ADDENDUM TO THE 2000 LARKSPUR LANDING REMEDIATION PROJECT FINAL INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

INTRODUCTION

This environmental document is an addendum to the 2000 Larkspur Landing Remediation Project Final Initial Study/Mitigated Negative Declaration (IS/MND) by the Ross Valley Sanitary District (the District). A Final IS/MND[1] for the project was published in June 2017 based on a prior version of the remediation plan (dated February 2017) in compliance with the California Environmental Quality Act (CEQA). The remediation plan[2], as revised and subject to the conditions of approval specified by the U.S. Environmental Protection Agency (EPA)[3], does not significantly alter the findings of the IS/MND or require major revisions to the IS/MND. A Notice of Determination (NOD) was filed with the Marin County Clerk's office on June 22, 2017.

Background

The IS/MND was prepared to address remediation of contaminated soil and fill material within an approximately 2-acre area of the site located at 2000 Larkspur Landing Circle and owned by the District. The IS/MND evaluated potential environmental effects on aesthetics, agriculture and forestry, air quality, biological resources, cultural and tribal resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, greenhouse gas emissions, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation/traffic, and utilities and service systems. All potential impacts evaluated and identified in the IS/MND were considered to be less than significant through implementation of mitigation measures specified in the IS/MND.

Since the publication of the IS/MND, the remediation plan was revised, subject to the conditions of approval by EPA. The following sections outline the changes to the project description (PD; see Attachment A) and provide an analysis of the adequacy of the existing

[1] Integral. 2017. Final Initial Study / Mitigated Negative Declaration, Larkspur Landing Remediation Project 2000 Larkspur Landing Circle, Larkspur, CA. Prepared for Ross Valley Sanitary District. Integral Consulting Inc. June.

[2] Kennedy/Jenks. 2018. Revised Updated Application for Remediation of Polychlorinated Biphenyls Former Wastewater Treatment Plant Larkspur, CA. Kennedy Jenks Consultants. February.

[3] USEPA. 2019. Application Amendment, Ross Valley Sanitation District, Larkspur, California – EPA Conditional Approval Under 40 CFR 761.61(c) - Polychlorinated Biphenyls, Toxic Substances Control Act. U.S. Environmental Protection Agency. March15.

IS/MND in light of the changes to the PD and the provisions of CEQA Guidelines Section 15162(a).

Purpose of Addendum to the IS/MND

When a proposed project changes or if there are changes in environmental setting, a determination must be made by the lead agency as to whether an addendum or subsequent environmental impact report (EIR) or MND is prepared. CEQA Guidelines Sections 15162 and 15164 set forth criteria to assess which environmental document is appropriate. The criteria for determining whether an addendum or subsequent MND is prepared are outlined below. If the criteria below are true, then an addendum is the appropriate document:

- No new significant impacts will result from the project or from new mitigation measures.
- No substantial increase in the severity of environmental impact will occur.
- No new feasible alternatives or mitigation measures that would reduce impacts previously found not to be feasible have, in fact, been found to be feasible.

Based upon the analysis provided below in the Environmental Analysis section, the changes to the project will not result in new significant impacts or substantially increase the severity of impacts previously identified in the IS/MND, and there are no previously infeasible alternatives that are now feasible. None of the other factors set forth in Section 15162(a)(3) are present. Therefore, an addendum is appropriate, and this addendum has been prepared to address the environmental effects of the changes to the project.

PROPOSED CHANGES TO THE PROJECT

The remediation project consists of these construction activities: site preparation, demolition and/or salvaging of existing features (e.g., concrete catch basin, piping, etc.) within the excavation footprint, soil and debris excavation and removal, offsite disposal, backfilling, and site restoration. An approximately 2-acre area (Attachment B)will be excavated to depths ranging from 2 to 22 ft below ground surface (bgs) (Kennedy Jenks 2018). The estimated volume of soils to be excavated is up to 40,000 cubic yards or up to approximately 60,000 tons.

The following changes to the PD are provided in the IS/MND, specified in the most recent remediation plan.

