



MEMO

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DATE: April 4, 2016

SUBJECT: Comments on Final EIR for Walt Ranch (#P11-00205-ECPA Project) and Need for Conditions to Protect Municipal Water Supplies within Milliken Reservoir Watershed

Introduction

The City of Napa (City) has reviewed the Final Environmental Impact Report (Final EIR) for the proposed Walt Ranch vineyard development project (Project), including responses to the City's comments on the Draft EIR. The City is concerned that the Final EIR does not adequately respond to the City's Draft EIR comments and fails to show that the Project's adverse water quality impacts will be less than significant with respect to the City's drinking water supply from Milliken Reservoir.

The City objects to the proposed Project's approval, unless the EIR is revised and recirculated to address the following items:

- Acknowledge that Water Code section 13260 obligates the Project to file a report of waste discharge with the San Francisco Bay Regional Water Quality Control Board, because nutrients and other wastes in its agricultural storm water runoff or irrigation drainage "could affect" — and indeed will affect — the high-quality municipal drinking water supply the City obtains from Milliken Creek, which runs through the Project site before entering the City's Milliken Reservoir less than a mile downstream.

- Acknowledge that the State Water Resources Control Board's (SWRCB) Antidegradation Policy, Resolution 68-16, prohibits the Project's agricultural storm water runoff or irrigation drainage from causing any degradation of receiving waters and requires best practicable treatment or control of nutrients and other wastes.
- Characterize water quality impacts as significant, or potentially significant, with respect to nutrients (e.g., nitrogen, phosphorous, sulfate compounds) and turbidity.
- Prescribe mitigation requiring water quality monitoring for nutrients and turbidity.
- Prescribe as mitigation best management practices (BMPs) that will be implemented to prevent nutrient and turbidity discharges.
- Prescribe a BMP modification requirement triggered by monitoring results showing that Project storm water runoff or irrigation drainage exceeds certain benchmarks for nutrients or turbidity.
- Prescribe as mitigation a condition of approval under which the Project's approval would be revoked for failure to implement the preceding mitigation measures requiring water quality monitoring and BMPs.
- Analyze an alternative project that omits vineyard development within the Milliken Creek watershed above the City's Milliken Reservoir.

Increasing Trend of Vineyard Development Impacts to Milliken Reservoir Drinking Water

Milliken Creek runs through the Project site before entering the City's Milliken Reservoir, which is less than a mile downstream from the Project. (Draft EIR Figure 4.6-3.) Milliken Reservoir is one of only two local water sources for 86,000 City residents and approximately 2,200 individual water service accounts in the unincorporated County. Milliken Reservoir provides the highest source water quality of all the City's water sources, followed by Hennessey Reservoir and then the State Water Project (SWP), which is imported from the Sacramento River, whose quality is significantly lower than that of Milliken and Hennessey reservoirs. The City faces increasingly stringent drinking water quality standards and customer expectations, and source water quality is among the factors guiding the City's use of its different water sources to provide public water service that is affordable, reliable and safe.

The Milliken Creek Watershed encompasses 6,141 acres above Milliken Reservoir, of which the City owns approximately 2,200 acres. The remaining acreage is under increasing vineyard development pressure because the Napa Valley floor is essentially fully developed, so vineyard developers are focusing their efforts on surrounding hillsides and watersheds. With the end of the Great Recession, new land development is progressing again. And the County has been approving vineyard development projects upstream from the City's municipal drinking water reservoirs in the mistaken assumption that erosion control plans prevent water quality impacts to the City's sources of drinking water supply.

