

LEGEND:

- Operable Units
- Current BMI Complex

Sites Associated with Investigations*

- OSSM Site
- TIMET Site
- BMI (AOC3 Boundary)
- Former AMPAC Site
- NERT Site Study Area

Extraction Wells

- ▲ Former AMPAC
- ▲ NERT
- ▲ OSSM
- ▲ TIMET

* -Site Investigations shown are under the oversight of the Nevada Division of Environmental Protection's Bureau of Industrial Site Cleanup (NDEP-BISC).

AERIAL SOURCE: SNWA, 2020.

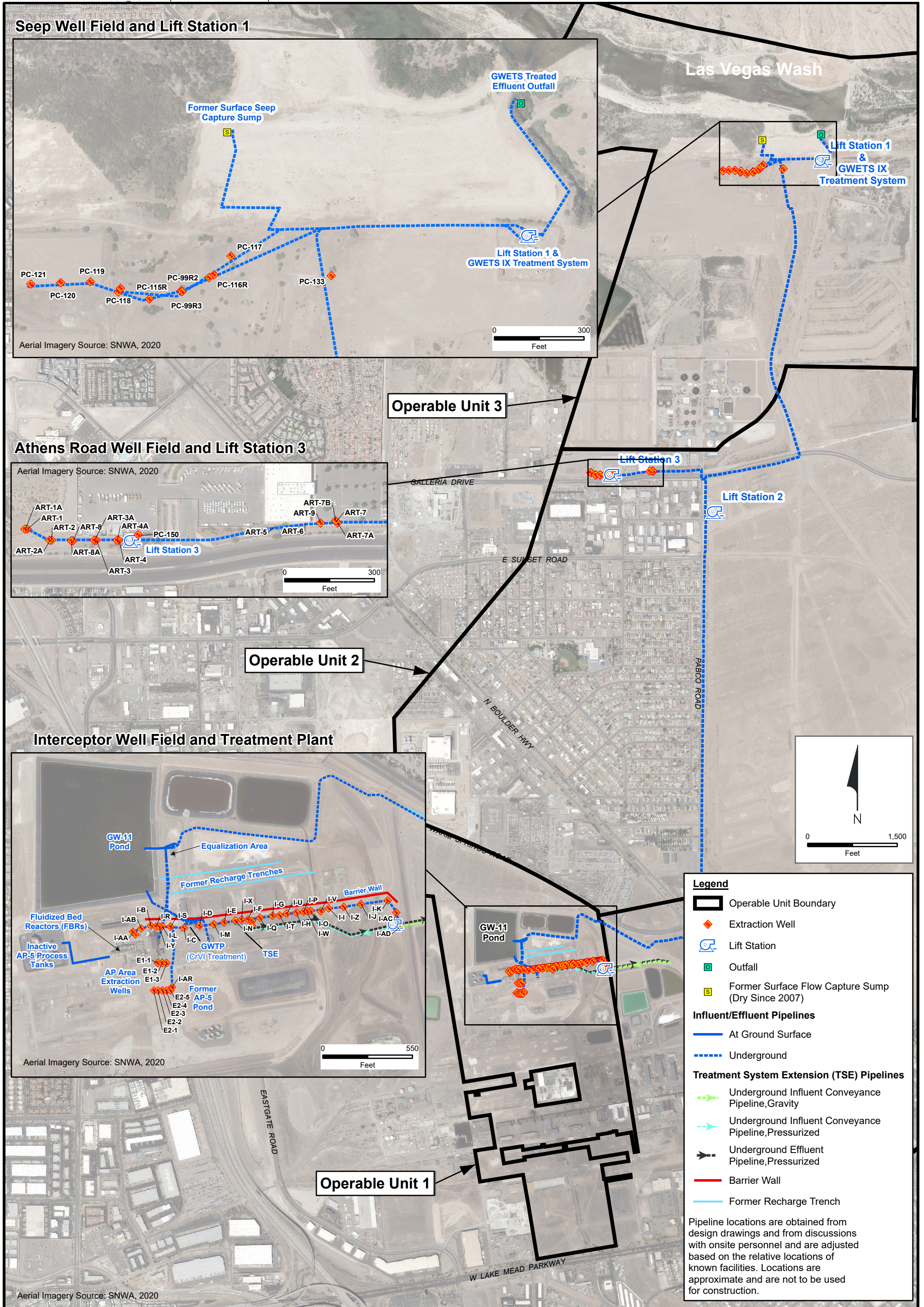


Extraction Well Fields in the RI Study Area
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Drafter: RS/JC Date: 2021/07/01 Contract Number: 1690016064 Approved by: Revised:

