



June 24, 2022

Maria Labrador
Permitting and Waste Cleanup Program
Florida Department of Environmental Protection – Central Division
3319 Maguire Boulevard, Suite 232
Orlando, FL 32802-3767

**RE Site Assessment Workplan
 Beresford Springs Site
 800 East Beresford Avenue, Deland, Volusia County, Florida
 Site ID: ERIC_15328, BF642001001**

Dear Mrs. Labrador:

Kimley-Horn and Associates, Inc. (Kimley-Horn) has prepared this *Site Assessment Work Plan* on behalf of Elevation Sandhill, LLC (Elevation) for the Beresford Springs Site (the “Site”). This Work Plan was prepared in response to the Florida Department of Environmental Protection’s (FDEP) March 23, 2022 Memorandum regarding Kimley-Horn’s December 27, 2021 *Site Assessment Report – Volume I* prepared for the Site. Additional site assessment activities are proposed for the Site, which are outlined herein.

BACKGROUND

In 2018, Bechtol Engineering and Testing, Inc. (Bechtol) completed soil and groundwater sampling at the Subject Property on behalf of a prospective purchaser. For their investigation, Bechtol divided the Site into three areas: 1) the former golf course playing area, 2) the former maintenance and storage area, and 3) the former sandhill mine and dump. Bechtol’s investigation of the golf course playing area included the installation of 38 soil borings. Arsenic and dieldrin were reported in the soil above the default direct contact soil cleanup target levels (SCTL)¹. Additionally, Bechtol sampled three new and five existing monitoring wells. Dieldrin was reported in the groundwater above the default groundwater cleanup target level (GCTL). Bechtol’s evaluation of the former maintenance and storage area did not reveal elevated concentrations of arsenic or organochlorine pesticides in soil. However, dieldrin was reported in the groundwater above the default GCTL.

Bechtol completed eleven test pits within the former sand mine and dump area. The test pits ranged in depth from 4 to 10 feet below land surface (bls). The buried debris observed in the test pits consisted primarily of construction and demolition debris. Bechtol reported observing concrete, wood, glass, metal and rock mixed with soil.

¹ Rule 62-777, Florida Administrative Code (FAC).

In June 2020, Kimley-Horn completed a Phase I Environmental Site Assessment (ESA) for the Site on behalf of Elevation. The Phase I ESA identified evidence of several recognized environmental conditions (REC) in connection with the Subject Property. The identified RECs included the following:

- Historical golf course operations
- Golf course maintenance area
- Former Sandhill mine and dump
- Aboveground storage tanks (AST) and underground storage tanks (UST) at the golf course maintenance area.
- Use of reclaimed water for golf course irrigation

Based on the results of the Phase I ESA, Kimley-Horn conducted an initial Phase II ESA in July 2020. The initial Phase II ESA took into consideration the findings of Bechtol's previous investigations. Subsequent Phase II ESA sampling was performed by Kimley-Horn between September 2020 and October 2021. The intent of the Phase II ESA sampling was to screen soil and groundwater for the presence of contamination associated with the identified RECs. This initial sampling was not intended to characterize the horizontal or vertical extents of contamination that that may be present on-site. Kimley-Horn assumes that subsequent sampling and site characterization will be undertaken under Florida's Brownfields Program if Elevation intends to proceed with the purchase and redevelopment of the Subject Property.

Kimley-Horn's approach to the Phase II ESA sampling was to evaluate each REC based on the suspected contaminants of concern and the likely impacted media. The application of herbicides and pesticides on the former golf course in addition to the use of reclaimed water for irrigation have the greatest potential to impact surficial soils from 0 to 2 feet bls. Similarly, incidental spills of petroleum products, pesticides and herbicides within the former maintenance and storage area would impact the upper 2 feet of the surficial soils. As such, the sampling conducted within these areas was limited to the upper two feet of the soil column. And identified impacts in the upper 2 feet would be investigated subsequent to the Phase II ESA.

Each of the identified RECs have the potential to impact the localized groundwater quality. As such, groundwater sampling was undertaken in the areas of the identified RECs during the Phase II ESA. Both new and existing monitoring wells were sampled to evaluate the localized groundwater quality.

With respect to the former sandhill mine and dump, the contamination concerns include the soil quality of the cap material as well as the soil quality beneath the buried waste. As such, Kimley-Horn's Phase II ESA included collecting and analyzing soil samples from above and below the buried waste material. Kimley-Horn further evaluated the former dump area using geophysical techniques as well as test pits to assess the limits and contents of the buried debris. Five test pits were excavated within the footprint of the former dump to characterize the buried waste material. Soil samples were collected from beneath the waste material at the bottom of each of the test pits.

