SCOPE OF WORK

City of Hoquiam
Westway and Imperium Renewables Expansion Projects EISs

INTRODUCTION

This scope of work outlines the tasks completed for Phase 1 of the Washington State Environmental Policy Act (SEPA) environmental impact statements (EISs) for the proposed Imperium Renewables and Westway (Proponents) Expansion projects (Tasks 1 and 2). Additionally, this scope of work is being amended to address Phase 2, Development of the Draft EISs (Tasks 3 and 4).

Guidance for the SEPA EIS is provided by:

- SEPA policies and procedures, as set forth in the State of Washington Administrative Code (WAC) 197-11-960.
- City of Hoquiam SEPA policies and procedures as set forth in Municipal Code, Chapter 11.10.

The City of Hoquiam and its SEPA partner, the Washington State Department of Ecology (Co-Lead Agencies), have hired ICF International (Contractor) as a third-party consultant to manage and prepare environmental documentation for the Westway and Imperium Renewables Expansion Projects. The Shorelines Hearing Board issued a judgment in November 2013 that invalidated the two Mitigated Determination of Non-Significance (MDNS) documents prepared and approved for the Imperium Renewables and Westway proposals. The Shoreline Substantial Development Permits for these two companies were also remanded. Following requests by the Proponents to move forward with the preparation of SEPA EISs for each of the projects, the Co-Lead Agencies agreed to obtain a third-party consultant to meet this request. This scope of work sets the approach for completing the technical analysis for the EISs. In addition, it includes the scope of work for the public scoping process (meetings, materials, and findings) for these two proposed projects. Public scoping is the first step of the SEPA EIS process, following issuance of the Determination of Significance by the Co-Lead Agencies and has been completed.

This scope of work covers the period from March 1, 2014 through August 2015.

TASK 1 – PROJECT MANAGEMENT

TASK 1.1 - PROJECT MANAGEMENT AND COORDINATION

The Contractor shall provide project management, strategic guidance, and technical expertise for the SEPA EIS process. Internal Contractor team meetings will be held on a regular basis to support project management and ensure full coordination among Contractor team members. Specific tasks will include ongoing communication with the Co-Lead Agencies via conference call, as needed. Similarly, internal team meetings will also be held, as appropriate, among the Contractor's team members.

Bi-weekly conference calls between the Contractor's management team and the Co-Lead Agencies will be held throughout and prior to, the public scoping period and during the development of the Draft EISs.

Assumptions:

- Contractor project manager, deputy project manager, and public involvement manager shall participate in bi-weekly conference calls to the maximum extent practicable. During the 13-month period assumed for Phase 2, the project manager, deputy project manager, and project coordinator will attend these meetings with the Co-Lead Agencies and Proponents, as needed.
- Conference calls will typically be one hour in length.
- In person meetings may be required and will not exceed one per month. During the development of the Draft EIS, it is assumed in-person meetings will not exceed one per every two months and would be attended by the project manager and deputy project manager.
- All deliverables as part of this subtask will be submitted electronically via email to conference call participants.
- Bi-weekly calls or meetings may not always be necessary.

Deliverables:

- Bi-weekly agenda for meetings or conference calls
- Meeting summaries, draft and final

TASK 1.2 - PROJECT SCHEDULE: SCOPING AND DRAFT EIS

The Contractor has prepared a project schedule for the public scoping period, and related activities. The schedule shall be used as a framework to verify the necessary activities and required resources to complete the scope of work on time and on budget. Schedule shall include a kick off meeting between the Contractor and Co-Lead Agencies, issuance of the Determination of Significance (prepared and issued by the Co-Lead Agencies), a 30-day public scoping period and 2 scoping meetings.

A revised project schedule will also be prepared as part of subtask 1.5 in conjunction with the preparation of a detailed scope of work and budget for the preparation and release of the draft EISs.

Contractor shall update the Project Schedule as necessary.

Assumptions:

- Timelines provided in this subtask are based upon activities presented in Task 2. Scoping.
- The schedule will assume 2 public meetings and a 30-day scoping comment period.
- Contractor shall provide an electronic schedule to the Co-Lead Agencies for review.
- The project schedule will be updated, upon completion and approval of the scope of work and budget for the SEPA EISs (subtask 1.5).

Deliverables:

- Electronic project schedule (PDF and MS Project) for Phase One: Public Scoping
- Electronic project schedule (PDF and MS Project) for Phase Two: Draft EISs

TASK 1.3 - INVOICING AND PROGRESS REPORTS

Contractor shall prepare monthly invoices and progress reports. Progress reports shall include items such as: tasks completed during the current reporting period, deliverables submitted, challenges encountered, and next steps for the following reporting period. The progress report will also identify any out of scope work performed, separately tracking expenses related to these tasks. Out of scope work will only be performed with permission from the City of Hoquiam.

Assumptions:

- Invoicing procedures and deadlines shall be provided by the City of Hoquiam via this Personal Services Agreement contract.

Deliverables:

- Monthly invoice and progress report

TASK 1.4 – AGENCY AND INTERNAL EIS TEAM KICK OFF MEETINGS - COMPLETE

An agency kick off meeting was held in Lacey during the week of March 10th, 2014. This meeting included the Co-Lead Agencies and the Contractor's management team. In preparation for the meeting, the Contractor prepared an agenda with meeting objectives, draft team communications methods, and a preliminary public scoping schedule. The following topics were addressed at the kick-off meeting:

- Goals and project understanding
- Project schedule expectations
- Team communication methods
- Coordination and review protocols

The meeting was expected to last no more than 4 hours.

In addition, the Contractor conducted an internal project kick off meeting that includes the Contractor's technical EIS team members. The purpose of the internal project kick off meeting is to familiarize technical team members with the project, disseminate materials from the Proponents, discuss EIS process and public scoping comments, and initiate development of the EISs scope of work, budget, and schedule.

Assumptions:

Co-Lead Agencies kick off meeting will be held in Lacey during the week of March 10th, Contractor's internal kick off meeting will be held in Seattle sometime in March 2014.

- Agency kick off meeting is expected to last no more than 4 hours. Internal kick off meeting will last up to 2 hours.
- All kick off meeting materials will be submitted electronically via email.
- The Technical Lead for each resource area shall participate in the Contractor's internal kick off meeting.
- In-person attendance for the Contractor's internal kick off meeting will be encouraged for local team members, but a call-in number will be provided for other team members that preside out of state.
- Co-Lead Agencies shall obtain all data and reports from the Proponents unless Contractor is otherwise directed by the Co-Lead Agencies.
- All data and reports shall be delivered to the Contractor within the Phase One (scoping) project schedule.

Deliverables:

- Kick-off meeting agendas
- Meeting summaries (draft and final)

TASK 1.5 – EIS PLANNING AND SCOPE DEVELOPMENT - COMPLETE

Based upon information obtained during the Contractor's internal kick off meeting (subtask 1.4), including reports and materials provided by the Proponents, the Contractor reviewed material and prepared a detailed scope of work, budget, and schedule for the preparation and release of the draft EISs. The scope of work defines the organization of the Draft SEPA EISs, defines the project study area for each discipline, and defined the level of detail and models/tools required for the Draft EISs. Material previously prepared by the Proponents was reviewed and gaps will be identified. It was anticipated that all previously prepared materials will not require additional analyses. However, the scope of work and budget identifies gaps and includes tasks to complete necessary work (Tasks 3 and 4 of this scope of work). Working with the Co-Lead Agencies, public scoping comments were reviewed to determine additional analyses to be included in the EISs.

Assumptions

- All information prepared by the Co-Lead Agencies and Proponents will be provided to the Contractor.
- The scope of work/budget/schedule will be finalized once all public comments have been reviewed.

Deliverables

- List of questions and/or gaps related to Proponent's technical reports and materials
- Scope and budget for preparation of Draft and Final EIS, including DEIS public comment period

TASK 1.6 - RECORDS/ADMINISTRATIVE RECORDS MANAGEMENT

Contractor shall prepare an Administrative Records Protocol to manage correspondence, meeting minutes, drawings, reports, and other documents received and generated over the course of the project. This information shall be maintained to facilitate retrieval in accordance with the federal Freedom of Information Act (FOIA) and state Public Records Act. The document control system will allow for the electronic distribution of and access to file materials to authorized project personnel.

All information related to the EIS process will be provided to each of the Co-Lead Agencies upon completion of this Agreement, including an inventory of all documents, phone, email and other records for the administrative record. This includes information that supports the findings, conclusions and recommendations of the Contractor's reports, including computer models and methodology for those models.

Assumptions:

- All files and documents will be hosted on the Contractor's internal, secure computer system.
- The Administrative Protocol filing system will reflect the Scope of Work's task numbering system.
- It is assumed purchase of any cited materials will not exceed $500.

Deliverables:

- External hard drive, thumb drive, or DVDs containing all electronic materials following completion of this Agreement. Files will presented in PDF format unless they are unable to be converted in which case they will be provided in the native file format.
- Paper files collected during the course of the project and not available electronically.

TASK 2 – PUBLIC OUTREACH

TASK 2.1 - INFORMATIONAL MATERIALS - COMPLETE

The Contractor wrote and designed a project handout for use at the public scoping meetings and for posting on the Co-Lead Agencies' respective websites. The project handout included a general description of the Proponent's proposals, explanation of public scoping, scoping meeting information, and information on how to comment.

The Contractor developed a template that will be used for all public information materials throughout the course of this Agreement. All informational materials included Co-Lead Agency contacts, agency website addresses and information on how to obtain additional information, and how to comment on the project.

Assumptions

- The Contractor shall prepare draft versions of the template and project handout for Agencies' review.
- The Agencies' shall review and provide one set of comments from each Agency.

Deliverables

- Project overview, draft and final
- Project overview, draft and final

TASK 2.2 - SCOPING PERIOD AND MEETINGS

A 30-day public scoping period began following release of the Determination of Significance by the Co-Lead Agencies. Scoping began in March 2014 and public meetings were held in mid-April. The Contractor arranged facilities and coordinated logistics for two scoping meetings – with locations in Hoquiam and Centralia. It was anticipated that each meeting would last up to four hours, with up to 200 attendees per meeting. The location of the meetings was determined in consultation with the Co-Lead Agencies. The meetings were in open house format with presentation boards and Co-Lead Agencies' staff available to answer questions.

The Contractor provided materials to support the meetings, including display ads in local and regional newspapers, project handout (subtask 2.1), comment forms, exhibit boards, and sign-in sheets, and directional meeting signage. The meeting was staffed by the Co-Lead Agencies representatives. The Contractor's project manager, deputy project manager, project coordinator, and public involvement manager attended the meetings.

In consultation with the Co-Lead Agencies, the Contractor scheduled the meetings; obtained venues; arranged security; and prepared and published the meeting notices. Notice of the meetings were provided through newspaper ads in the meeting location and project area, Co-Lead Agencies' websites, email distribution to stakeholder and participants lists, and media releases and advisories prepared by the Contractor and distributed by the Co-Lead Agencies through normal channels.

Assumptions

- Co-Lead Agencies shall be responsible for preparing and processing the Determination of Significance.
- Co-Lead Agencies will provide all staff for meeting support. The Contractor's project manager, deputy project manager, project coordinator, and public involvement manager will also provide support at the two public meetings.
- Public scoping will be for 30 days, beginning in March 2014. If scoping is extended, the project schedule will be updated. If the public scoping period is extended, this scope of work and budget may need to be amended.
- Two public meetings will be held in mid-April 2014. If a third meeting is required, this scope of work and budget will be amended.
- The meeting locations will require the approval of the Co-Lead Agencies.
- Meeting locations will be ADA accessible.
- Display ads will be placed in up to three newspapers of local, regional or statewide circulation as decided by the Co-Lead Agencies on a schedule approved by the Co-Lead Agencies.

- Co-Lead Agencies shall distribute media advisories drafted by the Contractor.
- Up to 8 exhibit boards will be designed and displayed at the scoping meetings.
- Scoping discussions and consultation will be conducted separately with agencies and tribes, and shall be managed and attended by the Co-Lead Agencies. The Contractor will not attend these meetings. The Co-Lead Agencies will provide a list of participants and meeting summaries for incorporation into the DEIS.
- Written public comments will be accepted at the 2 scoping meetings. There will be no opportunity for oral comments.

Deliverables

- Public notification of the scoping meeting at least two weeks in advance of the meeting through a display ad in newspapers
- Media advisory for release by the Co-Lead Agencies
- Scoping meeting support documents including up to 8 display boards, comment forms, sign-in sheets, draft and final versions

TASK 2.3 - COMMENT MANAGEMENT - COMPLETE

The Contractor used a structured software package (CommentWorks) designed specifically to catalog and track public comments. The Contractor developed, implemented and managed a process for collecting, tracking, processing, posting, and analyzing public comments during the formal 30-day scoping period. Formal scoping comments were collected via:

- regular mail;
- a link from each Co-Lead Agencies' website to a CommentWorks web form; and
- public scoping meetings (hand written comment forms).

