1.0 INTRODUCTION

This Cleanup Action Plan (CAP) has been prepared by the Washington State Department of Ecology (Ecology) to specify cleanup standards and identify the cleanup action to be implemented at the Weyerhaeuser Company's Chlor-Alkali Plant (Site). As required by the Model Toxics Control Act (MTCA), this CAP describes the selected alternative for remediation at the Site.

The selected cleanup action is primarily based upon the following documents:

- Remedial Investigation (RI) and Feasibility Study (FS) Work Plan (CH2M HILL, 1995)
- Remedial Investigation Report (CH2M HILL, 2001), and
- Feasibility Study Report (CH2M HILL, 2001).

The CAP is used by Ecology to govern the progress of site investigation and cleanup. An Agreed Order between the State of Washington and Weyerhaeuser will serve as a legal mechanism for implementation of the CAP. Implementation of the CAP will begin upon completion of a public comment period on the Agreed Order and CAP.

1.1 Organization

This draft CAP includes the following information:

- Brief description of the Site and its history
- The nature and extent of contamination at the Site
- The cleanup standards for the Site
- A description of the remedial alternative evaluation completed in the FS
- Ecology's selected cleanup action and justification for the selection

1.2 Declaration

Ecology's selected remedy is protective of human health and the environment. The selected remedy is also consistent with the preference of the State of Washington as stated in RCW 70.105D.030(1)(b) for permanent solutions. Ecology has made the determination that the selected remedy will comply with all applicable or relevant and appropriate requirements and will comply with WAC 173-340-360, Selection of Cleanup Actions.

1.3 Applicability

This CAP is applicable only to the Weyerhaeuser Chlor-Alkali Plant Site. Cleanup standards and cleanup actions have been developed as an overall remediation process conducted under Ecology oversight using MTCA authority.

1.4 Administrative Record

The documents used to make the decisions discussed in this CAP are listed in the Reference Section and are elements of the administrative record for the Site.

The CAP is available for public review at the Longview Public Library (1600 Louisiana St Longview, WA 98632). The entire administrative record is available for public review by appointment at Ecology's Southwest Regional Office (300 Desmond Drive, Lacey, WA 98503).

2.0 SITE DESCRIPTION

2.1 Site Location

The Weyerhaeuser Chlor-Alkali Plant is located on the north shore of the Columbia River, approximately 2 miles southwest of the city of Longview, in Cowlitz County in southwest Washington. The location of the plant site and its general features are presented in Figures 1 and 2 respectively. The topography of the plant site is flat, overlying a remnant of Mt. Coffin, an isolated basalt erosional peak. Prior to the Chlor-Alkali Plant development, Mt. Coffin was partially removed by quarrying to grade and the general area was filled and graded to make construction of the Site possible.

2.2 Site History

The Site produced chlorine and sodium hydroxide for use by the pulp and paper industry. Chlorine production using the mercury electrolytic cell process began in 1958, following construction of the No. 1 Cell Room. The plant was expanded in 1966 with the addition of a second cell room (the No. 2 Cell Room) and a liquefaction building. Chlorine production in the No. 1 Cell Room ceased in 1975. A year later, the mercury cells in the No. 2 Cell Room were converted to diaphragm cells (a non-mercury based process). The No. 1 Cell Room was demolished in 1991 and the No. 2 Cell Room continued to operate until 1999. All production operations ceased at the Site in March 1999. As a result of the operations prior to 1976, mercury was released to the Site from equipment and process leaks and spills.

2.3 Site Physical Characteristics

2.3.1 Site Geology

The Site is located on the floodplain of the Columbia River. In general, a surficial layer of dredged sand fill obtained from the river overlies the Columbia River alluvium. Flows of the Columbia River Basalt Group underlie the alluvium. Over the years, dredged sediment and gravel fill have been placed across portions of the site at a thickness of between 2 and 20 feet. Alluvium underlying the fill consists of silt, sandy silt, and silty sand. Fine-grained alluvial deposits predominate to a depth of approximately 200 feet, where the alluvium becomes generally a coarse-grained mixture of sand, gravel, and cobbles.

Basalt at the site is encountered at variable depths because of the buried remnant of Mt. Coffin. The residual basalt is closest to the ground surface directly over the former peak of Mt. Coffin and is deeper elsewhere. The remnant of Mt. Coffin has a major influence on groundwater flow directions in the southern portion of the Site.

