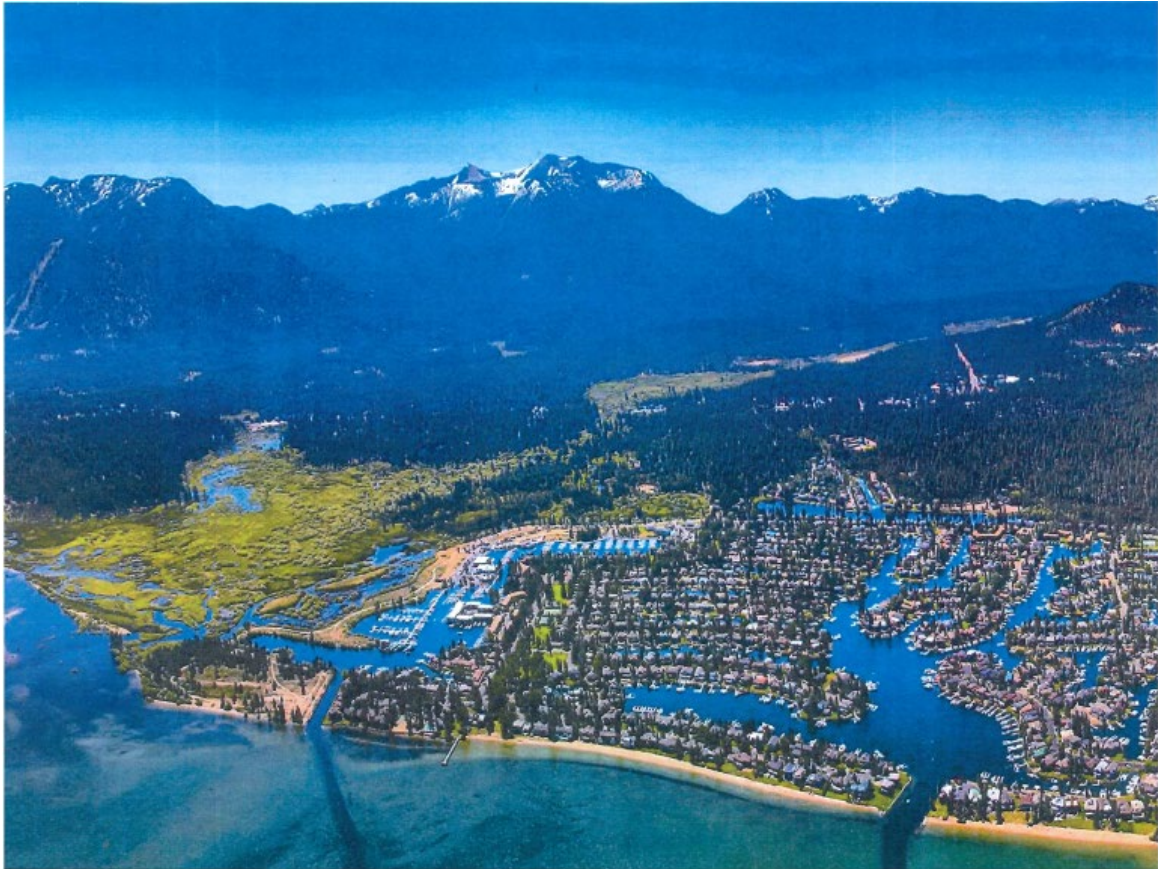


Tahoe Keys Lagoons Aquatic Weed Control Methods Test



Lead Agencies:
Tahoe Regional Planning Agency and Lahontan Regional Water Quality Control Board



**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, LAHONTAN REGION
MITIGATION MONITORING AND REPORTING**

PROGRAM NO. R6T-2022-[PROPOSED]

**MITIGATION MONITORING AND REPORTING PROGRAM FOR THE TAHOE KEYS LAGOONS
AQUATIC WEED CONTROL METHODS TEST**

FOR

**THE TAHOE KEYS PROPERTY OWNERS ASSOCIATION
CITY OF SOUTH LAKE TAHOE**

Whereas, the California Regional Water Quality Control Board, Lahontan Region (Water Board) finds:

1. The Tahoe Keys Property Owners Association (TKPOA) has proposed the use of aquatic herbicides within the Tahoe Keys Lagoons. The project is called the Control Methods Test (CMT). A Final Environmental Impact Report/Environmental Impact Statement (FEIR/FEIS) was prepared by the Water Board to grant an exemption to the pesticide prohibition contained in the Lahontan Basin Plan. This Mitigation Monitoring and Reporting Program (MMRP) is being required as the primary monitoring program associated with the California Environmental Quality Act (CEQA). CEQA requires the monitoring and reporting program to ensure implementation of the mitigation measures, but CEQA does not specify how this should be done, instead leaving the format, contents, and complexity of the program to the interpretation of the lead agency.
2. As lead agency for CEQA, the Water Board has developed a MMRP to ensure implementation of the mitigation measures that were specified in the FEIR/FEIS. "Monitoring" is the ongoing process of project oversight to ensure the mitigation measures are implemented, and "reporting" is the written review of mitigation activities.
3. The following MMRP summary table below includes the mitigation measures identified in the FEIR/FEIS as reducing impacts to less than significant, and resource protection measures. The FEIR/FEIS describes resource protection measures for categories of impacts that are expected to be less than significant without mitigation. While the resource protection measures are not a mitigation measure identified in the FEIR/FEIS as reducing potentially significant impacts to less than significant, the MMRP includes monitoring and reporting actions that must be carried out to ensure implementation of both the mitigation measures and some resource protection measures. The monitoring and reporting actions that must be carried out and the monitoring schedule are either a requirement of Waste Discharge Requirements and National Pollutant Discharge Elimination System (NPDES) Permit for Tahoe Keys Property Owners Association Tahoe Keys Lagoons Aquatic Weed Control Methods Test or a requirement of the Water Code Section 13267 Order contained herein. For each mitigation measure, the MMRP summary table identifies the monitoring and reporting actions that must be carried out and identifies the permit or order which requires the monitoring.
4. TKPOA will be responsible for implementing each resource protection measure, mitigation measure, and monitoring and reporting those measures. The Water Board will be responsible for ensuring that the measures are implemented through review of reports and monitoring data submitted to the Water Board.