This scope of work and budget assumesd:

- 20,000 public comments, including hard copy comments received at the 2 scoping meetings
- 15,000 of those comments will be hard copy, form letters.
- 4,500 comments will be form letters but submitted electronically via the web form. The form letters will either be cut/paste directly into the web form or will have PDF/Word attachments
- 500 comments will be unique, including up to 100 hand written comments collected at the public scoping meetings
- 100 comments (via web form) will be unique
- No handwritten comments will be typed and input into CommentWorks
- No hard copy comments will be input into CommentWorks. Hard copy comments will be manually sorted by form letter and unique
- Unique, hard copy letters will be scanned and sent directly to the Co-Lead Agencies. The Contractor will not catalogue or sort by SEPA resource are

- The Contractor shall develop, test, and deploy an online web form linked from/to the each Co-Lead Agencies' web site. The web form will clearly state that comments submitted outside of the designated scoping comment venues will not be considered formal public scoping comments.
- The Contractor shall assign each submission a unique identifying comment number and will enter and maintain the comments in a database. For comments submitted via the online web form, a receipt with the unique identifying number will be provided upon submittal.
- The Contractor shall identify and track mass mail campaigns and other duplicate comments and distinguish these submittals from unique public comments. Electronic, unique comments will be organized, analyzed and summarized by SEPA resource area.
- A computer-generated list of comments by SEPA resource area will be provided to the Co-Lead Agencies within one week of the closing of the scoping period. This document will list relevant quotes (from unique comments) by SEPA resource areas. No summary or analysis of comments will be provided.

Assumptions:

- Comment contents will not be redacted unless the comment (or parts of the comment) is deemed threatening by the Col-Lead Agencies. The Contractor shall identify such comment letters and forward to the Co-Lead Agencies for guidance regarding redaction. It is anticipated that no comment letter will require redaction.
- The Contractor shall set up, host, and administer the CommentWorks Web-based comment collection form and Back Office Database within ICF's own standard CommentWorks shared server environment.
- 20,000 public comments, including hard copy comments received at the 2 scoping meetings
- 15,000 of those comments will be hard copy, form letters.
- 4,500 comments will be form letters but submitted electronically via the web form. The form letters will either be cut/paste directly into the web form or will have PDF/Word attachments.
- 500 comments will be unique, including up to 100 hand written comments collected at the public scoping meetings.
- 100 comments (via web form) will be unique.
- No handwritten comments will be typed and input into CommentWorks.
- No hard copy comments will be input into CommentWorks. Hard copy comments will be manually sorted by form letter and unique.
- Unique, hard copy letters will be scanned and sent directly to the Co-Lead Agencies. The Contractor will not catalogue or sort by SEPA resource area.

If more than 20,000 comments are received, or their content/format is substantially different than assumptions presented in this scope of work, this scope and budget will be modified to reflect the additional efforts related to processing an increased number of comments.

Deliverables

- Draft hard copy web form for Co-Lead Agencies review and approval

- Scanned hard copy unique comment forms received via mail or public scoping meetings
- Computer-generated list of unique comment quotes sorted by SEPA resource areas.

TASK 3 – DATA COLLECTION AND TECHNICAL ANALYSIS

During Phase 1, the Contractor completed a review and evaluation of the existing technical reports consistent with the efforts described under Task 1.5, EIS Planning and Scope Development. This review resulted in the identification of data gaps needed to support development of the Draft EISs. The data collection described under this task addresses those data gaps identified by the Contractor either due to lack of detailed information sufficient to support the EIS analyses or from subsequent expansion of the scope of the analysis or study area.

Task 3 also includes a description of the technical approach that will be used to assess and characterize the impacts for each environmental resource area in the EISs. Under Task 3, the Contractor will write study plans documenting the details of the technical approach for a subset of the environmental resources. The Contractor will work with the Co-Lead Agencies to define and document certain parameters for the work to be completed (e.g., definition of the No Action scenario, identification of the scenarios used in the oil spill modeling); however, the overall approach and scope will be consistent with the study areas, technical approach, and assumptions described in greater detail in Task 3 below. The Contractor will develop study plans for the following environmental resource areas.

- Air
- Noise and Vibration
- Rail Traffic and Safety
- Vehicle Traffic and Safety
- Vessel Traffic and Waterway Safety
- Environmental Health

Additionally, under Task 3, the Contractor will prepare a technical report documenting the results of the risk assessment analyses (Task 3.17, Environmental Health, to support that section of the EISs). Aside from the specific deliverables listed under Task 3, the Contractor will document the results of the technical analyses in Chapter 3 of the Draft EISs (Task 4). The EISs will include descriptions of the affected environment as characterized below for each environmental resource area. The EISs will address the direct, indirect, cumulative environmental impacts of the proposed projects. For cumulative impacts, reasonably foreseeable future planned actions or permitted projects will be identified by the Contractor and the Agencies based on agreed upon cumulative impact study areas. The Contractor will also recommend and describe any necessary mitigation measures in the EISs.

Any supporting information obtained during data collection and review (Task 3), such as reference documents, mapping, or conversation records, will also be compiled for the Administrative Record (Task 1) and presented in the Draft EISs (Task 4) as deemed appropriate.

TASK 3.1 – Earth

Data Collection and Review

The Contractor will rely in part on past information characterizing geologic, seismic, and tsunami hazards affecting the project sites. The Contractor will collect any updated or more detailed information relevant to impacts at the project sites, along the rail line from the BNSF mainline in Centralia to the Port of Grays Harbor, and Grays Harbor to 3 nautical miles off the coast of Washington. The Contractor will also collect and review more generalized information affecting the rail routes from the source to Centralia.

Data collection will include local and regional geology maps and reports; project site geotechnical reports as provided; local and regional fault, seismic activity, and earthquake reports and maps; state and local tsunami, liquefaction, land subsidence and landslide maps and reports; Washington Department of Natural Resources (WDNR) GIS landslide layers; volcanic hazard reports (volcanic eruption, ash fall); mining and coal mining maps indicating the potential for underlying mine collapse; tsunami information; information on expected sea level rise; and project site soils (geotechnical reports). Reports related to the seismic activity and land elevation changes at Grays Harbor associated with Cascadia Subduction Zone earthquakes will be identified. Because of the Oso landslide on the North Fork Stillaguamish River, there is ongoing state-wide review of landslide related issues and risk. These ongoing technical and regulatory reviews will be tracked for applicability to these projects.

Technical Approach

The Contractor will describe the geologic and seismic environment, including the known location of active faults, potential for groundshaking, and areas with increased potential for landslide risks affecting the project sites, along the rail line from Centralia to the Port of Grays Harbor, and in Grays Harbor to 3 nautical miles off the coast of Washington. In addition, the Contractor will also address construction impacts at the project sites related to soils.

The Contractor will address construction-related impacts associated primarily with increased potential for site erosion and off-site delivery. The Contractor will characterize the increased erosion potential based on the project sites' soil textures and slopes. The need for site grading will be addressed, including the anticipated amount of cut and fill as indicated in project descriptions, engineering drawings, and geotechnical reports. The need for any additional fill to be brought on site, if any, will also be identified. The Contractor will characterize impervious surface changes at the sites although the effects on water runoff will be addressed under Task 3.3, Water.

The Contractor will describe the types of geologic conditions that could affect the proposed operations, including rail and vessel transport. The Contractor will discuss the general likelihood of occurrence. These types include liquefaction or landslides; volcanic eruption, ash fall and lahars; and underlying former mining operations. The effects on site buildings, storage tanks, and rail infrastructure will be addressed. The types of seismic conditions that could affect the site during operations will be identified and their general likelihood of occurrence will also be indicated. These types of conditions include active fault rupture at the project sites; earthquakes whose ground shaking would affect project site buildings, storage tanks, or rail line from

Centralia to the Port of Grays Harbor; earth shaking that would influence liquefaction and landslides; and major changes of ground surface elevation related to great earthquakes on the Cascadia Subduction Zone.

The Contractor will also address the potential for geologic and seismic events to result in tsunamis that could affect the proposed project infrastructure (storage tanks, rail infrastructure, and vessels). The effects in this zone are anticipated to relate to two areas. The first is tsunamis and their wave heights prior to entering Grays Harbor. The second is a Cascadia Subduction Zone great earthquake that might substantially raise the land level and cause shoaling of Grays Harbor and its entrance. The Contractor will produce inundation maps, time histories of water levels, and a description of the hydrodynamic-hydrostatic forces on storage tanks that may result. This information will be presented in the Tsunami Hazard Report.

The Contractor will also discuss the geologic and seismic impacts such as earthquakes, liquefaction, and landslides that may affect rail transport from the source to Centralia and vessel transport along the west coast and abroad. However, considering the numerous and varied routes such shipments could take this evaluation will be general and will indicate the potential types of impacts that could occur and considerations that railroads and vessel operators have made to mitigate these types of potential risks.

Based on the identified potential impacts, the Contractor will recommend specific mitigation for each potential impact.

Assumptions

- Project site soil data will be based on the available geotechnical reports. Natural Resources Conservation Service (NRCS) soil mapping and soil series information is not expected to be relevant as the project sites are on fill materials. Therefore, this soils information will not be collected and addressed unless relevant.
- Analysis along the rail line from Centralia to the Port of Grays Harbor will address general surficial geology and bedrock geology with respect to landslide and liquefaction potential. Since the railroad is already built detailed NRCS soil data will not provide any pertinent information and it will not be collected or evaluated.
- The effects on and the ability of the storage tank design and construction to withstand the modeled tsunami characteristics will be provided by the Proponents' engineers.

Deliverables

- Draft and Final Tsunami Hazard Report.
- Documentation of any maps, references, conversation logs for inclusion in the Administrative Record and the EISs as deemed appropriate.

TASK 3.2 – Air

Study Plan

The Contractor will work with the Co-Lead Agencies to develop a study plan documenting the scope of the technical approach, assumptions, methods, and characterization of the results for the air quality analysis. The

Contractor will provide a draft and final study plan in response to review comments by the Co-Lead Agencies. The study plan will include definitions of the baseline, no-action alternative, proposed action, and cumulative scenarios for each project.

Data Collection and Review

The Contractor will obtain the necessary information to support analysis of the projects' air emissions, including assumptions characterizing the anticipated vehicle, rail, and vessel traffic and a description of transfer activities. The Contractor will work with the Co-Lead Agencies to identify the most appropriate assumptions and will ensure consistency between the air, noise and vibration, transportation, and risk assessment analyses. The Contractor will review any applicable air quality permits and planning and design documents describing the layout of the proposed facilities. The Contractor will gather and review air quality information from state and local air quality reporting agencies.

Technical Approach

The Contractor will assess the potential air quality impacts associated with construction and operation of the proposed projects, including an evaluation of criteria pollutants and hazardous air pollutants. The potential contribution to global climate change will be assessed based on the projects' anticipated emissions of greenhouse gases. The Contractor will include a discussion of why the scope of the analysis does not include combustion of the final product for incorporation into the appropriate section of the EIS.

The Contractor will quantify construction emissions based on the type of construction equipment, the hours of operation, and predicted fuel consumption. If project-specific information is unavailable, the Contractor will base the analysis on the national fleet average. Construction emission factors will be based on those used in the U.S. Environmental Protection Agency (EPA) NONROAD model for criteria pollutants/greenhouse gases and AP-42 for soil disturbance activities.

The operational inventory will include quantification of criteria pollutants and greenhouse gas emissions generated at the project sites, during rail transport from Centralia to the Port of Grays Harbor, and from vessel transport in Grays Harbor out to 3 nautical miles. Site sources are anticipated to include emissions from vehicle trips, loading/unloading activities, operation of the marine combustion unit (Imperium Renewables only), and emissions from storage tanks. Locomotive emissions will be calculated based on fuel usage, activity levels, transport distance and number of locomotives using the Environmental Protection Agency (EPA) emission factors for Class 1 and switch locomotives (if applicable). Vessel emissions will be based on estimated fuel usage, vessel engine size, duration of calls, load during hoteling and maneuvering, and speed during transport. Emission factors will be calculated based on EPA's Regulatory Impact Assessments (RIAs) for the 2010 Category 3 Marine Diesel Engines Rule (C3 Rule).