2.3.2 Site Groundwater

Groundwater occurs in saturated portions of the alluvium and basalt at the Site. Groundwater occurring in alluvium is referred to as alluvial (or alluvial zone) groundwater, and groundwater occurring in basalt as basalt (or basalt zone) groundwater. Unlike other sites, these zones do not exist in a "layer cake" arrangement at the Site. Instead, the buried, but steep, relief associated with the remnant of Mt. Coffin allows basalt groundwater and alluvial groundwater to occur side-by-side in the southern portion of the site. A cross-sectional view of the Site's subsurface based on the existing Site monitoring wells is shown in Figure 3. Groundwater in both of these zones discharges to the Columbia River, which controls the base level of the local and regional hydrologic systems.

Groundwater occurs in the upper part of the fill and alluvium deposits under unconfined conditions at depths of 8 to 15 feet below ground surface (bgs) in the west area and 2.5 to 4.5 feet bgs in the former No. 1 Cell Room area. Groundwater elevations in the upper, finer-grained part of the alluvium, as determined by Site monitoring wells, are controlled by seasonal variations in precipitation and, to a lesser extent, by fluctuations in the Columbia River stage. Figure 4 depicts the location of all monitoring wells at the Site.

In general, groundwater elevations tend to be highest in the spring and lowest in the late summer or early fall. Figures 5 and 6 present seasonal (dry and wet, respectively) groundwater elevations at the Site. Groundwater levels appear to be influenced by precipitation to a greater degree than by Columbia River stage. Based on the RI findings, the hydraulic gradient in the alluvium ranges from 0.04 to 0.008, the hydraulic conductivity is estimated at 28 feet/day, and the horizontal groundwater flow velocity ranges from 1 to 6 feet/day.

The direction of groundwater flow varies across the Site but is generally towards the river. In the central and western portions of the site, groundwater generally flows to the west-southwest. In the eastern portion of the site, groundwater in the alluvium flows around the less permeable, buried remnant of Mt. Coffin, with south-southeasterly flow east of Mt. Coffin and west to southwesterly flow west of Mt. Coffin. The area where the elevation of basalt exceeds 10 feet (that is, basalt is present within 10 feet of the surface) exhibits a greater effect on shallow groundwater flow, as observed in the RI. Based on the RI findings, the hydraulic gradient in the basalt zone is estimated at 0.03, the hydraulic conductivity is estimated at 6×10^{-3} foot/day, and the horizontal groundwater flow velocity is estimated at approximately 0.004 foot/day.

Below a depth of approximately 200 feet, groundwater occurs in a productive, confined alluvial aquifer that serves as a source of process water for local industry. The total thickness of this aquifer is poorly documented, but is at least 130 feet thick.

2.3.3 Surface Water

The Columbia River forms the southeast boundary of the Site (Figure 1). No other surface waters are present either on the Site or nearby although an earthen ditch conveys storm water from the Maintenance Building, the Hog Fuel Storage Bin and the vicinity of the fresh water intake pipelines.

2.4 Nature & Extent of Contamination

The mercury released to the environment at the Chlor-Alkali Plant was elemental, inorganic, and has relatively low mobility. Elemental mercury is very dense and readily sinks under gravity through openings in media through which it travels (large pores, fractures, joints, etc.). Mercury stops moving when it encounters a pore or fracture too small for it to enter. The residual mercury will then slowly dissolve into groundwater or soil pore water. In the unsaturated zone, mercury also will enter the vapor phase. Because of its density, high surface tension, presence as a separate-phase liquid, and accumulation in basalt fractures, active mercury remediation at the Site is inherently complex and difficult.

Based on the Site's physical and geochemical conditions, methyl mercury, which is created by microbial action in anaerobic, chemically reducing environments, is not expected to exist at the Site. Use of mercury at the plant ceased in 1976, and all of the processes and equipment using mercury have been either converted to another type of process or removed. As a result, there are no remaining sources of mercury at the Site other than that residual from the earlier releases.

Information about the releases to soil and ground water are described below.

2.4.1 Soils

The RI Report presented the following conclusions regarding the nature and extent of mercury remaining in Site soil:

- The average concentration of mercury in the liquefaction and loading areas, the west area, and the stormwater drainage ditch is 3 mg/kg.
- In the brine spill area, the No. 2 Cell Room, and the brine treatment, caustic storage, and staging areas, the average concentration of mercury is 18 mg/kg.
- Mercury concentrations are highest (average concentrations are 46 mg/kg) within the areas of the former No. 1 Cell Room and surface impoundments.