For example, the County of Napa approved the 24-acre Kongsgaard vineyard project (#P14-00069-ECPA) on February 11, 2016, and approved the 344-acre Circle S vineyard project (#P06-01508-ECPA) on January 12, 2012. Those two vineyard development projects drain into Milliken Creek and thence into Milliken Reservoir and together encompass 368 acres, or 6 percent of the Milliken Reservoir watershed. The City participated in the California Environmental Quality Act (CEQA) review process for those projects, but the County

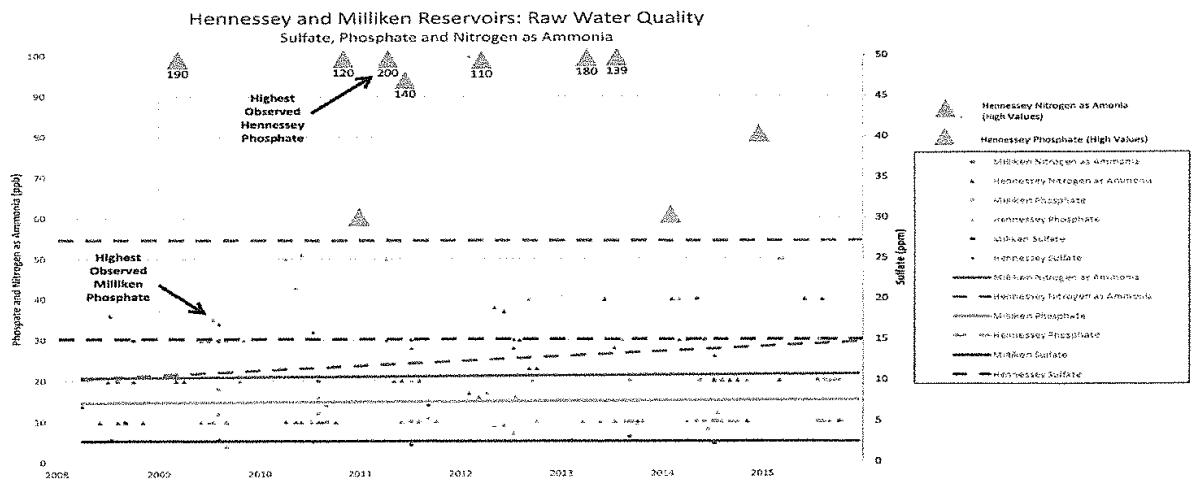
disregarded the City's concerns about water quality impacts and refused to prescribe City-proposed mitigation measures that included monitoring to confirm such impacts are avoided or reduced to a less-than-significant level.

The Final EIR for the Walt Ranch Project indicates that the County is poised to approve yet another vineyard development project — this one encompassing more than 177 acres in the Milliken Reservoir watershed — whose direct, indirect and cumulative effects on water quality will significantly degrade the City's highest-quality source of supply. The County's approval of the proposed Walt Ranch Project would increase the acreage of new vineyard project development to 545 acres upstream from Milliken Reservoir— approximately 9 percent of the watershed.

Meanwhile, federal and state drinking water quality standards continue to become more and more stringent. Caught between long-term trends of increasingly stringent drinking water quality standards, on one hand, and increasing County vineyard development approvals, on the other hand, the City and its water customers end up bearing the burden of degraded water quality from vineyard development and the need to carry out costly drinking water treatment upgrade projects. The County should prevent the shifting of vineyard development impacts onto the City and its public drinking water customers.

Substantial evidence shows such impacts are now degrading the City's Milliken Reservoir water source and already have been degrading the City's Hennessey Reservoir water source.

The watershed above Hennessey Reservoir encompasses 34,000 acres, of which the City owns 2,822 acres. The continuing trend of vineyard development in this much larger watershed (34,000 acres versus 6,141 acres) correlates with a trend of degrading water quality in Hennessey Reservoir — even with the County's erosion control planning program in place.



