCOPE	8
GUIDE MAINTENANCE	9
GUIDE REVISIONS.....	9
GUIDE DISTRIBUTION	9
REVISION REQUEST FORM	10
1.0 INTRODUCTION	1
1.1 USING THE INCIDENT COMMAND SYSTEM (ICS).....	1
1.2 KINDER MORGAN RESPONSE PHILOSOPHY	2
1.2.1 Control the Incident Site	2
1.2.2 Size up the Situation	2
1.2.3 Evaluate the Hazards and Risks	2
1.2.4 Establish Initial Objectives.....	2
1.2.5 Select and Don PPE.....	2
1.2.6 Manage Information and coordinate Resources	3
1.2.7 Implement Response Objectives.....	3
1.2.8 Manage the Incident.....	3
1.2.9 Terminate the Incident Response	3
1.3 LEVELS OF EMERGENCY	4
2.0 RESPONSE ORGANIZATION DEVELOPMENT.....	1
2.1 INITIAL RESPONSE TEAM	1
2.2 LOCAL INCIDENT MANAGEMENT TEAM.....	1
2.3 KINDER MORGAN INCIDENT MANAGEMENT TEAM.....	1
2.4 UNIFIED COMMAND.....	2
2.5 TYPICAL RESPONSE TEAMS	3
3.0 RESPONSE OBJECTIVES AND STRATEGIES	1
3.1 ENSURE THE SAFETY OF THE PUBLIC AND RESPONSE PERSONNEL	1
3.2 CONTROL THE SOURCE OF THE SPILL	1
3.3 MAXIMIZE PROTECTION OF ENVIRONMENTALLY-SENSITIVE AREAS	1
3.4 MANAGE A COORDINATED RESPONSE EFFORT	1
3.5 CONTAIN AND RECOVER SPILLED MATERIAL.....	1
3.6 RECOVER AND REHABILITATE INJURED WILDLIFE.....	2
3.7 REMOVE OIL FROM IMPACTED AREAS	2

3.8	MINIMIZE ECONOMIC IMPACTS	2
3.9	KEEP STAKEHOLDERS INFORMED OF RESPONSE ACTIVITIES.....	2
3.10	KEEP THE PUBLIC INFORMED OF RESPONSE ACTIVITIES	2
4.0	AGENCY/STAKEHOLDER COORDINATION	1
4.1	REGIONAL RESPONSE TEAM (USA)	1
4.2	REGIONAL ENVIRONMENTAL EMERGENCY TEAM (REET).....	2
4.3	ADDRESSING STAKEHOLDER CONCERNS	3
5.0	GENERAL RESPONSIBILITIES	1
5.1	COMMON RESPONSIBILITIES	1
5.2	UNIT LEADER RESPONSIBILITIES	2
6.0	INCIDENT COMMAND/COMMAND STAFF DUTIES	1
6.1	INCIDENT COMMAND CHART	1
6.2	INCIDENT COMMANDER.....	2
6.3	DEPUTY INCIDENT COMMANDER	2
6.4	UNIFIED COMMAND.....	3
6.5	SAFETY OFFICER	4
6.6	INFORMATION OFFICER.....	5
6.7	LIAISON OFFICER	6
6.8	LEGAL OFFICER.....	7
6.9	AGENCY REPRESENTATIVES	7
7.0	OPERATIONS SECTION DUTIES.....	1
7.1	OPERATIONS SECTION ORGANIZATION CHART	1
7.2	OPERATIONS SECTION CHIEF	1
7.3	DEPUTY OPERATIONS SECTION CHIEF	2
7.4	STAGING AREA MANAGER	3
7.5	SAFETY WATCH.....	3
7.6	FIELD OPERATIONS BRANCH DIRECTOR	4
7.6.1	Division Supervisor.....	4
7.6.2	Division Coordinator	5
7.7	GENERAL DUTIES FOR MULTI DIVISION/GROUP RESOURCES	5
7.7.1	Strike Team/Task Force Leader	5
7.7.2	Single Resources	5
7.8	PIPELINE REPAIR BRANCH DIRECTOR	6
7.9	AIR OPERATIONS BRANCH DIRECTOR	6
7.9.1	Air Support Group Supervisor	7
7.9.2	Air Tactical Group Supervisor	7

7.9.3	Fixed-Wing Coordinator	8
7.9.4	Helicopter Coordinator	9
7.9.5	Helibase Manager	9
7.10	RECOVERY AND PROTECTION BRANCH DIRECTOR.....	10
7.10.1	Shoreline Protection Group Supervisor	10
7.10.2	On-Water Recovery Group Supervisor	11
7.10.3	On-Shore Recovery Group Supervisor	11
7.10.4	In-Situ Burning Group Supervisor	12
7.10.5	Disposal Group Supervisor	12
7.10.6	Decontamination Group Supervisor	13
7.10.7	Dispersant Group Supervisor	13
7.11	WILDLIFE BRANCH DIRECTOR	14
7.11.1	Wildlife Recovery Group Supervisor	14
7.11.2	Wildlife Rehabilitation Group Supervisor	15
7.11.3	Wildlife Hazing Group Supervisor	15
7.12	EMERGENCY RESPONSE BRANCH DIRECTOR	16
8.0	PLANNING SECTION DUTIES	1
8.1	PLANNING SECTION ORGANIZATION CHART.....	1
8.2	PLANNING SECTION CHIEF.....	2
8.3	DEPUTY PLANNING SECTION CHIEF	2
8.4	SITUATION UNIT LEADER	3
8.4.1	Display Processor	3
8.4.2	Field Observer	4
8.5	DOCUMENTATION UNIT LEADER	4
8.6	RESOURCES UNIT LEADER	5
8.6.1	Check-In Status Recorder	6
8.7	ENVIRONMENTAL UNIT LEADER.....	6
8.7.1	Scientific Support Coordinator.....	7
8.7.2	Remediation Technical Specialist	7
8.7.3	REET Technical Specialist	8
8.7.4	Field Observer.....	8
8.7.5	Assistant Environmental Unit Leader	9
8.7.5.1	Historical/Cultural Resources Technical Specialist	9
8.7.5.2	Shoreline Cleanup Assessment (SCAT) Technical Specialist	10
8.7.5.3	Wildlife Technical Specialist.....	10

8.7.5.4	Air Monitoring Technical Specialist.....	11
8.7.5.5	Sampling Technical Specialist.....	11
8.7.5.6	Disposal (Waste Management) Technical Specialist.....	12
8.8	DEMOBILIZATION UNIT LEADER	12
8.9	TECHNICAL SPECIALISTS	13
8.9.1	Response Technologies Technical Specialist	13
8.9.2	Mapping/GIS Technical Specialist.....	13
8.9.3	Trajectory Modeling Technical Specialist	14
8.9.4	Resources at Risk (RAR) Technical Specialist.....	14
8.9.5	Approvals and Permits Technical Specialist	14
9.0	LOGISTICS SECTION DUTIES.....	1
9.1	LOGISTICS SECTION ORGANIZATION CHART	1
9.2	LOGISTICS SECTION CHIEF	1
9.3	DEPUTY LOGISTICS SECTION CHIEF	2
9.4	SERVICE BRANCH DIRECTOR	2
9.4.1	Food Unit Leader.....	3
9.4.2	Communications Unit Leader	3
9.4.3	Medical Unit Leader	4
9.5	SUPPORT BRANCH DIRECTOR.....	4
9.5.1	Vessel Support Unit Leader	5
9.5.2	Ground Support Unit Leader	5
9.5.3	Facilities Unit Leader	6
9.5.4	Supply Unit Leader.....	6
9.5.5	Ordering Manager	7
9.5.6	Receiving and Distribution Manager	7
9.5.7	Security Unit Leader	8
10.0	FINANCE SECTION DUTIES	1
10.1	FINANCE SECTION ORGANIZATIONAL CHART	1
10.2	FINANCE/ADMINISTRATION SECTION CHIEF	1
10.3	DEPUTY FINANCE/ADMINISTRATION SECTION CHIEF	2
10.4	COST UNIT LEADER.....	2
10.5	TIME UNIT LEADER	2
10.5.1	Equipment Time Recorder	3
10.5.2	Personnel Time Recorder	3
10.6	PROCUREMENT UNIT LEADER	4

10.7 CLAIMS UNIT LEADER	4
11.0 PROCEDURES AND TOOLS	1
11.1 RESOURCE REQUEST PROCESS	1
11.2 INCIDENT FACILITIES.....	2
11.2.1 Incident Command Post (ICP).....	2
11.2.2 Staging Areas.....	2
11.2.3 Base	2
11.2.4 Camp.....	2
11.2.5 Helibase	2
11.2.6 Helispots.....	2
11.3 INCIDENT RESOURCES.....	3
11.4 RESOURCE STATUS CONDITIONS.....	3
11.5 UTILIZING/ORGANIZING RESOURCES.....	3
11.5.1 Single Resources	3
11.5.2 Task Forces.....	3
11.5.3 Strike Teams	3
11.6 INCIDENT STATUS DISPLAY	4
11.6.1 Incident Status Display Contents	4
11.6.2 Incident Status Display Layout	8
11.7 SITUATION MAP CONTENTS	9
11.8 EMERGENCY RESPONSE (CONTINGENCY) PLANS	10
11.9 FIELD GUIDES/CONTROL POINT MANUALS.....	10
11.10 MEDIA BRIEFING TIPS	10
11.11 ICS FORMS	11
11.12 ICS FORM DISTRIBUTION/FLOW	11
11.12.1 ICS 201 – Incident Briefing	11
11.12.2 ICS 202 – Incident Objectives	11
11.12.3 ICS 203 – Organization Assignment List	12
11.12.4 ICS 204 – Assignment List	12
11.12.5 ICS 204a – Assignment List Attachment	12
11.12.6 ICS 205 – Incident Radio Communication Plan.....	13
11.12.7 ICS 205a – Communications List	13
11.12.8 ICS 206 – Medical Plan	13
11.12.9 ICS 207 – Incident Organization Chart	14
11.12.10 ICS 209 – Incident Status Summary.....	14
11.12.11 ICS 210 – Status Change	14

11.12.12	ICS 211e – Check-in List (Equipment)	15
11.12.13	ICS 211p – Check-in List (Personnel)	15
11.12.14	ICS 213 – General Message	15
11.12.15	ICS 214 & 214a – Unit Log & Individual Log	16
11.12.16	ICS 215 – Operational Planning Worksheet	16
11.12.17	ICS 220 – Air Operations Summary	16
11.12.18	ICS 230 - Daily Meeting Schedule	17
11.12.19	ICS 231 – Meeting Summary	17
11.12.20	ICS 232 – Resources At Risk Summary	17
11.12.21	Initial Incident Information Sheet	18
11.12.22	Initial Health and Safety Plan	18
11.12.23	Health and Safety Plan	18
11.12.24	Media Release	19
11.12.25	Incident Action Plan	19
11.12.26	Other Documents – not listed	20
12.0	PLANNING CYCLE AND MEETINGS	1
12.1	GROUND RULES FOR ALL MEETINGS	1
12.2	PLANNING CYCLE	1
12.3	INITIAL RESPONSE AND ASSESSMENT	2
12.4	INCIDENT BRIEFING (ICS-201)	2
12.4.1	Incident Briefing (ICS-201) Agenda	2
12.4.2	Duties	3
12.5	INITIAL UNIFIED COMMAND MEETING	3
12.5.1	Initial Unified Command Meeting Agenda	3
12.5.2	Duties	4
12.6	UNIFIED COMMAND OBJECTIVES MEETING	5
12.6.1	Unified Command Objectives Meeting Agenda	5
12.6.2	Duties	5
12.7	COMMAND AND GENERAL STAFF MEETING	6
12.7.1	Command and General Staff Meeting Agenda	6
12.7.2	Duties	6
12.8	PREPARING FOR THE TACTICS MEETING	7
12.8.1	Duties	7
12.9	TACTICS MEETING	8
12.9.1	Tactics Meeting Agenda	8
12.9.2	Duties	8

12.10	PREPARING FOR THE PLANNING MEETING	9
12.10.1	Duties.....	9
12.11	PLANNING MEETING.....	10
12.11.1	Planning Meeting Agenda.....	10
12.11.3	Duties.....	11
12.12	IAP PREPARATION AND APPROVAL.....	12
12.12.1	Duties.....	12
12.12.2	IAP Common Components and Primary Responsibility.....	12
12.13	OPERATIONS BRIEFING	13
12.13.1	Operations Briefing Agenda.....	13
12.13.2	Duties.....	14
12.14	ASSESS PROGRESS.....	14
12.14.1	Duties.....	14
12.15	SPECIAL PURPOSE MEETINGS.....	15
12.15.1	Business Management Meeting	15
12.15.2	Agency Representative Meeting	15
12.15.3	Media Briefing.....	15
12.15.4	Technical Specialist Meeting	15
12.15.5	Demobilization Planning Meeting	15
13.0	GLOSSARY OF TERMS AND ACRONYMS	1
13.1	TERMS	1
13.2	ACRONYMS	9

Purpose

This Kinder Morgan Incident Command System Guide is a guidance document for implementing an Incident Command System (ICS) response management organization that can be universally adopted by responders for oil spills.

Scope

ICS provides for maximum flexibility in varied situations, which has been adapted by Kinder Morgan Canada (KMC) for use during an operational upset. This manual is a job aid giving general instructions, and checklists, to guide responders in their duties within the ICS process and works in conjunction with Kinder Morgan Area Specific Emergency Response Plans (Contingency Plans), Field Guides and Control Point Manuals. The Area Specific Plans, Guides and Control Points hold specific response tactics, and environmental concerns, forms and procedures relating to specific regulations.

Wherever possible, the IMT will establish, and operate within, a Unified Command structure as warranted by the circumstances of an incident. When a federal or state/provincial agency arrives on-scene to participate in managing a response action, the agencies will utilize a unified command structure to jointly manage the spill incident. In the unified command, decisions with regard to the response will be made by consensus and documented through a single Incident Action Plan (IAP) for each operational period. In the event that the Unified Command is unable to reach consensus, the FOSC/FIC has ultimate decision making authority. The unified command may incorporate additional tribal/first nations or local government on-scene coordinators into the command structure as appropriate.

Incident Commanders for oil discharges and hazardous substance releases will, whenever possible and practical be organized under the Unified Command Structure which includes, but not limited to:

- The pre-designated Federal On Scene Coordinator (FOSC)/Incident Commander (FIC);
- The State/Provincial On Scene Coordinator (SOSC)/Incident Commander (PIC);
- The representative of the Responsible Party (RP); and
- The local and/or tribal/first nations On Scene Coordinators, as appropriate.

To be considered for inclusion as a UC member, the following criteria must be considered:

- The organization must have jurisdictional authority or functional responsibility under a law or ordinance for the incident; and
- The organization must be specifically charged by law or ordinance with commanding, coordinating or managing a major aspect of the incident response; and
- The incident or response operations must have impact on the organization's Area Of Responsibility; and
- The organization should have the resources to support participation in the response organization.

Actual Unified Command makeup for a specific incident will be determined on a case-by-case basis taking into account:

- The specifics of the incident;
- Determinations outlined in the four criteria listed above; and
- Decisions reached during the initial meeting of the Unified Command.

The Unified Command is responsible for the overall management of the incident. The Unified Command directs incident activities including the development and implementation of strategic decisions, approval of the incident action plan, and approves the ordering and releasing of resources. It is expected that each Unified Command member will have the authority to make decisions and commit resources on behalf of their organization.

Typical Response Teams is outlined as a generic response organization for pre-event planning. However, an actual organization will be event-specific. Not all positions need to be filled. The size of the organization is dependent on the magnitude of the incident and can be expanded or contracted as necessary. This modular development is described in Section 2.0 Response Organization Development.

Personnel with specialized skills (technical specialists), not specifically identified within the ICS, may be integrated anywhere within the organization to meet the needs of the Incident Command. This feature allows the greatest compatibility with other existing response management systems.

Guide Maintenance

Single point accountability for the Incident Command System Guide (ICS Guide) development and maintenance rests with the Emergency Response and Security Advisor. This accountability is for:

- ☐ The development of the ICS Guide and managing any future revisions,
- ☐ Ensuring the tools are available and functioning as described in this manual.
- ☐ Ensuring a minimum annual audit of the guide takes place, and the guide is reviewed in full every 5 years.
- ☐ Ensuring the guide is reviewed for effectiveness after an actual response, training or exercises and updated as necessary.

Guide Revisions

All requests for change must be made through the Emergency Response and Security Advisor using the Revision Request Form located on the next page.

Guide Distribution

This guide will be replaced in its entirety as needed. It is not a controlled document, check with the Emergency Response and Security Advisor to ensure you are using the most recent copy of the guide.

Revision Request Form

Requested by:	Date:
Dept/ Agency:	Phone No.:
Revision Type: ☐ Addition ☐ Deletion ☐ Correction	
Manual Section:	Page:
Revision (attach separate sheet if necessary):	
Signature of Requestor:	
Send to: Emergency Response and Security Advisor Kinder Morgan Canada 2700-300 - 5 th Avenue S.W. Calgary, AB T2P 5J2 Canada Fax: (403) 514-6401	

To be completed by Emergency Response and Security Advisor	
Date Received:	Comments:
Date Reviewed:	
Issued as Revision: Y/ N	
If No, reason for Rejection:	
Signature Emergency Response and Security Advisor	

1.0 INTRODUCTION

The ICS brings together the functions of the federal government, state/provincial government, local authorities/governments, and the responsible party in order to achieve an effective and efficient response, where the Federal On Scene Commander (FOSC) (USA) or Federal Incident Commander (FIC) (Canada) maintains ultimate authority. The emphasis during oil spill response is on coordination and cooperation.

The FOSC, the state/provincial government (SOSC (USA) or PIC (Canada)), local authorities/government representatives (LOSC (USA) or LIC (Canada)), others including first nations/tribal (OSC (USA) or OIC (Canada)) and the responsible party (RPIC or IC) are all involved with varying degrees of responsibility, regardless of the size and severity of the incident.

Depending on the pipeline/facility regulatory jurisdiction either the FOSC/FIC or SOSC/PIC, retains the authority to direct the spill response, and may direct responses to spills that pose a substantial threat to the public health or welfare. In many situations, however, the FOSC/FIC or SOSC/PIC (depending on jurisdiction) may choose to monitor the response effort and provide support and advice where appropriate. All response actions taken using this ICS Guide are consistent with the federal/state/provincial regulations.

Note: The Trans Mountain Pipeline and Trans Mountain Pipeline (Puget Sound) will always have a FOSC/FIC (or representative as per government mutual aid agreements) as these two pipelines and associated facilities are Federally regulated in their respective country; however, the Jet Fuel Pipeline may not have a FOSC/FIC as part of Unified Command as it is a Provincially regulated pipeline.

Also, more significant incidents will warrant multi-jurisdictional responses. Formation of a Unified Command (UC) using ICS will pull federal, state/provincial, local, first nations/tribal, and private resources together within the framework of the existing response management system established by the first responders. In the USA, state and local responders should note that there are a wide variety of resources available through the EPA or US Coast Guard FOSC. Additionally, in Canada there are a wide variety of resources available provincially and federally through various response groups.

The ICS organizational guidance provided is not regulatory. Recognizing that a response will bring together numerous organizations with varying incident management structures, the Incident Commander or Unified Command for the specific incident will determine how to best set up and staff the incident-specific ICS organization for the most efficient and effective use of the resources involved.

1.1 Using the Incident Command System (ICS)

The ICS provides for maximum flexibility in varied situations. By reading the general instructions, the common unit leader responsibilities, the position descriptions, and checklists, responders will be guided in their duties within the ICS process using this guide.

The diagrams provided in each Section of this guide show the types of positions that may be filled during a response. Not all positions need to be filled, however a position with subordinates on the diagram must also complete the duties not assigned to an individual in their group. The size of the organization is dependent on the magnitude of the incident and can be expanded or contracted as necessary. This modular development is described in Section 2.0 Response Organization Development.

Personnel with specialized skills (technical specialists), not specifically identified within the ICS, may be integrated anywhere within the organization to meet the needs of the Incident Command. This feature allows the greatest compatibility with other existing response management systems.

1.2 Kinder Morgan Response Philosophy

On all emergency incidents, Kinder Morgan will follow the following basic response approach:

1.2.1 Control the Incident Site

- ☐ The incident scene must first be controlled to ensure a safe and effective response to any incident:
- ☐ Don't rush in; hazards must first be fully assessed
- ☐ Establish and announce command at the ICP, either at the incident scene location or, if necessary at a remote location
- ☐ Establish and maintain an isolation perimeter, with hot, warm and cold zones
- ☐ Establish staging area(s)

1.2.2 Size up the Situation

- ☐ A site assessment will identify the scope and nature of the incident, as well as any potential hazards to responders:
- ☐ Recognize and identify any hazardous materials involved
- ☐ Source of any releases
- ☐ Potential exposures

1.2.3 Evaluate the Hazards and Risks

- ☐ An assessment must be conducted to evaluate the level of risk to responders and the public:
- ☐ Assess health, physical and chemical hazards
- ☐ Gather technical data (MSDSs, etc.)
- ☐ Conduct vapour monitoring

1.2.4 Establish Initial Objectives

- ☐ After the potential hazards have been identified, the Incident Commander(s) can establish the initial objectives for the response. Typical initial objectives include:
 - Control the incident Scene
 - Ensure the safety of responders and the public
 - Establish Incident Command Post

1.2.5 Select and Don PPE

- ☐ All incident responders must be protected with the PPE appropriate to the hazards present:
 - Approved Fire-Resistant Coveralls
 - Hard Hats (where overhead hazards are present)
 - Gloves
 - Splash Goggles
 - Rubber Steel-Toed Boots

Also:

- PPE must be worn properly in order to fully protect responders.
- Damaged or heavily-oiled PPE should be replaced as soon as possible.

- All responders leaving the Hot Zone must go through a decontamination zone (Warm Zone) to ensure that contamination is not spread into the Cold Zone.

1.2.6 *Manage Information and coordinate Resources*

- It is essential that information flows quickly and freely to all resources to ensure a safe and coordinated response:
 - Expand the ICS as needed, especially if a Unified Command is established
 - Ensure that all (internal and external) notifications are made
 - Conduct briefings
 - Confirm all communications to ensure that they are fully understood and implemented

1.2.7 *Implement Response Objectives*

- Once initial objectives have been established, it will be possible to develop, and implement, strategies and tactics to achieve these objectives. These may be:
 - Offensive (i.e., emergency rescue, fire-fighting, spill source control)
 - Defensive (i.e., protecting the public, fire control, spill response)
 - Non-intervention (protecting the public)

1.2.8 *Manage the Incident*

- On larger incidents, it will be necessary to operate over a number of Operational Periods. In these cases, it will be necessary to fully-staff the Incident Management Team, especially the Planning Section:
 - Establish Incident Objectives for each Operational Period
 - Conduct Tactics and Planning Meetings
 - Develop and approve Incident Action Plans
 - Conduct Operations Briefings

1.2.9 *Terminate the Incident Response*

- Once the emergency phase of the incident is over, the Incident Commander will stand down the Incident Management Team and ensure that all post-incident activities are completed:
 - Transition to, and conduct the post-emergency phase of the response
 - Conduct an incident debrief
 - Ensure that all incident documentation is completed
 - Ensure that all equipment, PPE and ICP supplies are replenished
 - Continue any required project phase activities, i.e., site remediation, repair to terminal assets

1.3 Levels of Emergency

Level	Definition	Examples
1	KMC has the capability to manage and control a Level I emergency using company resources available within the area. The District Supervisor will assume the Incident Commander position.	- Oil spills confined to company property (pipeline station, terminal, or scraper trap) - Public, contractor, or employee safety not endangered - Public property not endangered - Local response handled by District personnel - Notification may not be required to regulatory authorities
2	KMC has the capability to manage and control a Level II emergency using company resources and expertise, with some assistance from local contractors. The Region Director or designate may assume the Incident Commander position.	- Oil has migrated beyond company property (pipeline station, terminal, or scraper trap) but not into a waterway - Emergency services may be required (e.g., fire, police, ambulance) - Public, contractor, or employee safety and/or property may be endangered - Notification required to regulatory authorities - May use a Unified Command organizational structure in the emergency
3	KMC may request assistance from other Industry, Municipal, or State Agency personnel to support the response to the incident. The Region Director will assume the Incident Commander position.	- Major emergency condition such as: - uncontrolled leak - spill on a watercourse - large fire at an operating facility or office building - fatality or serious injury to an employee, contractor, or the public - spill of hazardous substances - Major off-site environmental impact has occurred - Public, contractor, or employee safety and/ or property is endangered - Emergency services are required (e.g., police, fire, ambulance) - Notification required to regulatory authorities - Use of a Unified Command organizational structure in the emergency, as required, to facilitate coordination of company, government and other agency response to the emergency.

Note: For the Jet Fuel Pipeline, please refer to the Emergency Response Plan for levels of emergency, and instructions on how to determine the level of emergency. The Levels in the Jet Fuel Pipeline ERP do align with the levels presented here, however the wording is slightly different.

2.0 RESPONSE ORGANIZATION DEVELOPMENT

An actual response organization typically grows from the “Initial Response Organization” to fit the level of response necessary for a specific incident. The size and focus of the organization is dependent on the magnitude of the incident and should be expanded or contracted as necessary.

Note: Only positions that are required for an adequate response need to be filled, and organizations should be kept as small as possible to accomplish incident objectives, and support the response.

2.1 Initial Response Team

Initial Response resources are managed by the Senior On-Site Individual who assumes the role of Incident Commander until such time as a more senior employee takes over. The Incident Commander will handle all Command and General Staff responsibilities.

2.2 Local Incident Management Team

The Local Incident Management Team (IMT), which is comprised of District personnel in each response area, will respond to incidents beyond the capability of the Initial Responders.

If deployed, the Local IMT's primary tasks are to:

- Ensure the safety of all workers in the area of the spill
- Assess the situation (i.e., incident size, severity, likely impacts)
- Take appropriate action to mitigate the impacts to life safety, the environment, and property

The Local IMT will perform these tasks until relieved or replaced by a higher level of management within the response organization

2.3 Kinder Morgan Incident Management Team

On larger spills, where the local IMT cannot manage a response without assistance, additional IMT personnel will be asked to attend from within Kinder-Morgan's company-wide support system.

The IMT is headed by the Incident Commander who directs and coordinates all response activities and resources. The Deputy Incident Commander provides on-site staff support to the Incident Commander through the Command Staff and relieves the Incident Commander as required.

Each Section is headed by a Section Chief reporting directly to the Incident Commander. The Initial Response Team and initial IMT may be absorbed into the response organization as additional IMT personnel arrive on the scene. The Operations Section Chief is also responsible for directing the activities of outside contractors called in to assist with the response.

2.4 Unified Command

Wherever possible, the IMT will establish, and operate within, a Unified Command structure as warranted by the circumstances of an incident. When a federal or state/provincial agency arrives on-scene to participate in managing a response action, the agencies will utilize a unified command structure to jointly manage the spill incident. In the unified command, decisions with regard to the response will be made by consensus and documented through a single Incident Action Plan (IAP) for each operational period. In the event that the Unified Command is unable to reach consensus, the FOSC/FIC has ultimate decision making authority. The unified command may incorporate additional tribal/first nations or local government on-scene coordinators into the command structure as appropriate.

Incident Commanders for oil discharges and hazardous substance releases will, whenever possible and practical be organized under the Unified Command Structure which includes, but not limited to:

- The pre-designated Federal On Scene Coordinator (FOSC)/Incident Commander (FIC);
- The State/Provincial On Scene Coordinator (SOSC)/Incident Commander (PIC);
- The representative of the Responsible Party (RP); and
- The local and/or tribal/first nations On Scene Coordinators, as appropriate.

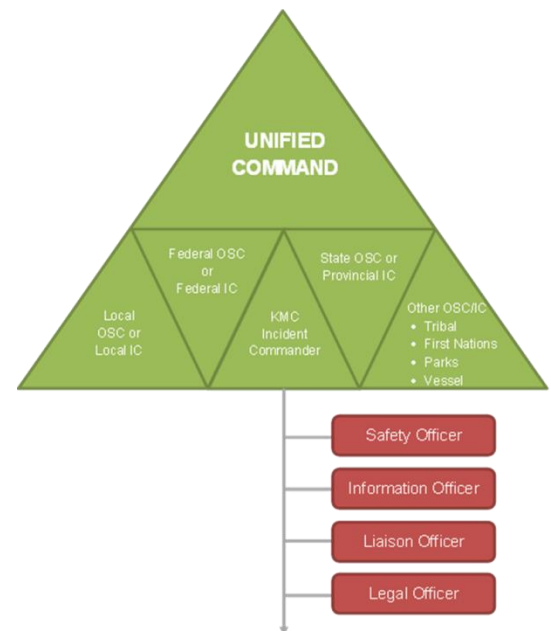
To be considered for inclusion as a UC member, the following criteria must be considered:

- The organization must have jurisdictional authority or functional responsibility under a law or ordinance for the incident; and
- The organization must be specifically charged by law or ordinance with commanding, coordinating or managing a major aspect of the incident response; and
- The incident or response operations must have impact on the organization's Area Of Responsibility; and
- The organization should have the resources to support participation in the response organization.

Actual Unified Command makeup for a specific incident will be determined on a case-by-case basis taking into account:

- The specifics of the incident;
- Determinations outlined in the four criteria listed above; and
- Decisions reached during the initial meeting of the Unified Command.

The Unified Command is responsible for the overall management of the incident. The Unified Command directs incident activities including the development and implementation of strategic decisions, approval of the incident action plan, and approves the ordering and releasing of resources. It is expected that each Unified Command member will have the authority to make decisions and commit resources on behalf of their organization.



2.5 Typical Response Teams

The following diagram depicts a typical response organization to the branch director/unit leader level. If a position below a specific chief, director, supervisor, manager, or unit leader is not filled then the chief, director, supervisor, manager, or unit leader must complete the tasks of reporting position as well. For further information on each position and the supporting roles, please see Sections 6.0 (Incident Command/Command Staff Duties) 7.0 (Operations Section Duties) 8.0 (Planning Section Duties) 9.0 (Logistics Section Duties), and 10.0 (Finance Section Duties).



3.0 RESPONSE OBJECTIVES AND STRATEGIES

Incident objectives and strategies are essential prerequisites to any written or oral Incident Action Plan (IAP), and should be established expeditiously. The following items are a list of common Objective and some helpful strategies for completing the objectives.

3.1 Ensure the Safety of the Public and Response Personnel

- ☐ Identify hazard(s) of spilled material
- ☐ Establish site control (hot zone, warm zone, cold zone, and security)
- ☐ Consider evacuations, as needed
- ☐ Establish vessel and/or aircraft restrictions
- ☐ Monitor air in impacted areas
- ☐ Develop site safety and health plan for personnel
- ☐ Ensure safety briefings are conducted

3.2 Control the Source of the Spill

- ☐ Complete emergency shutdown
- ☐ Conduct firefighting
- ☐ Initiate temporary repairs
- ☐ Transfer and/or lighter product
- ☐ Conduct salvage operations, as necessary

3.3 Maximize Protection of Environmentally-Sensitive Areas

- ☐ Implement pre-designated response strategies
- ☐ Utilize REET to identify and prioritize the environmentally sensitive areas
- ☐ Identify resources at risk in spill vicinity
- ☐ Track oil movement and develop spill trajectories
- ☐ Conduct visual assessments (e.g., overflights)
- ☐ Develop/implement appropriate protection tactics

3.4 Manage a Coordinated Response Effort

- ☐ Complete or confirm notifications
- ☐ Establish a unified command organization and facilities (command post, etc.)
- ☐ Ensure local and tribal officials are included in response organization
- ☐ Initiate spill response Incident Action Plans (IAP)
- ☐ Ensure mobilization and tracking of response resources
- ☐ Account for personnel and equipment
- ☐ Complete documentation
- ☐ Evaluate planned response objectives vs. actual response (debrief)

3.5 Contain and Recover Spilled Material

- ☐ Deploy oil containment boom at the spill source
- ☐ Deploy containment boom at appropriate collection areas
- ☐ Conduct open-water skimming with vessels

- ☐ Evaluate time-sensitive response technologies (e.g., dispersants, in-situ burning)
- ☐ Develop disposal plan

3.6 Recover and Rehabilitate Injured Wildlife

- ☐ Establish oiled wildlife reporting hotline
- ☐ Conduct injured wildlife search and rescue operations
- ☐ Setup primary care unit for injured wildlife
- ☐ Operate wildlife rehabilitation center
- ☐ Initiate citizen volunteer effort for oiled bird rehabilitation

3.7 Remove Oil from Impacted Areas

- ☐ Conduct appropriate shoreline cleanup efforts
- ☐ Clean oiled structures (piers, docks, etc.)
- ☐ Clean oiled vessels

3.8 Minimize Economic Impacts

- ☐ Consider tourism, vessel movements, and local economic impacts throughout response
- ☐ Protect public and private assets, as resources permit
- ☐ Establish damage claims process

3.9 Keep Stakeholders Informed of Response Activities

- ☐ Provide forum to obtain stakeholder input and concerns
- ☐ Provide stakeholders with details of response actions
- ☐ Identify stakeholder concerns and issues, and address as practical
- ☐ Provide elected officials details of response actions

3.10 Keep the Public Informed of Response Activities

- ☐ Provide timely safety announcements
- ☐ Establish a Joint Information Center (JIC) (USA) or Public Information Office (Canada)
- ☐ Conduct regular news briefings
- ☐ Manage news media access to spill response activities
- ☐ Conduct public meetings, as appropriate

4.0 AGENCY/STAKEHOLDER COORDINATION

Agency coordination is critical to an effective and efficient response. Kinder Morgan Canada is committed to working with our partners in response efforts. The Liaison Officer (LO) is responsible for coordination with assisting and cooperating agencies.

The LO is responsible for gathering the concerns of local agencies affected by the incident and communicating that information to the Incident Commander or Unified Command. The LO must promote the best use of available assisting agency support and resources by providing for smooth communication and information exchange. There are two overall coordination strategies that impact KMC operations, one in the USA and one in Canada. In the USA, the Regional Response Team may be established, and in Canada, the Regional Environmental Emergency Team may be established.

4.1 Regional Response Team (USA)

The framework for requesting the Regional Response Team (RRT) can be found in Section 300.115 of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP).

Regionally, the National Response System provides for RRT support. The RRT is a group of 16 federal agencies and state representatives charged with providing advice and counsel and other support, when requested, to the Incident Commander or Unified Command. An incident-specific RRT activation will provide federal and state agency coordination for the response.

An incident-specific RRT may be activated by the RRT chair if the discharge:

- ☐ Exceeds the local response capability;
- ☐ Transects state boundaries;
- ☐ Substantially threatens US public health and welfare or regionally significant amounts of property; or
- ☐ Is a worst case discharge as defined in the NCP.

Also per the NCP, an incident-specific RRT, when activated, is responsible to:

- ☐ Monitor and evaluate reports from the response;
- ☐ Provide advice and recommendations to the IC/UC;
- ☐ Request other Federal, state, or local governments or private agencies to provide resources under existing authorities for monitoring or response to a discharge; and
- ☐ Provide additional oversight per the NCP.

Other agency coordination mechanisms are also available. Among these are Area Committees, Local Emergency Planning Committees, locally-designated response teams such as marine firefighting teams, and the multi-agency coordination (MAC) system found in NIIMS. In some areas, coordination and allocation of public resources to support an IC or UC may occur through use of a MAC Group.

4.2 Regional Environmental Emergency Team (REET)

The Regional Environmental Emergencies Team (REET) provides consolidated and coordinated environmental advice, information and assistance in the event of an environmental emergency. REET is most common in Canada, however it may be adapted for use in the USA if the responding agencies are interested in forming this type of team.

REET members represent several federal, provincial and municipal government departments, aboriginal communities, private sector agencies, and local individuals. In British Columbia, REET is co-chaired by Environment Canada and the Province of British Columbia.