The soil and groundwater samples collected by Kimley-Horn during the Phase II ESA were analyzed for one or more of the following analytes:

- Arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver (USEPA Method 6010)
- Volatile organic compounds (USEPA Method 8260)

- Semi-volatile organic compounds (USEPA Method 8270)
- Organophosphorus Pesticides (USEPA Method 8141)
- Organochlorine Pesticides (USEPA Method 8141)
- Chlorinated Herbicides (USEPA Method 8151)
- Nitrate (USEPA Method 9056)
- Glyphosate (USEPA Method 547)
- Per- and Polyfluoroalkyl Substances (USEPA Method 537M)
- Polychlorinated Biphenyls (USEPA Method 8082)

Due Diligence Results

The environmental sampling completed at the Site by Kimley-Horn culminated in the collection and analysis of approximately 160 soil samples and 60 groundwater samples. Additionally, fourteen test pits were excavated to document the contents of the buried debris in the former sand mine/dump. The analytical results suggest that the principal contaminants of concern (COC) are commensurate with property's historical use as a golf course and former construction and demolition dump. The COCs identified in soil and groundwater are summarized on **Table 1** (below). **Figure 1** depicts the soil borings where one or more contaminants were reported above the default soil cleanup target levels (SCTL)². Similarly, **Figure 2** depicts the monitoring well locations where one or more analytes are were reported above the default groundwater cleanup target levels (GCTL). The areas on-site where the reported soil analytical results exceed the default groundwater leachability SCTL are shown on **Figure 3**. Detailed analytical data for these sample locations is provided in the *Site Assessment Report – Volume I* submitted to the Department in December 2021.

Concentrations of one or more COCs were reported above the direct contact SCTLs at 29 soil boring locations. Similarly, dieldrin was reported above the default groundwater leachability SCTL at 32 soil borings. Analyte concentrations were reported above the default GCTLs at 13 of the 22 monitoring wells on-site. The COC in the soil and groundwater at the golf course are consistent with the historical use of arsenides, herbicides and pesticides associated with cultivating and maintaining turf grass. Similarly, the contaminants reported in soil and groundwater at the maintenance area are consistent with the use and storage of pesticides. The investigation completed in the maintenance area did not identify evidence of significant petroleum contamination in conjunction with the USTs and ASTs in this area.

Exploration of the former sand mine/dump concluded that buried soil waste is present at depths ranging from 1.5 to 6 feet bls. Debris was observed was deep as 10 feet bls. At four of the five test pit locations, elevated concentrations of arsenic, lead and barium were reported above the residential SCTLs in the soil samples collected from beneath the buried debris. Concentrations of pesticides, herbicides, volatile organic compounds, semi-volatile organic compounds, cadmium, chromium, mercury, selenium and silver were not reported above the default SCTLs in the five test pit soil samples.

Previous investigations, as well as Kimley-Horn's recent investigation, of the former sand mine/dump did not reveal evidence that the area was used for the disposal of waste from industrial or military operations. The waste consisted primarily of construction and demolition debris and household waste. The observed buried debris consists primarily of wood, concrete, brick, metal, glass, paper and plastic.

² Rule 62-777, Florida Administrative Code (FAC).

No liquid waste or free product was observed within the dump area. The depth to groundwater at the former dump is approximately 13 feet bls. Buried debris and trash was not observed within or below the water table.

At the conclusion of Kimley-Horn’s Phase II ESA activities, we recommended that further investigation be conducted if Elevation proceeded with the purchase and redevelopment of the Subject Property. We further recommended that Elevation consider redeveloping the property under the State’s Brownfield program. In December 2020, Elevation Sandhill, LLC executed a Brownfield Site Rehabilitation Agreement (BSRA) with the FDEP for the Beresford Springs Redevelopment Brownfield Site.

TABLE 1
CONTAMINANTS OF CONCERN
Beresford Springs

REC/Source Area	Contaminants of Concern	
	Soil	Groundwater
Former Golf Course Fairways, Greens, Tees and Rough	Arsenic Chlordane Dieldrin Toxaphene Beta-BHC	Arsenic Dieldrin Nitrate
Former Maintenance Area	Arsenic Barium Dieldrin Tetrachloroethene	Arsenic Chromium Lead Dieldrin Bromodichloromethane Dibromochloromethane
Former Sand Mine and Dump	Arsenic Barium Chromium Dieldrin Lead Tetrachloroethene	Bromodichloromethane Dibromochloromethane
Reclaimed Water Use	NA	Arsenic Dieldrin Nitrate

PROPOSED REDEVELOPMENT

The proposed development plan for Beresford Reserve is provided in **Attachment A**. The portion of the proposed development that will occupy the former golf course area may include 254 single-family residential lots and 154 townhome units. Additionally, the development will include approximately 40 acres of parks and recreational areas. Five dry retention ponds will be constructed on-site for stormwater management.

