VET-1405-PLN-05

Public Participation Plan for

US Ecology Site RI/FS

Revision: 0

Issue Date: 7 March 2008

Prepared for:

US Ecology, Inc.
Robert Haight
1777 Terminal Drive
Richland, WA 99354

Prepared by:

Vista Engineering/Neptune & Co./Shaw Environmental Team
Vista Engineering Technologies, LLC
8203 W. Quinault Avenue, Building C, Suite 200
Kennewick WA 99336

Telephone: (509)-737-1377
Facsimile: (509)-737-1383
Web: http://www.vistaengr.com

VISTA ENGINEERING TECHNOLOGIES, L.L.C.

VET-1405-PLN-05

Public Participation Plan for the

US Ecology Site RI/FS

Revision: 0

Issue Date: 7 March 2008

VISTA ENGINEERING TECHNOLOGIES, L.L.C.

Vista Engineering Technologies, LLC
8203 W. Quinault Avenue, Building C, Suite 200
Kennewick WA 99336

Telephone: (509)-737-1377
Facsimile: (509)-737-1383
Web: http://www.vistaengr.com

Revision History

Revision	Change Description
0	Initial issuance.

Table of Contents

Figures

Appendices

1.0 INTRODUCTION

This document is the project-specific Public Participation Plan (PPP) for the Low-Level Radioactive Waste (LLRW) Disposal Site Remedial Investigation/Feasibility Study (RI/FS). The RI/FS is being conducted by Vista Engineering Technologies, LLC (Vista Engineering) for the site operator, US Ecology, Inc. (USE). The USE Site is located in Benton County, approximately 23 miles northwest of Richland, Washington. It is situated near the center of the United States Department of Energy (USDOE) Hanford Site (Hanford) on approximately 100 acres of federal land leased to the State of Washington and sublet to USE (see Figure 1-1). This PPP outlines community issues and concerns related to project activities and the community involvement approach to be used during ongoing site activities. This PPP was developed as part of USE's efforts to ensure the local communities and land users are informed about the progress of the investigation activities and opportunities for public involvement. The Scope of Work (SOW) is outlined in *Low Level Radioactive Waste Site (LLRW), Agreed Order – Scope of Work* (USE, 2006).

The purpose of the RI is to collect sufficient data to select a cleanup action in accordance with *Washington Administrative Code* (WAC) 173-340-360 through 390. This RI will provide a basis for determining if chemical contaminants associated with the USE Site pose potential risk (current or future) to human health or the environment. The quantity of data collected must ensure the cleanup action selected complies with requirements per WAC 173-340-740(6)(f) for contaminants as part of the cleanup action. The RI/FS will be performed as four major work elements, as identified below:

- RI Planning;
- RI Execution;
- Long-Term Monitoring; and
- RI/FS Reporting.

The purpose of the community involvement efforts are to:

- Maintain and further develop opportunities to identify and discuss concerns or issues the local community and stakeholders may have regarding the planned RI/FS activities at the site;
- Establish and utilize a variety of methods for sharing information with the community about the RI/FS activities; and
- Set forth a strategy for on-going, two-way communication between the state agencies, USE, and the community.

Development of this PPP was aided by information obtained through community interviews conducted to identify the informational needs and project concerns of tribal interests and stakeholders. The term "stakeholder" refers to area residents, interested or involved agencies, affected businesses, and environmental organizations. The PPP specifically provides community members and project staff with an overview of the current issues and concerns identified through community interviews, and provides a discussion of the community involvement activities proposed to share information and to address these issues and concerns. Additionally, this document outlines the public involvement opportunities this project will provide to interested stakeholders as RI/FS activities continue. Should additional regulations be found applicable to the public participation activities for this project, the PPP will be amended as described in Section 4.4.

This PPP provides an overview of the project location, history, and need for the response activities (Section 2.0); a community profile of the area, a chronology of past public involvement activities, and a summary of community interviews (Section 3.0); the public participation strategies and methods to be implemented during site activities (Section 4.0); references (Section 5.0); and resources used for this project (Appendices).

For more information regarding this document or the RI/FS-related activities, please contact the following people:

Washington Department of Ecology

Jennifer Ollero – Citizen Technical Advisor
3100 Port of Benton Blvd
Richland WA 99352
(509) 372-7988
joll461@ecy.wa.gov

Madeleine Brown – Public Involvement Specialist
3100 Port of Benton Blvd
Richland WA 99352
(509) 372-7936
mabr461@ecy.wa.gov

U.S. Ecology

Bob Haight
1777 Terminal Drive
Richland, WA 99354
(509) 377-2411

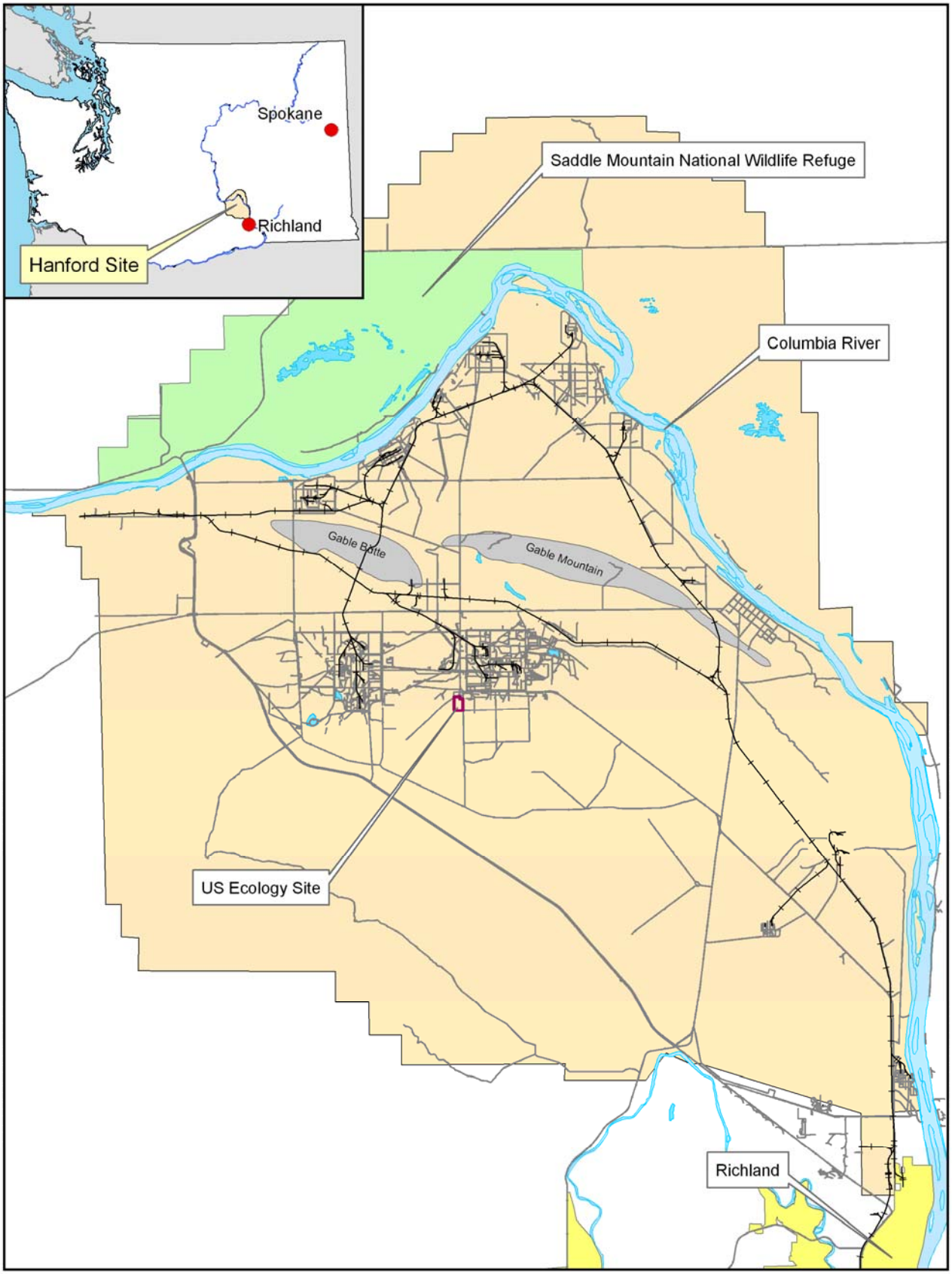

Figure 1-1. Location of US Ecology Site.

2.0 SITE INFORMATION

2.1 Site Location and Description

Since the early 1960s, commercial LLRW generated by hospitals, laboratories, universities, private industries, and nuclear power facilities have been disposed of at shallow-land disposal facilities across the United States. These facilities are located in Barnwell, South Carolina; Beatty, Nevada; Maxey Flats, Kentucky; Sheffield, Illinois; West Valley, New York; and Richland, Washington. Presently, only Nevada, South Carolina, and Washington are accepting wastes for disposal.