2.4.2 Groundwater

The distribution of mercury in the two water-bearing zones (alluvial groundwater and basalt groundwater) is predominantly a result of their proximity to historical sources (particularly, the former No. 1 Cell Room and former surface impoundment area) and of groundwater flow.

A groundwater monitoring program was initiated at the Site in 1991 and continued on a quarterly basis through April 1997. Subsequently, sampling has been conducted semiannually. The monitoring program includes 21 wells located across the site. Site groundwater sampling results have shown that mercury concentrations are generally below detection limits in all areas of the Site except at the former No. 1 Cell Room and former surface impoundment area. In these areas, recent groundwater sampling indicates that mercury concentrations in alluvial and basalt groundwater range from below the detection limit of 0.0002 mg/L up to 0.160 mg/L.

Results from the RI also included the following information:

- Mercury concentrations in groundwater are remaining steady or decreasing with time. The rate of decrease is slowest in the area of the former No. 1 Cell Room and the former surface impoundments. Except for in these areas, mercury concentrations are at or below the MCL of 0.002 mg/L for mercury.
- Potential explanations for the slow decrease in mercury concentrations in the area of the former No. 1 Cell Room include the following:
  - The amount of groundwater flux (and therefore the rate of flushing) is limited because the asphalt cap reduces rainfall infiltration, and the permeability of the basalt and alluvium fill above the basalt is very low.
  - It is possible that small amounts of elemental mercury may be present below the water table as isolated globules in basalt fractures. If present, these globules could serve as an ongoing source of dissolved mercury in basalt groundwater.
- Although transient fluctuations in mercury concentrations may occur as a result of unusually high groundwater levels and rainfall conditions, concentrations in groundwater are not expected to increase substantially over time. The original mercury sources were removed from the plant more than 25 years ago. Additional mercury sources were addressed in subsequent removal actions as described in the RI Work Plan (CH2M HILL, 1995). Furthermore, results from soil and groundwater sampling suggest that leaching of mercury from soil to groundwater by infiltration and percolation of precipitation is not a major factor influencing mercury concentrations in groundwater.
- Mercury is not present in groundwater upgradient of the former No. 1 Cell Room and former surface impoundment area based on semiannual groundwater sampling at monitoring wells CH-7 and CH-8 collected since 1998.
- The basalt portion of the shallow aquifer contains higher mercury concentrations than the alluvial aquifer, but transmits less groundwater flow. Therefore, mercury flux contributed by the basalt aquifer constitutes a relatively insignificant amount of mercury to the surrounding groundwater and Columbia River.

2.4.3 Surface Water

Surface water characterization at the Chlor-Alkali Plant consisted of samples collected from the Columbia River (adjacent to and upstream and downstream of the plant) and stormwater samples from the facility's eastern drainage ditch—the only drainage that discharges directly to the river. None of the mercury concentrations exceed surface water criteria.

2.4.4 Sediments

Sediment samples show no significant difference in mercury concentrations as measured among upstream, adjacent, and downstream locations. None of the concentrations exceed sediment criteria.

2.5 Summary of Remedial Actions Previously Implemented at the Site

Extensive remedial actions have already been implemented to reduce mercury concentrations at the Site. These actions include:

- Cessation of onsite production activities involving mercury use
- Excavation of more than 40,000 tons of mercury-contaminated soil and sludge
- Recycling of more than 1,500 pounds of elemental mercury
- Removal of the No. 1 Cell Room and diffuser
- Installation of capping, paving, or structures over 65 percent of the site
- Disposal of more than 14,000 tons of mercury-contaminated material (concrete, soil, etc.)

The most significant of these actions occurred under an Agreed Order with Ecology in 1991 when Weyerhaeuser demolished the No. 1 Cell Room and removed mercury-contaminated soil and material.

Wherever accessible mercury has been encountered it has been removed and recycled. Mercury present in soil, sludges, and debris has been largely removed or contained. As a result, mercury-associated human health and environmental risks have been greatly diminished. These actions are consistent with MTCA's preference for achieving permanent cleanup actions that protect human health and the environment.