The area of the former sand mine and dump will be converted to a 21.3-acre park that will include recreational amenities. Smaller pocket parks will be located throughout the residential development.

The land surface topography varies across the entire Site, which was a product of the golf course development. Significant earthwork will be undertaken to grade the Site to accommodate the proposed redevelopment. This includes the excavation of the five proposed stormwater detention ponds. As such, the proposed redevelopment and corresponding earthwork will disturb the areas where contamination is present in the soil at or near the land surface and a management plan for impacted soil will be developed.

SITE ASSESSMENT APPROACH

The purpose of the additional site assessment activities is to further delineate the nature and extent of soil and groundwater impacts identified at the Site during the previous due diligence activities. The additional data will be used to develop a strategy for site rehabilitation. The proposed site rehabilitation will be outlined in a *Remedial Action Plan (RAP)* that will be prepared following the completion of the site assessment. As noted previously, significant earth work will be undertaken to redevelop the Site. The *RAP* will outline procedures for soil management, including but not limited to addressing the contaminated media prior to and during site construction and the corresponding mass grading.

Due to the mass grading contemplated for the Site, additional sampling will be undertaken after the completion of the earthwork activities. The sampling will be undertaken to confirm soil quality with respect to the proposed redevelopment, including residential lots, parks and stormwater ponds. The detailed specifications for the confirmatory sampling will be outlined in the *RAP* prepared for the Site.

DATA QUALITY OBJECTIVES

The objective of the supplemental soil and groundwater sampling discussed herein is collect additional data to:

1. Confirm the COCs identified during the Phase II ESA
2. Further characterize, vertically and horizontally, the nature and extent of the identified contamination pursuant to Rule 62-780, FAC
3. Support the development of a remedial strategy for the Subject Property that is protective of human health and the environment

This will be accomplished through an iterative process of installing and sampling soil borings and groundwater monitoring wells. Following each sampling event, the corresponding laboratory data will be reviewed to determine whether further data collection is warranted. The soil and groundwater quality data will be compared to the default SCTLs and GCTLs for the principal COCs. The soil and groundwater sampling will be performed in general accordance with the FDEP's Standard Operating Procedures (SOP). Analysis of the soil and groundwater samples will be performed by a laboratory certified by the State of Florida and accredited by the NELAC (National Environmental Laboratory Accreditation Conference) Institute.

ADDITIONAL SITE ASSESSMENT

Assessing the extent of contamination at the Site will be an iterative process. The additional assessment activities in this *Work Plan* constitutes the second attempt to characterize the nature and extent of contamination at the Site. We anticipate that additional sampling may be required to following a review of the data collected under this *Work Plan*. The additional site assessment activities discussed herein will include completing up to 131 soil borings and 25 monitoring wells to further delineate the horizontal and vertical extents of contamination at the Site.

The following is a concise summary of the soil and groundwater sampling methodologies to be undertaken at the Site. The drilling activities will be performed by a water well contractor licensed by the State of Florida. The soil and groundwater sampling activities will be performed under the direction of a Professional Geologist licensed in the State of Florida. Sampling will be performed in general accordance with the FDEP's Standard Operating Procedures.

Discrete Soil Sampling

Discrete soil sampling will be used to characterize the extent of soil contamination that exceeded the default direct-contact SCTLs at the Site. Direct-push technology (DPT) will be used to install soil borings to characterize the vertical and horizontal extents of contamination in soil. The soil borings will be advanced to an average depth of 12 feet below land surface (bls). Borehole depths may be deeper than 12 feet bls depending on locations or conditions observed in the field. Continuous soil samples will be collected from the land surface to the termination depth of the borehole using a MacroCore sampler. As the MacroCore sample is advanced into the subsurface, a continuous soil core is collected into a dedicated acetate liner.

The soil collected from each borehole will be field screened for the presence of volatile organic compounds using a photoionization detector (PID). The soil will be screened on two-foot intervals from the land surface to the termination depth of the borehole.

At each borehole location, soil samples will be collected for laboratory analysis from the following depth intervals: 0.0 to 0.5 feet, 0.5 to 2.0 feet and every 2-feet thereafter to the termination depth of the borehole or the top of the water table. The soil samples will be collected in laboratory provided and preserved sample containers.

Soil boring logs will be prepared for each borehole. The lithology of each soil boring will be logged based on the Unified Soil Classification System (USCS). Additionally, the logs will note the sample intervals and PID readings.

The boreholes will be backfilled and abandoned following sample collection. Portland cement or hydrated bentonite will be used grout the holes from the bottom to the land surface.