The USE Site is located in Benton County and is approximately 23 miles northwest of Richland, Washington. It is situated near the center of the 586 square mile USDOE Hanford Site (Hanford) on approximately 100 acres of federal land leased to the State of Washington and sublet to USE (see Figure 1-1). The commercial USE Site has been in operation since 1965 and is currently operated by USE. Access to the site is restricted and there are no residences on or adjacent to the site. The Columbia River, located approximately six miles east, is the nearest significant surface water body. Groundwater depth is over 300 feet and the average precipitation is approximately 6 inches per year. There are no domestic or municipal wells onsite or within several miles of the Site.

The USE Site is located in an area of Hanford known as the "Central Plateau." The Central Plateau is an area of intensive waste management activities associated with U.S. government nuclear weapons production dating from the 1940s. On the Central Plateau, the "200 East" and "200 West" areas were the center for chemical processing for the production of plutonium. These areas contain several large underground tank farms, storage facilities, and land disposal facilities.

The USE Site practices conventional shallow-land burial of packaged waste into unlined trenches. The trenches range from 300-700 feet long, 50-80 feet wide and 30-50 feet deep. In addition to the trenches, five underground storage tanks were installed for treatment of liquid low-level radioactive resin wastes. Two of these tanks were removed and the remaining three tanks were emptied in 1986. There are currently two open operating trenches (Trench 18 unstable waste, and Trench 19 stable waste) and 20 filled trenches whose contents include one nuclear reactor vessel, three emptied underground tanks, large quantities of scintillation fluids, absorbed liquids, and vast quantities of metal drums, fiber-board drums, and cardboard, wood, and metal boxes. Filled trenches have been covered with site soils.

Several types of waste have been disposed at the USE Site since 1965. Waste types include low-level radioactive, naturally occurring radioactive material (NORM) and accelerator-produced material (NARM), non-radioactive hazardous and radioactive waste having a hazardous component. Since 1985, only LLRW and NARM have been allowed for disposal. The LLRW includes waste such as trash, clothing, tools, hardware, and equipment that has been contaminated by radioactive substances. The LLRW at the USE Site is typically generated by five sources. These sources are nuclear power plants, industrial users, government and military organizations, academic institutions, and the medical community. Naturally accelerator-produced material (NARM) waste includes, but is not limited to, pipe scale from oil and gas pipelines, soils from cleanup of mineral processing sites, and measuring devices and gauges (DQO Report).

2.2 PROJECT TEAM

The key personnel and organizations performing this project are presented in Figure 2-1.

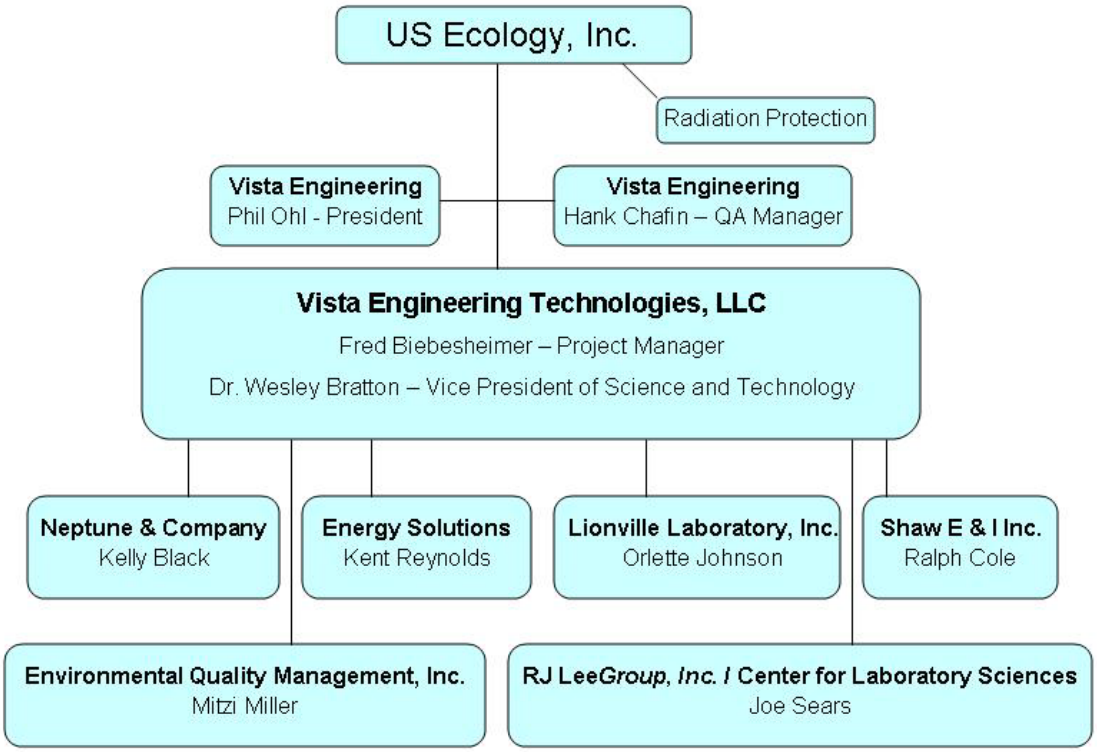

Figure 2-1. U.S. Ecology Site RI/FS Organization Chart.

2.3 Site History

The data from this section, and the following subsections, was obtained from the DQO Report (EQM, 2003). The following discussion provides a brief USE Site history. In 1965, the site was licensed to California Nuclear, Inc. and began accepting LLRW and chemical waste. In 1968, Nuclear Engineering Company acquired California Nuclear, Inc. and took over as site operator. Around 1970, the chemical trench, holding approximately 17,000 cubic feet of waste, was closed. After this date, purely chemical waste was banned from disposal unless it was mixed waste. In October 1979, the USE Site was temporarily closed due to transportation-related noncompliance events and was reopened in November of the same year.

In 1980, Congress passed the LLRW Policy Act. Therefore, packaging requirements became more stringent and cardboard packaging was no longer accepted; metal drums and boxes were required. In 1985, all disposal of *Resource Conservation and Recovery Act of 1976* (RCRA) mixed waste ceased at the USE Site, including hazardous scintillation fluids. In 1985, Congress passed the LLRW Amendments Act of 1985.

From 1985 through 1986, five resin tanks were pumped to remove their contents. Liquids from the tanks were solidified and disposed in Trench 11-A. Two tanks were removed, and three tanks were left in place. The remaining tank liquids were sampled and characterized as extremely hazardous waste by the WDOE. By 1993, the Northwest Compact restricted disposal of LLRW to member states and Rocky Mountain Compact states (11 states total). Since 1993, the preferred packaging type changed from drums to metal boxes. In 1997, the Draft Environmental Impact Statement (DEIS) was started and the USE Site Investigation began. In 1999, the Trojan reactor vessel was disposed at the LLRW Site in Trench 12, and absorbed liquids were no longer accepted for disposal.

Vadose zone and groundwater contamination from past USDOE activities on the Central Plateau has been well documented. Radionuclides and hazardous constituents contaminating the groundwater include tritium, chromium, cobalt 60, trichloroethene, strontium 90, carbon tetrachloride, technetium 99, nitrate, iodine 129, cesium 137, and plutonium and uranium isotopes. Several of these plumes have passed or are still expanding and moving towards the USE Site (PNNL, 2002). The USDOE, under the Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) with the WDOE and the U.S. Environmental Protection Agency (EPA), is in the process of remediating many of these contaminated sites. Although this site is operated by USE, the USDOE owns the land on which it is located. When the EPA issued the Hazardous and Solid Waste Act portion of the Hanford Site Dangerous Waste RCRA Permit, the USE Site was included for corrective action (Condition II.Y.3.a).

In 1997, a Draft EIS was started, and in 1998 the USE Site Investigation began. The Final EIS was issued in May 2004 and lists three preferred alternatives:

a. Renewing the current radioactive materials license with additional requirements.

b. Amending WAC Chapter 246-249 with the goal of limiting NORM or NARM wastes for disposal.

c. Construction of a geosynthetic cover in three phases beginning in year 2006.

Previous LLRW disposal site investigations performed between 1988 and 1999 generated available site characterization information. These investigations involved data collection from slanted borings to assess soil and soil gas contamination under the trenches, vertical borings to evaluate soil contamination around the resin tank area, and installation of groundwater monitoring wells and groundwater sample collection to evaluate groundwater contamination (DQO Report; EQM, 2003).

Additional historical information can be found within the DQO Report (EQM, 2003) and other references listed within the SOW (USE, 2006).

2.4 Previous and Pending Investigations

The previous phases of site characterization included data collected from slanted borings to assess soil and soil gas contamination under the trenches, borings to evaluate soil contamination around the resin tank area, and groundwater samples to evaluate groundwater contamination. Regional groundwater flows into the Pasco Basin in an easterly to northeasterly direction across the Hanford Site and easterly to northeasterly beneath the USE Site flowing toward the Columbia River. The data from this section, and the following subsections, was obtained from the DQO Report (EQM, 2003).

