

REUSE ASSESSMENT

Eagle Picher Carefree Battery Superfund Site Socorro, New Mexico

OCTOBER 2024

OVERVIEW

At Superfund sites, EPA's responsibility is to ensure the protection of human health and the environment. EPA also considers current and future land uses when making decisions during the cleanup process to maximize options for the future. EPA's Superfund Redevelopment Program (SRP) supports redevelopment planning for sites by bringing stakeholders to the table, understanding the community's land use goals and integrating those goals into the cleanup process as the Site allows.

The City of Socorro, New Mexico has a vision to leverage their strategic location and open space to boost the local economy and increase quality of life. To support this goal, SRP conducted a reuse assessment for the Eagle Picher Carefree Battery Superfund Site (the Site) that brought together EPA, the New Mexico Environment Department (NMED) and the City of Socorro to identify potential reuse options. In July 2023, EPA facilitated a site visit and reuse working session with city staff and mayor. This reuse assessment summarizes reuse goals, site assets and reuse suitability at the Site.

REDEVELOPMENT ASSETS

Redevelopment of the former Eagle Picher Carefree Battery site could leverage the following assets to benefit the local economy and residents.

- Approximately 55-acres owned by the City of Socorro available for redevelopment.
- Convenient access to NM 60 and I-25 at exit 152. The New Mexico Department of Transportation (NMDOT) and the City of Socorro are planning highway and road improvement projects that will allow for better access to the property.
- Located in a region with many cultural and natural advantages (see *Regional Assets*).

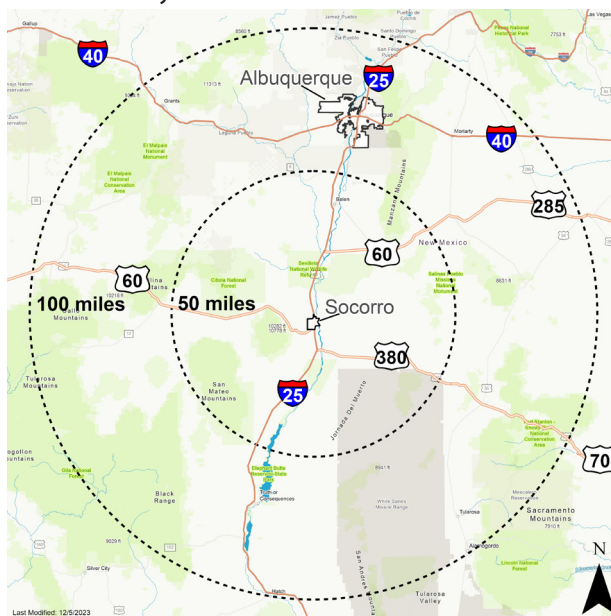


Figure 2. The Eagle Picher Site is strategically located within a regional transportation network.



Figure 1. Collapsed buildings at the Eagle Picher Site.

REGIONAL ASSETS

- **Education** - New Mexico Institute of Mining and Technology (NMT) is located in Socorro.
- **Natural** - Two national wildlife refuges, Bosque del Apache and Sevilleta are in Socorro County.
- **Transportation**- Socorro is one of three crossroads in New Mexico that allows travel both North/South and East/West via interstate.
- **Technology** - The county is home to the Very Large Array, the Incorporated Research Institutions for Seismology: Portable Array Seismic Studies of Continental Lithosphere (IRIS PASSCAL), the Energetic Materials Research Testing Center and the Magdalena Ridge Observatory.

SITE BACKGROUND

From 1964 until the late 1990s, Eagle Picher Carefree Battery manufactured various products including printed circuit boards and non-automotive lead-acid batteries on company property. Manufacturing activities and disposal practices by Eagle Picher contaminated Site soil and groundwater with Trichloroethylene (TCE), 1,1-Dichloroethene, Tetrachloroethylene (PCE), 1,4-dioxane, lead and asbestos. From 2000 to 2006, the Site was used as a motocross track. A flood in 2006 damaged the building and track, exposing lead battery plates and straps. EPA added the Site to the National Priorities List (NPL) in 2007.

The Eagle Picher Carefree Battery Superfund Site includes the 55-acre former Eagle Picher facility (the Source Area) and the 360-acre groundwater plume area south of the facility. EPA and NMED conducted investigations in 2014 and EPA proposed a remedy for treating soil and groundwater contamination, as well as clearing construction debris.

