**Exhibit A**

**Nature and Extent of Contamination**

This section describes the findings of the Remedial Investigation for all environmental media that were evaluated. As described in Section 6.1, samples were collected from various environmental media to characterize the nature and extent of contamination.

For each medium, a table summarizes the findings of the investigation. The tables present the range of contamination found at the site in the media and compares the data with the applicable SCGs for the site. The contaminants are arranged into volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), pesticides/ polychlorinated biphenyls (PCBs), and inorganics (metals and cyanide).

**Waste/Source Areas**

As described in the RI report, waste/source materials were identified at the site and are impacting groundwater and soil vapors.

Wastes are defined in 6 NYCRR Part 375-1.2(aw) and include solid, industrial and/or hazardous wastes. Source Areas are defined in 6 NYCRR Part 375(au). Source areas are areas of concern at a site were substantial quantities of contaminants are found which can migrate and release significant levels of contaminants to another environmental medium. Wastes and source areas identified at the site include drywells located off the southeastern comer of the main building. These drywells were used to dispose waste water containing solvents and oils. Soil vapors have been detected under the main building and have been mitigated. Investigations of additional potential source areas under the main building slab are being conducted which may support the need for further remediation pursuant to the ongoing RCRA Closure of the site.

The waste/source areas located off the southeastern corner of the main building were addressed by an IRM and the ongoing OU1 remedy. A soil vapor extraction system was installed in 1994 as an IRM and the OU1 remedy included the removal of approximately 800 tons of contaminated soil from the drywells in 1998.

**Groundwater**

A complete round of groundwater sampling data was collected from June 2009 through January 2010 and periodic groundwater sampling of selected outpost monitoring wells continued during 2011 and 2012.

Figure 2 provides the location of wells located within a 2.5 mile radius of the former Unisys site. Groundwater samples were collected from off-site monitoring wells, irrigation wells, and public supply wells. Groundwater flow is generally to the northwest, except in local areas affected by current pumping. Figure 3 provides approximate maximum extent and concentration distribution of total volatile organic compounds (VOCs) in groundwater regardless of the aquifer horizon.

As noted on Figure 3, VOCs [cis 1,2 dichloroethene (cis, DCE), trichloroethene (TCE), tetrachloroethene (PCE) and Freon 113] have been detected in on-site and off-site groundwater. The VOC distribution and peak concentrations in the Upper Glacial and Magothy aquifers zones are summarized below:

Upper Glacial Aquifer:

The VOC groundwater plume in the Upper Glacial aquifer, as defined by the 5 ppb contour on Figure 3, extends off-site approximately 1,400 feet north of Marcus Avenue and approximately 2,500 feet west of Lakeville Road. The groundwater flow is to the northwest. The peak VOC concentration of 260 ppb was detected in a monitoring well 18GL located approximately 400 feet northwest of the intersection of Marcus Avenue and Lakeville Road. In monitoring well 18GL, three out of four contaminants of concern (COCs) exceeded the Department’s Ambient Water Quality Standards and Guidance values (Standards, Criteria and Guidance-SCGs) of 5 ppb. No site-related VOCs were detected in monitoring well 16GL located approximately 2,000 feet north of the intersection between Marcus Avenue and Lakeville Road on the Great Neck North School property.

The groundwater plume, which is below the bottom of both Lake Success and Lake Surprise, has not affected either lake, and is not expected to impact these lakes in the future because the groundwater is below the bottom of the lakes.