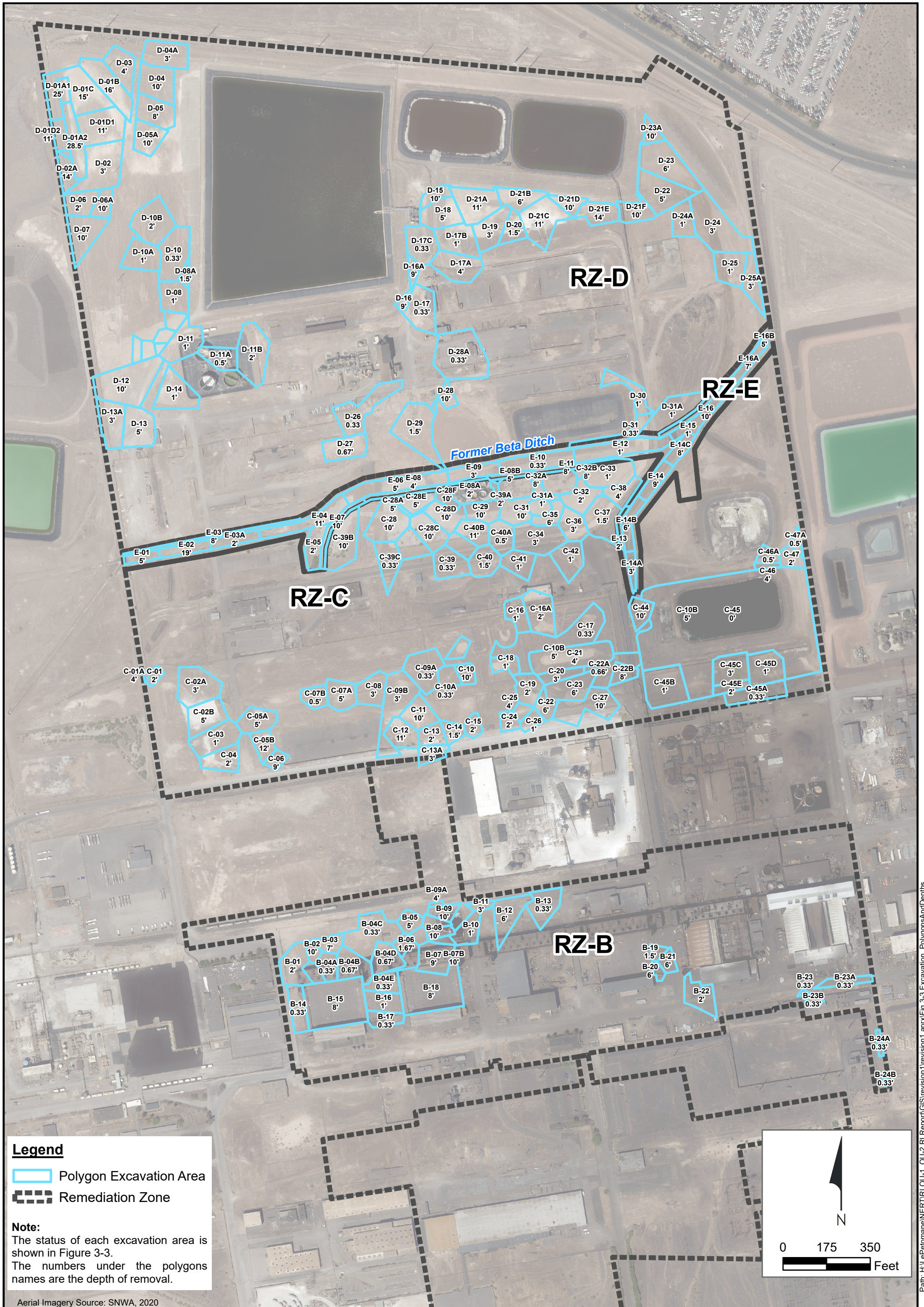
Figure
3-1

Path: H:\LePetomane\NERT\OU-1_OU-2_RI_Report\Sections\Section 3 - Regulatory Actions and Site Investigations\GIS\RI Study Area Extraction Wells.mxd