In December 2021, the Site was among those selected by EPA to receive cleanup funding under the Bipartisan Infrastructure Law. With this funding, EPA and NMED are working on cleanup plans for the Site. The cleanup will include the excavation and disposal of contaminated soil, the cleanup of company property buildings, and a pump and treat system for groundwater contamination.

The Source Area cleanup is in progress and includes the excavation and disposal of contaminated soil off-site at a regulated disposal facility and the removal of lead and asbestos from company property buildings.

EPA Region 6 and NMED plan to address the contaminated groundwater plume with a pump and treat system. One discharge option for the treated water involves installing an outfall into Newberry Pond, a former borrow pit located centrally within the plume at the intersection of Lopezville Rd. and Newberry Rd.

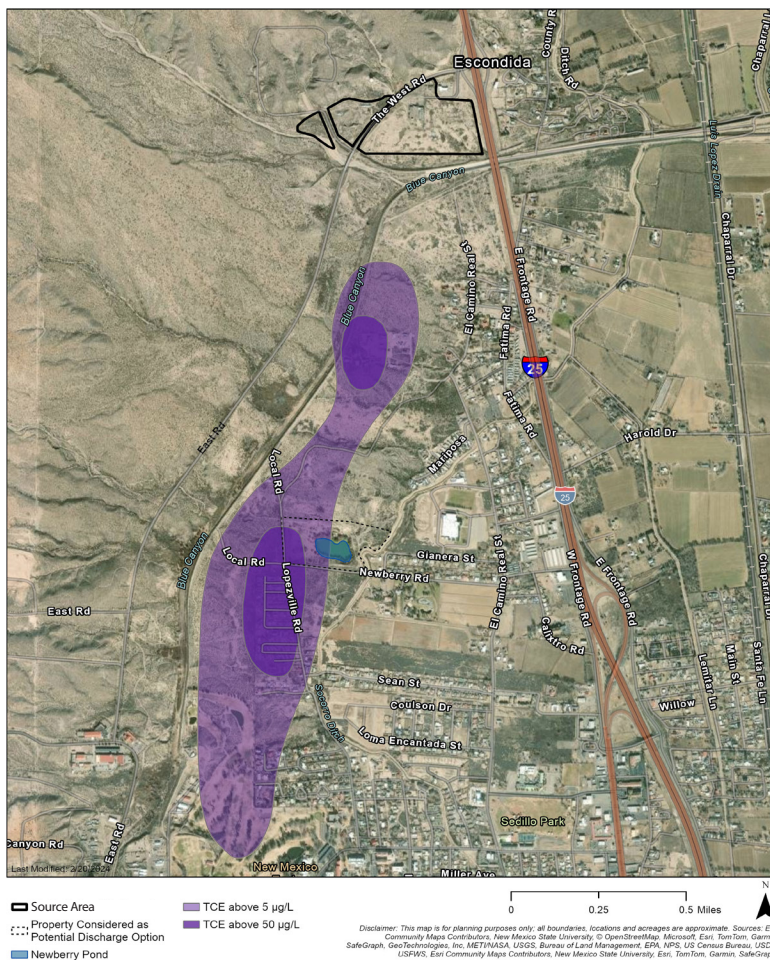


Figure 3. Extent of groundwater plume.



Figure 4. The Source Area North of NM 408.

REMEDIAL CONSIDERATIONS

SOURCE AREA

The Source Area cleanup includes excavating and disposing of contaminated soil off-site at a regulated disposal facility as well as removing lead and asbestos from company property buildings. EPA and NMED will require access to several monitoring wells located throughout the property. The cleanup will address soil contamination. After cleanup is complete, surface restrictions on future industrial use are not anticipated (such as digging foundations, or installing roadways or underground utilities).