3.0 Cleanup Standards

One of the requirements of the MTCA cleanup regulation (WAC 173-340) is to establish cleanup standards for individual sites. The two components of cleanup standards are cleanup levels (CULs) and points of compliance (POCs). A cleanup level represents a concentration at which a particular hazardous substance does not threaten human health or the environment. Risk levels for individual carcinogens not to exceed one in a million (10^{-6}) are established. For noncarcinogens, the risk should not cause acute or chronic effects in humans. Acceptable risk for noncarcinogens is represented by a hazard index of less than one (1). The goal is to address substances that are present in site media at concentrations exceeding a cleanup level.

Under MTCA, cleanup requirements are affected by property use, applicable regulations, environmental features, and technology limitations. These factors are important considerations when determining appropriate cleanup levels. Once cleanup levels are determined, POCs are designated at onsite locations where cleanup levels should be met.

The purpose of this section is to present the MTCA cleanup levels and POCs that have been selected in the CAP for the Weyerhaeuser Chlor-Alkali Plant Site.

3.1 MTCA Cleanup Levels Development Process

MTCA cleanup levels for the Site were developed following procedures presented in WAC 173-340-700 through 760 ("Cleanup Standards") and by reviewing applicable federal and state requirements (ARARs, or applicable or relevant and appropriate requirements) for the Site as required in WAC 173-340-380(1)(a)(vii).

Applicable state and federal laws for this cleanup action are identified in Table 1. The list of ARARs presented in Table 1 does not preclude subsequent identification of applicable state and federal laws (WAC 173-340-380 (1)(a)(vii)).

Table 1

Applicable Promulgated Chemical -Specific Standards and Criteria (ARARs)

Environmental Media Standards or Criteria	Source
Groundwater	
Federal Maximum Contaminant Levels (MCLs)	40 CFR 141 and 142
Federal MCL Goals	40 CFR 141 and 142
Washington State Water Quality Standards for Groundwater	WAC 173-200
Washington MTCA CULs for Surface Water*	WAC 173-340
Washington Water Quality Standards for Surface Waters	WAC 173-201A
Washington MTCA CULs for Groundwater	WAC 173-340
Surface Water	
Federal Water Quality Criteria for Surface Water, Freshwater Acute	40 CFR 131
Federal Water Quality Criteria for Surface Water, Freshwater Chronic	40 CFR 131
Federal Water Quality Criteria for the Consumption of Organisms Only	40 CFR 131
Washington MTCA CULs for Surface Water	WAC 173-340
Washington Water Quality Standards for Freshwater, Chronic	WAC 173-201A
Washington Water Quality Standards for Freshwater, Acute	WAC 173-201A
Soil	
Washington State MTCA CULs	WAC 173-340
Sediment	
Washington State MTCA CULs	WAC 173-340
Washington State Sediment Management Standards	WAC 173-204

Notes:
CULs = Cleanup levels
MCL = Maximum contaminant level
*Groundwater is not a source of drinking water but discharges into the Columbia River, a Class A Surface Water, a potential future source of drinking water.

As determined in the RI Report, only mercury has been identified as a hazardous substance subject to MTCA cleanup requirements. Therefore, it is not necessary to adjust cleanup levels that would be necessary if multiple hazardous substances were present (WAC 173-340-708).

Ecology considered the following factors in developing MTCA cleanup levels:

- The frequency of mercury detection and its concentration
- The possible environmental fate of the mercury
- The contaminant's mobility and potential for exposure to human health and environmental receptors

3.2 Site Cleanup Levels

Results of the RI/FS Reports assisted in the selection of Site cleanup levels. On the basis of these findings, the MTCA cleanup levels established for all media are presented in the following sections.

3.2.1 Soil

The following MTCA cleanup methods have been determined to be applicable to the Site soils:

- The MTCA Method A mercury soil cleanup level of 2 mg/kg for industrial properties. This concentration is based on protection of groundwater (WAC 173-340-745, Table 745-1).

- The current MTCA Method C mercury soil cleanup level of 1,005 mg/kg. This cleanup level is based on direct contact by industrial workers (CLARC II, February 1996). Use of this cleanup level would require institutional controls to ensure that exposure to Site soil remains consistent with the industrial exposure assumptions.