In an emergency situation REET operates as a multi-disciplinary and multi-agency team that provides comprehensive and coordinated environmental advice, information and assistance to the Responsible Party Incident Commander, Coast Guard On-Scene Commander (marine spills) or other government Lead Agency (land spills). On behalf of the Responsible Party Incident Commander, Coast Guard On Scene Commander or Lead Agency, REET can address and prioritize the environmental, cultural, economic, property and human issues. REET effectively eliminates agency overlap and utilizes all resources to identify and action the resources at risk.

Technical specialists representing REET agencies may form part of the Environmental Unit, reporting to the Resources at Risk Specialist. A member of the REET may also act as the Leader of the Resources at risk Unit.

REET, when established, is responsible to:

- ☐ Establish the REET team from agencies with jurisdiction or interest in the spill, as well as local resources such as Native Bands, local cultural/historical specialists, and other appropriate private sector groups.
- ☐ As a team identify the environmentally sensitive resources in the area impacted – Resources at risk (ICS 232)
- ☐ Assist with determining pollutant behaviour, fate and effects
- ☐ Identify and prioritize environmental areas to be protected, rehabilitation priorities, economically impacted areas, historical and culturally sensitive areas, and socioeconomic resources impacted.
- ☐ Support the Environmental Unit Leader in both the Tactics and Planning meetings regarding resources at risk and REET recommendations/priorities.
- ☐ Maintain a log of all activities (ICS 214) and forward to Documentation Unit at the end of the shift.

4.3 Addressing Stakeholder Concerns

It is critical that stakeholder concerns be identified and adequately addressed. While this may be planned in advance through contingency plans, the Incident Command organization should aggressively ensure that all concerns unique to the incident are identified and addressed.

To that end, the duties and responsibilities of the Liaison Officer and the Information Officer list a number of functions that must be carried out in order to address stakeholder concerns. In general, these are:

- ☐ Identify stakeholders;
- ☐ Provide stakeholders with information on the status of the response; and
- ☐ Address stakeholder concerns and issues, as practicable.

5.0 GENERAL RESPONSIBILITIES

5.1 Common Responsibilities

The following checklist is applicable to all personnel in the ICS organization:

- ☐ Receive assignment from your agency, including:
 - Job assignment (e.g. designation, position, etc.).
 - Brief overview of type and magnitude of incident.
 - Travel instructions including reporting location and reporting time.
 - Any special communications instructions (e.g. travel, radio frequency).
 - Monitor incident related information from media, internet, etc., if available.
 - Assess personal equipment readiness for specific incident and climate (e.g. medications, money, computer, medical record, etc.).
 - Maintain a checklist of items and possibly a personal Go-Kit.
 - Inform others as to where you are going and how to contact you.
 - Review appropriate ICS Guide Sections, Planning Cycle Section and Emergency Response (Contingency) Plan for additional applicable duties.
 - Take advantage of available travel to rest prior to arrival.
- ☐ Upon arrival at the incident, check in at the designated check-in location. Check-in may be found at any of the following locations:
 - Incident Command Post (ICP)
 - Base
 - Staging Areas
 - Helibases

Note: If you are instructed to report directly to an on-scene assignment, check in with the Division/Group Supervisor or the Operations Section Chief.

- ☐ Receive briefing from immediate supervisor.
- ☐ Agency representatives from assisting or cooperating agencies report to the Liaison Officer (LNO) at the ICP after check-in.
- ☐ Acquire work materials.
- ☐ Maintain a log of activities (ICS 214a).
- ☐ Participate in IMT meetings and briefings as appropriate.
- ☐ Ensure compliance with all safety practices and procedures. Report unsafe conditions to the Safety Officer.
- ☐ Supervisors shall maintain accountability for their assigned personnel with regard as to exact location(s), personal safety, and welfare at all times, especially when working in or around incident operations.
- ☐ Organize and brief subordinates.
- ☐ Know your assigned communication methods and procedures for your area of responsibility and ensure that communication equipment is operating properly.
- ☐ Use clear text and ICS terminology (no "10 codes") in all radio communications.
- ☐ Complete forms and reports required of the assigned position and ensure proper disposition of incident documentation as directed by the Documentation Unit.
- ☐ If information needs to be passed to another group/individual use a ICS 213 General Message Form.
- ☐ Follow the document flow procedures as outlined in Section 11.12 ICS Form Distribution/Flow.
- ☐ Ensure all equipment is operational prior to each work period.

- ☐ Report any signs/symptoms of extended incident stress, injury, fatigue or illness for yourself or coworkers to your supervisor.
- ☐ Brief shift replacement on ongoing operations when relieved at operational periods or rotation out.
- ☐ Respond to demobilization orders and brief subordinates regarding demobilization.
- ☐ Prepare personal belongings for demobilization.
- ☐ Return all assigned equipment to appropriate location.
- ☐ Turn in all "original" documentation to the Documentation Unit.
- ☐ Put all "copies" of documentation into the secure recycle bin
- ☐ Complete Demobilization Check-out process before returning to home base.
- ☐ Participate in After-Action activities as directed.
- ☐ Carry out all assignments as directed.
- ☐ Upon demobilization, notify RESL at incident site and home unit of your safe return.

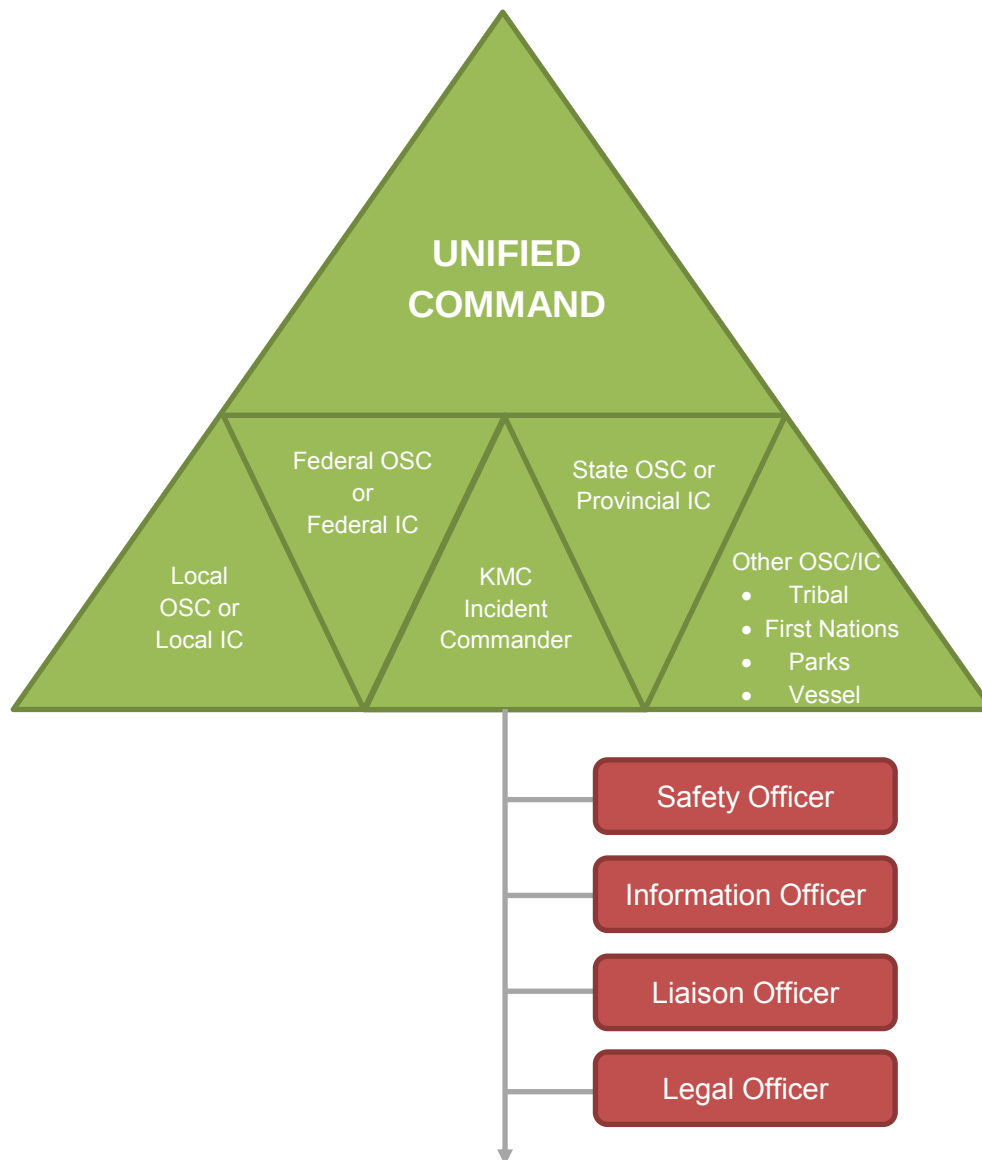
5.2 Unit Leader Responsibilities

A number of the Unit Leader's responsibilities are common to all functions within the ICS organization. Common responsibilities of Unit Leaders are listed below. These will not be repeated in Unit Leader Position Checklists in subsequent chapters.

- ☐ Review Common Responsibilities in Section 5.1 Common Responsibilities.
- ☐ Upon check-in, receive briefing from Incident Commander, Section Chief, Unit Leader or Branch Director as appropriate.
- ☐ Participate in incident meetings and briefings, as required.
- ☐ Determine current status of unit activities.
- ☐ Determine resource needs.
- ☐ Order additional unit staff, as appropriate.
- ☐ Confirm dispatch and estimated time of arrival of staff and supplies.
- ☐ Assign specific duties to staff and supervise staff.
- ☐ Develop and implement accountability, safety and security measures for personnel and resources.
- ☐ Supervise demobilization of unit, including storage of supplies.
- ☐ Provide Supply Unit Leader with a list of supplies to be replenished.
- ☐ Maintain unit records, including Unit Log (ICS 214).
- ☐ Individual responders may want to maintain personal log of actions, decisions and events.
- ☐ Carry out all assignments as directed coworkers to your supervisor.

6.0 INCIDENT COMMAND/COMMAND STAFF DUTIES

6.1 Incident Command Chart



6.2 Incident Commander

On most incidents, a single Incident Commander carries out the Command activity. The Incident Commander is selected through pre-designation, qualifications, or experience.

The Incident Commander may have a deputy, who may be from the same entity or from an assisting entity. Deputies must have the same qualifications as the person for whom they work, as they must be ready to take over that position at any time.

- ☐ Review common responsibilities (Section 5.1 Common Responsibilities).
- ☐ Assess the situation and/or obtain a briefing from the Initial Incident Commander. Obtain a copy of the ICS 201 form or assist with the creation of the ICS 201 form.
- ☐ Confirm/Declare Level of Emergency and ensure all staff are aware.
- ☐ Ensure that notifications have been made.
- ☐ Establish and support Unified Command.
- ☐ Determine incident objectives and strategies. (ICS 202)
- ☐ Establish the immediate priorities.
- ☐ Establish an Incident Command Post.
- ☐ Establish an appropriate organization.
- ☐ Approve and authorize implementation of an Incident Action Plan.
- ☐ Ensure that adequate safety measures are in place.
- ☐ Coordinate activity of all Command and General Staff.
- ☐ Attend appropriate ICS meetings, briefings and press briefings.
- ☐ Review and approve appropriate plans.
- ☐ Coordinate with key stakeholders and officials through the Liaison Officer.
- ☐ Approve requests for additional resources or for the release of resources.
- ☐ Keep lead agency and KM Crisis Management Team informed about incident status.
- ☐ Authorize release of information through the Information Officer.
- ☐ Ensure incident funding is available.
- ☐ Notify Command/General staff of spending limit in one transaction.
- ☐ Notify natural resource trustees(s).
- ☐ Coordinate incident investigation responsibilities.
- ☐ Seek appropriate legal counsel.
- ☐ Order the demobilization of incident resources, when appropriate.
- ☐ Maintain Individual Log (ICS 214a).

6.3 Deputy Incident Commander

The Deputy Incident Commander position (if staffed) is responsible for assisting the Incident Commander by ensuring that the tactical and safety aspects of spill response operations are implemented.

- ☐ Carry out duties as assigned by IC (must be capable of assuming IC duties).
- ☐ Monitor tactical response operations to assess progress and to ensure that sufficient resources are available to the Operations Section.
- ☐ Ensure an effective health and safety program is in place.
- ☐ Attend appropriate ICS meetings and briefings.
- ☐ Maintain Individual Log (ICS 214a).

6.4 Unified Command

While a single Incident Commander normally handles the Command function, an ICS organization may be expanded into a Unified Command (UC) for complex responses which cross jurisdictional boundaries or involve multiple agencies with geographic or functional jurisdiction. The Unified Command brings together the “Incident Commanders” of all major organizations/agencies involved in the response to function as a team with a common set of incident objectives and strategies.

- Unified Command might include:
 - The Kinder-Morgan (RP) Incident Commander
 - Federal On-Scene Coordinator (FSOC), or Federal Incident Commander (FIC)
 - State On-Scene Coordinator (SOSC) or Provincial Incident Commander (PIC)
 - Local Government Incident Commander or On-Scene Coordinator (LIC or LOSC)
 - Other Incident Commanders or On-Scene Coordinators (OIC/OSC) when appropriate these may include
 - Tribal/First Nations
 - Vessel Operator
 - Parks

Note: The Canadian Coast Guard may not engage in a Unified Command, but may have a representative present in the form of a Federal Monitoring Officer.

Actual Unified Command makeup for a specific incident will be determined on a case-by-case basis taking into account:

- the specifics of the incident;
- determinations outlined in the Area Contingency Plan or existing response plan; or
- decisions reached during the initial meeting of the Unified Command.

The makeup of the Unified Command may change as the incident progresses, in order to account for changes in the situation.

The Unified Command is responsible for overall management of the incident. The Unified Command directs incident activities, including development and implementation of overall objectives and strategies, and approves ordering and releasing of resources. Each Unified Command member may assign Deputy Incident Commander(s) to assist in carrying out Incident Command responsibilities. Unified Command members may also be assigned individual legal and administrative support from their own organizations.

As a component of an ICS, the Unified Command facilitates and coordinates the effective involvement of various agencies and responders. It links the organizations responding to the incident and provides a forum for these agencies to make consensus decisions. Under Unified Command, the various jurisdictions and/or agencies, and non-government responders may blend together throughout the Incident Command System organization to create an integrated response team. Assisting or cooperating agencies that are not part of the Unified Command can also participate through Agency Representatives working with the Liaison Officer. It is important to note that participation in a Unified Command occurs without any agency abdicating authority, responsibility, nor accountability.

6.5 Safety Officer

The Safety Officer is responsible for monitoring and assessing hazardous and unsafe situations and developing measures to assure personnel safety. The Safety Officer will correct unsafe acts or conditions through the regular line of authority, although the Safety Officer may exercise emergency authority to prevent or stop unsafe acts when immediate action is required. The Safety Officer maintains awareness of active and developing situations, ensures the Site Safety and Health Plan is prepared and implemented, and includes safety messages in each Incident Action Plan.

Only one Safety Officer will be assigned for each incident, including incidents operating under Unified Command and multi-jurisdiction incidents. The Safety Officer may have assistants, as necessary, and the assistants may also represent assisting agencies or jurisdictions.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ During initial response, document the hazard analysis process addressing hazard identification, personal protective equipment, control zones, and decontamination area.
- ☐ Participate in planning meetings to identify any health and safety concerns inherent in the operations daily work plan.
- ☐ In Washington State, refer to the NWACP Section 9203 Health and Safety Job Aid for additional information.
- ☐ Review the Incident Action Plan for safety implications (ICS 215a).
- ☐ Exercise emergency authority to prevent or stop unsafe acts.
- ☐ Investigate accidents that have occurred within incident areas.
- ☐ Ensure preparation, UC/IC approval, and implementation of Site Safety and Health Plan (SSHP) in accordance with the existing Response Plans (Contingency Plans) and applicable regulations. The SSHP shall, at a minimum, address, include, or contain the following elements:
 - Health and safety hazard analysis for each site, task or operation.
 - Comprehensive operations work plan.
 - Personnel training requirements.
 - PPE selection criteria.
 - Site-specific occupational medical monitoring requirements.
 - Air monitoring plan: area/personal.
 - Site control measures.
 - Confined space entry procedures, if required.
 - Pre-entry briefings (tailgate meetings): initial and as needed.
 - Pre-operations health and safety conference for all incident participants.
 - Quality assurance of SSHP effectiveness.
- ☐ Assign assistants and operational Safety Watch positions, and manage the incident safety organization.
- ☐ Conduct Safety Briefings as needed in the ICP and/or field, a designate may be used for field briefings
- ☐ Review and approve the Medical Plan (ICS 206).
- ☐ Maintain Unit/Activity Log (ICS 214).

6.6 Information Officer

The Information Officer is responsible for developing and releasing information about the incident to the news media, to incident personnel, members of the public, impacted parties, and to other appropriate agencies and organizations. Only one Information Officer will be assigned for each incident, including incidents operating under Unified Command and multi-jurisdictional incidents. The Information Officer may have assistants, as necessary, and the assistants may also represent assisting agencies or jurisdictions. It is important to connect with the Claims Unit and Land Department to sort out resident and impacted party notifications.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ In Washington State, the Information officer is:
 - Government Representative OR
 - Other individual designated by Unified Command.
- ☐ Establish and staff a Joint Information Center (JIC) or Public Information Office (PIO), as necessary. Note the JIC/PIO will have a separate leader for that unit, that person is not always the same as the Information Officer, but can be in certain circumstances.
- ☐ If the JIC is established in Washington State ensure that JIC manager uses NWACP JIC Manual (Section 9202).
 - Liaison Officer will assign Community Relations Coordinator to the JIC to ensure consistent messaging, and ensure the Community Relations Coordinator is using the NWACP Section 9210 for duties and assignments.
- ☐ Determine from the Incident Commander if there are any limits on information release.
- ☐ Establish contact with the KM Crisis Management Team.
- ☐ Attend appropriate ICS meetings to remain current on operational activities and issues.
- ☐ Develop material for use in media briefings, and ensure that:
 - News releases/briefings are approved and signed off by IC/UC
 - News releases are published as requested by Unified Command
 - New releases are accurate
- ☐ Obtain Incident Commander/Unified Command approval for news media releases.
- ☐ Prepare Incident Commander/Unified Command for any news briefings including:
 - Identify Speakers;
 - Unified Command
 - Scientific Support Coordinator
 - Environmental Unit Leader
 - Wildlife expert
 - Others as needed
 - Predict questions from the media, draft answers, and provide them to speakers.
 - Outline for the press conference discussed.
- ☐ Displays/Maps developed for press conference match command post maps and information.
- ☐ Inform news media and conduct news briefings.
- ☐ Arrange for tours and other interviews or briefings that may be required.
- ☐ Obtain news media information that may be useful for incident planning.
- ☐ Maintain current information summaries and/or displays on the incident within the ICP.
- ☐ Provide information on status of incident to assigned personnel.
- ☐ Work with Liaison Officer on a Public Outreach Media Release, Local Officials Briefing and Open Houses/Public Meetings.
- ☐ Send a representative to any evacuation centre set up to disseminate information about the incident.

- ☐ Work with the Claims Unit Leader (Land Department) to begin the process of field notifications of impacted parties and members of the public.
- ☐ If public evacuations are required, and the Local Authority requires assistance, arrange for additional personnel to assist with all aspects of public evacuation.
- ☐ Ensure Public Inquiries are answered in a timely manner.
- ☐ Maintain Unit/Activity Log (ICS 214).

6.7 Liaison Officer

Incidents that are multi-jurisdictional, or involve several agencies, may require the establishment of the Liaison Officer position on the Command Staff. The Liaison Officer is the point of contact for the assisting and cooperating Agency Representatives and stakeholder groups. Only one Liaison Officer will be assigned for each incident, including incidents operating under Unified Command and multi-jurisdiction incidents. The Liaison Officer may have assistants, as necessary, and the assistants may also represent assisting agencies or jurisdictions.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ In Washington State, the Information officer is:
 - Government Representative OR
 - Other individual designated by Unified Command.
- ☐ In Washington State, refer to the Liaison Manual (Section 9210 of the NWACP) for further duties.
 - Obtain additional resources as required to fulfill the duties outlined in the NWACP.
 - Assign the Community Relations Coordinator to the JIC.
- ☐ In British Columbia, if the Provincial Agencies are not responding to the event, request the Emergency Management Agency to hold an information call with other levels of government to provide updates on the incident. (BC operates a callout system similar to ERL)
- ☐ Provide a point of contact for assisting and cooperating Agency Representatives.
- ☐ Identify Agency Representatives from each agency, including communications link and location.
- ☐ Maintain a list of assisting and cooperating agency and stakeholder group contacts.
- ☐ Assist in establishing and coordinating interagency contacts.
- ☐ Keep agencies supporting incident aware of incident status.
- ☐ Monitor incident operations to identify current or potential inter-organizational issues and advise Incident Command, as appropriate.
- ☐ Participate in planning meetings; provide current resource status information, including limitations and capabilities of assisting agency resources.
- ☐ Provide information and support to local government officials and stakeholder groups.
- ☐ Conduct Local Officials Briefings as needed
- ☐ Conduct a Public Meeting/Open House as needed
- ☐ Assist the Information Officer with a Public outreach focused press releases
- ☐ Maintain Unit/Activity Log (ICS 214).

6.8 Legal Officer

The Legal Officer is responsible for providing advice and direction on all matters that may have a legal impact on KMC or the response operation. This may include matters such as legal matters related to the response, claims, contracts, insurance, information releases, and documentation retention.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Ensure notifications have been made and maintain liaison with regulatory agencies as per existing Emergency Response Plans (Contingency Plans).
- ☐ Provide advice and direction to the Incident Commander/Unified Command on all legal matters related to the response operations.
- ☐ Establish documentation guidelines and provide advice regarding document storage
- ☐ Assist Documentation Unit and Claims Unit with legal issues.
- ☐ Review press releases, contracts, and other matters as requested if they have legal implications to KMC.
- ☐ Participate in appropriate ICS and other meetings as requested.
- ☐ Participate in incident investigations and damage assessments.
- ☐ Maintain a log of all activities (ICS 214).

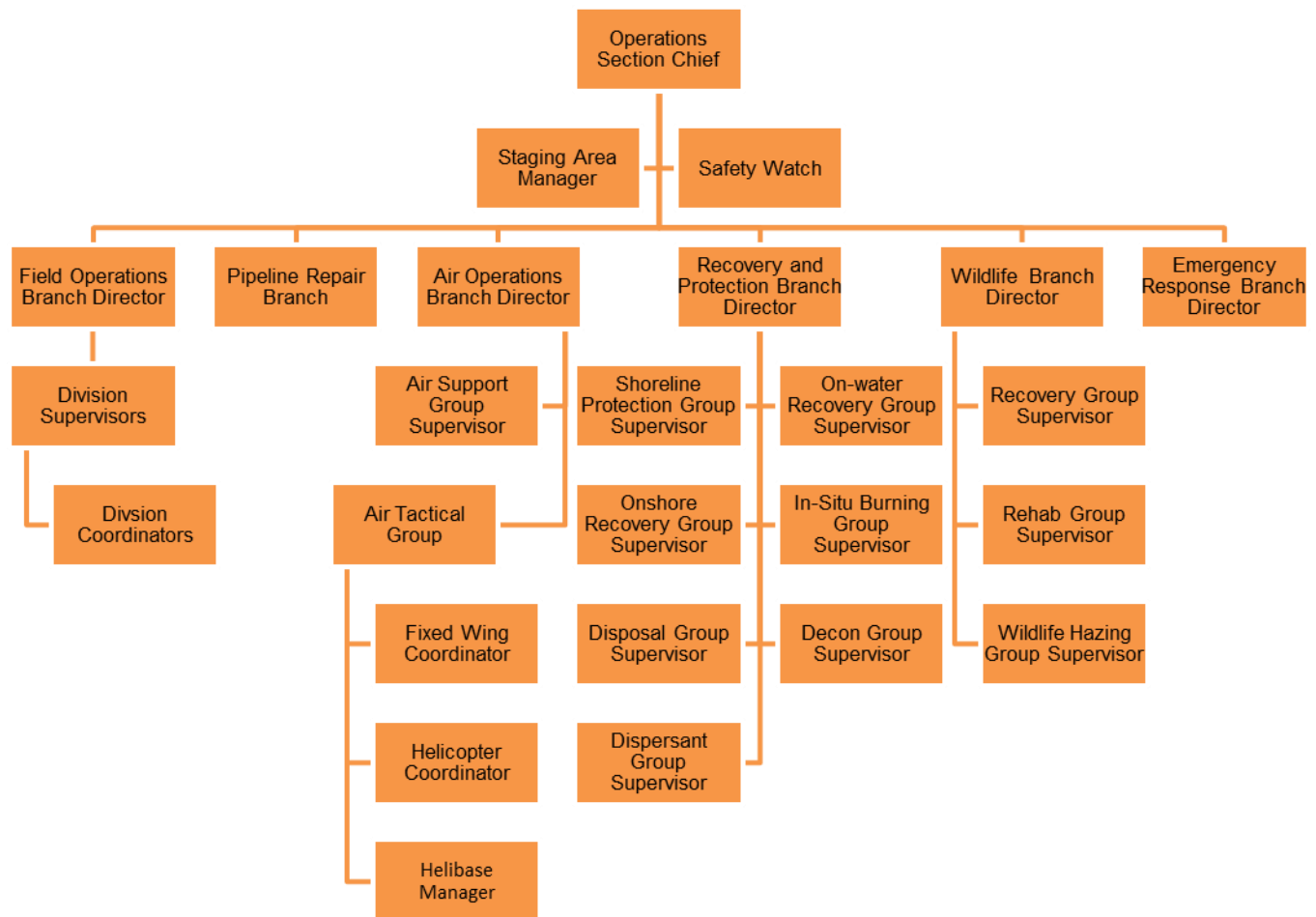
6.9 Agency Representatives

An Agency Representative is an individual assigned to an incident from an assisting or cooperating agency who has been delegated authority to make decisions on matters affecting that agency's participation at the incident. Agency Representatives report to the Liaison Officer or to the Incident Commander in the absence of the Liaison Officer.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Ensure that all agency resources are properly checked-in at the incident.
- ☐ Obtain briefing from the Liaison Officer or Incident Commander.
- ☐ Inform assisting or cooperating agency personnel on the incident that the Agency Representative position for that agency has been filled.
- ☐ Attend briefings and planning meetings, as required.
- ☐ Provide input on the use of agency resources unless resource technical specialists are assigned from the agency.
- ☐ Cooperate fully with the Incident Commander and the General Staff on agency involvement at the incident.
- ☐ Ensure the well-being of agency personnel assigned to the incident.
- ☐ Advise the Liaison Officer of any special agency needs or requirements.
- ☐ Report to home agency or headquarters on a prearranged schedule.
- ☐ Ensure that all agency personnel and equipment are properly accounted for and released prior to departure.
- ☐ Ensure that all required agency forms, reports, and documents are complete prior to departure.
- ☐ Meet with the Liaison Officer or Incident Commander for debriefing prior to departure.
- ☐ Maintain a log of all activities (ICS 214).

7.0 OPERATIONS SECTION DUTIES

7.1 Operations Section Organization Chart



7.2 Operations Section Chief

The Operations Section Chief, a member of the General Staff, is responsible for managing all tactical operations. The Operations Section Chief activates and supervises elements in accordance with the Incident Action Plan and directs its execution; monitors span of control; activates and executes the Site Safety and Health Plan; directs the preparation of unit operational plans; requests or releases resources; makes expedient changes to the Incident Action Plans as necessary; and reports such to the Incident Commander.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Obtain briefing from IC.
- ☐ Evaluate and request sufficient Section supervisory staffing for both operational and planning activities.
- ☐ Supervise Operations Section field personnel.
- ☐ Work with Planning Section Chief to determine the response divisions.

- ☐ Participate in ICS meetings – Initial Incident Briefing, Tactics Meeting, Planning Meeting, Ops. Briefing.
- ☐ Implement the Health and Safety Plan and ensure safe tactical operations.
- ☐ Assist with the preparation and implementation of the Incident Action Plan (IAP) and General Plan.
- ☐ Assemble and disassemble teams/task forces assigned to operations section.
- ☐ Brief Incident Commander, Planning Section Chief and Information Officer about the implementation of the IAP and other operational activities and issues.
- ☐ Implement the IAP for the Operations Section.
- ☐ Evaluate on-scene operations and make adjustments to organization, strategies, tactics, and resources as necessary.
- ☐ Ensure the Resources Unit is advised of changes in the status of resources assigned to the section.
- ☐ Ensure that Operations Section personnel execute work assignments following approved safety practices.
- ☐ Monitor need for and request additional resources to support operations as necessary.
- ☐ Assemble/disassemble task force/strike teams as appropriate.
- ☐ Identify/utilize staging areas.
- ☐ Evaluate and monitor current situation for use in next operational period planning.
- ☐ Convert operational incident objectives into strategic and tactical options.
- ☐ Coordinate and consult with the PSC, technical specialists, modeling scenarios, trajectories, etc., on selection of appropriate strategies and tactics to accomplish objectives.
- ☐ Identify kind and number of resources required to support selected strategies.
- ☐ Develop work assignments and allocate tactical resources based on strategic requirements (i.e. develop the ICS-215).
- ☐ Participate in the planning process and the development of the tactical portions (ICS-204 and ICS-220) of the IAP.
- ☐ Assist with development of long-range strategic, contingency, and demobilization plans.
- ☐ Develop recommended list of Section resources to be demobilized and initiate recommendation for release when appropriate.
- ☐ Receive and implement applicable portions of the incident Demobilization Plan.
- ☐ Participate in operational briefings to IMT members as well as briefings to media, and visiting dignitaries.
- ☐ Maintain Individual Log (ICS 214a).

7.3 Deputy Operations Section Chief

The Deputy Operations Section Chief (if staffed) is responsible for assisting the Operations Section Chief.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Carry out duties as assigned by OSC (must be capable of assuming OSC duties).
- ☐ Attend appropriate ICS meetings and briefings.
- ☐ Maintain Individual Log (ICS 214a).

7.4 Staging Area Manager

Under the Operations Section Chief, the Staging Area Manager is responsible for managing all activities within the designated staging areas.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Implement pertinent sections of the Incident Action Plan (IAP) and determine scope of support services to be provided.
- ☐ Establish and maintain boundaries of staging areas. Post signs for identification and traffic control.
- ☐ Establish check-in function and coordinate forwarding of ICS 211e & ICS 211p to Resources Unit.
- ☐ When moving and/or updating the status of equipment or personnel checking into or out of the staging area, fill in ICS 210 and forward to the Resources Unit.
- ☐ Establish interface with Logistics for info on resource movements, support for resources in the staging areas, and required security.
- ☐ Advise Operations Section Chief of all changing situation/conditions on scene.
- ☐ Attend ICS meetings as required.
- ☐ Respond to requests for resource assignments.
- ☐ Respond to requests for information, as required.
- ☐ Support servicing and preparation of equipment for next operational period as defined in the IAP.
- ☐ Demobilize or reposition staging areas, as needed.
- ☐ Maintain Unit/Activity Log (ICS 214).

7.5 Safety Watch

The Safety Watch operates in the field to ensure that incident response operations at the site level are conducted in a safe manner in keeping with the Site Safety and Health Plan, and KM Health and Safety practices. The Safety Watch works functionally with the Safety Officer to ensure that effective two-way safety communication is established between the field and the Incident Command Post. The Safety Watch may be assigned at the Division, Group, Task Force or Strike Team Level depending on number of workers, geographic spread, and the circumstances of the spill.

Note: If response activities cannot be conducted safely on site, halt operations. The Safety Watch position has the authority of the Incident Commander to halt operations immediately if a serious safety issue arises.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Implement Site Specific Health and Safety Plan, and review site safety requirements with responding field personnel.
- ☐ Ensure that all personnel have appropriate training.
- ☐ Ensure that all personnel have appropriate PPE and training in its use.
- ☐ Develop and conduct safety briefings for helicopters, marine safety, and others as required.
- ☐ Establish safe work areas/zones.
- ☐ Continuously monitor environmental working conditions, including vapour exposures, combustible gasses, O₂, and H₂S.
- ☐ Monitor physical working conditions, including slippery surfaces, wave exposures, predatory animals, temperature extremes, etc.
- ☐ Relieve injured or sick workers from active duty and advise first aid attendant immediately.

- ☐ Provide an ongoing assessment of site safety hazards.
- ☐ Maintain close contact with site supervisors and leaders, and ensure that safety messages and advisories are passed to all personnel.
- ☐ Advise Operations Section Chief and if staffed, the Safety Officer, of existing or potential hazards.
- ☐ Maintain Unit/Activity Log (ICS 214).

7.6 Field Operations Branch Director

The Branch Director, is under the direction of the Operations Section Chief, and is responsible for implementing the portion of the Incident Action Plan (IAP) appropriate to the Divisions. The Branch Director will work with the Operations Section Chief to establish the geographical Divisions to be numbered alphabetically.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Develop, with subordinates, alternatives for Branch control operations.
- ☐ Attend planning meetings at the request of the Operations Section Chief.
- ☐ Review Division/Group Assignment Lists (ICS 204) for Divisions/Groups within Branch. Modify lists based on effectiveness of current operations.
- ☐ Assign specific work tasks to Division/Group Supervisors.
- ☐ Supervise Branch operations.
- ☐ Resolve logistics problems reported by subordinates.
- ☐ Report to Operations Section Chief when: Incident Action Plan is to be modified; additional resources are needed; surplus resources are available; hazardous situations or significant events occur.
- ☐ Approve accident and medical reports (home agency forms) originating within the Branch.
- ☐ Maintain Unit/Activity Log (ICS 214).

7.6.1 Division Supervisor

The Division Supervisor reports to the Branch Director, and will take the name of the Division he/she is working in (ie. Division A Supervisor, Division B Supervisor etc.). If the number of Divisions exceeds 7, Division Coordinators will be implemented. For example, if there are 14 Divisions there will be 14 Division Coordinators and 2 Division Supervisors, the name of the Supervisor would then reflect the span of control (ie. Division A-F Supervisor, Division G-M Supervisor).

The supervisor is responsible for implementing the assigned portion of the Incident Action Plan (IAP), assigning resources within the division, and reporting progress of control operations and status of resources within the division.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Implement IAP for division.
- ☐ Review division assignments and incident activities with subordinates and assign tasks.
- ☐ Keep Communications Unit and/or Resources Unit advised of all changes in status of resources assigned to the division and/or group.
- ☐ Coordinate activities with other divisions.
- ☐ Determine need for assistance on assigned tasks.
- ☐ Submit situation and resources status information to Branch Director or Operations Section Chief.

- ☐ Report special occurrences or events such as accidents or sickness to the immediate supervisor.
- ☐ Resolve logistics problems within the division.
- ☐ Participate in developing Branch plans for the next operational period.
- ☐ Maintain Unit/Activity Log (ICS 214).

7.6.2 Division Coordinator

The Division Coordinator reports to the Division Supervisor, and will take the name of the Division he/she is working in (ie. Division A Coordinator, Division B Coordinator etc.). When implemented, the Coordinator is responsible for implementing the assigned portion of the Incident Action Plan (IAP), assigning resources within the division, and reporting progress of control operations and status of resources within the division.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Implement IAP for division.
- ☐ Review division assignments and incident activities with subordinates and assign tasks.
- ☐ Coordinate activities with other divisions.
- ☐ Determine need for assistance on assigned tasks.
- ☐ Submit situation and resources status information to Division Supervisor.
- ☐ Report special occurrences or events such as accidents or sickness to the Division Supervisor.
- ☐ Resolve logistics problems within the division.
- ☐ Maintain Unit/Activity Log (ICS 214).

7.7 General Duties for Multi Division/Group resources

7.7.1 Strike Team/Task Force Leader

The Strike Team/Task Force Leader reports to a Division and/or Group Supervisor and is responsible for performing tactical assignments assigned to the Strike Team or Task Force. The leader reports work progress, resources status, and other important information to a Division Supervisor, and maintains work records on assigned personnel.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Monitor work progress and make changes, when necessary.
- ☐ Coordinate activities with other Strike Teams, Task Forces, and Single Resources.
- ☐ Submit situation and resource status information to Division/Group Supervisor.
- ☐ Maintain Unit/Activity Log (ICS 214).

