



ADDENDUM

Addendum to the Routine Maintenance and Restoration Program Initial Study/Mitigated Negative Declaration

Introduction

This document is an Addendum to the East Bay Regional Park District's (The Park District) Routine Maintenance and Restoration Program Initial Study/Mitigated Negative Declaration (IS/MND) (SCH 2022060373), which was certified by the Park District's Board of Directors on August 23, 2022. The Routine Maintenance and Restoration Program (RMRP) streamlines permitting and environmental review for routine infrastructure maintenance and restoration projects. The Park District seeks to include nutrient remediation, and included standard best management practices (BMPs), to reduce algal blooms as an activity in the RMRP, but this activity was not evaluated in the original certified IS/MND. This Addendum evaluates whether the proposed activity would result in new or more severe environmental impacts than disclosed in the RMRP IS/MND.

Proposed Activity

The Park District proposes annual nutrient remediation and included standard BMPs to reduce reactive phosphorous in lakes and reservoirs, thereby improving water quality and minimizing algal growth. Initial treatments would occur in Lake Temescal, located at Temescal Regional Recreation Area in Oakland, and Lake Anza, located at Tilden Regional Park in Berkeley. Treatment locations could expand to other areas as needed. Annual nutrient remediation is anticipated to reduce algal blooms and prevent the closure of the lakes and reservoirs to recreational swimmers.

Treatment would consist of applying phosphorus-binding compounds in the water column and sediments. The active ingredients in these products include aluminum and lanthanum ions, two highly reactive metal ions that combine with phosphate ions, a primary cause of algal blooms, to form a stable bond. This reaction sequesters bioavailable phosphorous in the water column and sediments. The correct dose of the phosphorus binding compounds will be dependent on the amount of reactive phosphorous concentrations that are measured in samples collected from the water column and sediment at each location. Ongoing water quality and sediment monitoring, initially at Lake Temescal and Lake Anza, but expanded to other locations if needed would include:

- The District will continue long term monthly monitoring of critical parameters at each Lake's designated Monitoring Station¹ as well as contributing watersheds with the following parameters: Standard WQ (Temp, DO, pH, Specific Conductivity, turbidity), Secchi disk, and standard nutrients (NO₃, PO₄, Ammonia, TP, TN, Chlorophyll A). The results of the monthly sampling will be used to set the dosing levels for treatment.
- Sampling of sediments in both lakes will be performed to inform treatment dosing and treatment efficacy. If treatments are implemented or if notable water quality changes occur, then sediment sampling will occur annually.² If treatments are not implemented in a given year and if changes in water quality do not occur, then sediment sampling may occur every two to three years.
- Timing of application(s) will be based on rainfall, vegetation growth, current professional practices, and long-term data trends. For example, current information suggests that applications in early spring are effective, but it may also be effective to do partial doses and spread them throughout the year. The early treatment could

¹ The designated Monitoring Station is the site used during monthly routine sampling and is located at the deepest part of the lake/reservoir. At Lake Temescal the Monitoring Station is the northwest dock and at Lake Anza the Monitoring Station is a designated buoy. If treatments are expanded to other lakes/reservoirs, designated Monitoring Stations will be identified and reported to RWQCB.

² If treatments are expanded to other lakes/reservoirs, regular sampling of sediments at those additional locations will be performed as described.

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address nutrients in deeper sediments and later treatment could target the water column.

All nutrient remediation activities would include the following BMPs as a standard part of the remediation project when handling and during the application of nutrient remediation products, supplementing BMP 5 (Chemical Control) described in IS/MND Section 2.9:

Material Handling BMPs: Nutrient remediation products will be used according to their label instructions, California state law, and best professional standards that include:

- The District will use caution to apply the smallest practicable amount and the least concentrated formulation of nutrient remediation products necessary to effectively sequester nutrients. The amount and concentration of product used will be based on manufacturer's label instructions and on monitoring of nutrient level in water and sediments.
- The District will use extreme caution to only apply nutrient remediation products directly to the water column and sediments, thus minimizing the potential for incidental off target application on amphibians, reptiles, insects, and other wildlife.
- The District will use application methods and techniques that minimize the potential for drift or off target application. These include devices such as backpack sprayer, granule blower, direct water injection systems, slurry systems, etc.
- The amount of nutrient remediation products that can be transported in a vehicle will be limited to the least amount necessary for the anticipated treatment.
- Crews shall be trained in the use of spill kits and carry those kits to work sites so that any spills can be contained and removed immediately.
- Mixing and loading areas will be in or near treatment areas, located on relatively flat surfaces that are not susceptible to erosion or run-off, and will have easy access for clean-up of spills.
- Clean up and disposal of residue and containers shall follow all California state laws and regulations and label requirements that pertain to nutrient control products.
- Any Fish or animal kills observed following application shall be reported to CDFW and the Water Board within 4 hours.

Monitoring BMPs During/After Applications

- Immediately before, during and up to 2 hours post product applications, the District will conduct continuous monitoring at one or more designated monitoring sites with a multi-parameter water quality meter collecting measurements throughout the water column at 1 meter intervals.
- Standard WQ measurements (pH, DO, Temperature, turbidity and Specific Conductivity) will be recorded to confirm that the following parameters are within acceptable ranges during and after the application:
 - pH stays within 1 pH unit of pre-treatment level.
 - DO \geq 5.0 mg/L surface unless pre-treatment baseline DO is less than 5.0 mg/L. In this case, application will be monitored so that DO does not drop below one standard deviation below baseline at time of treatment.³
 - If measured values of pH and DO are outside of acceptable ranges for these parameters, application nutrient control product(s) will be halted until the pH and/or DO measurements in the water body being treated have returned to acceptable measured values.
- Lanthanum-modified bentonite applications can trigger short-term increases in turbidity as the product sinks. Turbidity measurements and Secchi disk readings will be used to confirm turbidity returns to the pre-treatment level within an expected 12-48 hour period.
- Immediately after treatment and the following day, lake perimeter surveys from the water will be performed to document any fish kills or harm to other wildlife.