Soil cuttings generated during the drilling and soil sample collection will be containerized in 55-gallon drums. The drums will be staged on-site at a centralized location.

ISM Soil Sampling

Incremental sample methodology (ISM) will be used to evaluate those areas where soil exceeds the default groundwater leachability SCTL. Incremental sample methodology was originally developed by

the US Army Corps of Engineers Cold Region Research and Engineering Laboratory as a method for determining the concentrations of contaminants in soil with a higher degree of confidence. According to the US Environmental Protection Agency, *“ISM provides representative samples through collection of numerous increments of soil that are combined, processed, and subsampled according to specific procedure in order to reduce the deleterious effects that soil heterogeneity has on environmental data.”* The Florida Department of Environmental Protection (FDEP) approved ISM as an acceptable method for site characterization under Chapter 62-780, Florida Administrative Code (FAC).

The Interstate Technology & Regulatory Council (ITRC) established protocols for ISM. This Phase II ESA was performed in general accordance with the ITRC protocols³ and the FDEP Standard Operating Procedures (SOP).

Pursuant to the ISM protocols, the purpose of the sampling methodology is to estimate the mean contaminant concentration within a designated decision unit (DU). For this investigation, the DU is the area in which the dieldrin concentrations in soil exceed the default groundwater leachability SCTL (**Figure 3**). Since the ISM sampling is contingent upon the extent to which dieldrin is present in the soil above the leachability SCTL, the corresponding sampling will be undertaken after the discrete soil sampling has been completed and the analytical results have been reviewed. The DU will extend vertically based on the maximum depth at which dieldrin is detected in the soil above the default groundwater leachability SCTL. The data collected from this area used to estimate exposure and the subsequent risk to human health and the environment.

The DU will be split into 30 sample increment areas. Each sample increment will be roughly the same area, approximately 0.25-acres. Discrete soil samples will be collected from each sample increment area from random soil boring locations within each increment. The samples from each discrete depth interval will be combined to produce an “ISM Sample.” For instance, all the 0.0 to 0.5 feet bls samples will be combined to produce one 0.0 to 0.5-foot ISM sample. One ISM boring and two replicate borings will be advanced in each increment area. Thus, for each discrete depth interval within the DU, three samples will be submitted for laboratory analysis: the ISM sample and the two replicate samples.

Monitoring Well Installation

Additional monitoring wells will be installed on-site to facilitate the collection of representative groundwater samples and to characterize the extent of contamination. The monitoring wells will be installed using sonic drilling techniques. Both shallow and deep monitoring wells will be installed on-site. Each monitoring well will be constructed of 2-inch diameter, schedule 40 PVC casing with a nominal length of 0.010-inch machine slotted well screen. The shallow monitoring wells will be constructed with 10-feet of well screen whereas the deep monitoring wells will be constructed with 5-feet of well screen. The annular space between the well screen and the borehole wall will be backfilled with clean quartz sand (20/35-grade). The top of the sand pack will extend approximately 2-feet above the top of the well screen. A 2-foot thick seal of hydrated bentonite will be placed above the top of the well screen. The monitoring wells will be completed above land surface. The PVC riser will extend approximately 2 to 3 feet above land surface at each monitoring well location. The monitoring wells will be fitted with a pressure cap and a lockable, protective cover.

³ ITRC, 2012, *Technical and Regulatory Guidance, Incremental Sampling Methodology*, Interstate Technical & Regulatory Council, Washington, DC.

The depth of the monitoring wells will be based on the depth at which groundwater is encountered at each location. The monitoring wells will be constructed such that the well screens are spit by the water table.

The water well contractor will develop the monitoring wells following installation. Well development will be performed to facilitate the removal of sediment that accumulated within the well screen and sand pack during installation as well a promote sorting of the sand pack material. The monitoring wells will be surged followed by over pumping to remove sediment from the well. The iterative process of surging and over pumping will be performed until the discharge water is relatively turbid free. The development water will be containerized in 55-gallon drums.

Groundwater Sampling

Groundwater samples will be collected from the new and existing monitoring wells. Each monitoring well will be purged prior to sampling using a peristaltic pump and low-flow techniques. Field parameters including pH, specific conductance, temperature, dissolved oxygen, oxidation/reduction potential and turbidity will be measured and recorded throughout the purging process on groundwater sampling logs. Groundwater samples will be collected once the field parameters have stabilized pursuant to FDEP SOPs.

The groundwater samples will be collected in laboratory provided and preserved containers. The samples will be placed in an iced cooler and delivered to the designated laboratory under chain-of-custody protocol.