Groundwater Extraction and Treatment System (GWETS) Components Location Map
 Nevada Environmental Response Trust Site; Henderson, Nevada

Figure
3-2



Remediation Polygons and Planned Excavation Depths
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
3-3

Drafter: JC

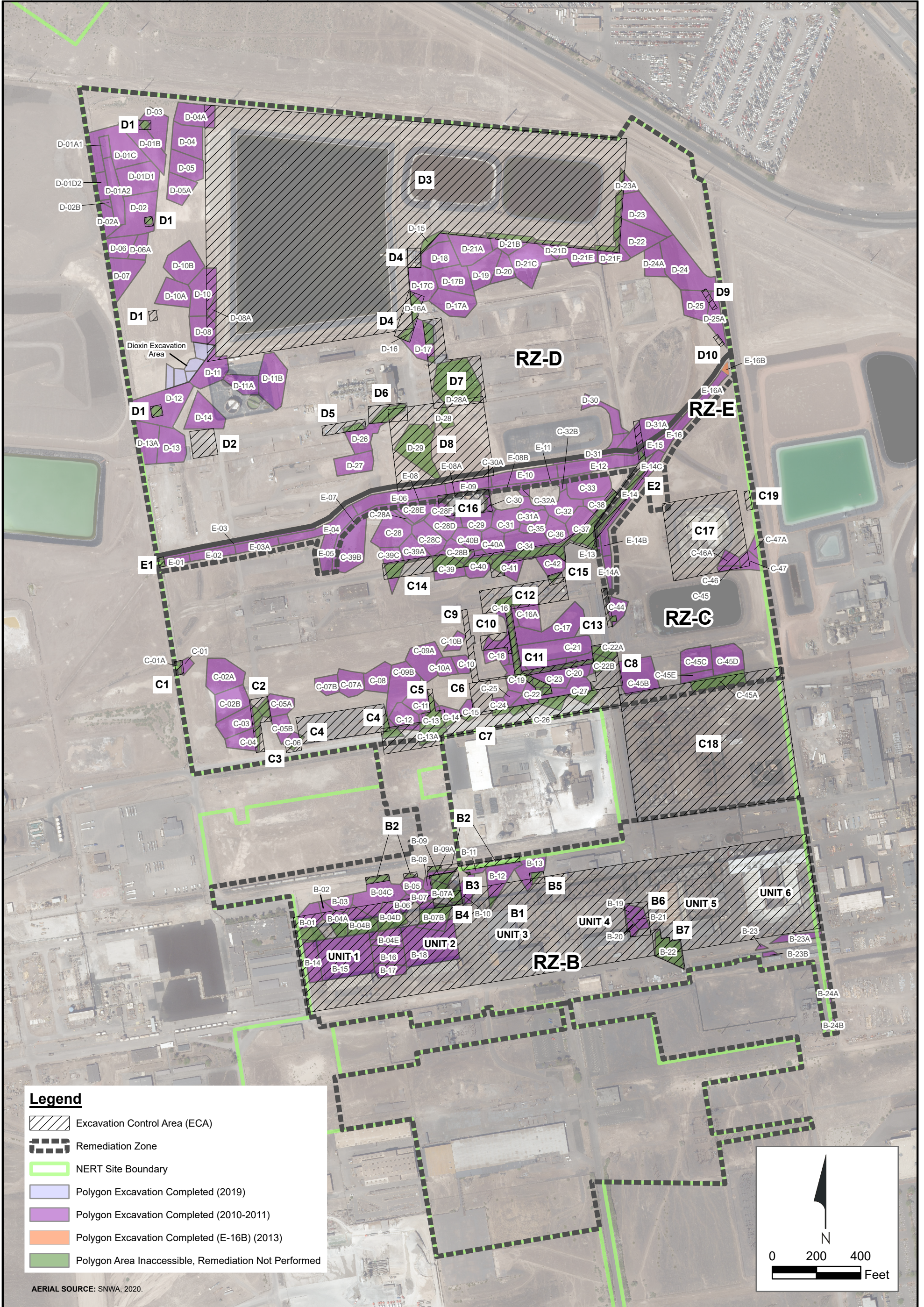
Date: 2023/01/25

Contract Number: 1690025040








Approved by:

