Proposed Remedial Action Plan

Emmell's Septic Landfill Site
Galloway Township, New Jersey

Public Meeting

August 3, 2017

Meeting Participants

- ***Cecilia Echols – EPA Community Involvement Coordinator***
- ***Joe Gowers – EPA Project Manager***

OVERVIEW OF THE SUPERFUND PROCESS

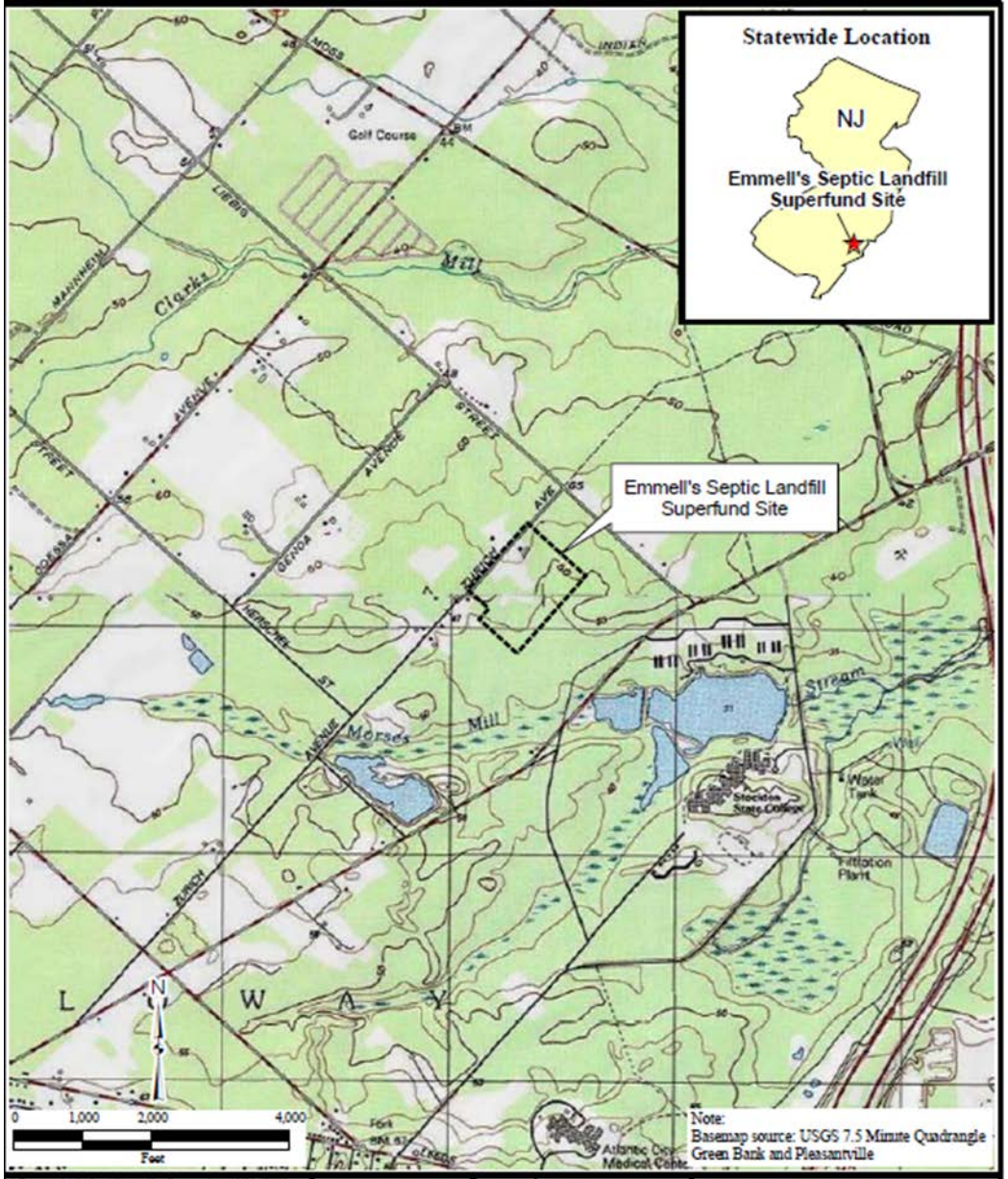
- **Site Discovery** - Information may come from concerned citizens or State or Local authorities.
- **Preliminary Assessment** – Initial evaluation of the site's potential hazards, based upon available background information.
- **Site Inspection** – Inspectors go to the site to collect additional information necessary to evaluate its hazard potential.
- **Site Ranking** – The relative threat posed by the site is assessed using the **Hazard Ranking System**. Sites that rank high enough are proposed for inclusion on the **National Priorities List (NPL),** making them eligible for Superfund cleanup.
- **Remedial Investigation/Feasibility Study (RI/FS)** – During the RI/FS, the nature and extent of contamination is defined and cleanup alternatives are evaluated.