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Through the last decade the City's water division has observed and responded to an increase in algal growth within Lake Hennessey. Nutrient discharges from vineyard storm water runoff and irrigation drainage increases nutrient concentrations in Hennessey Reservoir, which increases algal blooms. Algae degrades drinking water quality by, among other things, causing unpleasant tastes and odors that cause customer complaints and erode customer confidence in safe drinking water quality. To fight reservoir algae, the City monitors growth and applies algacide treatments. Increased algal growth is attributed to the presence of nutrients such as phosphorous and nitrogen loadings from vineyard storm water runoff and irrigation drainage flow into Hennessey Reservoir, where they react with sunlight to cause algal growth.

The City has observed degradation of water quality in the Lake Hennessey watershed since the 1948 construction of this reservoir and is now in the process of designing upgrades to the existing drinking water treatment plant to address that degradation. (Callinan, 2013) The highest observed levels of phosphates in Lake Hennessey are over 5 times higher than the highest levels in Milliken Reservoir (200 ppb vs 35 ppb.) In addition the normal lowest observed levels of sulfates in Lake Hennessey are nearly 4 times higher than the normal observed levels in Milliken Reservoir (11 ppm vs 3 ppm.) The key observations of the graphed data is the consistency of the Milliken water quality showing, to date it has been untainted by nutrients and runoff from the surrounding hillsides, contrasting with the high levels of nutrients observed running into the Hennessey watershed.

Over the last 8 years, the City has seen a 400 percent increase in the level of effort required to treat Hennessey Reservoir water for algae problems, while annual customer complaints about resulting taste and odor problems continue to rise. The number of customer complaints when the City is serving Lake Hennessey water is nearly five times higher each year (from 13 to 65) than it was just 5 years ago. Water quality degradation from nutrients and algae is just the beginning. When algae dies, it consumes oxygen during the decomposition process and increases levels of total organic carbon (TOC). Reduced oxygen (called biological oxygen demand, or BOD) itself is water quality degradation. Increased concentrations of TOC, itself, is water quality degradation that, in turn, increases formation potential of disinfection byproducts during the City's drinking water treatment process, which also is water quality degradation. Since implementation of Stage II of the Disinfection Byproduct Rule (DBPR-II) the City has been required by the Safe Drinking Water Act to notify customers that levels of total trihalomethanes — a disinfection byproduct — in their drinking water exceed federal thresholds.

With respect to the proposed Walt Ranch Project and other vineyard development projects that the County has been approving in the Milliken Reservoir Watershed, the City and its water customers seek to prevent the kind of water quality degradation the City has been observing in the Hennessey Reservoir Watershed. The County's existing erosion control plan program has likely been helpful — but it has failed to stop a trend of increasing degradation to the City's public drinking water supplies from Milliken and Hennessey reservoirs.

As detailed below, the City's Water Division requests the County's assistance in protecting public drinking water supplies from degradation by vineyard development projects within the Milliken and Hennessey watersheds. The City respectfully asks that the County become its partner to prevent direct, indirect and cumulative water quality impacts that otherwise would

result from the County's discretionary decisions to allow changed land uses within the watersheds sustaining the City's two local sources of public drinking water supplies.

The Walt Ranch Final EIR Missapplies Significance Criteria And Disregards Water Quality Protection Principles In An Effort To Rationalize The Draft EIR's Erroneous Conclusion That Direct, Indirect and Cumulative Water Quality Impacts Will Be Insignificant

The Final EIR leaves unchanged the Draft EIR's misapplication of water quality standards to rationalize a conclusion that the proposed Project will not cause a significant adverse impact to water quality in Milliken Creek and Milliken Reservoir. According to the Draft EIR, the Project would not cause a significant impact to water quality unless it will:

- "Cause a violation of an adopted water quality standard, or result in a cumulatively considerable contribution to an existing violation of an adopted water quality standard."

(Draft EIR at 4.6-31.) The Draft EIR acknowledges that Milliken Creek is tributary to the Napa River and explains the Napa River is listed as "impaired" under section 303(d) of the federal Clean Water Act with respect to nutrients, pathogens and sedimentation/siltation. (Draft EIR at 4.6-20-21 [explaining that 303(d) listing means receiving waters already violate water quality standards protecting use for municipal water supplies and other purposes].)