For criteria pollutants, the Contractor will compare site emissions with the overall inventory for Grays Harbor County and the county-level inventory for industrial sources. Air emissions from rail transport over the short line will be compared to the emissions associated with most current rail traffic emission estimates that operate over the short line from Centralia to the Port of Grays Harbor. Vessel emissions in Grays Harbor will be

evaluated in comparison to current vessel emission inventory for the area. The Contractor will model rail and vessel emissions for the existing condition, no-action alternative, proposed action, and a cumulative scenario for each project.

The operational emissions (criteria pollutants) associated with rail transport from source to Centralia and from vessel transport along the west coast and abroad will be qualitatively compared to base rail or vessel traffic levels in those areas. Activity may displace other energy shipment, but to be conservative we will assume that rail and vessel trips are additive to existing conditions.

The Contractor will include a general discussion of the potential effects of global climate change with respect to air quality, climate conditions, water resources, and biological resources. The Contractor will work with the Co-Lead Agencies to identify the appropriate context for qualifying the relative magnitude of potential greenhouse gas emissions associated with construction, site operations, and rail and vessel transport in the state. The analysis will be consistent with Ecology's guidance for calculating greenhouse gas emissions (Guidance for Ecology Including Greenhouse Gas Emissions in SEPA Reviews, June 3, 2011). The analysis of potential climate change effects related to rail transport from source to Centralia and vessel transport along the west coast and abroad will be qualitatively compared to greenhouse gas emissions from base rail or vessel traffic levels in those areas.

The Contractor will also provide a qualitative discussion of the impacts from exposure to hazardous air pollutants. The discussion will include a description of sensitive receptors categories and the potential effects of exposure to anticipated levels of hazardous air pollutants from these projects. The Contractor will provide a qualitative evaluation of the magnitude of the potential impacts inferred from other projects of similar size and scope.

Assumptions

- No assessment of combustion of shipped product.
- No analysis of prevention of significant deterioration (not applicable – mobile sources), visibility, air quality-related values.
- The discussion of hazardous air pollutants will be qualitative.
- Emissions of vehicles delayed at grade crossing will be addressed qualitatively.
- Assume that project is only analyzed for a single construction year and a single operational year with a full build out.

Deliverables

- Draft and Final Study Plan.
- Documentation of any maps, references, conversation logs for inclusion in the Administrative Record and the EISs as deemed appropriate.

TASK 3.3 – Water

Data Collection and Review

The Contractor will identify and obtain information on the status of potentially affected water bodies along the rail line from Centralia to the Port of Grays Harbor, including rivers, streams, ponds, wetlands, and floodplains. Information will be obtained based on aerial reviews of the study area, information from Priority Habitat and Species (PHS) database, and National Wetlands Inventory and county-level wetland inventory data. The Contractor will also complete a literature review of available resources to characterize water resources outside the mouth of Grays Harbor to 3 nautical miles off the Washington coast. The Contractor will rely on existing technical information provided by the Proponents characterizing wetlands, floodplains, and aquatic uses at the site.

Technical Approach

Contractor will qualitatively describe the existing surface water and groundwater resources along the rail line from Centralia to the Port of Grays Harbor, at the project sites, and that could be affected during vessel transport. This will include but is not limited to rivers, streams, ponds, wetlands, floodplains, aquifers, and the Pacific Ocean (up to 3 nautical miles off the Washington Coast). Contractor will provide a description of existing and/or historical water quality problems, stream channel features; floodplain and floodway areas, existing surface water and groundwater drainage pathways and wastewater/ stormwater outfall locations, identification of water quality factors that are limiting factors to local fisheries, surface water hydrologic features; description of existing sediment quality and contamination; relevant wetland delineation work completed at the proposed project site, and NWI and county-level wetland inventories in the project study area.

The Contractor will qualitatively assess construction-related water quality impacts at the site on adjacent waterways, such as increased erosion potential, stormwater runoff, clearing and grading, risks to municipal sewer and water supply and infrastructure, spill potential and spill control response best management practices, and groundwater protection measures. The analysis will be considered in the context of the applicable regulatory framework. This discussion will include identification of best management practices and any additional necessary measures to minimize potential impacts.

The Contractor will describe anticipated changes in impervious surface areas that could affect stormwater volume and disposal at the project sites, including a qualitative assessment of potential impacts from stormwater runoff at the site during operation. The evaluation will also include a discussion of water quality impacts related to increased rail traffic on water resources from Centralia to the Port of Grays Harbor, including from leaks, rail car rupture, or fires. The Contractor will also evaluate the impacts associated with potential spills during vessel loading and transport. Indirect impacts on water quality from rail and vessel transport will be consistent with scenarios developed and described more fully under Task 3.17, Environmental Health. These impacts will be discussed qualitatively in the context of potentially affected sensitive areas and applicable water quality standards. The analysis of potential water quality impacts along the rail line from source to Centralia and from vessel transport along the west coast and abroad will include a

discussion of the potential types of impacts (i.e., leaks, collisions), the relative likelihood, and the general types of impacts that may occur.

Consistent with the requirements of HMC Chapter 11.16, the Contractor will complete an assessment of the proposed projects impacts on Frequently Flooded Areas. The Contractor will qualitatively assess the potential of the proposed projects to affect flood storage capacity and flow rates and for floods to result in potential damage to the storage tanks that may adversely affect water quality, relying primarily on past information provided by the Proponents.

Assumptions

- No in-water transfers or in-water work would occur as part of either project. Neither of these elements are part of either project's proposal.
- The discussion of water quality impacts associated with spill/emergency events would be consistent with the scenarios to be analyzed in the rail and vessel spill risk assessments (Task 3.17) and will be qualitative.
- No hydraulic modeling is required to support the floodplain assessment.

Deliverables

- Documentation of any maps, references, conversation logs for inclusion in the Administrative Record and the EISs as deemed appropriate.

TASK 3.4 – Plants

Data Collection and Review

The Contractor will obtain and review updated information on sensitive plant species that have the potential to be affected in the area around the proposed project sites, including the Grays Harbor National Wildlife Refuge, the Chehalis River Surge Plain at the mouth of Grays Harbor, along the rail line from Centralia to the Port of Grays Harbor, and within and along the shoreline surrounding Grays Harbor. Information will be obtained based on aerial reviews of the study area, updated PHS data, WDNR Natural Heritage Program data, updated species accounts in potentially affected counties, the City of Hoquiam Critical Areas Ordinance information, and any relevant scientific literature. The Contractor will also complete a site visit to evaluate plant communities and habitat quality in the expanded study area (short line, Grays Harbor shoreline and Chehalis River Surge Plain) and will identify any areas of special interest or sensitivity.

Technical Approach

The Contractor will describe potentially affected plant communities based in part on past information provided by the Proponents (for the project sites) and additional data collected as described above. The Contractor will qualitatively describe the types of plant communities, general habitat quality, and the potential for listed plants species to occur.

The Contractor will qualitatively evaluate the direct impacts on plant communities during construction. The Contractor will include a description of the planting plan for the project sites and will identify any other mitigation measures needed to protect vegetation during construction.

The Contractor will qualitatively describe the potential for impacts at the project sites during operation and the indirect impacts associated with rail and vessel transport. Indirect impacts on plant communities from rail and vessel transport will be consistent with scenarios developed and described more fully under Task 3.17, Environmental Health. These impacts will be discussed qualitatively in the context of potentially affected sensitive areas and will rely on applicable scientific literature.

The Contractor will evaluate the potential impacts on plant communities outside the detailed study area in general terms. The analysis of potential impacts along the rail line from the source to Centralia and from vessel transport along the west coast and abroad will include a discussion of the categories of potential impacts, the relative likelihood of potential disturbance, and the general types of impacts that may occur.

Assumptions

- Site surveys will be reconnaissance-level and will be completed in 2 days.
- Proposed planting plan to be provided by Proponents.

Deliverables

- Documentation of any maps, references, conversation logs for inclusion in the Administrative Record and the EISs as deemed appropriate.

TASK 3.5 – Animals

Data Collection and Review

The Contractor will rely in part on past information provided by the Proponents characterizing the presence of animal species at the proposed project sites and will ensure the analysis addresses species consistent with those identified in the prior MDNS for the projects. The Contractor will also obtain and review updated information addressing the potential for sensitive animal species to occur in the area around the proposed project sites, including consideration of the Pacific Flyway, within and along the shorelines of Grays Harbor, the Grays Harbor National Wildlife Refuge, and the Chehalis River Surge Plain. Contractor will also obtain and review information related to species occurrence along the rail line from Centralia to the Port of Grays Harbor.

Information will be obtained based on a review of aerial photography of the study area, updated PHS data, WDNR Natural Heritage Program data, updated species accounts in the potentially affected counties, the City of Hoquiam Critical Areas Ordinance information, and relevant scientific literature. Contractor will also coordinate with the Washington Department of Fish and Wildlife, U.S. Fish and Wildlife Service, National Marine Fisheries Service, WDNR, Ecology, and the City of Hoquiam as deemed appropriate. The Contractor will also complete a site visit to evaluate plant communities and habitat quality in the expanded study area

(short line, Grays Harbor shoreline and Chehalis River Surge Plain) and will identify any areas of special interest or sensitivity.

Technical Approach

The Contractor will summarize the plant communities within and around the project sites; Grays Harbor and the surrounding shoreline, including the Grays Harbor National Wildlife Refuge and the Chehalis River Surge Plain; and the rail corridor from Centralia to the Port of Grays Harbor. The Contractor will characterize habitat quality and identify any important migration corridor, including the Pacific Flyway. Contractor will provide a description of terrestrial and aquatic animals likely to be found in these areas and will note the documented occurrence of any special-status species or any areas of special importance to wildlife.

The Contractor will evaluate the construction- and operation-related impacts on terrestrial and aquatic species likely to be found at or around the project sites, including species listed as threatened or endangered, designated and proposed critical habitat, candidate species, and species of concern. Direct impacts at the site are anticipated to occur primarily from noise-related disturbance and will be addressed consistent with the analysis described under Task 3.7, Noise and Vibration. The Contractor will also address the indirect impacts of operation at the proposed sites, related primarily to potential water quality impacts from rail unloading and vessel loading, including impacts related to ballast water. The analysis of vessel loading activities will address potential impacts related to ballast water and the increased potential for spills. The Contractor will qualitatively evaluate impacts of spills consistent with the scenarios developed and described more fully under Task 3.17, Environmental Health.

The Contractor will address the potential for indirect impacts along the rail line from Centralia to the Port of Grays Harbor. The Contractor will analyze the impacts associated primarily with increased noise, increased rail activity, and indirect water quality impacts from typical rail operations along the corridor. The analysis will also include a discussion of the potential impacts related to derailment scenarios developed and described more fully under Task 3.17, Environmental Health. The Contractor will specifically address any potential impacts relevant to wildlife at river crossings consistent with standard operation and possible rail accidents.

The Contractor will address the indirect impacts of vessel transport on species likely to be present in Grays Harbor to 3 nautical miles off the coast of Washington. The Contractor will qualitatively assess the potential for impacts related to increased vessel traffic on marine mammals and other aquatic species. The analysis will also include a discussion of the potential impacts related to spill scenarios developed and described more fully under Task 3.17, Environmental Health. Commercial effects on shellfish, including tribal fisheries, will be addressed under Section 3.18, Economics, Social Policy, and Cost-Benefit Analysis.

The Contractor will evaluate the potential impacts on animals outside the detailed study area in general terms. The analysis of impacts along the rail line from the source to Centralia and from vessel transport along the west coast and abroad will include a discussion of the categories of potential impacts, the relative likelihood of potential disturbance, and the general types of impacts that may occur.

Assumptions

- Site visit to be completed as described under Task 3.4, Plants.

Deliverables

- Documentation of any maps, references, conversation logs for inclusion in the Administrative Record and the EISs as deemed appropriate.

TASK 3.6 – Energy and Natural Resources

Data Collection and Review

The Contractor will review site layout plans and work with the Proponents to understand and describe the energy needs for construction and operation of the proposed projects. The Energy and Natural Resources section will focus on energy consumption and use during construction and operations of the proposed facilities.

Technical Approach

The Contractor will describe the aspects of the proposed projects that require energy consumption and discuss the energy sources and demand. The Contractor will characterize energy consumption for construction-related and operational activities at the proposed project sites in terms sufficient to support an assessment of the potential impacts on public services and utilities under Task 3.16, Public Services and Utilities. The Contractor will describe energy sources and demand related to rail and vessel transport in general terms. The cumulative effects of energy consumption at the site will be discussed in the context of local service providers and a general discussion of the use and commitment of nonrenewable energy resources. The Contractor will work with the Proponents to understand and recommend any energy conservation measures that may be implemented as part of the proposed projects.