2.4.1 Trench area soil gas and soil data

In 1998 and 1999, USE conducted a Phase I and Phase II site investigation with technical assistance from the WDOE and Washington Department of Health (WDOH). The purpose of the LLRW Site investigation was to determine if any contaminant release has occurred at the site.

The USE Site investigation included a total of eight vadose zone slant borings, four under the Chemical Trench and four under Trench 5. The slant borings were located at a distance from the trench edges to minimize the risk of drilling into waste materials. Trench 5 was selected for placement of slant borings because it is reported to contain high volumes of tritium-containing waste and volatile organic compounds, such as toluene, xylene, and benzene. These compounds were components of

scintillation fluids used in research. The Chemical Trench was selected for evaluation because it may contain unique chemical contaminants when compared with the other trenches.

While both radioactive and non-radioactive hazardous constituents were evaluated, the RI/FS only addresses the non-radioactive constituents.

2.4.2 Resin Tank Area Data

Five steel tanks were buried in the ground at the USE Site in the 1960s. Three large tanks held up to 23,000 gallons of LLRW liquid, and two smaller tanks had a capacity of 1,000 gallons each. The tanks provided storage for liquid LLRW to be treated by solar evaporation. The LLRW was from laundering activities and ion exchange resins from the U.S. Navy nuclear power plants. During the 1985 snow runoff, pooled water entered one of the tanks and filled it to the riser. Changing liquid levels in the tanks indicated liquid release from the tanks, estimated at 100-120 gallons.

In 1985-86, tank liquids were drained, stabilized, and disposed of in Trench 11-A. The remaining tank bottom liquids were sampled and characterized as an extremely hazardous waste. The two smaller tanks were removed and the larger three tanks left in place after filling with concrete. The tank area was covered with soil on August 12, 1988.

In May 1988, eight soil borings (#1-8) were installed adjacent to the underground tanks. Ninety-four samples were collected for analysis. One background sample was collected from a boring about 50 feet from the underground tanks; no compounds were detected above the background sample. Five additional boreholes (A-E) yielded another 33 samples; however, these were not submitted for laboratory analyses, and no confirmed quality assurance/quality control (QA/QC) was in place during the sample collection or analysis. A composite sample from borehole #4 was considered representative of Tanks 2 and 3. A composite sample from borehole #5 had the highest radioactivity readings. However, composite samples are not appropriate for cleanup verification, and are not defensible for regulatory purposes.

2.4.3 Groundwater Wells

The water table is positioned in the upper part of the Middle Ringold Formation, making the saturated thickness of the unconfined aquifer between 90 to 100 feet. The bottom of the unconfined aquifer is assumed to be the low-permeability silty-sand of the Lower Ringold Formation.

In 1986, four downgradient monitoring wells MW3, MW5, MW8 and MW10, and one upgradient well, MW13, were constructed. Quarterly sampling and monitoring was conducted for specific conductivity, total organic carbon, total organic halogens (TOX), pH, nitrates and volatile organic compounds (VOC). In 1996, two additional upgradient monitoring wells, 9 and 9A, were constructed at the site. The objective was to determine the saturated thickness of the unconfined aquifer and determine the grain size characteristics of the saturated zone of the unconfined aquifer in order to support scenario modeling in the closure plan.

During the DQO meeting, the following questions were identified and addressed to the WDOH:

- Has the groundwater flow direction changed under site since the initial start-up operation?
- Has there been a well deviation survey to measure how far off the groundwater reading could be? What are the errors in interpretation of ground water level data?

- How were the well locations chosen? What is upgradient and downgradient at the USE Site?
- Are the groundwater monitoring well-screen levels appropriate for the present groundwater flow regime?

In December 2002, WDOH discussed the location of previous Ground Penetrating Radar (GPR) test sites (Trenches 5E & W and the Chemical Trench), and presented graphs of the well water height above Mean Sea Level (MSL) for MW3, MW5, MW8, MW9, MW9A, MW10, and MW13. Declining water levels, top of screen and well total depth were calculated for each well. A table listing the well casing elevation, total depth, screen length, total depth elevation, screen top elevation, water elevation, depth of water in well, useful life (years) and rate of water level decline (feet/year) for all the groundwater monitoring wells was developed and added to Appendix B of DQO Report.

Monitoring wells MW3, MW5, MW8, MW9, and MW13 had a projected useful life from 71-86 years. Monitoring wells MW9A and MW10 have a projected useful life of 32 and 49 years, respectively. The scheduled site closure is planned for December 2056, the closure period will last two years (January 2057 through December 2058), the stabilization period will last five years (January 2059 through 2063), and the institutional control period will last one-hundred years (January 2064 through the end of 2163). No new well construction or maintenance has been planned or budgeted after 2056.

2.5 Potential Threat to Public Health and Safety

Two conceptual site models (CSMs) were prepared for the RI/FS, one for various human scenarios and one for various terrestrial and aquatic ecological receptors. These figures show interrelationships among sources, release mechanisms, transport and exposure media, exposure pathways, and receptors. Sources, release mechanisms, and transport media are similar for both human and ecological CSMs, in line with the recommendation that CSMs for human and ecological risks should be consistent. The CSMs indicate three possibilities for the various sources to receptor pathway combinations shown. Some are considered complete and significant, and will be addressed quantitatively in the evaluation of site risks; others are considered complete, but less significant and will be addressed only qualitatively; while other pathways are considered incomplete and will not be evaluated, because no risk is posed where there is no exposure.

2.5.1 Constituents of potential concern

At the USE Site, there are impacts to the environment from releases of organics from aging barrels and packaging. Transport of contaminants from the waste can occur in the gas, dense non-aqueous phase liquids (DNAPLs), and liquid phases. The greatest impact to the environment is from the chronic release of gases and DNAPLs from the bottom of the trenches, not acute releases of liquids in large quantities. DNAPL in the vadose zone may exist as droplets and coatings in unsaturated conditions. When DNAPLs and gases encounter low-permeable strata, they spread laterally along the path of least resistance. This movement can be affected by hazardous substances that enhance or retard migration through the vadose zone to groundwater.

2.6 Regulatory Background

The following regulations and guidance were used in the development and planning of the public participation activities for the RI:

- WAC 173-340-600, Public Notice and Participation;
- Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA)

- National Contingency Plan (NCP; 40 CFR 300.430(c)(2)(ii)(A-C)).

While this site does not fall under CERCLA, the public involvement and outreach activities outlined in this PPP are designed to be conducted in accordance with the EPA's intent and interpretation of this federal statute. This intent is for public involvement and outreach to be conducted in a proactive and meaningful manner. As noted in the Superfund *Community Involvement Handbook* (USEPA, 2002), the RI/FS process can typically be the phase when it is easiest to lose contact with the public because of the investigation activities that are being conducted and limited information to share with the public. However, by utilizing the approach and anticipated schedule provided in Section 4.0, this possible outcome is expected to be avoided.

3.0 COMMUNITY INFORMATION

3.1 Area Description

The USE Site is located in an area of Hanford known as the "central plateau." The central plateau is an area of intensive waste management activities associated with U.S. Government nuclear weapons production dating from the 1940s. On the central plateau, the "200 East" and "200 West" Areas were the center for chemical processing for the production of plutonium. These areas contain several large underground tank farms, storage facilities, and land disposal facilities. As a result of the USE Site's location and the nature of disposal activities, access to the site is restricted and current and future land-use is expected to continue with disposal activities.

3.2 Community Profile

Public Participation Plans (PPPs) are used, in part, to assist project personnel in understanding the specific interests and needs of the local population and other interested people during the investigation activities. To gain this understanding, a community profile is developed based on available demographic information and community interviews. As USE is located within the Hanford Site boundaries, demographic information pertinent to Hanford can be used for USE.

US Ecology (USE) and Hanford are located just northwest of Richland, which is part of what is commonly referred to as the Tri-Cities area. "Tri-Cities" refers to the grouping of Kennewick, Pasco, and Richland into a metropolitan area. While the Tri-Cities area spans both Benton and Franklin Counties, only Benton County will be profiled here as it is the county within which the USE Site is located.

3.2.1 Benton County

Benton County is located in the southeast part of Washington State in the bend of the Columbia River, which forms its northern, eastern, and southern borders. On the south, the Columbia River is also the border between Washington and Oregon. The county is bordered on the west by Yakima and Klickitat Counties, and covers an area of 1,722 square miles (Benton County, 2007; *Benton County History*).

The following information was taken from 2000 and 2005 Census data (Census, 2000 and 2007). Overall, Benton County had a population of 142,475 inhabitants according to the 2000 Census, and updated population count in 2005 of 159,463. According to Census data, Benton County is comprised primarily of Whites, non-Latino (79.6 percent), Latinos (14.6 percent), and Asians (2.5 percent). The gender make-up is almost evenly split between men (49.7 percent) and women (50.3 percent). The majority of people (85 percent) are high school graduates, with 26.3 percent having a college degree or higher.