OVERVIEW OF THE SUPERFUND PROCESS (continued)

- **Remedy Selection** - The selection of a cleanup action for the site or a portion of the site is detailed in a document known as a **Record of Decision (ROD)**.
- **Remedial Design** - The Remedial Design provides the details on how the cleanup action will be engineered and constructed.
- **Remedial Action** – The selected cleanup actions are implemented during the Remedial Action phase.
- **Deletion** – Once the site cleanup meets all cleanup goals, the site can be proposed for deletion from the NPL.

SITE HISTORY

- The Emmell's Septic Landfill Site is located at 128 South Zurich Avenue in Galloway Township, New Jersey.
- From 1967 through 1979, the site was used for the disposal of septic waste and sewerage sludge. Other chemical wastes were illegally disposed of at the site.
- Disposal activities at the site ceased in August 1979.
- The site was placed on the National Priorities List in 1999, making it eligible for Superfund cleanup.
- From July 1999 through February 2000, EPA's Removal Action Branch removed 435 drums and their contents, 11 compressed gas cylinders and 28,000 cubic yards of contaminated soil from the site.



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Source: HGL, ESRI Online Imagery

Legend

Site

Figure 1
Site Location Map

SITE HISTORY (continued)

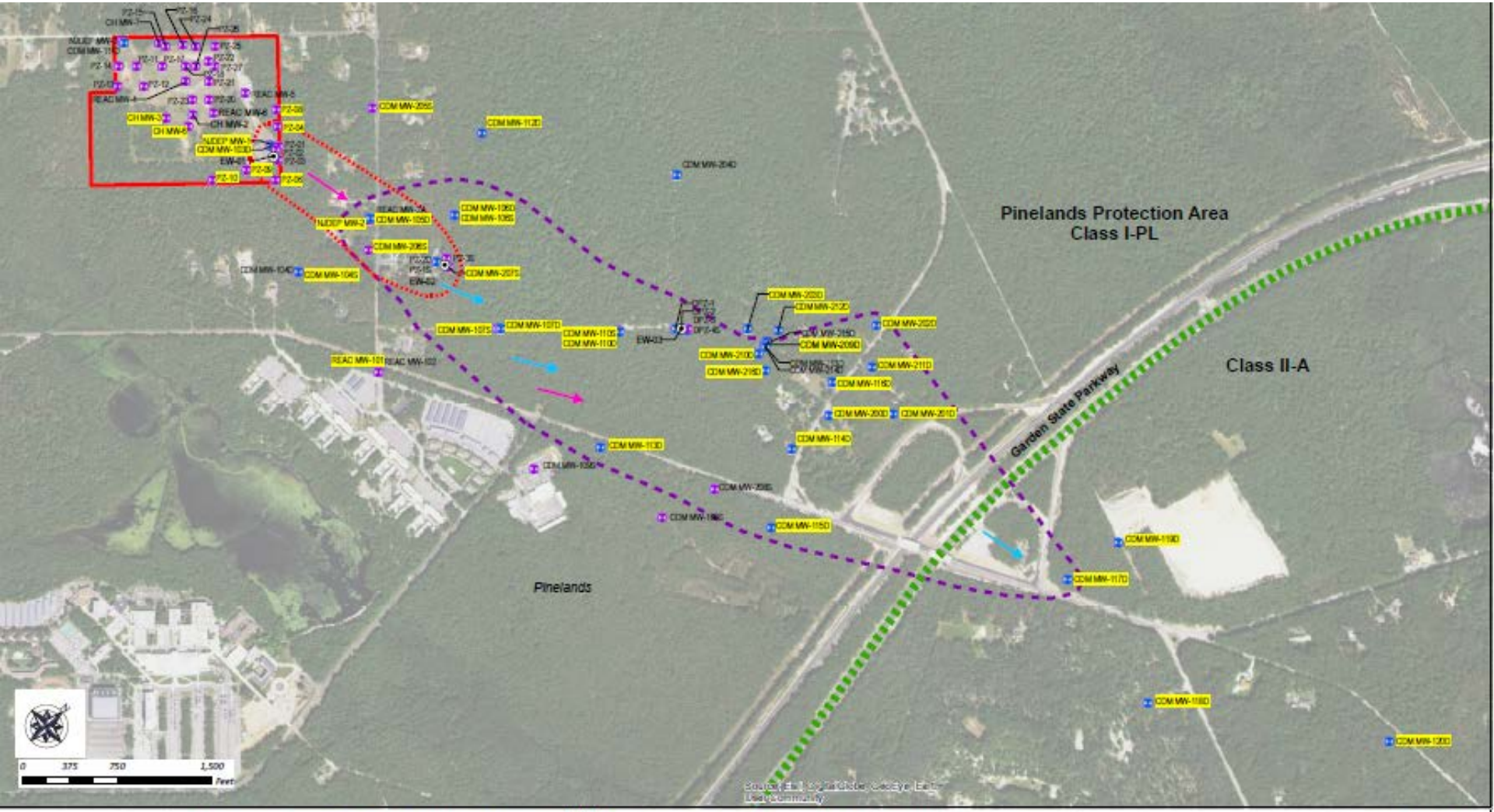
- A Focused Feasibility Study was conducted from 2000 to 2003 to evaluate whether implementation of an interim groundwater remedy was warranted.
- 36 residences threatened by site-related groundwater contamination were connected to the municipal water supply during the Summer of 2003.
- In September 2003, EPA signed a Record of Decision (ROD) which selected an interim groundwater remedy for the site.
- The interim remedy called for the extraction and treatment of contaminated groundwater from beneath the site property.

SITE HISTORY (continued)

- From 2002 through 2008, EPA conducted a site-wide remedial investigation to define soil and groundwater contamination at and in the vicinity of the site property.
- In September 2008, EPA signed another ROD which selected a final remedy for groundwater and soils contamination related to the site.
- The selected remedy called for the capture and treatment of groundwater contamination downgradient of the site property, and excavation and off-site disposal of soils contaminated with Polychlorinated Biphenyls (PCBs).
- In 2008, 2010, and 2017 EPA replaced 9 impacted or threatened residential wells with deeper wells installed in a clean water-bearing zone.

SITE HISTORY (continued)