Upper Magothy Aquifer:

The total VOC groundwater plume in the upper Magothy aquifer, as defined by the 5 ppb contour on Figure 3, extends off-site approximately 6,200 feet north of Marcus Avenue and approximately 4,800 feet west of Lakeville Road. The groundwater flow is to the northwest. At least one COC was detected at concentrations above the SCGs in 16 out of 22 wells. The peak VOC concentration of 580 ppb was found in a monitoring well 16ML located approximately 2,000 feet north of intersection between Marcus Avenue and Lakeville Road on the Great Neck North School property. A VOC concentration of 270 ppb was found in a monitoring well ERM-04 located approximately 500 feet west of Lakeville Road. A total VOC concentration of 130 ppb was found in an irrigation well N13266 located approximately 2,000 feet west of Lakeville Road on North Shore Golf Course (high rise residential buildings on the property). A total VOC concentration of 140 ppb was found in monitoring well 45MU located approximately 3,500 feet west of Lakeville Road and 3,000 feet north of Marcus Avenue on the Village of Lake Success property. A total VOC concentration of 4.9 ppb was found in monitoring well 15GL located approximately 250 feet south of Union Turnpike.

Middle Magothy Aquifer:

The total VOC plume, as defined by the 5 ppb contour on Figure 3, extends off-site approximately 6,000 feet north of Marcus Avenue and approximately 4,800 feet west of Lakeville Road. At least one COC was detected at concentrations above the SCGs in 12 out of 19 wells. The peak VOC concentration of 910 ppb was found in monitoring well 38MI located approximately 1,200 feet north of Marcus Avenue and 50 feet west of Lakeville Road.

A total VOC concentration of 230 ppb was found in monitoring well 43MI, located approximately 4,500 feet north of Marcus Avenue and 600 feet east of Community Drive Road on the Deepdale Golf Course property. Monitoring well 43MI is an outpost monitoring well for three public supply wells located northeast. The total VOC concentration in monitoring well 31MI, located approximately 5,000 feet north of Marcus Avenue and 500 feet east of Community Drive, was 360 ppb in 2009 and 430 ppb in 2012. Monitoring well 31MI is an outpost monitoring well for three public supply wells located to the northeast.

The total VOC concentration in monitoring well 46MI was 110 ppb in 2009 and 370 ppb in 2012. This well is located approximately 4,500 feet north of Marcus Avenue and 800 feet west of Community Drive. The total VOC concentration found in monitoring well 50MI was 330 ppb. This well is located southeast on an adjacent property. The VOC concentration found in monitoring well 44MI, located approximately 500 feet west of Lakeville Road, was 860 ppb. The total VOC concentration found in outpost monitoring well 51MI, for the public supply well N-5099, was non-detect in 2010 and 4.7 ppb in 2012. This well is located approximately 6,500 feet north of Marcus Avenue and 800 feet west of Community Drive on the Fresh Meadow Golf Course property.

The groundwater flow is to the northwest, except in local areas affected by current pumping. The Water Authority of Great Neck North supply wells N12999 and N13000 are actively pumping water for public supply purposes. The effect the pumping of these public supply wells have on the plume is seen as the 5 ppb VOC contour is deflected toward these pumping wells.

Basal Magothy Aquifer:

The VOC plume, as defined by the 5 ppb contour on Figure 3, extends off-site approximately 4,800 feet north of Marcus Avenue and approximately 6,000 feet west of Lakeville Road. The groundwater plume is migrating to the north-northwest. At least one COC was detected at concentrations above the SCGs in 8 out of 16 monitoring wells. The peak VOC concentration of 590 ppb was found in monitoring well 37ML located approximately 500 feet north of Marcus Avenue, and 300 feet west of Lakeville Road. A total VOC concentration of 15 ppb was found in monitoring well 15ML, located approximately 250 feet south of Union Turnpike.

Lloyd Aquifer:

The groundwater sampling results from the former Lloyd Public Supply Well N1802, Public Supply Well N12802, and Monitoring Well N12450 indicate that the site-related groundwater plume present in the overlying Upper Glacial and Maghothy aquifers is not present in the Lloyd aquifer. Public supply Well N1802 was located on the southwest side of the site. In 1996, the work performed to repair a hole in the casing of well N1802 had successfully eliminated the source of VOCs from the overlying aquifers. In 2011, a replacement Lloyd aquifer well (N13749) was installed approximately 25 feet from the former N1802 location. This well currently does not show any impacts from site-related COCs.