5. The Water Board finds that the burden, including costs, associated with the monitoring and reporting requirements in this Order bear a reasonable relationship to the need and benefits to be obtained. The requirements are necessary to characterize receiving water quality and protect beneficial uses.

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Mitigation Measures/Resource Protection Measures	Monitoring and Reporting Action		Location of Monitoring and Reporting Requirement
<p>EH-1 Applicator Qualifications: Herbicide applications would be performed only by Qualified Applicator License (QAL) holders, who would be trained to follow NPDES permit requirements, use proper personal protective equipment, and follow product label specifications. Required in NPDES Order R6T-2022- 00XX permit, requirement VI.C.3.c.i.</p>	<p>QAL documentation for individuals who would be handling herbicide products would be required as part of TKPOA's contractor selection process and confirmed by TKPOA when the products are first mobilized to the Tahoe Keys. Any substitution of personnel handling herbicide products during CMT implementation would require QAL documentation and confirmation. TKPOA must provide documentation of the QAL holder.</p>		<p>TKPOA must provide documentation of the selection and performance of the herbicide application by a QAL holder as part of the annual reporting required in Section 7.0 of this MMRP.</p>
<p>EH-2, EH-3a, EH-4 Spill Prevention and Response Plan: A spill prevention and response plan would be implemented by a QAL holder to minimize and contain any spills during herbicide mixing and application, submitted for review as required by permitting agencies, and implemented at the work sites.</p>	<p>The spill prevention and response plan would require Water Board approval before herbicide products are mobilized to the Tahoe Keys. TKPOA personnel monitoring CMT implementation would be responsible for ensuring that plan requirements were followed throughout the herbicide</p>		<p>TKPOA must provide a description of the spill control BMPs implemented during herbicide application as part of the annual reporting required in Section 7.0 of this MMRP.</p>

**MITIGATION MONITORING
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Mitigation Measures/Resource Protection Measures	Monitoring and Reporting Action		Location of Monitoring and Reporting Requirement
Required in NPDES Order R6T-2022-00XX permit, requirement VI.C.3.a.iii.	applications and until herbicide products were demobilized. TKPOA must provide documentation of any spill control BMPs implemented.		
<p>EH-3b Dye Tracing:</p> <p>Rhodamine WT dye would be applied by TKPOA during the herbicide applications and tracked to determine the movement and dissipation of dissolved herbicide products and chemical transformation products. If herbicides are detected in nearby wells, contingency plans include shutting off the wells and distributing water to all users until residues are no longer detected in the samples.</p>	Rhodamine WT dye would be applied during each application of herbicide products and traced until the Rhodamine WT dye dissipates and is no longer detectable. TKPOA must report to the Water Board if contingency plans are implemented.		<p>Monitoring for Rhodamine dye is specified in NPDES Order R6T- 2022-00XX as part of the Monitoring and Reporting Program Table E-1.</p> <p>Monitoring for Rhodamine WT dye is required more frequently than in the NPDES Permit requirements and is described below in Section 1.0 Rhodamine WT Dye and Contingency Monitoring of this MMRP.</p> <p>If herbicides are detected in nearby wells, TKPOA must provide a description of the contingency plans implemented as part of the annual reporting</p>

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Mitigation Measures/Resource Protection Measures	Monitoring and Reporting Action		Location of Monitoring and Reporting Requirement
			required in Section 7.0 of this MMRP.
<p>EH-3c Well monitoring and contingencies: A monitoring plan would address potential effects to human health, based on the TKPOA (2018) Aquatic Pesticide Application Plan. Sampling would be conducted at all three TKPOA well water intakes and would include sampling for contamination by herbicides or degradants 24 hours prior to each application, and at 48-hour intervals thereafter for 14 days.</p> <p>Samples would be analyzed for active herbicide ingredients in the products applied, and contingency plans/measures if herbicides are detected.</p>	<p>Sampling would be conducted at all three TKPOA well water intakes and would include sampling for contamination by herbicides or degradants 24 hours prior to each application, and at 48-hour intervals thereafter for 14 days.</p> <p>TKPOA must report to the Water Board if contingency plans are implemented.</p>		<p>Monitoring frequency as specified in NPDES Order R6T-2022-00XX as part of the Monitoring and Reporting Program section IV.C.</p> <p>If herbicides are detected in nearby wells, TKPOA must provide a description of the contingency plans implemented as part of the annual reporting required in Section 7.0 of this MMRP.</p>
<p>EH-3d West Channel monitoring and contingencies:</p> <p>If herbicides are detected within the West Channel, additional</p>	<p>In any event, if herbicide residue is detected within 500 feet of the West Channel, the Water Board would be notified within 24 hours.</p>		<p>West channel monitoring is required and described below in Section 1.0 Rhodamine WT Dye and Contingency Monitoring.</p>