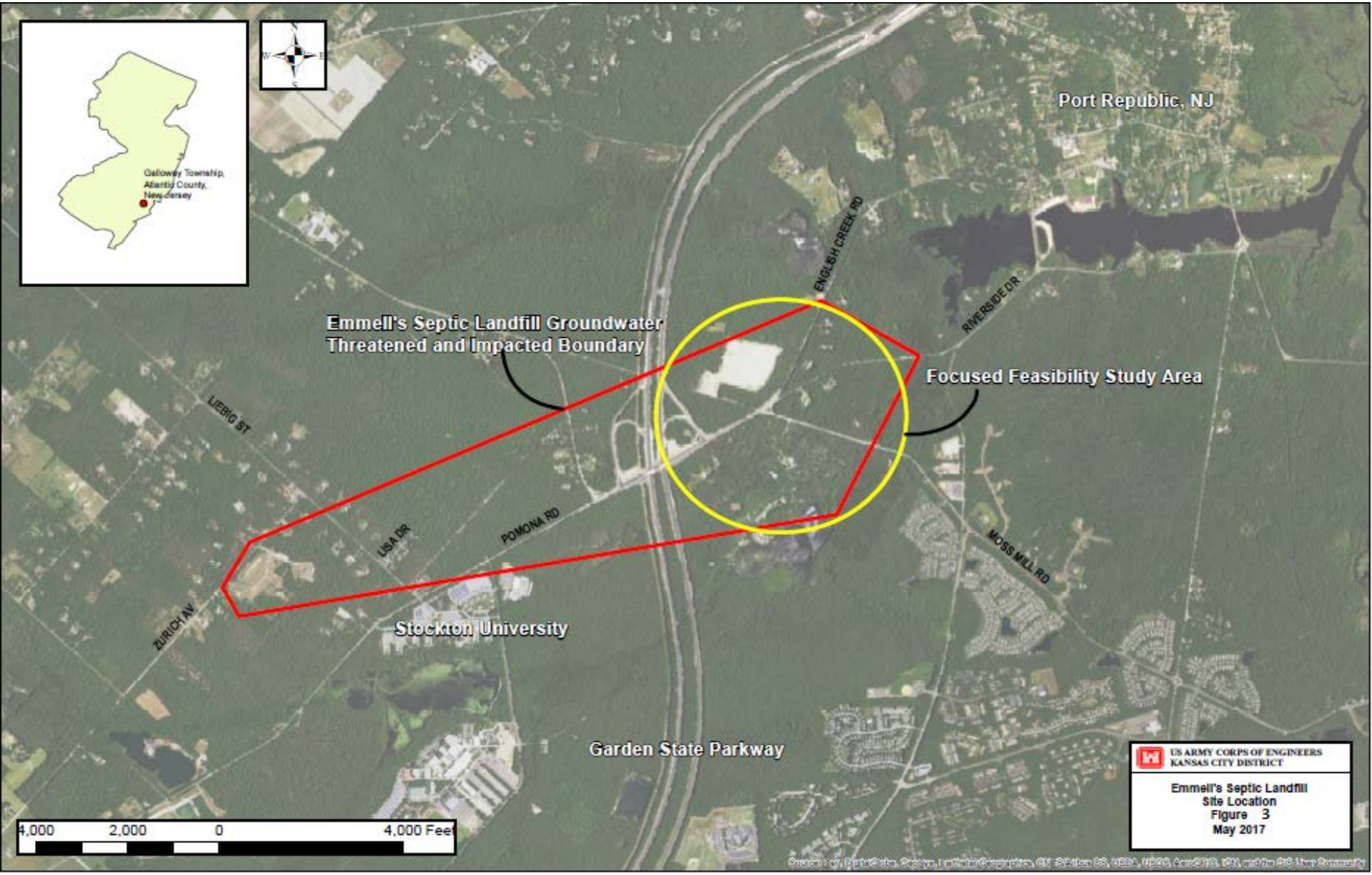
- Construction of the interim groundwater remedy was completed in September 2010. Groundwater was treated at a rate of 100 gallons per minute (gpm).
- Off-site disposal of over 26,000 cubic yards of PCB-contaminated soil was completed in September 2011.
- Operation of the final groundwater remedy was initiated during the Fall of 2012. Groundwater from 3 extraction wells is extracted and treated at a rate of 250 gpm.