**Development of a Computer Groundwater Model**

A groundwater flow and solute transport model was developed for the site. The model was constructed in order to simulate groundwater flow throughout the entire thickness of the Upper Glacial and Magothy aquifers. A groundwater model documentation report is included in the OU2 Remedial Investigation Report and OU2 Feasibility Study Report, dated May 2012.

**Table 1 - Groundwater**

| Detected Constituents | Concentration Range Detected (ppb)a | SCGb  (ppb) | Frequency Exceeding SCG |
| --- | --- | --- | --- |
| **VOCs** | | | |
| Cis-1,2 Dichloroethene  Tetrachloroethene (PCE)  Trichloroethene (TCE)  1,1,2-Trichloro-1,2,2-triflouroethane (Freon 113) | ND to 630  ND to 95  ND to 190  ND to 29 | 5  5  5  5 | 74 of 143  46 of 143  69 of143  31of 143 |

a - ppb: parts per billion, which is equivalent to micrograms per liter, µg/L, in water.

b - SCG: Standard Criteria or Guidance - Ambient Water Quality Standards and Guidance Values (TOGs 1.1.1), 6 NYCRR Part 703, Surface water and Groundwater Quality Standards, and Part 5 of the New York State Sanitary Code (10 NYCRR Part 5).

ND: Non-detect

Based on the findings of the RI, the past disposal of hazardous waste has resulted in the contamination of groundwater. The site contaminants that are considered to be the primary contaminants of concern which will drive the remediation of groundwater to be addressed by the remedy selection process are: cis-1,2 dichloroethene (cis-1,2 DCE), trichloroethene (TCE), tetrachloroethene (PCE) and Freon 113.

**Surface Water**

No site-related surface water contamination of concern was identified during the RI. Therefore, no remedial alternatives need to be evaluated for surface water.

**Sediment**

No site-related sediment contamination of concern was identified during the RI. Therefore, no remedial alternatives need to be evaluated for sediment.

**Soil Vapor**

Off-site soil vapor intrusion (SVI) evaluations were conducted at eight properties in 2009. PCE was detected in the indoor air samples at concentrations ranging from non-detect to 1.7 micrograms per cubic meter (µg/m³), and TCE was detected at concentrations ranging from non-detect to 0.14 µg/m³. The levels of PCE and TCE detected in the indoor air are well below the New York State Department of Health's (NYSDOH) air guideline values of 30 µg/m³ for PCE and 5 µg/m³ for TCE, and do not represent a health concern. PCE was detected in sub-slab soil gas samples ranging from 0.7 µg/m³ to 33 µg/m³ and TCE was detected at concentrations ranging from 0.34 µg/m³to 23 µg/m³.  Based on an evaluation of the indoor air and sub-slab soil gas concentrations, soil vapor intrusion is not affecting the indoor air quality of the off-site structures. No further actions are warranted.

**Exhibit B**

**Description of Remedial Alternatives**

With the exception of Alternative No. 1, No Action, each of the alternatives includes the following common remedial element:

* Public Water Supply Protection and Mitigation Program - A program that promotes the distribution of potable water of the highest quality will be developed and implemented, until such time as groundwater standards are achieved in all areas impacted by the Unisys Groundwater Plume. The program will be consistent with the requirements of Subpart 5-1 of the State Sanitary Code and will include, but may not be limited to, the following:
  + an installation, operation and maintenance plan for public water supply wellhead treatment systems (including continued operation of all existing systems or installation of additional treatment systems or upgrades to existing systems) on wells affected by site-related contamination, now or in the future, to assure for as long as the wells are used as public water supply sources that drinking water standards are achieved and that the finished water is of no lesser quality as currently distributed due to actions taken as part of this remedy;
  + a monitoring plan that will include, but may not be limited to, groundwater monitoring at sentinel wells installed upgradient of water supply wells that could potentially be affected by the continued migration of the groundwater contamination;
  + periodic updates on the groundwater model simulation results to track contaminant migration; and
  + a response plan that will be implemented if site-related contaminant concentration(s) in the sentinel well(s) approach or exceed site-specific action levels and will include, but may not be limited to, notifying the Department, NYSDOH, County Health Department and the potentially impacted water district and evaluating the rate of movement of site-related contaminants toward the public supply well(s) and the need for wellhead treatment. If treatment is needed, an appropriate system will be designed, installed and maintained at the wellhead.