Assumptions

- Proponents will provide the Contractor with construction plans, including number and type of vehicles and equipment
- Proponents will provide the Contractor with operations plans which describes daily activities and equipment used on and off site

Deliverables

- Documentation of any maps, references, conversation logs for inclusion in the Administrative Record and the EISs as deemed appropriate

TASK 3.7 – Noise and Vibration

Study Plan

The Contractor will work with the Co-Lead Agencies to develop a study plan documenting the scope of the technical approach, assumptions, methods, and characterization of the results for the noise and vibration

analysis. The Contractor will provide a draft and final study plan in response to review comments by the Co-Lead Agencies. The study plan will include definition of the baseline, no-action alternative, proposed action, and cumulative scenarios for each project.

Data Collection and Review

The Contractor will review data describing existing operations at the proposed sites, the Grays Harbor Rail Terminal noise study to provide context and potential application to the present study, and the proposed description of construction and operational activities for the proposed projects, including any available construction plans (such as pile driving). The Contractor will obtain the necessary information to support the noise and vibration analysis, including number of trains per day, number of locomotives and cars, and train speeds and will ensure consistency between the air, noise and vibration, transportation, and risk assessment analyses.

Technical Approach

The Contractor will address the potential for increased noise and vibration from construction and operation at the proposed project sites. The noise and vibration analysis will also consider the impacts related to rail transport between Centralia and the Port of Grays Harbor and from vessel transport in the Port of Grays Harbor to 3 nautical miles off the Washington coast.

The Contractor will qualitatively assess construction noise and vibration. The Contractor will provide a description of the ambient noise levels consistent with noise emissions from industrial uses similar to the existing conditions and will qualitatively assess the potential impacts from typical noise levels associated with the proposed construction activities/equipment. Pile-driving noise and vibration levels will be estimated for sensitive receptor locations, including wildlife and residents. The Contractor will recommend mitigation measures to minimize construction noise as appropriate.

The Contractor will qualitatively address operational noise at the proposed sites, including the associated noise from vessel transit. The Contractor will base vessel transit noise emission for project vessels on International Maritime Organization noise limits.

Railroad noise along the rail line from Centralia to the Port of Grays Harbor will be evaluated in a semi-quantitative fashion. Locomotive warning horn noise contours in the vicinity of at-grade crossings will likely increase in size relative to existing conditions as a result of the proposed increase in rail traffic. Wayside noise (locomotive engine and wheel/rail noise) contours will also likely increase in size relative to existing conditions. The Contractor will calculate horn and wayside noise contour distances for existing conditions and the proposed action in order to show the increase in size of noise contours. The Contractor will calculate the distance of sensitive noise receptors from the wayside contours and will provide a qualitative discussion of the potential noise impacts during rail operations in this area.

The Contractor will also address the potential increase for vibration along the rail line from Centralia to the Port of Grays Harbor. The Contractor will provide a discussion of the factors affecting vibration and will

indicate that because vibration is not a function of train traffic no increases in vibration and the likelihood of potential vibrational impacts near the site and along the Puget Sound & Pacific Railroad (PS&P).

The operational noise emissions associated with rail transport from source to Centralia and from vessel transport along the west coast and abroad will be qualitatively compared to base rail or vessel traffic levels in those areas. Activity may displace other energy shipment, but a conservative assumption is that rail and vessel trips are additive to existing conditions.

Assumptions

- Construction and operational noise emissions at the proposed sites will be addressed qualitatively.
- Detailed noise contours will not be generated along rail line, but the distances to the existing and future railroad noise contours will be calculated.
- No vibration modeling is required.

Deliverables

- Draft and Final Noise and Vibration Study Plan
- Documentation of any maps, references, conversation logs for inclusion in the Administrative Record and the EISs as deemed appropriate.

TASK 3.8 – Land and Shoreline Use

Data Collection and Review

The Contractor will review the land use plans and zoning policies that apply to lands within and around the project sites, the rail line from Centralia to the Port of Grays Harbor, and the communities surrounding Grays Harbor. This will include a review of city and county comprehensive plans, transportation plans, relevant municipal codes, and any other applicable plans, including the Shoreline Master Program. This analysis will result in the identification of specific policies or guidelines applicable to the use and protection of lands and resources in the study area, and will support in part the social policy analysis described under Task 3.18, Economics, Social Policy, and Cost-Benefit Analysis.

In addition to reviewing existing land use plans and aerial photography, the Contractor will conduct a site visit to document existing land uses, including identification of important land resources, such as the Grays Harbor National Wildlife Refuge, the Chehalis River Surge Plan Refuge, and any areas that support commercial or tribal fisheries. The Contractor will also identify any parks or recreational areas to support the analysis to be completed under Task 3.11, Recreation, and any important scenic resources to support the analysis to be completed under Task 3.9, Aesthetics, and Task 3.10, Light and Glare. The localized economic impacts on land resources will be addressed under Task 3.18, Economics, Social Policy, and Cost-Benefit Analysis.

Technical Approach

The Contractor will identify the communities that could be affected by the proposed project, including those surrounding the project sites, along the rail line from Centralia to the Port of Grays Harbor, and surrounding Grays Harbor. The Contractor will list the communities and provide an overview of existing land uses, shoreline resources, commercial and tribal fishing areas, and agricultural lands in the study area. The Contractor will summarize all applicable land use plans, policies, and regulations (including shoreline regulations) that apply to lands in the study area.

The Contractor will evaluate the proposed projects for consistency with adopted land use plans and policies, and will identify possible conflicts preventing fulfillment of land use plans, including those resulting from increased rail traffic resulting in blocked grade crossings. The Contractor will also evaluate potential impacts on existing land uses resulting from construction and operation of the proposed projects. This evaluation will include a qualitative discussion on the effects of the spill and emergency response scenarios described under Task 3.18, Environmental Health, and the effects on land uses, including potential impacts on shellfish operators or commercial or tribal fisheries. The Contractor will identify any mitigation required to address potential land use conflicts. Measures specific to addressing impacts related to spill and clean up scenarios will be addressed under Task 3.18, Environmental Health.

Assumptions

- No more than one site visit will be required to complete the analysis.

Deliverables

- Documentation of any maps, references, conversation logs for inclusion in the Administrative Record and the EISs as deemed appropriate.

TASK 3.9 – Aesthetics

Data Collection and Review

The Contractor will use observations, photographs, and information gathered during the site visit described under Task 3.8, Land and Shoreline Use, to characterize the project sites and the visual quality of the surrounding area, including views of Gray Harbor and the surrounding shoreline. The Contractor will also review aerial photography and topographic maps and will identify viewpoints of the proposed project sites and any sensitive viewer groups in the study area.

Technical Approach

The analysis will focus on the proposed changes at the project sites and the surrounding area informed by the maximum extent to which the proposed development can be observed from the ground due to topography, vegetation, and landforms. The Contractor will describe the overall visual quality of the surrounding area, visual quality, viewer sensitivity, and viewpoints. The Contractor will describe the visual changes that will occur at the sites and how views of the sites will change. This analysis will also consider the potential for impacts related to the spill and emergency response scenarios to be developed under Task 3.18,

Environmental Health. The Contractor will provide a qualitative assessment of how viewer groups are affected by these changes, with specific attention to changes visible from across the harbor and at the Grays Harbor Wildlife Refuge. Mitigation measures will be recommended to address impacts on visual resources. Measures specific to clean up and emergency response will be addressed under Task 3.18, Environmental Health.

Assumptions

- No visual simulations will be required.

Deliverables

- Documentation of any maps, references, conversation logs for inclusion in the Administrative Record and the EISs as deemed appropriate.

TASK 3.10 – Light and Glare

Data Collection and Review

The analysis will focus on the proposed changes at the project sites and the surrounding area informed by the maximum extent to which the proposed development can be observed from the ground due to topography, vegetation, and landforms. The Contractor will use observations, photographs, and information gathered during the site visit described under Task 3.8, Land and Shoreline Use, to characterize the potential sources of light and glare. The Contractor will also review aerial photography and topographic maps and will identify viewpoints of the proposed project sites and any sensitive viewer groups in the study area.

Technical Approach

The Contractor will describe the overall visual quality of the surrounding area, visual quality, viewer sensitivity, and viewpoints. The Contractor will describe the visual changes that will occur at the sites that could result in increased light and glare and any increased visibility of these sources. The Contractor will provide a qualitative assessment of how viewer groups are affected by these changes, with specific attention to changes visible from across the harbor and at the Grays Harbor Wildlife Refuge.

Assumptions

- No simulations required.

Deliverables

- Documentation of any maps, references, conversation logs for inclusion in the Administrative Record and the EISs as deemed appropriate.

TASK 3.11 – Recreation

Data Collection and Review

The Contractor will use observations, photographs, and information gathered during the site visit described under Task 3.8, Land and Shoreline Use, to assess any parks and recreational areas that could be potentially affected by development of the proposed sites. The Contractor will also review applicable land use plans and publically available information to identify any other information relevant to the analysis.

Technical Approach

Parks and recreational activities near the project site, which is already a developed industrial site, are generally limited to fishing in Grays Harbor, bird watching and hiking along the shoreline, and possibly in-river recreation such as kayaking or boating. The Contractor will identify specific recreational facilities and areas, ownership, access, usage, and unique qualities in Grays Harbor and surrounding shoreline, including the Pacific Ocean shoreline immediately outside the channel and the Hoquiam and Chehalis Rivers. The Contractor will evaluate national, state, or local significance of the resources and will also provide a summary of all applicable regulations and policies that apply to recreational and park facilities in the study area.

The Contractor will qualitatively evaluate the potential for the proposed projects to affect recreational areas, including access, usage, or quality, during construction and operation, including from increased vessel traffic. This analysis will also consider the potential for impacts related to the spill and emergency response scenarios to be developed under Task 3.18, Environmental Health. The Contractor will recommend mitigation to address potential impacts on recreation.

Assumptions

- Current land use plans and GIS data as used in Task 3.8, Land and Shoreline Use will be used to identify the types and acreages of existing parks and recreational areas.
- Information on recreational facilities and facilities of national, state, or local significance will be obtained from the Hoquiam Parks Department and the City of Hoquiam's Comprehensive Park and Recreation Plan.

Deliverables

- Documentation of any maps, references, conversation logs for inclusion in the Administrative Record and the EISs as deemed appropriate.

TASK 3.12 – Historic and Cultural Preservation

Study Plan

The Contractor will work with the Co-Lead Agencies to develop a study plan documenting the scope of the technical approach, assumptions, and methods for the historic and cultural resources analysis. The Contractor will provide a draft and final study plan in response to review comments by the Co-Lead Agencies.

The Contractor will coordinate with the Co-Lead Agencies to establish a study area for cultural resources. It is assumed the study area will include the horizontal and vertical extents of each project site and those properties within 300 feet of the project sites that may be affected by project-related activities. In addition, the Contractor will qualitatively discuss the cultural and historic environment along the PS&P and the Grays Harbor.

The Contractor will coordinate with the Co-Lead Agencies regarding the Contractor's role to provide support for consultation with affected tribes and in obtaining information from the tribes related to culturally significant resources for incorporation into the Cultural Resources Technical Report and Draft EISs.

Data Collection and Review

The Contractor will collect and review existing data to determine the existence or probability of cultural resources in the study area and develop prehistoric and historic contexts. Initial data collection efforts will be based on historic and cultural resources studies provided by the Proponents. If necessary, additional data collection will include an updated cultural resources records search using the Washington Department of Archaeology and History Preservation (DAHP) Washington Information System for Architectural and Archaeological Records Data (WISAARD), a literature review of previously completed cultural resources studies in the study area and its vicinity, and additional background research on the history and development of the study area. The Contractor will also conduct and review available geotechnical, geoarchaeological, and geological research to assess the archaeological sensitivity of the project sites and establish appropriately-scaled archaeological field investigations.

Depending on additional information to be supplied by the Proponents, the Contractor will conduct additional field investigations of the portions of the study area that include the project sites. If necessary, these efforts will include subsurface archaeological investigations and a historic resources survey. . If it is deemed possible that the proposed projects could result in the disturbance of native soil, the Contractor will perform subsurface archaeological investigations, consisting of a maximum of six mechanical trenches excavated at each project location. This information will be used to characterize the local depositional context and to identify subsurface archaeological deposits (if present). The historic resources survey will examine and evaluate the built environment resources in the study area, consisting of buildings and structures determined to be 45 years of age or older.

Technical Approach

The Contractor will prepare draft and final versions of a cultural resources technical report that compiles the results of the Proponents' studies, additional literature review, background research, and fieldwork described above. The report will meet state standards for reporting as outlined in the guidelines provided by DAHP in compliance with SEPA. It will identify buildings, structures, sites, objects, or districts listed in, or eligible for listing in the Washington Heritage Register, the National Register of Historic Places (NRHP), and any culturally significant sites and resources known to exist in the study area, and present the regulatory context, prehistoric, historic, and landscape contexts for the projects. The report will analyze the projects' potential

construction and operating impacts on these resources, and provide a statement of impact and recommended mitigation measures or other actions for reducing identified impacts.