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Mitigation Measures/Resource Protection Measures	Monitoring and Reporting Action		Location of Monitoring and Reporting Requirement
<p>monitoring stations would be sampled outside the Tahoe Keys in Lake Tahoe and monitoring would continue south and north of the channel (TKPOA 2018). In any event, if herbicide residue is detected within 500 feet of the West Channel, the Water Board would be notified within 24 hours. Well monitoring would verify the effectiveness of carbon filtration to remove any herbicide residues. If herbicides were detected in wells, contingency plans would be implemented that could include shutting off wells and distributing bottled drinking water until residues are no longer detected in the samples.</p>			
<p>EH-3g Double Turbidity Curtain Barriers: Double turbidity curtain barriers would be installed outside West Lagoon areas where herbicide testing sites are located, to confine the herbicide applications and ensure that</p>	<p>The barriers would be installed before any herbicide products were used in the Tahoe Keys and would not be removed until monitoring demonstrated that herbicide degradants were not</p>		<p>Monitoring as specified in NPDES Order R6T-2022-00XX as part of the Monitoring and Reporting Program Table E-1. Monitoring during installation of turbidity curtains is described</p>

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Mitigation Measures/Resource Protection Measures	Monitoring and Reporting Action		Location of Monitoring and Reporting Requirement
herbicide residues or chemical transformation products do not migrate toward the West Channel connecting the West Lagoon to Lake Tahoe.	detectable on the landward side of the barriers.		below as part of Section 2.0 Turbidity Monitoring.
EH-5a Best Management Practices: Best management practices (BMPs) to minimize sediment disturbance would be followed. Turbidity would be monitored to ensure that sediment disturbance and the consequent potential for mobilization of aluminum into the water column is minimized. Required in the NPDES Order R6T-2022-00XX Section VI.C.3.h.	BMPs would be included in permit conditions for any CMT work approved by the TRPA and Water Board. Implementation of BMPs would be tied to real-time monitoring of turbidity during project activities having the potential to disturb sediments, with BMPs triggered by exceedances of permit turbidity limits.		Monitoring required is described below as part of Section 2.0 Turbidity Monitoring.
EH-6a, WQ-5a, WQ-6a, WQ-7a Timing and Size of Treatments: EH-6a: Spring aquatic plant surveys would be conducted to ensure that herbicide treatments occur at times when target aquatic weeds	The timing of weed control treatments and the boundaries of test sites will be finalized in the spring of CMT Year 1 and be conditioned on permitting agency approval.		Monitoring for macrophytes is required and described below in Section 5.0 Project Field Surveys and Reports.

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Mitigation Measures/Resource Protection Measures	Monitoring and Reporting Action		Location of Monitoring and Reporting Requirement
<p>plants are in their early stages of growth so that the volume of decomposing plant material is minimized. The locations of test sites would be adjusted as needed to ensure that the targeted species are present for each herbicide application and ultraviolet light test, and areas dominated by native plant communities are avoided. The treatment area would be as small as possible given the objectives of the CMT. To minimize the biomass of plants killed by ultraviolet light treatment and the consequent release of nutrients that could stimulate HABs, an initial round of ultraviolet light treatment would be conducted in the spring to stunt plant growth so that plants would only be a few feet tall when they are treated again in the summer.</p> <p>WQ-5a, WQ-6a, and WQ-7a:</p>			

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<p>The overall reduction in aquatic weed biomass from testing control methods is generally expected to reduce oxygen depletion and reduce the release of TP and TN from macrophytes at the test sites. Herbicide applications would occur in the late spring when target weed species are in their early stages of growth and plant biomass is minimal, and the timing would be adjusted based on pre-application macrophyte surveys. This timing is expected to minimize the biomass of decaying vegetation, mitigating the effects of oxygen depletion and nutrient release that could occur from dieback of mature plants. Similarly, ultraviolet light applications would include an early-season treatment to stunt plant growth, reducing the decaying biovolume that could contribute to reduced DO, TP, and TN in the summer. Effects</p>			

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<p>would also be mitigated by the limited size of test sites.</p> <p>The timing of the Proposed application is associated with flow of water from Lake Tahoe to Tahoe Keys lagoons as specified in NPDES Order R6T-2022-00XX, prohibition III.H, and the early stages of plant growth NPDES Order R6T-2022-00XX, section I and III. B.</p> <p>Pre-treatment plant monitoring is required to select final treatment NPDES Order R6T-2022-00XX, section VI.c.4</p>			
<p>EH-6b, WQ-5b Aeration:</p> <p>EH-6b: Aeration technologies such as LFA would be implemented at each herbicide test site after target aquatic weeds die back from the herbicide application. Aeration during plant decomposition would increase aerobic microbial</p>	<p>Aeration systems would be deployed following herbicide treatments at test sites if the need is identified through real-time DO monitoring, and their continued operation would also be based on monitoring results. The aeration systems could be continually operated until</p>		<p>Dissolved Oxygen (DO) monitoring requirements are described below in Section 3.0 Water Quality Parameters.</p> <p>TKPOA must report if the aeration systems were implemented as part of the</p>

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<p>degradation and reduce the risk of HABs by breaking up thermal stratification, reducing near-surface water temperature, and stabilizing pH conditions. The aeration systems would be continually operated until herbicide active ingredients and degradants are no longer detected above background concentrations.</p> <p>WQ5b : LFA or other aeration systems would be deployed in herbicide test sites after plant dieback to increase aerobic microbial degradation and offset the potential for BOD from plant decomposition that could cause low DO impacts. If real-time monitoring indicated that DO was not meeting permit requirements at an ultraviolet light test site, an LFA system would be deployed to aerate during the period of plant decay and ensure that DO impacts were not significant.</p>	<p>herbicide active ingredients and degradants are no longer detected above background concentrations, and aeration could also continue through the summer and early fall as needed to reduce oxygen depletion from plant decay at UV-C light or herbicide test sites. TKPOA must report to the Water Board if aeration systems are implemented.</p>		<p>annual reporting required in Section 7.0 of this MMRP.</p>