- A total of 726 cubic yards of material is estimated to require disposal as hazardous/Toxic Substances Control Act waste. (The amount in the IS/MND was 430 cubic yards)
- A total of 6,100 cubic yards of shallow soils may be clean and suitable for reuse. (The amount in the IS/MND was 6,000 cubic yards)

The following are items within EPA's conditional approval letter that could result in material changes to the PD provided in the IS/MND:

- Additional sampling is being required, including sampling of soils, stockpiled materials, and demolition debris, as well as sampling where prior sampling had encountered refusal and below culverts and other structures. This additional sampling is not expected to result in an increase in the volume of or affect the nature or material to be excavated. At most, it is estimated that no more than an additional 500 cubic yards could require excavation and disposal.
- Additional sampling could affect the landfill that can accept the excavated material. The PD did not specify landfills for Class II material; Class I landfills were listed in the PD and no additional landfills are anticipated to be used for disposal of the excavated materials.
- EPA is specifying that stockpiles may not be wetted for dust control; they will instead be covered. The PD indicated that stockpiles could be covered or wetted, so no change is necessary.
- EPA regulations for polychlorinated biphenyl cleanups require the use of solvents for decontamination of equipment. However, solvent use, especially on trucks and other large equipment, inherently has more potential environmental impacts than decontamination using soap and water (which is more typical for remediation projects). EPA agreed to consider alternative decontamination procedures, but solvents may be used on smaller, reusable equipment (e.g., hand tools). The use of solvents for decontamination was not evaluated in the IS/MND. All solvents used for decontamination will be properly stored/contained, handled, and disposed of according to state and federal regulations.

In addition, due to delays in obtaining approval from EPA for the remediation plan, the construction is anticipated to begin in the summer of 2019 (instead of the summer of 2017, as stated in the IS/MND).

The updated PD also includes an expanded discussion of sloping, shoring, and/or benching of excavations (i.e., excavation stabilization) to allow the work to proceed in a safe manner. These excavation stabilization activities will result in excavation of additional, non-impacted soils (estimated as up to 30,000 cubic yards); these soils will be stockpiled onsite for reuse as part of the backfill and will not be transported offsite. The IS/MND had a

discussion of excavation stabilization and this expanded discussion does not affect the analysis in the IS/MND.

ENVIRONMENTAL ANALYSIS

The remediation plan, as revised and subject to the conditions of approval specified by EPA, does not significantly alter the finding to the IS/MND or require major revisions to the IS/MND. Therefore, the analysis of construction impacts has not changed from the information adopted in the IS/MND.

There are no changes to the impact analysis or findings in the IS/MND for any of the following, based on the changes to the PD described above:

- Aesthetics; agriculture and forestry; geology and soils; greenhouse gas emissions; greenhouse gas emissions; hydrology and water quality; land use and planning; mineral resources; noise; population and housing; public services; recreation; transportation/traffic; and utilities and service systems.

Minor technical changes and revisions to the impact analyses in the IS/MND are necessary for air quality, biological resources, cultural and tribal resources, and hazards and hazardous materials to address the changes to the PD described above, as follows:

- Air quality: The use of solvents for equipment decontamination could result in the release of volatile organic compounds. Because the use of solvents will be restricted to the decontamination of small reusable hand tools, the emissions from this short usage period are expected to be *de minimis*. As stated above, all solvents used for decontamination will be properly stored/contained, handled, and disposed of according to state and federal regulations. As such, the impact determinations would remain consistent with those presented in the IS/MND.
- Biological resources: The overall project footprint (horizontal extent of excavation) is unlikely to change and, if it did change, would only expand to a minimal extent. Any expansion of the footprint is not expected to extend into any sensitive biological habitat areas (i.e., wetland jurisdictional features). The District will implement the mitigation measures for biological resources presented in the Mitigation Monitoring and Reporting Plan. As such, the impact determinations would remain consistent with those presented in the IS/MND.
- Cultural resources and tribal cultural resources: The overall project footprint (horizontal/vertical extent of excavation) is unlikely to change and, if it did change, would only expand to a minimal extent. The District will implement the mitigation measures for cultural resources presented in the Mitigation Monitoring and

Reporting Plan. As such, the impact determinations would remain consistent with those presented in the IS/MND.

- Hazards and hazardous Materials: As discussed above, the use of solvents will be restricted to the decontamination of small reusable hand tools; all solvents used for decontamination will be properly stored/contained, handled, and disposed of according to state and federal regulations. The use and storage of hazardous materials, such as fuels and lubricants, was assessed in the IS/MND. As discussed in the IS/MND, transportation of hazardous materials would conform to state and federal requirements for hazardous materials transportation, and site activities would be performed consistent with a site-specific health and safety plan (HASP). HASPs are required to contain a section on decontamination, which includes proper handling of decontamination liquids. As such, the impact determinations would remain consistent with those presented in the IS/MND.

CONCLUSIONS

The minor technical changes and additions described above do not affect the mandatory findings of significance presented in the IS/MND. The District will implement the mitigation measures for biological and cultural resources presented in the Mitigation Monitoring and Reporting Plan to ensure that the project's impacts remain below levels considered significant. The impact determinations would remain consistent with those presented in the IS/MND. None of the factors listed in CEQA Guidelines Section 15162(a) are present, and therefore this addendum to the IS/MND is an appropriate level of environmental review for the proposed project changes, as identified in CEQA Guidelines Section 15164.