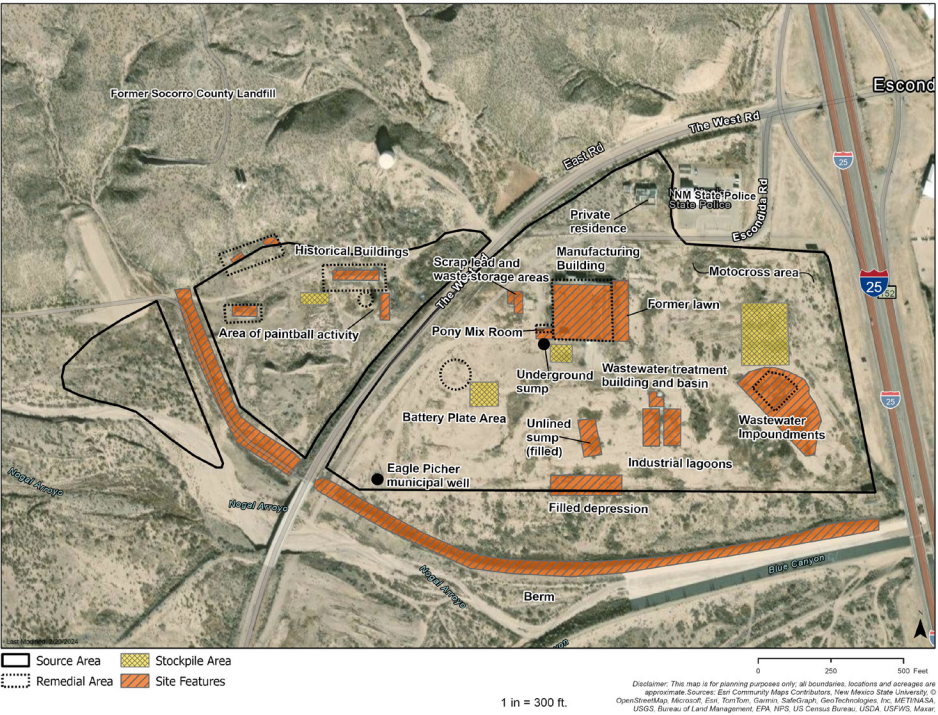


Figure 5. Site features for the Source Area.

NEWBERRY POND

NMED is in the planning phase to install a groundwater pump and treat system near the intersection of Lopezville Road and Newberry Road. The system is anticipated to operate for at least 30 years. Several options for discharging the treated water are being evaluated.

One option is to pipe the treated groundwater into Newberry Pond. The nearby pond's water level has remained consistent over time at between three feet and four feet deep and mature trees form the perimeter of the pond. Some work may be needed to prepare the pond for the additional discharge water.



Figure 6. Newberry Pond.

SOURCE AREA

FUTURE USE GOALS

To attract investment and support economic development, the city has proposed several ideas for redevelopment of the Source Area:

- Commercial and Retail Uses – convenient access to the highway and level area for buildings could host a range of commercial and retail uses. Ideas suggested include:
 - Truck stop/gas station.
 - Distribution center, server farm, or warehouse.
 - Tribe operated casino.
- Recreational and Tourism Supporting Uses – areas further from the highway could provide supporting uses. Ideas suggested include:
 - Overflow parking or storage.
 - RV park.

FUTURE USE ZONES

The city-owned properties have different Site and remedy-related characteristics that can inform redevelopment opportunities. The map and table below highlight future use zones based on Site features and remedy components. All zones are found within the Source Area of the Site and therefore would require coordination with EPA and NMED prior to development.

Zone	Remedial Considerations	Future Use Considerations
A - I-25 Frontage	Building remnants Monitoring wells require access Contamination in and under building	Infrastructure improvements required for water/sewer Concrete slab
A2 - Area West of NM State Police Station	Building remnants	State Police facility nearby
B - Area North of NM 408	Building remnants	Active police gun range nearby



Figure 7. Manufacturing Building (Zone A).



Figure 8. Area west of NM State Police Station (Zone A2).



Figure 9. Open space adjacent to NM State Police Station (Zone A2).



Figure 10. Area North of NM 408 (Zone B).