Under WAC 173 340-720, Ecology may establish more stringent cleanup level concentrations to protect groundwater. The proposed MTCA cleanup level for mercury in Site soil is presented in Table 2; this cleanup level is as stringent as concentrations obtained from the applicable criteria (see 173-340-700 (3)(a) and (4)(a)).

TABLE 2

MTCA CLEANUP LEVELS
Applicable Criteria for Soil

Analyte	Unit	Method C Industrial	Method A and Method C to Protect Groundwater	Lowest Proposed Final CUL to Protect Groundwater
Mercury	mg/kg	1,005	2	**2**

Applicable Criteria for Groundwater

Analyte	Unit	MCL	MCLG	Hazard Quotient	MTCA Method B	Acute AWQC	Chronic AWQC	Proposed Final CUL
Mercury	μg/L	2	2	0.417	4.8	2.1	0.012	**0.012***

*0.012 μg/L = 0.000012 mg/L
AWQC = ambient water quality criteria

3.2.2 Groundwater

As discussed in the RI Report, groundwater occurs in saturated portions of the alluvial and bedrock basalt zones at the Site. Groundwater beneath the Site discharges to the river.

Groundwater in the vicinity of the Chlor-Alkali Plant is not used as a drinking water source. Because groundwater discharges to the river, a Class A water body (WAC 173-201A), protection of surface water is required. No exceedances of surface water criteria have been detected in the Columbia River adjacent to or immediately downstream of the site.

Characteristic uses for Class A water bodies include: domestic, industrial, and agricultural water supply; stock watering; fish and shellfish habitat; wildlife habitat; recreation; commerce; and navigation. An applicable or relevant and appropriate requirement (ARAR) value can be used as a MTCA groundwater or surface water cleanup level if it is sufficiently protective of human health and the environment. MTCA Method B cleanup levels for groundwater are considered to be appropriate for the Chlor-Alkali Plant groundwater because they establish concentrations that are protective of nearby surface waters (WAC 173-340-730(3)(b)(i)(B)). Method B groundwater cleanup levels were developed from the following sources:

- Drinking water levels, including ARARs such as MCLs and maximum contaminant level goals (MCLGs)
- Surface water levels, including water quality criteria published under WAC 173-201A, *Water Quality Standards for Surface Waters of the State of Washington*

Table 2 presents the applicable cleanup criteria for chemicals detected in Site groundwater. Both drinking water and surface freshwater criteria are presented. The final Method B cleanup level should be the most stringent concentration obtained from the applicable criteria. Table 2 also presents the selected cleanup level for groundwater at the Site.

3.2.3 Surface Water

Because surface water does not exceed applicable criteria, development of MTCA cleanup standards for surface water is not required.

3.2.4 Sediment

Chemical concentrations in sediments are equal to or less than the current and proposed sediment management standards. As such, the sediments do not have adverse effects on biological resources or pose a significant threat to human health.

Development of MTCA cleanup standards for sediments is not required.

3.3 Points of Compliance

MTCA defines POC(s) as the point or points where cleanup levels shall be attained. Based on the results of the preliminary cleanup levels development, the following POCs have been identified for soil and groundwater at the Site. POCs have not been identified for surface water or sediments because applicable criteria for these media have been met.

3.3.1 Soil

Soil cleanup levels for this Site are based on the protection of groundwater. The point of compliance shall be established in soils throughout the site.

Ecology's expectations regarding the POC for soil cleanup levels to protect groundwater are achieved by consideration of containment provided by the surface cover currently existing at the Site.

3.3.2 Groundwater

For groundwater, the POC(s) is the point or points where groundwater cleanup levels must be attained. Under MTCA, the POC for groundwater is typically throughout the Site, vertically from the uppermost level of the saturated zone to the lowest depth that could be affected by mercury from the plant. Groundwater at the Site is not a source of drinking water. There is little risk of direct exposure to onsite workers. The current land use of the Site is industrial, and land use will remain industrial for the foreseeable future. Therefore, at this Site, where the (alluvial and basalt) groundwater flows into nearby surface water, the cleanup level is based on protection of the Columbia River.

- As provided under 173-340-720(8)(d)(i), a conditional POC for groundwater will be established that is located within the river as close as technically possible to the point or points where ground water flows into the River.

Under MTCA, specific monitoring requirements will be determined in the Compliance Monitoring Plan to confirm the long-term effectiveness of the selected remedy.