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Mitigation Measures/Resource Protection Measures	Monitoring and Reporting Action		Location of Monitoring and Reporting Requirement
Required in the NPDES Order R6T-2022-00XX, Section VI.C.3.f			
<p>EH-6c Bentonite Clay with Lanthanum:</p> <p>If HABs occur at a test site in response to phosphorus released during the plant decomposition that is expected to follow dieback from herbicide or UV-C light treatments, a bentonite clay product containing lanthanum (e.g., Phoslock) could be used to control the cyanobacteria. Lanthanum is a rare earth mineral with a strong affinity to bind with phosphorus. The product would be applied to the water surface at the test site where it would strip the water column of available phosphorus molecules while it settles to the bottom. The phosphorus would remain bound in the surface sediments and unavailable for growth of cyanobacteria or other</p>	<p>Weed control test sites would be observed daily for signs of HABs, samples would be collected for expedited analysis of cyanobacteria and cyanotoxins within one day after a HABs observation, and bentonite clay/lanthanum treatments would be implemented within one day after laboratory confirmation of HABs at a weed control test site.</p>		<p>Monitoring frequency and reporting as specified in NPDES Order R6- 2022-00XX in the Monitoring and Reporting Program Table E-2.</p>

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<p>phytoplankton, effectively starving the HAB of an essential nutrient.</p> <p>Required in in NPDES Order R6- 2022-00XX in Section VII.</p>			
<p>WQ-1 Real-Time Temperature Monitoring and Adjustments to Treatment Rates:</p> <p>Real-time temperature monitoring during the implementation of ultraviolet light testing or injection of hot water under bottom barriers would be used to determine whether the rates of ultraviolet light application or injection of hot water under barriers would need to be reduced.</p>	<p>Real-time monitoring of temperature would be performed at the beginning of UV-C light to evaluate whether any adjustments were necessary. Monitoring and adjustments to treatment rates would continue as needed throughout testing of these weed control methods.</p>		<p>Temperature monitoring is required and described below in Section 3.0 Water Quality Parameters of this MMRP.</p>
<p>WQ-2a Real-Time Turbidity Monitoring and Adjustments to Practices:</p> <p>Divers would minimize sediment disturbance where employed in Group B activities (hand-pulling of weeds or removal of bottom</p>	<p>Real-time turbidity measurements would be performed throughout the implementation of sediment disturbing activities in the lagoons, including during the beginning of each activity and following any adjustments to in-</p>		<p>Turbidity monitoring is required and described below in Section 2.0 Turbidity Monitoring.</p>

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Mitigation Measures/Resource Protection Measures	Monitoring and Reporting Action		Location of Monitoring and Reporting Requirement
barriers) because underwater visibility is necessary to carry out the work, and work would have to cease if the water became turbid. Turbidity monitoring would be conducted in association with these activities, and if permit limits could be exceeded, the methods or pace of bottom barrier removal or other activities would be adjusted to achieve compliance with permit limits for turbidity.	water work to confirm compliance with turbidity limits.		
WQ-4 Real-Time pH Monitoring and Adjustments to Treatment Rates: If real-time monitoring of pH indicates that permit limits are exceeded, herbicide rates would be adjusted until compliance with permit limits for pH is demonstrated.	Real-time pH monitoring would be performed during the beginning of herbicide treatments at each test site and following any adjustments to treatment rates to confirm compliance with pH limits.		Monitoring for pH is required and described below in Section 3.0 Water Quality Parameters.
AQU-1 Effects on Not-Target Aquatic Macrophyte Species:	Macrophyte surveys would be conducted in the spring before		Monitoring for macrophytes is required and described below in

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Mitigation Measures/Resource Protection Measures	Monitoring and Reporting Action		Location of Monitoring and Reporting Requirement
Spring macrophyte surveys would be used as a basis to adjust testing site boundaries to better target dense beds of target species and avoid native plant communities. Pre-treatment plant monitoring is required to select final treatment NPDES Order R6T-2022-00XX, section VI.C.4	the start of aquatic weed control methods testing.		Section 5.0 Project Field Surveys and Reports.
MM-BIO-1 Field Reconnaissance and Monitoring: Prior to initiating the test program, TKPOA will conduct a pre-test field reconnaissance of potentially affected terrestrial, riparian, and aquatic (benthic and littoral zones), habitat and species. This will include the test sites and buffer zones appropriate to each potentially affected species. The occurrence of any sensitive or listed species and/or habitat will be recorded. If sensitive receptors are observed, an evaluation will be made as to the potential impacts. If direct or indirect	A pre-CMT field reconnaissance will be completed by TKPOA. If requested by USFWS or CDFW, monitoring may include field biologist monitoring of potential impacts to special-status species with provisions for potential work stoppages and additional agency consultation on actions to avoid or mitigate those impacts.		Monitoring and surveying for terrestrial, riparian, and aquatic (benthic and littoral zones) habitat and species is required and described below in Section 5.0 Project Field Surveys and Reports.

