

# **City of Alameda**

## **REQUEST FOR PROPOSAL**



The Public Works Department is seeking proposals for Vegetation Management and Water Quality Services for Alameda West Lagoons

Issued: September 4, 2019

Submittal Deadline:

2:00 PM on October 8, 2019

City of Alameda  
Public Works Department  
950 West Mall Square  
Alameda, CA 94501

## **I. NOTICE INVITING PROPOSALS**

The City of Alameda (City) Public Works Department invites proposals for Vegetation Management and Water Quality Services for Alameda West Lagoons. It is necessary for Proposers to read the information contained in this Request for Proposal (RFP) to understand how to submit the proposal, what documents must accompany the proposal and what legal obligations the Proposer is submitting by providing a successful proposal. Any Proposer that wishes to be considered for this work must submit the information requested in this RFP and if invited, participate in an interview. Proposals must be received by the City Public Works Department by 2:00 PM on October 8, 2019.

### **SUBMITTAL OF PROPOSAL**

Proposers shall submit two (2) complete double-sided, copies of their proposal and a compact disc or portable hard drive containing a Portable Document File (PDF) proposal. The printed proposals should be on paper containing a minimum of 20% post-consumer recycled content. Proposals must be in a sealed envelope bearing the caption "City of Alameda – "Vegetation Management and Water Quality Services for Alameda West Lagoons". Proposals shall be submitted to:

ATTN: Erin Smith, Deputy Public Works Director

City of Alameda

950 W Mall Sq

Alameda, CA 94501

RE: Vegetation Management and Water Quality Services for South Shore Lagoons

Proposals may be submitted in person at the Public Works Department, or by mail, but must be received by 2:00 PM on October 8, 2019. Late proposals will not be considered. The City assumes no responsibility for delays caused by delivery service. Postmarking by the due date will not substitute for actual receipt. Any Proposal received prior to October 8, 2019 may be modified by written addendum or withdrawn by written request from the Proposer to the City up to the official time when all proposals are due.

### **PRE- PROPOSAL QUESTIONS**

All questions regarding the proposal documents and proposal should be directed to:

Erin Smith, Deputy Public Works Director

City of Alameda Department of Public Works

950 West Mall Square

Alameda, CA 94501

esmith@alamedaca.gov

Pre-proposal questions will be accepted until October 1, 2019.

### **CONDITIONS OF REQUEST FOR PROPOSAL**

**General Conditions.** The City reserves the right to cancel or reject all or a portion or portions of the request for proposals without notice. Further, the City makes no representations that any agreement will be awarded to any organization submitting a proposal. The City reserves the right to reject any and all proposals submitted in response to this request or any addenda thereto.

The City also reserves the right to reject any subconsultant or individual working on the proposed team and to replace the sub-consultant or individual with a mutually acceptable replacement.

Liability of Costs and Responsibility. The City shall not be liable for any costs incurred in response to this request for proposals. All costs shall be borne by the person or organization responding to the request. The person or organization responding to the request shall hold the City harmless from any and all liability, claim or expense whatsoever incurred by or on behalf of that person or organization. All submitted material becomes the property of the City of Alameda.

The selected lead consultant will be required to assume responsibility for all services offered in the proposal whether or not they possess them within their organization. The selected lead consultant will be the sole point of contact with regard to contractual matters, including payment of any and all charges resulting from the contract.

Validity. The proposer agrees to be bound by its proposal for in all respects until one such proposal has been accepted by the City and an agreement fully executed, or until a proposal has been specifically rejected by the City, whichever occurs first, but in no event longer than four (4) months from the date of submission.

Standard Consultant Agreement. A sample agreement has been provided in **Exhibit A** for the proposer's review and comment. If a proposer wishes to take exception to any of the terms and conditions contained in the consultant agreement, these should be identified specifically; otherwise it will be assumed that the proposer is willing to enter into the agreement as it is written. Failure to identify contractual issues of dispute can later be the basis for the City disqualifying a proposer. Any exceptions to terms, conditions, or other requirements must be clearly stated. Otherwise, the City will consider that all items offered are in strict compliance with the RFP, and the successful proposer will be responsible for compliance. The City will consider such exceptions as part of the evaluation process which may constitute grounds for rejection of the proposal. The consultant agreement will not be executed by the City without first being signed by the proposer.

Permits and Licenses. Proposer, and all of proposer's sub-consultants, at its and/or their sole expense, shall obtain and maintain during the term of any agreement, all appropriate permits, certificates and licenses including, but not limited to, a City Business License which will be required in connection with the performance of services hereunder.