Neither the Draft EIR nor the Final EIR describe the existing quality of water in Milliken Creek and Milliken Reservoir with respect to nutrients, pathogens or sedimentation/siltation. (Draft EIR at 4.6-8.) Failure to disclose and consider the existing water quality of Milliken Creek and Milliken Reservoir with respect to nutrients and other wastes is a fatal evidentiary and analytical gap that prevents the County and the public from reasonably assessing the significance of the proposed Project's impacts on that water quality, as required by CEQA.

In fact, despite a trend of declining water quality, Milliken Reservoir water quality typically is still higher, or better, than the "floor" established by water quality standards protecting municipal drinking water use with respect to nutrients (e.g., nitrogen compounds, phosphorous, sulfate), sediment/turbidity and other wastes. The County's significance criterion for water quality assumes that any Project-caused increase in loadings of nutrients or other wastes is insignificant, because such wastes "can be safely assimilated" — so long as water quality standards are not violated. (Draft EIR at 4.6-20.) The problem with the County's application of that criterion is its erroneous assumption that water quality degradation is insignificant — so long as water quality standards are not violated.

The County's assumption conflicts with case law prohibiting the use of adopted regulatory standards as the sole determinant of impact significance. Use of existing environmental regulatory standards in determining impact significance integrates CEQA review with other environmental regulatory programs — which conceptually is good. (*Protect the Historic Amador Waterways v. Amador Water Agencies* (2004) 116 Cal.App.4th 1099, 1107. But use of a regulatory standard may "not be applied in a way that would foreclose the consideration of other substantial evidence showing that there might be a significant environmental effect from a project." (*Id.* at 1108.) Here, the County has violated the preceding rule by assuming the

comparatively high quality of water in Milliken Creek and Milliken Reservoir can "safely assimilate" increased loadings of nutrients and other wastes from the proposed Project and from the recently approved Kongsgaard and Circle S vineyard development projects.

The County's assumption also conflicts with the state water quality law it purports to apply through the Draft EIR's significance criteria. Where a project would discharge nutrients or other wastes into receiving waters whose baseline quality exceeds water quality standards, the State Water Resource Control Board's (State Board) Antidegradation Policy specially protects such "high quality" waters from new waste discharges or a relaxing of standards limiting existing discharges. (State Board Resolution 68-16.) To prevent degradation of high quality waters, Antidegradation Policy requires application of "best practicable treatment or control" as mitigation and prohibits any remaining degradation — unless the discharger demonstrates extraordinary socio-economic needs require the degradation.

Consistent with the failure of the County's Draft and Final EIRs to describe the existing high quality of water in Milliken Creek and Milliken Reservoir with respect to nutrients and other wastes, the Draft and Final EIRs also fail to apply Antidegradation Policy to inform application of the EIR's significance criterion — under which the proposed Project would only have a significant water quality impact if it would "[c]ause a violation of an adopted water quality standard, or result in a cumulatively considerable contribution to an existing violation of an adopted water quality standard."

Thus, the County's approach to analyzing the proposed Project's water quality impacts (1) fails to disclose and describe the existing high quality of water in Milliken Creek and Milliken Reservoir with respect to nutrients and other wastes and (2) implies that whatever degradation might occur is insignificant, so long as water quality standards are still met, (3) even though Antidegradation Policy mandates best practicable treatment or control as mitigation and prohibits degradation — absent extraordinary socio-economic needs the EIR does not attempt to articulate.

The Final EIR's Responses to the City's Comments Are Inadequate

The Final EIR acknowledges receipt of the City's comments on the Draft EIR (designating them as "Comment A5") but fails to respond to all the issues raised by the City's comments. The failure to respond to issues raised by the City's comments makes the County's Final EIR inadequate. That failure also shows a lack of substantial evidence to support the conclusion that water quality impacts will be insignificant.