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<p>impacts are possible, coordination will be initiated with the appropriate federal (USFWS) or state (CDFW) agency to determine further mitigation to avoid impacts. Examples of mitigation measures could include environmental tailboards prior to the start of work, the establishment of exclusionary zones (i.e., around active nests), and/or assigning biological field monitors with stop work authority if impacts to receptors are possible. Should work stop based on discovery of sensitive or listed species, TKPOA will consult with appropriate agencies to determine next steps prior to work restarting.</p>			
<p>MM-BIO-2: Routine monitoring of the ecotonal areas within Lake Tallac outside and adjacent to the herbicide treatment areas will be performed during the duration of the Proposed Project.</p>	<p>Routine annual monitoring of the ecotonal areas within Lake Tallac outside and adjacent to the herbicide treatment areas would be performed throughout the duration of the CMT.</p>		<p>Monitoring and surveying for terrestrial, riparian, and aquatic (benthic and littoral zones) habitat and species is required and described below in Section</p>

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	Monitoring would record cover and composition of native and non-native plant species within the ecotonal area. As the ecotonal areas are often portions of landowners' lakeshore, observations on plantings and removals outside of CMT scope of work would be noted. For consistency, plots may be established with the cooperation of landowners to control the number of variables that may be influencing ecotonal plant growth.		5.0 Project Field Surveys and Reports.
CR-1 Traditional Native American Resources and Values: On November 15, 2018, the United Auburn Indian Community provided a written request for consultation and recommendations for mitigation measures. These measures included an Unanticipated Discovery Plan, Awareness Training for workers, and an	TKPOA must report whether workers received awareness training, whether the Tribal Cultural Resources Awareness brochure was included as part of that training, and whether an Unanticipated Discovery Plan was implemented.		TKPOA must report whether workers received awareness training, whether the Tribal Cultural Resources Awareness brochure was included as part of that training, and whether an Unanticipated Discovery Plan was implemented.

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Mitigation Measures/Resource Protection Measures	Monitoring and Reporting Action		Location of Monitoring and Reporting Requirement
associated Tribal Cultural Resources Awareness brochure to be included in the Proposed Project Mitigation Monitoring Plan. The Water Board agreed to include the Tribe's recommended measures in the MMRP, as further described in section 4.0 of this MMRP.			

THEREFORE, BE IT RESOLVED THAT: The Water Board pursuant to California Water Code section 13267 requires TKPOA to monitor and submit reports as specified below. The requirements of this Order may be revised by the Executive Officer.

1.0 Rhodamine WT Dye and Contingency Monitoring

TKPOA must monitor for Rhodamine WT dye with the use of field equipment such as a fluorometer equipped with a continuous flow-through cuvette. The monitoring locations are shown in Figure 1 and monitoring frequency is listed below in Table 1.

Figure 1 shows the CMT sites, compliance monitoring locations, contingency monitoring locations, and the locations of double turbidity curtains in West Channel and the Tahoe Keys Lagoons.

