



City of Prineville
DEPARTMENT OF PLANNING & COMMUNITY DEVELOPMENT
STAFF REPORT

Date: August 26, 2008
To: Prineville City Council
From: Ricky Sites, Community Development Director
Issue: Prineville Railroad – DEQ Concerns

The City of Prineville has entered into a Voluntary Cleanup agreement with the Department of Environmental Quality (DEQ) for the Prineville Railroad Site on Lamonta Rd. The City met with representatives from DEQ and the selected consultant (ECI) to review the process and extent of work to be performed to evaluate the environmental impacts as required by the DEQ. Attached is the Phased Agreement for your consideration with a maximum estimated fee of \$88,270 for phases 1, 2, and 3. Phase 4 will be dependent upon the results of the initial phases and could cost as much as several hundred thousand dollars. Phases 1-3 can be scheduled with the DEQ to minimize cash flow impacts once the work has been started and a schedule is developed.

Grant funds have not yet been identified, but the City will pursue options with state and federal agencies.

Staff Recommendation:

Approve contract with ECI with the ability to proceed on a phased basis as outlined in the proposal. See attached.

August 18, 2008

Ms. Ricky Sites
City of Prineville
387 NE Third
Prineville, OR 97754

Re: Scope of Work; **RFP No. 400-08-09**; Railroad Shop DEQ Review/Investigation

Dear Ms. Sites:

This letter presents Environmental Consulting & Investigation, Inc.'s (ECI's) proposed scope of services and estimated costs for environmental services at the City of Prineville Railway facility (the RR Site) under the Voluntary Cleanup agreement with the Oregon Department of Environmental Quality (DEQ).

As we discussed, ECI proposes a phased approach to the City of Prineville Railway project. The first phase will consist of a thorough site inspection, interviews with railway staff, and review of historic information to identify materials used at the facility and potential sources of contamination. Future phases will likely include soil and groundwater sampling, installation of groundwater monitoring wells, risk assessment, and possible remediation.

Phase 1 Historical Research; Site Inspection; Prepare Work Plan

ECI will research public records related to the Prineville Railway and its historic operation. Sources of records to be reviewed include: Prineville Railway records, Bowman Museum records, and DEQ files for Prineville Railway and nearby potential upgradient sources. In addition, ECI will interview current and former Prineville Railway employees to determine past practices at the facility and possible on-site sources of contaminants. ECI will also perform a thorough site inspection to identify potential on-site sources of contaminants.

Following completion of the research and site inspection, ECI will prepare a report documenting the findings of the research and inspection. The report, which will be submitted to DEQ, will include a Work Plan proposing the next phase of the project.

Estimated fee for Phase 1

\$ 5,500.00

Phase 2 Site Investigation

The Phase 2 site investigation activities will generally include the collection and analysis of soil and grab groundwater samples from several soil borings on the site. The specific scope of work for the Phase 2 activities will depend on results of the Phase I activities and on DEQ approval of the Phase I workplan. However, based on our experience, ECI anticipates that up to ten borings will be installed. One groundwater sample and up to two soil samples will be collected from each boring. Samples will be analyzed for the presence of volatile organic compounds (VOCs), including the chlorinated compounds reported at off-site downgradient locations, using EPA Method 8260B. In addition, due to the long history of use of oil and used oil at the RR Site for fuel and locomotive maintenance, analysis of samples for petroleum hydrocarbons as diesel and oil using the NWTPH-Dx method may be required. If petroleum hydrocarbons are detected, analysis for polynuclear aromatic hydrocarbons (PAH) using EPA Method 8270 and heavy metals may be required as well.

If information gathered in Phase 1 indicates that currently unknown underground storage tanks (USTs) may have been used at the RR Site, a geophysical survey to identify possible UST locations may be proposed. Oregon Water Resources Department (OWRD) records indicate that a deep municipal well was installed on the Prineville Railway Site in the 1940s. Dan Lovelady, of Prineville Railway, said that, if present, the well is not currently in use. If information obtained during Phase 1 indicates that a well is located on the RR Site and is accessible, ECI recommends that the well be sampled as part of Phase 2 activities to evaluate whether chlorinated VOCs have impacted the deeper aquifer.

Following receipt of analytical results, ECI will perform a risk-based evaluation of analytical data in accordance with the guidelines published in the September 22, 2003 DEQ document "Risk-Based Decision Making for the Remediation of Petroleum-Contaminated Sites" (RBDM). ECI will prepare a report which documents the findings of the site investigation and risk-based evaluation.

Estimated costs for Phase 2 are described below. The lower values in the cost range are based on analysis only for VOC and NWTPH-Dx. The higher figure assumes all samples will also be analyzed for PAH and metals. It is not likely that PAH and metals analysis will be necessary for all samples.