The following alternatives were considered based on the remedial action objectives (see Section 6.5) to address the contaminated media identified at the site as described in Exhibit A.

**Alternative 1: No Action**

The No Action Alternative is evaluated as a procedural requirement and as a basis for comparison. This alternative leaves the site in its present condition and does not provide any additional protection to public health and the environment. This baseline scenario does not include continued operation of the current OU2 groundwater IRM system. However, the OU1 soil and groundwater remedial systems will continue to operate as required by OU1 ROD and the order on consent to meet the remedial goals selected for the site.

The OU1 groundwater remediation system is located in the northeast corner of the site and includes a groundwater treatment plant and three remedial groundwater extraction wells. Treated water is conveyed to three off-site diffusion (recharge) wells located northeast of the site, on property owned by the New York State Office of Parks and Historic Preservation. This system is currently operating at a flow rate of 730 gpm.

Assuming that the existing OU2 IRM is turned off and no further off-site remediation is undertaken, a review of the groundwater modeling results predicts that the leading edge of the site related VOC plume will be approximately 2.5 miles downgradient of the site in approximately 30 years.

*Present Worth: $00*

*Capital Cost: $00*

*Annual Costs: $00*

**Alternative 2: Continue Operation of existing OU2 Groundwater IRM, Upgrade OU1 groundwater treatment system** **and Public Water Supply Protection and Mitigation Plan**

This Alternative recognizes the remediation of the site completed by the IRM(s) described in Section 6.2,and includes Site Management and Institutional Controls and Engineering Controls to confirm the effectiveness of the IRM. This alternative maintains engineering controls which were part of the IRM and includes institutional controls, in the form of an environmental easement and site management plan, necessary to protect public health and the environment from contamination remaining at the site after the IRMs. This alternative would include:

1. the continued operation of the existing 500 gpm OU2 IRM groundwater extraction and treatment system at the Great Neck School;
2. installation of a new 120 gpm extraction well and increasing capacity of the current OU1 groundwater remediation system from 730 gpm to 850 gpm; and
3. upgrade the existing groundwater and air emission control systems to accommodate the increased groundwater extraction in OU1.

This alternative would remediate 59% volume of impacted groundwater.

*Present Worth: $32,000,000*

*Capital Cost: $8,600,000*

*Annual Costs: $1,400,000*

**Alternative 3: Removing COCs with one Additional Treatment System and Public Water Supply Protection and Mitigation Plan**

This alternative would include:

1. the continued operation of the existing 500 gpm OU2 IRM groundwater extraction and treatment system at the Great Neck School;
2. installation of a new 120 gpm extraction well and upgrade of the current OU1 groundwater remediation system to treat additional treatment volume;
3. installation of another 500 gpm groundwater extraction and treatment system at the Village of Lake Success Golf Course (VLSGC) property and the diffusion of treated water on VLSGC property;
4. the treatment system should be designed to remove VOCs from all of the extracted groundwater to meet the State Pollutant Discharge Elimination System (SPDES) Permit discharge limitations; and
5. the installation of air emission controls, if required, to comply with the NYSDEC air regulations.

This alternative would remediate 68% volume of impacted groundwater.