Revised:

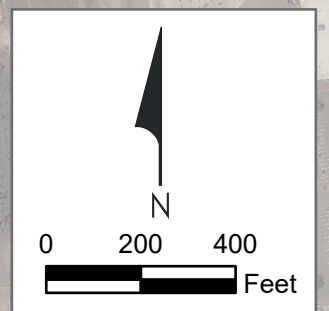
Path: H:\LePetomane\NERT\RI OU-1_OU-2 RI Report\GIS\revision1\revision1.aprx\Fig 3-3 Excavation_PolygonsAndDepths



Legend

-  Excavation Control Area (ECA)
-  Remediation Zone
-  NERT Site Boundary
-  Polygon Excavation Completed (2019)
-  Polygon Excavation Completed (2010-2011)
-  Polygon Excavation Completed (E-16B) (2013)
-  Polygon Area Inaccessible, Remediation Not Performed

AERIAL SOURCE: SNWA, 2020.



Remediation Polygons and Excavation Control Areas
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
3-4

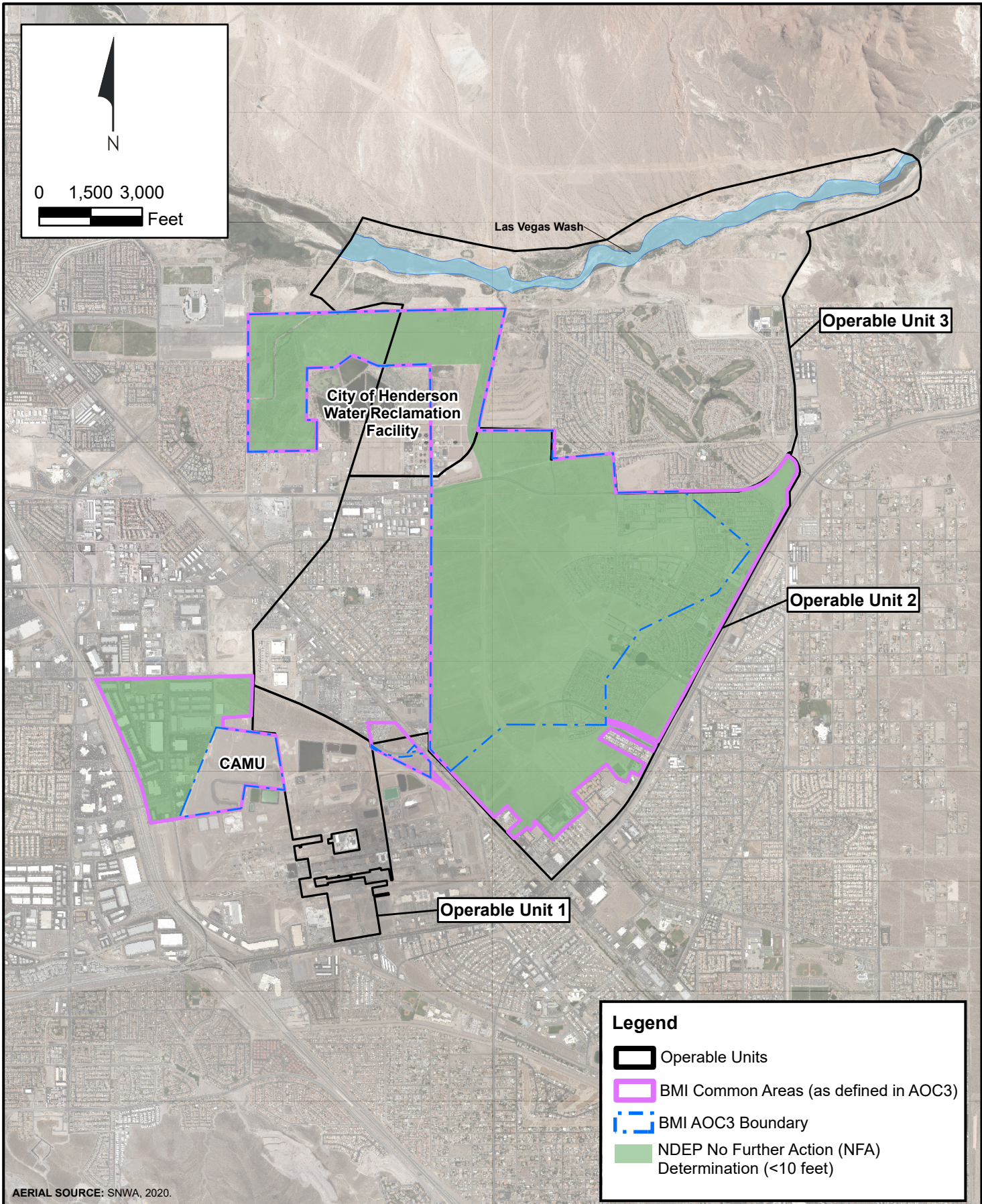
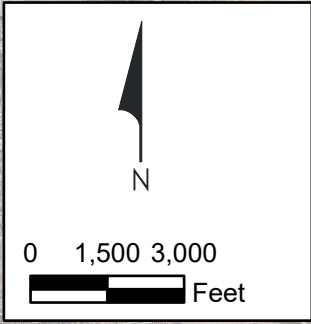
Drafter: JC