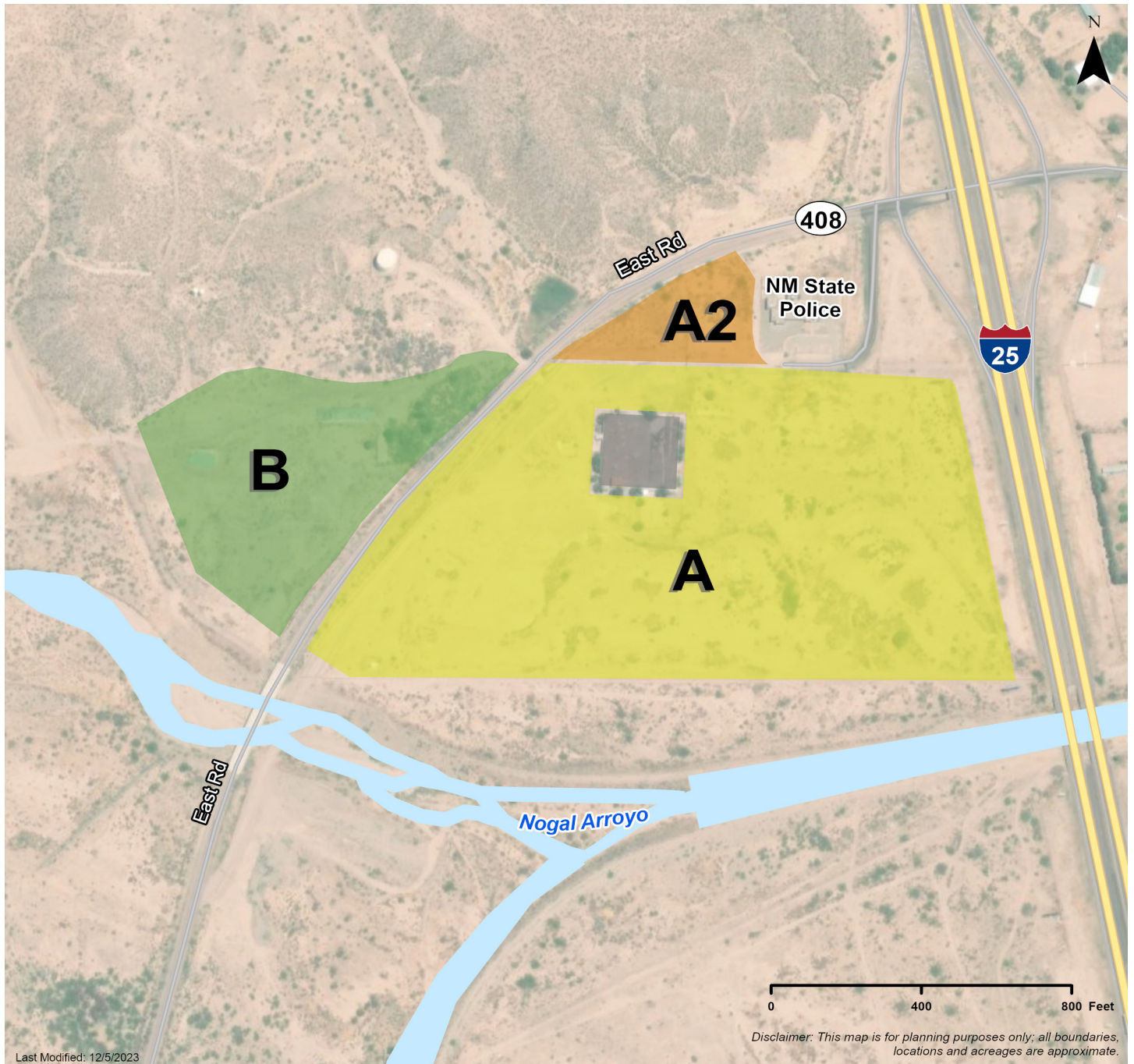


Figure 11. Reuse Suitability Map

- Zone A – I-25 Frontage (31.2 acres)**
 This area includes land south of the highway. A concrete slab is underlying the manufacturing building.
- Zone A2 – Area west of New Mexico State Police Station (1.82 acres)**
 This area is adjacent to the New Mexico State Police Station.
- Zone B – Area North of NM 408 (8.9 acres)**
 This area includes land north of the highway. There is an active gun range nearby.

NEWBERRY POND

FUTURE USE GOALS

If Newberry Pond is selected as the discharge location for treated groundwater, the City of Socorro has shared the following preliminary future use goals:

- Create a recreational amenity with perimeter parking and trails leading to the pond.
- Create pond access points for viewing and potentially fishing.
- Consider non-motorized water recreation options (e.g., inflatable slides and obstacles for water play). Water depth and the conditions of the bottom of the pond may be limiting factors.
- Provide areas for tent camping, benches and picnic tables.
- Add native plants to create an aesthetic garden-like experience in areas around the pond and side slopes.