Responses to Comment A5-05

The Final EIR's response to the City's comments reveals a myopic focus on erosion control. Essentially, the Draft and Final EIRs go to some length to support the conclusion that the proposed Project will not increase erosion and sediment loading —but then assume without support that maintaining or reducing existing levels of erosion and sediment loading will ensure no adverse water quality changes with respect to pesticides, nutrients or other wastes generated by the Project. The Final EIR states:

When addressing comments on water quality, it is important to note that the purpose and goal of an Erosion Control Plan is to mitigate any soil loss and that sediment is the primary medium of transport for adsorbed pesticides. *Thus, if there is no soil loss (as predicted for the Proposed Project) then pesticides will not have a significant impact on water quality due to run-off.*

(Final EIR, Response to Comment A5-05, first full paragraph at 4-45 [emphasis added].) The County provided the City with a Walt Ranch Applicant attorney memo dated January 5, 2016, that make the same unsupported assumption ("if there is no soil loss then pesticides will not have a significant impact on water quality due to run-off"). (January 5, 2016, Memorandum from Dickenson Peatman & Fogarty to County Analytical Environmental Services at 1.)

Actually reducing erosion would assist in avoiding the Project's turbidity and sedimentation impacts to downstream receiving waters of Milliken Creek and Milliken Reservoir, but neither the Draft EIR nor the Final EIR attempt to actually show how that would affect Project discharges of dissolved nutrients or pesticides from storm water runoff or irrigation drainage. The Final EIR asserts "there are no significant impacts on water quality because pesticide use is highly regulated . . .," but such conclusory assertions fail to pass CEQA muster. Neither the Draft EIR nor the Final EIR even attempt to explain why there will be no significant water quality impacts with respect to nutrients — a clear failure to respond to an important issue raised in the City's comments on the Draft EIR. At bottom, the Draft EIR and Final EIR both assume — without providing substantial supporting evidence — that there will be no significant water quality impacts with respect to nutrients. The preceding analytical and disclosure failures violate CEQA.

The City has observed that the trend of increasing vineyard development in the Hennessey Reservoir watershed correlates with the trend of degrading water quality in Hennessey Reservoir since its construction in 1948 — and is now having to design upgrades to the City's drinking water treatment plant to address the degradation. Milliken Reservoir shows a flatline trend of maintaining water quality, however the degradation of water quality will increase as the County continues to approve vineyard development in the Milliken Reservoir watershed. For example, the highest observed levels of phosphates (a nutrient) in Lake Hennessey are 10 times higher than the highest levels in Milliken Reservoir (200 ppb versus 20 ppb.) In addition, the normal observed levels of sulfates in Lake Hennessey are nearly 4 times higher than the normal observed levels in Milliken Reservoir (11 ppm versus 3 ppm.)

The January 5, 2016, Applicant attorney memo references water quality monitoring performed for the Rodgers Ranch Project (Upper Range Draft EIR) as proving there are no significant impacts to municipal water quality from vineyard development. Rodgers Ranch Project is located within the Hennessey Reservoir watershed. But the Rodgers Ranch Project's water quality data shows the opposite of point it is cited to support; it shows that nutrient levels *increased* by 100-400 percent above background levels in Hennessey Reservoir.

Specifically, the Upper Range Draft EIR cites a single water quality sampling effort performed in the spring — near the end of the rainy season — at three project locations. The results reported for Sulfates were:

N1 - Sulfates 20 mg/L

N2 – Sulfates 22 mg/L

N3 - Sulfates 48 mg/L

Sampling in the spring — near the end of the rainy season — would understate that project's Sulfates discharge, because nutrients (or fertilizers) applied during the last growing season would have been washed away by storm water runoff during the beginning and middle of the rainy season. Water quality samples from the "first flush" of a storm at the start of the rainy season would almost certainly result in higher Sulfates levels (that is why the State Board requires industrial and municipal storm water dischargers to sample run-off during the first flush of a storm at the start of the rainy season).