4.0 Summary of Remedial Action Alternatives

Cleanup alternatives for soil and groundwater were evaluated during the FS. Remedies that provided improvement over existing site conditions were retained for additional evaluation. For example, source removal and soil capping are not considered because source removal was done previously and most of the Site is already capped.

Similarly, for groundwater, available mercury treatment options were limited to proven technologies. The FS applied EPA's remediation difficulty scale (EPA, 1993) to assist in the identification and assessment of mercury treatment technologies given the unique physical and chemical characteristics of mercury, the distribution of mercury onsite, and the site-specific features (geology, hydraulics, flow). It was determined to be technically impractical to apply groundwater treatment to the basalt groundwater zone because mercury is likely trapped in fractures with very low hydraulic conductivity. Table 3 presents the remedial actions evaluated according WAC 173-340-360.

TABLE 3
Remedial Action Evaluation

Soil Alternative 1	Institutional Controls
Soil Alternative 2	Excavation and Offsite Disposal
Groundwater Alternative 1	Institutional Controls and Monitoring
Groundwater Alternative 2	Containment through Barrier Wall, Treatment, and Monitoring
Groundwater Alternative 3	Collection and Containment through Groundwater Extraction, Treatment, and Monitoring

The recommended remedial alternatives for soil and groundwater at the Site include:

- **Soil:** Implement Institutional Controls
- **Groundwater:** Implement Institutional Controls and Conduct Groundwater Monitoring

These alternatives meet MTCA requirements and represent the most effective and appropriate cleanup actions following the extensive cleanup measures the Site has previously undergone. Active, engineered remedial soil or groundwater alternatives would not significantly reduce the mercury concentrations in the groundwater or alter its potential impact to the Columbia River. Engineered remedial groundwater alternatives that involve the use of a barrier wall, a collection trench, or extraction through pump and treat were not selected as the preferred alternative for the following reasons:

- These technologies would not effectively reduce mercury concentrations in groundwater regardless of the alternative selected.
- These technologies would not reliably achieve the low cleanup standard selected (based on protection to the River).
- The effect of these technologies would be limited to the area of an engineered alternative or extraction, and it is unlikely that the MTCA groundwater cleanup level (based on protection to the River) could be achieved within that area.
- The groundwater treatment alternatives evaluated in the FS ranged in cost from $6.5 million to $6.6 million. All of these costs are substantially disproportionate to the incremental degree of protection these alternatives would provide to groundwater conditions and to the Columbia River.

Recommended Alternative: Implement Institutional Controls and Conduct Monitoring

The key elements of the recommended alternative include:

- Limiting site access: Access to the site will continue to be restricted through maintenance and inspections of fencing and gates .
- Institute deed restrictions: Deed restrictions will be placed on the property so that future use will remain industrial. Deed restrictions will also prevent the use of unconfined alluvial zone or basalt zone groundwater (as described in Section 2.3.2) in the vicinity of the Chlor-Alkali Plant.
- Limiting infiltration: Asphalt paving throughout the site will be maintained to minimize infiltration.
- Groundwater monitoring: A long term groundwater monitoring plan will be developed for Ecology approval and implementation at the site.

This alternative is selected because:

- Source control has been conducted to the maximum extent practicable.
- The residual contamination does not pose an unacceptable threat to human health or the environment.
- There is evidence that natural attenuation is occurring and will continue to occur.
- Appropriate monitoring will be adopted. Should monitoring indicate contaminant levels do not continue to decline (or if they are shown to increase) over time, other active, engineered alternatives may be reconsidered in accordance with WAC 173-340-420.

This alternative is consistent with Ecology's expectations and the acceptability of the natural processes of attenuation (including biodegradation, volatilization, and dilution) of hazardous substances where:

1. Source control has been conducted to the maximum extent practicable.
2. Residual contamination does not pose an unacceptable threat to human health or the environment.
3. There is evidence that natural attenuation is occurring and will continue to occur.
4. Appropriate monitoring is adopted.

In conclusion, the recommended alternative that includes institutional controls and long-term groundwater monitoring is protective of human health and the environment, meets MTCA requirements, and is consistent with the remedial action objectives selected for the Site. Use of the MTCA remedy evaluation criteria has resulted in the recommended alternative representing the most effective solution for this Site. Because of the extensive and proactive cleanup actions already completed, the alternative adopted in this CAP ensures that risks posed by the Site remain acceptable and in accordance with MTCA requirements.