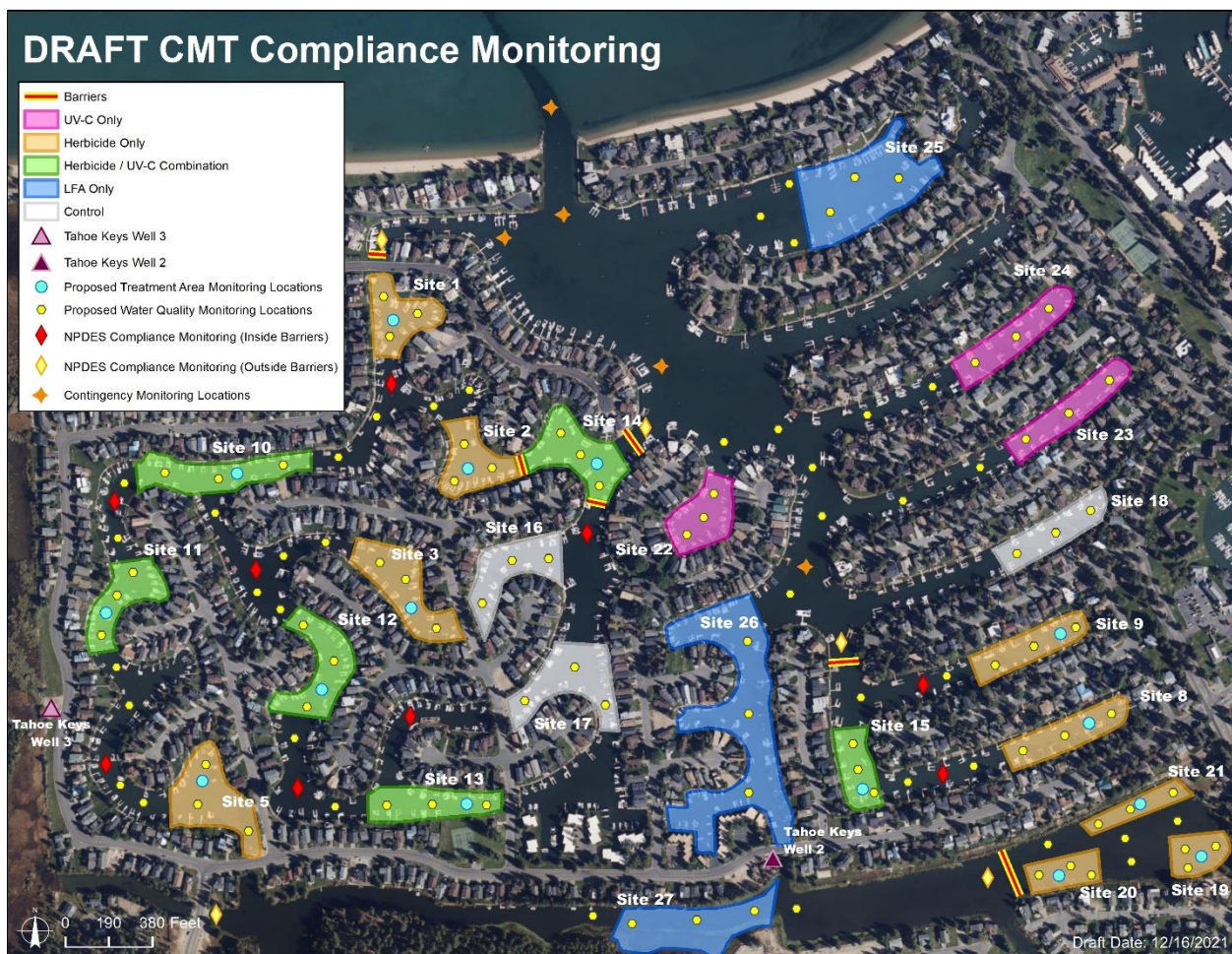





Figure 1 - Rhodamine WT dye compliance and contingency monitoring sites

Table 1 - Rhodamine WT Dye monitoring

Map indicator	Field Fluorometer (real time detection)	Monitoring and Analysis by an EPA Method or Standard Method for Endothall, Triclopyr
Red diamond 	Three times per week	See NPDES permit requirements, as adopted by the Water Board
Yellow diamond 	every other day (48hrs)	See NPDES permit requirements as adopted by the Water Board
Orange Star 	Upon a detection of Rhodamine WT dye at any yellow diamond location	See NPDES permit requirements as adopted by the Water Board

If field fluorometer screening indicates a detection of Rhodamine WT dye outside of a double turbidity curtain, at a yellow diamond monitoring location, then a sample for herbicide active ingredients will be collected on the day of detection at the location where the Rhodamine WT dye was detected. Contingency Monitoring Locations inside the West Channel will be sampled at the closest monitoring location designated by an orange star on Figure 1, near the location of the Rhodamine WT dye detections. The samples will be sent to a certified laboratory for herbicide analysis on a 24-hour rush turnaround request. TKPOA will notify the Water Board within 24 hours of collecting the sample to provide information regarding the status. If herbicide active ingredients are detected at monitoring locations designated by the orange stars on Figure 1, additional monitoring will be conducted at the adjacent monitoring location designated by an orange star and as necessary, at the additional Contingency Monitoring Locations in Lake Tahoe shown on Figure 2. The sampling will continue at 7-day intervals until analytical results for herbicides or degradants are non-detect or below receiving water limits for a minimum of two consecutive samples collected at a minimum of 48 hours apart.

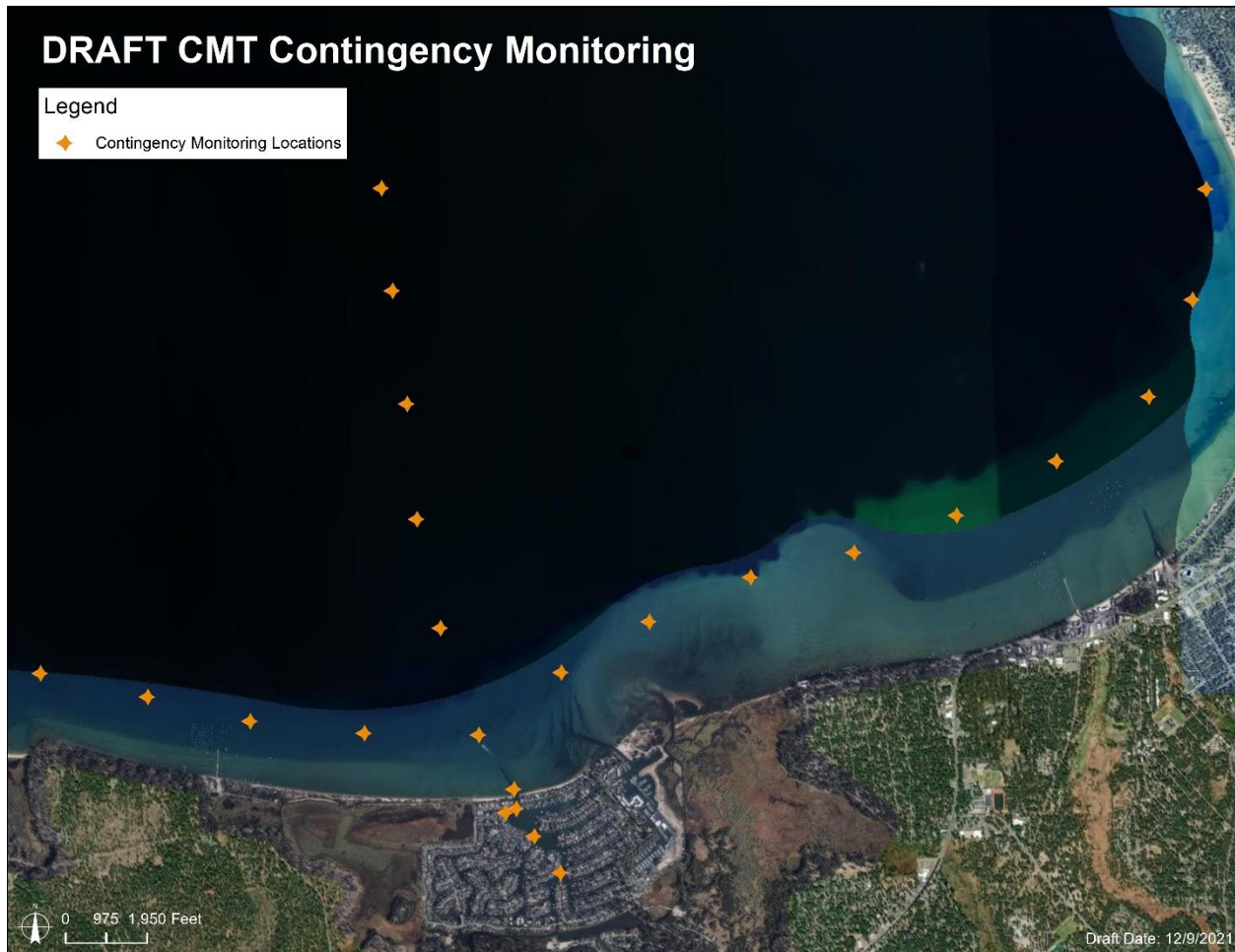


Figure 2 -Contingency Monitoring Locations in Lake Tahoe

2.0 Turbidity Monitoring

Turbidity monitoring will be done in conjunction with the following treatment activities: aquatic herbicide application, installation and removal of turbidity curtains, installation and removal of Laminar Flow Aeration (LFA) or other aeration devices, in the use of lanthanum modified clay, and the installation and removal of bottom barriers.