The report will also generally characterize the resources and potential effects related to project-related rail transport along the PS&P and from vessel transport within Grays Harbor. Following review of the cultural resources technical report, the Contractor will incorporate the information and conclusions presented in the technical report into the cultural resources sections of the EISs.

Assumptions

- The Proponents' previous Historic and Cultural Resources studies will provide the foundation for this task.
- Consultation with DAHP and the tribes will be completed by the Co-Lead Agencies. The Contractor will work with the Co-Lead Agencies to identify additional services that may be required to support this effort.
- The Co-Lead Agencies will be responsible for obtaining permission for the Contractor to access the proposed project sites and informing the Contractor of any areas where access is not permissible.
- Field investigations on property beyond the boundaries of the proposed project sites will occur from public roadways and points of access unless the Co-Lead Agencies obtain permission to access private property for the Contractor.
- The study area is expected to consist of the horizontal and vertical extents of the project sites and those properties within 300 feet of the project sites that may be affected by project related activities.
- A maximum of six mechanical trenches will be excavated.
- Mechanical trenches will be excavated to the anticipated depth of project-related ground disturbance or to a depth of approximately 300 centimeters, whichever is encountered first. All excavated sediments will be carefully inspected, and a representative sample of excavated sediments, and any deposits of interest, will be screened through 0.25-inch hardware cloth unless the deposits are clearly fill. All mechanical trenches will be photographed, logged with a handheld global positioning system unit, and backfilled.
- Field documentation of built environment resources in the study area will be limited to one or more photographs of each resource and notations on their physical characteristics, including the style of each resource (if identifiable), the type and materials of significant features, and the existence of alterations and overall physical integrity. This information will be recorded in WISAARD on historic property inventory forms and submitted to DAHP electronically, per DAHP guidelines.
- A maximum of 15 buildings or structures determined to be 45 years of age or older and located on either of the project sites or within 300 feet of the project sites will be recorded in WISAARD on historic property inventory forms, per DAHP guidelines.
- Properties determined to be less than 45 years old will not be recorded in WISAARD on historic property inventory forms, per DAHP guidelines.
- It is assumed that no WHR or NRHP-eligible or listed resources are located in the study area.
- It is assumed no archaeological sites are located in the study area.

- If potentially significant cultural materials or resources are identified, additional investigations beyond this scope of work may be necessary to delineate the resource, evaluate its historical significance, and determine whether the project would impact the resource. In the event that additional investigations are necessary, the Contractor will consult with the Co-Lead Agencies to establish an additional scope of work and prepare anamendment, as necessary.
- The implementation of any stipulations or other mitigation measures resulting from consultation or the review processes under SEPA are not included in this scope of work.

Deliverables

- Draft and Final Historic and Cultural Preservation Study Plan.
- Draft and Final Cultural Resources Technical Report
- Documentation of any maps, references, conversation logs for inclusion in the Administrative Record and the EISs as deemed appropriate.

TASK 3.13 – Rail Traffic and Safety

Study Plan

The Contractor will work with the Co-Lead Agencies to develop a study plan documenting the scope of the analysis, the technical approach, assumptions, and methods. The Contractor will provide a draft and final study plan in response to review comments by the Co-Lead Agencies.

Data Collection and Review

The Proponents' Rail Transportation Impact Analysis (WorleyParsons 2014) will provide the foundation for the data collection and work performed under this task. The Contractor will work with the Proponents to obtain and review the information used as the basis for the analysis completed in the Rail Transportation Impact Analysis and will gather any additional information that may be required to support the EIS analyses. Information to be collected will address expansion of the scope of the analysis to include the BNSF mainline in Centralia and to provide for further refinement in the characterization of rail operations to support the updated traffic and safety analyses if necessary. Depending on the availability of existing data, additional information that may be obtained includes:

- Description of existing average daily train traffic, including average train length and speed, on the rail line between Grays Harbor and the BNSF mainline. Additional details related to PS&P operations, such as track chart, timetable, and a description of daily operations, crew management, and track maintenance standard.
- Project-related train traffic on the PS&P, including the average number of trains per day, average train length and speed, and the number and type of locomotives expected to be used on project-related trains between Centralia and Hoquiam.
- Additional details related to operations specific to the proposed project-related trains, such as proposed terminal site plans, site rail operating plans, turnaround times for loading/unloading at the sites, proposed train sizes, days and hours of operations, origin and location of the proposed trains, route of the proposed trains, expected tank car design and supply, and information on the composition of the liquid bulk materials and the shipping conditions (temperature and pressure).

- Potential non-project-related increases in train traffic on the PS&P, including the average number of trains per day, average train length and speed. Description of the nature and frequency of Wishkah and Hoquiam river marine traffic.
- Additional details regarding the location of mechanical inspections between source and Hoquiam, number of trains per day by type by segment of the route on which traffic is substantially different, and BNSF or other operator track charts from source to Centralia.
- The Contractor will also work with the Co-Lead Agencies to identify the baseline conditions in terms of potential rail infrastructure improvements to be made by the rail road and changes in the type of rail cars that might be used.

Technical Analysis of Rail Traffic and Safety

The Contractor will use the information provided in the Rail Transportation Impact Analysis as the basis for the analysis of rail traffic and safety to be documented in the EISs. The Contractor will address in detail the potential impacts of the proposed projects on rail traffic and safety along the PS&P line from the BNSF mainline in Centralia to the Port of Grays Harbor. The Contractor will generally assess the impacts related to increased rail traffic from source to Centralia. The Contractor will analyze the impacts on rail traffic and safety in the context of future anticipated improvements or regulatory requirements as deemed appropriate by the Co-Lead Agencies.

The Contractor will describe the existing rail line and traffic along the PS&P line from the BNSF mainline in Centralia to the Port of Grays Harbor using the Rail Transportation Impact Analysis as the basis for this information. This will include a description of the existing infrastructure, traffic and safety management procedures and systems, the existing levels of rail traffic, the current mix of commodities transported, average train speeds, and average train lengths. The Contractor will also provide a discussion of train operations in general and the effects of existing rail traffic on non-railroad environments.

If deemed necessary, the Contractor will develop an asynchronous simulation model that will consider specific locations of study in the infrastructure data (e.g., population and commercial centers, road crossings) as informed by a review of the information described above. The model outputs will be used to characterize the potential for increased train delays at various locations in the study area. The analysis will address the impacts of rail accidents on passenger and freight traffic in the study area and on Wishkah and Hoquiam River marine traffic. The analysis will also consider the effects of river marine traffic on rail operations. The Contractor will ensure sufficient specificity in the rail traffic model output to support a quantitative analysis of traffic delays and safety concerns affecting vehicles (at grade crossings) to be addressed under Task 3.14, Vehicle Traffic and Safety.

The Contractor will provide a general discussion of railroad safety, including track safety standards (49 CFR 213), and tank car types and their safety as applicable to these projects using information provided by the Rail Transportation Impact Analysis. The Contractor will assess the potential for increased rail traffic associated with the proposed projects to result in safety hazards. The analysis of rail-related safety impacts will entail estimation of the increased potential for rail accidents (e.g., collisions, derailments) associated with oil trains. This will include quantification of the potential risk of rail accidents on different segments. Estimation will be developed based on a review of rail industry safety data and past determinations of accident rates by track

class, by both train and car miles. Accident rates will be developed to be used for different parts of the study area as appropriate. This analysis will result in the identification of scenarios that will be analyzed further in the rail transport risk assessment (Task 3.17, Environmental Health). The Contractor will identify recommend mitigation measures addressing operational and infrastructure improvements to address safety impacts specifically related to transport of liquid bulk materials.

The Contractor will address potential impacts on rail traffic and safety from source to Centralia in general terms. The impacts will be described in the context of existing base rail traffic levels for this area.

Assumptions

- The Proponents' Rail Transportation Impact Analysis (WorleyParsons 2014) will provide the foundation for the data collection and work performed under this task.
- Proponents will provide sufficient information regarding future traffic levels and commodity mixes to support the analysis.
- The Contractor will identify planning-level gaps to ensure appropriate coordination between the relevant agencies occur to address significant safety and spill response concerns with recommendations made specific to the safe transport of liquid bulk materials.

Deliverables

- Draft and Final Rail Traffic and Safety Study Plan.
- Documentation of any maps, references, conversation logs for inclusion in the Administrative Record and the EISs as deemed appropriate.

TASK 3.14 – Vehicle Traffic and Safety

Study Plan

The Contractor will work with the Co-Lead Agencies to develop a study plan documenting the scope of the technical approach, assumptions, and methods for the vehicle traffic and safety analysis. The Contractor will provide a draft and final study plan in response to review comments by the Co-Lead Agencies.

Data Collection and Review

The Contractor will collect and review the following information as it pertains to the roadways/access surrounding the project sites, any grade crossings, and adjacent roadway intersections along the rail line from Centralia to the Port of Grays Harbor. The Contractor will also obtain information pertinent to any increased truck traffic to and from the site during operation.

- Rail Transportation Impact Analysis (WorleyParsons 2014)
- Recent traffic studies for projects in the vicinity of proposed project sites that can be used to identify existing roadway traffic issues in the project vicinity.
- Estimated increases in vehicle trips (daily and peak hour) generated by proposed operation at each project site.

- Estimated increases in vehicle trips (daily and peak hour) generated by construction activities at each project site.
- Annual average daily vehicle traffic (AADT) for each at-grade crossing and additional traffic volume information (e.g., peak hour traffic) if available.
- Estimated future increases in vehicle traffic for each at-grade crossing.
- The existing safety protection at each grade crossing on the rail line between Grays Harbor and the BNSF mainline.
- The accident history at each grade crossing on the rail line between the Port of Grays Harbor and the BNSF mainline.

Technical Approach

For vehicle traffic, the Contractor will characterize existing traffic and access surrounding the project sites and for each grade crossing between Centralia and the Port of Grays Harbor along the rail line. The Contractor will also include a discussion of existing traffic issues and current factors affecting the level of service in this area.

The Contractor will evaluate the impacts of vehicle trips generated during construction and operation on the roadways that provide direct access to the project sites. The traffic operation impacts will be evaluated in terms of the magnitude of the potential increase in vehicle delay on the surrounding roadway system and will not be quantified.

The Contractor will estimate the projects' individual contribution to increased vehicle delays at each public at-grade road/rail crossing on the existing PS&P rail line between the Port of Grays Harbor and the BNSF mainline in Centralia, including grade crossings on BNSF track between the mainline and junction with PS&P track. Contractor will use the estimated average delay per vehicle to assess the level of service (LOS) at the grade crossings with and without project-related rail traffic. The Contractor also will estimate the length of the queue of vehicles resulting from a train passby and will discuss the implications for delay at nearby roadway intersections. As part of the delay analysis, the Contractor will discuss the impact of the estimated increase in grade crossing delay from each project on emergency services/vehicles. In addition, the contractor will identify potential mitigation measures to address estimated increases in grade crossing delay resulting from the projects.

The Contractor will qualitatively address the potential impacts on vehicle traffic and delay related to increased rail traffic from the point of origin to Centralia and from increased truck trips to and from the project sites during operation. Contractor will describe the types of impacts that could occur in the context of existing base traffic levels.

For vehicle safety, the Contractor will estimate the increase in predicted accident frequency at each public at-grade road/rail crossing on the existing rail line between the Port of Grays Harbor and the BNSF mainline in Centralia, including crossings of BNSF track between the mainline and junction with PS&P track. The contractor will use available information on safety protection and accident history at the grade crossings. The

contractor also will identify potential mitigation measures to address estimated increases in predicted accident frequency at grade crossings resulting from the projects.

Assumptions

- In spite of the relatively modest increases in rail traffic anticipated for each proposed project, a quantitative analysis of grade crossing delay and safety is warranted due to the potential for cumulative impacts and the level of public concern.
- The analysis will address the no-action alternative, proposed action, and cumulative scenario considering increases in traffic of all types on the PS&P line used by Grays Harbor rail traffic.
- Information on project-related train traffic and train traffic related to other proposed projects at Grays Harbor will be provided by the Co-Lead Agencies or Proponents. The analysis will be performed for one future year (e.g., 2020) consistent with the other EISs' analyses
- Existing information on the volume of vehicle traffic, including annual average daily traffic (AADT), at the grade crossings available from the Federal Railroad Administration and state or local agencies will be adequate for the analysis. Thus, traffic counts and other field work will not be required.
- Washington State Department of Transportation (WSDOT) traffic forecasts will be sufficient for adjusting AADT values to the analysis year.
- Analysis for a new grade crossing of Paulson Road associated with the project proposed at Terminal 3 is not necessary.
- Estimated increased grade crossing delay from each project will not be large enough to warrant quantitative analysis of potential impacts on neighboring roadway intersections.
- Vehicle delay impacts on the roadway system in the surrounding area of project sites will be evaluated qualitatively because of the short-term nature of construction activities and the anticipated small increase in operational vehicle trips from project sites.
- The Contractor will identify planning-level gaps to ensure appropriate coordination between the relevant agencies occur to address significant safety and spill response concerns with recommendations made specific to the safe transport of liquid bulk materials.