Proposer's Representative. The person signing the proposal must be a legal representative of the firm authorized to bind the firm to an agreement in the event of the award.

Insurance. General Liability, Automobile, Professional Liability, Pollution Prevention and Worker's compensation insurance are required in the amount set forth in the attached sample consultant agreement.

Prevailing Wage. The selected Contractor will be required to pay the prevailing wage rates in effect on the date this Request for Proposals was first published, pursuant to California law, including California Labor Code sections 1720 through 1861. General prevailing wage rates in Alameda County are on file with the Department of Industrial Relations, and shall be made available to any interested party upon request.

Term of Agreement. The term is expected to be for one (1) year with four (4) options to renew. If mutually agreeable to both parties, the Agreement may be extended on a year-to-year basis. The extension shall

be in written form as an amendment to the Agreement. This contract will commence on the date the agreement is approved and awarded by City Council.

Contractor may apply for a cost adjustment after the first contract year. In order for the rate adjustment to be considered by the City, the Contractor shall be in full compliance with all of the performance standards as established by this Contract. The rate may be adjusted by the Contractor as provided herein solely on the basis of the change in the Consumer Price Index for All Urban Consumers (CPI-U) for the bay area, provided, however, that those adjustments in rates based solely on the change in CPI-U will not exceed five (5) percent per annum. The Contractor assumes all risks associated with increased costs of service not reflected in the rate adjustments. The Contractor shall use the CPI-U for the most recent twelve month period prior to the contract's anniversary date.

EXECUTION OF CONTRACT. The contract, in form and content satisfactory to the City, will be awarded at a regular City Council meeting (first and third Tuesdays of each month, except August). At least four (4) weeks prior to the anticipated award date, the Contractor will be notified of apparent award status and requested to provide the documents necessary to complete the contract process. Required documentation shall include two (2) copies of the contract executed by the Contractor, proof of insurance and Payment and Performance bonds. The Contractor will be given five (5) business days from the date the City Council awards the contract to obtain the relevant bonds and insurance along with any other documents required for submission.

CONFIDENTIALITY. The California Public Records Act (Cal. Govt. Code Sections 6250 et seq.) mandates public access to government records. Therefore, unless information is exempt from disclosure by law, the content of any request for explanation, exception, or substitution, response to this RFP, protest, or any other written communication between the City and Proposer, shall be available to the public. The City intends to release all public portions of the proposals following the evaluation process at such time as a recommendation is made to the City Council. If Proposer believes any communication contains trade secrets or other proprietary information that the Proposer believes would cause substantial injury to the Proposer's competitive position if disclosed, the Proposer shall request that the City withhold from disclosure the proprietary information by marking each page containing such proprietary information as confidential. Proposer may not designate its entire proposal as confidential nor designate its Price Sheet as confidential. Submission of a proposal shall indicate that, if Proposer requests that the City withhold from disclosure information identified as confidential, and the City complies with the Proposer's request, Proposer shall assume all responsibility for any challenges resulting from the nondisclosure, indemnify and hold harmless the City from and against all damages (including but not limited to attorney's fees that may be awarded to the party requesting the Proposer information), and pay any and all costs and expenses related to the withholding of Proposer information. Proposer shall not make a claim, sue, or maintain any legal action against the City or its directors, officers, employees, or agents concerning the disclosure, or withholding from disclosure, of any Proposer information. If Proposer does not request that the City withhold from disclosure information identified as confidential, the City shall have no obligation to withhold the information from disclosure and may release the information sought without any liability to the City.

CONFLICT OF INTEREST. The Proposer warrants and represents that it presently has no interest and agrees that it will not acquire any interest which would present a conflict of interest under California Government Code sections 1090 et seq., or sections 87100 et seq., during the performance of services under any Agreement awarded. The Proposer further covenants that it will not knowingly employ any

person having such an interest in the performance of any Agreement awarded. Violation of this provision may result in any Agreement awarded being deemed void and unenforceable.

## II. BACKGROUND

The Southshore lagoon system consists of five individual lagoons linked together by approximately 3,070 linear feet of 60-inch reinforced concrete pipe. The lagoon system was constructed in the late 1950's and early 1960's, when the existing San Francisco Bay shoreline was filled to create additional single-family residential units, some multi-family structures, and a few commercial properties. The lagoons are approximately two miles in length, have a total surface area of approximately 50 acres, and vary in depth from one foot at the perimeter walls to approximately eight feet in the center. **Exhibit B** contains an overview map of the lagoon system.