*Present Worth: $55,000,000*

*Capital Cost: $20,000,000*

*Annual Costs: $2,500,000*

**Alternative 4: Removing COCs with two additional Treatment Systems and Public Water Supply Protection and Mitigation Plan**

This alternative would include:

1. continued operation of the existing 500 gpm OU2 IRM groundwater extraction and treatment system at the Great Neck School;
2. installation of a new 120 gpm extraction well and upgrade of the current OU1 groundwater remediation system to treat additional treatment volume;
3. installation of another 500 gpm groundwater extraction and treatment system at the Village of Lake Success Golf Course (VLSGC) property and the diffusion of treated water on VLSGC property;
4. installation of a 1,100 gpm groundwater extraction and treatment system at the North Shore Long Island Jewish Hospital (NSLIJH) property and the diffusion of treated water along the southeast portion of the NSLIJH property or the Deepdale golf course property;
5. the treatment system should be designed to remove VOCs from all of the extracted groundwater to meet the State Pollutant Discharge Elimination System (SPDES) Permit discharge limitations; and
6. the installation of air emission controls, if required, to comply with the NYSDEC air regulations.

This alternative would remediate 76% volume of impacted groundwater.

*Present Worth: $80,000,000*

*Capital Cost: $31,000,000*

*Annual Costs: $4,000,000*

**Alternative 5: Restoration to Pre-Disposal Conditions and Public Water Supply Protection and Mitigation Plan**

This alternative achieves all of the SCGs discussed in Section 6.1.1 and Exhibit A. This alternative will include:

1. Continued operation of the existing 500 gpm OU2 IRM groundwater extraction and treatment system at the Great Neck School;
2. installation of a new 120 gpm extraction well and upgrade of the current OU1 groundwater remediation system to treat additional treatment volume;
3. extraction of groundwater at a rate of 1,300 gpm from northwest of the Long Island Expressway (LIE), 1,000 gpm from the Fresh Meadow Country Club (FMCC), and 1000 gpm from North Shore Long Island Jewish Hospital (NSLIJH). The combined 3,300 gpm of extracted groundwater will be treated by two separate treatment plants at VLSGC and NSLIJH. The treated water will be diffused back into the aquifer by the diffusion wells;
4. the treatment system should be designed to remove VOCs from all of the extracted groundwater to meet the State Pollutant Discharge Elimination System (SPDES) Permit discharge limitations; and
5. the installation of air emission controls, if required, to comply with the NYSDEC air regulations.

This alternative would remediate 95% volume of impacted groundwater.

*Present Worth: $97,000,000*

*Capital Cost: $34,000,000*

*Annual Costs: $5,500,000*

**Exhibit C**

**Remedial Alternative Costs**

|  |  |  |  |
| --- | --- | --- | --- |
| **Remedial Alternative** | **Capital Cost ($)** | **Annual Costs ($)** | **Total Present Worth ($)** |
| No Action | 0 | 0 | 0 |
| Alternative 2 | 8,600,000 | 1,400,000 | 32,000,000 |
| Alternative 3 | 20,000,000 | 2,500,000 | 55,000,000 |
| Alternative 4 | 31,000,000 | 4,000,000 | 80,000,000 |
| Alternative 5 | 34,000,000 | 5,500,000 | 97,000,000 |
|  |  |  |  |

Remedial Alternative costs are adapted from the 2012 FS Report.

**Exhibit D**

**SUMMARY OF THE PROPOSED REMEDY**

The Department is proposing Alternative 2, which removes COCs and reduces impacts to public supply wells by treatment of off-site groundwater at three separate locations as the remedy for this site. Alternative 2 with a provision for the public water supply protection program would achieve the remediation goals for the site by preventing exposure to public health and the environment to site-related contamination, minimize potential impacts to the public water supply wells, reduce impacts to North Hills Special Groundwater Protection Area and treat elevated concentration of groundwater contamination off-site. The elements of this remedy are described in Section 7. The proposed remedy is depicted in Figure 4.

**Basis for Selection**

The proposed remedy is based on the results of the RI and the evaluation of alternatives. The criteria to which potential remedial alternatives are compared are defined in 6 NYCRR Part 375. A detailed discussion of the evaluation criteria and comparative analysis is included in the FS report.