Deliverables

- Draft and Final Vehicle Traffic and Safety Study Plan
- Documentation of any maps, references, conversation logs for inclusion in the Administrative Record and the EISs as deemed appropriate.

TASK 3.15 – Vessel Traffic and Waterway Safety

Study Plan

The Contractor will work with the Co-Lead Agencies to develop a Study Plan documenting the information learned to date and the scope of the technical analysis of vessel traffic and waterway safety. The Contractor will provide a draft and final Study Plan in response to review comments by the Co-Lead Agencies.

Data Collection and Review

The Contractor will use the Vessel Transportation Impact Analysis (VTIA; WorleyParsons 2014) as the basis for the information to be documented in the EISs. The Contractor will work with the Proponents to obtain and review the information used as the basis for the analysis completed in the VTIA and will gather any additional information as deemed necessary to support the EIS analyses. Information will be gathered and reviewed to address vessel traffic and water way safety from the Port of Grays Harbor to 3 nautical miles off the coast of Washington.

- Vessel Transportation and Impact Analysis (WorleyParsons 2014)
- International Convention for the Safety of Life at Sea (SOLAS) 1974.
- 33 CFR Subchapter P – Ports and Waterways Safety and any additional U.S. Coast Guard guidance and policies related to the enforcement of these regulations with particular focus on U.S. Coast Guard Sector Columbia River requirements.
- National Oceanic Atmospheric Administration (NOAA) – U.S. Coast Pilot 7, Pacific Coast: California, Oregon, Washington, Hawaii and Pacific Islands, 46th Edition, 2014.
- A review of U.S. Coast Guard documentation associated with major marine casualties reported to the National Response Center (NRC) from vessel owners/operators between January 1990 to December 2012 for the years during which time a "significant amount" of commercial tanker and tank articulated barge transits occurred in the Port of Grays Harbor (a "significant" amount for the purposes of this study is defined as more than 100 transits in a one calendar year time frame) according to the U.S. Army Corps of Engineers Navigation Data Center data.
- Other data on petroleum-related waterborne commerce from the U.S. Army Corps of Engineers, the U.S. Department of Transportation Maritime Administration, and other relevant federal agencies that offer publicly accessible commerce data..
- Vessel traffic data available through the Marine Exchange of Puget Sound and Grays Harbor Safety Committee Standards of Care.
- Available information on planned, anticipated, or potential marine development or growth on the waterway that could contribute to risks for the commercial users of the waterway.

The Proponents' VTIA (WorleyParsons 2014) will provide the foundation for the data collection and work performed under this task. The Contractor will collect additional information and data related to the expanded scope of the analysis and to provide for further refinement in the characterization of past vessel traffic and operations to support the updated traffic analyses as deemed necessary. Information will be gathered through phone interviews and a review of publically available resources on the internet or in the public library. The Contractor will complete a site visit to collect additional information not otherwise readily available, which may include the following information.

- Interviews with relevant stakeholders at the Port of Grays Harbor such as the Executive Director, the Terminal Manager, the Director of Environment and Engineering, and the Facility Security Officer.
- Interview with the Executive Director of the Marine Exchange of Puget Sound or representative.

In the event that additional information from the following sources is needed, the Contractor will coordinate to obtain information from other waterway interests including the U.S. Coast Guard Station Grays Harbor,

vessel pilots that guide vessels in and out of the Port of Grays Harbor, the Harbor Master, other port tenants, the Quinault Indian Nation, and towing companies that operate in the Port of Grays Harbor. The Grays Harbor County Sheriff's Office will be contacted to verify waterside asset capability. This information may be collected through in-person or phone interviews or through participation at meetings as noted above.

Technical Approach

The Contractor will use the Vessel Transportation Impact Analysis as the basis for the information characterizing related impacts in the EISs. To the extent additional work is deemed necessary, the Contract will conduct additional vessel traffic analyses, which will be qualitative and, in general, could encompass the following geographic areas: The entire length of the Bar Channel, the entrance to Grays Harbor, the Federal project channel that allows transit to deep draft vessels through Grays Harbor to and from the proposed project sites, and the berthing area between the navigation channel and the Terminal 1 dock. The analysis will also evaluate the approximately 1-mile radius area around Terminal 1 dock (based on docking and departing vessel maneuvers and moorage), the harbor anchorage(s), and the Lower Chehalis River related to the impacts on overall harbor activity from the increased vessel maneuvering activities associated with anchorage or berthing operations. Vessel transportation routes and concerns along the west coast and abroad will be discussed in general terms.

The Contractor will provide a general discussion of vessel operations relevant to the proposed project, including explanation that in-water transfers are not part of the proposal for either project. As deemed necessary, the Contractor will review the quantity and types of commercial vessel traffic currently operating in the Port of Grays Harbor and the quantity and types of commercial vessel traffic historically operating in the Port of Grays Harbor based on more detailed stakeholder interviews, historical traffic data, and vessel operations. The Contractor will use information provided in the Vessel Transportation Impact Analysis and will obtain and consider supplemental historical vessel traffic data deemed relevant to the analysis but going back no more than allowed by publically available data resources through the Internet and the Marine Exchange of Puget Sound data. If needed, the Contractor will review vessel accident data reported in Grays Harbor since 1990 (for select years with increased vessel activity) and use this data to qualify the vessel traffic and waterway risks in the port. This type of information is not in the 2014 VTIA. The Contractor will also discuss the maritime navigation and safety issues along the vessel route, including pilot and tug availability, to a further extent than the information in the 2014 VTIA. The Contractor will assess the anticipated need for use of anchorage in Grays Harbor and any recommendations for federal anchorage requirements for vessel traffic in greater detail than the information in the 2014 VTIA.

Based on the assessment described above, the Contractor will identify the general impacts to other vessel activities in the harbor expected as a result of the anticipated vessel traffic increase and vessel loading operations. Contractor will conduct a formal safety assessment to characterize the risk (likelihood and extent) of vessel accidents (collisions, allisions, groundings, or mechanical failures that result in such accidents) under the no-action alternative and proposed action for each project and to develop a list of potential mitigations. The formal safety assessment will provide the following elements (1) identification of hazards based upon review of U.S. Coast Guard documentation associated with major marine casualties; (2) list of risks gained from the data collection and review and interviews and a qualitative risk analysis based upon

identified risks (e.g., collision, running aground); and (3) control measures already in place to mitigate risk; and (4) additional options that could be implemented.

Steps one and two above reflect a different approach than the 2014 VTIA risk assessment in Chapter 5 as they include a characterization of potential hazards and actual vessel accidents based on a historical review to balance the predicted increase of vessel traffic in the Grays Harbor waterways. For steps three and four the contractor will review current maritime best practices comparing them to measures already in place and identifying those measures that could be implemented, to provide a comprehensive list of risk mitigations best suited for the identified risks associated with the proposed increase in vessel traffic. As applicable, mitigation measures listed in the 2014 VTIA will be included in the discussion. It is assumed recommended mitigation measures will identify planning-level gaps to facilitate appropriate coordination between the relevant agencies to handle significant safety concerns.

Assumptions

- The Proponents' Vessel Transportation and Impact Analysis (WorleyParsons 2014) will provide the foundation for the data collection and work performed under this task.
- Key needs for this approach include detailed information on the vessel traffic elements of the proposed project, and the ability to openly communicate with the Port of Grays Harbor Pilots, Port Authority (including the applicable terminals manager), the Harbor Master, the Marine Exchange, the Quinault Indian Nation, and U.S. Coast Guard to get necessary data and information on vessel traffic and waterway management issues and measures.
- U.S. Coast Guard maritime accident data for Step 1 of the formal safety assessment will be obtained through a FOIA request and quantity and quality of data may be limited by the availability of this information.
- No in-water transfers would occur as part of either project.
- The Contractor will identify planning-level gaps to ensure appropriate coordination between the relevant agencies occur to address significant safety and spill response concerns with recommendations made specific to the safe transport of liquid bulk materials.

Deliverables

- Draft and Final Vessel Traffic and Waterway Safety Study Plan.
- Documentation of sources of information for inclusion in the Administrative Record and EISs as deemed appropriate.

TASK 3.16 – Public Services and Utilities

Data Collection and Review

The Contractor will collect and evaluate information characterizing the public and utilities service providers that could be potentially affected by the proposed project. The Contractor will review publically available information and conduct additional phone interviews as necessary, to identify and describe any educational facilities and attendance boundaries; religious institutions; social institutions; medical services; fire and police protection services; other public services and utilities; cemeteries; government institutions; and other

governmental services located around the project sites, the rail corridor from Centralia to Grays Harbor, and in the coastal communities around Grays Harbor.

Technical Approach

The Contractor will provide a description of the local public services and utilities that could be affected in the communities surrounding the project sites, the rail line from Centralia to the Port of Grays Harbor, and around Grays Harbor. The description of the affected environment will be focused on those public services and utilities that could be affected by construction and operation of the proposed projects.

The Contractor will focus the analysis of construction-related impacts on those public services and utilities that would be needed to support construction activities or that would be potentially disturbed during construction. This analysis would be specific to communities surrounding the proposed project sites. Contractor will qualitatively describe increased demand for any services or utilities during construction and will evaluate the potential impacts on local service providers in the context of existing supply/planned capacity as confirmed through conversations with relevant service provider personnel. Contractor will also recommend any necessary mitigation measures to minimize construction-related impacts.

The Contractor will also analyze the public services and utilities needed to support operation at the proposed terminal sites and related rail and vessel transport activities. This will include an assessment of emergency response services required for the safe transport of liquid bulk materials, including crude oil, for all potentially affected communities surrounding the project sites, along the rail line from Centralia to the Port of Grays Harbor, and around Grays Harbor consistent with the risk assessment analyses to be completed under Task 3.17, Environmental Health. The Contractor will identify planning-level gaps to ensure appropriate coordination between the relevant agencies occur to address significant safety and spill response concerns with recommendations made specific to the safe transport of liquid bulk materials. This assessment will be completed in coordination with the Marine and Rail Oil Transportation Study to be completed in late 2014. The Contractor will also identify the provision of any public services or utilities that may be disturbed during operation and will recommend necessary mitigation measures to minimize impacts.

The Contractor will evaluate the potential impacts on public services and utilities related to the safe transport of liquid bulk materials, including crude oil, during rail transport from source to Centralia and vessel transport along the west coast and abroad. The Contractor will identify the general types of situations that would emergency service or spill response and will characterize the applicable regulatory framework and systems in place to respond to such events.

Assumptions

- The Contractor will contact local community service and utilities providers to confirm information related to the provision of public services and utilities. This will include a general assessment of emergency service response personnel and equipment based on information made available during a phone interview. The Contractor will attempt to obtain information sufficient to identify and recommend planning-level obstacles to the safe transport of liquid bulk materials, including crude oil.

- The Contractor will characterize the existing regulatory environment related to emergency response preparedness, emergency response provision, and spill response clean up in terms sufficient to support a general discussion of the potential impacts associated with the transportation of liquid bulk materials, including crude oil, from source to Centralia by rail, and along the west coast and abroad, by vessel.

Deliverables

- Documentation of any maps, references, conversation logs for inclusion in the Administrative Record and the EISs as deemed appropriate.

TASK 3.17 – Environment Health

The Contractor will describe the potential for the proposed projects to result in increased exposure to hazardous materials, including toxic chemicals, risk of fire or explosion, spills, or hazardous waste at the proposed project sites and during rail and vessel transport. Site-related contaminants are expected to be associated with the risks of handling hazardous materials during construction and operation, from exposure to hazardous air pollutants during operation, and contamination from past activities. Risks associated with rail and vessel transport are expected to be primarily related to spills or other emergency response scenarios (e.g., fires, explosions) related to transport and handling of liquid bulk materials, more specifically crude oil.

Work completed under Task 3.17, Environmental Health, will address the type, likelihood, and extent of the potential exposure resulting from construction and operation of the proposed projects specific to hazardous materials exposure. Emissions of hazardous air pollutants will be addressed under Task 3.2, Air. The potential consequences of exposure to hazardous materials related to natural resources will be discussed under Tasks 3.3, Water, 3.4, Plants, and 3.5, Animals. The potential consequences of hazardous materials related to the human environment will be discussed under 3.18, Economics, Social Policy, and Cost-Benefit Analysis.