The Benton County web site (Benton County, 2007) identifies primary industries for the county as agriculture, nuclear power, food-processing plants, and manufacturing. Census data indicates that of the working population, the primary occupations in Benton County are management, professional, and related (39.2 percent), sales and office (24.2 percent), services (14 percent), production, transportation, and material moving (12.1 percent), construction (8 percent), and farming, fishing, and forestry (2.5 percent) (Census, 2006; *American Community Survey*).

3.2.2 Tri-Cities

The following information was obtained from demographic information, based on 2000 Census data, found on the Tridec web site (Tridec, 2005; *Demographic Detail Summary Report*). Population for the Tri-Cities (Kennewick-Pasco-Richland) was identified as 191,822 in the 2000 Census. Of this population, 80 percent was identified as White, 21.3 percent was identified as Latino, and 2.2 percent was identified as Asian. The gender make-up reflects that of Benton County, in that 50.3 percent of the population is male, and 49.7 percent is female. Of the population 25 years and older, 23.9 percent finished high school, and 23.9 percent have some college experience.

Employment in blue collar occupations was identified at 42 percent, with 58 percent in white collar employment. The largest employers in the Tri-Cities area (Battelle/Pacific Northwest National Laboratory, Fluor, Bechtel, CH2M Hill, and the USDOE) are related to Hanford in some manner and employ around 11,578 people. The next largest employers are related to agriculture and food-processing (Tyson, ConAgra/LambWeston, Broetje Orchards, and AgriNorthwest), and employ around 4,108 people. Hospital and medical services (Kadlec Medical Center, Kennewick General Hospital, and Lourdes Health Network) comprise the next tier of employment by employing around 2,931 people. Utilities (Energy Northwest) is the next category of over 1000 employees, with around 1,072 employees (Tridec, 2007; *Tri-Cities Major Private Employers*).

3.2.3 Tribal Interests

There is a long history of Tribal interests in this area, dating from prehistoric times. To this day, Hanford-related interactions occur with the three Tribes with which there are treaties – the Confederated Tribes of the Umatilla Indian Reservation, the Nez Perce Tribe, and the Yakama Nation, and the Wanapum who do not have a treaty with the U.S. government but are recognized as a tribal entity. These Tribes have cultural and archaeological interests in the larger Hanford Site, and potentially the USE Site. As has been documented in Hanford-related materials and the Final Environmental Impact Statement (WDOH, 2004), Tribal interests in Hanford and USE land extend to consideration of possible future uses.

3.3 Chronology of Community Involvement

This is the first PPP to outline an involvement and outreach approach for the RI/FS activities to be completed for this project. As a result of the changing nature of environmental activities within the State of Washington, not only are regulatory drivers now in place providing the opportunity for public participation, but there also is a growing stakeholder awareness of, and desire to understand, the relationship between waste disposal activities at USE Site and waste activities at Hanford. This PPP has been prepared to direct future community involvement activities relating to the USE Site. It is anticipated that as project milestones are achieved or significant community and/or stakeholder events or changes are identified, this PPP will be updated to reflect these changes.

3.4 Community interviews

3.4.1 Community Interview Approach

During the week of 13 November 2007, a representative from Vista's project team conducted community interviews in and around the Tri-Cities area. Additional interviews were conducted by phone in February 2008. These interviews were conducted with public officials, area economic development organizations, Tribal representatives, and stakeholder groups. The list of potential interviewees was broad in scope to include a variety of land users, businesses, local officials, and public agencies. These interviews served as a basis for preparing and scoping the public involvement approach presented in Section 4.0, and should not be considered "public comment."

While results of the interviews represent comments from a cross-section of community interests, the views expressed by the respondents should not be construed as a formal statement for their respective organizations or constituencies. In total, nine people were interviewed. Not all respondents answered all the questions, and some respondents provided several pieces of information in response to a question such that more than one response was attributed to a single respondent. Therefore, there are sometimes more or less than 9 responses given for a particular question. Information presented in this section is a summary of responses, while more detailed results are presented in Appendix A. All interviews are kept confidential, and names are not attributed to specific statements.

3.4.2 Results of Community Interviews

NOTE: One respondent began the interview session expressing concern with the approach used for conducting these interviews, in that those parties who would typically be involved with this sort of effort were either not included or were unable to participate.

Respondents were first asked a series of questions designed to identify their familiarity with the USE Site and associated activities.

- The majority of respondents (six out of nine) indicated they have lived and/or worked in the area for more than 11 years, with four respondents identifying between 11 and 20 years, and three respondents identifying 30 or more years. Two respondents indicated they lived/worked in the area for less than 10 years.
- The majority respondents indicated they were familiar with the USE Site, with one respondent indicating they had no knowledge of the Site. Respondents were asked to rate their level of familiarity on a scale of 1 to 10, with 1 representing not very familiar and 10 representing very familiar. Four respondents stated they felt very familiar with the site – had been to the site and participated in site tours; and four respondents stated they felt somewhat familiar – they knew of the site and understood the basic activities conducted at the facility.
- Several of the respondents were not sure how they came to learn of contamination associated with USE – it was hard to distinguish USE from Hanford and it was difficult to obtain information about the waste and environmental studies conducted at the site; two respondents each learned of the site through either discussions associated with waste transport or through direct involvement with USE; one respondent learned through the EIS process; and one respondent learned through information provided by a community group.
- Respondents were asked to describe their understanding of contamination related to USE. One respondent each indicated the site was over-shadowed by Hanford activities, or learned of the site only through the newspaper; two respondents each either had no idea of contamination

concerns related to USE or knew of the specific waste types present at the facility as a result of direct interactions with the facility; and four respondents indicated either a limited or a general understanding of contamination.

Respondents were then asked about any concerns they may have about the USE Site.

- Five respondents indicated that either they did not have any concerns about the USE Site, or that any concerns they had were overshadowed by those they have about the Hanford Site. Three respondents did caveat their lack of concerns with regard to USE by stating that they did not know enough about site activities to know if they should have any concerns. Three respondents commented that they had concerns regarding disposal activities at the USE Site. Two respondents each stated that they trusted the state agencies to monitor the site, and had concerns regarding USE not using the same cumulative risk levels as Hanford and movement of waste contamination. One respondent expressed concern about adding USE issues to the HAB scope, which is focused on Hanford-related efforts already quite full. Other comments shared as a concern included:
    - The DOH does not seem to be protective of public exposure limits in that there is a difference between exposure limits used for Hanford vs. those used for USE. The respondent noted that the exposure limits used for Hanford are more stringent than those used for the USE Site.
    - Protesting groups may shut the facility down despite the need for a place where waste can go. The respondent noted that people like to have access to the beneficial aspect of radioactive materials such as those used for health treatment, but they forget about the wastes that are produced and need to be disposed.
    - Questions regarding the success and integrity of using a cap as a barrier to waste transport to the local environment. The respondent noted that the technologies used for barriers are questionable and are not proven.
- Respondents were asked if they knew of anything being done to address these concerns. Most of the respondents (five) did not know of anything being done to address identified concerns. Four respondents did not answer this question, but one of these respondents answered for Hanford activities. One respondent noted that typically they hear of concerns from a community group, but as this group has been rather quiet regarding this site, they must not have any concerns that need to be addressed.
- Respondents were asked about their experiences with USE and/or any other government agencies or officials with regard to USE. Four respondents stated that they had either no interactions with the state agencies or USE, or they had a moderate level of interactions with those entities. One respondent each indicated limited interactions with the state agencies and USE; extensive interactions with WDOE, limited with USE, and no interactions with WDOH; and, primary interactions with the state agencies.

Respondents were then asked about community communication and involvement with regard to the USE Site.

- Respondents were asked if they were currently receiving information from USE. Seven respondents indicated they had not received information from the facility. Two respondents indicated that they receive facility information as a result of specific efforts; in one case, it was due to the efforts of a community group representative, and for the other, the respondent received information due to an official interaction or relationship. One respondent indicated

that they were receiving information about the facility; however, this information was not obtained through typical means or channels.