7.7.2 Single Resources

The person in charge of a single tactical resource will carry the unit designation of the resource.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Review assignments from IAP (ICS 204s).
- ☐ Obtain necessary equipment/supplies.
- ☐ Review weather/environmental conditions for assignment area.
- ☐ Brief subordinates on safety measures.
- ☐ Monitor work progress.
- ☐ Ensure adequate communications with supervisor and subordinates.
- ☐ Keep supervisor informed of progress and any changes.

- ☐ Inform supervisor of problems with assigned resources.
- ☐ Brief relief personnel, and advise them of any change in conditions.
- ☐ Return equipment and supplies to appropriate unit.
- ☐ Complete and turn in all time and use records on personnel and equipment.
- ☐ Maintain Unit/Activity Log (ICS 214).

7.8 Pipeline Repair Branch Director

The Pipeline Repair Branch Director is responsible to oversee and implement the repair of the pipeline. The Pipeline Repair Branch Director reports to the Operations Section Chief.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Participate in ICS meetings such as Planning Meeting and Operations Briefing, as required.
- ☐ Develop pipeline repair portion of Incident Action Plan (IAP).
- ☐ Brief and assign operations personnel and supervise operations in accordance with IAP.
- ☐ Determine resource needs.
- ☐ Review recommendations and initiate release of resources.
- ☐ Inform Operations Section Chief about status of response operations, resource needs and issues/challenges requiring resolution.
- ☐ Maintain Unit/Activity Log (ICS 214).

7.9 Air Operations Branch Director

The Air Operations Branch Director, who is ground-based, is primarily responsible for preparing the air operations portion of the Incident Action Plan (IAP). The IAP will reflect agency restrictions such as night flying or hours per pilot, that impact the operational capability or use of resources. After, the IAP is approved, Air Operations is responsible for implementing its strategic aspects (those that relate to the overall incident strategy). Additionally, the Air Operations Branch Director is responsible for providing logistical support to helicopters assigned to the incident. Specific tactical activities are normally performed by the Air Tactical Group Supervisor working with ground and air resources.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Determine aircraft requirements.
- ☐ Supervise all air operations activities associated with the incident, including aircraft refueling and support.
- ☐ Participate in ICS meetings as required, and participate in preparing the IAP.
- ☐ Perform operational planning for air operations.
- ☐ Prepare and provide Air Operations Summary Worksheet (ICS 220) to the Air Support Group and Fixed-Wing Bases.
- ☐ Determine coordination procedures for use by air organization with ground Branches, Divisions, or Groups.
- ☐ Coordinate with appropriate Operations Section personnel.
- ☐ Establish procedures for emergency reassignment of aircraft.
- ☐ Inform the Air Tactical Group Supervisor of the air traffic situation external to the incident.
- ☐ Coordinate with Federal Aviation Administration and Transport Canada to declare or cancel restricted air space areas, and resolve issues involving non-incident aircraft in the area.
- ☐ Report to the Operations Section Chief on air operations activities.
- ☐ Arrange for an accident investigation team, when warranted.
- ☐ Maintain Unit/Activity Log (ICS 214).

7.9.1 Air Support Group Supervisor

The Air Support Group Supervisor is primarily responsible to support and manage Helibase and Helispot operations, and maintain liaison with Fixed-Wing Air Bases. This includes providing:

- ☐ fuel and other supplies,
- ☐ helicopter maintenance and repair,
- ☐ keeping records of helicopter activity; and
- ☐ enforcing safety regulations.

These major functions are performed at Helibases and Helispots. Helicopters (during landing and takeoff, and while on the ground) are under the control of the air support group's Helibase or Helispot managers. The Air Support Group Supervisor reports to the Air Operations Branch Director.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Obtain copy of the Incident Action Plan (IAP) from the Air Operations Branch Director, including the Air Operations Summary Worksheet (ICS 220).
- ☐ Participate in Air Operations Branch Director planning activities.
- ☐ Inform Air Operations Branch Director of group activities.
- ☐ Identify resources/supplies dispatched for air support group.
- ☐ Request special air support items from appropriate sources through logistics section.
- ☐ Identify Helibase and Helispot locations from the IAP or from the Air Operations Branch Director.
- ☐ Determine need for personnel and equipment assignments at each Helibase or Helispot.
- ☐ Coordinate special requests for air logistics.
- ☐ Maintain coordination with air bases supporting the incident.
- ☐ Coordinate activities with Air Operations Branch Director.
- ☐ Obtain assigned ground to air frequency for Helibase operations from Communication Unit Leader or Communications Plan.
- ☐ Inform Air Operations Branch Director of capability to provide night-flying service.
- ☐ Ensure compliance with each agency's operations checklist for day and night operations.
- ☐ Ensure dust abatement procedures are implemented at Helibase and Helispots.
- ☐ Provide crash-rescue service for Helibases and Helispots.
- ☐ Ensure that Air Traffic Control procedures are established between Helibase and Helispots and the Air Tactical Group Supervisor, Helicopter Coordinator or Fixed-Wing Coordinator.
- ☐ Maintain Unit/Activity Log (ICS 214).

7.9.2 Air Tactical Group Supervisor

The Air Tactical Group Supervisor is primarily responsible for coordinating and scheduling aircraft operations intended to locate, observe, track, survey, support dispersant applications, or other deliverable response application techniques, or report on the incident situation when fixed- and/or rotary-wing aircraft are airborne at an incident. These coordination activities are performed by the Air Tactical Group Supervisor while airborne. The Air Tactical Group Supervisor reports to the Air Operations Branch Director.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Determine what aircraft (fixed-wing and helicopters) are operating within the area of assignments.
- ☐ Obtain briefing from the Air Operations Branch Director or Operations Section Chief.
- ☐ Manage air tactical activities based upon the Incident Action Plan.

- ☐ Establish and maintain communications with Air Operations, Fixed-Wing Aircraft, Helicopter Coordinators, Air Support Group Supervisor, and Fixed-Wing Bases.
- ☐ Coordinate approved flights of non-incident aircraft or non-tactical flights in restricted air space area.
- ☐ Coordinate dispersant and in-situ burning application through the Air Operations Branch Director and Dispersants and/or In-Situ Burn Operations Group Supervisor.
- ☐ Obtain information about air traffic external to the incident.
- ☐ Receive reports of restricted air space violations.
- ☐ Make tactical recommendations to approved ground contact (Operations Section Chief, Branch Director, or Division/Group Supervisor).
- ☐ Inform the Air Operations Branch Director of tactical recommendations affecting the air operations portion of the Incident Action Plan.
- ☐ Coordinate air surveillance mission scheduling and observer assignments with the Situation Unit Leader.
- ☐ Identify remote sensing technology that may enhance surveillance capabilities.
- ☐ Coordinate air surveillance observations and provide reports by the most direct methods available.
- ☐ Report air surveillance and operations activities to Air Operations Branch Director.
- ☐ Coordinate application monitoring requirements with the Helicopter and Fixed-Wing Coordinators and the Situation Unit.
- ☐ Report on air application activities to the Air Operations Director.
- ☐ Report on incidents/accidents.
- ☐ Maintain Unit/Activity Log (ICS 214).

7.9.3 Fixed-Wing Coordinator

The Fixed-Wing Coordinator is primarily responsible for coordinating assigned airborne fixed-wing aircraft operations at the incident. The Fixed-Wing Coordinator is also responsible for scheduling fixed-wing operations intended to locate, observe, track, survey, or report on the incident situation. The Fixed-Wing Coordinator coordinates the application of dispersants, in-situ burning agents, and bioremediation agents. The Fixed-Wing Coordinator reports to the Air Tactical Group Supervisor.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Determine type and number of aircraft operating within the incident area.
- ☐ Determine fixed-wing aircraft capabilities and limitations.
- ☐ Survey and report on potential problems within incident assignment area.
- ☐ Coordinate air traffic control procedures with pilots, Air Operations, Air Tactical Group Supervisor,
- ☐ Helicopter Coordinator and Air Support Group.
- ☐ Coordinate the use of radio frequencies for ground-to-air and air-to-air communication with the Air Tactical Group Supervisor and the Communications Unit.
- ☐ Implement and monitor all air safety requirements and procedures.
- ☐ Supervise all fixed-wing aircraft activities; receive assignments, brief pilots, assign missions, and report on mission completion; reassign as directed.
- ☐ Coordinate activities as appropriate, with Air Tactical Group Supervisor, Helicopter Coordinator, and ground operations personnel.
- ☐ Immediately report accidents or incidents to the Air Tactical Group Supervisor and the Air Operations Branch Director.
- ☐ Maintain Unit/Activity Log (ICS 214).

7.9.4 Helicopter Coordinator

The Helicopter Coordinator is primarily responsible for coordinating all tactical or logistical helicopter sorties. The Helicopter Coordinator is also responsible for coordinating and scheduling helicopter operations intended to locate, observe, track, survey, or report on the incident situation. The Helicopter Coordinator coordinates the application of dispersants and in-situ burning agents. The Helicopter Coordinator reports to the Air Tactical Group Supervisor.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Determine the type and number of aircraft operating within incident assignment area.
- ☐ Determine helicopter capabilities and limitations.
- ☐ Supervise all helicopter activities.
- ☐ Survey and report on potential problems within incident assignment area (other aircraft hazards, ground hazards, etc.).
- ☐ Coordinate air traffic control procedures with pilots, Air Operations Branch Director, Air Tactical Group Supervisor, Fixed-Wing Coordinator, and the Air Support Group.
- ☐ Coordinate the use of radio frequencies for ground-to-air and air-to-air communications with the Air Tactical Group Supervisor and the Communications Unit.
- ☐ Assign and ensure use of appropriate operating frequencies by incident helicopters.
- ☐ Coordinate, and make geographic assignments for, helicopter operations with the Air Tactical Group Supervisor.
- ☐ Implement and monitor all safety requirements and procedures.
- ☐ Ensure that approved night flying procedures are followed.
- ☐ Immediately report accidents or incidents to the Air Tactical Group Supervisor and the Air Operations Branch Director.
- ☐ Maintain Unit/Activity Log (ICS 214).

7.9.5 Helibase Manager

The Helibase Manager has primary responsibility for managing all activities at the assigned Helibase.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Obtain Incident Action Plan (IAP), including Air Operations Summary Worksheet (ICS 220).
- ☐ Participate in Air Support Group planning activities.
- ☐ Inform Air Support Group Supervisor of Helibase activities.
- ☐ Report to assigned Helibase. Brief pilots and assigned personnel.
- ☐ Manage resources/supplies dispatched to Helibase.
- ☐ Ensure Helibase is posted and cordoned.
- ☐ Coordinate Helibase Air Traffic control with pilots, Air Support Group Supervisor, Air Tactical Group Supervisor, Helicopter Coordinator, and the Takeoff and Landing Controller.
- ☐ Manage chemical countermeasure loading operations.
- ☐ Ensure helicopter fuelling, maintenance, and repair services are provided.
- ☐ Supervise manifesting and loading of personnel and cargo.
- ☐ Ensure dust abatement techniques are provided and used at Helibases and Helispots.
- ☐ Ensure security is provided at each Helibase and Helispots.
- ☐ Ensure crash-rescue services are provided for the Helibase.
- ☐ Request special air support items from the Air Support Group Supervisor.
- ☐ Receive, and respond to, special requests for air logistics.
- ☐ Maintain agency records, reports of helicopter activities, and Check-In Lists (ICS 211).
- ☐ Coordinate activities with Air Support Group Supervisor.

- ☐ Display organization and work schedule at each Helibase, including Helispot organization and assigned radio frequencies.
- ☐ Solicit pilot input concerning selection and adequacy of Helispots, communications, Air Traffic Control, operational difficulties, and safety problems.
- ☐ Maintain Unit/Activity Log (ICS 214).

7.10 Recovery and Protection Branch Director

The Recovery and Protection Branch Director is responsible to oversee and implement the protection, containment, and cleanup activities established in the Incident Action Plan.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Participate in ICS meetings such as Planning Meeting and Operations Briefing, as required.
- ☐ Develop operations portion of IAP.
- ☐ Brief and assign operations personnel and supervise operations in accordance with IAP.
- ☐ Determine resource needs.
- ☐ Review recommendations and initiate release of resources.
- ☐ Inform Operations Section Chief about status of response operations, resource needs, and issues/challenges requiring resolution.
- ☐ Maintain Unit/Activity Log (ICS 214).

7.10.1 Shoreline Protection Group Supervisor

Under the Recovery and Protection Branch Director, the Shoreline Protection Group Supervisor is responsible for deploying containment, diversion, and absorbent boom in designated locations and managing shoreline protection operations in compliance with the Incident Action Plan (IAP). Depending on the size of the incident, the Protection Group may be further divided into Strike Teams, Task Forces, and single resources.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Implement Protection Strategies identified in the IAP.
- ☐ Help identify shoreline protection equipment and techniques.
- ☐ Determine the feasibility and practicality of shoreline protection operations.
- ☐ Develop a shoreline protection plan.
- ☐ Administer an effective Safety and Health program
- ☐ Conduct shoreline protection activities, coordinating with the On-water Recovery Group and Shoreline Recovery Group, and Mutual Aid/contractors as appropriate.
- ☐ Evaluate the effectiveness of response techniques; adjust techniques and equipment, as necessary, to enhance effectiveness.
- ☐ Provide information for status reports and daily action plans. Approve changes, as necessary.
- ☐ Identify resource needs, and work with the other units to obtain and release manpower, equipment, materials, and supplies.
- ☐ Maintain Unit/Activity Log (ICS 214).

7.10.2 On-Water Recovery Group Supervisor

Under the Recovery and Protection Branch Director, the On-Water Recovery Group Supervisor is responsible for managing on-water recovery operations in compliance with the Incident Action Plan. The Group may be divided into Strike Teams, Task Forces, and Single Resources.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Implement recovery strategies in Incident Action Plan (IAP) and conduct operations on a 24 hour basis – weather and sea state permitting.
- ☐ Administer the Site Safety and Health Plan.
- ☐ Direct, coordinate, and assess effectiveness of on-water recovery actions and modify recovery actions, as needed.
- ☐ Brief the Recovery and Protection Branch Director on activities.
- ☐ Maintain up to date information on slick location, projected trajectories, weather, sea and tidal conditions that may affect operations.
- ☐ Maintain liaison with vessel salvage and lightering operations and provide support when requested.
- ☐ Arrange adequate helicopter support for mechanical recovery to ensure that skimming vessels are in the highest concentrations of oil.
- ☐ Work with Staging Area Manager to establish staging bases to support on-water operations, including support for helicopter flight operations.
- ☐ If alternative countermeasures are to be employed, organize appropriate support resources.
- ☐ Work with Storage and Disposal Group, Planning, and Logistics to address transportation and interim storage for waste.
- ☐ Maintain Unit/Activity Log (ICS 214).

7.10.3 On-Shore Recovery Group Supervisor

Under the Recovery and Protection Branch Director, the Shoreline Recovery Group Supervisor is responsible for managing shoreline and onshore cleanup operations including the use of bioremediation and/or chemical treatment, in compliance with the Incident Action Plan (IAP). The group may be further divided into Strike Teams, Task Forces, and Single Resources.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Implement recovery strategies in the IAP.
- ☐ Identify resource needs, and work with the other Units to obtain and release manpower, equipment, materials, and supplies.
- ☐ Provide daily briefings to field supervisors on IAP assignments (ICS204), Site Safety and Health Plan, and security or access issues.
- ☐ Ensure that all personnel in cleanup areas are trained in basic spill response and safety practices.
- ☐ Ensure the continued function of decon stations, shoreline access, interim storage sites, rest and eating areas, security, etc.
- ☐ Ensure that Field Supervisors establish work and rest shifts, so that workers remain fresh and cleanup activities continue at all times.
- ☐ Ensure that all deceased wildlife found in the cleanup area are recovered, bagged, and correctly tagged to ensure that they are disposed of correctly.
- ☐ Evaluate the effectiveness of recovery techniques; adjust techniques and equipment, as necessary, to enhance effectiveness.
- ☐ Document (written and photo) shoreline cleanup activities.
- ☐ Maintain Unit/Activity Log (ICS 214).

7.10.4 In-Situ Burning Group Supervisor

The In-situ Burning Group Supervisor is responsible for coordinating all aspects of an in-situ burn operation. For aerial ignition, the Group works closely with the Air Tactical Group Supervisor. For marine burn operations, the Group works closely with the On-water Group Supervisor.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Assist the Planning Section in the development of in-situ burn operations and monitoring plans.
- ☐ Implement approved in-situ burn operations and monitoring plans.
- ☐ Manage dedicated in-situ burning resources and coordinate with other operations.
- ☐ Coordinate required monitoring.
- ☐ Brief Recovery and Protection Branch Director on activities.
- ☐ Maintain Unit/Activity Log (ICS 214).

7.10.5 Disposal Group Supervisor

Under the Recovery and Protection Branch Director, the Disposal Group Supervisor is responsible for coordinating the on-site activities of personnel engaged in collecting, storing, transporting, or disposing of waste materials. Depending on the size and location of the spill, the disposal groups may be further divided into Strike Teams, Task Forces, and Single Resources.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ During the Initial Response Phase, obtain a briefing from the Operations Section Chief, review the ICS 201, and conduct a rapid assessment of the incident to determine:
 - ☐ Product spilled,
 - ☐ Extent and nature of the oil spill response operations; and
 - ☐ Quantities and types of waste to be generated - free liquids, contaminated liquids, contaminated solid debris, sorbents.
- ☐ Obtain the Site Specific Safety and Health Plan and MSDS sheets covering the product spilled.
- ☐ Determine immediate need for interim storage including:
 - ☐ Barges, portable tanks, tank trucks, vac trucks for liquids, and
 - ☐ Lined bins, drums, bermed holding areas for solid wastes.
- ☐ Establish communications with Group Supervisors.
- ☐ Make immediate arrangements for interim storage, transfer pumps and equipment, and waste handling facilities in the immediate area of operations.
- ☐ Arrange for supervision of the offloading of recovery vessels, barges, bladders and tanks, and the receiving of products at the identified storage areas.
- ☐ Evaluate other commercial options in the immediate area.
- ☐ Work with the Disposal (Waste Management) Technical Specialist in the Planning Section to ensure on-site activities are consistent with the Waste Management Plan under development.
- ☐ Coordinate with the Environmental Unit Leader, Regional Environmental Emergencies Team (REET), and Permits and Approvals Technical Specialist to ensure required approvals and permits are in place.
- ☐ Implement waste handling and storage portion of the Waste Management Plan and Incident Action Plan once developed.
- ☐ Maintain accurate records of recovered material.
- ☐ Brief Recovery and Protection Branch Director on activities.
- ☐ Maintain Unit/Activity Log (ICS 214).

7.10.6 Decontamination Group Supervisor

Under the Recovery and Protection Branch Director, the Decontamination Group Supervisor is responsible for decontamination of personnel and response equipment according to the Decontamination Plan and in compliance with approved statutes.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Develop and implement the Decontamination Plan.
- ☐ Provide input to the development of the Site Specific Health and Safety Plan and the Incident Action Plan.
- ☐ Establish decon sites on a priority basis depending on current activity and anticipated need.
- ☐ Establish contact with Operations Safety Watch and implement Site Specific Safety and Health Plan.
- ☐ Obtain product MSDS to obtain product information and determine the appropriate decon procedures.
- ☐ Work with Storage and Disposal Group Supervisor to ensure that the waste generated by decon operations is identified and processed according to the requirements of the Waste Management Plan.
- ☐ Ensure that shelter and essential decontamination and PPE supplies are always available at the decon sites.
- ☐ Brief Recovery and Protection Branch Director on activities.
- ☐ Maintain Unit/Activity Log (ICS 214).

7.10.7 Dispersant Group Supervisor

The Dispersants Group Supervisor is responsible for coordinating all aspects of a dispersant operation. For aerial applications, the Group works closely with the Air Tactical Group Supervisor. For marine applications, the Group works closely with the On-water Group Supervisor.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Assist the Planning Section in the development of dispersant application and monitoring plans.
- ☐ Implement approved dispersant operations and monitoring plans.
- ☐ Manage dedicated dispersant resources and coordinate with air operations.
- ☐ Coordinate required monitoring.
- ☐ Brief Recovery and Protection Branch Director on activities.
- ☐ Maintain Unit/Activity Log (ICS 214).

7.11 Wildlife Branch Director

The Wildlife Branch Director is responsible for minimizing wildlife losses during spill responses; coordinating early aerial and ground reconnaissance of wildlife at the spill site, and reporting results to the Situation Unit Leader; employing wildlife hazing measures as authorized in the Incident Action Plan (IAP) or by the Regional Environmental Emergencies Team (REET); and recovering and rehabilitating impacted wildlife.

A central wildlife processing center should be identified and maintained for: evidence tagging, transportation, veterinary services, treatment and rehabilitation, storage, and other support needs. The activities of private wildlife care groups, including those employed by Kinder Morgan, will be overseen and coordinated by the Wildlife Branch Director.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ In Washington State the Wildlife Branch Director is:
 - a US Fish and Wildlife Service, or
 - WA Department of Fish and Wildlife representative, or
 - Other individual designated by Unified Command.
- ☐ Obtain briefing from Operations Section Chief on spill characteristics and/or from Planning Section on wildlife populations and anticipated impacts.
- ☐ Ensure that adequate hazing, recovery and rehab resources are available to respond to potential impacts.
- ☐ Determine if local resources are adequate to address potential impacts or if external (mutual aid) resources will be required. If mutual aid resources will be required, establish contact immediately.
- ☐ Establish contact with government and NGO wildlife agencies.
- ☐ Provide direction and supervise Wildlife Branch operations.
- ☐ Assemble and disassemble Strike Teams/Task Forces assigned to the Wildlife Branch.
- ☐ Develop Wildlife Branch portion of the Incident Action Plan.
- ☐ Inform Operations Section Chief about status of response operations, resource needs and issues/challenges requiring resolution.
- ☐ Maintain Unit/Activity Log (ICS 214).

7.11.1 Wildlife Recovery Group Supervisor

Under the direction of the Wildlife Branch Director, the Wildlife Recovery Group Supervisor is responsible for coordinating the search, collection, and field tagging of dead and living impacted wildlife and transporting them to processing center(s). This group should coordinate with Planning in conducting aerial and group surveys of wildlife in the vicinity of the spill. They may also deploy acoustic and visual wildlife hazing equipment.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Obtain briefing from Wildlife Branch Director and Planning Section as required, to determine potential for spill impacts on wildlife populations, and obtain requirements for wildlife recovery operations and priorities.
- ☐ Determine resource needs and requisition equipment.
- ☐ Establish contact with Logistics Section to establish logistical support requirements including capture resources, vessels and vehicles for wildlife transportation
- ☐ Work with government experts and wildlife organizations to establish appropriate capture and recovery strategies.

- ☐ Oversee and coordinate search and collection operations.
- ☐ Establish and adhere to strict chain-of-custody procedures including logging and forms
- ☐ Establish and implement protocols for collection of impacted wildlife.
- ☐ Notify Wildlife Branch director and Situation Unit of all recovered wildlife – live and deceased.
- ☐ Coordinate transportation of wildlife to processing centre(s).
- ☐ Brief the Wildlife Branch Director on activities.
- ☐ Maintain Unit/Activity Log (ICS 214).

7.11.2 Wildlife Rehabilitation Group Supervisor

Under the direction of the Wildlife Branch Director, the Wildlife Rehabilitation Group Supervisor is responsible for receiving oiled wildlife at the processing centers, recording essential information, collecting necessary samples, and conducting triage, stabilization, treatment, transport, and rehabilitation of oiled wildlife. The supervisor is responsible for assuring proper wildlife transportation to appropriate treatment centers for oiled animals requiring extended care and treatment.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Determine resource needs and establish processing station for impacted wildlife.
- ☐ Ensure proper set-up of facility and functionality of equipment.
- ☐ Oversee rehabilitation supervisors, rehabilitation volunteers, and veterinarians.
- ☐ Coordinate the housing, washing, rinsing, nutrition and general care of recovered animals.
- ☐ Work closely with on-site veterinarians to ensure appropriate care and rehab protocols are established, and follow established contact with local government and rehabilitation organizations.
- ☐ Establish operating hours and staff schedules.
- ☐ Ensure that strict safety and security measures are in place.
- ☐ Establish contact with Logistics Section to establish supply requirements.
- ☐ Collect numbers/types/status of impacted wildlife, and brief the Wildlife Branch director.
- ☐ Coordinate transport of wildlife to other facilities.
- ☐ Coordinate release of recovered wildlife.
- ☐ Brief the Wildlife Branch Director on activities.
- ☐ Maintain Unit/Activity Log (ICS 214).

7.11.3 Wildlife Hazing Group Supervisor

The Hazing Group Supervisor is responsible for deploying acoustical and visual wildlife hazing equipment.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Obtain briefing from Wildlife Branch Director and Planning Section as required, to determine potential for spill impacts on wildlife populations, and obtain requirements for wildlife recovery operations and hazing priorities.
- ☐ Establish contact with government agencies for guidance and required approval.
- ☐ Determine resource needs and requisition hazing equipment.
- ☐ Ensure that strict safety and security measures are in place.
- ☐ Direct Hazing Strike Teams.
- ☐ Brief the Wildlife Branch Director on activities.
- ☐ Maintain Unit/Activity Log (ICS 214).

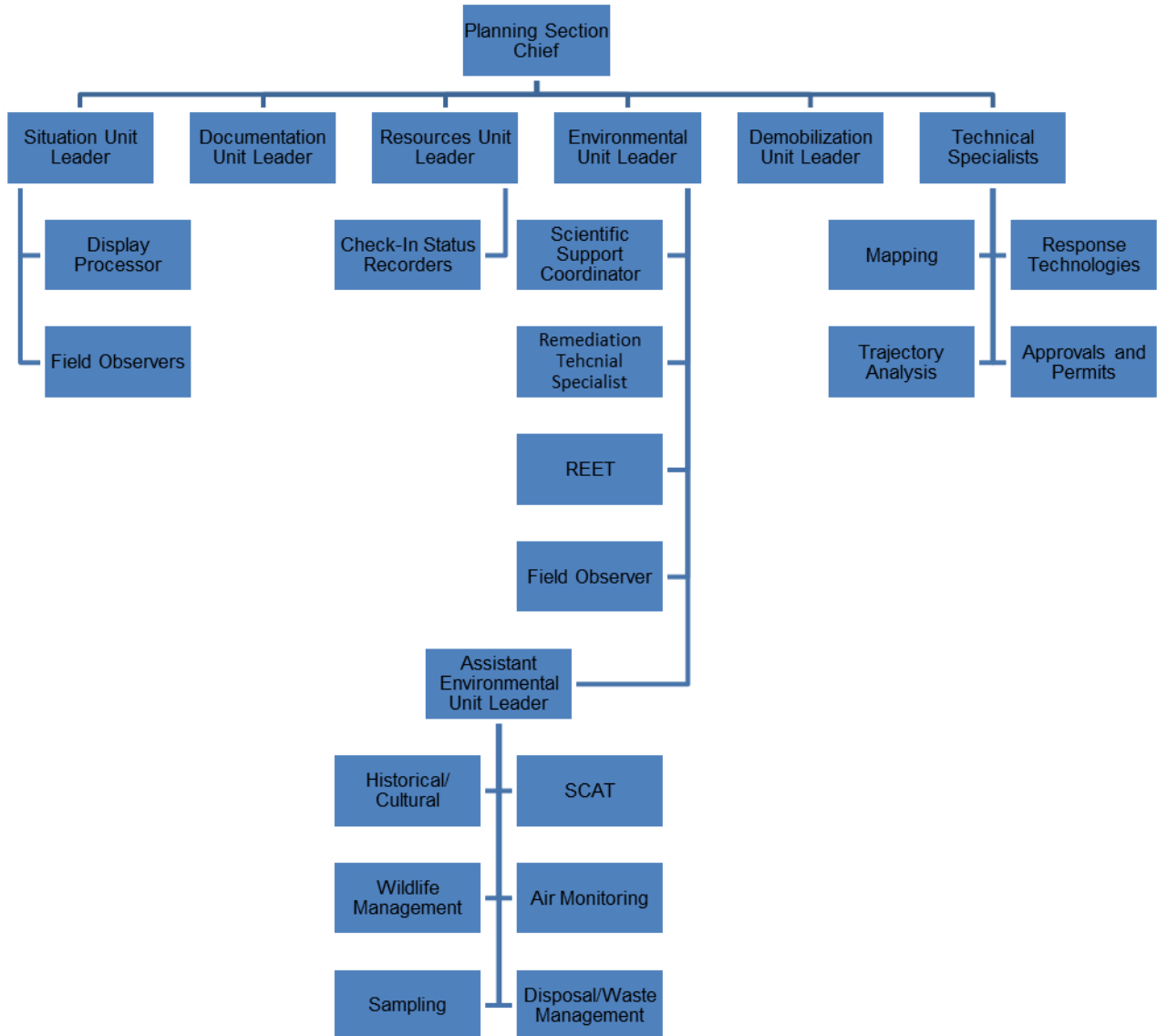
7.12 Emergency Response Branch Director

The Emergency Response Branch Director is primarily responsible for overseeing and implementing emergency measures to protect life, mitigate further damage to the environment, and stabilize the situation.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Participate in planning meetings, as required.
- ☐ Develop operations portion of Incident Action Plan.
- ☐ Determine need for, and request, additional professional resources such as police, ambulance, fire suppression, search and rescue, salvage, HAZMAT.
- ☐ Maintain liaison with additional groups brought into assist with operations.
- ☐ Review suggested list of resources to be released and initiate recommendation for release of resources.
- ☐ Report information about special activities, events, and occurrences to Operations Section Chief.
- ☐ Maintain Unit/Activity Log (ICS 214).

8.0 PLANNING SECTION DUTIES

8.1 Planning Section Organization Chart



8.2 Planning Section Chief

The Planning Section Chief, a member of the General Staff, is responsible for collecting, evaluating, disseminating, and using information about the incident and status of resources. Information is needed to:

- Understand the current situation.
 - Predict probable course of incident events.
 - Prepare primary and alternative strategies for the incident.
-
- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
 - ☐ Activate Planning Section Units.
 - ☐ Review Emergency Response (Contingency) Plan for the specific area of response for additional duties/special circumstances
 - ☐ Assign available personnel already on-site to ICS organizational positions, as appropriate.
 - ☐ Identify gaps in the Planning Section and request additional resources as needed.
 - ☐ Collect and process information about the incident and ensure the Incident Status Display is up to date.
 - ☐ Coordinate with IC/UC to develop a Meetings Schedule (ICS 230). Post in the ICP.
 - ☐ Supervise preparation of Incident Action Plan (IAP), Executive Summary (if used) and General Plan.
 - ☐ Provide input to the Incident Command and Operations Sections Chief in preparing the IAP.
 - ☐ Facilitate ICS Planning meetings and participate in other meetings, as required.
 - ☐ Fill in and distribute the ICS 202 form in conjunction with Incident Command.
 - ☐ Determine need for any specialized resources in support of the incident.
 - ☐ Provide Resources Unit with the Planning Section's organizational structure, including names and locations of assigned personnel.
 - ☐ Assign Technical Specialists, where needed.
 - ☐ Assemble information on alternative strategies.
 - ☐ Provide periodic predictions on incident potential.
 - ☐ Provide status reports to appropriate requesters.
 - ☐ Advise General Staff of any significant changes in incident status.
 - ☐ Incorporate the Incident Traffic Plan (from Ground Support Unit), Vessel Routing Plan (from Vessel Support Unit), and other supporting plans in the IAP.
 - ☐ Instruct Planning Section Units in distribution and routing of incident information.
 - ☐ Prepare resource release recommendations for submission to Incident Command.
 - ☐ Maintain Section records.
 - ☐ Maintain Unit/Activity Log (ICS 214).

8.3 Deputy Planning Section Chief

The Deputy Planning Section Chief (if staffed) is responsible for assisting the Planning Section Chief.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Carry out duties as assigned by PSC (must be capable of assuming PSC duties).
- ☐ Attend appropriate ICS meetings and briefings.
- ☐ Maintain Individual Log (ICS 214a).

8.4 Situation Unit Leader

The Situation Unit Leader is responsible for collecting and evaluating intelligence about the current and possible future, status of the spill and the spill response operations. This responsibility includes compiling intelligence regarding the type and amount of oil spilled, the amount of oil recovered, the oil's current location and anticipated trajectory, and impacts on natural resources. This also includes providing intelligence to the GIS Specialist(s) for mapping the current and possible future situation, and preparing reports for the Planning Section Chief.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Review Unit Leader Responsibilities (Section 5.2 Unit Leader Responsibilities).
- ☐ Obtain briefing and special instructions from the Planning Section Chief.
- ☐ Participate in planning meetings, as required.
- ☐ Prepare and maintain Incident Status Display (ISD) and Situation Map (ICS 201).
- ☐ Collect and maintain current incident data.
- ☐ Ensure out of date or obsolete information is removed from the ISD in a timely manner
- ☐ Schedule and conduct spill observations/overflights, as needed.
- ☐ Acquire, distribute, and provide analysis of weather forecasts.
- ☐ Prepare periodic predictions, as requested.
- ☐ Prepare, post, and disseminate resource and situation status intelligence, as required in the PIO/JIC.
- ☐ Prepare the Incident Status Summary (ICS 209).
- ☐ Provide status reports to appropriate requesters.
- ☐ Provide photographic services and maps.
- ☐ Actively solicit field intelligence for use in maintaining the ISD.
- ☐ Maintain Unit/Activity Log (ICS 214).

8.4.1 Display Processor

The Display Processor is responsible for displaying incident status intelligence obtained from Field Observers, resource status reports, aerial and orthographic photographs, infrared data, and other sources.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Determine:
 - ☐ Location of work assignments,
 - ☐ Number, types, and locations of displays required,
 - ☐ Priorities,
 - ☐ Map requirements for Incident Action Plan,
 - ☐ Time limits for completion; and
 - ☐ Field Observer assignments and communications means.
- ☐ Obtain necessary equipment and supplies.
- ☐ Obtain copy of Incident Action Plan for each Operational Period.
- ☐ Assist Situation Unit Leader in analyzing and evaluating field reports.
- ☐ Develop required displays within time limits.
- ☐ Maintain Unit/Activity Log (ICS 214).

8.4.2 Field Observer

The Field Observer is responsible to collect situation intelligence from personal observations at the incident and provide this intelligence to the Situation Unit Leader.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Determine:
 - Location of assignment,
 - Type of intelligence required,
 - Priorities,
 - Time limits for completion,
 - Method of communication.; and
 - Method of transportation.
- ☐ Obtain copy of Incident Action Plan for the Operational Period.
- ☐ Obtain necessary equipment and supplies.
- ☐ Perform Field Observer responsibilities including, but not limited to, the following:
 - Perimeters of incident,
 - Locations of oil,
 - Rates of spread,
 - Weather conditions; and
 - Hazards.
 - Progress of operation resources.
- ☐ Identify all facility locations (e.g., Helispots, Staging Areas, decon corridors and Division boundaries).
- ☐ Report intelligence to the Situation Unit Leader by established procedure.
- ☐ Report immediately any condition observed which may cause danger or safety hazard to personnel.
- ☐ Gather intelligence that will lead to accurate predictions.
- ☐ Maintain Unit/Activity Log (ICS 214).