Moreover, putting aside the selection of water quality samples from the spring, the Sulfates levels reported in the Upper Ranch Draft EIR are between two and four times higher than the normal background levels of Sulfate in Hennessey Reservoir, which are 11 ppm. The Upper Ranch Draft EIR asserted that project would have less than significant water quality impacts because the 11 ppm Sulfates level is below the water quality standard of 250 mg/L — improperly assuming that lowering receiving water quality to the floor set by water quality standards is insignificant — despite Antidegradation Policy. Such incremental reductions in water quality have significant, measurable effects on water quality. For example, the taste of City water customers' drinking water is degraded by the introduction of Sulfates into the water source. At bottom, the water quality sampling evidence from the Upper Ranch Draft EIR does not support — and, in fact, contradicts — the "no significant impact" conclusion in the Walt Ranch Draft EIR and Final EIR.

On page 4-45 of the proposed Project's Final EIR, the 3rd full paragraph states:

There are no significant impacts on water quality because pesticide use is highly regulated by the federal, State, and County governments and is sparingly used within the County as recognized by the Napa County Pesticide Report.

(Final EIR at 4-45.) The paragraph goes on to conclude that the only items of concern for municipal drinking water are those that are on the Contaminant Candidate List (CCL) and, since only four of those contaminants are used in Napa County according to the 2013 annual pesticide use report for Napa county, there is purportedly no cause for concern about significant impacts.

The County Planning Director's August 17, 2015, letter attached to the January 5, 2016, Applicant's attorney memo, asserts that municipal water supply sources are protected because only small amounts of vineyard chemicals are used under strict regulation by the County Agricultural Commissioner's office.

However, highlights of those “small amounts” applied in Napa County, if applied in watershed areas that would adversely affect municipal drinking water, are not limited to the 4 named items on the CCL. Water quality is affected by pesticides, herbicides and other man-made constituents, phosphates, nitrates, sulfates and other nutrients also affect drinking water quality including, but not limited to:

Sulfur and sulfates

- 832,200 lbs of sulfur, the largest used chemical applied for grape growing in Napa last year
- 18,750 lbs of lime-sulfur
- 9,000 lbs of ammonium sulfate

Sulfur and sulfates have effects on drinking water, most noticeably the measurable effects on taste and odor. Consequently there is a secondary MCL of 250 mg/L, which has been adopted as the water quality standard setting the floor on sulfate concentrations in receiving waters used for municipal drinking water supplies.

Phosphates are another major concern for raw water in drinking water supplies. Phosphates provide nutrients in water, which spurs the growth of blue-green algae. Algae dies, decomposes and imparts a foul taste and odor to drinking water. Treatment with ozone and granular activated carbon is required to eliminate those impacts. The City's drinking water treatment plant for Milliken Reservoir (as well as its separate plant for Hennessey Reservoir) does not employ ozone or granular activated carbon. Water quality degradation from the proposed Project is accelerating the need for such drinking water treatment plant upgrades.

There were over 50,000 pounds of glyphosate applied in Napa County with an unknown portion of those total pounds applied within the City of Napa's municipal supply watersheds.

The EIR does not acknowledge or address nutrient loading impacts on water quality.

As evidenced by the impacts to water quality in Lake Hennessey, the City has concerns that the current high quality water in the Milliken watershed will suffer significant impacts from the changed land uses from new vineyard development and ongoing vineyard practices upstream. The City seeks a commitment to gathering monitoring data during the beginning and end of the rainy season to ensure that vineyard operations within the Milliken Reservoir watershed do not adversely impact the quality of water the City serves as a municipal drinking water supply. If impacts are seen, the primary objective is to address the problem at the pollution source at the site where it originates and to prevent the water quality impacts. The County has responsibility to the public and its constituents to require new development to mitigate its impacts on the environment and the community.

