

EXECUTIVE SUMMARY

These management plans were developed for the uplands portion of the former Rayonier Mill Site, located in Port Angeles, Washington. The document is organized into three volumes:

- *The Work Plan:* Although referenced in the Washington State Model Toxics Control Act, the state of Washington provides no specific guidance on the format of remedial investigation/feasibility study (RI/FS) work plans. Thus, Volume 1 of the management plans provides a work plan that follows the U.S. Environmental Protection Agency's 1988 outline for developing a work plan to conduct the RI/FS.
- *The Sampling and Analysis Plan:* The second volume of the management plans provides a sampling and analyses plan for the collection and evaluation of the data during the RI/FS process. It provides detailed information and protocols on the collection, evaluation, and presentation of data. This section follows the outline and guidance provided by the State of Washington Department of Ecology (Ecology).
- *The Quality Assurance Project Plan:* The third volume documents the QAPP following the Ecology (1991) guidance document.

To reduce repetitive sections, and provide all the information relevant to the forthcoming work in one location, the plans noted above have been consolidated herein.

The Work Plan (Volume I) is structured to parallel the environmental media (soils, groundwater, and freshwater sediments) and issues of concern. Section 1 contains the introduction, including the general background, purpose, and regulatory framework. Section 2 covers the site background and setting, including a history of operations and the present environmental setting. Section 3 contains the initial evaluation, with a summary of previous investigations by media type, the known and expected contaminants, and the conceptual site model. The model addresses sources, transport mechanisms, and exposure pathways of concern. Section 4 details the Work Plan rationale, including data quality objectives, and the approach and overview to the Work Plan, again by media type. Section 5 describes the remedial investigation tasks, covering project planning, sample collection and analysis, data validation and evaluation, and risk assessment. This assessment is divided into a human health risk analysis and an ecological risk analysis. The contents of the investigation report, which will follow this Work Plan, are also covered. Section 6 describes the feasibility study tasks consisting of the identification of applicable or relevant and appropriate requirements, cleanup action objectives, identification and screening of cleanup technologies, and the development, screening, and detailed analysis of cleanup action

alternatives. Section 7 includes a summary schedule, and Section 8 describes the project management staff, and their responsibilities. Key elements are noted below.

The former Rayonier Mill Site is directly adjacent to Port Angeles Harbor in the Strait of Juan de Fuca, along the northern coast of Washington's Olympic Peninsula. The pulp mill operated between 1930 and 1997, producing dissolving grade pulps from wood chips. Operations were conducted in various process areas throughout the site. Production ceased in 1997, and dismantling activities were completed in October 1999. A preliminary investigation of the site was conducted during 1997/98 under the auspices of the United States Environmental Protection Agency (EPA), as part of its site ranking process. Because these data represent the most complete and recent field investigation, the current investigation is primarily designed to augment this data set. The general scope of the objectives of the investigation is to assess the nature and extent of chemicals of concern to determine the current and future risks to human health and the environment. A phased approach will be followed throughout the investigation. Phase I will address currently identified data gaps. As necessary, subsequent phases will focus on the collection of additional data as needs are further identified.

EPA has opted to defer listing on the National Priorities List (NPL) and allow cleanup to proceed under Washington's Model Toxics Control Act (MTCA) and Ecology's direction. Under MTCA, a remedial investigation and feasibility study is required once a site is prioritized for remedial action. The RI/FS focuses on collecting, developing, and evaluating enough information to select a cleanup action. Remedial actions at the former Rayonier Mill Site will be conducted under the provisions of an Agreed Order with Ecology.

Volume II of the management plans contains the sampling and analysis plan for soils, Ennis Creek sediments, and groundwater. Soil, Ennis Creek sediments and groundwater sampling rationale, chemicals of potential concern, specific sampling requirements, sampling methods, and analytical methods are described in detail. Soil, Ennis Creek sediments, and groundwater will be sampled and analyzed to complete the understanding of the nature and extent of chemicals present on the site. Analytical results from the RI/FS sampling will be combined with previously existing data to determine the risks associated with potential human and environmental exposure to chemicals present in soil, Ennis Creek sediments, and groundwater on the site.

As noted previously, EPA recently conducted an extensive soil sampling study at the former Rayonier Mill Site. On-site soil sampling presented in these management plans will fill these data gaps. Sampling is designed to further characterize areas that previously showed elevated levels of chemicals and to assess areas where data are insufficient. The EPA study focused on sampling surface soil. The plan includes enough sampling to adequately characterize chemical levels in subsurface soil. The presence of petroleum hydrocarbons in soil was not assessed in the EPA study. We propose to address this data gap by sampling areas where known or suspected releases

have occurred. Most of the soil sampling focuses on the industrial process portion of the site. This plan also proposes sampling soil and terrestrial biota in the vegetated portions of the site to provide data to assess risks to wildlife that would be attracted to these areas.

During the preliminary site inspection conducted by EPA, sediment samples were collected from Ennis Creek. Concentrations of chemicals in on-site sediment samples were comparable to concentrations found in background areas and were well below Washington state freshwater sediment quality values. In addition, an interim remedial action was recently completed that addressed hydraulic fluid affected sediments near the mouth of Ennis Creek. Sediment will be sampled upstream of the interim remedial action to verify sediment quality.

Numerous groundwater monitoring wells have been established on the former Rayonier Mill Site by EPA and others. These wells have been sampled periodically up to the present time. Twenty on-site wells will be sampled during the RI/FS. Samples will be analyzed for a full suite of chemical and conventional parameters to provide a clear understanding of the levels of chemicals present in groundwater and their transport throughout the area.

This page intentionally left blank.