- Respondents were asked if the information they received about the facility was clear and easy to understand. Three respondents did not answer this question for the facility, and three respondents did not answer the question at all. Four respondents indicated that they have received information at some point about the facility. Of these respondents, one respondent replied to this question with regard to information received about Hanford activities, another respondent replied the information was easy to understand but that was due more to his technical background, one respondent commented that the information was adequate but not complete, and another respondent did not recall any problems with the information provided. One respondent expressed surprise with the question as the facility did not make information available.
- When asked about the level of community involvement and outreach from the facility to surrounding areas, the majority of respondents (five) were not aware of any outreach activities being conducted by USE. Individual responses to this question included:
    - There should be more outreach from the facility. There tends to be two different perspectives by companies – either they want to operate below the radar or they will be proactive. Given the awareness level of the local population due to interactions with Hanford, it would be good for USE to share more information about their activities with the public.
    - Has only received information from the state – a few emails, no monitoring reports. Respondent would trust the information more if it came from the state.
    - There is no need for outreach from the facility. They perform a good service and as long as they are meeting regulatory requirements, it is good to keep a low profile.
- Respondents were asked if they have been kept adequately informed, and if not, they were asked for suggestions for improvement. Three respondents responded they were not kept adequately informed and that more information was needed from USE. Two respondents indicated they were as informed as they wanted to be, and three other respondents indicated they did not recall receiving much information from USE. One respondent indicated that there may be information available to the public, but they are just not seeing or reading it, and another commented they would expect adequate notice of public involvement opportunities to be provided. One respondent commented that the biggest disconnect for the USE Site was that while it was located within Hanford, it was not on Hanford and did not follow the same reporting requirements or information sharing.
- Respondents were asked the best way to provide information to them and how often. The majority of respondents (six) indicated that receiving information via e-mail was best, and three respondents indicated they would prefer brief updates through the mail. One respondent indicated the need for better interactions with the Tribes, at a Government to Government level, in a manner similar to the USDOE Indian Policy. With regard to frequency, three respondents each indicated yearly or quarterly were fine, unless more communication was needed. Individual comments were:
    - E-mail is easiest, and should include links to information, points of contact; the information could be forwarded with ease to other interested people.
    - Methods similar to what Hanford uses should be used.

  - State agencies should be more engaged; particularly the DOH should start interacting with the Hanford community and the Hanford Advisory Board (HAB). They should also keep their web sites up-to-date.

- Respondents were asked if they had participated in any public meetings in relation to the site. Most of the respondents (seven) had not attended a public meeting specifically for USE, but they had attended meetings for Hanford (typically the HAB) and USE had come up at some of these meetings. One respondent did attend public meetings specific to USE, in relation to the transfer of the reactor core from the Trojan Nuclear Power Plant. When respondents were asked how to improve public meetings, three respondents each suggested providing site information online such as monitoring reports, and also providing opportunities for public review and input. Other suggestions were:
  - Have speakers able to discuss information in plain terms.
  - Focus information on topics of concern for the public.
  - Get the state agencies more involved.

- Respondents were asked what days of the week and times were best for community meetings. The majority of respondents (four respondents) indicated that the best days of the week for meetings were mid-week, and six respondents indicated the best times were in the evenings so those who work during the day could attend. Two respondents indicated that meetings during the day were good for retired people and those interested people who could attend during the day. One respondent indicated weekend meetings would provide an opportunity for Latinos to participate. Other suggestions/comments were:
  - Need to notify people of meetings.
  - It is good to go where people already are attending a meeting or function.
  - People are not good at going to public meetings so suggest using public access channel to show programs of your message.

- Respondents were asked if they were aware of the information repositories and if the current locations were appropriate for the Tri-Cities area. The majority of respondents indicated they were familiar with the information repositories for Hanford, but only one respondent mentioned that there were documents related to USE included at these locations. Five of the respondents indicated that the current locations were good or appropriate for the area. Two respondents commented that they felt not enough people in the community were aware of these repositories – primarily because so many new people have moved into the area and there has not been enough consistent notification/reminders as to their location and the information that could be found there. Another concern was raised that if anyone went to the repository, it was necessary to have someone there to assist you, as the amount of information provided in the repository was very large and potentially daunting, and not presented or available in a user-friendly way.

- Respondents were asked if they knew who to contact at USE or WDOE for more information. Four respondents indicated that they either already had points of contact for both the facility and the state, or they could find out who to contact should the need arise. Two respondents indicated they did not have points of contact for USE, and that they would not know who to contact at the state. Two respondents indicated they could visit the web site, but they were not optimistic on finding a point of contact through that medium.

- The majority of respondents indicated that should a mailing list be developed for the USE RI/FS they would like to be placed on it. The majority (six) indicated they would prefer to receive e-mails vs. mailed information. One respondent stated they were not interested in being on a mailing list unless the USE Site was added to the HAB scope. For the Tribes, both e-mail

and paper copies would be good so the information could be provided to their elders for review and comment.

- Respondents were asked to suggest other people or organizations that should be contacted as part of this project. This information has been provided to the project team for consideration.

4.0 PUBLIC PARTICIPATION OBJECTIVES AND ACTIVITIES

4.1 Objectives

The objectives for this PPP are focused on supporting RI/FS activities. In the process of meeting informational needs during these activities, it is important that the strategy begin to address the concerns identified during the interview process while maintaining a dynamic and responsive approach to meet the changing needs of the project.

To meet these objectives, the project should utilize some of the existing mechanisms set-up by Hanford, and additionally begin their own outreach process. The location of USE within the boundaries of the Hanford Site and the common perception of USE being part of Hanford facilitates participation in those mechanisms already in place for Hanford. The objectives of this PPP to be used for the RI/FS activities are to:

- Maintain and further develop opportunities to identify and discuss concerns or issues the local community, tribal interests, and stakeholders may have regarding the planned RI/FS activities at the site; and
- Establish and utilize a variety of methods for sharing information with the community about the RI/FS activities.

It is important to note that while public input is important to the project's success and for public awareness, it is only one type of information taken into consideration for overall project decision-making. A truly successful public participation strategy is one where the public is informed of project activities and progress, participates in available outreach efforts where they can provide their input to the project, and the project team integrates public input in a meaningful and appropriately transparent manner to project activities.

4.1.1 Objective #1: Maintain and Develop Interactions to Identify Concerns and Issues

As there have been limited outreach and information sharing efforts in the past with regard to the USE site; the state agencies, USE, and the Project Team (Figure 2-1) will continue to work with the connections made and identified through the interview process for this PPP. Through regular interaction and information sharing, these connections will become more firmly established. Additionally, by participating in the outreach mechanisms used by Hanford, wider interactions and broader discussions can occur with local communities and stakeholders to identify questions or concerns that may arise during RI/FS activities. Open dialogue and feedback mechanisms between state agencies, USE, the Project Team, local communities, and stakeholders are important to ensure community understanding of the project and project awareness of local issues.

Some steps for maintaining contacts made through this initial interview opportunity are to set-up an outline for opportunities to share information through in-person interactions and via indirect means. These opportunities can include attendance at regularly scheduled information sessions where members of the public can talk directly with WDOE or project staff about any concerns or issues they have, use of the web site for sharing project information, and submission of a web-based comment

form at the WDOE web site by visitors to forward any questions or comments they have about the project. Additionally, concerns and questions can be identified by updating the PPP as necessary for the duration of the project.

4.1.2 Objective #2: Establish Methods for Sharing Information

Information sharing in relation to the RI/FS activities is important so community members and other interested stakeholders will know project progress. The WDOE, in cooperation with Project Team members, will distribute, or oversee distribution of, project information for RI/FS activities to interested community members and stakeholders. The regular distribution of project-related information to the local community and interested groups through a variety of methods increases the likelihood that people will receive the information and stay informed about the progress of the project. Participation in the outreach methods already established by WDOE for use at Hanford will facilitate broadening the reach of information. Additionally, any information provided to the public by WDOE will follow the Plain Talk principles used by the WDOE.

The primary recipients of this information would be those on the project mailing list and anyone who visits the WDOE web site. People will be provided with opportunities to be added to the mailing list at all public meetings, through fact sheets or other project-related mailings, or by indicating through the web site comment form that they would like to be added to the mailing list.

The importance of regular and broad information distribution is to keep people informed about areas of work, progress in identifying potential areas of interest, and progress towards the eventual completion of the work. Since WDOE will share this type of information on a regular timetable and format, interested people will know approximately when to expect an update from the project about the work. This regularity aids in ensuring that information is issued from the Project Team in a timely manner and is shared among interested parties.

4.2 Activities

The activities described below are components of an overall community involvement strategy that addresses the above objectives. These activities are presented in the order of those scheduled to occur on a regular basis throughout the project, followed by those that may occur, as appropriate, for specific project activities, or as requested by the community or stakeholder group. A timeline for public participation opportunities is presented in Section 4.3. This PPP is a dynamic document that may evolve and be updated as the project progresses in accordance with the method described in Section 4.4.

4.2.1 Establish a Project Mailing List

Mailing lists are an important component of effective community outreach. They ensure that interested community members, as well as other stakeholders, are kept informed of RI/FS activities and opportunities for community involvement. A mailing list is used to distribute news releases, fact sheets, and other types of pertinent information for RI/FS activities.

As this is considered one of the cornerstones of an effective outreach strategy, the WDOE will establish and maintain a project mailing list consisting of interested individuals, local officials, and media representatives. The WDOE will update this mailing list as necessary and appropriate, and will provide information in all fact sheets, at public meetings, and on the web sites specifying how individuals and groups can be added to the mailing list.

Additionally, an e-mail mailing list will be developed by WDOE for those community members and stakeholders who prefer to receive project information in an electronic format.

4.2.2 Information Sheets

Regularly produced information sheets can provide interested people with project information to keep them informed about the project and its progress. In addition to keeping interested members of the public informed about the project, these sheets provide information about other resources available to the public to learn about or become more involved in the project. These additional resources include the state agencies web site addresses, Administrative Record (AR) locations, and information on how to be added to the project mailing list.