ATTACHMENT A

UPDATED PROJECT DESCRIPTION, 2000 LARKSPUR LANDING REMEDIATION PROJECT

ATTACHMENT A

UPDATED PROJECT DESCRIPTION
2000 Larkspur Landing Remediation Project

Project Overview and Purpose

The former Larkspur Wastewater Treatment Plant (LWTP) was purchased and operated by the Ross Valley Sanitary District (the District) from 1948 to 1985; the facility was decommissioned in 1985 and demolished in 1998 and 1999. Crushed concrete from the demolition was mixed with soil and used as engineered backfill onsite. The site received a "no further action" letter from the Department of Toxic Substances Control (DTSC) in 2006, but subsequent testing from 2006 to 2008 indicated the presence of elevated concentrations of polychlorinated biphenyls (PCBs) in site media. The District recently completed additional testing to delineate the extent of PCBs and has developed a remediation plan with oversight by the U.S. Environmental Protection Agency (EPA), Region 9. The District plans to undertake an environmental remediation project to achieve clean closure of the site and be in compliance with requirements of the Toxic Substances Control Act (TSCA).

The proposed project includes excavation and offsite disposal of up to 40,000 cubic yards of contaminated soil and fill material within an approximately 2-acre area, and backfilling and regrading of the site.

EPA provided a conditional approval[1] for the project on March 15, 2019, based on the *Revised Updated Application for Remediation of Polychlorinated Biphenyls Former Wastewater Treatment Plant Larkspur, California* (remediation plan; Kennedy/Jenks 2018). The cleanup technique described by the remediation plan will be to excavate debris and contaminated soil and dispose of the material at a properly licensed, offsite disposal facility.

A Final Initial Study/Mitigated Negative Declaration (IS/MND)[2] for the project was published in June 2017 based on a prior version of the remediation plan (Kennedy/Jenks 2017) in compliance with the California Environmental Quality Act (CEQA).

Project Location

The 2000 Larkspur Landing Circle project site (the site) is at the intersection of East Sir Francis Drake Boulevard and Larkspur Landing Circle East in the City of Larkspur (Attachment B, Figure 1). The project site on Assessor's Parcel No. 018-171-32 (Parcel #32) covers about 10.675 acres and is irregular in shape. Of the gross project site area, 0.22 acre lies under the East Sir Francis Drake Boulevard right-of-way and 0.16 acre lies under the Lincoln Village Circle right-of-way, leaving a net project site area of approximately 10.295 acres. The site is presently owned by the District.

[1] USEPA. 2019. Application Amendment, Ross Valley Sanitation District, Larkspur, California – EPA Conditional Approval Under 40 CFR 761.61(c) - Polychlorinated Biphenyls, Toxic Substances Control Act. U.S. Environmental Protection Agency. March 15.

[2] Integral. 2017. Final Initial Study / Mitigated Negative Declaration, Larkspur Landing Remediation Project 2000 Larkspur Landing Circle, Larkspur, CA. Prepared for Ross Valley Sanitary District. Integral Consulting Inc. June.

Site Setting

The proposed project site is on the San Quentin peninsula in the City of Larkspur. Mount Tamalpais is about 4 miles southwest of the site and San Quentin State Prison is approximately 2 miles east of the site. Regional access to the project site from the north and south is provided by U.S. Highway 101 (U.S. 101), and from the east by the Richmond-San Rafael Bridge (Interstate 580 [I-580]). The project site is also located near the Golden Gate Ferry Terminal and the Marin Airporter bus terminal at 300 Larkspur Landing Circle. The area west of U.S. 101 includes a mix of commercial, residential, and administrative uses.

Just to the north and northwest of the project site are multi-family residential properties such as the apartments at 100 Old Quarry Road and 700 Lincoln Village Circle; a hotel (the Courtyard by Marriott Hotel at 2500 Larkspur Landing Circle); and institutional properties and recreational areas such as the Children's Cottage Cooperative Preschool at 2900 Larkspur Landing Circle and a neighborhood park. To the west of the site between U.S. 101 and Larkspur Landing Circle are commercial developments such as the Larkspur Landing Shopping Center at 2257 Larkspur Landing Circle, the Gateway office development at 17 East Sir Francis Drake Boulevard, the Bosco office building at 100 Larkspur Landing Circle, the Cinemark Century Larkspur Landing at 500 Larkspur Landing Circle, the Gamma Building at 101 Larkspur Landing Circle, and the Larkspur Landing Office Park at 700–900 Larkspur Landing Circle.