Date: 2023/01/25

Contract Number: 1690025040

Approved by:

Revised:



AERIAL SOURCE: SNWA, 2020.

Legend

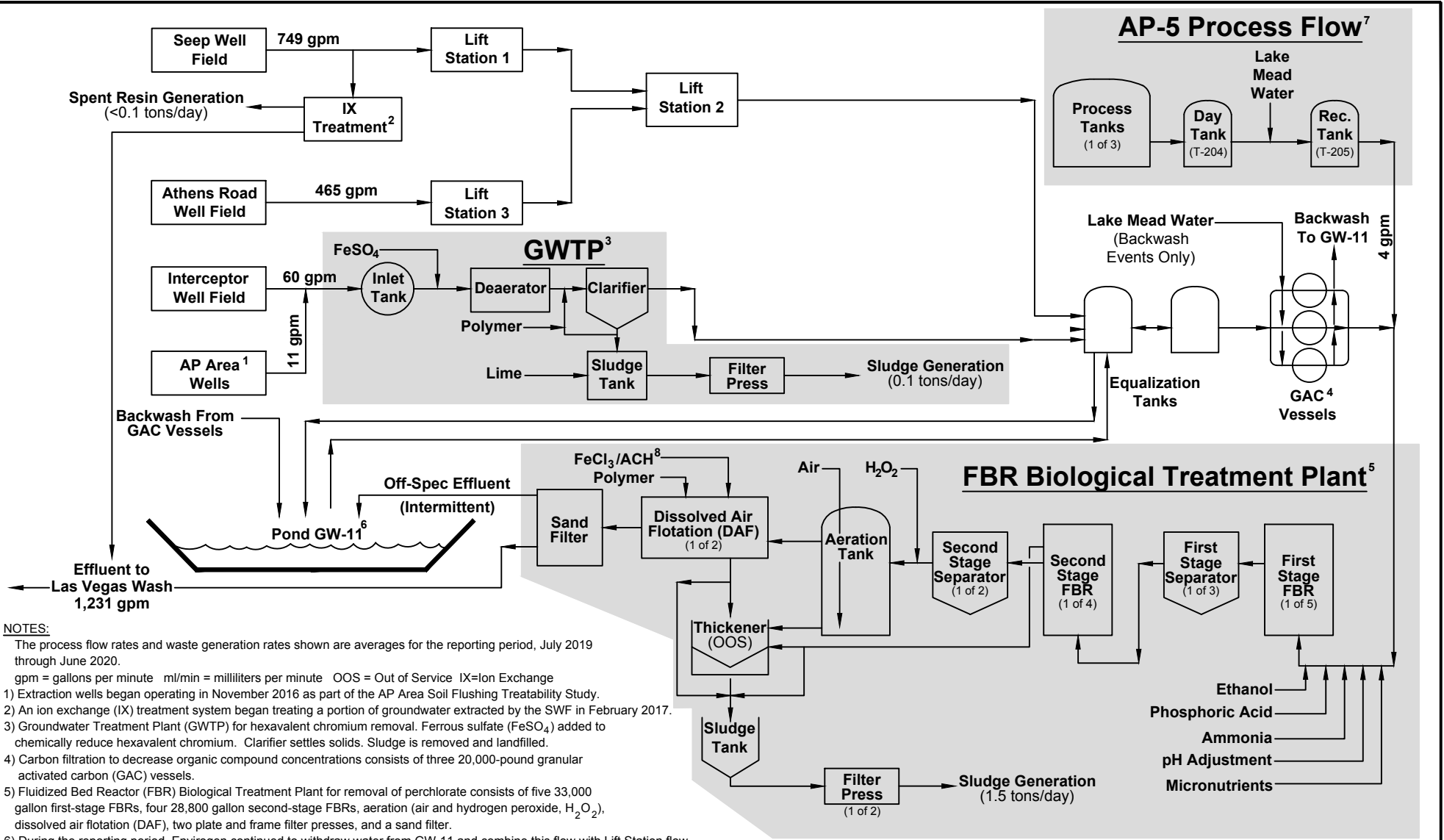
- Operable Units
- BMI Common Areas (as defined in AOC3)
- BMI AOC3 Boundary
- NDEP No Further Action (NFA) Determination (<10 feet)