- 2.1 The following turbidity monitoring must be done either by a calibrated hand-held turbidity field meter, continuous data logger, or visually from the immediate area:
 - 2.1.1 Grab samples at the conclusion of the installation within 1-hour and at 24 hours if concentrations are elevated.
 - 2.1.2 Visually monitor the surface water and the water column immediately surrounding the curtains for increases in turbidity. If an increase in turbidity is observed due to malfunction of the turbidity curtain, then activities (installation or removal) must cease until the curtain is properly fixed and/or adjusted. Turbidity must be measured using either a calibrated hand-held turbidity field meter or recorded with a continuous data logger.

- 2.2 Turbidity monitoring must occur for all of the following Group B activities: bottom barrier application, diver assisted hand pulling, or diver assisted suction dredging sometimes referred to as spot suction. During these activities, turbidity monitoring must be done either by a calibrated hand-held turbidity field meter or a continuous data logger.
- 2.2.1 During Installation and removal of bottom barriers. Samples must be collected no further than 2 feet from the site of disturbance. Grab samples must be collected at the conclusion of the installation, within 1-hour, and at 24 hours if concentrations are elevated.
- 2.2.2 During diver assisted hand pulling, TKPOA must measure turbidity prior to start, middle (12 pm) and end of each workday during CMT Year 2 and 3.
- 2.2.3 TKPOA must Visually inspect the surface water and immediate water column surrounding the turbidity curtains or project activity area. If a visual increase appears to be occurring, TKPOA must conduct testing where samples are collected no further than 2 feet from the site of disturbance.

3.0 Water Quality Parameters

Water quality monitoring and measurements will be conducted at each CMT treatment location and the control sites. The water quality parameters to be measured and reported are dissolved oxygen (DO), pH, and temperature. The water quality monitoring and measurements must be conducted either by using a calibrated continuous water quality data logging device or other hand-held multiparameter meter designed to measure the water quality parameters.

Continuous water quality monitoring measurements for DO, pH, and temperature must be reported as daily averages. The first locations to be monitored must be recorded and some field marking used to ensure that all continued monitoring will be at that same location. If continuous data loggers are not used, monitoring and measurements will be done 3 days each week (typically Monday, Wednesday, Friday). Measurements will be taken at a minimum of one location outside the treatment site and up to three locations within each treatment site (1 middle of the treatment area, 2 near shore) as shown in Figure 1. The measurements must be in one of the following two manners: 1) taken from near the surface, mid-depth and near the bottom; or 2) if only one measurement can be made it will be at mid-depth, and the collection of data should be done between the hours of 11 AM and 2 PM.

Measurements must be made pretreatment (within one week before treatments), 72 hours post treatment, and will continue for up to 30 days after application of aquatic herbicides. TKPOA must record the location of the measurements and provide the location and measurements in an annual report.

The following are additional minimum monitoring requirements for DO, pH, and temperature measurements that must be conducted per treatment area and control site at the locations shown in Figure 1, above:

- 3.1 For Herbicide Only Treatment Areas, monitoring must start at 3 days after treatment (DAT). Measurements must be collected three times weekly and continue through at least 30 DAT. During CMT Year 2 and CMT Year 3, measurements must be collected weekly from start of project activities to end of project activities (April through November).
- 3.2 For Integrated Herbicide/UV-C Light Treatment Areas, monitoring must start at 3 DAT. Measurements must be collected three times weekly and continue through at least 30 DAT. During CMT Year 2 and CMT Year 3, measurements must be collected weekly from start of project activities to end of project activities (April through November). Water Board staff must be notified within 24 hours of preliminary indication if temperature readings at the treatment sites are increasing in comparison to control sites.
- 3.3 For UV-C Light Only Treatment Areas, monitoring must start at 3 DAT and continue until 60 DAT. Measurements must be collected three times weekly, during any treatment cycle and for up to 21 DAT. During CMT Year 2 and CMT Year 3, measurements must be collected weekly from start of project activities to end of project activities (April through November). Water Board staff must be notified within 24 hours of preliminary indication if the temperature readings at the treatment sites are increasing in comparison to control sites.
- 3.4 For the control sites, monitoring must be prior to any herbicide treatment and must begin 3 DAT and continue through 21 DAT of the last treatment of any kind. During CMT Year 2 and CMT Year 3, measurements must be collected weekly from start of project activities to end of project activities (April through November).
- 3.5 For LFA only Treatment Areas, monitoring must be completed from April through November. Monitoring data and related measurements must be collected weekly.

4.0 Cultural Resource Awareness and Training

On November 15, 2018, the United Auburn Indian Community provided a written request for consultation. The United Auburn Indian Community provided a description of the preferred mitigation measures for the inadvertent discovery of Tribal Cultural Resources, Worker Environmental Awareness Program (WEAP) training and the associated worker awareness brochure and requested that these measures be incorporated into the MMRP. As agreed by the Water Board, Section 4.1 describes the United Auburn Indian Community's preferred measures for the protection of cultural resources.