Estimated fee for Phase 2:

ECI consulting fees	\$ 8,000.00
Geophysical survey	\$ 4,000.00
Drilling subcontractor	\$ 4,500.00
Laboratory fees	<u>\$ 9,820.00-\$22,870.00</u>
Total estimated fee for Phase 2	\$ 26,320.00-\$39,370.00

Phase 3 Groundwater Monitoring

Because contaminants which may have originated at the Prineville Railway Site have been detected at off-site, downgradient locations, installation of groundwater monitoring wells on the RR Site will likely be required. The locations of the monitoring wells will be determined based on results of the Phase 2 investigation. ECI estimates that up to six monitoring wells will be installed on the Prineville Railway Site. At least one monitoring well will be located near the upgradient property boundary to evaluate whether contaminants may be migrating onto the RR Site from upgradient sources. One soil sample will be collected from each monitoring well during installation and one groundwater sample will be collected from each well immediately following installation and well development. Depth to groundwater will be measured to determine on-site groundwater flow direction. DEQ typically requires that groundwater samples be collected from the wells on a quarterly basis for one year following installation (a total of four quarterly sampling events). As proposed for Phase 2, soil and groundwater samples collected in Phase 3 will be analyzed for VOCs and NWTPH-Dx. Based on the results of NWTPH-Dx analysis, PAH and metals analysis may be required. The following cost ranges are based on the same analytical assumptions as described for Phase 2.

Following well installation and receipt of analytical results for the initial sampling, ECI will prepare a report documenting well installation, groundwater flow direction, analytical results, and a risk-based evaluation of the data and recommendations for further action, if any. Following each subsequent quarterly event, ECI will prepare a quarterly groundwater monitoring report.

Estimated fee for Phase 3:

Monitoring well installation and initial sample collection

ECI consulting fees	\$ 7,000.00
Drilling subcontractor	\$ 12,700.00
Laboratory fees	<u>\$ 3,840.00-\$9,060.00</u>
Total	\$ 23,540.00-\$28,760.00

Quarterly Monitoring

ECI consulting fees	\$ 1,550.00
Laboratory fees	<u>\$ 1,920.00-\$3,330.00</u>
Total (per quarter)	\$ 3,470.00-\$4,880.00
Total (complete one-year of monitoring)	\$ 10,410.00-\$14,640.00

Total estimated fee for Phase 3	\$ 33,950.00-\$43,400.00
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Phase 4 Additional Actions

Depending on the concentrations of contaminants and extent of contamination discovered during Phases 2 and 3, cleanup or other actions to assure that exposure to unacceptable levels of contaminants does not occur may be warranted. Additional actions which may be warranted will be determined based on the results of Phases 2 and 3. Possible additional actions include:

- 1) no action
- 2) source removal (excavation of contaminated soil)
- 3) active groundwater remediation
- 4) institutional controls
- 5) installation of off-site monitoring wells
- 6) long term groundwater monitoring
- 7) aquifer testing and groundwater modeling
- 8) collection of soil samples in confining layer between the shallow and deep aquifers
- 9) expansion of the City of Prineville ordinance prohibiting beneficial use of groundwater from the shallow aquifer to a city-wide ordinance

It is impossible to estimate Phase 4 costs at this time. More information about site conditions and concentrations of contaminants is necessary in order to estimate costs. Information generated during Phases 2 and 3 will allow ECI to propose additional actions and to estimate costs associated with those actions. There may be little or no costs involved if no action is required, while active groundwater remediation could cost several hundred thousand dollars.

Schedule

ECI can begin Phase 1 of the project immediately and complete the report and Work Plan by October 15, 2008. Phase 2 field work can be scheduled for late October or early November 2008. ECI can complete the Phase 2 report approximately 45 days after completion of the field work. Monitoring well installation can be scheduled for early 2009. The initial groundwater monitoring report can be completed approximately 45 days following monitoring well installation. However, as we discussed, once work has commenced under the Voluntary Cleanup Program, DEQ will likely allow the Prineville Railway to establish its own schedule for completion of the project to accommodate its cash flow needs.

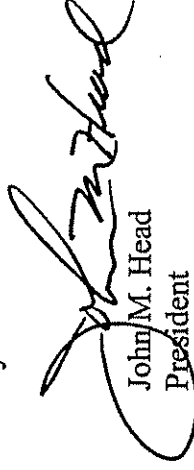
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Ms. Ricky Sites
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If you have any questions, please call me.

Sincerely,

ENVIRONMENTAL CONSULTING & INVESTIGATION, INC.

By:



John M. Head
President