QA/QC Sampling

Quality assurance and quality control (QA/QC) samples will be collected to validate the laboratory data and the field sampling techniques. The QA/QC samples will include blind duplicate samples, matrix spike/matrix spike duplicate samples, equipment blanks, and rinsate blanks. One in 20 samples will be collected as duplicates. Rinsate and equipment blanks will be collected one a day during sampling activities. Matrix spike and matrix spike duplicate samples will be collected at the recommendation of the laboratory.

Survey

The northing and easting coordinates will be surveyed for the soil boring locations using a hand-held GPS unit. The GPS unit will be used to establish the relative land surface elevation at each soil boring location.

The northing and easting coordinates and casing elevations for the new and existing monitoring wells will be surveyed by a Professional Land Surveyor licensed by the State of Florida. The land surface and top of casing elevations will be surveyed to one-one hundredth of a foot (0.01-feet).

SOIL SAMPLE LOCATIONS

The following is a concise summary of the additional soil sample locations.

Former Golf Course

Discrete soil sampling will be undertaken to delineate the vertical and horizontal extent of contaminants in the soil within the former golf course area that exceed the default direct-contact SCTLs. There are 22 areas within the former golf course area where one or more of the reported analyte concentrations exceed the direct contact SCTL. Additional soil borings will be advanced around each of these areas as shown on **Figure 4**. As noted previously, the soil borings will be advanced to a depth of 12 feet bls or to the top of the water table. The soil samples will be analyzed for the following parameters: arsenic, beta-BHC, chlordane, dieldrin, and toxaphene.

Former Maintenance Area

There are six areas within the former Maintenance Area where analyte concentrations exceed the default direct-contact SCTLs. Additional soil borings will be advanced around each of these areas as shown on **Figure 5**. The corresponding soil samples will be analyzed for: arsenic, barium, dieldrin and tetrachloroethene.

Former Sandhill Mine and Dump

Two types of soil sampling will be completed in the former sand mine and dump. First, sampling will be performed to characterize and delineate the extent of soil impacts exceeding the direct contact SCTLs in the cap and cover material. Second, deep soil borings will be advanced around the outside of the sand mine/dump footprint to confirm the extent of buried waste.

Twenty-one additional soil borings will be advanced inside the footprint of the former sand mine and dump. There are four areas within the former Sandhill Mine and dump where analyte concentrations exceed the default direct-contact SCTLs. Additional soil borings will be advanced around each of these areas to further characterize the extent of contamination with respect to the identified impacts (**Figure 4**). Five additional soil borings will be advanced across the extent of the landfill to confirm the soil quality of the cap material. The soil cap over the buried solid waste appears to be approximately 2 to 4 feet thick. As such, the 21 soil borings within the limits of the landfill will be advanced to the top of the buried waste, approximately 4 feet bls.

Seven deep soil borings will be advanced around the perimeter of the former sand mine and dump (**Figure 6**). Four of the seven soil borings will coincide with nested monitoring well clusters (see Groundwater Sample Locations below). Each boring will be completed to a depth of approximately 15 feet bls. The purpose of these borings will be two-fold. First, the borings will be used to confirm the extent of the buried waste material. Second, continuous soil samples will be collected from the soil boring locations, which will be used to confirm the soil quality along the limits of the dump.

GROUNDWATER SAMPLE LOCATIONS

The following is a concise summary of the additional groundwater sampling to be conducted at the Subject Property.

Former Golf Course

Kimley-Horn will contract with a licensed well driller to install six (6) shallow groundwater monitoring wells and seven (7) deep wells at the property boundaries, as depicted on **Figure 7**. The shallow

monitoring wells will be installed to depths ranging from 30-60 feet bls, depending on the land surface elevation and the depth to groundwater. The deeper monitoring wells will be nested with the shallow wells, except for the monitoring well proposed for the southwestern portion of the Site. The deep monitoring wells will be installed to depths of approximately 20-30 feet below the bottom of the shallow monitoring wells, as lithology allows. The site is underlain by a clay confining unit. The deep monitoring wells will be installed above the clay confining unit. Precautions will be taken to prevent penetrating the confining unit during installation of the deep monitoring wells.

All newly install wells, along with KHMW-4R, KHMW-8, and TMW-2R will be analyzed for arsenic and organochlorine pesticides.

Former Sandhill Mine and Dump

Historically, Kimley-Horn has collected groundwater samples from CW-1 and KHMW-7 from within the footprint of the former sump. Sampling parameters have included VOCs, SVOCs, RCRA 8 metals, PFAS, OCPs, PCBs, mercury, nitrogen/nitrate, and glyphosate. Previous results have only identified nitrate in CW-1 and bromodichloromethane and dibromochloromethane in KHMW-7.