Deep Monitoring Well
Shallow Monitoring Well
MW-## Well Included in Long Term Monitoring Plan
Extraction Well
Site Boundary
Deep Plume Limit Estimated
Shallow Plume Limit Estimated
Pinelands Boundary
Shallow Plume Flow Direction
Deep Plume Flow Direction

Plume limits based upon combined 1 µg/L limit of cis-1,2-DCE, vinyl chloride, and 1,1,1-TCA (2015-2016 data)

Figure 2
Extraction and Monitoring Wells
May 2017
Emmells Septic Landfill Superfund Site
Galloway Township, Atlantic County, New Jersey


Galloway Township,
Atlantic County,
New Jersey
Port Republic, NJ
ENGLISH CREEK RD
RIVERSIDE DR
Emmell's Septic Landfill Groundwater
Threatened and Impacted Boundary
Focused Feasibility Study Area
LIEBIG ST
USA DR
POMONA RD
MOSS MILL RD
ZURICH AV
Stockton University
Garden State Parkway
4,000 2,000 0 4,000 Feet
US ARMY CORPS OF ENGINEERS
KANSAS CITY DISTRICT
Emmell's Septic Landfill
Site Location
Figure 3
May 2017

RESIDENTIAL WELL SAMPLING

- In order to ensure the protection of residences located downgradient of the area of groundwater contamination, from 2006 through 2016, EPA periodically sampled potable wells in this area.
- The results of the 2016 potable well sampling event indicated the presence of site-related contaminants in several potable wells.
- Vinyl chloride, trichloroethene and 1,1-dichloroethene were detected at concentrations in excess of New Jersey Groundwater Quality Standards.
- EPA has determined that the potential for long-term residential exposure to these contaminants presents an unacceptable risk.

ALTERNATE WATER SUPPLY ALTERNATIVES

Alternative 1 – No Action

- Under this alternative, EPA would take no action to address the potential for exposure to contaminants in potable water.
- Regulations require that the “No Action” alternative be evaluated to establish a baseline for comparison with other alternatives.

ALTERNATE WATER SUPPLY ALTERNATIVES (continued)

Alternative 2 – Replace Residential Wells

- Under this alternative, new residential wells would be installed at residences threatened by site-related groundwater contamination.
- The replacement wells would be drilled to an approximate depth of 350 feet below ground surface into the Rio Grande water bearing unit.
- The replacement wells would be double-cased to prevent downward migration of contaminants.

ALTERNATE WATER SUPPLY ALTERNATIVES (continued)

Alternative 2 – Replace Residential Wells

- The existing residential wells would be decommissioned in accordance with NJDEP requirements.
- The property owner would be responsible for future maintenance of the replacement well.

ALTERNATE WATER SUPPLY ALTERNATIVES (continued)

Alternative 3 – Connection to Public Water Supply

- Under this alternative, over 2 miles of waterline would be installed, beginning at the New Jersey American water main located on East Moss Mill Road.
- Over 2200 feet of service lines would be installed for properties in the threatened area.
- The existing residential wells would be decommissioned in accordance with NJDEP requirements.
- Residents connected to the waterline would be responsible for paying future New Jersey American water bills.

PREFERRED ALTERNATIVE

- EPA's preferred alternative for an alternate water supply is Alternative 2 – Replace Residential Wells.
- Under this alternative, new residential wells would be installed at residences threatened by site-related groundwater contamination.
- The replacement wells would be drilled to an approximate depth of 350 feet below ground surface into the Rio Grande water bearing unit.

PREFERRED ALTERNATIVE (continued)

- The replacement wells would be double-cased to prevent downward migration of contaminants.
- The existing residential wells would be decommissioned in accordance with NJDEP requirements.
- The property owner would be responsible for future maintenance of the replacement well.

COST (Present Worth)

Alternative 1 - $0

Alternative 2 - $1,075,757

Alternative 3 - $3,302,845

Please send all comments to:

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For additional information about the site contact:

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1-800-346-5009

www.epa.gov/superfund/emmells-septic