The project site itself is bound on the south by East Sir Francis Drake Boulevard[3] with the Corte Madera Creek estuary beyond, and by Larkspur Landing Circle East on the west with the Larkspur Landing Shopping Center beyond. The site is flanked by two office buildings along East Sir Francis Drake Boulevard: the Remillard Brick Kiln office and restaurant building to the east at 125 East Sir Francis Drake Boulevard, and the R.C. Roberts office building to the west at 2200 Larkspur Landing Circle. Residences are located to the north and immediately east of the project site.

Remillard Park is immediately south of East Sir Francis Drake Boulevard, facing the project site. The land from East Sir Francis Drake Boulevard to Corte Madera Creek is designated Shoreline/Marsh Conservation in the *Larkspur General Plan*, Land Use and Circulation Map (City of Larkspur 1990). A multi-purpose path accommodating bicyclists and pedestrians parallels much of East Sir Francis Drake Boulevard along its south side with connections to segments to the west, south, and north through the Cal Park tunnel to San Rafael.

Miwok Park and undeveloped tree-covered hills are to the north and northeast of the site. Miwok Park is a landlocked parcel of land between the adjacent residences and the project site; its principal feature is Tubb Lake, which is a small man-made freshwater lake. Tubb Lake is a remnant of the brick-making operation in the late nineteenth and early twentieth centuries. Beyond Miwok Park is the City of San Rafael corporate boundary. Undeveloped hilly lands are also located adjacent to the project site to the north and east.

Site Background

The former LWTP site was purchased by the District in the 1940s. The District owned and operated the LWTP between 1948 and 1985 when the facility was no longer needed for local wastewater treatment, following completion of the much larger, centralized wastewater

[3] Sir Francis Drake Boulevard is a key east-west through road in Marin County stretching from Point Reyes on the west to the San Quentin Peninsula on the east. The road carries both local and through traffic. The segment east of U.S. 101 is known as East Sir Francis Drake Boulevard. East Sir Francis Drake Boulevard provides an important link for regional traffic between the Richmond-San Rafael Bridge (I-580) and U.S. 101.

treatment plant by the Central Marin Sanitation Agency. The District began planning for removal of the treatment plant in 1995. In 1998 and 1999, the District demolished the onsite concrete structures and associated piping. The crushed concrete material was mixed with onsite soils and used as a non-expansive engineered fill to backfill the excavations left by the demolition process. The site is currently actively used as an operations base for the District, and includes two modular buildings, and an area for sewer maintenance and operations equipment, vehicles, and materials staging. The southernmost approximate 2 acres is the primary area of active use. The site is completely fenced off from the public with a cyclone chain-link fence approximately 8 ft in height, and has a locked swing-gate at the main entrance.

Remediation Plan

The remediation project consists solely of construction activities: site preparation, demolition and/or salvaging of existing features (e.g., concrete catch basin, piping etc.) within the excavation footprint, soil excavation and removal, offsite disposal, backfilling, and site restoration. No new structures will be constructed and there are no operations or ongoing maintenance activities associated with the remediation.

The presumed remedial approach for the site is soil and demolition debris/fill material removal with offsite disposal. Site characterization (Kennedy/Jenks 2018) was conducted to assess the following materials:

- The upper layer of import material that was graded across the site in 2012
- The demolition debris emplaced at the site following demolition of the former wastewater treatment plant
- The soils below the proposed sidewalk area along the western edge of the property
- The sediments in the drainage swale along the eastern and southern extents of the property
- Native soils beyond the lateral and vertical limits of the above materials.

Specifically, samples were collected from the debris and import fill to determine the likely limits of excavation and for waste characterization purposes. This included sampling of native soils horizontally beyond and vertically beneath the limits of the in-place debris and import fill to pre-confirm the limits of excavation. Based on the results of the in-place sampling and analysis, horizontal and vertical boundaries of the excavation will be established, the material will be pre-profiled, and landfill acceptance will be secured prior to initiating the excavation work. Additional sampling and analysis may be conducted during implementation of the remedy if visual observations indicate the presence of debris and/or potentially contaminated soil beyond the proposed limits of excavation. Additional excavation may be performed with verification samples collected.

Based on the data collected to date, an approximately 2-acre area will be excavated to depths ranging from 2 to 22 ft below ground surface (bgs) (Kennedy/Jenks 2018;). The estimated volume of soils to be excavated and disposed is no more than 40,000 cubic yards or approximately 60,000 tons (assuming approximately 1.5 tons per cubic yard). Only approximately 726 cubic yards of material is estimated to require disposal as hazardous/TSCA waste (the remainder will be classified as non-hazardous waste).

The site cleanup goal is 0.24 milligram per kilogram (mg/kg) total PCBs, which will support unrestricted land use (i.e., not require a land use covenant or ongoing operations and maintenance of the site). The phases of remedy implementation are described below.