Lagoon 1 extends from Westline Drive (near Shoreline Drive) to Grand Street; Lagoon 2 extends from Grand Street to Willow Street; Lagoon 3 extends from Willow Street to Park Street; Lagoon 4 extends from Park Street to Broadway; and Lagoon 5 extends from Broadway to Bayview Drive (near Court Street).

The lagoons are supplied with salt water from the San Francisco Bay by a 3,000-gallon per minute pump housed in a station located near the Westline Drive/Shoreline Drive curve. The pump only operates during high tides because of the shallow location of the intake structure. Once the water is pumped into the westerly-most lagoon, it flows through the lagoons by gravity and returns to the Bay at the easterly-most lagoon. The water level is controlled by two weir structures with sluice gates, the Willow weir located at the end of Lagoon 2 and the Bayview weir located at the end of Lagoon 5 at the outlet structure. These structures allow the water level to be manually raised or lowered to the required height. Water is maintained at a constant level except during the winter rainy season and for annual maintenance.

The lagoons serve as a private water feature for the enjoyment of residents living along the lagoons and as a channel for storm water during periods of rain. The City and the Alameda West Lagoon Homeowner's Association (AWLHOA) maintains the lagoons for purposes of storm drainage, water quality and aesthetics. The AWLHOA is the record title owner of the lagoon system, and the City has a perpetual easement over it for maintenance purposes. As such, the City consults with the AWLHOA on the maintenance and monitoring of the lagoon system.

Migratory waterfowl also frequent the lagoons as well as resident birds. Egrets, herons, and various ducks are the primary migratory waterfowl. Resident birds consist mostly of mallards, Canadian geese, and coots.

The City is an enrollee under the Statewide General National Pollutant Discharge Elimination System (NPDES) Permit for Residual Aquatic Pesticide Discharges to Waters of the United States from Algae and Aquatic Weed Control Applications, Water Quality Order 2013-0002-DWQ ("NPDES Permit") and has an approved Aquatic Pesticide Application Plan (APAP). A copy of the APA is included as **Exhibit C**.

## III. SCOPE OF SERVICES

The purpose of this contract is to provide vegetation management, debris management, water quality sampling and NPDES permit compliance services for the South Shore Lagoons. The qualified firm must be experienced in the management of nuisance aquatic plant growth using an array of control methods to

maintain the lagoon's aesthetic and recreational amenities. The firm's management approach must be consistent with applicable local, state, and federal regulatory requirements. The Contractor is expected to examine carefully the lagoon sites before preparing a proposal.

#### IV. PROPOSAL REQUIREMENTS

Proposals shall include the following elements:

I. Statement of Qualifications

The Proposer shall prepare a statement of qualifications in the submitted proposal, which identifies:

- a) The size, stability, and capacity of Contractor's organization, including, at a minimum, an identification of total number of years in operation, number of employees in the office location which is intended to provide the services described in the Scope of Services, and a description of Contractors' shop and storage facilities intended to support the City.
- b) An identification of the Contractor's experience performing services for projects of a similar size, scope, and complexity as the services required by this RFP, including an identification of the number of years Contractor has been performing similar services; and the most recent projects for which the Contractor has performed similar services. The list of recent projects shall include the name, contact person, address, and phone number of each party for whom the service was provided, as well as a description of the service performed, the dollar amount of the contract, and the date of performance.
- c) A list of the Proposer's principals, employees, agents, and subcontractors which the Proposer intends to assign to this Project. This list shall include a summary of the qualifications (including education, training, certifications licenses, and experience) of each individual; the approximate number of hours each will devote to the Contract; and the type of work to be performed by each individual.
- d) Description of training and safety programs for its field employees.

II. Signed City of Alameda Integrated Pest Management Policy (Exhibit D)

III. Statement of Exceptions, if any, to Standard Consultant Agreement.

A sample agreement has been provided in **Exhibit A** of this RFP for review. If Contractor wishes to take exception to any of the terms and conditions contained in the consultant agreement, these should be identified specifically; otherwise include a statement of no exception in the submitted proposal. Failure to identify contractual issues of dispute can later be the basis for the City disqualifying a proposer. Any exceptions to terms, conditions, or other requirements must be clearly stated.

IV. Proposed Work Plan

Based on experience and expertise, the Proposer shall craft a Work Plan tailored to the Southshore lagoon needs. The work plan shall include, but need not be limited to, the elements listed below. As detailed below, the Work Plan will include a Cost Schedule of service and control Options, associated unit pricing and an estimated itemized monthly work plan for each month within a 12 month period (paragraph 7 below). The Cost Schedule may include options not itemized in any monthly work plan to allow flexibility in adding or replacing services in any given month, based on actual conditions. The final Cost Schedule and monthly work plans included in the Agreement will

be negotiated by the City and Proposer deemed most responsive in demonstrating their expertise and capacity to deliver the desired professional services.