Information sheets will be prepared annually, or as appropriate and necessary, for distribution to stakeholders and interested people to promote awareness of, and to update the community on, the status and issues associated with project actions and activities. These information sheets will be distributed to everyone on the mail and e-mail lists, and will also be available at the AR locations, as well as the WDOE Nuclear Waste Program office resource center in Richland.

4.2.3 Project Web Sites

The state agencies, WDOE (http://www.ecy.wa.gov/programs/nwp/llrw/llrw.htm) and WDOH (http://www.doh.wa.gov/ehp/rp/waste/llw.htm), currently have web sites that provide information about the USE Site. As these web sites already provide baseline information about the USE Site, through regular updates the web sites can provide project information more often than the fact sheet mailings. A feedback form on these web sites would facilitate sharing of community and stakeholder questions and concerns. These sites will be updated every year, or as necessary, to reflect the status of project activities such as the achievement of project milestones.

4.2.4 Public Information Repositories

A Public Information Repository is the collection of documents that regulatory agencies and projects use to make project-related decisions and is accessible to the public, per state requirements. The USE will utilize the public libraries in Kennewick, Pasco, Seattle, and Richland. Information will also be accessible to the public at the WDOE office located in Richland, Washington. The locations for each library are presented in Appendix B.

4.2.5 Information Sessions and Public Meetings

Information sessions are informal opportunities for stakeholders and interested people to meet with staff members/project personnel to discuss project activities, and/or community/stakeholder issues or concerns. These sessions differ from other types of meetings in that there tends not to be a formal structure to the meeting; people can move about information stations at their own pace and a brief presentation may or may not be given. Project personnel will manage the information stations. It is important that these personnel can answer and/or explain different aspects of project work, or be able to introduce a community member to someone who can answer their question or address a comment. Public meetings are a more formal approach for sharing information with the community through a presentation and brief question and answer period. This format is particularly useful for conveying update information to a relatively large group of people at one time. Using an information station layout with poster boards complements this type of meeting.

These types of meetings are valuable because of the atmosphere that fosters communication between people. Information sessions or public meetings allow for a rapport to develop between project staff, the local community, and other interested stakeholders. These meetings will be held when the Project Team feels they would be useful in order to update interested community members and stakeholders on project activities or as requested by the community. The format of these meetings, e.g. an information session or a public meeting, will depend on the project status and/or community information needs at the time of the meeting.

4.2.6 Public Notices

Public notices serve as official notification to the local community of project plans for environmental activities, upcoming public involvement opportunities, and the availability of documents at the information repositories. As a public notice is not the sole means of alerting the community of upcoming project activities, it is typically produced in conjunction with information sheets to distribute information. WDOE will prepare public notices and place them in local newspapers to announce public comment periods, public meetings, and other pertinent information. In addition to local media outlets in the affected vicinity (the Tri-Cities), copies of public notices will be sent to the project mailing list.

4.2.6.1 Public Comment Periods

Public comments will be used to guide the final decision-making during this RI/FS. WDOE will prepare Review Comment Records to address comments received during the comment period, and place them in the project record, along with resolutions provided by WDOE and the project team. All public notices will indicate the proposed action, and provide a suitable period for receiving comments from the public. Thirty days will be the standard duration public comment period for actions related to the U.S. Ecology Site RI/FS. The final date for submittal of comments, and directions for submitting comments will be provided on the public notice.

4.2.6.2 Public Meetings

During this project, a public meeting will be held by WDOE for receiving public comments on the subject of the any public notice, if requested by ten or more persons as identified in WAC 173-340-600.

4.2.7 Site Register

The WDOE maintains the Site Register, a publication that provides a variety of notices regarding environmental sites in Washington State. The WDOE will make notices regarding the USE Site RI/FS documents and actions as required in WAC 173-340-600.

4.2.8 News Releases

In recognition that community members rely on local news media outlets for timely information about local activities, WDOE will prepare and issue news releases as appropriate or as project milestones are achieved. Additionally, these news releases can be sent to community organizations for inclusion in their publications or information updates to their members. Again, this multiple distribution of information increases the likelihood of interested community members not on the project mailing list receiving pertinent information.

4.3 Estimated Public Involvement Schedule

A timeline for public involvement activities is provided at the following milestones in the RI/FS process for this project. Estimated dates are included for future public involvement opportunities. WDOE retains the responsibility for conducting all public involvement activities.

1. During the scoping of the RI/FS (this was completed as part of the DQO development process) a public notice and comment period occurred.
2. At the publication of a draft final PPP a public notice and comment period is scheduled (Winter, 2008). Notification will be provided on the WDOE web site; and copies of the draft final PPP will be made available through the WDOE web site, and a paper copy will be provided to the information repositories (including the Richland Public Library).
3. At the completion of RI field activities an information session will be held (Summer, 2008). This will be announced to the public through information sheets mailed out to the mailing list, provided electronically on the state agency's web sites, and provided on paper to the information repositories.
4. At the publication of a draft final RI/FS Report, a public notice and comment period will be scheduled (Fall, 2010). This will be announced to the public through information sheets mailed out to the mailing list, provided electronically on the state agency's web sites, and provided on paper to the information repositories.
5. At the publication of a draft final Clean Action Plan a public notice and comment period will be scheduled (Fall, 2010). This will be announced to the public through information sheets mailed out to the mailing list, provided electronically on the state agency's web sites, and provided on paper to the information repositories.
6. If during the preparation of documents related to the implementation of the Cleanup Action, the WDOE determines that any of those plans substantially impact the Cleanup Action Plan, a public notice and comment period will be scheduled (since it is dependent on the selected cleanup action, and estimated date is not included). Appropriate notice and information will be provided to the public through previously used methods.
7. At the implementation of the Cleanup Action a public notice and comment period shall be scheduled (since it is dependent on the selected cleanup action, and estimated date is not included). Appropriate notice and information will be provided to the public through previously used methods.

~~4.4~~ Public Participation Plan Revision

In the event it becomes necessary to amend this PPP, a draft document with the proposed changes highlighted will be submitted to WDOE for review and approval. Additionally, as any site or surrounding community changes occur, the PPP will be updated to reflect these changes. Substantial changes, as decided by WDOE, will require a public notice and comment period.

4.5 Citizen Technical Advisor

In the event that stakeholders and/or the community indicate they would like the assistance of a technical advisor, one can be provided through the WDOE's Technical Assistance Office upon request.

5.0 REFERENCES

40 CFR 300, "National Oil and Hazardous Substances Pollution Contingency Plan," *Code of Federal Regulations*, as amended. (National Contingency Plan).

Benton County, 2007, *Benton County History*. http://www.co.benton.wa.us/html/county_history.htm.

Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. 9601, et seq. (CERCLA).

DOH 2004, *Final Environmental Impact Statement*, Commercial Low-Level Radioactive Waste Disposal Site, Richland, Washington, Publication 320-031, May 2004, Washington State Department of Health, Washington State Department of Ecology. (EIS).

Ecology, EPA, and DOE, 2003, *Hanford Federal Facility Agreement and Consent Order* (Tri-Party Agreement), 2 vols., as amended, 89-10, Rev. 6, Washington State Department of Ecology, U.S. Environmental Protection Agency, and U.S. Department of Energy, Olympia, Washington. (Tri-Party Agreement).

Epodunk, 2007, *Population Overview*, Benton County, Washington. http://www.epodunk.com/cgi-bin/popInfo.php?locIndex=23011.

LLRW Amendments Act of 1985, The Low-Level Radioactive Waste Policy Act, 42 U.S.C. 2021, et seq.

Resource Conservation and Recovery Act of 1976, Solid Waste Disposal Act, 42 U.S.C. 6901, et seq. (RCRA).

Tridec, 2005, *Demographic Detail Summary Report,*. Tri-Cities Development Council, Tri-Cities, Washington. http://www.tridec.org.

Tridec, 2007, *Tri-Cities Major Private Employers*, Tri-Cities Development Council, Tri-Cities, Washington. http://www.tridec.org.

US Census Bureau, 2000, http://factfinder.census.gov/servlet/BasicFactsServlet.

US Census Bureau, 2006, American Community Survey, http://factfinder.census.gov/servlet/STTable?_bm=y&-geo_id=05000US53005&-qr_name=...

US Census Bureau, 2007, Benton County QuickFacts from the US Census Bureau. http://quickfacts.census.gov/qfd/states/53/53005.html. Last revised 31 August 2007.

US Department of Energy (USDOE), 2002, *Hanford Site Tri-Party Agreement, Public Involvement, Community Relations Plan*. Prepared by U.S. DOE, Richland Operations Office. January.

US Environmental Protection Agency (USEPA), 2002, *Superfund Community Involvement Handbook*. Office of Solid Waste and Emergency Response.

VET-1405-PLN-01, *Remedial Investigation Work Plan for U.S. Ecology Site RI/FS*, January 2008, Vista Engineering Technologies, LLC.