BMI Common Areas, AOC3 Boundary, and No Further Action Determination Areas
 Nevada Environmental Response Trust Site
 Henderson, Nevada

Figure
3-5

Path: H:\LePetomane\NERT\RI OU-1_OU-2 RI Report\GIS\revision1\revision1.aprx



- NOTES:**
- The process flow rates and waste generation rates shown are averages for the reporting period, July 2019 through June 2020.
 - gpm = gallons per minute ml/min = milliliters per minute OOS = Out of Service IX=Ion Exchange
 - 1) Extraction wells began operating in November 2016 as part of the AP Area Soil Flushing Treatability Study.
 - 2) An ion exchange (IX) treatment system began treating a portion of groundwater extracted by the SWF in February 2017.
 - 3) Groundwater Treatment Plant (GWTP) for hexavalent chromium removal. Ferrous sulfate (FeSO₄) added to chemically reduce hexavalent chromium. Clarifier settles solids. Sludge is removed and landfilled.
 - 4) Carbon filtration to decrease organic compound concentrations consists of three 20,000-pound granular activated carbon (GAC) vessels.
 - 5) Fluidized Bed Reactor (FBR) Biological Treatment Plant for removal of perchlorate consists of five 33,000 gallon first-stage FBRs, four 28,800 gallon second-stage FBRs, aeration (air and hydrogen peroxide, H₂O₂), dissolved air flotation (DAF), two plate and frame filter presses, and a sand filter.
 - 6) During the reporting period, Envirogen continued to withdraw water from GW-11 and combine this flow with Lift Station flow in the equalization tanks as needed. Envirogen would also send flow from the equalization tanks to GW-11 as needed to maintain the pond water level.
 - 7) Solids were removed from the AP-5 Pond from early 2017 to July 2018. The pond liner and drainage layer were removed in August 2018. The AP-5 Pond was physically closed in October 2018; administrative closure is in progress. Treatment of AP-5 water from the process tanks through the FBRs was conducted between July 2017 and July 2020.
 - 8) Envirogen changed coagulants from aluminum chlorohydrate (ACH) to iron chloride in February 2020.



Groundwater Extraction and Treatment System (GWETS) Flow Diagram
 Nevada Environmental Response Trust (NERT)
 Henderson, Nevada

Figure
3-6