The Milliken Treatment Plant has only direct filtration and does not have full conventional treatment. The plant is capable of treating the existing high quality raw water in the watershed to meet drinking water standards for its rate paying customers. Impacts to the water quality will drive the need for changes to the existing water treatment process.

The water rate customers that are served by the Milliken Treatment Plant are primarily County customers including the Silverado Country Club and Monticello Park areas. The Water Division feels strongly that these customers should not be burdened with the cost of addressing negative changes to water quality resulting from the County's approval of vineyard development in the Milliken Reservoir watershed.

The City respectfully requests that municipal water supply protection be ensured by the County if it approves the proposed Walt Ranch Project and any other future vineyard developments. Thank you for your cooperation in working together with us to protect these important resources for our citizens and customers in the County of Napa.

Request for Mitigation to Avoid or Reduce Water Quality Impacts

If the County decides to approve the proposed Walt Ranch Project despite the City's objections, the City respectfully requests that the County impose conditions of approval requiring Applicant to carry out the following water quality monitoring program.

Water Quality Monitoring. Applicant shall conduct a water quality monitoring program. The program shall include sampling of storm water runoff entering Milliken Creek from the Project site at a location 50 feet upstream and within 20 feet downstream of the location where cumulative Project area runoff enters the Creek within the watershed. Applicant shall collect and test samples three times per year:

- Within 72 hours after the first major storm event (1 or more inches of rainfall within 24 hours) of the wet season (October 1 to April 30);
- Within the period January 1-31; and
- Within the period May 1-30.

Samples shall be tested for presence and concentrations of the following constituents:

- Specific conductance
- Phosphate
- Nitrates (as Ammonia)
- Sulfate
- Turbidity

The City's Water Division sets the following parameters for our water supply reservoirs to prevent degradation of existing water quality:

<u>Milliken Reservoir</u>	<u>observed 2016</u>
Specific conductance	≤120 ppb
Phosphate	≤30 ppb
Nitrates (as Ammonia)	≤40 ppb
Sulfate	≤3.5 ppm
Turbidity	<12 NTU

If the upstream sample test results are above the levels indicated above for Milliken Reservoir, the monitored point shall not increase the concentration of the parameter by more than 10%.

If analytical data from the proposed Project shows no reduction in water quality under the preceding parameters, the sampling requirement may be concluded upon three years after full development of the project. However, even in that circumstance, if future monitoring performed by the City indicates runoff from the property is contributing to water quality degradation, the monitoring and reporting requirements will resume for an additional three-year period.

Sampling Requirements. All samples must include GPS latitude and longitude information.

Laboratory Requirements. Analytical data must be performed by an ELAP-certified laboratory in accordance with sampling and chain of custody requirements.¹

Reporting of Data. For each sample, a complete copy of laboratory test results shall be submitted to the County and the City's Water Division within 20 days of the receipt of the results from the laboratory.

Corrective Actions. If any parameter is exceeded, Applicant shall examine the best management practices (BMPs) it is implementing to control discharge of waste from the Project site, shall identify the actual or suspected cause of the parameter exceedance, and shall either modify relevant BMPs or add one or more new BMPs in order to eliminate the cause of the exceedance(s). Applicant shall complete the BMP review within 48 hours and resample the failed sites within 72 hours after the start of the next storm event. Applicant shall provide the County and the City Water Division with a Corrective Action Memorandum describing its BMP review and modification(s) within 30 days after receiving a sample test result exceeding one of the constituent parameters.

Penalties. Failure to take corrective actions sufficient to address the nutrient addition within a 30-day period shall result in administrative penalties and/or revocation of use permit or other penalty sufficient to compel the applicant to correct the problem.

¹In 2016, the cost of analyzing one sample is \$198, so the analytical cost in a year would be approximately \$800 - \$1,200. Such a cost is feasible for purposes of mitigation under CEQA.