WAC 173-340-360 through 390, Selection of cleanup actions, Expectations for cleanup action alternatives, Cleanup action plan, and Model remedies, "Model Toxics Control Act – Control," *Washington Administrative Code*, as amended.

WAC 173-340-600, Public notice and participation, "Model Toxics Control Act – Control," *Washington Administrative Code*, as amended.

WAC 173-340-740 (6)(f), Unrestricted land use soil cleanup standards, Point of compliance, "Model Toxics Control Act – Control," *Washington Administrative Code*, as amended.

Washington Department of Health (WDOH), May 2004, *Final Environmental Impact Statement*, Volume 1.

6.0 ACRONYMS

AR	Administrative Record
CERCLA	*Comprehensive Environmental Response, Compensation, and Liability Act of 1980*
CSM	Conceptual Site Model
DNAPL	Dense, non-aqueous phase liquid
DOE	US Department of Energy
DOH	US Department of Health
EIS	Environmental Impact Statement
EPA	US Environmental Protection Agency
FS	Feasibility Study
GPR	Ground Penetrating Radar
LLRW	low-level radioactive waste
HAB	Hanford Advisory Board
Hanford	DOE Hanford Site
MSL	mean sea level
NARM	Naturally accelerator produced material
NCP	National Contingency Plan
NORM	Naturally occurring radioactive material
POC	point of contact
PPP	Public Participation Plan
RCRA	*Resource Conservation and Recovery Act of 1976*
RI	Remedial Investigation
SARA	*Superfund Amendments and Reauthorization Act of 1986*
TOX	total organic halogens
TPA	Tri-Party Agreement
USDOE	US Department of Energy
USE	US Ecology, Inc.
USE Project	US Ecology Site RI/FS
VOC	volatile organic compounds
WAC	*Washington Administrative Code*
WDOE	Washington State Department of Ecology, http://www.ecy.wa.gov/programs/nwp/llrw/llrw.htm
WDOH	Washington State Department of Health, http://www.doh.wa.gov/ehp/rp/waste/llw.htm
Work Plan	*Remedial Investigation Work Plan for US Ecology Site RI/FS*, (VET-1405-PLN-01)

7.0 GLOSSARY

Authority: Legal jurisdiction enabling a governmental agency to administer and implement federal or state law and regulations.

Barrier: A manmade addition to a disposal site that is designed to retard or preclude contaminant transport and/or to preserve the integrity of the disposal site.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA): A federal law, commonly known as Superfund, passed in 1980 and modified in 1986 by the Superfund Amendments and Reauthorization Act (SARA).

Contamination (Groundwater and Surface Water): An impairment of quality by biological, chemical, or radiological materials that lowers the water quality to a degree which creates a potential hazard to the environment, public health, or interferes with a beneficial use.

Decision Document: A formal record of significant decisions on cleanup alternatives for a particular site. Decision documents are typically prepared to record the following decisions: No further action; selection of a remedy; or implementation of a sampling or monitoring program.

Feasibility Study (FS): The step in the CERCLA process in which alternatives for a remedial action system are investigated and screened.

Groundwater: Water which fills the spaces between soil, sand, rock, and gravel particles beneath the earth's surface. Rain that does not immediately flow to streams and rivers slowly percolates down through the soil to a point of saturation to form groundwater reservoirs. Groundwater flows at a very slow rate, compared to surface water, along gradients which often lead to river systems. If occurring in significant quantities, groundwater can be withdrawn for domestic, industrial, and agricultural purposes.

Hanford Advisory Board: Created in 1994 by the Tri-Parties, the Board advises all three agencies on major cleanup policy decisions. The Board consists of 31 members and their alternates who represent a broad range of stakeholder interests. Two of the three affected tribal governments are represented on the Board. One of the tribal governments participates on the Board in an ex-officio status. The HAB provides an opportunity for stakeholders to have a voice and actively participate in the review of technical documents, to review remedial and restoration progress, and to provide individual advice to decision makers regarding remedial and restoration activities.

Model Toxics Control Act (MTCA): The Washington state law that establishes administrative processes and standards to identify, investigate, and cleanup facilities where hazardous substances are located.

Public Information Repositories: A library of documents which includes project-related information such as remedial actions, interim response actions, corrective measures, etc. There are four information repository locations: Richland, Seattle, and Spokane, Washington, and Portland, Oregon.

Public Participation Plan (PPP): A plan specifically designed to address the public's communication needs during investigation and response activities. The plan is designed to encourage stakeholder input into the decision-making process.

Remedial Investigation (RI): The process of determining the extent of hazardous substance contamination and, as appropriate, conducting treatability investigations. The RI is done in conjunction with the Feasibility Study.

Stakeholder: Stakeholder refers to those people or organizations with an interest in the outcome at a federal facility or site. These people or organizations are typically regulatory agencies, the property owner/manager, and the public. In many cases, other interested or associated groups or people will also be included as a stakeholder.

Superfund Amendments and Reauthorization Act (SARA): Enacted in 1986, this legislation establishes standards for cleanup activities, requires federal facility compliance with CERCLA, and clarifies public involvement requirements.

APPENDIX A: COMMUNITY INTERVIEW RESULTS

During the week of 13 November 2007, a representative from Vista's project team conducted community interviews in and around the Tri-Cities area. Additional interviews were conducted in February 2008. These interviews were conducted with public officials, area economic development organizations, Tribal representatives, and stakeholder groups. The initial list of potential interviewees was broad in scope to include a variety of land users, businesses, local officials, and public agencies. In total, nine people were interviewed. Not all respondents answered all the questions, and some respondents provided several pieces of information in response to a question such that more than one response was attributed to a single respondent. Therefore, the numbers associated with responses do not always equal the total number of respondents. Comments following questions are paraphrased from the interviews.

Q1: How long have you lived, used, or worked in the area?

10 years or less:	2
11 to 20 years:	4
30 years or more:	3

Q2: Are you familiar with the USE Site? How would you rate your familiarity on a scale of 1-10? (1 = not at all familiar, 10 = very familiar)

Familiar?		
Yes		8
	Somewhat	4
	Very	4
No		1

- Yes, familiar; would say a 9 – he's been to the site, done a site tour, etc.
- Yes; would say about a 7 or 8. He has had occasion to be involved with them – (e.g. Hanford issues) all things out at the site – hearings, medical, and WDOE and EPA interactions
- Yes; probably about a 4, simply because as a member of the HAB, she hasn't sought information about USE because it currently doesn't fall within the EM (Environmental Management) portion of the HAB Charter. This may change in the future if USE contamination mixes with or impacts Hanford waste that they provide input to on a global sense.

Q3. How did you first become aware of contamination associated with the site?

Not sure	4
Direct involvement with the site	2
Waste transportation discussions	2
EIS	1
Community group	1
No answer	1

- Information is really hard to get; has received information most recently from HOANW and through discussions during the EIS.

- She knows there is contamination at the Hanford Site; has been out at Hanford, knows of the contamination but doesn't know specifics – especially for USE. Contractors change so often (at Hanford), she can't keep track.
- She's not well versed on USE; consumed by Hanford information and the HAB.

Q4: What is your understanding of the contamination related to the U.S. Ecology Site?

Don't know about contamination	2
Site is overshadowed by Hanford	1
Learned about site through papers	1
Limited understanding	3
General understanding of waste	4

- Some Freon but couldn't find any further information; even off the WDEC web site – no data or environmental reports are there.
- It would just be assumptions; although he does know that waste has gotten out of the trenches into the surrounding environment and assumes that more will get out.
- Low-activity medical waste; some transuranic waste; there's a mixture of waste out there, but all low-activity; some chemical waste sites are worse off than what's present out at USE. He's aware there are groups who would like to close it down regardless of the beneficial service it provides.
- She has no sense of the contamination issues associated with USE; nothing factual or specific – just general information as learned through the newspapers.

Q5. Do you have concerns about this site?

Yes 4

Concerns	
Disposal concerns	3
Cumulative levels not used	2
Waste contamination movement	2
Different standards than Hanford	2
More concerned about Hanford	2
Trusts regulatory agencies	2
Adding to HAB scope and responsibilities	1
Doesn't know what's there	3

No 5

- Yes, significant concerns. 1: knows she doesn't know what's there; DOH doesn't seem to be as protective regarding public exposure limits; not as stringent as for Hanford – 15 vs. 25 mrem; split between radioactive material DOH and DEC regulate; not done in an integrated or cumulative way. Whether it is part of Hanford and needs to follow other requirements of Hanford – e.g. capping, lining trenches, mitigating natural resource impacts leachate collection, closure requirements, clean fill, CERCLA, RCRA, probably more. All suppositions, nothing she knows but guesses.
- Don't have huge concerns because its neighbor (Hanford) takes more of his attention. Hanford is too overwhelming for them to focus too much attention to USE.
- No, none; not concerned about waste, the way it's handled, if they're meeting all requirements – he trusts the DOH and WDEC oversight. He does have concerns that protesting groups may shut it down; we need a place for waste produced to be disposed. Protesting folks like to have

access to the beneficial parts of radioactive materials such as for treatment, but they forget the wastes that are produced and need to be disposed of.