To complete site assessment of the former dump area, and based on the depth of KHMW-7, Kimley-Horn will contract with a licensed well driller to install five (5) nested groundwater monitoring wells around the former dump at the locations depicted **Figure 6**. Similar to the former golf course area, the shallow monitoring wells will be installed to depths ranging from 30 to 60 feet bls, depending on the depth at which groundwater occurs. The deep monitoring wells will be installed to depths of approximately 20-30 feet below the bottom of the shallow monitoring wells, as lithology allows. The five nested deep and shallow monitoring wells wells, along with KHMW-7 and KHMW-8, will be sampled for the following parameters: volatile organic compounds (VOC), polynuclear aromatic hydrocarbons (PAH), VOCs, PAHs, arsenic, cadmium, chromium, lead, organochlorine pesticides, and nitrogen/nitrate.

Former Maintenance Area

Historically, Kimley-Horn has collected groundwater samples from KHMW-1/1R, KHMW-2 and TMW-1 from within the former golf course maintenance area. Sample parameters included VOCs, PAHs, RCRA 8 metals⁴, organochlorine pesticides, herbicides, and nitrogen/nitrate. Previous results have only identified arsenic, chromium, lead, dieldrin, bromodichloromethane and dibromochloromethane at concentrations exceeding the GCTLs. Dieldrin was detected in TMW-1 at concentrations exceeding the natural attenuation default criteria (NADC).

To complete site assessment within the maintenance area, Kimley-Horn will sample KHMW-1R, TMW-1 and a newly installed well along the northern property boundary (detailed above) for the following parameters: arsenic, cadmium, chromium, lead, dieldrin, bromodichloromethane, and dibromochloromethane.

⁴ Arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver

Reclaimed Irrigation Water Use

The new and existing monitoring wells will be sampled for nitrogen/nitrate and total Kjeldahl nitrogen to evaluate the localized groundwater quality relative to the use of reclaimed water for golf course irrigation.

DATA EVALUATION

Conducting a site assessment pursuant to Rule 62-780, FAC is an iterative process. Data is collected and evaluated then used to determine whether additional data collection is warranted. Kimley-Horn will review the preliminary data collected under this Work Plan and determine whether further sampling is warranted. If additional sampling is necessary, we will coordinate with the FDEP to identify additional sample locations. Evaluation of the dieldrin groundwater leachability areas though ISM sampling will be performed once the extent of the contamination exceeding the direct contact SCTLs has been delineated.

We will discuss the preliminary results of the site assessment data with the FDEP prior to finalizing the Site Assessment Report. Development of a RAP will follow the FDEP’s approval of the Site Assessment Report.

CERTIFICATION

I, Jason C. Sheasley, P.G., No. 2236, certify that I currently hold an active license in the state of Florida and am competent through education or experience to provide geology services in the geology and hydrogeologic disciplines contained in this report. I further certify that this report was prepared by me or under my responsible charge as defined in Chapter 492, Florida Statutes, and Chapter 61G16-2.005 F.A.C.

Kimley-Horn and Associates, Inc., on Elevation Sandhill, LLC appreciates your continued cooperation regarding this project. If you have any questions regarding the information being provided, please do not hesitate to contact me at (904) 828-3900. I may also be contacted via email at jason.sheasley@kimley-horn.com.

Sincerely,

KIMLEY-HORN

Jason C. Sheasley
Jason C. Sheasley, P.G.
Professional Geologist No 2236



Figures

- 1 Soil Exceedance Map
- 2 Groundwater Exceedance Map
- 3 Groundwater Leachability Areas
- 4 Proposed Soil Boring Locations Golf Course/Dump Areas
- 5 Proposed Soil Boring Locations Former Maintenance Area

- 6 Proposed Soil Boring and Monitoring Well Locations at Sand Mine/Dump
- 7 Proposed Monitoring Well Locations