Site Preparation

Site preparation will include the following general tasks: clearing and grubbing, survey and excavation layout, and preparation of staging, ingress, and egress areas.

- Verify existing site conditions.
- Identify the location of aboveground and underground utilities, equipment, and structures and protect, remove, and/or divert of existing utilities, if necessary.
- Mobilize personnel, equipment, and materials to the site.
- Clear and grub areas as necessary to perform remedial action activities.
- Construct equipment and material staging/dewatering areas (as necessary).
- Prepare equipment and personnel decontamination areas (including portable toilets, wash stations, and waste receptacles).
- Establish erosion and sedimentation control measures.
- Construct temporary access roads (as needed) for ingress and egress of construction equipment as well as offsite transportation of excavated materials and onsite transportation of backfill material.
- Install temporary fencing or barriers as necessary to protect and secure the work areas and protect environmentally sensitive areas (e.g., sensitive biological or cultural areas).
- Obtain the necessary approvals and/or permits from the appropriate federal, state, and local agencies.
- Draft and finalize the necessary management plans (e.g., health and safety, dust control, stormwater pollution prevention, emergency response, revegetation, etc.).
- Educate construction site staff on measures to protect any sensitive biological and cultural resources/tribal cultural and onsite management practices and health and safety measures.

Before construction, the selected contractor will develop a site operations plan that identifies construction equipment staging and support areas, site access, exclusion areas, excavation areas, stockpile areas, truck lanes, parking areas, and site office trailers. Support areas and stockpiles of clean backfill would be placed in a zone not subject to excavation, while excavation and backfilling would be within the exclusion zones.

Recycled materials will be segregated from excavated material and recycled to the extent practicable. Although vegetation within the excavation footprint will need to be removed, no removal of trees will be necessary.

Soil Excavation, Backfilling, and Offsite Disposal

Up to 40,000 cubic yards (up to 60,000 tons) of soil and fill material within an approximately 2-acre area containing PCBs above the cleanup goal of 0.24 mg/kg total PCBs will be excavated and loaded onto trucks for offsite disposal.

A California-licensed hazardous waste contractor will excavate and remove the contaminated soil. Conventional off-road equipment would be used to excavate, handle, and load the soil. Equipment utilized is expected to include:

- Up to two hydraulic excavators during removal operations

- Up to two front-end loaders during removal and backfilling operations
- One dozer during removal operations and up to two during backfilling operations
- Up to two flatbed delivery trucks at the beginning and end of the job
- Up to five pickup trucks throughout the job.

Some upper horizon/shallow soils (approximately 6,000 cubic yards) may be clean and suitable for reuse. Where approved by EPA, such soils may be reused onsite as backfill, which would decrease the volume of offsite disposal and the volume of backfill as well as associated trucking. Deeper excavations will require either sloping, shoring, and/or benching as excavation proceeds to allow the work to proceed in a safe manner. The ultimate method of excavation stabilization will be determined by the contractor but will meet state and federal requirements. These excavation stabilization activities will result in excavation of additional, non-impacted soils (estimated as up to 30,000 cubic yards); these soils will be stockpiled onsite for reuse as part of the backfill and will not be transported offsite.

The contractor will use a State of California–licensed land surveyor to establish a field grid system to help locate key features at the site. The grid system will be used to locate the boundaries of areas of cultural and natural resources to be protected, soil samples, excavation limits, any discovered cultural resources, and other pertinent site features. Upon completion of the work, the contractor will work with a licensed land surveyor who will survey the final horizontal locations and elevations of site improvements, and final graded topography.

Work days and hours are assumed to be Monday through Friday from 7 a.m. to 6 p.m. with limited (non-grading) work on Saturdays (if necessary) from 9 a.m. to 5 p.m., to comply with the City of Larkspur's Noise Ordinance (Chapter 9.54). Disposal of impacted soils and fill materials generated as part of remediation would require approximately 2,400 trucks with an average of twenty 25-ton single trailer dump trucks arriving and leave the site each day for approximately 120 days of transportation and disposal. The excavated material will be wetted before being loaded to reduce the potential for dust generation during loading and transportation activities. Each truck will be inspected after filling to ensure that the affected soil/material is securely covered and that the tires and haul trucks are free of accumulated contaminated soil prior to leaving the project site.

Excavated areas will be backfilled with clean imported fill material and compacted to engineering specifications. Backfill material will be transported to the site over approximately the same period and with a similar number of trucks per day although the time period may be shifted to overlap with the offsite disposal trucking. Therefore, the proposed project is expected result in, on average, 40 vehicle round trips per day. It is unlikely that more than 40 trucks per day will enter and leave the site on most days; the actual number of trucks per day may be lower due to the availability of trucks and constraints at the site and the landfills.