8.5 Documentation Unit Leader

The Documentation Unit Leader is responsible for maintaining accurate, up-to-date incident files such as: Incident Action Plan, incident reports, communication logs, injury claims, situation status reports, etc. Thorough documentation is critical to post-incident analysis. Many of these documents will originate in other Sections. This Unit will ensure each Section is maintaining and providing appropriate documents. Incident files will be stored for legal, analytical, and historical purposes. The Documentation Unit also provides duplication and copying services, and provides blank forms to those requiring forms.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Review Unit Leader Responsibilities (Section 5.2 Unit Leader Responsibilities).
- ☐ Obtain briefing and special instructions from Planning Section Chief.
- ☐ Participate in Planning Meetings, as required.
- ☐ Request additional documentation personnel as needed.
- ☐ Compile a complete library of all necessary ICS forms for use by IMT members.
- ☐ Establish and organize incident files.
- ☐ Establish duplication service and respond to requests.
- ☐ File copies of all official forms and reports.
- ☐ Coordinate with Situation Unit Leader to ensure accuracy and security of intelligence portrayed on Incident Status Display.

- ☐ Review all documentation for accuracy and completeness of records submitted for files and correct errors or omissions by contacting appropriate ICS Units. This includes signatures, operational period, time, date, incident name, etc.
- ☐ Provide incident documentation to appropriate requesters as authorized by IC/UC.
- ☐ Secure all incident documentation prior to demobilization.
- ☐ Maintain Unit/Activity Log (ICS 214).

8.6 Resources Unit Leader

The Resources Unit Leader (RUL) is responsible for maintaining the status of all Resources (primary and support) at an incident, including all non-Kinder-Morgan Resources. The RUL achieves this by developing and maintaining a master list of all Resources, including check-in, status, current location, etc. This Unit is also responsible for preparing parts of the Incident Action Plan (ICS 203, 204 & 207), compiling the entire Plan in conjunction with other members of the IMT, (e.g., Situation Unit, Operations, Logistics) and determining the availability of Resources.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Review Unit Leader Responsibilities (Section 5.2 Unit Leader Responsibilities).
- ☐ Obtain briefing and special instructions from the Planning Section Chief.
- ☐ Participate in Planning Meetings, as required.
- ☐ Establish check-in function at incident locations.
- ☐ Using the Incident Briefing (ICS 201), prepare and maintain the Incident Status Display (Organization Chart and resource allocation and deployment sections).
- ☐ Establish contacts with incident facilities to track Resource status and with Logistics to track en-route resources.
- ☐ Gather, post, and maintain incident resource status and provide input to Situation Unit Leader for inclusion in the Incident Status Summary (ICS 209).
- ☐ Prepare Organization Assignment List (ICS 203) and Organization Chart (ICS 207).
- ☐ Develop ICS 215 for use at the Planning Meeting.
- ☐ When informed of equipment or personnel status change, ensure an ICS 210 is filled in and forwarded to appropriate location along with person/equipment.
- ☐ Together with Operations, develop Assignment Lists (ICS 204).
- ☐ Provide status reports to appropriate requesters.
- ☐ Maintain Unit/Activity Log (ICS 214).

8.6.1 Check-In Status Recorder

Check-in/Status recorders are needed at each check-in location to ensure that all Resources assigned to an incident are accounted for.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Obtain briefing from Resource Unit Leader.
- ☐ Obtain work materials, including Check-in Lists (ICS 211), and status display boards.
- ☐ Establish communications with the Communication Center.
- ☐ Post signs so check-in locations can be easily found.
- ☐ Record check-in on Check-in Lists (ICS 211e/p).
- ☐ Transmit check-in intelligence to Resources Unit on regular, arranged schedule, or as needed.
- ☐ Receive, record, and maintain status intelligence on ICS 215 forms, tracking database/spreadsheet or other means of recording.
- ☐ Forward completed Check-in Lists (ICS 211) and Status Change Forms (ICS 210) to the Resources Unit.
- ☐ Maintain files of Check-in Lists (ICS 211).
- ☐ Maintain Unit/Activity Log (ICS 214).

8.7 Environmental Unit Leader

The Environmental Unit Leader is responsible for environmental matters associated with the response, including strategic assessment, modeling, surveillance, and environmental monitoring and permitting. The Environmental Unit prepares environmental data for the Situation Unit. Most Technical Specialists engaged during the response will be assigned to the EUL. The EUL may request documentation/administrative assistance for the unit, this position would follow the general duties and duties assigned by the EUL.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Review Unit Leader Responsibilities (Section 5.2 Unit Leader Responsibilities).
- ☐ In Washington State, the Environment Unit Leader is:
 - a government natural resource trustee agency representative OR
 - Other individual designated by Unified Command.
- ☐ Obtain briefing and special instructions from Planning Section Chief.
- ☐ Participate in Planning Section meetings.
- ☐ Identify sensitive areas and recommend response priorities and complete Resources at Risk (ICS 232) as soon as possible. Usually completed with REET (if formed).
- ☐ Determine the extent, fate, and effects of contamination.
- ☐ Monitor the environmental consequences of cleanup actions.
- ☐ Develop shoreline cleanup and assessment plans.
- ☐ Identify the need for, and prepare, any special advisories or orders.
- ☐ Identify the need for and obtain permits, consultations, and other authorizations.
- ☐ Identify and develop plans for protection of affected historical/cultural resources.
- ☐ Evaluate the opportunities to use various response technologies.
- ☐ Develop waste management and disposal plans.
- ☐ Develop plan for collecting, transporting, and analyzing samples.
- ☐ Ensure completed Assignment Lists (ICS 204) for each environmental task are supplied to Planning Section Chief for inclusion in IAP.
- ☐ Maintain Unit/Activity Log (ICS 214).

8.7.1 Scientific Support Coordinator

The Scientific Support Coordinator (SSC) is a technical specialist and is defined in the National Contingency Plan as the principal advisor to the FOSC for scientific issues. The SSC is responsible for providing expertise on chemical hazards, field observations, trajectory analysis, and resources at risk, environmental tradeoffs of countermeasures and cleanup methods, and intelligence management. The SSC is also charged with gaining consensus on scientific issues affecting the response, but ensuring that differing opinions within the scientific community are communicated to the Incident Command.

The SSC is the point of contact for the Scientific Support Team from NOAA's Office of Response and Restoration (OR&R). Additionally, the SSC is responsible for providing data on weather, tides, and currents, and other applicable environmental conditions. The SSC can serve as the Environmental Unit Leader.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Attend planning meetings.
- ☐ Determine resource needs.
- ☐ Provide overflight maps and trajectory analysis to the Situation Unit.
- ☐ Provide weather, tidal, and current intelligence.
- ☐ Obtain consensus on scientific issues affecting the response.
- ☐ Develop a prioritized list of the resources at risk.
- ☐ Provide intelligence on chemical hazards.
- ☐ Evaluate environmental tradeoffs of countermeasures, cleanup methods, and response endpoints.
- ☐ Maintain Unit Activity Log (ICS 214).

8.7.2 Remediation Technical Specialist

- ☐ The Response (Remediation) Technical Specialist works closely with the EUL to provide technical guidance with regard to remediation and response to the incident. The Specialist is responsible for providing expertise on environmental regulations and sampling requirements, environmental behavior of the released product, trajectory analysis, resources at risk, environmental tradeoffs of countermeasures and cleanup methods.
- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ May attend planning meetings with EUL.
- ☐ Helps to determine resource needs (consultant and/or KMC personnel).
- ☐ Helps to identify resources at risk.
- ☐ Works with Sampling Technical Specialist to determine sampling plans for soil, groundwater, surface water and all other affected media.
- ☐ Works with appropriate Technical Specialists, stakeholders and other relevant personnel to determine applicable remediation technologies and develop remediation plans for all affected media.
- ☐ Reviews monitoring and sampling data with the Sampling Technical Specialist daily to identify necessary changes to the sampling or remediation plans.
- ☐ Evaluate environmental tradeoffs of countermeasures, cleanup methods, and response endpoints.
- ☐ Maintain Unit Activity Log (ICS 214).

8.7.3 REET Technical Specialist

The Regional Environmental Emergencies Team (REET) provides consolidated and coordinated environmental advice, intelligence and assistance in the event of an environmental emergency. REET members represent several federal, provincial and municipal government departments, aboriginal communities, private sector agencies, and local individuals. In British Columbia, REET is co-chaired by Environment Canada and the British Columbia Ministry of Environment. In Alberta, REET is established by Environment Canada. Typically, REET is not formed in Washington State, however it may be used as a tool to bring together similar groups as in Canada.

In an emergency situation, REET operates as a multi-disciplinary and multi-agency team that provides comprehensive and coordinated environmental advice, intelligence and assistance to the Responsible Party Incident Commander, Coast Guard On-Scene Commander (marine spills), or other government Lead Agency (land spills). On behalf of the Responsible Party Incident Commander, federal and provincial agency representatives, REET can address and prioritize the environmental, cultural, economic, property and human issues. REET effectively eliminates agency overlap and utilizes all resources to identify and action the resources at risk.

Technical specialists representing REET agencies may form part of the Environmental Unit, reporting to the Environmental Unit Leader. A member of the REET may also act as the Resources at Risk Technical Specialist.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Establish the REET team from agencies with jurisdiction or interest in the spill, as well as local resources such as First Nations, local cultural/ historical specialists, and other appropriate private sector groups.
- ☐ As a team, identify the environmentally sensitive resources in the area impacted – Resources at Risk (ICS 232).
- ☐ Assist with determining pollutant behaviour, fate and effects
- ☐ Identify and prioritize environmental areas to be protected, rehabilitation priorities, economically impacted areas, historical and culturally sensitive areas, and socioeconomic resources impacted.
- ☐ Support the Environmental Unit Leader in both the Tactics and Planning meetings regarding resources at risk and REET recommendations/priorities.
- ☐ Maintain Unit Activity Log (ICS 214).

8.7.4 Field Observer

The Field Observer is responsible to collect situation Intelligence from personal observations at the incident and provide this intelligence to the Environmental Unit Leader. The Field Observer role should be filled by personnel from the Responsible Party in order to provide company environmental knowledge and guidance at the affected areas.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Obtain copy of Incident Action Plan for the Operational Period.
- ☐ Review operational and environmental Assignment Lists (ICS 204) for the Operational Period and identify any environmental issues/concerns.
- ☐ Monitor operational activities to ensure they are completed as documented in all approved plans.
- ☐ Provide environmental knowledge and guidance to operations crews as required.
- ☐ Collect information regarding, but not limited to, the following:

- Perimeters of incident,
 - Locations of oil,
 - Rates of spread,
 - Weather conditions,
 - Hazards; and
 - Progress of operational resources.
- ☐ Report immediately any condition observed which may cause danger or safety hazard to personnel or the environment.
- ☐ Gather intelligence that will lead to accurate predictions.
- ☐ Participate in daily EU meetings to provide feedback on operational progress and keep up to date with regard to changes in tactics and plans.
- ☐ Maintain Unit/Activity Log (ICS 214).

8.7.5 Assistant Environmental Unit Leader

The Assistant Environmental Unit Leader is responsible for oversight of the technical specialists in the Environment Unit, and for assisting the Environment Unit Leader as required. The Assistant Environmental Unit Leader may assume the role of Environmental Unit Leader when the Environmental Unit Leader is not available.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Review Unit Leader Responsibilities (Section 5.2 Unit Leader Responsibilities).
- ☐ Obtain briefing and special instructions from Environmental Unit Leader.
- ☐ Assume role of Environmental Unit Leader as required to help with overlap situations.
- ☐ Coordinate Environmental Unit Technical Specialists to ensure all Resources at Risk (ICS 232) are documented and forwarded to Resources at Risk Technical Specialist, and technical plans and Assignment Lists (ICS 204) are completed for inclusion in the IAP.
- ☐ Ensure Environmental Unit Leader is kept up to date with plan development and any changes to plans and assignment lists. Brief Environmental Unit Leader prior to Planning Meetings.
- ☐ Maintain Unit Activity Log (ICS 214).

8.7.5.1 Historical/Cultural Resources Technical Specialist

The Historic/Cultural (H/C) Resources Specialist is responsible for identifying and resolving issues related to any historic or cultural sites that are threatened or impacted during an incident. The Specialist shall consult with federal, state, provincial, local/municipal governments, land management agencies, appropriate first nations/tribal groups and other concerned parties. The Specialist must identify H/C sites and develop strategies for protection and cleanup of those sites in order to minimize damage.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ In Washington State:
 - Implement Programmatic Agreement (PA) for the FOSC.
 - If PA is not used, coordinate Section 106 consultations with the SHPO.
- ☐ Consult and reach consensus with concerned parties on affected H/C sites and response strategies. May require participation in REET meetings with Environmental Unit Leader.
- ☐ Identify and prioritize threatened or impacted H/C sites. Ensure this information is provided to Resources at Risk Technical Specialist for inclusion in Resources at Risk (ICS 232).
- ☐ Develop response strategies to protect H/C sites (develop H/C Management Plan, if required).
- ☐ Participate in the testing and evaluation of cleanup techniques used on H/C sites.
- ☐ Monitor and provide guidance on the cleanup of H/C sites to reduce or eliminate response-related impacts.

- ☐ Ensure compliance with applicable federal/state/provincial regulations.
- ☐ Maintain Unit/Activity Log (ICS 214).

8.7.5.2 Shoreline Cleanup Assessment (SCAT) Technical Specialist

The Shoreline Cleanup Assessment (SCAT) Specialist is responsible for providing appropriate cleanup recommendations for the shoreline types, and the degree to which they have been impacted. This Specialist will recommend the need for, and the numbers of, Shoreline Cleanup Assessment Teams (SCATs), and will be responsible for making cleanup recommendations to the Environmental Unit Leader. Additionally, this Specialist will recommend cleanup endpoints.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Obtain briefing and special instructions from the Environmental Unit Leader.
- ☐ Participate in Planning Section meetings.
- ☐ Recommend the need for and number of SCATs and ensure Assignment Lists (ICS 204) are completed for each team and provided to Assistant Environmental Unit Leader.
- ☐ Coordinate SCAT operations with affected parties.
- ☐ Describe shoreline types and oiling conditions.
- ☐ Develop SCAT plan and ensure it is updated as required.
- ☐ Identify sensitive resources (ecological, recreational, cultural, etc.) and ensure these are provided to Assistant Resources at Risk Technical Specialist for inclusion on Resources at Risk (ICS 232).
- ☐ Work with appropriate agencies and affected parties to develop end point protocols.
- ☐ Recommend the need for cleanup.
- ☐ Recommend cleanup priorities.
- ☐ Recommend shoreline cleanup methods.
- ☐ Monitor cleanup effectiveness.
- ☐ Maintain Unit/Activity Log (ICS 214).

8.7.5.3 Wildlife Technical Specialist

The Wildlife Technical Specialist's role is to identify and provide management strategies for minimizing/preventing the impacts to wildlife as a result of the release and response activities. This Specialist also acts as a liaison with and provides technical support to the Wildlife Branch within the Operations Section.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Determine if wildlife impacts are anticipated and/or have been reported.
- ☐ Provide technical intelligence and assistance to the Wildlife Branch to support establishment of wildlife operations.
- ☐ Ensure with Operations that a reporting system is put in place for spill responders and the general public to report affected wildlife.
- ☐ Work with government agencies in identifying species at risk and coordinating wildlife rescue and recovery activities.
- ☐ Develop Wildlife Management Plan including identification of species that are affected or at risk due to release and response activities and management strategies to minimize or prevent impacts to wildlife (hazing, timing windows, etc.) and complete updates as necessary.
- ☐ Work with Wildlife Branch to develop Wildlife Recovery Plan including procedures and process for wildlife recovery, rehabilitation and release and ensure Assignment Lists (ICS 204) are completed for wildlife management field teams.

- ☐ Consult agencies to determine appropriate procedures and any limitations or prohibitions that might exist.
- ☐ Determine and provide intelligence on any overflight restrictions that might affect wildlife operations.
- ☐ Determine and provide intelligence on any environmental restrictions that might be affected by wildlife operations.
- ☐ Identify wildlife hazing requirements and procedures to be employed. Coordinate with Approvals and Permits Technical Specialist and Wildlife Branch.
- ☐ Provide wildlife intelligence to Situation Unit Leader for inclusion in the Incident Status Summary (ICS 209)
- ☐ Maintain Unit/Activity Log (ICS 214).

8.7.5.4 Air Monitoring Technical Specialist

The Air Monitoring Technical Specialist is responsible for providing an air monitoring plan using the parameters in the emergency response plan for an unplanned release or during a fire/in-situ burn.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Determine resource needs.
- ☐ Participate in planning meetings, as required.
- ☐ Develop Air Quality Monitoring Program including detailed sampling plan, if required.
- ☐ Coordinate air sampling teams and ensure Assignment Lists (ICS 204) completed and provided to Assistant Environmental Unit Leader.
- ☐ Identify and alert appropriate laboratories.
- ☐ Set up site map to monitor location of samples collected and coordinate with GIS staff.
- ☐ Participate in meetings for Public Safety risk assessments.
- ☐ Coordinate sampling activities with Incident Investigators and Legal Specialists.
- ☐ Provide status reports to appropriate requesters.
- ☐ Maintain Unit/Activity Log (ICS 214).

8.7.5.5 Sampling Technical Specialist

The Sampling Technical Specialist is responsible for providing a sampling plan to coordinate collection, documentation, storage, transportation, and submittal of soil and water samples to appropriate laboratories for analysis or storage.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Develop a Sampling Plan for soil, water, and any other affected media as required.
- ☐ Complete updates to Sampling Plan as required (i.e. situational changes, feedback from Field Observers, etc.).
- ☐ Determine resource needs.
- ☐ Participate in planning meetings, as required.
- ☐ Coordinate sampling teams and ensure Assignment Lists (ICS 204) completed and provided to Assistant Environmental Unit Leader.
- ☐ Identify and alert appropriate laboratories.
- ☐ Set up site map to monitor location of samples collected and coordinate with GIS staff.
- ☐ Coordinate sampling activities with Incident Investigators and Legal Specialists.
- ☐ Provide status reports daily to Assistant Environmental Unit Leader and to appropriate requesters as required.
- ☐ Maintain Unit/Activity Log (ICS 214).

8.7.5.6 Disposal (Waste Management) Technical Specialist

The Disposal/Waste Management Technical Specialist is responsible for developing a Waste Management Plan that details the minimization, collection, sampling, monitoring, transportation, manifesting, permitting, recycling, and disposal of all liquid and solid wastes generated during the response. The Disposal (Waste Management) Technical Specialist coordinates activities closely with the Storage and Disposal Group Supervisor (Operations) and the Approvals and Permits Technical Specialist.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Develop a Waste Management Plan to address all waste streams related to the release and response activities including waste recycling, disposal and temporary storage locations. Waste Management Plan must be developed for inclusion in IAP for the first operational period.
- ☐ Complete updates and revisions to the Waste Management Plan as required.
- ☐ Coordinate implementation of the Waste Management Plan and work with Field Observer to evaluate the effectiveness of the plan.
- ☐ Determine resource needs.
- ☐ Coordinate acquisition of any waste related approvals including sample collection and waste manifests from waste disposal or recycling facilities.
- ☐ Coordinate acquisition of any federal/provincial/state waste generator permits.
- ☐ Coordinate with Approvals and Permits Technical Specialist regarding required permits, as necessary.
- ☐ Track the types and quantities of waste generated and all relevant documentation (i.e. shipping documents such as waste manifests and bills of lading, etc.).
- ☐ Calculate and verify the volume of oil recovered, including product collected with sediment/sand, etc. and provide required intelligence to Situation Unit Leader for inclusion on (ICS 209?).
- ☐ Provide status reports to appropriate requesters.
- ☐ Maintain Unit/Activity Log (ICS 214).

8.8 Demobilization Unit Leader

The Demobilization Unit Leader is responsible for developing the Incident Demobilization Plan, and assisting Sections/Units in ensuring that orderly, safe, and cost-effective demobilization of personnel and equipment is accomplished.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Review Unit Leader Responsibilities (Section 5.2 Unit Leader Responsibilities).
- ☐ Obtain briefing and special instructions from Planning Section Chief.
- ☐ Review incident resource records to determine probable size of demobilization effort.
- ☐ Participate in planning meetings, as required.
- ☐ Evaluate logistics and transportation capabilities required to support demobilization.
- ☐ Prepare and obtain approval of Demobilization Plan, including required decontamination.
- ☐ Distribute Demobilization Plan to each processing point.
- ☐ Ensure that all Sections/Units understand their responsibilities within the Demobilization Plan.
- ☐ Monitor implementation and assist in coordinating the Demobilization Plan.
- ☐ Brief Planning Section Chief on progress of demobilization.
- ☐ Provide status reports to appropriate requesters.
- ☐ Maintain Unit/Activity Log (ICS 214).

8.9 Technical Specialists

Technical Specialists are advisors with special skills needed to support the incident. Although Technical Specialists are usually initially assigned to the Planning Section, they may be reassigned elsewhere. If necessary (due to span-of-control limitations), Technical Specialists may be formed into a separate Unit. The Planning Section will maintain a list of available specialists and will assign them where needed.

The following are example position descriptions for Technical Specialists that might be used during an oil spill response.

- Response Technologies
- Mapping/GIS Technical Specialist
- Trajectory Analysis (Modeling) Technical Specialist
- Resources At Risk (RAR) Technical Specialist
- Approvals and Permits Technical Specialist

8.9.1 *Response Technologies Technical Specialist*

The Response Technologies Specialist is responsible for evaluating the opportunities to use various Response Technologies (RT), including mechanical containment and recovery, dispersant or other chemical countermeasures, in-situ burning, and bioremediation. The specialist will conduct the consultation and planning required deploying a specific response technology, and articulating the environmental tradeoffs of using, or not using, a specific response technology.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Participate in planning meetings, as required.
- ☐ Determine resource needs.
- ☐ Gather data pertaining to the spill, including spill location, type and amount of petroleum spilled, physical and chemical properties, weather and sea conditions, and resources at risk.
- ☐ Identify available RT that may be effective on the specific spilled petroleum.
- ☐ Make initial notification to all agencies that have authority over the use of RT.
- ☐ Keep Planning Section Chief advised of RT issues.
- ☐ Provide status reports to appropriate requesters.
- ☐ Establish communications with Regional Response Team to coordinate RT activities.
- ☐ Maintain Unit/Activity Log (ICS 214).

8.9.2 *Mapping/GIS Technical Specialist*

The Mapping/GIS Technical Specialist is responsible for gathering and compiling updated spill intelligence and providing various map products regarding the incident. The GIS team will work with the Situation Unit and the Information Officer to ensure accurate and rapid dissemination of oil spill information to the IMT.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Determine resource needs.
- ☐ Participate in planning meetings, as required.
- ☐ Gather and compile data from the different incident sections.
- ☐ Provide maps for various components of the incident.
- ☐ Provide status reports to appropriate requesters.
- ☐ Maintain Unit/Activity Log (ICS 214).

8.9.3 Trajectory Modeling Technical Specialist

The Trajectory Modeling Specialist is responsible for providing projections and estimates of the movement and behaviour of the spill. The specialist will combine visual observations, remote sensing intelligence, and computer modeling, as well as observed and predicted tidal, current, and weather data to form these analyses. Additionally, the specialist is responsible for coordinating with local experts (fishermen, First Nations, Tribal, weather service, academia, researchers, etc.) in formulating these analyses. Trajectory maps, overflight maps, and tides and current data will be supplied by the Specialist to the Situation Unit for posting on the Incident Status Display and dissemination throughout the Command Post.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Gather pertinent intelligence on tides and currents from all available sources.
- ☐ Provide trajectory and overflight maps, and tidal and current intelligence.
- ☐ Participate in Tactics and Planning Meetings as needed.
- ☐ Provide briefing on observations and analyses to the proper personnel.
- ☐ Maintain Unit/Activity Log (ICS 214).

8.9.4 Resources at Risk (RAR) Technical Specialist

The Resources at Risk Specialist is responsible for identifying resources thought to be at risk from exposure to the spilled oil by analyzing known and anticipated oil movement and the location of natural, cultural, and economic resources. The Resources at Risk Specialist considers the relative importance of the resources and the relative risk to develop a priority list for protection.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Coordinate activities with federal/state resource trustees and/or Regional Environmental Emergencies Team (REET) for the identification and prioritization of natural and cultural resources at risk.
- ☐ Complete Resources at Risk Summary (ICS 232) before the Unified Command Objectives Meeting.
- ☐ Participate in planning meetings, as required.
- ☐ Determine resource needs.
- ☐ Obtain current and forecasted status intelligence from Situation Unit.
- ☐ Identify natural resources at risk.
- ☐ Identify archaeo-cultural resources at risk.
- ☐ Identify socioeconomic resources at risk.
- ☐ Develop a prioritized list of the resources at risk for use by the Planning Section.
- ☐ Provide status reports to appropriate requesters.
- ☐ Maintain Unit/Activity Log (ICS 214).

8.9.5 Approvals and Permits Technical Specialist

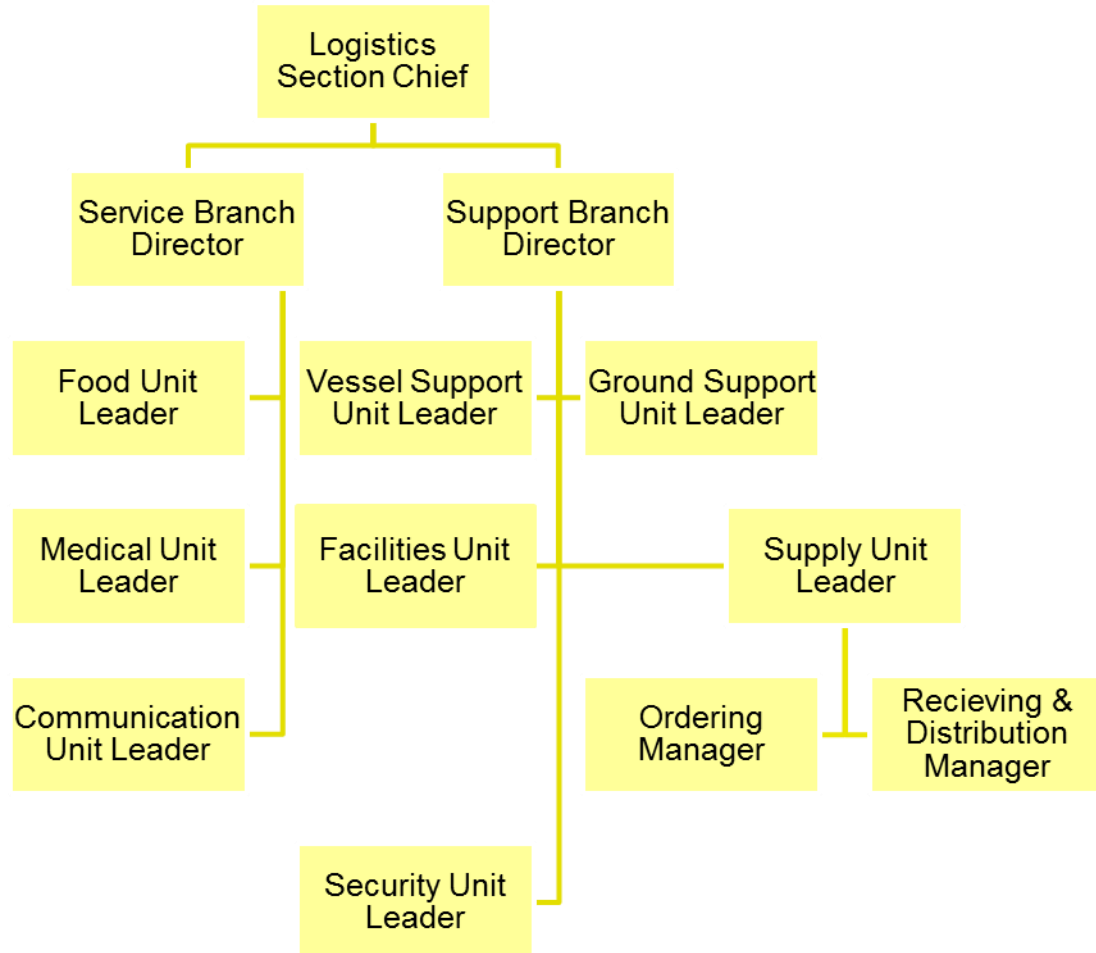
The Approval and Permits Specialist is responsible for providing guidance and establishing permits and special approvals required for environmental response activities and /or waste management. This may include, but is not limited to, items such as decanting approvals, in-situ burning, the use of dispersants, waste manifesting, waste permitting, and/or special operating permits.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Establish an organization to support permitting, as required.

- ☐ Develop a list of potential permits/approvals, and identify what area of the organization may require them.
- ☐ Provide guidance to the Operations Section Chief and the Disposal/Waste Management Technical Specialist on permit requirements.
- ☐ Evaluate the need for decanting approvals with the Operations and Planning Section Chiefs.
- ☐ At the request of the Operations Section, evaluate the need for special approvals / permits for alternative countermeasures, such in-situ burning and/or the use of dispersants in the affected areas.
- ☐ Evaluate and obtain any environmental permits or approvals required for the response operations.
- ☐ Monitor ongoing operations to ensure compliance with all permits and approvals that have been issued.
- ☐ Work closely with the Disposal (Waste Management) Technical Specialist and Disposal Group Supervisor to ensure proper permits are in place for all aspects of waste management.
- ☐ Maintain Unit/Activity Log (ICS 214).

9.0 LOGISTICS SECTION DUTIES

9.1 Logistics Section Organization Chart



9.2 Logistics Section Chief

The Logistics Section Chief, a member of the General Staff, is responsible for providing facilities, services, and material in support of the incident response. The Logistics Section Chief participates in developing and implementing the Incident Action Plan (IAP), and activates and supervises Branches and Units within the Logistics Section.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Review Emergency Response (Contingency) Plan for the specific area of response for additional duties/special circumstances.
- ☐ Plan organization of Logistics Section.
- ☐ Coordinate travel arrangements for initial response team members if required.
- ☐ Establish and equip an Incident Command Post (ICP) and communicate location to response team.
- ☐ Assign work locations and preliminary work tasks to Section personnel.

- ☐ Notify Resources Unit of Logistics Section units activated, including names and locations of assigned personnel.
- ☐ Assemble and brief Branch Directors and Unit Leaders.
- ☐ Participate in appropriate ICS meetings and Incident Action Plan (IAP) preparation.
- ☐ Assist with the development of the Operational Planning Worksheet (ICS 215).
- ☐ Identify service and support requirements for planned and expected operations.
- ☐ Provide input to, and review, Communications Plan, Medical Plan, Traffic Plan, and Vessel Routing Plan.
- ☐ Coordinate and process requests for additional resources.
- ☐ Review IAP and estimate section needs for the next operational period.
- ☐ Advise on current service and support capabilities.
- ☐ Estimate future service and support requirements.
- ☐ Provide input to Demobilization Plan as required by Planning Section.
- ☐ Recommend release of unit resources in conformance with Demobilization Plan.
- ☐ Ensure general welfare and safety of Logistics Section personnel.
- ☐ Maintain Unit/Activity Log (ICS 214).

9.3 Deputy Logistics Section Chief

The Deputy Logistics Section Chief (if staffed) is responsible for assisting the Logistics Section Chief.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Carry out duties as assigned by LSC (must be capable of assuming LSC duties).
- ☐ Attend appropriate ICS meetings and briefings.
- ☐ Maintain Individual Log (ICS 214a).

9.4 Service Branch Director

The Service Branch Director, when activated, is under the supervision of the Logistics Section Chief, and is responsible for managing all service activities at the incident. The Branch Director supervises the operations of the Communications, Medical, and Food Units.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Obtain working materials from Logistics kit.
- ☐ Determine level of service required to support operations.
- ☐ Confirm dispatch of Branch personnel.
- ☐ Participate in planning meetings of Logistics Section personnel.
- ☐ Review Incident Action Plan.
- ☐ Coordinate activities of Service Branch Units.
- ☐ Inform Logistics Section Chief of activities.
- ☐ Resolve Service Branch problems.
- ☐ Maintain Unit/Activity Log (ICS 214).

9.4.1 Food Unit Leader

The Food Unit Leader, under the direction of the Service Branch Director or Logistics Section Chief, is responsible for determining feeding requirements at all incident facilities, including menu planning, determining cooking facilities required, food preparation, serving, providing potable water, and general maintenance of the food service areas.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Review Unit Leader Responsibilities (Section 5.2 Unit Leader Responsibilities).
- ☐ Obtain briefing from Service Branch Director or Logistics Section Chief.
- ☐ Determine location of working assignment, and number and location of personnel to be fed.
- ☐ Prepare a food plan for the Incident Action Plan that includes all information on the food resources.
- ☐ Determine method of feeding to best fit each situation.
- ☐ Obtain necessary equipment and supplies to operate food service facilities.
- ☐ Set up Food Unit equipment.
- ☐ Prepare menus to ensure incident personnel receive well-balanced meals.
- ☐ Ensure that sufficient potable water is available to meet all incident needs.
- ☐ Ensure that all appropriate health and safety measures are taken.
- ☐ Supervise cooks and other Food Unit personnel.
- ☐ Keep inventory of food on hand and receive food orders.
- ☐ Provide Supply Unit Leader food supply orders.
- ☐ Maintain Unit/Activity Log (ICS 214).

9.4.2 Communications Unit Leader

The Communications Unit Leader, under the direction of the Service Branch Director or Logistics Section Chief, is responsible for developing plans for the effective use of:

- Incident communications equipment and facilities.
 - Installing and testing communications equipment.
 - Supervising the Incident Communications Center.
 - Distributing communications equipment to incident personnel.
 - Communications equipment maintenance and repair.
-
- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
 - ☐ Review Unit Leader Responsibilities (Section 5.2 Unit Leader Responsibilities).
 - ☐ Obtain briefing from Service Branch Director or Logistics Section Chief.
 - ☐ Determine unit personnel needs. (IT, Radio, Telecom Specialists etc.).
 - ☐ Advise on communications capabilities/limitations including but not limited to:
 - radio/telephone communications,
 - wireless and wired internet communications,
 - printing/copying and other IT needs,
 - teleconferencing, video conferencing and video link,
 - local television accessibility,
 - file share location, and
 - emergency response email for internal tracking
 - ☐ Prepare and implement the incident Radio Communications Plan (ICS 205).
 - ☐ Ensure the Incident Communications Center and Message Center is established.
 - ☐ Set up telephone and public address systems.
 - ☐ Establish appropriate communications distribution/maintenance locations.

- ☐ Ensure communications systems are installed and tested.
- ☐ Ensure an equipment accountability system is established.
- ☐ Ensure personal portable radio equipment from cache is distributed per radio plan.
- ☐ Provide technical information, as required on:
 - Adequacy of communications systems currently in operation.
 - Geographic limitation on communications systems.
 - Equipment capabilities.
 - Amount and types of equipment available.
 - Anticipated problems in the use of communications equipment.
- ☐ Supervise Communications Unit activities.
- ☐ Maintain records on all communications equipment, as appropriate.
- ☐ Ensure equipment is tested and repaired.
- ☐ Recover equipment from relieved or released units.
- ☐ Maintain Unit/Activity Log (ICS 214).

9.4.3 Medical Unit Leader

The Medical Unit Leader, under the direction of the Service Branch Director or Logistics Section Chief, is primarily responsible for developing the Medical Emergency Plan, obtaining medical aid and transportation for injured and ill incident personnel, and preparing reports and records. The Medical Unit may also assist Operations in supplying medical care and assistance to civilian casualties at the incident, but is not intended to provide medical services to the public.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Review Unit Leader Responsibilities (Section 5.2 Unit Leader Responsibilities).
- ☐ Obtain briefing from Service Branch Director or Logistics Section Chief.
- ☐ Participate in Logistics Section/Service Branch planning activities.
- ☐ Determine level of emergency medical activities performed prior to activation of Medical Unit.
- ☐ Activate Medical Unit.
- ☐ Prepare the Medical Plan (ICS 206) and have it approved by the Safety Officer.
- ☐ Prepare procedures for major medical emergency.
- ☐ Declare major medical emergency, as appropriate.
- ☐ Respond to requests for medical aid.
- ☐ Respond to requests for medical transportation.
- ☐ Respond to requests for medical supplies.
- ☐ Prepare medical reports and submit, as directed.
- ☐ Maintain Unit/Activity Log (ICS 214).