Attachments

- A Beresford Reserve Development Plan

FIGURES



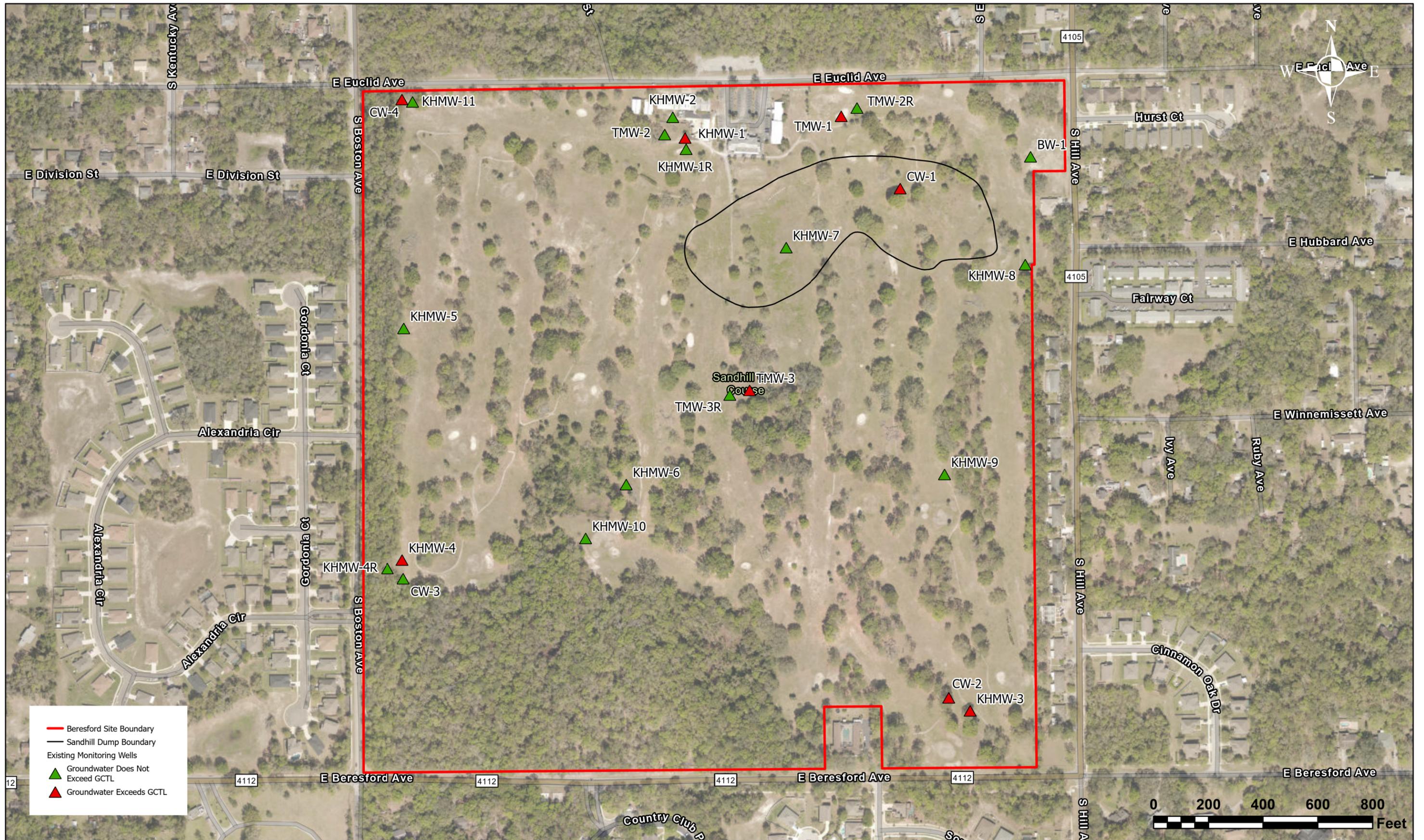
— Beresford Site Boundary
— Sandhill Dump Boundary
 Previous Soil Boring
○ No Exceedance
● Residential SCTL Exceedance
● Commercial SCTL Exceedance
■ Leachability SCTL Exceedance