The first two evaluation criteria are termed "threshold criteria" and must be satisfied in order for an alternative to be considered for selection.

1. Protection of Human Health and the Environment. This criterion is an overall evaluation of each alternative's ability to protect public health and the environment.

The proposed remedy, Alternative 2, would satisfy this criterion by continuing treatment of groundwater contamination at the existing OU1 and OU2 (IRM) groundwater treatment systems, upgrade the OU1 groundwater treatment system and implement a wellhead treatment plan for all public supply wells currently impacted, or threatened, by the Unisys site plume. The area is currently served by one public water supply with existing wellhead treatment.

Alternative 1 (No Action) is not protective of public health or the environment since it would discontinue the existing OU2 IRM groundwater treatment system thus deceasing, rather than achieving, protection of public health and the environment. Hence, Alternative 1 will not be evaluated further.

Alternative 5, by restoring the groundwater aquifer to pre-disposal/pre-release conditions meets the threshold criteria.Alternative 4 would control spread of higher concentrations of groundwater contamination in the area near the two new pump and treat locations. Alternatives 3, 4 and 5 would provide varying degrees of additional environmental protection as compared to Alternative 2 since these three alternatives would allow less migration of higher concentration groundwater within the plume, however they are not more protective of public health since Alternatives 2, 3, 4 and 5 would all require wellhead treatments at impacted public supply wells.

2. Compliance with New York State Standards, Criteria, and Guidance (SCGs). Compliance with SCGs addresses whether a remedy will meet environmental laws, regulations, and other standards and criteria. In addition, this criterion includes the consideration of guidance which the Department has determined to be applicable on a case-specific basis.

Alternatives 2, 3, 4 and 5 would meet SCGs for groundwater to varying degrees. The additional pumping and treating (P&T) of Alternatives 3,4 and will provide SCG compliance in somewhat reduced time periods than Alternative 2 since they allow less migration of higher concentration groundwater. Alternative 2 will meet groundwater standards eventually, but a wider area will be affected before this occurs. However, under for all alternatives, wellhead treatment will be required at the currently impacted well and threatened well for at least 20 years.

The next six "primary balancing criteria" are used to compare the positive and negative aspects of each of the remedial strategies.

3. Long-term Effectiveness and Permanence. This criterion evaluates the long-term effectiveness of the remedial alternatives after implementation.

Alternatives 3, 4 and 5 would reduce the contaminant mass to varying degrees before reaching public supply wells and thus providing marginally better long-term effectiveness and permanence for environmental protection than Alternative 2. However, all alternatives would provide similar protection for public health. Alternative 2 would reduce less contaminant mass than other Alternatives 3, 4 and 5 before reaching public supply wells but provide similar protection for public health.

4. Reduction of Toxicity, Mobility or Volume. Preference is given to alternatives that permanently and significantly reduce the toxicity, mobility or volume of the wastes at the site.

Alternatives 2, 3, 4 and 5 all address the off-site contaminated groundwater to varying degrees and thus each result in reduction of the toxicity and mobility or volume of the contaminants in the off-site groundwater. Alternative 3, 4 and 5 would further reduce toxicity and mobility or volume at P&T locations. Alternatives 3 and 4 would not completely contain the groundwater plume, which will continue to spread in those areas outside the capture zone of the pump and treat systems, but to a lesser extent than Alternative 2. Alternative 5 best satisfies this criteria, by providing the most containment. Alternative 2 will reduce the toxicity and mobility or volume at public supply well locations, but plume will spread in those areas outside capture zone of public supply well locations.

5. Short-term Impacts and Effectiveness. The potential short-term adverse impacts of the remedial action upon the community, the workers, and the environment during the construction and/or implementation are evaluated. The length of time needed to achieve the remedial objectives is also estimated and compared against the other alternatives.