9.5 Support Branch Director

The Support Branch Director, when activated, is under the direction of the Logistics Section Chief, and is responsible for developing and implementing logistics plans in support of the Incident Action Plan, including providing personnel, equipment, facilities, and supplies to support incident operations. The Support Branch Director supervises the operation of the Supply, Facilities, Ground Support, and Vessel Support Units.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Obtain work materials from Logistics kit.
- ☐ Identify Support Branch personnel dispatched to the incident.

- ☐ Determine initial support operations in coordination with Logistics Section Chief and Service Branch Director.
- ☐ Prepare initial organization and assignments for support operations.
- ☐ Determine resource needs.
- ☐ Maintain surveillance of assigned unit work progress and inform Logistics Section Chief of activities.
- ☐ Resolve problems associated with requests from Operations Section.
- ☐ Maintain Unit/Activity Log (ICS 214).

9.5.1 Vessel Support Unit Leader

The Vessel Support Unit Leader is primarily responsible for:

- Coordinating transportation of personnel, supplies, food, and equipment for waterborne resources;
 - Fuelling, servicing, maintaining, and repairing vessels and other vessel support equipment; and
 - Implementing the Vessel Routing Plan; and
 - Supporting out-of-service waterborne resources.
-
- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
 - ☐ Review Unit Leader Responsibilities (Section 5.2 Unit Leader Responsibilities).
 - ☐ Obtain a briefing from the Support Branch Director or Logistics Chief.
 - ☐ Participate in Support Branch/Logistics Section planning activities.
 - ☐ Coordinate Vessel Routing Plan development.
 - ☐ Coordinate vessel transportation assignments with the Protection and Recovery Branch or other sources of vessel transportation.
 - ☐ Coordinate water-to-land transportation with Ground Support Unit, as necessary.
 - ☐ Maintain a prioritized list of transportation requirements to be scheduled with the transportation source.
 - ☐ Support out-of-service vessel resources, as requested.
 - ☐ Arrange for fuelling, maintenance, and repair of vessel resources, as requested.
 - ☐ Maintain inventory of support and transportation vessels.
 - ☐ Maintain Unit/Activity Log (ICS 214).

9.5.2 Ground Support Unit Leader

The Ground Support Unit Leader is primarily responsible for:

- Coordinating transportation of personnel, supplies, food, and equipment on land;
 - Fuelling, servicing, maintaining and repairing vehicles and other ground support equipment;
 - Implementing the Incident Traffic Plan; and
 - Supporting out-of-service shoreside resources.
-
- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
 - ☐ Review Unit Leader Responsibilities (Section 5.2 Unit Leader Responsibilities).
 - ☐ Obtain briefing from Support Branch Director or Logistic Section Chief.
 - ☐ Participate in Support Branch/Logistics Section planning activities.
 - ☐ Coordinate development of the Traffic Plan with the Planning Section.
 - ☐ Support out-of-service shoreside resources.
 - ☐ Notify Resources Unit of all status changes on support and transportation vehicles.

- ☐ Plan, document and activate, fuelling, maintenance, and repair of ground transportation resources needs.
- ☐ Maintain inventory of support and transportation vehicles (ICS 218).
- ☐ Coordinate transportation services.
- ☐ Maintain usage information on rented equipment.
- ☐ Requisition maintenance and repair supplies (e.g., fuel, spare parts).
- ☐ Coordinate incident road maintenance.
- ☐ Submit reports to Support Branch Director, as directed.
- ☐ Maintain Unit/Activity Log (ICS 214).

9.5.3 Facilities Unit Leader

The Facilities Unit Leader is primarily responsible for the layout and activation of incident facilities (e.g., Base, Camp(s), and Incident Command Post (ICP)). The Facilities Unit provides sleeping and sanitation facilities for incident personnel and manages base and camp operations. Each facility (base or camp) is assigned a manager who reports to the Facilities Unit Leader and is responsible for managing the operation of the facility. The basic functions or activities of the Base and Camp Manager are to provide security service and general maintenance. The Facility Unit Leader reports to the Support Branch Director.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Review Unit Leader Responsibilities (Section 5.2 Unit Leader Responsibilities).
- ☐ Obtain briefing from the Support Branch Director or Logistics Section Chief.
- ☐ Review Incident Action Plan.
- ☐ Participate in Logistics Section/Support Branch planning activities.
- ☐ Determine requirements for each facility to be established.
- ☐ Determine requirements for the ICP.
- ☐ Prepare layouts of incident facilities.
- ☐ Notify Unit Leaders of facility layout.
- ☐ Activate incident facilities.
- ☐ Provide Base and Camp Managers, and support staff to operate facilities.
- ☐ Provide sleeping facilities.
- ☐ Provide security services.
- ☐ Provide facility maintenance services - sanitation, lighting, and cleanup.
- ☐ Demobilize base and camp facilities.
- ☐ Maintain Facilities Unit records.
- ☐ Maintain Unit/Activity Log (ICS 214).

9.5.4 Supply Unit Leader

The Supply Unit Leader is primarily responsible for ordering personnel, equipment and supplies; receiving and storing all supplies for the incident; maintaining an inventory of supplies; and servicing non-expendable supplies and equipment.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Review Unit Leader Responsibilities (Section 5.2 Unit Leader Responsibilities).
- ☐ Obtain a briefing from the Support Branch Director or Logistics Section Chief.
- ☐ Participate in Logistics Section/Support Branch planning activities.
- ☐ Provide Kits/Go Boxes to Planning, Logistics and Finance Sections.
- ☐ Determine the type and amount of supplies/ resources en route, and communicate details to Staging Area Managers and Resource Unit.

- ☐ Arrange for receiving ordered supplies.
- ☐ Review Incident Action Plan for information on operations of the Supply Unit.
- ☐ Order, receive, distribute, and store supplies and equipment, and coordinate contracts and resource orders with the Finance Section.
- ☐ Receive, and respond to, requests for personnel, supplies, and equipment.
- ☐ Maintain inventory of supplies and equipment.
- ☐ Coordinate service of reusable equipment.
- ☐ Submit reports to the Support Branch Director.
- ☐ Maintain Unit/Activity Log (ICS 214).

9.5.5 Ordering Manager

The Ordering Manager is responsible for placing all orders for supplies and equipment for the incident. The Ordering Manager reports to the Supply Unit Leader.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Obtain necessary agency(s) order forms.
- ☐ Establish ordering procedures.
- ☐ Establish name and telephone numbers of agency personnel receiving orders.
- ☐ Set up filing system.
- ☐ Get names of incident personnel who have ordering authority.
- ☐ Check on what has already been ordered.
- ☐ Ensure order forms are filled out correctly.
- ☐ Place orders expeditiously.
- ☐ Consolidate orders when possible.
- ☐ Identify times and locations for delivery of supplies and equipment.
- ☐ Keep Receiving and Distribution Manager informed of orders placed.
- ☐ Submit all ordering documents to Documentation Unit through Supply Unit Leader before demobilization.
- ☐ Maintain Unit/Activity Log (ICS 214).

9.5.6 Receiving and Distribution Manager

The Receiving and Distribution Manager is responsible for receiving and distributing all supplies and equipment (other than primary resources), and the servicing and repairing of tools and equipment. The Receiving and Distribution Manager reports to the Supply Unit Leader.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Order required personnel to operate supply area.
- ☐ Organize physical layout of the supply area.
- ☐ Establish procedures for operating supply area.
- ☐ Set up filing system for receiving and distributing supplies and equipment.
- ☐ Maintain inventory of supplies and equipment.
- ☐ Develop security requirement for supply area.
- ☐ Establish procedures for operating supply area.
- ☐ Submit reports to Supply Unit Leader.
- ☐ Notify Ordering Manager of supplies and equipment received.
- ☐ Provide necessary supply records to Supply Unit Leader.
- ☐ Maintain Unit/Activity Log (ICS 214).

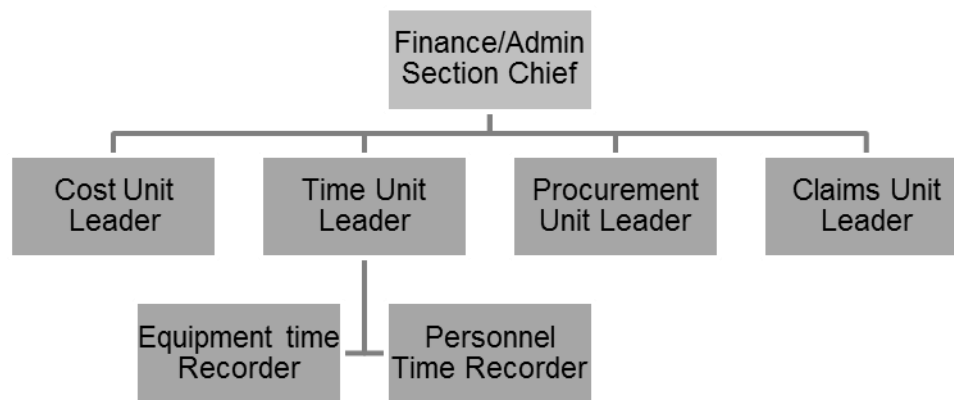
9.5.7 Security Unit Leader

The Security Unit Leader is responsible to provide safeguards for protecting personnel and property from loss or damage.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Review Unit Leader Responsibilities (Section 5.2 Unit Leader Responsibilities).
- ☐ Establish security for the Incident Command Post, and implement an identification program for incident facilities.
- ☐ Using the Check-in List (Personnel) (ICS 211p), check in/out all incident personnel entering/leaving the ICP, and other incident facilities and forward to the Resource Unit.
- ☐ Establish contacts with local law enforcement agencies, as required.
- ☐ Contact agency representatives to discuss any special custodial requirements which may affect operations.
- ☐ Request required personnel support to accomplish work assignments.
- ☐ Ensure that support personnel are qualified to manage security problems.
- ☐ Develop Security Plan for the incident site and facilities, including staging area, ICP, and any location where personnel are housed.
- ☐ Adjust Security Plan for personnel and equipment changes and releases.
- ☐ Coordinate security activities with appropriate incident personnel.
- ☐ Keep the peace, prevent assaults, settle disputes by coordinating with agency representatives.
- ☐ Prevent theft of company and personal property.
- ☐ Document all complaints and suspicious occurrences.
- ☐ Maintain Unit/Activity Log (ICS 214).

10.0 FINANCE SECTION DUTIES

10.1 Finance Section Organizational Chart



10.2 Finance/Administration Section Chief

The Finance/Administration Section Chief, a member of the General Staff, is responsible for all financial and cost analysis aspects of the incident and for supervising members of the Finance/Administration Section.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Determine Section resource needs.
- ☐ Develop an operating plan for Finance/Administration function on incident.
- ☐ Prepare work objectives for subordinates, brief staff, make assignments, and evaluate performance.
- ☐ Attend briefings/meetings as appropriate to gather information on activities and overall strategy.
- ☐ Utilize information posted on the Incident Status Display for resource and cost monitoring.
- ☐ Participate in appropriate ICS meetings and assist as required with the preparation of the Incident Action Plan.
- ☐ Meet with assisting and cooperating company/ agency representatives, as required.

- ☐ Provide input in all planning sessions on financial and cost analysis matters.
- ☐ Maintain daily contact with company administrative headquarters on finance matters.
- ☐ Ensure that all personnel time records are transmitted to home company according to policy.
- ☐ Participate in all demobilization planning.
- ☐ Ensure that all obligation documents initiated at the incident are properly prepared and completed.
- ☐ Provide cost estimate (burn rate) to Incident Commander/Unified Command as requested
- ☐ Ensure Compensation and Claims numbers are established and the information is distributed via ICS 213 (General Message).
- ☐ Brief company personnel on all incident related business management issues needing attention and follow-up prior to leaving incident.
- ☐ Maintain Unit/Activity Log (ICS 214).

10.3 Deputy Finance/Administration Section Chief

The Deputy Finance Section Chief (if staffed) is responsible for assisting the Finance Section Chief.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Carry out duties as assigned by FSC (must be capable of assuming FSC duties).
- ☐ Attend appropriate ICS meetings and briefings.
- ☐ Maintain Individual Log (ICS 214a).

10.4 Cost Unit Leader

The Cost Unit Leader is responsible for collecting all cost data, performing cost-effectiveness analyses, and providing cost estimates and cost-saving recommendations for the incident.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Review Unit Leader Responsibilities (Section 5.2 Unit Leader Responsibilities).
- ☐ Obtain briefing from Finance/Administration Section Chief.
- ☐ Coordinate with company/agency headquarters on cost-reporting procedures.
- ☐ Obtain and record all cost data.
- ☐ Prepare incident cost summaries.
- ☐ Prepare resource-use cost estimates for Planning.
- ☐ Make recommendations for cost-savings to Finance/Administration Section Chief.
- ☐ Maintain cumulative incident cost records.
- ☐ Ensure that all cost documents are accurately prepared.
- ☐ Complete all records prior to demobilization.
- ☐ Provide reports to Finance/Administration Section Chief.
- ☐ Maintain Unit/Activity Log (ICS 214).

10.5 Time Unit Leader

The Time Unit Leader is responsible for equipment and personnel time records.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Review Unit Leader Responsibilities (Section 5.2 Unit Leader Responsibilities).
- ☐ Obtain briefing from Finance/Administration Section Chief.
- ☐ Determine resource needs.
- ☐ Establish contact with appropriate company/agency personnel/representatives.

- ☐ Organize and establish Time Unit.
- ☐ Establish Time Unit objectives.
- ☐ Ensure that daily personnel and equipment time recording documents are prepared in compliance with time policies.
- ☐ Submit cost estimate data forms to Cost Unit, as required.
- ☐ Provide for records security.
- ☐ Ensure that all records are current or complete prior to demobilization.
- ☐ Release time reports from assisting organizational entities to the respective Representatives prior to demobilization.
- ☐ Brief Finance/Administration Section Chief on current problems, recommendations, outstanding issues, and follow-up requirements.
- ☐ Maintain Unit/Activity Log (ICS 214).

10.5.1 Equipment Time Recorder

Under Supervision of the Time Unit Leader, Equipment Time Recorder is responsible for overseeing the recording of time for all equipment assigned to an incident.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Set up Equipment Time Recorder function in location designated by Time Unit Leader.
- ☐ Advise Ground Support Unit, Vessel Support Unit, Facilities Unit, and Air Support Group of the requirement to establish and maintain a daily record of equipment time reports.
- ☐ Assist units in establishing a system for collecting equipment time reports.
- ☐ Post all equipment time tickets within four hours after the end of each operational period.
- ☐ Prepare a use and summary invoice for equipment (as required) within 12 hours after equipment arrival at incident.
- ☐ Submit data to Time Unit Leader for cost-effectiveness analysis.
- ☐ Maintain current posting on all charges or credits for fuel, parts, services, and commissary.
- ☐ Verify all time data and deductions with equipment owners/operators.
- ☐ Complete all forms according to company/agency specifications.
- ☐ Close out forms prior to demobilization.
- ☐ Distribute copies per company/agency and incident policy.
- ☐ Maintain Unit/Activity Log (ICS 214).

10.5.2 Personnel Time Recorder

The Personnel Time Recorder reports to the Time Unit Leader and records personnel information.

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Establish and maintain a file for personnel time reports within the first operational period.
- ☐ For each operational period, initiate, gather, or update a time report from all applicable personnel assigned to the incident.
- ☐ Verify that all personnel identification information is correct on the time report.
- ☐ Post personnel travel and work hours, transfers, promotions, specific pay provisions, and terminations to personnel time documents.
- ☐ Ensure that time reports are signed.
- ☐ Close out time documents prior to personnel leaving the incident.
- ☐ Distribute all time documents according to company/agency policy.
- ☐ Maintain a log of overtime hours worked and give to Time Unit Leader daily.
- ☐ Maintain Unit/Activity Log (ICS 214).

10.6 Procurement Unit Leader

The Procurement Unit Leader is responsible for administering all financial matters pertaining to vendor contracts, leases, and fiscal agreements. The major responsibilities of the Procurement Unit are:

- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Review Unit Leader Responsibilities (Section 5.2 Unit Leader Responsibilities).
- ☐ Review incident needs and any special procedures with Unit Leaders, as needed.
- ☐ Coordinate with local agencies on plans/suppliers.
- ☐ Obtain the Incident Procurement Plan.
- ☐ Prepare and authorize contracts and land-use agreements.
- ☐ Draft memoranda of understanding as necessary.
- ☐ Establish contracts and agreements with supply vendors.
- ☐ Provide for coordination between the Ordering Manager, agency dispatch, and all other procurement organizations supporting the incident.
- ☐ Ensure that a system is in place that meets agency property management requirements.
- ☐ Ensure proper accounting for all new property.
- ☐ Interpret contracts and agreements; resolve disputes within delegated authority.
- ☐ Coordinate with the Claims Unit for processing claims.
- ☐ Coordinate use of impress funds, as required.
- ☐ Complete final processing of contracts and send documents for payment.
- ☐ Coordinate cost data in contracts with the Cost Unit Leader.
- ☐ Brief the Finance/Administration Section Chief on current problems and recommendations, outstanding issues, and follow-up requirements.
- ☐ Maintain Unit/Activity Log (ICS Form 214).

10.7 Claims Unit Leader

The Claims Unit Leader is responsible for the overall management and direction of all administrative matters pertaining to Compensation-For-Injury and claims-related activity for an incident.

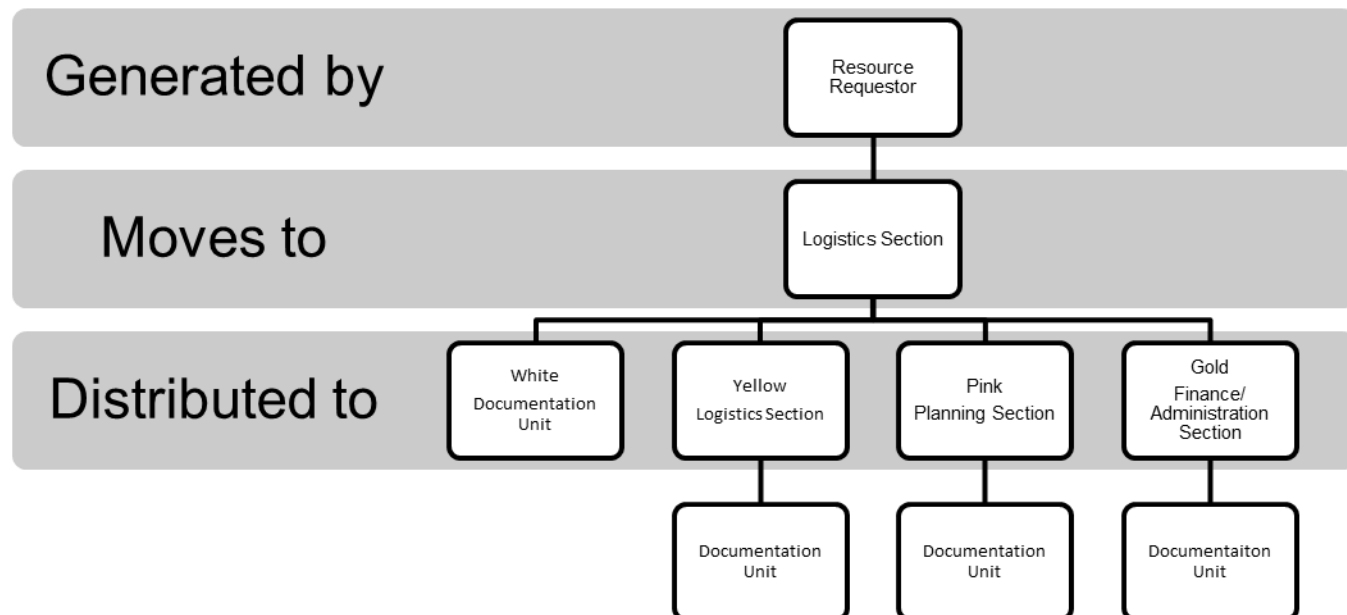
- ☐ Review Common Responsibilities (Section 5.1 Common Responsibilities).
- ☐ Review Unit Leader Responsibilities (Section 5.2 Unit Leader Responsibilities).
- ☐ Obtain briefing from Finance/Administration Section Chief.
- ☐ Establish contact with Safety Officer, Information Officer Liaison Officer and Company/Agency Representatives.
- ☐ Determine the need for Compensation for Injury and Claims Specialists and order personnel, as needed.
- ☐ If possible, collocate Compensation-for-Injury work area with the Medical Unit.
- ☐ Obtain a copy of the Incident Medical Plan.
- ☐ Coordinate with Procurement Unit on procedures for handling claims.
- ☐ Periodically review documents produced by subordinates.
- ☐ Obtain Demobilization Plan and ensure that Compensation-for-Injury and Claims Specialists are adequately briefed on Demobilization Plan.
- ☐ Ensure that all Compensation-for-Injury and Claims documents are up to date and routed to the proper company/agency.
- ☐ Establish procedures for handling claims and coordinate with Legal Officer and Finance Section Chief.

- ☐ Establish a phone number for the receipt of third party claims. Provide this number to the Situation Unit Leader for display in the Incident Command Post (ICP) and Joint Information Centre (JIC)/Public Information Office (PIO) for release to the public.
- ☐ Keep Legal Officer and Incident Commander informed of the nature and numbers of claims received, and status of negotiations with claimants.
- ☐ Keep Finance Section Chief briefed on level of expenditures.
- ☐ Negotiate settlements with claimants.
- ☐ Establish contact periodically with Safety Officer, Information Officer, and Liaison Officer.
- ☐ Brief Unit personnel on incident activities.
- ☐ Maintain Unit/Activity Log (ICS 214).

11.0 PROCEDURES AND TOOLS

11.1 Resource Request Process

- ☐ All Resource Requests will be complete using a 4 part Purchase Order Form. Ensure you are pressing hard enough that all 4 copies are readable.
- ☐ A Section Chief (or Deputy) MUST sign off on the form before it is submitted.
- ☐ Any single order over the spending limit imposed by the Incident Commander will be signed off by the Kinder Morgan Incident Commander.
- ☐ All 4 parts of the form are to be given to the Logistics Section who will then order and track the items. Logistics will then distribute the forms as follows;
 - White – Documentation Section
 - Yellow – Planning Section (Resource Unit)
 - Gold – Finance/Administration Section
 - Pink – Logistics Section
- ☐ If using the electronic version of the form 4 copies must be printed and highlighted for the destination of each form in the lower right box of the form.
- ☐ When each section is done with the form, the form will be given to Documentation to be attached to the original document.



11.2 Incident Facilities

Only those facilities needed for any given incident will be activated.

11.2.1 Incident Command Post (ICP)

The Incident Command Post, or ICP, is the location from which the Incident Commander(s) oversees all incident operations. There is only one ICP for each incident or event. Every incident or event must have some form of an Incident Command Post. The area specific Emergency Response (Contingency) Plans list potential locations for the ICP for each area Kinder Morgan operates. Some common requirements for an effective ICP are:

- The ICP should be large enough to provide adequate working room for assigned personnel.
- The ICP should contain situation and resource status displays necessary for the incident, and other information necessary for planning purposes and be marked by a banner, sign or green light.
- Agency Reps are normally located at the ICP.
- Position outside of the present and potential hazard zone.
- Have the ability to expand as the incident grows.
- Have the ability to provide security and to control access to the ICP as necessary.
- Announce ICP activation and location via radio or other communication so all appropriate personnel are notified.

11.2.2 Staging Areas

Staging Areas are temporary locations at an incident where personnel and equipment are kept while waiting for tactical assignments. Staging Areas should be located close enough to the incident for a timely response, but far enough away to be out of the immediate impact zone. There may be more than one Staging Area at an incident. Each Staging Area will have a Staging Area Manager who reports to the Operations Section Chief. Kinder Morgan maintains Control Point manuals for all operations, the Control Points manuals outline locations for access and potential staging areas.

11.2.3 Base

A Base is the location from which primary service and support activities, such as feeding and resupply, are performed. Not all incidents will have a Base. There will be only one Base per incident.

11.2.4 Camp

A Camp is a temporary location within the general incident area which is equipped and staffed to provide sleeping, food, water and sanitary services to incident personnel. There may be one or more camps, and different types of camps, depending on the needs of the incident.

11.2.5 Helibase

A Helibase is the location from which helicopter-centered air operations are conducted. Helibases are generally used on a more long-term basis and include such services as fuelling and maintenance.

11.2.6 Helispots

Helispots are more temporary facilities used for loading and unloading personnel and cargo. Large incidents may require more than one Helibase and several Helispots.

11.3 Incident Resources

ICS resources can be factored into two categories:

- **Tactical Resources** are personnel and major items of response equipment available or assigned to the Operations Section. They are the primary concern to the Resources Unit
- **Support Resources** include all other resources required to support the incident.

Resources are described by two terms; **kind** and **type**.

- The **kind of resource** describes what the resource is. For example helicopter, shoreline crew, tank truck and bulldozer, are all kinds of resources.
- The **type of resource** describes a capability for that kind of resource. Many tactical resources, such as helicopters, will have a wide variety of capabilities and uses. The various kinds of resources used for ICS applications should be “typed” whenever possible.

11.4 Resource Status Conditions

All tactical resources at an incident will be assigned to one of the three following status conditions:

- **Assigned:** Assigned resources are working on an assignment under the direction of a Supervisor.
- **Available:** Available resources are assembled, have been issued their equipment, and are ready for deployment. Available resources are located at one of the staging areas.
- **Out-of-Service:** Out-of-service resources are not ready for available or assigned status.

When a resource status changes, or changes location an ICS 210 Status Change form should be completed to record the change.

11.5 Utilizing/Organizing Resources

There are three ways of organizing resources at an incident:

11.5.1 Single Resources

Single Resources are individual personnel, single pieces of equipment (with or without operator), or a crew of individuals with an identified work supervisor. A single resource is often the most common way of using initial resources on an incident.

11.5.2 Task Forces

Task Forces are any combination and number of single resources (within span-of-control limits) assembled for a particular tactical need. Task Forces may be:

- A mix of different kinds of resources.
- The same kind but different types of resources.

11.5.3 Strike Teams

Strike Teams consist of resources that are of the same type and kind. They are a good way to organize multiple Single Resources that share the same characteristics.

11.6 Incident Status Display

The collection and display of information about an incident and the nature and status of response operations is a critical aspect of establishing and maintaining a command and control environment and it should promote effective and efficient communications. Ideally, pre-designed status boards should be used for display to ensure that critical information is captured and presented in a clear and logical fashion.

Status boards that depict information that is of use to two or more Sections in an Incident Command Post should be grouped together in an area called the Incident Situation Display. The Incident Situation Display should be the one place in an Incident Command Post where anyone can go, at any time, to learn about the nature and status of an incident and response operations. It should include the most complete and current information available.

Status boards in the Incident Situation Display should be limited in number and should be displayed in an ordered fashion to ensure that they impart an integrated and coherent message concerning: (1) the incident (e.g., nature and location of source, status of source, type and quantity of material spilled or emitted, and the environmental conditions affecting the response); and (2) the nature and status of response operations to address the incident.

An Incident Situation Display should be established and maintained by the Situation and Resources Unit Leaders. It should be situated in a highly visible and easily accessible location, in close proximity to both the Planning and Operations Sections.

Since it is an active work area, it should be located away from areas subject to heavy foot traffic.

Although an Incident Situation Display is established and maintained by personnel in the Planning Section, it belongs to everyone in the ICS. To the extent the Incident Situation Display contains information about activities underway in other Sections, it is the obligation of appropriate personnel in those Sections to work with Planning to ensure information posted in the Incident Situation Display is accurate and up-to-date. It is likewise the responsibility of the status board monitors within the Situation Unit to seek out sources and establish paths and schedules for needed information.

As time allows, black-and-white versions of the status board information should be prepared. These documents should be time-stamped and distributed within the ICP and/or remotely, and copies may be made available at Incident Situation Display.

11.6.1 Incident Status Display Contents

The Incident Status Display (ISD) may be a combination of poster size documents on a wall/easel and/or display board, and should contain the following:

☐ **Weather, Tides & Currents**

Source	Weather Observer or Internet
Frequency	ASAP, at least every 3 hours thereafter, or as required.
Distribution	Documentation Unit, ISD, Operations Planning Section Chief, copy for Tactics and Planning meetings

☐ **Initial Incident Information Sheet/ Incident Report**

Source	Control Room, KM Duty Person, Initial Incident Commander
Frequency	Once initially, copies ongoing
Distribution	Documentation Unit, ISD, Legal, Incident Commander

☐ **Incident Briefing Form - ICS 201**

Description	Provides the Command and General Staff positions with the initial response information, including an incident name and description, objectives, a situation map, active resources, actions underway, current organization in place, and resources needed.
Source	Prepared by the Initial Incident Commander.
Frequency	Prepared once in the initial stages of activation and can be used as an operations plan until the first Incident Action Plan is in place.
Distribution	Documentation Unit, ISD, Command Staff, and General Staff and their organizations as they choose.

☐ **Incident Objectives/Strategies - ICS 202**

Description	Prepared by the Planning Section Chief outlining the initial objectives from the Unified/Incident Commander, and revised after each Planning Meeting. Provides the basic strategy, objectives and safety considerations for the next Operational Period.
Source	Planning Section Chief
Frequency	Initially with Unified/Incident Commander and then by Planning Section Chief after each Planning Meeting.
Distribution	Documentation Unit, Section Chiefs, and all section supervisory personnel.

☐ **Organization Chart - ICS 207**

Description	Prepared by the Resources Unit with the assistance of the Planning Section Chief. Describes active ICS elements and personnel staffing the positions.
Source	Resources Unit Leader. ICS 207 is usually developed from ICS 203 - Organization Assignment List.
Frequency	Initial activation phase and as organizational changes take place.
Distribution	Documentation Unit, ISD, and latest version with IAP.

☐ **Incident Radio Communications Plan - ICS 205 and Communications List – ICS205a**

Description	Prepared by Communications Unit Leader. 205 – Provides the radio frequency/channel allocations down to the Division/Group level. 205a – Provides telephone and other contact information for all personnel active in the incident.
Source	Communications Unit Leader
Frequency	ASAP in initial response phase, at the beginning of every Operational Period and as required by an organizational change.
Distribution	Documentation Unit, Complete distribution within Incident Command, ISD, attached to each IAP.

☐ **Site Specific Safety and Health Plan**

Description	Prepared by the Safety Officer as soon as possible to ensure the safety of all personnel associated with the incident.
Source	Safety Officer
Frequency	ASAP after initial response. Updated and re-issued with each IAP.
Distribution	Documentation Unit, Command and General Staff, ISD,
Note	Ensure distribution of copies to all supervisory personnel at the Section, Branch, Division, group, and Unit Leader levels.

☐ **Incident Status Summary (ICS 209)**

Description	Prepared by Situation Unit and provides the basic information to Command and General Staff for planning the next Operational Period. Acts as a common summary of the incident for all parties.
Source	Resource Unit, Operations Section, Planning Section and others.
Frequency	Prepared prior to each Planning Meeting or on request by Planning Section Chief or Incident Commander.
Distribution	Documentation Unit Leader, Incident Commander, General Staff, Information Officers, ISD, attached to each IAP, as requested.
Note	It is critical that the ICS 209 be commenced as soon as possible and be maintained accurately throughout.

☐ **Daily Meetings Schedule (ICS 230)**

Description	Prepared by Situation Unit Leader in conjunction with Planning Section Chief. Outlines planned meetings, purpose, suggested attendees and scheduled times.
Source	Situation Unit Leader and Planning Unit Leader
Frequency	Initially and as schedule changes.
Distribution	Documentation Unit, Command and General Staff, ISD, all suggested attendees listed.

☐ **Meeting Summary (ICS 231)**

Description	Prepared by the administrative assistant to the facilitator of each meeting.
Source	Administrator and/or facilitator of each meeting.
Frequency	Following each meeting. Situation Leader should contact meeting facilitator if not supplied.
Distribution	Documentation Unit, meeting attendees, ISD

☐ **Trajectory Model**

Description	Prepared by the Modeling Technical Specialist. Develops computer model that forecasts the location, fate and effects of the spill, based on currents, winds, tides, and oil properties.
Source	Modeling Specialist running OilMap™ or other suitable trajectory software.
Frequency	ASAP in the initial response phase and before every tactics and/or planning meeting.
Distribution	Documentation Unit, ISD, Planning and Operations Section Chief.

☐ **Resources at Risk Summary (ICS 232)**

Description	The Resources at Risk Summary provides information about sites in the incident area which are sensitive due to environmental, archaeo-cultural, or socio-economic resources at risk, and identifies incident-specific priorities and issues.
Source	The Environmental Unit Leader, with input from REET, will complete this form for each Operational Period. It should be updated prior to the Planning Meeting.
Frequency	ASAP during the initial response, and before each planning meeting for the next Operational Period.
Distribution	Documentation Unit, Planning Section Chief, OPC, Information Officer, ISD, may be attached to IAP.

☐ **Media Releases**

Description Prepared by Information Officer in conjunction with the Incident Commander, Unified Command or Joint Information Centre (JIC).

Source Information Officer

Frequency Determined by Information Officer in consultation with Incident Command.

Distribution Documentation Unit, ISD, Command Staff and General Staff

☐ **Overflight Map**

Description Prepared by the field observer reporting to Situation Unit Leader. Relates latest visual status of incident to Situation Unit Leader for analysis and display.

Source Field Observer or Operations Section Chief

Frequency ASAP in initial response phase, and scheduled updates to meet the planning meeting and IAP development.

Distribution Documentation Unit, ISD, Situation Unit leader, Planning Section Chief, IAP attachment.

☐ **Situation Map**

Description Prepared by Situation Unit Leader and Planning Section Chief to display the latest information on the incident and resources locations.

Source Situation Unit Leader, with input from Section Chiefs, Resource Unit Leader, observers, and mapping specialists.

Frequency ASAP in initial response phase and before each tactics & planning meeting.

Distribution Documentation Unit, ISD, Section Chiefs, attached to IAP.

☐ **Division Map**

Description Prepared by Situation Unit Leader/Mapping/GIS Technical Specialist to display the latest information on the geographical breakdown of operational divisions and groups.

Source Situation Unit Leader, with input from Operations Section Chief

Frequency Commenced ASAP in initial response phase by Operations Section Chief. Updated before each tactics & planning meeting.

Distribution Documentation Unit, Command, ISD, Section Chiefs, attached to IAP.

☐ **General Information**

Description Prepared by Situation Unit Leader to display general information not otherwise captured on the Incident Status Display. At the very least, it will show the current level of emergency.

Source As required

Frequency As required

Distribution ISD

☐ **Fate and Effects Models**

Description Prepared by the Modeling Technical Specialist to display the latest mass balance information and predictions.

Source Modeling Technical Specialist running NOAA's ADIOS program and/or other models.

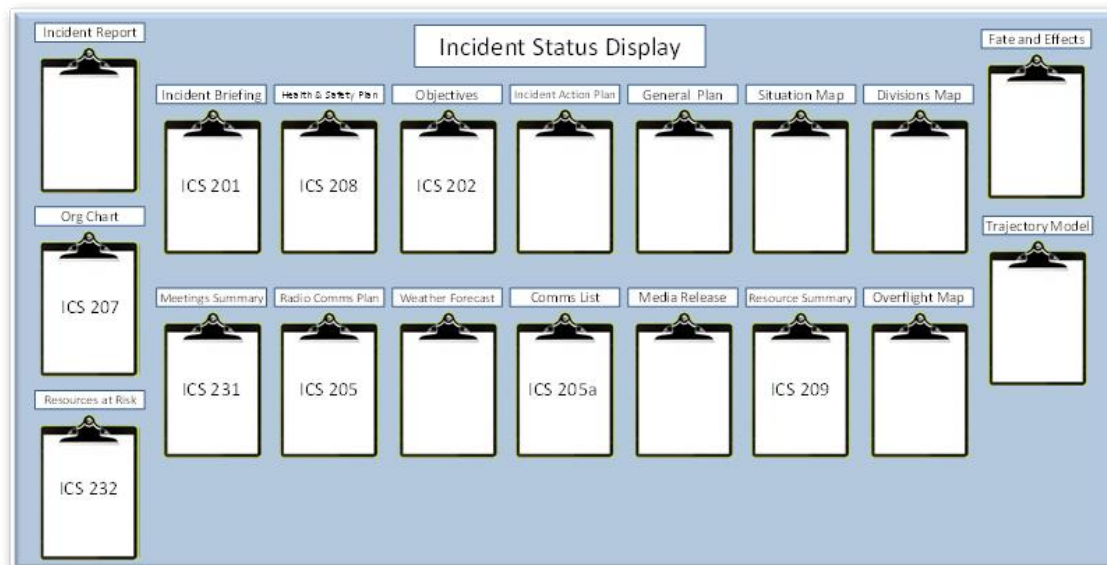
Frequency ASAP in initial phase and as new information becomes available.