The nature of the project is such that dump trucks off-hauling materials will not be traveling to and from the site in the late afternoon (landfills typically will not take dump trucks past mid-afternoon); therefore, no travel by dump trucks is anticipated between 4:30 p.m. and 6:00 p.m. Off-haul trucks will need to enter the site between 6:30 a.m. and 8:30 a.m. A few trucks can stage onsite prior to 6:30 a.m., but the site does not have the capacity for 20 trucks to stage. Trucks will not stage on public streets. A small number of trucks (likely a maximum of 10) will need to travel to the site between 6:30 a.m. and 8:30 am; this small number of trucks will have no material impact on the traffic on U.S. 101 or the Richmond-San Rafael Bridge. Backfill materials are likely to be transported to the site during off-peak hours (after trucks off-hauling material leave the site) and are also unlikely to arrive onsite after 4:30 p.m. The contractor will

be required to submit a Disposal Operations and Transportation Plan. One condition for the contractor will be that all truck traffic utilize the eastern intersection of Larkspur Landing Circle and Sir Francis Drake Boulevard to avoid traffic impacts to the western end of Larkspur Landing Circle at Sir Francis Drake.

The District understands that Larkspur Municipal Code Title 15, Chapter 20 indicates that grading can only occur Monday through Friday, excluding holidays, and from 7 a.m. to 6 p.m. The only exception to this rule is "when an unforeseen or unavoidable condition occurs during a construction project and the nature of the project necessitates that work in progress be continued until a specific phase is completed." The site will be regraded to approximately pre-excavation conditions (graded to drain properly). The fill will generally conform to the guidelines set forth in the DTSC Fill Advisory (DTSC 2001). Backfilling of excavated areas will follow construction methodologies and use materials that meet engineering specifications appropriate for the site. Soils will be compacted to approximately 90–95 percent relative compaction to ensure that low spots do not form over time. Suitable erosion controls, such as hydroseeding, will be provided during site restoration. The use of seed mixes of native plant species are preferred to prevent the spread of invasive species.

Based on waste characterization results, soils could be approved for disposal at a range of facilities. Class II soils could be disposed at one or more disposal facilities located in the Bay Area or Central Valley. The final decision on landfill selection will be based on contractor selection, the characterization results and resulting waste profile, and landfill acceptance.

Options for Class I (hazardous/TSCA waste) are more limited and include:

- Kettleman Hills Landfill in Kettleman City, California
- Buttonwillow Landfill in Buttonwillow, California.

Depending on restrictions that may exist at these facilities at the time of construction, out-of-state disposal facilities (e.g., Nevada) may also be considered

Local truck routes to the east Bay Area or Central Valley are anticipated to include to and from I-580 on Sir Francis Drake Boulevard with an alternate route being U.S. 101 to and from I-580. Trucks will enter and leave the site from Larkspur Landing Circle.

Site Management Practices

Several management plans will be developed as part of the site preparation phase including the Health and Safety Plan (HASP), which includes an emergency response plan; Disposal Operations and Transportation Plan; Decontamination Plan; Dust Control Plan; and Stormwater Pollution Prevention Plan (SWPPP). Some specific components of these plans are described below.

A Construction SWPPP is required for the project since the work will be greater than 1 acre in size. The SWPPP will include best management practices (BMPs) that will address the potential for discharge of sediment and other pollutants during the project. The exact locations, extent, nature, and details of the BMPs will be decided upon in consultation with, and subject to review and approval of, the City of Larkspur prior to the issuance of a Grading and Hauling permit.

If stockpiling of material is necessary, stockpiles will be stored within a bermed area on liner material, protected from stormwater run-on/runoff, and covered to prevent windblown dust. Any accumulated water would be collected from a low point within the bermed area and pumped into

a portable storage tank. The contained water would be tested and treated, if necessary, before disposal.

The potential for offsite vapor or dust migration, as well as worker exposure, is minimized by measures that include excavation and loading techniques, maintaining soil moisture, covering all loads, effective haul truck decontamination, and onsite speed limits. Prevention of all dust generation is not possible, but the contractor will be required to minimize dust emissions during the work day to the maximum extent possible, and to comply with all Bay Area Air Quality Management District (BAAQMD) rules and regulations.[4] Specifically, contractor dust control measures will be in accordance with the BAAQMD standards and guidelines (BAAQMD 2012). BAAQMD list several measures, such as the following, which will be implemented, as applicable:

- All active construction areas (exposed working or parking surfaces, soil piles, and unpaved site transit routes) will be watered at least twice daily, and more often during windy periods, to minimize visible dust generation. Active areas next to the existing land uses (residential area) will be kept damp at all times.
- All unpaved access roads will be watered three times daily.
- Inactive portions of the site that have exposed soil surfaces will be wetted or treated with an approved dust suppressant.
- Observance of visible dust will result in an increase in water application. Nontoxic surfactants will be added to the water as necessary.
- Drop heights of materials will be minimized. Dust-proof chutes will be used to load debris into trucks if applicable.
- Water spray will be applied at the source during clearing, grubbing, demolition, excavation, grading, waste loading, or in response to wind conditions.
- Stockpiles of debris, soil, or other material will be covered control windblown dusts.
- All haul truckloads of waste leaving the site will be covered.
- All vehicle speeds on unpaved roads on the site will be limited to 10 mph, or less, as necessary to minimize visible dust generation.
- Idling times will be minimized either by shutting equipment off when not in use or reducing maximum idling time to 5 minutes.
- Clear signage will be provided for construction workers and contract haul trucks at all access points.
- Construction equipment will be maintained and properly tuned in accordance with manufacturer's specifications.
- Dumpsters or other closable containers will be used to contain solid waste.
- Excavation and loading work will be modified or suspended during high wind conditions (e.g., sustained wind speeds of 25 mph or more) that render control measures to be ineffective in preventing offsite migration of visible dust.

[4] www.baaqmd.gov/Divisions/Planning-and-Research/Rules-and-Regulations.aspx

- Watering to control dust should not result in ponded water or runoff. Water sweepers will vacuum up excess water to avoid runoff-related impacts.
- All paved access roads, parking areas, and staging areas will be swept daily with water sweepers.
- Equipment and staffing will be provided during normal working hours for watering of all exposed or disturbed soil surfaces sufficient to suppress dust plumes.
- Adjacent streets will be swept of all soil and debris generated from the site work activities.

EPA regulations for PCB cleanups require the use of solvents for decontamination of equipment. However, for large equipment, especially trucks and other large equipment, soap and water is more typically used. EPA agreed to consider an alternative decontamination procedure, but solvents may be used on smaller, reusable equipment (e.g., hand tools). The wheels and tires of all haul trucks and other construction equipment leaving the site will most likely be approved for decontamination using dry brushing as necessary to prevent offsite transport on tires. All solvents used for decontamination will be properly stored/contained, handled, and disposed of according to state and federal regulations.

Dust monitoring would be implemented during construction to ensure compliance with BAAQMD requirements and also to minimize the migration of contaminants offsite during remedy implementation; monitoring devices would be placed, at minimum, at the upwind and downwind fence lines. The BAAQMD provides the national PM10 (particulate matter less than 10 microns) air quality guideline of 150 $\mu g/m^3$, as well as a California guideline of 50 $\mu g/m^3$ averaged over 24 hours (BAAQMD 2012). PM10 particle emissions will be measured upwind and downwind of work areas, and exceedance of BAAQMD standard of 50 $\mu g/m^3$ will trigger implementation of additional dust control measures.

Field activities will be governed by a site-specific HASP specifying practices that will be employed by cleanup workers to avoid physical and chemicals exposures during remedial activities, including air monitoring.

Construction Schedule

An approximate schedule is provided below. Construction is anticipated to begin in the summer of 2019.

Mobilization	1 week
Site Preparation	2 weeks
Soil and Debris Removal, Transportation, Disposal, and Backfilling	20 weeks (assumes 6-day weeks and concurrent excavation, offloading, and importing operations)
Restoration/Stabilization	2 weeks
Demobilization	1 week
Total	**26 weeks (6 months)**

The construction activities will be staged to avoid work near environmentally sensitive areas (e.g., wetlands or waters), and implemented outside of the wet season to avoid any impacts from construction activities as well as eliminate the need to capture and/or divert surface water drainage.

Other Permits and Project Approvals

EPA will review and approve the remedial plan and provide overall oversight and site closure. Permits that will likely be required, but are not necessarily limited to, include the following:

- City of Larkspur Grading and Hauling Permit
- Construction General Permit Order 2009-0009-DWQ (Construction Stormwater Permit)

References

BAAQMD. 2012. Final California Environmental Quality Act Air Quality Guidelines. Updated May 2012. http://www.baaqmd.gov/~/media/files/planning-and-research/cega/baaqmd-cega-guidelines_final_may-2012.pdf?la=en. Bay Area Air Quality Management District, San Francisco, CA.

City of Larkspur. 1990. *Larkspur General Plan 1990-2010.* City of Larkspur, CA. December.