Soil Exceedance Map

Beresford Springs, DeLand, Volusia County, FL

045601002

Figure No. 1



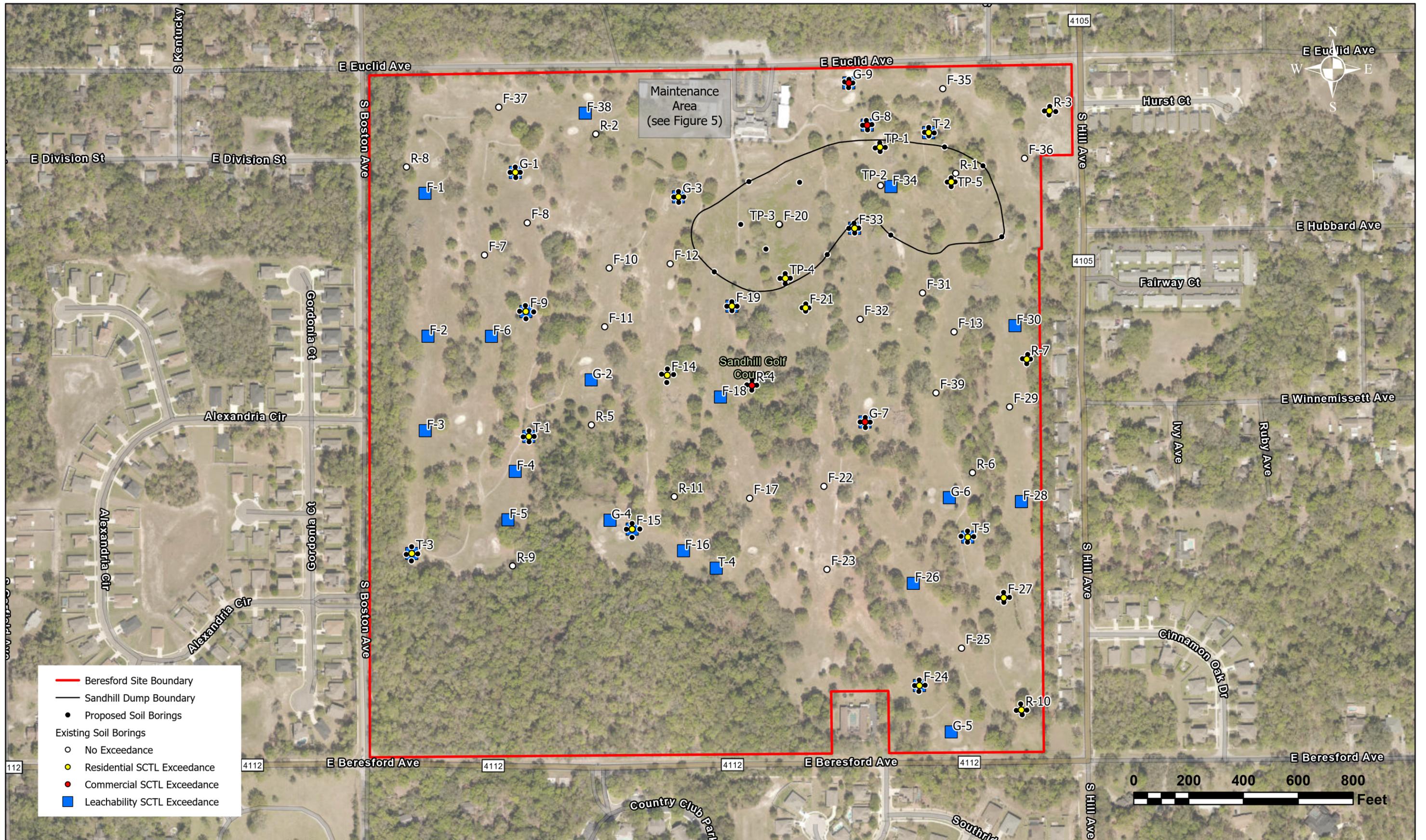
— Beresford Site Boundary
— Sandhill Dump Boundary
 Existing Monitoring Wells
▲ Groundwater Does Not Exceed GCTL
▲ Groundwater Exceeds GCTL

Groundwater Exceedance Map
 Beresford Springs, Deland, Volusia County, FL

045601002
 Figure No. 2

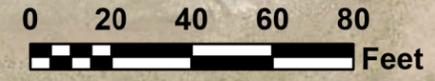


— Beresford Site Boundary
— Sandhill Dump Boundary
 Soil Boring
■ Exceeds Leachability SCTL
 ISM Decision Unit





- Beresford Site Boundary
- Soil Boring
 - No Exceedance
 - Residential Exceedance
 - Commercial Exceedance
 - Leachability Exceedance
 - Proposed Boring Locations
- ▭ Leachability Areas







— Beresford Site Boundary
▲ Existing Groundwater Monitoring Wells
 Proposed Monitoring Well Locations
▲ Shallow Well
▲ Shallow and Deep Well
 Sandhill Dump Boundary

Proposed Monitoring Well Location Map
 Beresford Springs, Deland, Volusia County, FL

045601002
 Figure No. 7

ATTACHMENT A

LEGEND

- Ⓐ AMENITY (1.5 ACRES)
- Ⓑ PARK
- Ⓒ RECREATION AREA
- Ⓓ DRY RETENTION POND
- Ⓔ EXISTING TREES

PARK/RECREATION = ~40 ACRES

TOTAL GREEN SPACE = ~50 ACRES

KEY

- 40' SINGLE FAMILY LOTS REAR LOADED (45 LOTS) 40'x130'
- 50' SINGLE FAMILY LOTS (116 LOTS) 50'x120'
- 60' SINGLE FAMILY LOTS (32 LOTS) 60'x120'
- 70' SINGLE FAMILY LOTS (61 LOTS) 70'x120'
- RENTAL UNITS (189 UNITS)
- TOWNHOMES (154 UNITS)
- POCKET PARKS - HISTORIC TREE SAVES
- STREET PARKING (320 SPACES)



MASTER PLAN

1"=200'

PROJECT #2020.173

2022.01.06