4.1 Awareness Training and Inadvertent Discoveries Measures Requested by the United Auburn Indian Community

The Unanticipated Discovery Plan should include guidelines that a qualified cultural resources specialist, in conjunction with Native American Representatives and Monitors from traditionally and culturally affiliated Native American Tribes, should assess the significance of any unanticipated finds and make recommendations for further evaluation and treatment as necessary. Culturally appropriate treatment that preserves

or restores the cultural character and integrity of a Tribal Cultural Resource may include Tribal Monitoring, culturally appropriate recovery of cultural objects, and reburial of cultural objects or cultural soil. If adverse impacts to tribal cultural resources, unique archeology, or other cultural resources occurs, then consultation with traditionally and culturally affiliated Native American Tribes regarding mitigation should occur.

Awareness Training for workers should be conducted in coordination with traditionally and culturally affiliated Native American Tribes. The Proposed Project proponent should develop and administer a worker training program for all personnel involved in the CMT. The training would include relevant information regarding sensitive tribal cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The training would outline what to do and whom to contact if any potential resources or artifacts are encountered. The training should also underscore the requirement for confidentiality and culturally appropriate treatment of any find of significance to Native Americans.

The Associated Tribal Cultural Resources Awareness brochure was developed by the United Auburn Indian Community and provides guidelines for protection measures and protocols for unanticipated finds or the discovery of human remains, shows examples of potential cultural resources, and encourages respect for Native American Culture. The brochure would be provided in conjunction with Awareness Training.

If buried cultural resources are discovered during the course of construction activities, construction operations shall immediately stop in the vicinity of the find and the California State Historic Preservation Office, shall be notified. At the discretion of the California State Historic Preservation Office, the undertaking may proceed provided reasonable efforts are implemented to minimize harm to the resource until a determination of significance is made. Cultural resources could consist of, but not be limited to, artifacts of stone, bone, wood, shell, or other materials, or features, including hearths, structural remains, or dumps. If human burials are encountered, all work in the area will stop immediately and the County Coroner shall be notified. If the remains are determined to be Native American in origin, the State Native American Heritage Commission and the appropriate Native American organization, pursuant to the requirements of the Native American Graves Protection and Repatriation Act of 1990 Section 3(d), shall be notified. Following notification, and upon certification that notification has been received, the undertaking may resume after 30 days.

5.0 Project Field Surveys and Reports

The following reports and surveys are required to be conducted prior to implementation of project activities for each CMT year:

- 5.1 A survey and summary report of the pre-test field reconnaissance for potentially affected terrestrial, riparian, and aquatic (benthic and littoral zones), habitat and species must include the results of the survey and a decision summary for the delineation of the treatment areas. A pre-project aquatic macrophyte survey must be conducted in the spring prior to treatment to characterize and identify target species areas. The results must be compiled and analyzed into a report prior to the use of aquatic herbicides.

- 5.2 If sensitive receptors are observed, an evaluation must be made as to the potential impacts and coordination would be initiated with the appropriate federal (USFWS) or state (CDFW) agency to determine further actions to avoid impacts.
- 5.3 Routine monitoring of the ecotonal areas must occur at an annual frequency. A survey and summary report of the routine monitoring of the ecotonal areas within Lake Tallac outside and adjacent to the herbicide treatment areas is required at the end of CMT year 1.

6.0 Adverse Conditions Reporting

Where monitoring data suggests an adverse condition may be occurring, TKPOA must notify the Water Board within 24 hours by email and provide preliminary data indicating a potential adverse condition. Examples of monitoring data that could indicate a condition requiring notification of the Water Board include:

- 6.1 A Harmful Algal Bloom (HAB) that appears to be caused by any CMT treatment.
- 6.2 Rhodamine WT dye testing triggers an analysis for pesticide sampling.
- 6.3 The dissolved oxygen in the water column is less than or equal to 5 mg/L and is below the control site's average. Average data must include 7-days of continuous data or three days of hand-held water quality meter measurements collected at varying depths or mid-depth sampling locations.
- 6.4 The temperature data collected in the UV-C light treated sites become elevated over control sites.

7.0 Reporting

TKPOA must submit an Annual Report containing the monitoring data collected in compliance with section 1.0 through section 5.0 of this Order and the reporting requirements specified in this section. The **Annual Report is due March 1**, following the previous CMT year treatment activities.

The Annual Report must also include a statement documenting the implementation of the following mitigation measures and resource protection measures:

- 7.1. Reporting of EH-1 Applicator Qualifications Measures. TKPOA must provide documentation of the selection and performance of the herbicide application by a QAL holder in the Annual Report following aquatic herbicide application.
- 7.2 Reporting of EH-2, EH-3a, EH-4 Spill Prevention and Response Plan Measure. TKPOA must provide a description of the spill control BMPs implemented during herbicide application in the Annual Report submitted to the Water Board following aquatic herbicide application.
- 7.3 Reporting of EH-3b Dye Tracing Measure. If herbicides are detected in nearby wells, TKPOA must provide a description of the contingency plans implemented in

the Annual Report submitted to the Water Board following aquatic herbicide application.

- 7.4 Reporting of EH-3c Well monitoring and contingencies. If herbicides are detected in nearby wells, TKPOA must provide documentation of the contingency plans implemented in the Annual Report submitted to the Water Board following aquatic herbicide application.
- 7.5 Reporting of EH-6b, WQ-5b Aeration Measure. TKPOA must report if aeration systems were implemented in Annual Reports submitted to the Water Board.
- 7.6 Reporting of CR-1 Traditional Native American Resources and Values Measure. TKPOA must report whether workers received awareness training, whether the Tribal Cultural Resources Awareness brochure was included as part of that training, and whether an Unanticipated Discovery Plan was implemented in Annual Reports submitted to the Water Board.

I, Michael R. Plaziak, Executive Officer; do hereby certify that this Order is a full, true, and correct copy of the Order adopted by the California Regional Water Quality Control Board, Lahontan Region, on January __, 2022.

MICHAEL R. PLAZIAK
EXECUTIVE OFFICER

Date _____