Distribution Documentation Unit, ISD, and Section Chiefs.

☐ Incident Action Plan (IAP)

Description	The Incident Action Plan (IAP) contains general control objectives reflecting the overall incident strategy and specific action plans for the next Operational Period. When all attachments are included, the plan: - Specifies objectives for the next Operational Period. - Defines the work assignments (ICS204s) for the next Operational Period, including extracts of site-specific safety messages (Note: the Site Safety Plan is generally a stand-alone document and is not included in the IAP). - Defines resources needed to accomplish the plan. - Depicts how response personnel will be organized. - Lists radio and telephone communications for all incident personnel. - Specifies a medical plan to follow in case of a responder emergency. - Identifies resources at risk.
Source	The Planning Section compiles the IAP, with input and assistance from the Operations Section. The Plan is to be completed following each Planning Meeting. The Plan should be approved and signed by each member of the Unified Command.
Frequency	ASAP following the initial response phase and once every Operational Period thereafter.
Distribution	Sufficient copies of the IAP will be reproduced and distributed to all supervisory personnel at the Section, Branch, Division/Group, and Unit Leader levels. The original IAP MUST be given to the Documentation Unit.

11.6.2 Incident Status Display Layout



11.7 Situation Map Contents

Depending on the incident specifics, listed here are types of information/sites that may need to be displayed on the situation map.

- ☐ Response Resources:
 - Boom
 - Oil Spill Response Vessels
 - Skimmers
 - Storage Tanks/Barges
 - Task Forces/Strike Teams
 - Division/Group Assignments
- ☐ Facilities:
 - Incident Command Post
 - Incident Base
 - Staging Areas
 - Camps (Lodging)
 - Transport Center
 - Medical Facilities
 - Decon Stations
 - Helibase/Helispot
- ☐ Response Sites:
 - Environmental Sites
 - Socio-Economic Sites
 - Historical/Cultural Areas
 - Hazardous Areas
 - Intakes/Outfalls
- ☐ Public Facilities:
 - Marinas
 - Schools
 - Hospitals/Nursing Homes
 - Boat Ramps
 - Parks
 - Roadblocks/Detours
- ☐ Consistent symbology between maps
- ☐ Accurate Legend that includes all items on the map
- ☐ Arial Photography/Satellite Imagery, if available
- ☐ Data returned from the field including GPS data

11.8 Emergency Response (Contingency) Plans

Kinder Morgan Canada had a number of Emergency Response (Contingency) Plans for its pipelines and facilities. The area specific plans describe the types of emergencies, response strategies, tactics, health and safety, local response organizations, regulatory requirements and additional duties for each responder that may be required specific to the operating area. It is important for each responder to check the plan for any detailed information that may be required during an emergency, or information that could be useful during an emergency, such as environmentally sensitive areas, routing, facility layout, regulatory contacts, etc. The plans that Kinder Morgan Canada currently maintains are:

- Trans Mountain Pipeline Emergency Response Plan
- Terminals and Tank Farms Emergency Response Plan
 - Including Edmonton Terminal, Kamloops Station, Burnaby Terminal, Sumas Tank Farm
- Westridge Marine Terminal Emergency Response Plan
- Trans Mountain Pipeline (Puget Sound) Emergency Response Plan
- Jet Fuel Pipeline Emergency Response Plan

11.9 Field Guides/Control Point Manuals

In addition to the Emergency Response (Contingency) Plans KMC maintains Field Guides which shows the pipeline routing information, along with Control Point Locations. Control Points are predetermined access locations for either staging, access to specific sites for response, or both. The Trans Mountain Pipeline Field Guide does not contain the Control Point information; this is found in a Control Point Manual. The Field Guide for Puget Sound Pipeline does contain the Control Point information. Westridge Terminal does not require a Field Guide/Control Point Manual; this information can be found within the Emergency Response Plan. The Jet Fuel Pipeline does not have a Field Guide or a Control Point Manual; the information is found within the Emergency Response Plan.

11.10 Media Briefing Tips

- ☐ Prepare. Know the facts. Develop 2-3 key messages and deliver them. Anticipate tough questions. If possible, try to get an idea of subjects and direction of the interview.
- ☐ Be concise. Give 10-20 second, simple answers, and when you're done, be quiet.
- ☐ Be honest, personable, professional, presentable (remove sunglasses and hats).
- ☐ Look at the reporter, not the camera.
- ☐ Ensure media are escorted and wearing PPE when going to hazardous sites.
- ☐ Ensure local Public Affairs office is aware of media visits.
- ☐ NEVER talk "off the record," exaggerate, or try to be cute or funny.
- ☐ DON'T guess or speculate or say "no comment." Either explain why you can't answer the question or offer to track down the answer.
- ☐ DON'T disagree with the reporter. Tactfully and immediately clarify and correct the information.
- ☐ DON'T speak for other agencies or offices; or use jargon or acronyms.

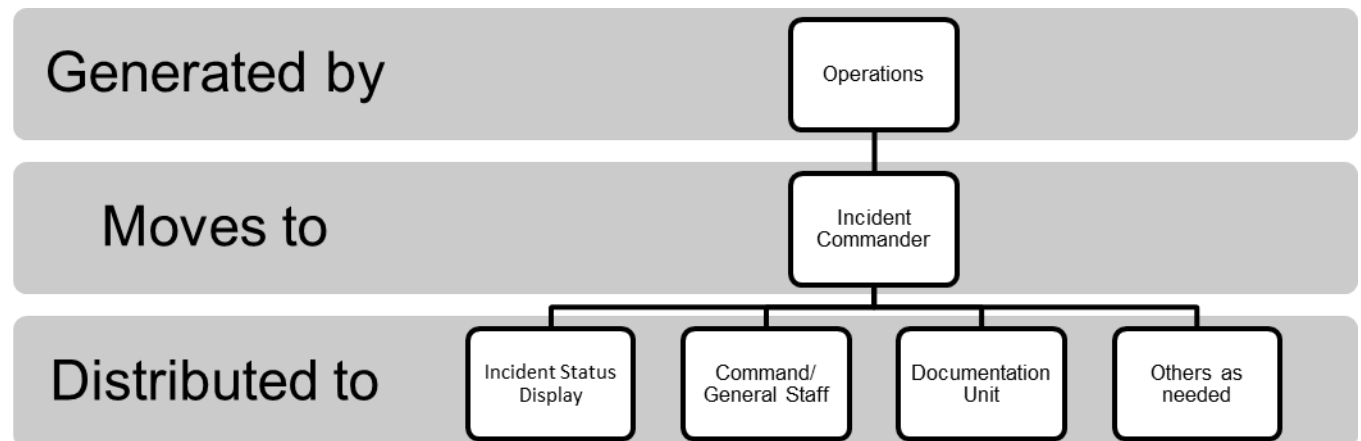
Note: only authorized individuals may speak to the media, and must be media trained.

11.11 ICS Forms

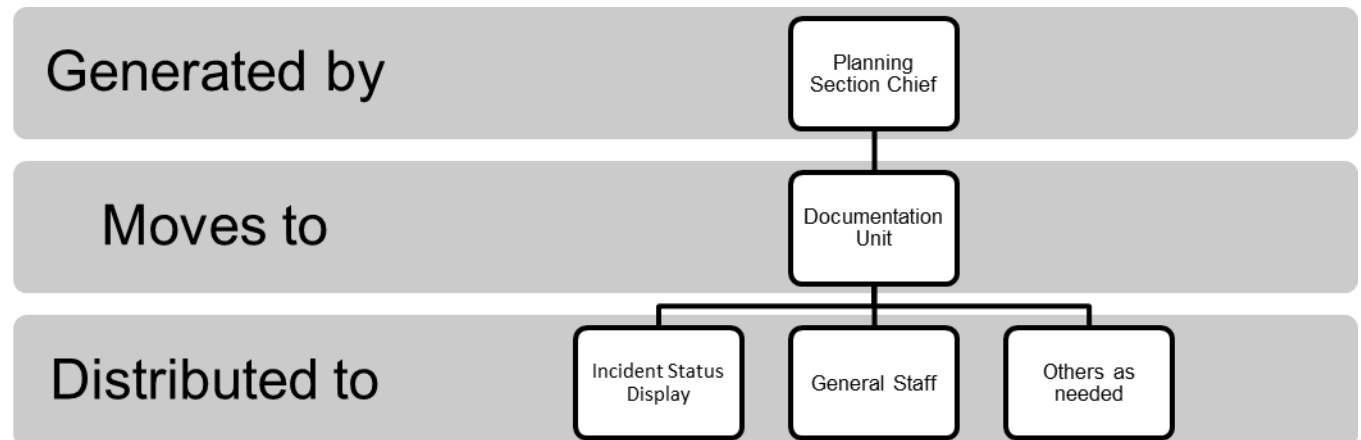
There are a number of ICS forms and KMC specific incident forms. These forms can be located in hardcopy inside the Documentation Go-box or in digital format at: http://kmonline/business_units/KMC/Pages/EHS_Emergency_Response.aspx or in E:\Manuals\EHS\Emergency Response\ICS Forms. They will also be available in the Go-box in digital form on a USB key.

11.12 ICS Form Distribution/Flow

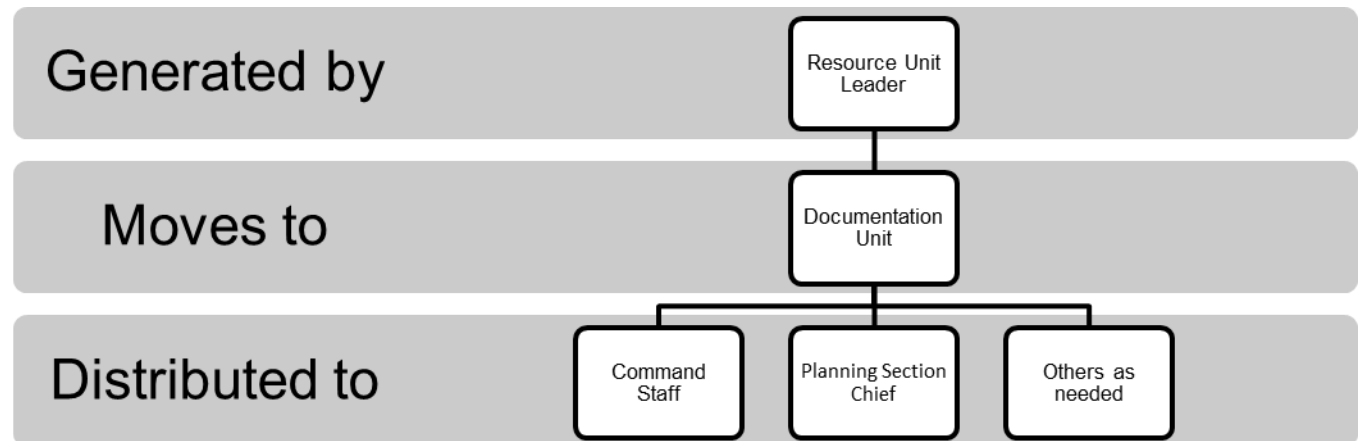
11.12.1 ICS 201 – Incident Briefing



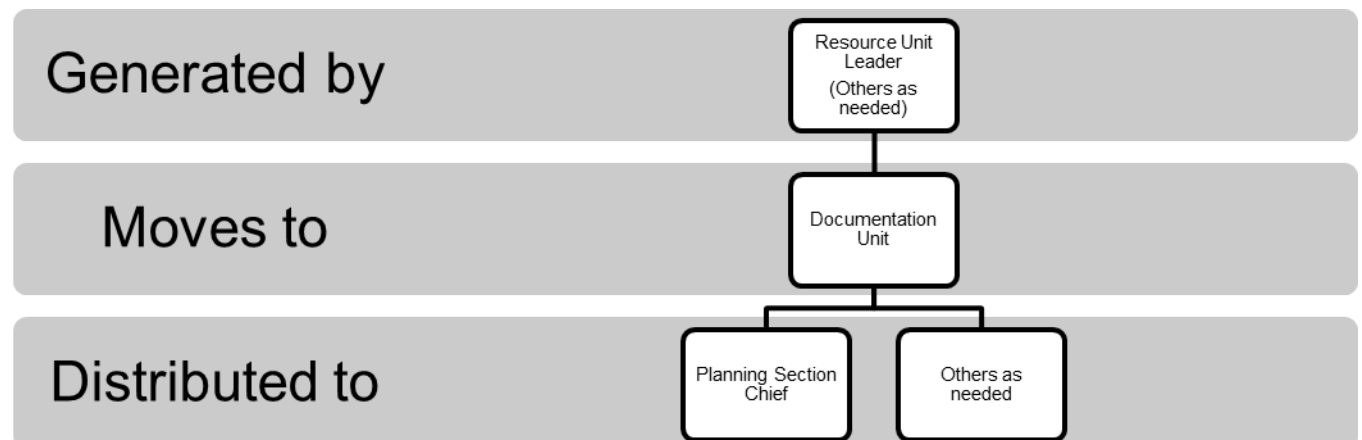
11.12.2 ICS 202 – Incident Objectives



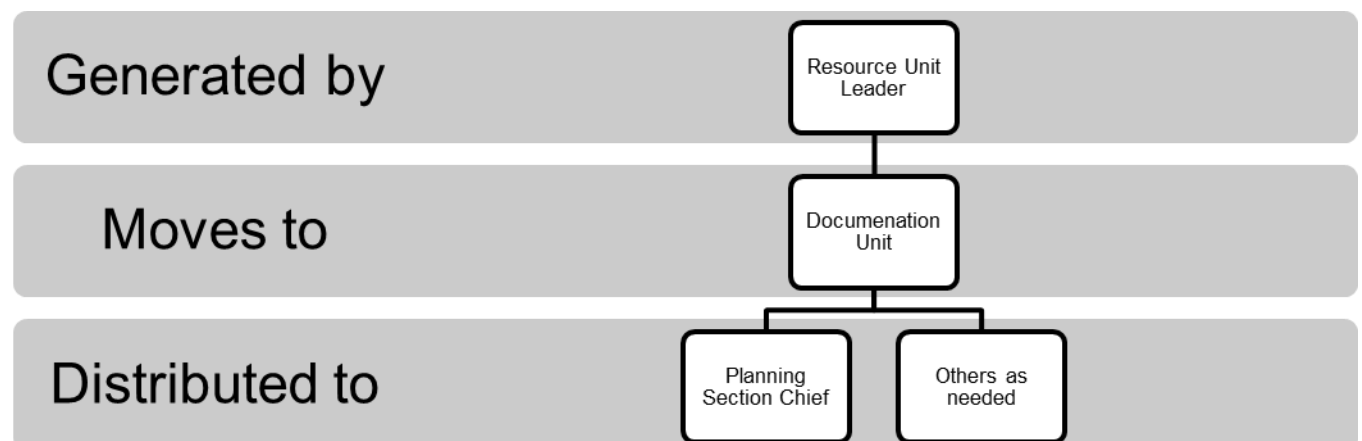
11.12.3 ICS 203 – Organization Assignment List



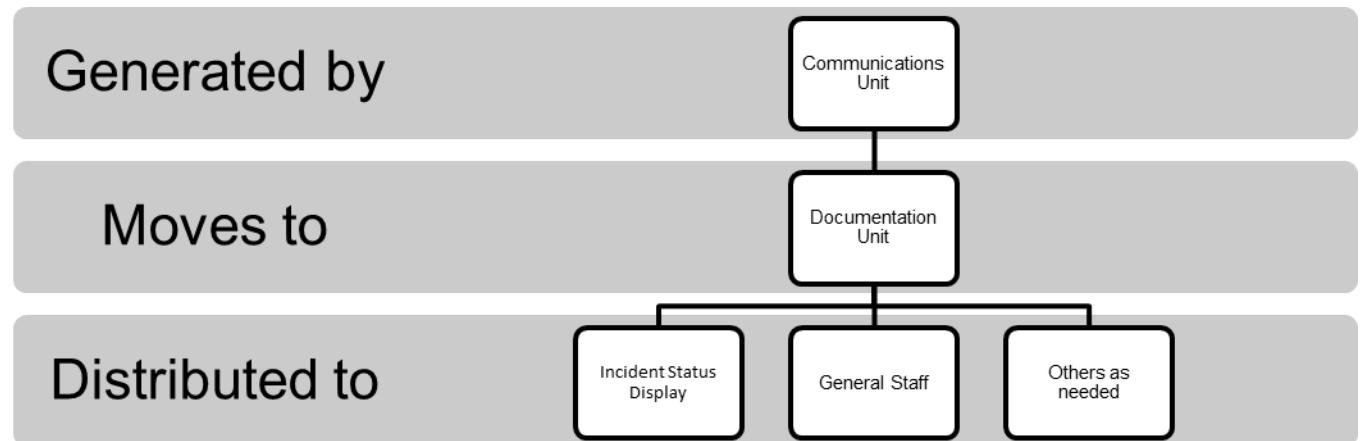
11.12.4 ICS 204 – Assignment List



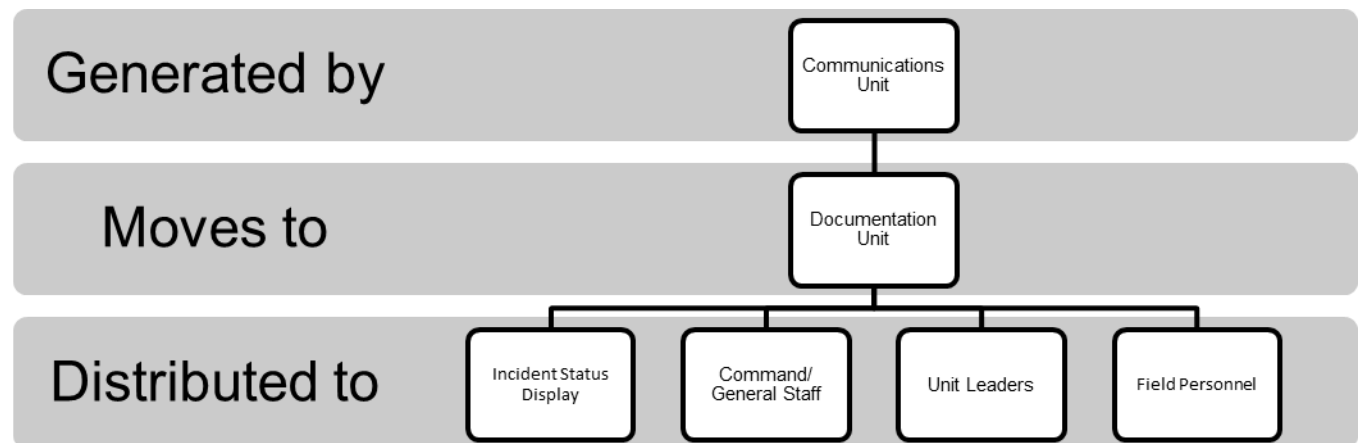
11.12.5 ICS 204a – Assignment List Attachment



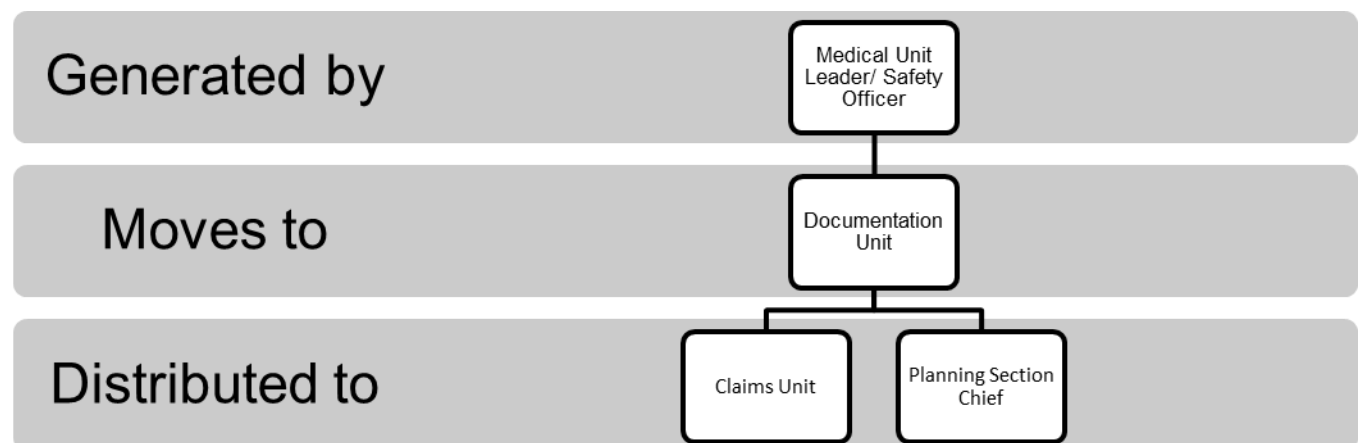
11.12.6 ICS 205 – Incident Radio Communication Plan



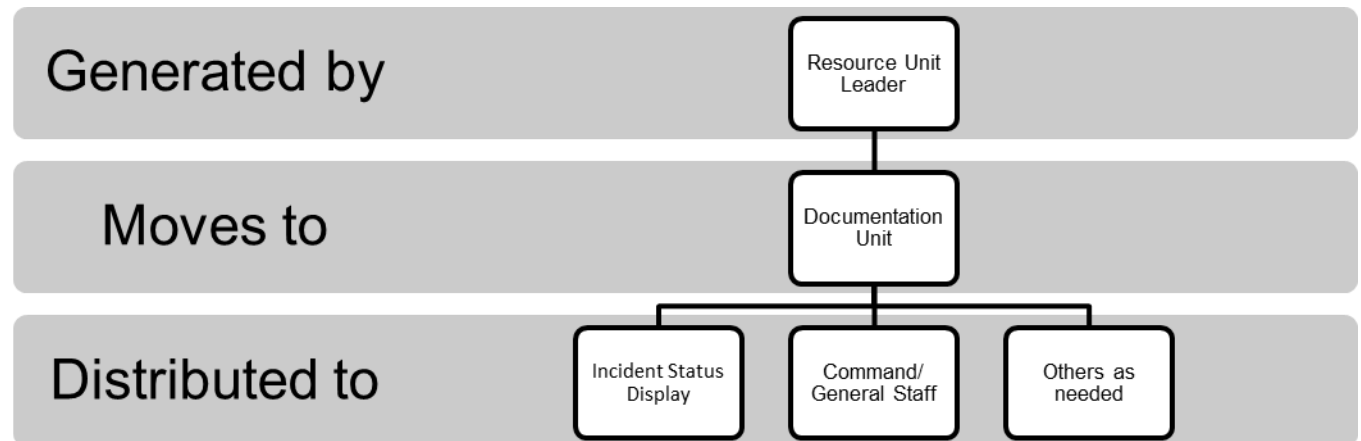
11.12.7 ICS 205a – Communications List



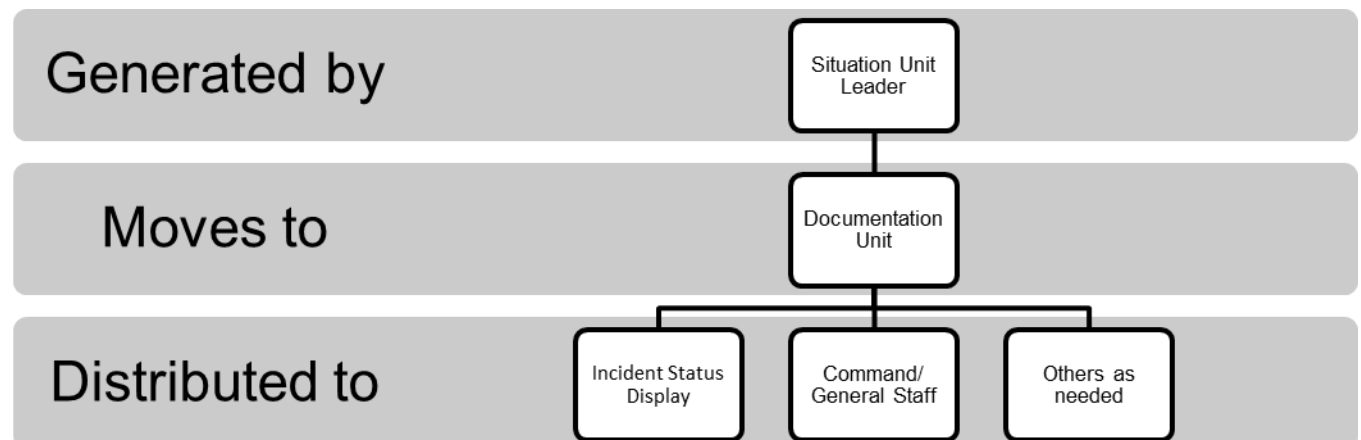
11.12.8 ICS 206 – Medical Plan



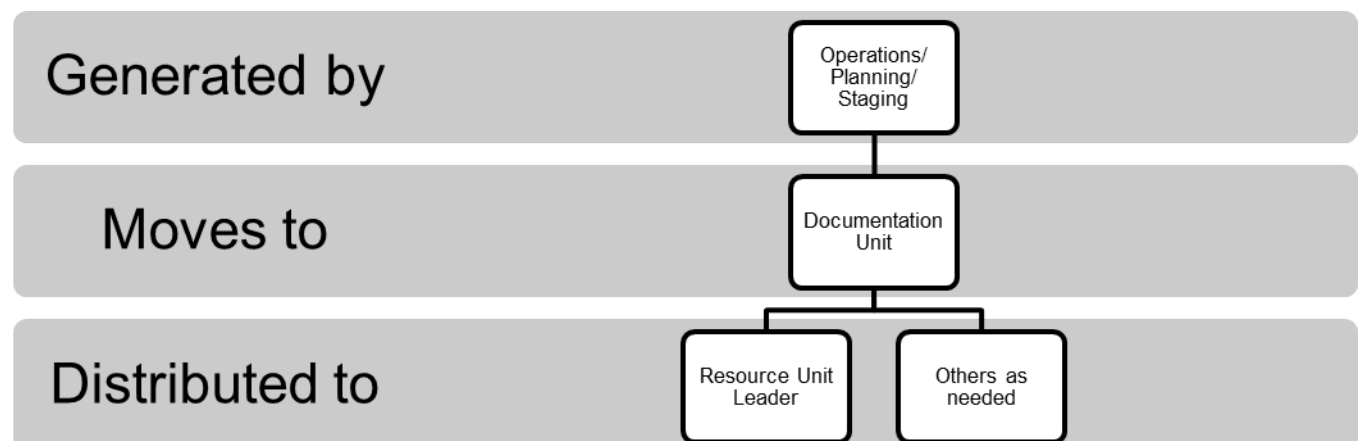
11.12.9 ICS 207 – Incident Organization Chart



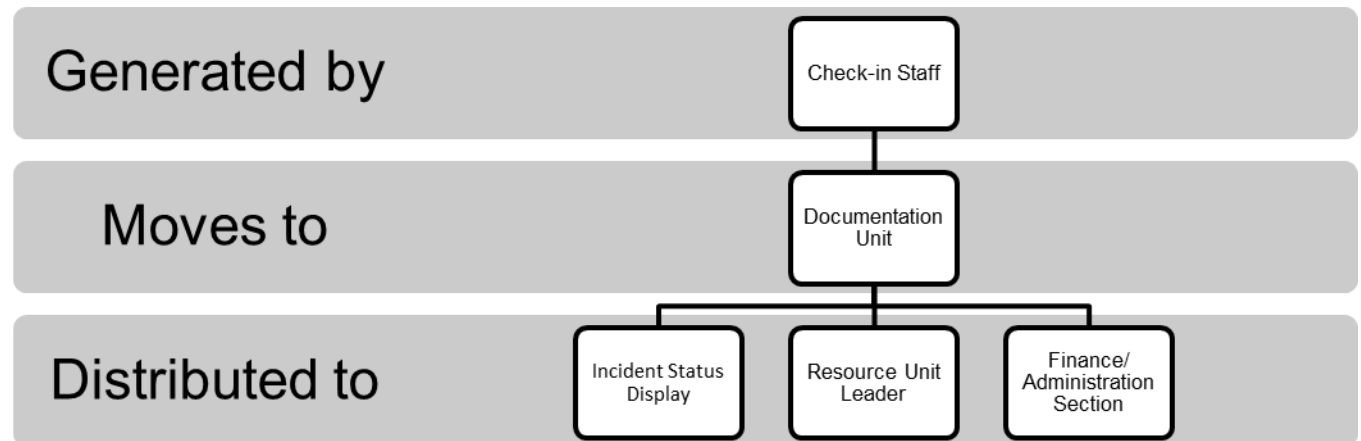
11.12.10 ICS 209 – Incident Status Summary



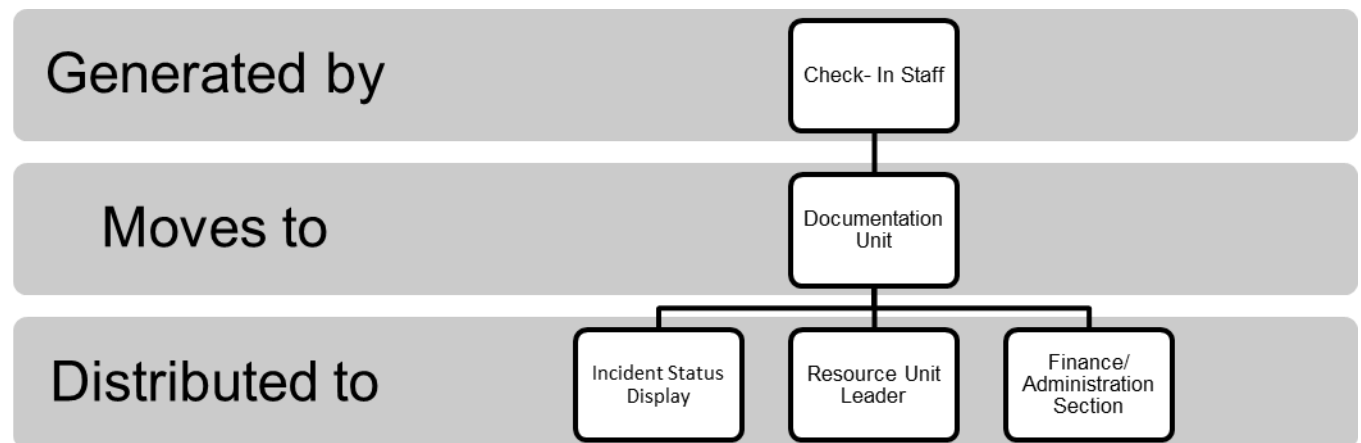
11.12.11 ICS 210 – Status Change



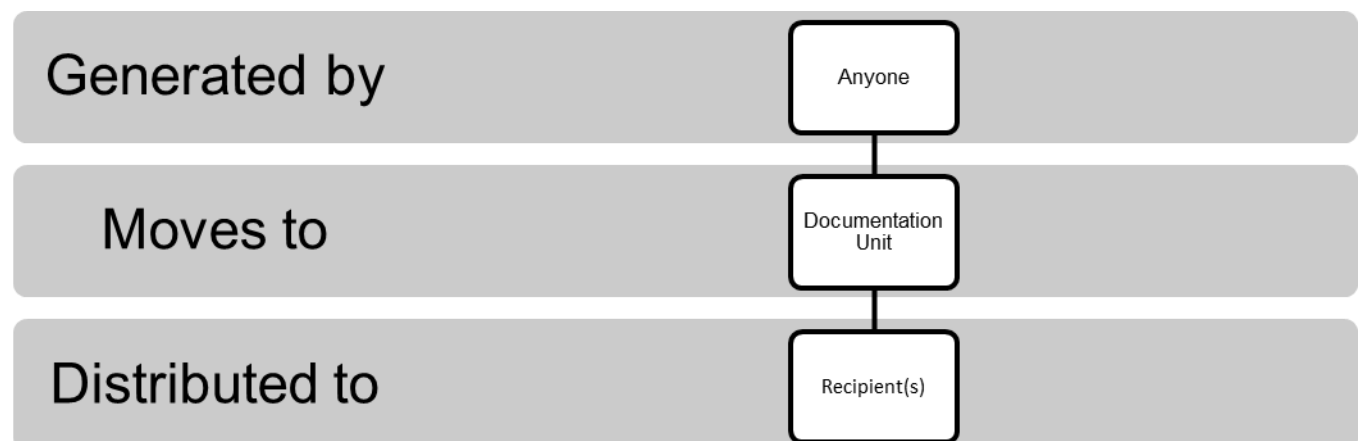
11.12.12 ICS 211e – Check-in List (Equipment)



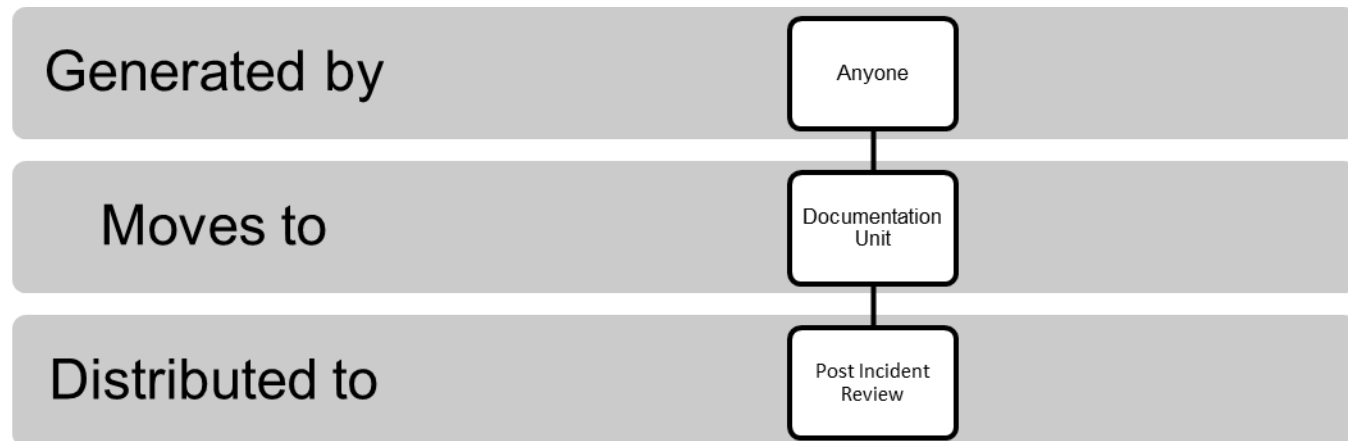
11.12.13 ICS 211p – Check-in List (Personnel)