Alternative 2 poses minimal disruption to the community as the treatment systems are largely already installed and additional wells will not be required. Alternatives 3 through 5 will result in increased short-term impacts to the community due to the degree of difficulty of constructing the ever larger off-site groundwater pump and treatment systems. These systems would include a larger number of groundwater extraction wells, pipelines, treatment system(s) and points of discharge at several locations in the plume. There are potential risks to the community, workers, and environment that would result from the carrying out of these tasks under Alternatives 3, 4 and 5 to varying degrees associated with the significant construction related noise, dust, traffic and road closures within highly developed residential/commercial areas. These impacts would be controlled with the appropriate health and safety measures and proper engineering controls. Alternative 3 has the highest potential short-term impacts and would take the longest to implement followed by Alternatives 4 and 5.

6. Implementability. The technical and administrative feasibility of implementing each alternative are evaluated. Technical feasibility includes the difficulties associated with the construction of the remedy and the ability to monitor its effectiveness. For administrative feasibility, the availability of the necessary personnel and materials is evaluated along with potential difficulties in obtaining specific operating approvals, access for construction, institutional controls, and so forth.

There is a significantly greater degree of difficulty for the implementation of Alternatives 3, 4 and 5 as gaining access to multiple off-site properties (including park land) would be required for the construction of the wells, treatment systems and pipelines associated with these alternatives. This will require negotiation with several parties. All of this would be occurring within highly developed residential/commercial areas. Alternative 4 would have a somewhat lesser degree of difficulty relative to implementation, than Alternative 5. Alternative 3 would have a lesser degree of difficulty than Alternatives 4 and 5. The OU2 groundwater IRM is already implemented and operational. No impediments exist to implement Alternative 2. It could begin as soon as the ROD is issued.

7. Cost-Effectiveness. Capital costs and annual operation, maintenance, and monitoring costs are estimated for each alternative and compared on a present worth basis. Although cost-effectiveness is the last balancing criterion evaluated, where two or more alternatives have met the requirements of the other criteria, it can be used as the basis for the final decision.

The estimated total present worth for the four alternatives under consideration ranged from $32 to $97M. From the least expensive to the most expensive they are Alternative 2, Alternative 3, Alternative 4 and Alternative 5. While Alternatives 3 through 5 would result in some increase in environmental protection; and reduction in toxicity, mobility and volume by limiting expansion of the plume, they would all result in comparable degrees of protection of public health as all would have relied on wellhead protection. Long-term effectiveness also would be marginally more effective under Alternatives 5, 4 and 3, respectively than Alternative 2, though all would require wellhead protection for at least 20 years. Short-term impacts would be insignificant for Alternative 2, as would issues that could affect the implementability of this alternative, since it could proceed as soon as the ROD is issued. However, for Alternatives 3 through 5, significant nuisance short-term impacts to the community resulting from construction related noise, dust, traffic and road closures are likely. Issues relative to the implementability of Alternatives 3 through 5 would be significant, and experience with other such large projects indicate these issues (notably access) could result in months to years of delay in the implementation of these alternatives. Finally, given the incremental benefit to environmental protection, with comparable public health protection afforded by Alternatives 3 through 5, Alternative 2, at a cost of $32M, is viewed as the most cost effective alternative.

8. Land Use.

Alternative 2 does not require any change in land use or commitment of new land areas to construct the remedy. Alternatives 3, 4 and 5 should not result in any new restriction on current land use. However, there will be a commitment of land area for treatment facilities and wells, as well as the rights of way for the pipelines.

The final criterion, Community Acceptance, is considered a "modifying criterion" and is taken into account after evaluating those above. It is evaluated after public comments on the Proposed Remedial Action Plan have been received.

9. Community Acceptance. Concerns of the community regarding the investigation, the evaluation of alternatives, and the PRAP are evaluated. A responsiveness summary will be prepared that describes public comments received and the manner in which the Department will address the concerns raised. If the selected remedy differs significantly from the proposed remedy, notices to the public will be issued describing the differences and reasons for the changes.

Alternative 2 is being proposed because, as described above, it satisfies the threshold criteria and provides the best balance of the balancing criterion.