The Contractor will review proposed project layouts and work with the Proponents to understand and describe construction and operational activities at the sites that could result in exposure to hazardous materials. Contractor will qualitatively assess the risks of exposure at the site in the context of best management practices and recommend any additional mitigation measures that may be required. The Contractor will evaluate the potential for site contamination and will also evaluate the properties of the various liquid bulk commodities that may be handled, stored, and transported as part of the proposed projects.

To characterize the potential risks associated with the transport of liquid bulk materials by rail and vessel, the Contract will complete a rail transport assessment and a vessel spill risk assessment as described below.

Rail Transport Risk Assessment

Study Plan

The Contractor will work with the Co-Lead Agencies to develop a study plan documenting the scope of the technical approach, assumptions, methods, and characterization of the results for the rail risk assessment. The Contractor will provide a draft and final study plan in response to review comments by the Co-Lead Agencies.

Data Collection and Review

The Contractor will obtain and review the following materials to inform the rail transport risk assessment and the related discussion of impacts on environmental health in the EISs.

- Regional Response Team and Northwest Area Committee Area Contingency Plan
- Washington State 2014 Marine and Rail Oil Transportation Study (under development)
- Geographic Response Plan for Grays Harbor
- Latest Washington State Hazard Identification and Vulnerability Assessment
- State of Washington Emergency Management Division Comprehensive Emergency Management Plan and any applicable plans available from Local Emergency Planning Committees
- Additional details related to the transport of liquid bulk materials, such as expected tank car design and supply, and information on the composition of the liquid bulk materials and the shipping conditions (temperature and pressure).
- Industry safety data and past determinations of accident rates

Technical Approach

The Contractor will summarize the probabilities for the different types of rail accidents (e.g., collisions or derailments) that may occur along different segments of the PS&P from the BNSF mainline in Centralia to the Port of Grays Harbor, as supported by the analysis to be completed under Task 3.13, Rail Traffic and Safety. The Contractor will also describe in general terms, the types of accidents that could occur during transit from source to Centralia and the relative likelihood for these events. The Contractor will briefly explain the factors that influence the extent and nature of the environmental damage that could occur as a result of such rail accidents, including, but not limited to the nature and extent of the accident, the type of rail cars in use, tanker storage conditions, potential collision with other hazardous materials, and the chemical properties of the commodities being transported.

The Contractor will review tank car types, safety records, and previous estimates of tank car release probabilities for pressure and non-pressure cars with different safety features to develop accident rates specific to these projects. Using the rail traffic analysis outputs (Task 3.13), developed accident rates, and rail car assumptions, the Contractor will develop estimates of release probabilities for the tank cars as well as the range of spill sizes. The Contractor will qualitatively discuss a range of consequences associated with the releases dependent on release volumes, commodity type, and proximity to sensitive resource areas, including at the Chehalis River crossing, tribal lands, and any other resources of special importance.

Based on the consequence scenarios, the Contractor will describe the anticipated emergency response resources (e.g., personnel and equipment) that would be required for response and recovery. This discussion will include identification of responsible parties and existing resources available to address emergency events. Recommended mitigation measures will identify planning-level gaps to ensure appropriate coordination between the relevant agencies occurs to address significant safety concerns. Any related potential impacts on public services and utilities for the affected communities will be addressed under Task 3.16, Public Services and Utilities.

The Contractor will also describe in general terms, the types of events that could occur during transit from source to Centralia, the relative likelihood, and the general extent of a spill or emergency response scenario. This discussion would be qualitative and presented in the context of base rail traffic in the area. The analysis will be commensurate with the level of specificity available characterizing the commodity to be transferred, including volumes, car type and transport conditions, and potential routes.

Assumptions

- The Proponents will provide sufficient information regarding future traffic levels and commodity mixes to support the analysis. The analysis will be commensurate with the level of detail available, characterizing the commodity to be transferred, including volumes, car type and transport conditions, and potential routes.
- The Contractor will identify planning-level gaps to ensure appropriate coordination between the relevant agencies occur to address significant safety and spill response concerns with recommendations made specific to the safe transport of liquid bulk materials.

Deliverables

- Draft and Final Rail Transport Risk Assessment Study Plan.
- Draft and Final Rail Transport Risk Assessment Technical Report.
- Documentation of sources of information for inclusion in the Administrative Record and EISs as deemed appropriate.

Vessel Spill Risk Assessment

Study Plan

The Contractor will work with the Co-Lead Agencies to develop a study plan documenting the scope of the technical approach, assumptions, methods, and characterization of the results for the vessel spill risk assessment. The Contractor will provide a draft and final Study Plan in response to review comments by the Co-Lead Agencies.

Data Collection and Review

The Contractor will obtain and review the following materials to inform the vessel spill risk assessment and the related discussion of impacts on environmental health in the EISs.

- Economic Impact Analysis of Bulk Liquid Storage Facilities at the Port of Grays Harbor prepared by ECONorthwest for Westway Terminal Company LLC and Imperium Renewables Inc. September 5, 2013.
- International Convention for the Prevention of Pollution from Ships, 1973
- 33CFR Subchapter O – Pollution and any additional U.S. Coast Guard guidance and policies related to the enforcement of these regulations with particular focus on U.S. Coast Guard Sector Columbia River requirements.
- Ecology Revised Code of Washington (RCW) spills rules (available at www.ecy.wa.gov/programs/spills/rules/main.html); Ecology Geographic Response Plans.

- Regional Response Team and Northwest Area Committee Area Contingency Plan.
- Geographic Response Plan for Grays Harbor
- Washington State 2014 Marine and Rail Oil Transportation Study (under development).
- Latest Washington State Hazard Identification and Vulnerability Assessment.
- State of Washington Emergency Management Division Comprehensive Emergency Management Plan.
- U.S. Coast Guard National Pollution Funds Center data and publications including the latest Oil Pollution Act Liability Limits report (currently 2012 Report to Congress).
- U.S. Coast Guard National Strike Force Coordination Center Oil Spill Removal Organization Classification Program.
- National Response Center data for oil spills reported.
- National Oceanic and Atmospheric Administration (NOAA) *Oil Spill Case Histories 1967-1991*, September 1992.
- U.S. Coast Guard *"Crisis on the Coast" Federal On Scene Coordinator's Report and Assessment of the M/V New Carissa Oil Spill Response* Volumes 1 and 2, June 1999.
- Washington Department of Ecology Western Response Resource List.

Technical Analysis of Vessel Spill Risk Assessment

The Contractor will prepare a vessel spill risk assessment and consequence analysis that will describe the conditions under which spills could occur from vessels (during loading and transit) and the relative likelihood and extent of potential spills. The Contractor will summarize the conditions and locations of potential accidents within Grays Harbor to 3 nautical miles off the Washington coast as supported by the analysis to be completed under Task 3.15, Vessel Traffic and Waterway Safety. The Contractor will describe the likelihood and extent of spills of different sizes from vessels that operate in the Port of Grays Harbor consistent the scenarios identified under Task 3.15. Consideration will include the risks associated with the use equipment expected to be used to transfer liquid bulk products to and from vessels moored at Terminal 1 and the implications of different types of liquid bulk material, including materials used for vessel fuel. Oil spill scenarios would be presented for the proposed action for each project and the cumulative scenario.

The Contractor will provide a description and visual portrayal (GIS maps in PDF format) of the most likely trajectories of different types and sizes of oil spills. The Contractor will also discuss the regulatory framework and resources available to respond to oil spills including vessel salvage, marine firefighting, and oil spill removal organizations in the context of the potentially affected communities. This discussion will include a description of the reporting requirements in place for spillers of oil in the maritime environment, the financial obligations and regulatory requirements in place for spillers of oil, oil spill response technology and response methods commonly used for different types of maritime environments, the pollution discharge removal equipment and related training legislatively required for vessels and the vessel crew, the Oil Spill Removal Organization Classification Program requirements and a listing of the specific organizations most likely to respond to an oil spill from a vessel in the study area, the Oil Pollution Act of 1990 and the Oil Spill Liability Trust Fund, the National Contingency Plan and the authorities addressing an oil spill response, and the National Incident Management System and how local responders, environmental agencies, and other

community stakeholders participate in an oil spill response. Suggested mitigation measures will identify any planning-level gaps to ensure appropriate coordination between the relevant agencies occurs to address significant safety concerns.

The vessel spill risk assessment will also describe in general terms, the types of events that could occur during transit along the west coast, the relative likelihood, and the general extent of an oil spill. This discussion would be qualitative and consistent with the analysis presented in Task 3.15, Vessel Traffic and Waterway Safety.

Assumptions

- This scope of work assumes that all the information in the Washington State Geographic Response Plans, the environmental sensitivity indices for the outer coast of Washington State, and the Western Response Resource List is current.
- Oil spill modeling will consist of trajectories as determined the General National Oceanic and Atmospheric Administration (NOAA) Operating Model Environment (GNOME) program run with a Location File for Grays Harbor. GNOME is the modeling tool that NOAA's Office of Response and Restoration Emergency Response Division uses to predict the possible route or trajectory a pollutant might follow in or on a body of water, such as in an oil spill.
- Sixteen oil spill scenarios (up to 16 different combinations of inputs) using the Grays Harbor GNOME trajectory file will be run to develop an understanding of the full range of spill trajectory targets based on a diverse set of inputs such as seasonally significant winds, type of petroleum product spilled, volume of petroleum product spilled, tidal fluctuations, current speed and direction, river flows (if applicable), and location of spill.
- From these sixteen outputs up to eight different GIS products and reports of model results for example scenarios reflecting most probable and worst case spill scenarios will be used to plan for mitigation.
- No in-water transfers would occur as part of either project.
- Contractor will identify planning-level gaps to ensure appropriate coordination between the relevant agencies occur to address significant safety and spill response concerns with recommendations made specific to the safe transport of liquid bulk materials.

Deliverables

- Draft and Final Vessel Spill Risk Assessment Study Plan.
- Draft and Final Vessel Spill Risk Assessment Technical Report.
- Documentation of any maps, references, conversation logs for inclusion in the Administrative Record and the EISs as deemed appropriate.

TASK 3.18 – Economics, Social Policy, and Cost-Benefit Analysis

Study Plan

The Contractor will consider the economy, social policy analysis, and a cost-benefit analysis to be part of the environment for the purposes of completing EISs consistent with the requirements of the City of Hoquiam under HMC 11.10.160.

Economy

Data Collection and Review

The Contractor will rely on the 2013 study prepared by ECONorthwest characterizing the regional economic impacts of the combined infrastructure development for the proposed projects. The Contractor will use information from this study to analyze the impacts on economic output, jobs, income, and tax revenues associated with construction and operational activities. The Contractor will coordinate with ECONorthwest to obtain modeling outputs completed under the prior study in a format consistent with the scenarios being analyzed in the EISs. The Contractor will also obtain information distribution of employment and trends in income) from the U.S. Bureau of Labor Statistics and the U.S. Bureau of Economic Analysis.

Technical Approach

The Contractor will describe the regional economies applicable to the study area, including a description of the regional distribution of jobs and earnings by economic sector. The Contractor will use modeling outputs provided by ECONorthwest to characterize the potential impacts of the proposed projects on economic output, jobs, income levels, and tax revenues at the county level (Grays Harbor) for construction and at the regional level (Washington State) for operational impacts. The Contractor will also generally characterize the economic impacts of the proposed projects related to rail transport from source to Centralia and vessel transport along the west coast and abroad relative to base level traffic in these areas.

Social Policy Analysis

Data Collection and Review

The Contractor will rely in part on the information obtained to support the analysis to be completed under Task 3.8, Land and Shoreline Use, including observations made during the sites visit. The Contractor will also review U.S. Census Bureau data, other publically available data, and conduct phone interviews with local land use planners as appropriate.

Technical Approach

The Contractor will describe the overall character of each community, including a discussion of community cohesion, population, and income characteristics, identifying any low-income or minority populations. Contractor will also characterize the local economies of each community, including describing major sources of employment and income.

The Contractor will address the potential impacts of the proposed projects on the overall welfare of the communities surrounding the project sites at the Port of Grays Harbor, along the rail line from Centralia to the Port of Grays Harbor, and surrounding Grays Harbor. The Contractor will qualitatively describe the localized impacts that could affect the study area. This will include addressing impacts on population growth and housing, local government, commercial and tribal fisheries (including usual and accustomed fishing areas), property values, and local businesses. The analysis of localized impacts will generally and qualitatively consider the potential effects of oil spill and other emergency response scenarios, including derailments and

the potential for delays to affect existing rail traffic. These scenarios will be consistent with those to be defined and evaluated under Task 3.17, Environmental Health. The analysis will also qualitatively assess the potential impacts on overall community welfare related to health impacts and community cohesion in the context of relevant social policies. Contractor will also characterize the potential impacts of the proposed project that might result in disproportionate impacts on minority and low-income populations.