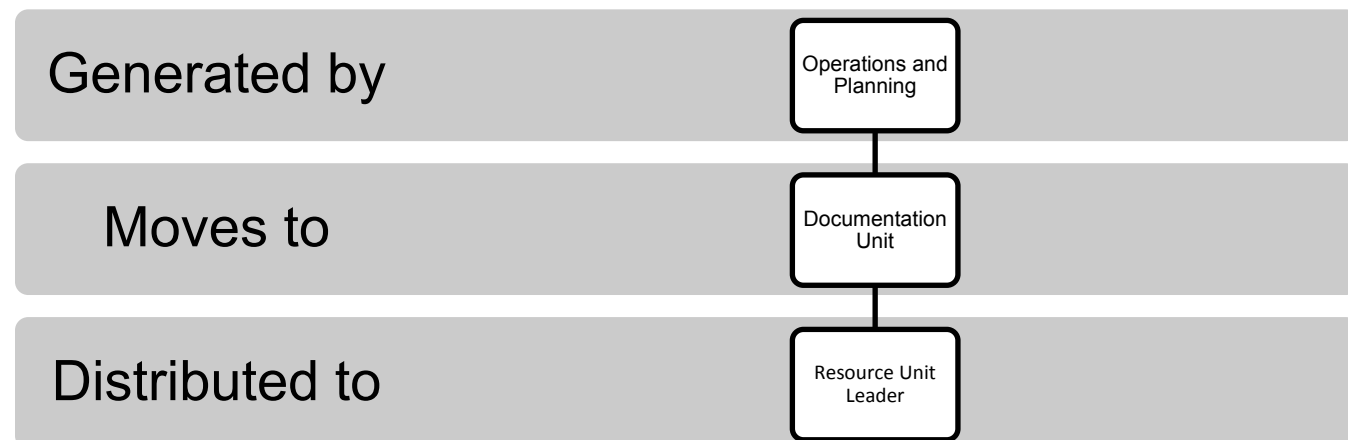
11.12.14 ICS 213 – General Message



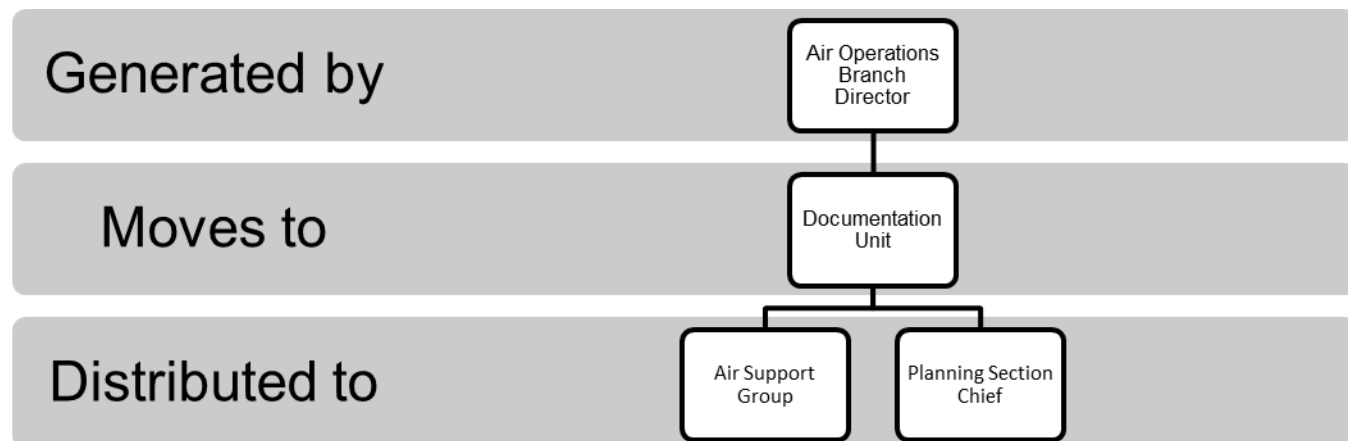
11.12.15 ICS 214 & 214a – Unit Log & Individual Log



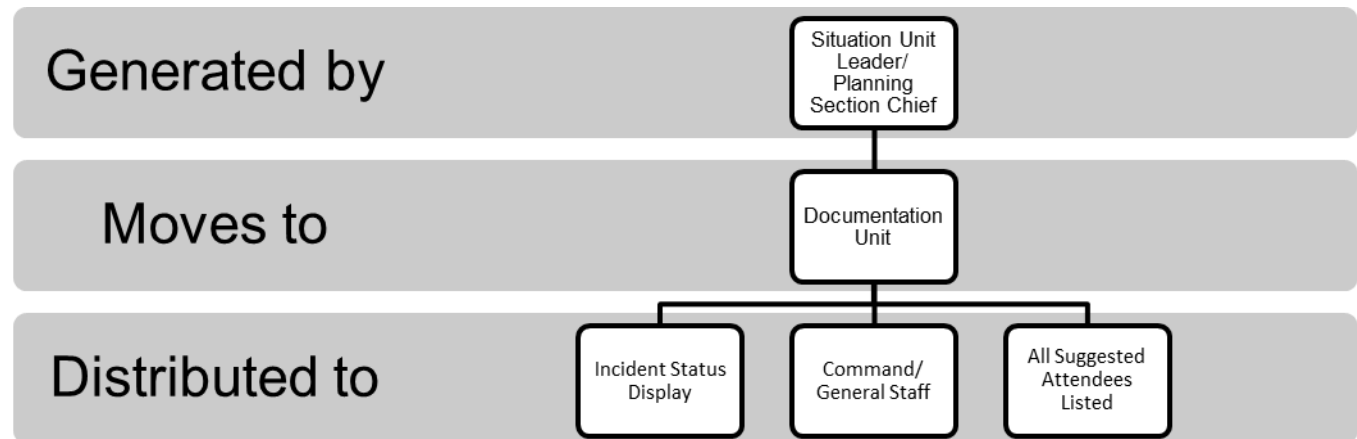
11.12.16 ICS 215 – Operational Planning Worksheet



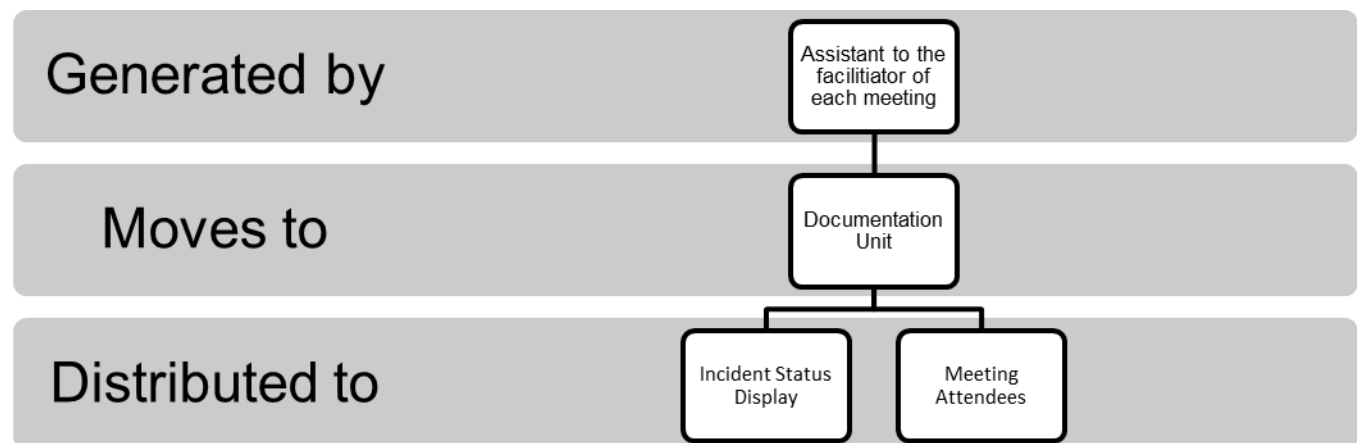
11.12.17 ICS 220 – Air Operations Summary



11.12.18 ICS 230 - Daily Meeting Schedule

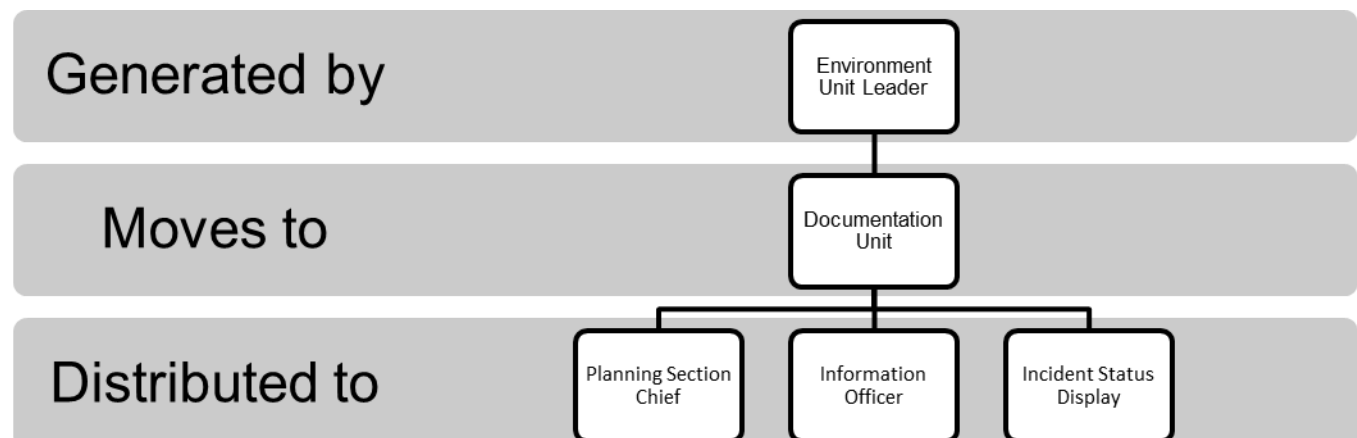


11.12.19 ICS 231 – Meeting Summary

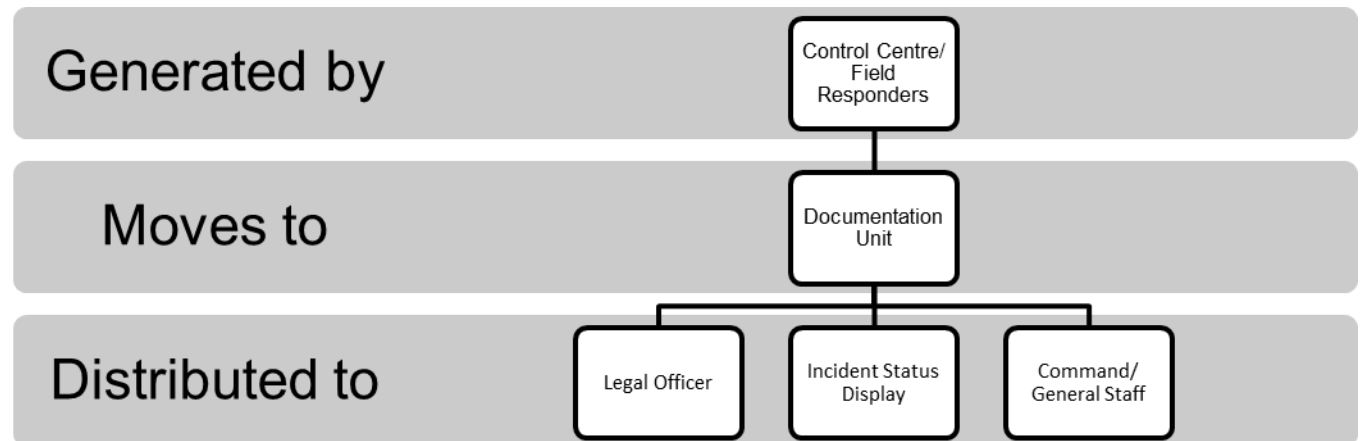


11.12.20 ICS 232 – Resources At Risk Summary

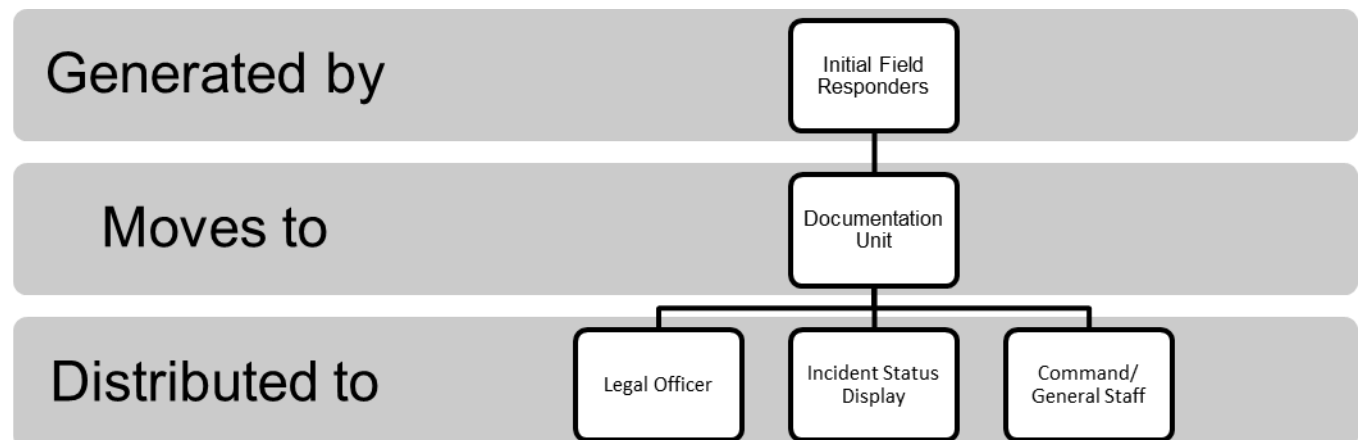
Note: Must be reviewed by Incident Command and/or Unified Command, and Stakeholder Groups.



11.12.21 Initial Incident Information Sheet

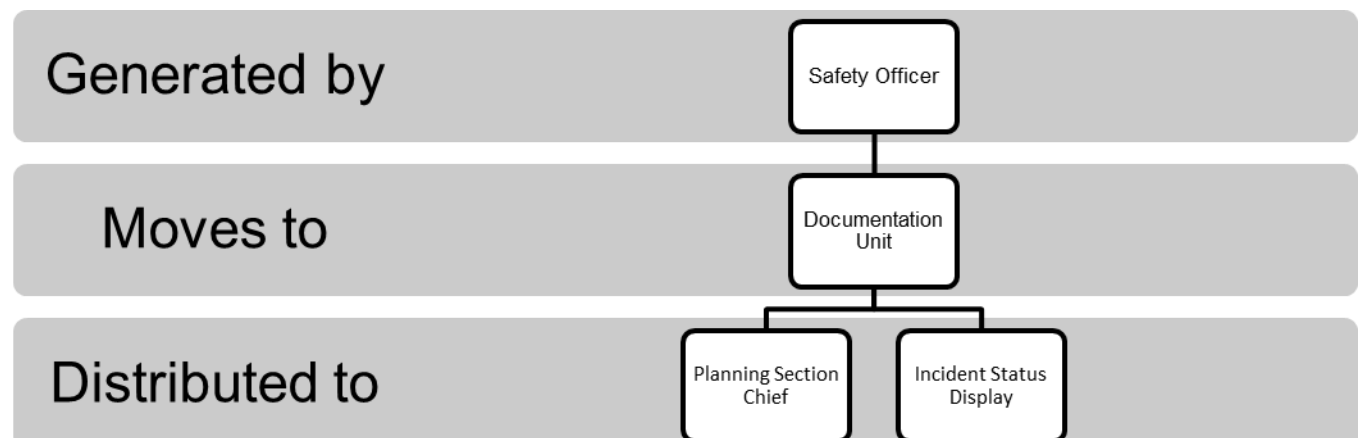


11.12.22 Initial Health and Safety Plan



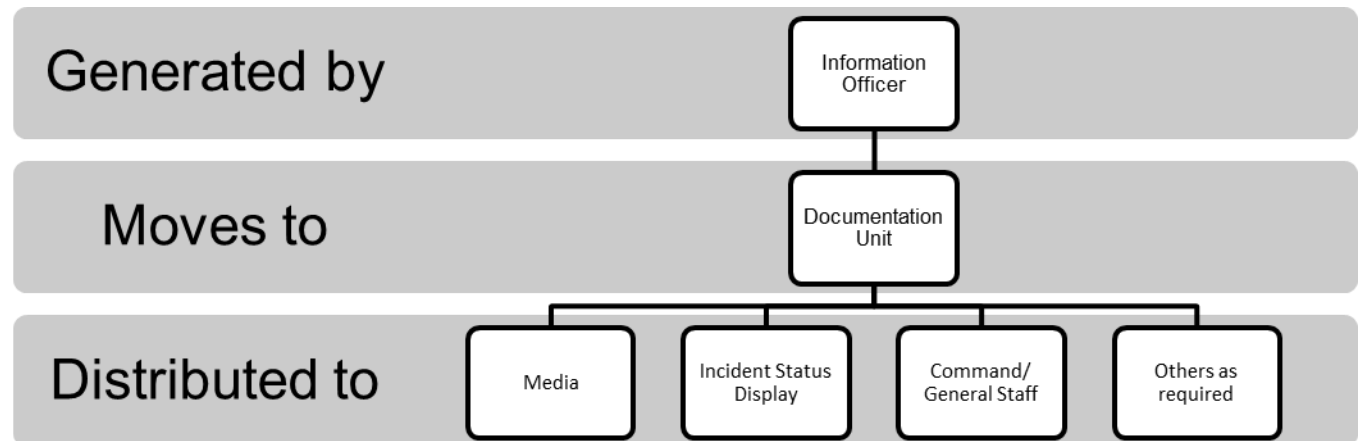
11.12.23 Health and Safety Plan

Note: MUST be approved by Incident Command and/or Unified Command.



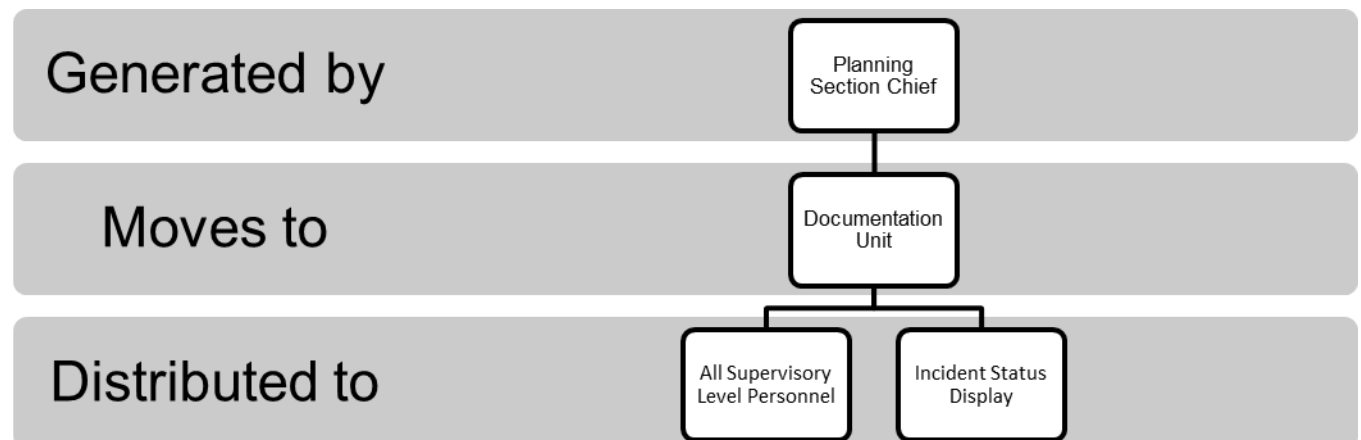
11.12.24 Media Release

Note: MUST be approved by Incident Command and/or Unified Command prior to being released.



11.12.25 Incident Action Plan

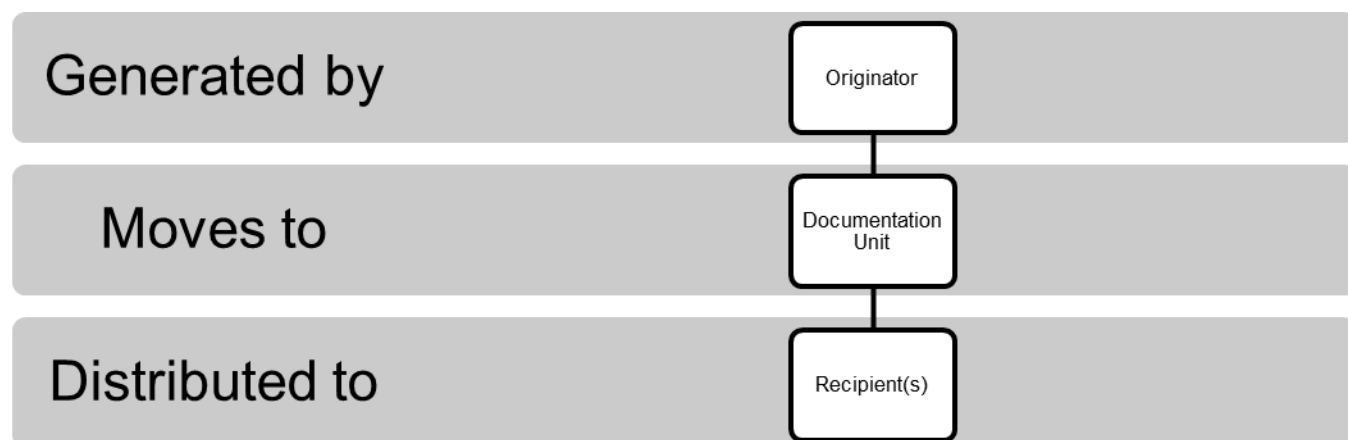
Note: MUST be reviewed and approved by Incident Command/Unified Command.



11.12.26 *Other Documents – not listed*

Note: This includes any document created for any purpose. All documents will be accompanied by a general message with the purpose of the document and the intended recipients. These documents may include, but is not limited to:

- Lodging Plan
- Refueling Plan
- Decontamination Plan
- Shoreline Assessment
- Environmental Monitoring/Sampling Plans



12.0 PLANNING CYCLE AND MEETINGS

12.1 Ground Rules for All Meetings

- ☐ Only attend meetings as required.
- ☐ Cell phones: OFF or VIBRATE.
- ☐ Follow the agenda.
- ☐ No side conversations.
- ☐ A meeting summary will be completed by the administrator to the facilitator (or designate) on the Meeting Summary form (ICS 231).

12.2 Planning Cycle

Tactics Meeting	Preparation for the Planning Meeting	Planning Meeting
Preparation for the Tactics Meeting		IAP Preparation and Approval
Command & General Staff Meeting/Briefing	Execute Plan & Assess Progress	Operations Briefing
		New Operational Period
IC/UC Develop/Update Objectives Meeting	Initial Response	
Initial UC Meeting		
Incident Briefing 201		
Initial Response		
Notification		
Incident Occurs		

12.3 Initial Response and Assessment

The period of Initial Response and Assessment occurs in all incidents. Short-term responses, which are small in scope and/or duration (e.g., a few resources working one operational period), can often be coordinated using only the ICS-201 (Incident Briefing Form).

12.4 Incident Briefing (ICS-201)

During the transfer-of command process, an ICS-201 formatted briefing provides the incoming Incident Commander (IC)/Unified Command (UC) with basic information regarding the incident situation and the resources assigned to the incident. Most importantly, it functions as the Incident Action Plan (IAP) for the initial response and remains in force and continues to develop (updated), until the response ends or the Planning Section generates the incident's first IAP. It is also suitable for briefing individuals newly assigned to the Command and General Staff, incoming tactical resources, as well as needed assessment briefings for the staff. ICS-201 facilitates documentation of the current situation, initial response objectives, current and planned actions, resources assigned and requested, on-scene organization structure, and incident potential. This form is essential for future planning and effective management of initial response activities.

When New IC/UC; staff briefing as required
Facilitator Current IC/UC or (PSC if available)
Attendees Prospective IC/UC; Command and General Staff, as available

Tactics Meeting	Preparation for the Planning Meeting	Planning Meeting
Preparation for the Tactics Meeting		IAP Preparation and Approval
Command & General Staff Meeting/Briefing	Execute Plan & Assess Progress	Operations Briefing
		New Operational Period
IC/UC Develop/Update Objectives Meeting	Initial Response	
Initial UC Meeting		
Incident Briefing 201		
Initial Response		
Notification		
Incident Occurs		

12.4.1 Incident Briefing (ICS-201) Agenda

Using ICS-201 as an outline, include:

- ☐ Current situation (note spilled product, territory, exposures, safety concerns, etc.; use map/charts).
- ☐ Initial objectives and priorities.
- ☐ Current and planned actions.
- ☐ Communications.
- ☐ Current on-scene organization.
- ☐ Resource assignments.
- ☐ Resources en-route and/or ordered.
- ☐ Facilities established.
- ☐ Incident potential.

12.4.2 Duties

Command

- ☐ Obtains incident briefing using ICS-201.
- ☐ Assesses operational requirements.
- ☐ Determines current/future organizational and response requirements and objectives.

Operations

- ☐ Obtains briefing from IC.
- ☐ Considers available Contingency Plan.
- ☐ Develops strategies and tactics.
- ☐ Assembles additional resources.
- ☐ Manages response using ICS-201.

Planning

- ☐ If available, facilitates briefing.
- ☐ If/when activated, orders staff.

Logistics

- ☐ If/when activated, orders staff.

Finance/Admin

- ☐ If/when activated, orders staff.

12.5 Initial Unified Command Meeting

Provides UC with an opportunity to discuss and concur on important issues prior to the Unified Command Objectives Meeting. The meeting should be brief and all important decisions documented. Prior to the meeting, IC's should have an opportunity to review and prepare to address the agenda items. The results of this meeting will help to guide the overall response efforts.

When After the UC is established
Facilitator UC member or PSC (if available)
Attendees All available members of the UC, DOCL

12.5.1 Initial Unified Command Meeting Agenda

- ☐ Meeting brought to order, cover ground rules and reviews agenda.
- ☐ Validate makeup of newly formed UC, based on Chapter 6 criteria.
- ☐ Clarify UC Roles and Responsibilities.
- ☐ Review agency policies.
- ☐ Negotiate and agree on key decisions which may include:
 - UC jurisdictional boundaries and focus (Area of Responsibility (AOR)).
 - Name of incident.
 - Overall response organization, including:
 - Integration of assisting and cooperating agencies;
 - Location of Incident Command Post (if not already identified) and other critical facilities, as appropriate.

Tactics Meeting	Preparation for the Planning Meeting	Planning Meeting
Preparation for the Tactics Meeting		IAP Preparation and Approval
Command & General Staff Meeting/Briefing	Execute Plan & Assess Progress	Operations Briefing
		New Operational Period
IC/UC Develop/Update Objectives Meeting	Initial Response	
Initial UC Meeting		
Incident Briefing 201		
Initial Response		
Notification		
Incident Occurs		

- Operational period length/start time and work shift hours.
- Best-qualified Operations Section Chief and Deputy.
- Other key Command and General staff assignments and technical support as needed.
- ☐ Summarize and document key decisions.

12.5.2 Duties

Command

- ☐ Negotiates UC participation.
- ☐ Clarifies UC roles & responsibilities.
- ☐ Negotiates and agrees on key decisions including:
 - Area of responsibility.
 - Name of the incident.
 - Overall organization.
 - Location of ICP, facilities, and support.
 - Op Period length/start time and work shifts hours.
 - OSC and Deputy OSC and other key Command and General staff and technical support as needed.

Operations

- ☐ Briefs UC members on current operations.

Planning

- ☐ If available, facilitates and documents meeting.

Logistics & Finance/Admin

- ☐ May not be activated yet

12.6 Unified Command Objectives Meeting

The UC will set response priorities, identify any limitations and constraints, develop incident objectives and establish guidelines for the IMT to follow. For reoccurring meetings, all products will be reviewed and updated as needed. Products resulting from this meeting along with decisions and direction from the Initial UC meeting, will be presented at the Command and General Staff Meeting.

When Prior to Command & General Staff Meeting
Facilitator IC/UC Member or PSC (if available)
Attendees IC/UC Members, Selected Command and General Staff as appropriate, DOCL

12.6.1 Unified Command Objectives Meeting

Agenda

- ☐ PSC brings meeting to order, conducts roll call, covers ground rules, and reviews agenda.
- ☐ Review and/or update key decisions.
- ☐ Develop or review/update response priorities, limitations and constraints.
- ☐ Develop or review incident objectives.
- ☐ Develop or review/update key procedures which may include:
 - Managing sensitive information
 - Information flow
 - Resource ordering
 - Cost sharing and cost accounting
 - Operational security issues
- ☐ Develop or review/update tasks for Command and General Staff to accomplish (ICS-233).
- ☐ Review, document and/or resolve status of any open actions (ICS-233).
- ☐ Agree on division of UC workload.
- ☐ Prepare for the Command and General Staff Meeting.

Tactics Meeting	Preparation for the Planning Meeting	Planning Meeting
Preparation for the Tactics Meeting		IAP Preparation and Approval
Command & General Staff Meeting/Briefing	Execute Plan & Assess Progress	Operations Briefing
		New Operational Period
IC/UC Develop/Update Objectives Meeting	Initial Response	
Initial UC Meeting		
Incident Briefing 201		
Initial Response		
Notification		
Incident Occurs		

12.6.2 Duties

Command

- ☐ Develops incident priorities.
- ☐ Identifies limitations and constraints.
- ☐ Develops incident objectives.
- ☐ Identifies key procedures.
- ☐ Develops tasks for Command and General Staff.
- ☐ Agree on division of UC workload.

Operations

- ☐ May be present if required.

Planning

- ☐ Facilitates and documents meeting.
- ☐ Proposes draft objectives to Command.

12.7 Command and General Staff Meeting

The IC/UC will present their decisions and management direction to the Command and General Staff. This meeting should clarify and ensure understanding among the core IMT members on the decisions, objectives, procedures, and functional assignments (tasks) that the UC has reached agreement on. Ensuing Command and General Staff Meetings will cover any changes in Command direction, review open actions, and status of assigned tasks (ICS-233).

When Prior to Tactics Meeting
 Facilitator PSC
 Attendees IC/UC Members, Command and General Staff, SUL, and DOCL

12.7.1 Command and General Staff Meeting Agenda

- ☐ PSC brings meeting to order, conducts roll call, covers ground rules, and reviews agenda.
- ☐ SITL conducts situation status briefing.
- ☐ IC/UC:
 - ☐ Provides comments;
 - ☐ Reviews key decisions, priorities, constraints and limitations (if new or changed);
 - ☐ Discusses incident objectives;
 - ☐ Reviews key procedures (if new or changed); and
 - ☐ Assigns or reviews functional tasks/open actions (ICS-233).
- ☐ PSC facilitates open discussion to clarify priorities, objectives, assignments, issues, concerns and open actions/tasks.
- ☐ IC/UC provides closing comments.

Tactics Meeting	Preparation for the Planning Meeting	Planning Meeting
Preparation for the Tactics Meeting		IAP Preparation and Approval
Command & General Staff Meeting/Briefing	Execute Plan & Assess Progress	Operations Briefing
		New Operational Period
IC/UC Develop/Update Objectives Meeting	Initial Response	
Initial UC Meeting		
Incident Briefing 201		
Initial Response		
Notification		
Incident Occurs		

12.7.2 Duties

Command

- ☐ Reviews key decisions, constraints, limitations, objectives and procedures.
- ☐ Presents/reviews functional work assignments (tasks), to the Command and General Staff members.
- ☐ Reviews status of open actions and work assignments from previous meetings.

Operations

- ☐ Provides update on current operations.

Planning

- ☐ Facilitates/documents meeting.

Situation Unit Leader

- ☐ Provides update on current situation and projections.

Documentation Unit Leader

- ☐ Documents meeting and distributes meeting materials.

12.8 Preparing for the Tactics Meeting

During this phase of the Operational Planning Cycle, the OSC/PSC begins the work of preparing for the upcoming Tactics Meeting. They review incident objectives and may draft a Work Analysis Matrix (ICS-334) which helps document strategies and tactics to meet the objectives assigned, and draft an Operational Planning Worksheet (ICS-215) and an Operations Section organization chart for the next Operational Period.

The Safety Officer should begin to develop the Hazard Risk Analysis Worksheet (ICS-215a). The PSC should facilitate/support this process to ensure that the material, information, resources, etc. to be presented in the Tactics Meeting is organized and accurate.

When Prior to Tactics Meeting
Facilitator PSC facilitates process
Attendees None. This is not a meeting but a period of time

Tactics Meeting	Preparation for the Planning Meeting	Planning Meeting
Preparation for the Tactics Meeting		IAP Preparation and Approval
Command & General Staff Meeting/Briefing	Execute Plan & Assess Progress	Operations Briefing
		New Operational Period
IC/UC Develop/Update Objectives Meeting	Initial Response	
Initial UC Meeting		
Incident Briefing 201		
Initial Response		
Notification		
Incident Occurs		

12.8.1 Duties

Operations

- ☐ Develops draft strategies and tactics for each operationally oriented incident objective and may use Work Analysis Matrix, ICS-234.
- ☐ Develops alternative and/or contingency strategies and tactics.
- ☐ Outlines work assignments (tactics) and required resources using ICS-215.
- ☐ Develops/outlines Operations Section organization for next operational period.

Planning

- ☐ Facilitates process.
- ☐ Reviews incident objectives and agrees on those that are the responsibility of the Operations Section to complete.
- ☐ Ensures Technical Specialists are included and prepared to contribute as appropriate.
- ☐ Presents situation information and provides projections.

Safety Officer

- ☐ Begins to develop the Hazard Risk Analysis ICS-215a.

12.9 Tactics Meeting

This 30-minute meeting produces operational input needed to support the IAP. The OSC may present the Work Analysis Matrix (ICS-234), if completed, and will present the draft Operational Planning Worksheet (ICS-215). The proposed Operations Section organization will also be presented by OSC and solidified. The Safety Officer will present the draft Hazard Risk Analysis Worksheet (ICS-215a). OSC/PSC will solicit input of attendees in order to refine these draft products for full staff approval at the Planning Meeting.

When Prior to Planning Meeting
Facilitator PSC
Attendees PSC, OSC, LSC, RESL, SITL, SOFR, DOCL, COML, THSP (as needed)

12.9.1 Tactics Meeting Agenda

- ☐ PSC brings meeting to order, conducts roll call, covers ground rules, and reviews agenda.
- ☐ SITL reviews the current and projected incident situation.
- ☐ PSC reviews incident operational objectives and ensures accountability for each.
- ☐ OSC reviews, if completed, the Work Analysis Matrix (ICS-234) strategy and tactics.
- ☐ OSC reviews and/or completes the Operational Planning Worksheet (ICS-215), which addresses work assignments, resource commitments, contingencies and needed support facilities, e.g Staging Areas.
- ☐ OSC reviews and/or completes Operations Section organization chart.
- ☐ SOFR reviews and/or completes the Hazard Risk Analysis Worksheet (ICS-215), and identifies and resolves any critical safety issues.
- ☐ LSC discusses and resolves any logistics issues.
- ☐ PSC validates connectivity of tactics and operational objectives.

Tactics Meeting	Preparation for the Planning Meeting	Planning Meeting
Preparation for the Tactics Meeting		IAP Preparation and Approval
Command & General Staff Meeting/Briefing	Execute Plan & Assess Progress	Operations Briefing
		New Operational Period
IC/UC Develop/Update Objectives Meeting	Initial Response	
Initial UC Meeting		
Incident Briefing 201		
Initial Response		
Notification		
Incident Occurs		

12.9.2 Duties

Operations

- ☐ Briefs current operations.
- ☐ Presents strategies, tactics and resource needs using ICS-215.
- ☐ Identifies alternative strategies.
- ☐ Presents Operations Section organization.

Planning

- ☐ Facilitates meeting.
- ☐ Presents current situation and provides projections.
- ☐ Presents resources status.
- ☐ Documents meeting.

Safety

- ☐ Identifies potential hazards and recommends mitigation measures.
- ☐ Presents the Hazard Risk Analysis ICS-215a.

Logistics

- ☐ Contributes logistics information, as necessary.
- ☐ Determines support requirements based on the ICS-215
- ☐ Prepares to order needed resources.

12.10 Preparing for the Planning Meeting

The Command and General Staffs prepare for the upcoming Planning Meeting. The PSC ensures the material, information, resources, etc., used or discussed in the Planning Meeting are prepared and ready for presentation during the meeting.

When Prior to the Planning Meeting
Facilitator PSC facilitates process
Attendees None. This is not a meeting but a period of time

12.10.1 Duties
Command

- ☐ Prepares further guidance/clarification.
- ☐ Meets informally with appropriate staff members, as needed.