Q6. Are you aware of anything being done to address these concerns?

Yes	1
No	5
Not asked	4

- Pretty much no. They must be monitoring but doesn't know what and where to find the information.
- Nothing regarding the "antis" (those folks against the facility). Knows of no one from USE who attends the HAB; USE typically raised but no one is at the meeting to respond.
- She's not aware of anything besides the Tank Closure EIS – as she recalls, this will consider USE and other scenarios in a cumulative sense. This is the only reference point she has.

Q7. What has been your experience been with U.S. Ecology, or any other government agencies or officials, in relation to U.S. Ecology?

No to all	4
Moderate level of interaction with all	2
Limited interactions with state & USE	1
Extensive with WDOE/none with DOH; limited USE	1

- For WDEC – doesn't think it's handled out of Richland office; they know Richland point of contacts (POCs), but doesn't know who to ask for at USE; DOH – they don't interact well with Hanford community; almost antagonistic – defensive, don't answer questions, they don't engage at all. Nothing with USE since EIS; zero interaction with community, very easy to do – get on the Hanford community mailing list.
- No to both.
- The relationship he's always had has been good. Most of the time, he's interacted with DOH or DEC, that's who he'd call with questions or concerns.

Q8. Are you currently receiving information about the site? If so, how are you receiving this information?

Yes, due to specific efforts	2
No	7

- No – not about USE Hanford – she receives information through Hanford Communities. She receives information through regular (monthly) meetings – specifically through the agenda package, email, correspondence from Pam; local newspaper is good as well; TRIDEC has guest speakers, lab newsletter updates.
- He only receives information from DOH/DEC; doesn't receive anything directly from USE but probably should. When's he's asked for information, he's received it via e-mail; folks have been very responsive when he's asked.
- Don't think so. She has received information over the years; she recalls mailings, but that has been a while.

Q9. Is the information clear and easy to understand?

No answer	5

Yes 4

- Surprised asking that since they don't send out information. She was looking on the state's web page – has only looked at this web site.
- Yes, it was adequate but not complete.
- Doesn't recall any problems with the information presented.

Q10. How do you feel about the level of community involvement and outreach from the Project to the residences and businesses affected by the site?

Not aware of any outreach from USE	5
Should be more outreach	1
Only interacted with WDOE	1
No need for outreach	1
No answer	1

- From the company, doesn't know of any outreach they've done; from the state, only received a few emails, no monitoring reports. She would trust it more if information came from the state; not clear if sub-contractors operate the site; not clear who's done what. Suspicious of state allowing USE to use unlined trenches, but not rest of Hanford; they (Hanford) have to clean that up and use lined trenches. US Ecology (USE) is not part of Hanford public process even though in the middle of Hanford.
- He's not aware of any proactive communication program by USE; only knows of EIS communications done by WDEC.
- There should be a lot more; there tends to be two perspectives by companies who work with radioactive materials – either want to operate below the radar or be proactive. US Ecology (USE) could do a better job and share some more information about their operations. An initiative was recently passed by area voters (I297) that would directly impact USE operations; it would stop any shipments of radioactive waste until Hanford was cleaned up. This is currently in the Appeals court for consideration.
- She doesn't think there's any need for outreach. They are subject to regulatory processes with public involvement components that were met as needed. It's best to keep a low-profile. They perform a good service and as long as they are meeting regulatory requirements, good to keep a low profile.

Q11. Do you feel you have been kept adequately informed? If not, what can be done to change this?

No	3
Need more info from USE	3
As informed as want to be	2
Doesn't recall much info from USE	3
Biggest disconnect is that the site is within Hanford but not of Hanford	1
Participate in Hanford activities/reporting requirements	1
Would expect adequate notice of public participation opportunities	1
No answer	1

- She hasn't been kept adequately informed; the biggest disconnect – they're (USE) not part of Hanford; following the same rules as the rest of the site (Hanford); if they would just bring

themselves into the rest of Hanford activities, follow the same reporting requirements, join information sharing process.
- US Ecology (USE) could share a lot more information. He thinks USE is almost invisible to the community – one needs to go looking for it.
- No. She would expect public forums adequately advertised to provide updates. Updates should be substantive enough that the public would understand any contamination issues and be given opportunities to comment.

Q12. What is the best way to provide information to you? How frequently?

E-mail	6
Yearly	2
Brief updates in mail	3
Quarterly	2

- Easiest is email list with links to where information is kept; provide POCs; with email, they can then forward the information to other interested people; use the same list as Hanford; same regulatory stuff that leds to disconnect between USE and Hanford, does MTCA cover rad or not? DOH needs to get engaged also – don't consider themselves part of the Hanford community; needs to start interacting with Hanford community/HAB. Depends on the project, quarterly; use pdf of fact sheets, they don't need paper copies. Also the state (WDEC) should keep their web site up to date.
- Short, graphically written materials mailed to him. Given his current interest, yearly would be enough.
- Email – he pays most attention to this; it's fast and effective. He would like to receive information at least quarterly.

Q13. Have you participated in any public meetings and/or HAB meetings for the site? How to improve?

Yes (for Hanford, not US Ecol)	4
Not specifically or substantively for US Ecol	4

Provide site information online	3
Provide opportunities for review/input	3
Have speakers able to discuss information in plain terms	1
Focus information on topics of concern to public	1
Get involved with the community; give presentations	1
Establish an Indian Policy for communication	1
State agencies need to get more involved	1

- Yes. But USE isn't part of these meetings since they don't do outreach 2: yes – for the EIS; there was a brief update, probably for the HAB but not sure. *How to improve?* Post monitoring reports online – they need the inventory; maybe time for them to review risk assessment with USE and WDEC; DOH is rather invisible; they send people to HAB but they don't say anything
- Not specifically for USE. He's attended the HAB meetings and has only participated in USE matters when they've been raised at the HAB; more than 15 years ago, he was involved in the licensing review, but nothing since then. *How to improve?* US Ecology (USE) has never given

a presentation to any civic groups; it would good if they became a little more involved with the community; without that involvement, they don't exist.

- Yes; the hearings related to the reactor core from Trojan. *How to improve?* No suggestions; the hearings were fine. She recalls a lot of analysis presented. It's important that the information is accessible. This area is unique in that there are always folks in this area who can answer questions about nuclear related items. She and others at the city often get calls from people out of the area with nuclear concerns and conveniently you don't need to go too far in this community to get appropriate answers.

Q14. In your opinion, what days of the week (and times) are best for community meetings?

Mid-week	4
Evening	6
No answer	1
Day	2
Weekends	1
Use local public TV	2
Meetings aren't useful	1
Need to notify people of meetings	1
Go to where people already are	1

- Both day and evening public meetings have been successful for Hanford; large enough retirement population and other interested folks to show up during the day; and enough of other interested folks who work during the day show up to the evening meetings. For evening meetings, don't have on a Friday and don't conflict with other activities that are occurring. There have been meetings about Hanford in Portland and Hood River, although he's not advocating these venues for USE.
- She's attended more luncheons – these tend to just have presentations. These are good to meet the needs of the people who follow these activities as part of their jobs. Evening meetings provide for more involvement opportunities for the average citizen.
- People aren't good at going to public meetings; they (the Hanford Communities) do programming for local public TV instead of holding meetings. People tune into the programs that they run on the public access channel. People are not attending meetings due to a lack of interest, they don't like doing meetings and they're not worried or scared.

Q15. Are you aware of the information repositories? Are these locations appropriate for the community?

Yes	8	
Good locations		4
Not for USE	1	
No	1	

- Yes; the CIC (Consolidated Information Center) – most Hanford and USE documents are housed there.
- Yes; but he doesn't think the public is always aware of these locations or the information available in them. There's been a lot of population growth in the area and no recent updates about the repositories – where they are, why, what they do. There's only a very small population that ever uses them.

Q16. Do you know who to contact at U.S. Ecology or WDOE regarding this site?

Yes	2
Yes for WDOE	2
Maybe	1
No	3

- Can look up the site but wouldn't have any hopes of getting on a list for monitoring reports.
- Probably has a card in her rolodex.

Q17. Would you be interested in being on a mailing list to receive information updates on cleanup activities at U.S. Ecology?

Yes	8	
	Email	3
	Prefer paper mail unless it's pressing info	3
No	1	

APPENDIX B: PUBLIC INFORMATION REPOSITORY LOCATIONS

Public Information Repositories for general information and technical documents about remediation activities are at the following locations:

Richland Public Library
1270 Lee Blvd
Richland, WA 99352
509-942-7454

Washington State Department of Ecology
Nuclear Waste Program
3100 Port of Benton Blvd
Richland WA 99354
509-372-7920

Washington State Department of Ecology
Headquarters Office
300 Desmond Drive
Lacey WA 98503
360-407-7224