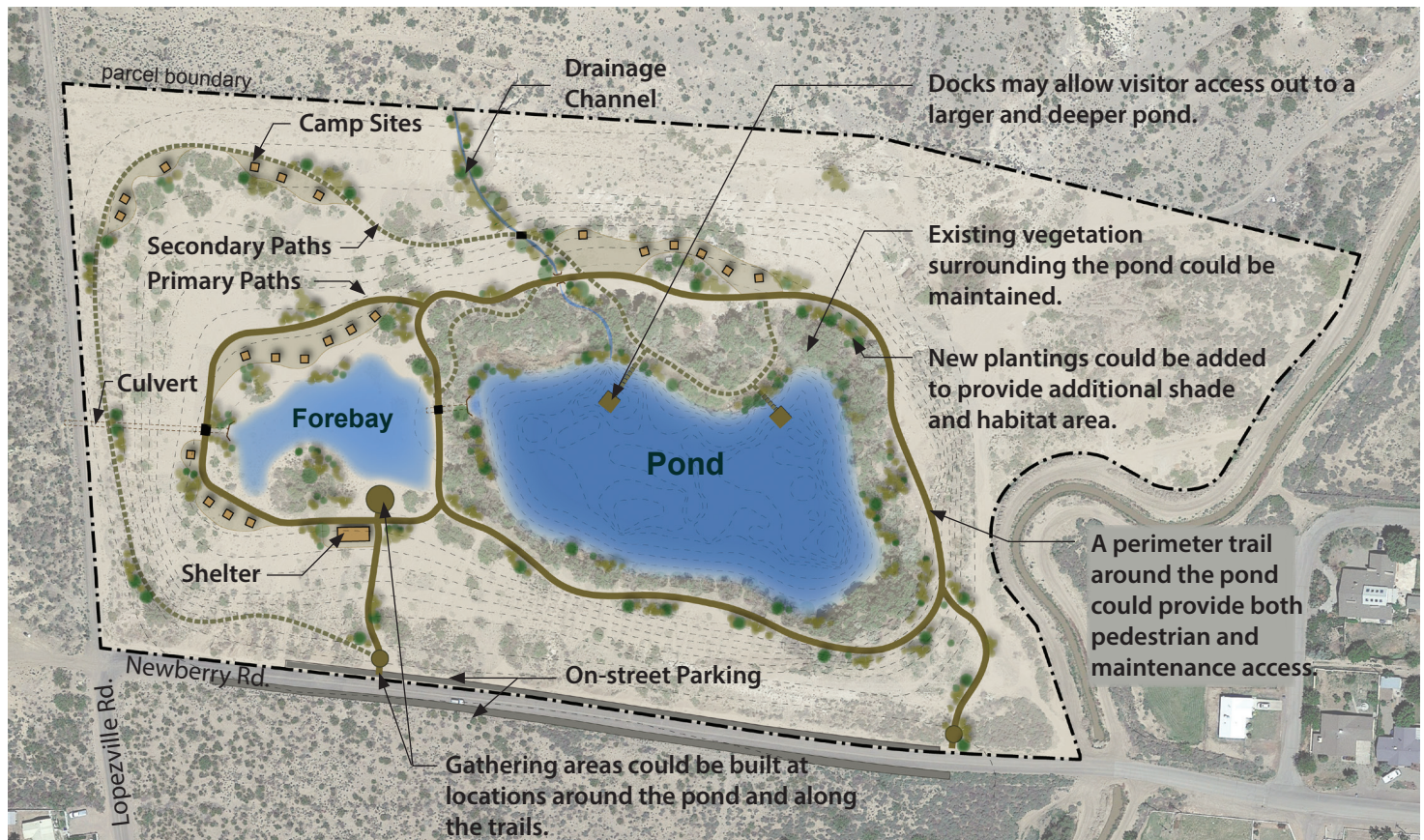
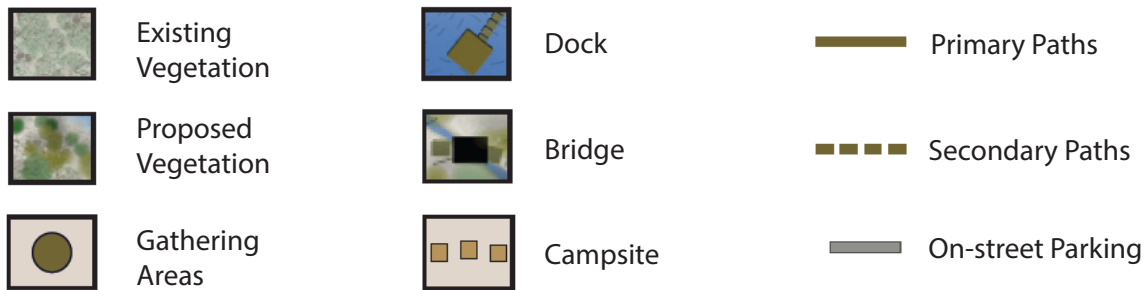