³ The Standard Deviation will be calculated based on sampling data from 2017 to current year collected from the lake surface (0.2 meter below surface) and lake bottom (0.3 meter above lake bottom).

Addendum

According to Section 15164 of the California Environmental Quality Act (CEQA) Guidelines, an Addendum to a previously adopted environmental document is appropriate where project additions do not result in the following conditions listed in CEQA Guideline Section 15162:

- **15162(1).** Substantial project changes require major revisions of the previous IS/MND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.
- **15162(2).** Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous IS/MND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.
- **15162(3).** New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous IS/MND was adopted, shows any of the following:
 - (a) The project will have one or more significant effects not discussed in the previous IS/MND.
 - (b) Significant effects previously examined will be substantially more severe than shown in the previous IS/MND.
 - (c) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
 - (d) Mitigation measures or alternatives which are considerably different from those analyzed in the previous IS/MND would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

There are no changes to project circumstances or new information that would result in the conditions described in CEQA Guideline Section 15162(2) and 15162(3). However, the proposed activity requires analysis to confirm that it would not trigger CEQA Guideline Section 15162(1) related to new or more severe environmental effects than previously identified in the IS/MND. The analysis of triggers for CEQA Guideline Section 15162(1) is discussed below.

Analysis

The proposed activity, nutrient remediation, is a common resource management technique and is widely practiced across recreational and drinking water lakes and reservoirs. The proposed activity would not change the geographic scope of RMRP activities evaluated in the IS/MND, but use of nutrient remediation products could affect three environmental topics evaluated in the 2022 IS/MND, listed below. The following sections of this Addendum evaluate the potential environmental effects associated with the proposed activity against these three topics.

- Biological Resources
- Hazards & Hazardous Materials
- Hydrology & Water Quality

Biological Resources

IS/MND Section 4.4 evaluates potential biological resource impacts associated with RMRP implementation. Although the IS/MND did not explicitly evaluate impacts related to nutrient remediation, the IS/MND examined the use of other hazardous substances (such as herbicides) in sensitive habitats and considered potential significant effects to special status species resulting from misuse or accidental release. The IS/MND concluded that if such substances are used according to label instructions, California state law, and the chemical control BMPs identified in Section 2.9 of the IS/MND, potential impacts to special status species would be less than significant.

The proposed activity could result in accidental release or exposure that could adversely affect special status species or their habitat. This risk would be reduced by following product label instructions, California state law, and chemical control BMPs identified in Section 2.9 of the IS/MND, supplemented by the additional BMPs specific to nutrient remediation described above. Therefore, the proposed activity would not result in a new significant environmental effect or substantially increase the severity of a previously identified significant effect regarding sensitive biological resources.

Hazards & Hazardous Materials

IS/MND Section 4.9 evaluates potential hazardous materials impacts associated with RMRP implementation. As described therein, the RMRP would involve the routine transport, use, and disposal of hazardous materials such as pesticides, herbicides, and related materials, which could create a hazard to the public or the environment. However, implementation of BMP 5 (Chemical Controls) and BMP 18 (Hazardous Materials Storage/Disposal) would limit human and environmental exposure to less-than-significant levels. Application of these BMPs (supplemented with the nutrient remediation update to BMP 5 described above) would similarly reduce hazardous exposure related to the proposed activity during routine transport, use, or disposal of nutrient remediation products. Therefore, the proposed activity would not result in a new significant environmental effect or substantially increase the severity of a previously identified significant effect regarding hazardous materials.

Hydrology & Water Quality

IS/MND Section 4.10 evaluates potential hydrology and water quality impacts associated with RMRP implementation. As described therein, the RMRP could impact water quality through degradation of surface water quality or the accidental release of hazardous materials. However, the RMRP would implement the BMPs listed below to reduce the risk of surface water quality or hazardous materials release into the environment, thereby reducing this impact to a less-than-significant level.

- BMP 1 – Minimization of Work Area
- BMP 5 – Chemical Controls
- BMP 7 – Heavy Equipment Locations
- BMP 8 – Work Window
- BMP 9 – Culvert Debris Removal
- BMP 11 – Equipment Restrictions
- BMP 13 – Equipment Inspections
- BMP 14 – Equipment Maintenance and Fueling
- BMP 15 – Equipment Parking
- BMP 18 – Hazardous Materials Storage/Disposal

Implementation of these BMPs, supplemented with the nutrient remediation update to BMP 5 described above, would similarly reduce potential water impacts associated with the proposed activity. While nutrient remediation may have short term temporary impacts to water quality such as increased turbidity or changed in pH, monitoring included in the update to BMP 5 described above would reduce these impacts to less than significant. Additionally, nutrient remediation will improve water quality in the long run by reducing reactive phosphorous and minimizing algal blooms. Therefore, the proposed activity would not result in a new significant environmental effect or substantially increase the severity of a previously identified significant effect regarding water quality.

Conclusion

Based on the above analysis, the Park District concludes that the proposed activity would not result in new or more severe impacts on Biological Resources, Hazards & Hazardous Materials, and Hydrology & Water Quality from those documented in the RMRP IS/MND, and subsequent environmental analysis is not required.