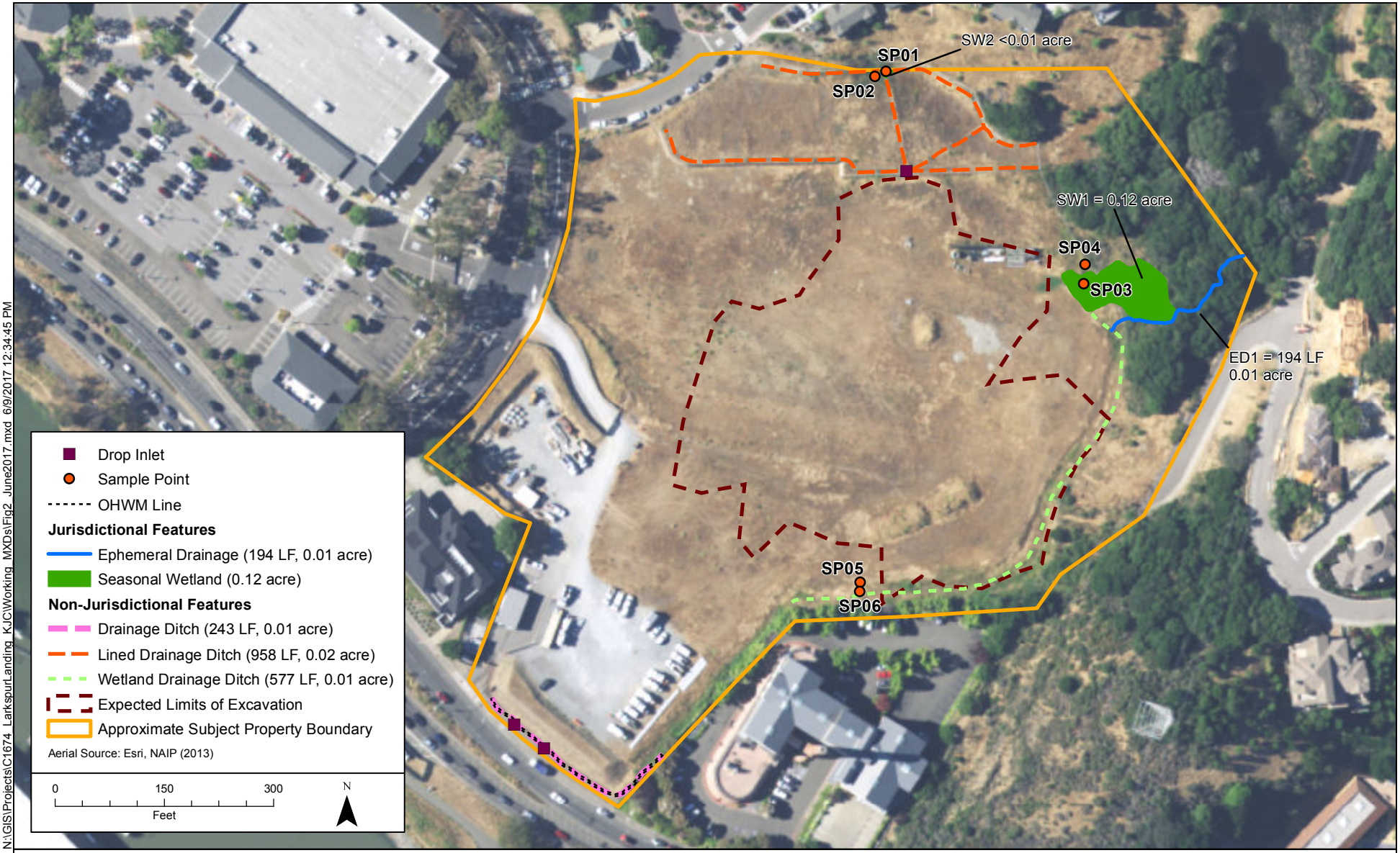
DTSC. 2001. Information Advisory, Clean Imported Fill Material. California Department of Toxic Substances Control. October.

Kennedy/Jenks. 2017. Updated Application for Cleanup of Polychlorinated Biphenyls – Former Wastewater Treatment Plant, Larkspur, California. Kennedy/Jenks Consultants. February.

Kennedy/Jenks. 2018. Revised Updated Application for Remediation of Polychlorinated Biphenyls Former Wastewater Treatment Plant Larkspur, California. Kennedy/Jenks Consultants. February.

ATTACHMENT B

EXPECTED LIMITS OF EXCAVATION



N:\GIS\Projects\C1674 LarkspurLanding KJCWorking MXDs\Fig2 June2017.mxd 6/9/2017 12:34:45 PM

integral consulting inc.

OHWM = ordinary high water mark
LF = linear feet

Figure 2.
Expected limits of excavation
Environmental Remediation, Former Wastewater Treatment Plant,
2000 Larkspur Landing Circle, Larkspur, CA 94939