Cost-Benefit Analysis

Data Collection and Review

The cost-benefit analysis will focus on the costs and benefits that would be likely to affect the City of Hoquiam as a result of implementing the proposed projects. The Contractor will use information gathered to support the EISs specific to characterizing the local economy, local government, and public services in the City of Hoquiam. The Contractor will also review the environmental impacts to be evaluated under Task 3 in the context of potential effects specific to the City of Hoquiam and will collect any additional information such as other relevant studies and government publications related to valuing the costs and benefits of the specific impacts to be considered.

Technical Approach

To provide overall context for the cost-benefit analysis to be presented in the EISs, the Contractor will generally describe what a cost-benefit is, why it may be completed, and why a cost-benefit analysis is being completed for the project EISs. This discussion will include a general description of the process for completing a cost-benefit analysis and the methods used in these studies.

The Contractor will review the technical analyses for each resource area and will summarize the categories of impacts specific to the costs and benefits likely to be incurred by the City. The Contractor will evaluate which costs and benefits would be able to be described in monetary terms and which would need to be addressed qualitatively. For example, arriving at quantified costs and benefits would require data on the quantified impacts specific to the City of Hoquiam. Because many of the impacts will not be quantified in this context, insufficient data exist to monetize the estimates of many of these impacts. The Contractor will seek to quantify the costs and benefits where possible, and in other instances, will provide a qualitative discussion of the expected impacts and monetary estimates associated with them.

For the various categories of impacts, the Contractor will use the benefit transfer method to either monetize the impacts as quantified in the EISs or to provide qualitative information on the potential range of monetized impacts. Benefit transfer is a method that is commonly used in regulatory analysis that involves taking values estimated previously in other contexts and adapting, or customizing, them to fit a new analysis context. Federal agencies such as the EPA and the U.S. Department of the Interior commonly use benefit transfer instead of conducting primary research due to the time and expense associated with conducting primary research on the benefits of their proposed regulations on environmental amenities.

To provide monetary estimates for the impacts of the proposed projects, the Contractor will use a benefit transfer method called value transfer, which involves taking values estimated from other studies, or averages of a range of values from other studies, and adapting them to match the new context to which the values will be applied. The Contractor will work with the City to determine which categories of impacts should be monetized; however, it is anticipated the Contractor will quantify the costs to local government for the provision of additional public services and to the community, including local business, from increased rail traffic. To address these categories, the Contractor will conduct a detailed review of relevant studies and government publications to determine the best sources of value for the point estimates to be used in the analysis.

Assumptions

- IMPLAN modeling outputs will be provided by ECONorthwest from past work already completed under a separate contract, assuming ECONorthwest can provide sufficient background information for the analysis and separate outputs for each proposed project.
- Contractor will analyze the direct fiscal impacts.
- Social policy analysis will be qualitative.
- The values used in this analysis will be derived from other sources, and no primary data collection will be undertaken.
- The analysis will provide monetary estimates where environmental impacts have been quantified in the EISs. For impacts that are not quantified, the Contractor will present a qualitative discussion of the possible monetary values of the impacts.
- The analysis will not present an overall estimation of net benefits (total benefits minus total costs).

Deliverables

- Documentation of any maps, references, conversation logs for inclusion in the Administrative Record and the EISs as deemed appropriate.

TASK 4 – DEVELOPMENT OF DRAFT EISS

Under Task 4, the Contractor will develop the Draft EISs for the proposed projects. Following the Co-Lead Agencies review, two Draft SEPA EISs will be prepared and released for public review and comment. As Co-Lead Agencies, the City of Hoquiam and Ecology are jointly responsible for the content and approval of the SEPA EISs, consistent with the procedures set forth in the Communications Protocol Agreement.

TASK 4.1 – PROPOSED ACTION

The Contractor will develop a description of the Proponents' proposed action and objectives. Information will be taken from the Proponents' websites, documents provided by the Proponents, and information provided to the Contractor by the Co-Lead Agencies.

A draft section for each Draft EIS will be provided to the Co-Lead Agencies for review. This draft chapter may include graphics and photographs, as appropriate. Upon receiving comments from the Co-Lead Agencies, the Contractor will revise and finalize the chapter for incorporation into the Administrative Draft EISs.

Assumptions

- The Proponents will prepare the initial proposed action and objectives that the Contractor will review and revise, in coordination with the Co-Lead Agencies.
- The Co-Lead Agencies will provide consolidated comments in track changes within 7 days of submittal

- Any delay in submittal of material from the Co-Lead Agencies and/or the Proponents may result in an overall delay in the EIS schedule

Deliverables

- The proposed action and objectives formatted for the EISs (draft and revised MS Word document).

TASK 4.2 – ALTERNATIVES

The EISs will include a No-Action Alternative and a Proposed Action Alternative unique to each project. Included in the discussion will be alternatives considered and rejected, as appropriate. The alternatives chapter will be written in a reader-friendly manner for insertion directly into the EISs, as appropriate.

Graphics will be developed based on material provided by the Proponents. The Contractor will prepare other graphics, such as vicinity maps and explanatory graphics, as necessary. A draft Alternatives chapter for each project will be provided to the Co-Lead Agencies for review prior to insertion in the EISs. Upon receiving comments from the Co-Lead Agencies, the Contractor will update the sections and insert them into the appropriate EIS document.

No-Action Alternative

The No-Action Alternative is a blend of current existing conditions projected with reasonable expectations on how the market and projected growth for the state and affected regions will continue without the proposed projects. The No-Action Alternative may include proposals for projects that would be built within the proposed projects' timeframes. The Contractor will work with the Co-Lead Agencies to define the No-Action Alternative and what, if any, future projects, improvements, or regulatory frameworks may be reasonable to consider under this scenario. The Contractor will work with the Co-Lead Agencies to identify the operational timeframe for the No-Action Alternative.

Proposed Action Alternative

The Co-Lead Agencies and the Proponents will provide the Contractor with a preliminary description of the proposed projects. In addition, the Proponents will provide the Contractor with a discussion and graphics of other on-site alternatives considered but rejected. Alternative on-site designs will also be provided to the Contractor.

Assumptions

- The No-Action Alternative will include operations of the industrial export facilities at the proposed project sites.
- The Proponents will provide the Contractor with a description of the proposed terminal (design and operations).
- The Co-Lead Agencies and the Proponents will provide the Contractor with on-site alternatives considered but rejected, as appropriate.

- GIS and CAD layers developed by the Proponents related to the proposed project sites will be provided to the Contractor in electronic format.
- Plan sheets that detail project components and their locations, including the location of piers, docks, and stormwater facilities, as appropriate, will be obtained from the Proponents by the Co-Lead Agencies and provided to the Contractor.
- Information on project timing, phasing, and construction methods and equipment will be obtained from the Proponents by the Co-Lead Agencies and provided to the Contractor.

Deliverables

- EIS Alternatives Chapter (draft and revised MS Word document).

TASK 4.3 ADMINISTRATIVE DRAFT EISS

The Contractor will prepare two Administrative Draft EISs, one for each project, to address SEPA regulatory requirements and other state and local regulatory requirements; to summarize key findings from the technical analyses; and to include critical technical data (for appendices). These Administrative Draft EISs will be prepared for the Co-Lead Agencies for review prior to publication.

The following outline will be followed for each of the Draft EISs, but may be modified as document development moves forward.

- **Document Front, Back, and Inside Cover.** The document cover and inside cover will provide the title of the proposed action alternative, where it is located, the type of document, date, and appropriate agency logos and names.
- **Fact Sheet.** A Fact Sheet will be prepared that provides the project title and description; name and address of Co-Lead Agencies' responsible officials; contact persons; list of permits and approvals; authors and principal contributors; date of issue of the Draft EIS; date the Draft EIS comments are due; public meeting s; agency action and projected date of action; and Draft EIS availability.
- **Summary.** The Summary will summarize the contents of the Draft EIS, including the major conclusions, areas of controversy (including issues raised by agencies and the public during scoping), and issues to be resolved (including the choice among alternatives). The summary will list local, state, and federal permits, licenses, and other entitlements that may be required. The summary will also include a listing of significant adverse impacts that cannot be mitigated.
- **Table of Contents**
- **Abbreviations and Acronyms**
- **Chapter 1: Proposed Action.** Subtask 4.1 provides the basis for this chapter. Following review of that submittal, the chapter will be revised and formatted as part of the EIS.
- **Chapter 2: Alternatives**. This chapter will describe the proposed action alternative and objectives, as well as the No-Action Alternative. For alternatives considered but rejected, a brief discussion regarding their elimination will also be included. Terminal operations and construction methods and phasing will also be discussed in this chapter.
- **Chapter 3: Existing Conditions, Project Impacts, and Mitigation Measures**. Each section of this chapter will be organized by environmental resource as presented in Task 3. Each section will begin by

describing the study area and succinctly describing the existing conditions of the study area. This chapter will also present the approaches and methods used for analyses and will describe the potential environmental impacts and proposed mitigation measures for each alternative under consideration.

- **Other chapters and sections**. Additional chapters and sections will be included in the Draft EIS as appropriate.
- **Appendices.** Technical reports may be included in a separate volume of appendices. Discussion with the Co-Lead Agencies will determine if all technical reports will be included. At a minimum, supporting technical information that may be critical to understanding the conclusions in the documents will be included in the appendices.

Assumptions

- The Co-Lead Agencies will coordinate their review of the Administrative Draft EISs and provide the Contractor with consolidated edits and comments in track changes for each EIS.
- The Co-Lead Agencies will have 30 days to review the Administrative Draft EISs.
- Failure by the Co-Lead Agencies to meet the designated project schedule may result in delay of release of the Draft EISs.
- Revise time to include review by Cooperating Agencies and other agency review deemed appropriate by the Co-Lead Agencies.
- Consolidated comments will be received directly in the document via electronic files for the Co-Lead Agencies' reviews and responses to comments will be addressed in the same files.
- Cooperating Agencies will provide comments, and comment response will be documented via a spreadsheet.
- No new work, including data collection or analyses, will be prepared as a result of comments.
- Comments will not result in new areas of analyses or new modeling efforts.
- Until the final Public Draft EIS, each document will have line numbering to help track comments on pertinent body text.

Deliverables

- Clean Word files delivered electronically and compiled PDFs of figures.

TASK 4.4 – REVISED DRAFT EISS

Following compilation and submittal of comments from the Co-Lead Agencies, the Contractor will review and respond to comments on the Administrative Draft EISs. It is anticipated that a series of meetings between the Co-Lead Agencies and the Contractor will be required to resolve conflicts and discuss general approach and direction. Once comments are resolved, the Contractor will update the Draft EISs for distribution to the public. The Draft EISs will undergo the Contractor's internal quality control and regulatory review processes. An editorial and publications team will ensure the documents are easy to read, visually simple, and concise.

Upon revision of the Draft EISs, the Contractor will move forward with preparation of the final Draft EISs for the Co-Lead Agencies review (turn page review). The Co-Lead Agencies will meet with the Contractor in Seattle to review any final comments and edits, as necessary.

Assumptions

- The Co-Lead Agencies will work together to resolve any conflicts over the two EISs and will agree on a final outcome.
- The Co-Lead Agencies will select one representative each to perform a final page turn review for final flaws prior to PDF preparation.

Deliverables

- Clean Word files delivered electronically and compiled PDFs of figures.

TASK 4.5 DRAFT EIS FOR PUBLIC REVIEW

Upon approval from the Co-Lead Agencies, the Contractor shall create PDF files as well as burning files to DVDs. No more than 25 copies of each Draft EIS with appendices will be printed (total of 50 copies). Up to 150 discs/DVDs shall be prepared which shall include each Draft EIS (including appendices) in the form of PDF files.

Assumptions

- This scope of work and budget will be amended to include the expense and labor related to additional Draft EIS production (hard copy and discs/DVDs)
- The Co-Lead Agencies will be responsible for distributing hard copy documents and discs/DVDs

Deliverables

- PDFs for the Co-Lead Agencies:
  - Compiled PDF of entire Draft EIS without appendices
  - Compiled PDF of all appendices
  - Individual PDFs for each chapter of the Draft EIS
  - Individual PDFs for each appendix
  - 25 hard copies of each Draft EIS with appendices (50 hard copies total)
  - 150 discs/DVDs containing the each Draft EIS and appendices