Figure 12. Newberry Pond Concept Plan



REMEDIAL DESIGN CONSIDERATIONS

EPA and NMED anticipate the groundwater discharge design to include a larger pond footprint to increase the pond's holding capacity. The design may also include erosion and sediment control features and support groundwater recharge. The following design features are being considered to help align cleanup and future use goals:

- A drainage system may be needed to address the stormwater runoff from the property to the north and to remove sediment before it enters the pond.
 - There may be an opportunity to plant the channel to improve both the channels appearance and function.
 - This may require access across the drainage channel for maintenance and could serve as a perimeter trail around the pond.
- The pond footprint will expand to hold the anticipated amount of treated water and to create an area for sediment control (forebay).
 - The design should consider multiple options to retain as much of the existing vegetation as possible.
 - The anticipated sediment erosion control area to the west of the pond (forebay) could have curved edges rather than a rectangular shape to match the topography and meet recreational and aesthetic goals.
 - The sediment control area may be able to accommodate plantings along the edges or in key areas to improve the character without compromising function and routine maintenance (such as dredging).
- The system is anticipated to include a system to carry the water to the pond.
 - There may be an opportunity to consider the location and type of mechanism for the system. For example, it could include a single pipe at the pond edge or, if a different appearance is desired by the city, the pipe could be set back into the slope with rocks to appear more like a water cascade.
- The area will require access for construction and maintenance.
 - There is an opportunity to provide pedestrian access through construction access points although separate pedestrian access points may be needed.
- Hydrologic considerations for the pond area, including infiltration rates and stormwater behavior, will influence the design selected.
 - The depth and quality of water may allow pedestrian access or amenities, for instance, a perimeter trail with viewing locations and potential water access points, such as docks.
- The pond property is part of the Site because a portion is above the contaminated groundwater plume. The current owner may be eligible for EPA's 1995 Policy Toward Owners of Properties Containing Contaminated Aquifers. The city is considering purchasing the pond property and leasing part of it to NMED as part of the response action.



Figure 13. Steep slopes and mature trees surrounding Newberry Pond.



Figure 14. Vegetation surrounding Newberry Pond.

MOVING FORWARD

The Eagle Picher Reuse Assessment is a tool to help the city position the Site property for redevelopment and to provide additional information for potential prospective purchasers. Sometimes, property within a Superfund site is incorrectly perceived to limit all reuse opportunities; and there are federal Superfund liability protection options available to successfully manage liability risk. Parties who are interested in purchasing or developing the Site property should contact the EPA Region 6 Superfund Redevelopment Coordinator or site team to better understand the next steps for acquiring and developing the property and learn about the available Superfund liability protections.

FEDERAL SUPERFUND LIABILITY PROTECTIONS

EPA works with prospective purchasers, local government entities involved in property acquisition and interested developers to ensure that interested parties are aware of the steps needed to manage Superfund liability issues. Property acquisition and future development should be coordinated closely with EPA Region 6 and NMED to ensure consistency with the Site's clean-up, including any site restrictions and operation and maintenance. The Superfund law provides important liability protections that could apply to prospective purchasers of parcels within the Site. Prospective purchasers who meet certain statutory criteria and comply with ongoing obligations can qualify for liability protections. EPA can provide additional information to interested parties.

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Figure 15. The Eagle Picher Source Area