Operations

- ☐ Prepares on-going operations update.
- ☐ Prepares final draft ICS-215.
- ☐ Coordinates with other staff, as needed.

Planning

- ☐ Develops resource, support and overhead requests and submits to Logistics.
- ☐ Publishes/distributes meeting schedule and ensures attendees are prepared.
- ☐ Duplicates documents for Command needed to support presentations.

Logistics

- ☐ Orders resources to support IAP.
- ☐ Prepares for Planning Meeting.
- ☐ Verifies support requirements (communications, transportation, food, medical etc.)

Finance/Admin

- ☐ Prepares for Planning Meeting.
- Verifies financial and administrative requirements

Tactics Meeting	Preparation for the Planning Meeting	Planning Meeting
Preparation for the Tactics Meeting		IAP Preparation and Approval
Command & General Staff Meeting/Briefing	Execute Plan & Assess Progress	Operations Briefing
		New Operational Period
IC/UC Develop/Update Objectives Meeting	Initial Response	
Initial UC Meeting		
Incident Briefing 201		
Initial Response		
Notification		
Incident Occurs		

12.11 Planning Meeting

This meeting provides an overview of the tactical plan to achieve IC's current direction, priorities, and objectives. The OSC will present the proposed plan (strategy and tactics) to the Command and General Staff for review and comment. The OSC will also discuss how the incident will be managed along with work assignments resources and support required to implement the plan. The Command and General Staff discuss and resolve any issues and concerns prior to assembling the IAP. After review and updates are made, key attendees commit to support the plan.

When After the Tactics Meeting

Facilitator PSC

Attendees IC/UC, Command Staff, General Staff, SITL, DOCL, THSP (as required)

12.11.1 Planning Meeting Agenda

- ☐ PSC brings meeting to order, conducts roll call, covers ground rules, and reviews agenda.
- ☐ IC/UC provides opening remarks.
- ☐ SITL provides briefing on current situation, resources at risk, weather/sea forecast, and incident projections.
- ☐ PSC reviews Command's incident priorities, decisions, and objectives.
- ☐ OSC provides briefing on current operations followed with an overview on the proposed plan including strategy, tactics/work assignments (ICS-215), resource commitment, contingencies, Operations Section organization structure, and needed support facilities, e.g., Staging Areas.
- ☐ PSC reviews proposed plan to ensure that UC's priorities and operational objectives are met.
- ☐ PSC reviews and validates responsibility for any open actions/tasks (ICS-233), and management objectives.
- ☐ PSC conducts round robin of Command and General Staff members to solicit their final input and commitment to the proposed plan:
 - LSC covers transport, communications and supply updates and issues;
 - FSC covers fiscal issues;
 - SOFR covers safety issues;
 - PIO covers public affairs/information issues; and
 - LNO covers interagency issues.
- ☐ PSC requests Command's tacit approval of the plan as presented. IC/UC may provide final comments.
- ☐ PSC issues assignments to appropriate IMT members for developing IAP support documentation along with deadlines.

Tactics Meeting	Preparation for the Planning Meeting	Planning Meeting
Preparation for the Tactics Meeting		IAP Preparation and Approval
Command & General Staff Meeting/Briefing	Execute Plan & Assess Progress	Operations Briefing
		New Operational Period
IC/UC Develop/Update Objectives Meeting	Initial Response	
Initial UC Meeting		
Incident Briefing 201		
Initial Response		
Notification		
Incident Occurs		

12.11.3 Duties**Command**

- ☐ Ensures all of Command's direction, priorities, and objectives have been met.
- ☐ Provides further direction and resolves differences, as needed.
- ☐ Gives tacit approval of proposed plan.

Operations

- ☐ Provides overview of current OPS.
- ☐ Presents plan of action, including, strategies, tactics, contingencies, resources, organization structure and overall management considerations e.g., divisions/ groups etc.

Planning

- ☐ Facilitates meeting.
- ☐ Briefs current situation.
- ☐ Provides projections.
- ☐ Documents meeting.

Logistics

- ☐ Briefs logistical support/services and resource ordering status.
- ☐ Discusses operational facility issues.

Finance/Admin

- ☐ Briefs administrative and financial status/projections

Command Staff

- ☐ Discusses and resolves any Safety, Liaison and Media considerations and issues.

12.12 IAP Preparation and Approval

Appropriate IMT members must immediately complete the assigned task/products that are needed to include in the IAP. These products must meet the deadline as set by the PSC so that planning can assemble the IAP components. The deadline must be early enough to permit timely IC/UC review, approval, and duplication of sufficient copies for the Operations Briefing and other IMT members.

When Immediately following the Planning Meeting, the PSC assigns the deadline for products

Facilitator PSC facilitates process

Attendees None. This is not a meeting but a period of time

12.12.1 Duties

Command

- ☐ Reviews, approves, and signs IAP.

Operations

- ☐ Provides required information for inclusion into IAP (ICS-220).
- ☐ Works with Planning to ensure that the chart and ICS-204(s) are complete.

Planning

- ☐ Facilitates gathering of required documents and assembles IAP.
- ☐ Reviews IAP for completeness.
- ☐ Provides completed IAP to IC/UC for review/approval.
- ☐ Makes sufficient copies of the IAP.
- ☐ Distributes IAP to appropriate team members, and files original.

Logistics

- ☐ Reviews Logistics Section products for completeness (ICS-205, ICS-206, etc.).
- ☐ Provides logistics information for IAP.
- ☐ Verifies resources ordered/status.

Finance/Admin

- ☐ Verifies financial and administrative requirements for IAP.

Tactics Meeting	Preparation for the Planning Meeting	Planning Meeting
Preparation for the Tactics Meeting		IAP Preparation and Approval
Command & General Staff Meeting/Briefing	Execute Plan & Assess Progress	Operations Briefing
		New Operational Period
IC/UC Develop/Update Objectives Meeting	Initial Response	
Initial UC Meeting		
Incident Briefing 201		
Initial Response		
Notification		
Incident Occurs		

12.12.2 IAP Common Components and Primary Responsibility

Incident Objectives (ICS-202)	PSC
Organization List/Chart (ICS-203/207)	RESL
Assignment List (ICS-204)	RESL
Communication Plan (ICS-205)	COML
Medical Plan (ICS-206)	MEDL
Site Safety Plan (KM Template or ICS-208)	SOFR
Incident Map/Chart	SITL
Weather, tide forecast, trajectory	SITL

Air Operations Summary (ICS-220)	AOBD
Demobilization Plan	DMOB
Transportation Plan	GSUL
Decontamination Plan	THSP
Waste Management or Disposal Plan	THSP
Other Plans and/or documents, as required	

12.13 Operations Briefing

This 30-minutes (or less) briefing presents the IAP to the Operations Section oncoming Division and Group Supervisors. After this briefing, and during shift change, off-going Supervisors should be interviewed by their relief, and by OSC, in order to validate IAP effectiveness. The Division/Group Supervisors may make last minute adjustments to tactics over which they have purview. Similarly, a Supervisor may reallocate resources within that Division/Group to adapt to changing conditions.

When Approximately one hour prior to start of each Operational Period

Facilitator OSC

Attendees IC/UC, Command and General Staff, Branch Directors, Division/Group Supervisors, Task Force/Strike Team Leaders (if possible), Unit Leaders, others as appropriate.

Tactics Meeting	Preparation for the Planning Meeting	Planning Meeting
Preparation for the Tactics Meeting		IAP Preparation and Approval
Command & General Staff Meeting/Briefing	Execute Plan & Assess Progress	Operations Briefing
		New Operational Period
IC/UC Develop/Update Objectives Meeting	Initial Response	
Initial UC Meeting		
Incident Briefing 201		
Initial Response		
Notification		
Incident Occurs		

12.13.1 Operations Briefing Agenda

- ☐ PSC opens briefing, covers ground rules and agenda, and takes roll call of Command and General Staff and Operations personnel required to attend.
- ☐ PSC reviews IC/UC objectives and changes to the IAP.
- ☐ IC/UC provides remarks.
- ☐ SITL conducts Situation briefing.
- ☐ OSC discusses current response actions and accomplishments.
- ☐ OSC briefs Operations Section personnel.
- ☐ LSC covers transport, communications, and supply updates.
- ☐ FSC covers fiscal issues.
- ☐ SOFR covers safety issues, PIO covers public affairs and public information issues, LNO covers interagency issues and INTO covers intelligence issues.
- ☐ PSC solicits final comments and adjourns briefing.

12.13.2 Duties

Command

- ☐ Provides guidance/ clarification.
- ☐ Provides leadership presence and motivational remarks.

Operations

- ☐ Provides operations briefing for next operational period.
- ☐ Ensures ICS-204 tasking is clear.

Planning

- ☐ Sets up briefing area.
- ☐ Facilitates Command and General Staff and attendees briefing responsibilities.
- ☐ Resolves questions.
- ☐ Explains support plans as needed.

Logistics

- ☐ Briefs transportation, communication, and supply issues.

Finance/Admin

- ☐ Briefs administrative issues and provides financial report

12.14 Assess Progress

Assessment is an on-going continuous process to help adjust current operations and help plan for future operations. Following the briefing and shift change, all Command and General Staff Section Chiefs will review the incident response progress, and make recommendations to the IC/UC in preparation for the next IC/UC Objectives Meeting. This feedback/ information is continuously gathered from various sources, including Field Observers, responder debriefs, stakeholders, etc. IC/UC should encourage Command and General Staff to get out of the ICP and view firsthand the areas of the incident they are supporting.

12.14.1 Duties

Command

- ☐ Monitors on-going incident management activities.
- ☐ Considering best response practices, evaluates prior decisions, direction, priorities, and task assignments.

Operations

- ☐ Monitors on-going operations and makes changes, as necessary.
- ☐ Measures/ensures progress against assigned objectives.
- ☐ Briefs Command on a scheduled basis.

Planning

- ☐ Ensures on-going operational information is being collected and documented.
- ☐ Develops new/revised incident objectives and provides to IC/UC.

Tactics Meeting	Preparation for the Planning Meeting	Planning Meeting
Preparation for the Tactics Meeting		IAP Preparation and Approval
Command & General Staff Meeting/Briefing	Execute Plan & Assess Progress	Operations Briefing
IC/UC Develop/Update Objectives Meeting		New Operational Period
Initial UC Meeting	Initial Response	
Incident Briefing 201		
Initial Response		
Notification		
Incident Occurs		

Logistics

- ☐ Evaluates logistical support effectiveness and makes organizational and procedural adjustments, as needed.

Finance/Admin

- ☐ Monitors ongoing operations to ensure accurate and timely administrative and financial reporting.

Safety Officer

- ☐ Monitors ongoing operations and corrects unsafe practices.
- ☐ Evaluates effectiveness of the Risk Hazard Analysis (ICS-215a) and Site Safety Plan.

12.15 Special Purpose Meetings

Special Purpose meetings are most applicable to larger incidents requiring an Operational Period Planning Cycle, but may also be useful during the Initial Response Phase.

12.15.1 Business Management Meeting

The purpose of this meeting is to develop and update the Business Management Plan for finance and logistical support. The agenda could include: documentation issues, cost sharing, cost analysis, finance requirements, resource procurement, and financial summary data. Attendees normally include: FSC, COST, PROC, LSC, SUL, and DOCL.

12.15.2 Agency Representative Meeting

This meeting is held to update agency representatives and ensure that they can support the IAP. It is most appropriately held shortly after the Planning Meeting in order to present the plan (IAP) for the next operational period. It allows for minor changes should the plan not meet the expectations of the agency representatives.

12.15.3 Media Briefing

This meeting is normally conducted at the Joint Information Center (JIC). Its purpose is to brief the media and the public on the most current and accurate facts. It is set up by the PIO, moderated by a UC spokesperson, and features selected spokespersons. Spokespersons should be prepared by the PIO to address anticipated issues. The briefing should be well planned, organized, and scheduled to meet media's needs.

12.15.4 Technical Specialist Meeting

Meetings to gather THSP input to IAP, held shortly after the planning meeting to gather information for the IAP.

12.15.5 Demobilization Planning Meeting

This meeting is held to gather functional requirements from Command, Command Staff, and General Staff that would be included in the incident Demobilization Plan. Functional requirements would include: safety, logistic, and fiscal considerations, and release priorities that would be addressed in the plan. Attendees normally include: Command, OSC, PSC, LSC, FSC, LNO, SOFR, INTO PIO and DMOB. The DMOB then prepares a draft Demobilization Plan to include the functional requirements and distributes to Command, Command Staff, and General Staff for review and comment.

13.0 GLOSSARY OF TERMS AND ACRONYMS

13.1 Terms

Agency Representative - Individual assigned to an incident from an assisting or cooperating agency who has been delegated full authority to make decisions on all matters affecting his/her agency's participation at the incident. Agency Representatives report to the Liaison Officer upon arrival at the ICP.

Air Operations Branch Director - The person primarily responsible for preparing and implementing the air operations portion of the Incident Action Plan. Also responsible for providing logistical support to helicopters assigned to the incident.

Allocated Resources - Resources (personnel and equipment) dispatched to an incident.

Assigned Resources - Resources checked-in and assigned work tasks.

Assignments - Tasks given to resources to perform within a given operational period, based upon tactical objectives in the Incident Action Plan.

Assistant - Title for subordinates of the Command Staff positions. The title indicates a level of technical capability, qualifications, and responsibility subordinate to the primary positions. Assistants may also be used to supervise unit activities at camps.

Assisting Agency - An agency which directly contributes tactical or service resources in support of an incident response.

Available Resources - Incident-based resources which are immediately-available for an assignment.

Base - The location at which some logistics functions are coordinated and administered. Incident name or other designator will be added to the term "Base". The Incident Command Post may be collocated with the base. There is only one base per incident.

Branch - The organizational level having functional/geographic responsibility for major incident operations. The Branch level is organizationally between Section and Division/Group in the Operations Section, and between Section and Units in the Logistics Section.

Cache - A pre-determined complement of tools, equipment, and/or supplies stored in a designated location, and available for incident use.

Camp - A geographical site, within the general incident area, separate from the base, equipped and staffed to provide sleeping areas, food, water, and sanitary services to out-of-service incident personnel.

Check-In - The process whereby resources first report to an incident response. Check-in locations include: Incident Command Post (Resources Unit), Incident Base, Camps, Staging Areas, Helibases, and Division/Group Supervisors (for direct line assignments).

Chief - The ICS title of individuals responsible for command of functional sections: Operations, Planning, Logistics, and Finance/Administration.

Clear Text - The use of plain English in radio communications transmissions. No Ten Codes nor agency specific codes are used when using Clear Text.

Command - The act of directing, ordering, and/or controlling resources by virtue of explicit legal, agency, or delegated authority. May also refer to the Incident Commander/Unified Command.

Command Post - See Incident Command Post.

Command Staff - The Command Staff consists of the Information Officer, Safety Officer, Liaison Officer, and Legal Officer, who report directly to the Incident Commander. They may have an assistant or assistants, as needed.

Communications Unit - Functional unit within the Logistics Sections responsible for Incident communications equipment and facilities, supervising the Incident Communications Center, distributing communications equipment to incident personnel, and the maintenance and repair of communications equipment.

Control Point – A location-specific response tactic used to contain or recover oil. A river, stream or creek may include many control points along its path where resources response resources (boom, skimmers, etc.) may be deployed. Control Points are described in the Emergency Response Plans.

Cooperating Agency - An agency supplying assistance other than direct tactical, support, or service functions or resources to the incident control effort (e.g., Red Cross, telephone company, etc.).

Cost Unit - Functional unit within the Finance/ Administration Section responsible for tracking costs, analyzing cost data, making cost estimates, and recommending cost-saving measures.

Decontamination – The process of removing or neutralizing contaminants that have accumulated on personnel and equipment.

Deputy - A fully-qualified individual who, in the absence of a superior, could be delegated the authority to manage a functional operation or perform a specific task. In some cases, a Deputy could act as relief for a superior, and, therefore, must be fully qualified in the position. Deputies can be assigned to the Incident Commander, General Staff, and Branch Directors.

Demobilization Unit - Functional unit within the Planning Section responsible for assuring orderly, safe, and efficient demobilization of incident resources.

Director - The ICS title for individuals responsible for supervising a Branch.

Dispatch - The implementation of a command decision to move resources from one place to another.

Dispatch Center - A facility from which resources are directly assigned to an incident.

Division - The organization level having responsibility for operation within a defined geographic. The Division level is organizationally between the Task Force/Strike Team and the Branch. (See also "Group"). Divisions may be led by a Division Supervisor.

Documentation Unit - Functional unit within the Planning Section responsible for collecting, recording, and safeguarding all documents relevant to the incident.

Emergency Management – Management of an emergency or incident. The KM ICS organization is designed to fulfill the emergency management role.

Emergency Medical Technician (EMT) - A health-care specialist with particular skills and knowledge in pre-hospital emergency medicine.

Emergency Operations Center (EOC) - A pre-designated facility established by a company, agency or jurisdiction to coordinate the overall agency or jurisdictional response and support to an emergency response.

Facilities Unit - Functional unit within the Support Branch of the Logistics Section that provides fixed facilities for the incident. These facilities may include the Incident Base, feeding areas, sleeping areas, sanitary facilities, etc.

Federal On-Scene Coordinator (FOSC) - The predesignated Federal On-Scene Coordinator operating under the authority of the National Contingency Plan (NCP).

Field Operations Guide (FOG) - A pocket-size manual of guidelines regarding application of the Incident Command System.

Finance/Administration Section - The Section responsible for all incident costs and financial considerations. Includes the Time Unit, Procurement Unit, Compensation/Claims Unit, and Cost Unit.

Food Unit - Functional unit within the Service Branch of the Logistics Section responsible for providing meals for incident personnel.

Function - In ICS, function refers to the five major activities in the ICS, i.e., Command, Operations, Planning, Logistics, and Finance/Administration. The term function is also used when describing the activity involved, e.g., "the planning function."

General Plan – A long-range plan to manage an incident. The General Plan is used to identify long-range objectives and resource requirements. The General Plan defines a time line and framework looking into the future and covering the duration of the response.

General Staff - The group of incident management personnel comprised of: Incident Commander, Operations Section Chief, Planning Section Chief, Logistics Section Chief, and Finance/Administration Section Chief.

Geographic Information System (GIS) - An electronic information system which provides a geo-referenced data base to support management decision-making.

Ground Support Unit - Functional unit within the Support Branch of the Logistics Section responsible for fueling, maintaining, and repairing vehicles, and the ground transportation of personnel and supplies.

Group - Groups are established to divide the incident into functional areas of operation. Groups are composed of resources assembled to perform a special function not necessarily within a single geographic Division (see Division). Groups are located between Branches (when activated) and Single Resources in the Operations Section.

Helibase - A location within the general incident area for parking, fuelling, maintaining, and loading helicopters.

Helispot - A location where a helicopter can take off and land. Some Helispots may be used for temporary loading.

Incident Action Plan (IAP) - The Incident Action Plan contains objectives reflecting the overall incident strategy and specific strategies and tactics for the next operational period. When complete, the Incident Action Plans will include a number of attachments including forms.

Incident Area - Legal geographical area of the incident including affected area(s) and traffic route(s) to corresponding storage and disposal sites.

Incident Base - See Base.

Incident Commander (IC) - The individual(s) responsible for managing all incident activities.

Incident Command Post (ICP) - The location at which the primary Command functions are executed; may be collocated with the Incident Base.

Incident Command System (ICS) - A standardized on-scene emergency management system specifically designed to allow its user(s) to adopt an integrated organizational structure equal to the complexity and demands of single or multiple incidents, without being hindered by jurisdictional boundaries.

Incident Communication Center - The location of the Communications Unit and the Message Center.

Incident Objectives - Statements of guidance and direction necessary for the selection of appropriate strategies and the tactical direction of resources. Incident objectives are based on realistic expectations of what can be accomplished when all allocated resources have been effectively deployed. Incident objectives must be achievable and measurable, yet flexible enough to allow for strategic and tactical alternatives.

Incident Situation Display - The Situation Unit is responsible for maintaining a display of status boards which communicate critical incident information vital to establishing and maintaining an effective command and control environment.

Information Officer (IO) - A member of the Command Staff responsible for providing incident information to the public and news media or other agencies or organizations. There is only one Information Officer per incident. The Information Officer may have assistants.

Joint Information Center (JIC) - A facility established within, or near, the Incident Command Post where the Information Officer and staff can coordinate and provide incident information to the public, news media, and other agencies or organizations. The JIC is normally staffed with representatives from the FOSC, SOSC and Kinder-Morgan.

Jurisdiction - A range or sphere of authority. At an incident, public agencies have jurisdiction related to their legal responsibilities and authority for incident mitigation. Jurisdictional authority at an incident can be political/geographical (e.g., city, county, state, or Federal boundary lines), or functional (e.g., police department, health department, etc.). (See Multi-Jurisdiction).

Jurisdictional Agency - The agency having jurisdiction and responsibility for a specific geographical area, or a mandated function.

Landing Zone - See Helispot.

Leader - The ICS title for an individual responsible for a Task Force/Strike Team or functional Unit.

Liaison Officer (LO) - A member of the Command Staff responsible for coordinating with stakeholder groups and representatives from assisting and cooperating agencies.

Logistics Section - The Section responsible for providing facilities, services, and materials for the incident.

Managers - Individuals within ICS organizational units who are assigned specific managerial responsibilities (e.g., Staging Area Manager or Camp Manager).

Medical Unit - Functional unit within the Service Branch of the Logistics Section responsible for developing the Medical Plan, and for providing emergency medical treatment for incident response personnel.

Message Center - The message center is part of the Communications Center and collocated with or adjacent to it. It receives, records, and routes information about resources reporting to the incident, resource status, and handles administration and tactical traffic.

Multi-Agency Coordination (MAC) – A generalized term which describes the functions and activities of representatives of involved agencies and/or jurisdictions who come together to make decisions regarding the prioritizing of incidents, and the sharing and use of critical resources. The MAC organization is not part of the on-scene ICS and is not involved in developing incident strategy or tactics.

Multi-Agency Incident - An incident where one or more agencies assists a jurisdictional agency or agencies. May be single or Unified Command.

Multi-Jurisdiction Incident- An incident requiring action from multiple agencies that have statutory responsibility for incident mitigation. In ICS, these incidents will normally be managed using a Unified Command.

Natural Resource Damage Assessment (NRDA) - The process of collecting and analyzing information to evaluate the nature and extent of injuries resulting from an incident, and determine the restoration actions needed to bring injured natural resources and services back to baseline and make the environment whole for interim losses. (15 CFR 990.30)

Officer - The ICS title for personnel responsible for the Command Staff positions of Safety, Liaison, and Information.

Operational Period - The period of time scheduled for execution of a given set of operational actions specified in the Incident Action Plan. Operational Periods can be various lengths, usually not over 24 hours.

Operations Section - Responsible for all operations directly applicable to the primary mission. Directs unit operational plans preparation, requests or releases resources, makes expedient changes to the Incident Action Plan (as necessary), and reports changes to the Incident Commander. Includes the Recovery and Protection Branch, Emergency Response Branch, Air Operations Branch, and Wildlife Branch.

Out-Of-Service Resources - Resources assigned to an incident but unable to respond for mechanical, rest, or personnel reasons.

Planning Meeting - A meeting, held as needed throughout the duration of an incident, to select specific strategies and tactics for incident control operations and for service and support planning.

Planning Section - Responsible for collecting, evaluating, and disseminating tactical information related to the incident, and for preparing and documenting Incident Action Plans. The section also maintains information on the current and forecast situation, and on the status of resources assigned to the incident. Includes the Situation, Resource, Environmental, Documentation, and Demobilization Units, and Technical Specialists.

Polrep - Pollution report.

Preplanned Strategy – Strategies developed and documented prior to an incident.

Procurement Unit - Functional unit within the Finance/Administration Section responsible for financial matters involving vendor contracts.

Qualified Individual (Q.I.) - The person authorized by the responsible party to expend funds and obligate resources.

Radio Cache - A cache may consist of a number of portable radios, a base station, and, in some cases, a repeater stored in a predetermined location for dispatch to incidents.

Recorders - Individuals within ICS organizational units who are responsible for recording information. Recorders may be found in Planning, Logistics, and Finance/Administration.

Regional Response Team (RRT) - A Federal response organization, consisting of representatives from specific Federal and state agencies, responsible for regional planning and preparedness before an oil spill occurs and for providing advice to the FOSC in the event of a major or substantial spill.

Reporting Location - Any one of six facilities/locations where incident assigned resources may be checked in. The locations are: Incident Command Post-Resources Unit, Base, Camp, Staging Area, Helibase, or Division/Group Supervisors (for direct line assignments.) Check-in for each specific resource occurs at one location only.

Resources - All personnel and major items of equipment available, or potentially available, for assignment to incident tasks on which status is maintained.

Resource Status – Describes the current operational status of response resources. ICS recognizes three definitions – *available*, *assigned* and *out-of-service*. Oil spill resource tracking also recognizes an en-route status.

Resources Unit - Functional unit within the Planning Section responsible for recording the status of resources committed to the incident. The Unit also evaluates resources currently committed to the incident, the impact that additional responding resources will have on the incident, and anticipated resource needs.

Responsible Party (RP) – The owner/operator (Kinder-Morgan) of the infrastructure which is the spill source.

RP Incident Commander (RPIC) - Kinder-Morgan's designated Incident Commander.

Safety Officer (SO) - A member of the Command Staff responsible for monitoring and assessing safety hazards or unsafe situations, and for developing measures for ensuring personnel safety. The Safety Officer may have assistants.

Section - The organization level having functional responsibility for primary segments of incident operation such as: Operations, Planning, Logistics, Finance/ Administration. The Section level is organizationally between Branch and Incident Commander.

Service Branch - A Branch within the Logistics Section responsible for service activities at the incident. Includes the Communications, Medical, and Food Units.

Single Resource - An individual, a piece of equipment and its personnel complement, or a crew or team of individuals with an identified work supervisor that can be used on an incident.

Site Safety And Health Plan (SSHP) – Site-specific document required by State and Federal OSHA regulations and specified in the Area Contingency Plan. The SSHP, at minimum, addresses, includes, or contains the following elements: health and safety hazard analysis for each site task or operation, comprehensive operations workplan, personnel training requirements, PPE selection criteria, site-specific occupational medical monitoring requirements, air monitoring plan, site control measures, confined space entry procedures (if needed), pre-entry briefings (tailgate meetings, initial and as needed), pre-operations commencement health and safety briefing for all incident participants, and quality assurance of SSHP effectiveness.

Situation Unit - Functional unit within the Planning Section responsible for collecting, organizing, and analyzing incident status information, and for analyzing the situation as it progresses. Reports to the Planning Section Chief.

Situation Status – Activity of documenting and communicating operational response status.

Source Control - Actions necessary to control the spill source and prevent the continued release of oil or hazardous substance(s) into the environment.

Span of Control – Span of Control means how many organizational elements may be directly managed by one person. Span of Control may vary from three to seven, and a ratio of one to five reporting elements is recommended.

Staging Area - The location where incident personnel and equipment are staged awaiting tactical assignment.

Stakeholders - Any person, group, or organization affected by, and having a vested interest in, the incident and/or the response operation.

State On-Scene Coordinator (SOSC) - The predesignated State On-Scene Coordinator.

Strategy - The general plan or direction selected to accomplish Incident Objectives.

Strike Team - Specified combinations of the same kinds and types of resources, with common communications and a leader.

Supervisor - The ICS title for individuals responsible for directing the activities of a Division or Group.

Supply Unit - Functional unit within the Support Branch of the Logistics Section responsible for ordering equipment and supplies required for incident operations.

Support Branch - A Branch within the Logistics Section responsible for providing personnel, equipment, and supplies to support incident operations. Includes the Supply, Facilities, Ground Support, and Vessel Support Units.

Supporting Materials - Refers to the several attachments that may be included with an Incident Action Plan (e.g., communications plan, map, site safety and health plan, traffic plan, and medical plan).

Tactical Direction - Directions given by the Operations Section Chief including: the tactics appropriate for the selected strategy; the selection and assignment of resources; tactics implementation; and performance monitoring for each operational period.

Tactics – Deploying and directing resources during an incident to accomplish the desired objective.

Task Force - A group of resources with common communications and a leader assembled for a specific mission.

Technical Specialists - Personnel with special skills who can be used anywhere within the ICS organization.

Temporary Flight Restrictions (TFR) - Temporary airspace restrictions for non-emergency aircraft in the incident area. TFRs are established by the FAA to ensure aircraft safety and are normally limited to a five-nautical-mile radius and 2000 feet in altitude.

Time Unit - Functional unit within the Finance/Administration Section responsible for recording time for incident personnel and hired equipment.

Unified Command (UC) - A unified team which manages an incident by establishing a common set of incident objectives and strategies.

Unit - The organizational element having functional responsibility for a specific Incident Planning, Logistic, or Finance/Administration activity.

Vessel Support Unit - Functional unit within the Support Branch of the Logistics Section responsible for implementing the Vessel Routing Plan; for fueling, maintaining, and repairing vessels and other

vessel support equipment; and coordinating transportation on the water and between or among shore resources.

Volunteer - Any individual accepted to perform services by an agency which has the authority to accept volunteer services. A volunteer is subject to the provisions of the authorizing statute or regulations.

13.2 Acronyms

ACP	Area Contingency Plan	GRT	Gross Registered Tons
ADIOS	Automated Data Inquiry for Oil Spills	GSUL	Ground Support Unit Leader
AOBD	Air Operations Branch Director	H/C	Historic/Cultural
API	American Petroleum Institute	H ₂ S	Hydrogen Sulphide
ASTM	American Society for Testing and Materials	Ha	Hectare
ATV	All Terrain Vehicle	HAZMAT	Hazardous Materials
bbl	Barrel	HAZSUB	Hazardous Substances
C	Centigrade (temperature)	HAZWOPER	Hazardous Waste Operations and Emergency Response
CCG	Canadian Coast Guard	HF	High Frequency
CHS	Canadian Hydrographic Service	HFO	Heavy Fuel Oil
cm	Centimetre	HP	Horsepower
cm/s	Centimetre per second	HQ	Headquarters
cp	Centipoises	HR	Human Resources
cs (cSt)	Centistokes	IACS	International Association of Classification Societies
CUL	Communications Unit Leader	IAP	Incident Action Plan
decon	Decontamination	IBRRC	International Bird Rescue and Rehabilitation Centre
DHP	Duty Harbour Pilot	IC	Incident Commander
DMOB	Demobilization Unit Leader	IC	Incident Command (Commander)
DWT	Deadweight	ICLL	International Convention on Load Lines
EHS	Environment, Health and Safety	ICP	Incident Command Post
EMS	Emergency Medical Services	ICS	Incident Command System
EMT	Emergency Medical Technician	IMO	International Maritime Organisation
EOC	Emergency Operations Center	IMT	Incident Management Team
EPA	Environmental Protection Agency	IO	Information Officer
ESI	Environmental Sensitivity Index	IPIECA	International Petroleum Industry Association
F	Fahrenheit (temperature)	IR	Infra Red
FMO	Federal Monitoring Officer (CCG)	IRG	Incident Response Guide
FOG	Field Operations Guide	IRT	Initial Response Team (Tier 1)
FOSC	Federal On-Scene Coordinator	ISB	In-situ Burn
FOSET	Fisherman's Oil Spill Emergencies Team	ISF	International Shipping Federation
FSA	Forward Staging Area	ISGOTT	International Safety Guide for Oil Tankers and Terminals
FSC	Finance/Administration Section Chief		
ft	Feet		
GIS	Geographic Information System		
gpm	Gallons per Minute		
GPS	Global Positioning Satellite		

ISM	International Management Code for Safe Operations of Ships and for Pollution Prevention	NIMS	National Incident Management System
ITOPF	International Tanker Owners Pollution Federation	NO2	Nitrogen Oxides
ITZ	Intertidal Zone	NOAA	National Oceanic and Atmospheric Administration
IUCN	International Union for Conservation of Nature and Natural Resources	NOAA	National Oceanic and Atmospheric Administration (USA)
JIC	Joint Information Center	NRDA	Natural Resource Damage Assessment
KBOD	Thousand Barrels of Oil per Day	NRS	National Response System
kg	Kilogram	O2	Oxygen
km	Kilometre	OEL	Occupational Exposure Limit
kts	Knots (nautical miles per hour)	OGC	Oil and Gas Commission
kW	Kilowatt	OHF	Oil Handling Facility
l	Litre	OPA 90	Oil Pollution Act of 1990
LFO	Light Fuel Oil	OPRC	Oil Pollution Preparedness, Response and Co-operation Convention 1990
LO	Liaison Officer		
LOA	Length Over all	OPS	Operations Section Chief
LR	Lloyd's Register of Shipping	Ops	Operations
LSC	Logistics Section Chief	OSC	On-Scene Coordinator
m	Metre	OSCP	Oil Spill Contingency Plan
m/s	Metres per Second	OSHA	Occupational Safety and Health Administration (USA)
m3	Cubic Meter	OSIC	On-Scene Incident Commander (Facility Manager/Designated IRT Supervisor)
MACS	Multi-agency Coordination System	OSR	Oil Spill Response
MARPOL	Marine Pollution (International Convention for the Prevention of Pollution from Ships)	OSRL	Oil Spill Response Limited (UK)
MB	Million Barrels	OSRO	Oil Spill Response Organization
MCTS	Marine Communications and Traffic Services	OSRPs	Oil Spill Response Plans
MFO	Medium Fuel Oil	OSRV	Oil Spill Response Vessel
MGO	Marine Gas Oil	PA	Programmatic Agreement
MHz	Megahertz	PAHs	Polynuclear Aromatic Hydrocarbons
min	Minute		
mm	Millimetre	PC	Personal Computer (IBM based)
MOV	Manually Operated Valve	PEL	Permissible Exposure Limits
MSDS	Material Safety Data Sheet	PEP	Provincial Emergency Program
MUL	Medical Unit Leader	PFD	Personal Flotation Device
NAPL	Non-Aqueous Phase Liquids	PIC	Person In Charge
NCP	National Oil and Hazardous Substances Pollution Contingency Plan	PM10	Particulate Matter having a diameter less than 10 microns
NCP	National Contingency Plan	PPE	Personal Protective Equipment
NEB	National Energy Board	ppm	Parts per Million
NEBA	Net Environmental Benefit Analysis	PSC	Planning Section Chief
NGL	Natural Gas Liquid	psi	Pounds per square inch (pressure)
		PVC	Poly Vinyl Chloride
		QI	Qualified Individual (OPA 90)

RAR	Resources at Risk	SSHPP	Site Safety and Health Plan
REET	Regional Environmental Emergencies Team	STEL	Short-term Exposure Limit
RO	Response Organization	SUL	Situation Unit Leader
RP	Responsible Party	TFR	Temporary Flight Restrictions
RPIC	Responsible Party Incident Commander	TLV	Threshold Limit Value
RRT	Regional Response Team	TRS	Tiered Response System
RUL	Resources Unit Leader	TWA	Time-weighted Average
SAR	Search and Rescue	UC	Unified Command
SCAT	Shoreline Cleanup Assessment Team	UHF	Ultra High Frequency
SCBA	Self-Contained Breathing Apparatus	UK	United Kingdom
sec	Second	USA	United States of America
SO	Safety Officer	USCG	United States Coast Guard
SO ₂	Sulfur Dioxide	UV	Ultra Violet
SOLAS	(International Convention for) Safety of Life at Sea	VCR	Videotape Cassette Recorder
SONS	Spill of National Significance	VHF	Very High Frequency
SOS	Shoreline Oiling Summary	VOSS	Vessel of Opportunity Skimming System
SOSC	State On-Scene Coordinator	VRP	Vessel Response Plan
SSB	Single Side Band (Radio)	VTC	Vessel Traffic Control
SSC	Scientific Support Coordinator	VTs	Vessel Traffic Services
		WCB	WorkSafe BC
		WCMRC	Western Canada Marine Response Corporation