1. **Inspection and Water Quality Sampling.** Inspect the lagoons to identify and prepare for nuisance plant growth and evaluate ambient water quality indicators.
  - Discuss how the City will have an accurate assessment of lagoon conditions with respect to the emergence of aquatic plant nuisance conditions. Identify tools and techniques that will be utilized.
  - Water quality samples shall be collected from a depth of 1 foot below the water's surface. Samples to be analyzed in a certified laboratory must be collected and stored in suitable containers provided by the laboratory. Routine monthly water quality sampling, not associated with aquatic pesticide application, shall include the following indicators at 5 distinct locations:
    - Temperature
    - Dissolved Oxygen
    - Salinity
    - pH
    - Turbidity
    - Fecal ColiformSamples that exceed water quality objectives designated for the San Francisco Bay must be reported to the City immediately. Follow up sampling will be required to demonstrate exceedance is resolved. All results to be included in the monthly report, described below.
  - Provide example recordkeeping form to be used to document information acquired during inspection activities. The form shall, at minimum, note if any finding will be addressed as part of the already approved monthly work plan ("routine maintenance") and/or an approved chemical treatment. For inspection findings not addressed by routine maintenance and/or an approved chemical treatment, Proposer shall recommend a solution for the City and AWLHOA to discuss and authorize, as decided.
2. **Debris and Trash Removal.** Routine debris and trash removal from the lagoons shall be performed weekly on Fridays, at a minimum. The contractor is responsible for providing all necessary equipment to collect and properly haul and dispose of material collected (organic and inorganic). For purposes of preparing this Work Plan, records of past volume of debris removed is available upon request.
  - Provide an example Debris and Trash Removal field form that will be completed for each lagoon on each day of service. The City shall be notified at the completion of service for each lagoon to sign off on the form, approving the work to be satisfactory. The form shall, at minimum, include description of activities performed and number of 32-gallon cans of debris removed from each lagoon.
  - Before and after remediation photographs shall be provided to the City at the time the services are performed. In particular, photographs of the following areas must be provided:
    - i. Court Street (east end)
    - ii. Mini Park (at south end of Oak Street)
  - Special attention for debris and trash removal shall be given to the following areas:
    - i. Court Street (east end)
    - ii. Grand Street Bridge, N/E corner

- iii. Mini Park (at south end of Oak Street)
- iv. Burbank Street and Portola Avenue
- v. Inside and outside the Willow Street Weir
- vi. Willow Street (east)
- vii. Broadway

3. **Mechanical Control Methods.** The Work Plan shall identify need and recommend schedule(s), for applicable mechanical control methods, such as skimming and/or harvesting. Contractor is responsible for providing skilled staff and all necessary equipment and materials required to perform mechanical control methods safely and pursuant to local, state and federal laws. Only include methods suitable to the South Shore Lagoons. The proposed Work Plan shall include services that:
- Remove accumulated floating matter, as needed, to prevent or mitigate nuisance conditions, particularly at private dock areas, and along shorelines.
  - Collect and remove cut and floating material.
  - Discuss indicators (thresholds) that will be used to trigger mechanical cutting and removal operations.
  - Describe the handling and disposal of harvested plant material. Please note that City facilities are not available for material disposal.
4. **Equipment.** The Work Plan shall describe the equipment that will be available under the contract for the term of the Agreement. Storage of large equipment on site is not an option. As such, equipment and other water vessels will need to be trailered in and out on day of use. Access and launching facilities for each of the 5 lagoons must be investigating before proposing, as some lagoons will require a crane and conveyer belt to place equipment in lagoon and remove.
- For all aquatic vessels and shore equipment that may be used, provide photos, storage location, CF numbers, color, weight, length, horsepower, capacity and craft capabilities.
  - List equipment that will be used to perform plant material cutting and handling, chemical applications, and other direct management operations.
  - Indicate the maximum response time for mobilization of harvesting, transport, spray and shoreline support equipment.
  - Describe the contingency/backup plan to ensure continual service, particularly during the high plant growth period, with assurance that if equipment goes out of service, the equipment shall be replaced within 24 hours.
  - All equipment must carry the licenses and/or identification required by law.
5. **Chemical Treatment.** The use of aquatic pesticides must be performed in strict compliance with Water Quality Order No. 2013-0002-DWQ, Statewide General National Pollutant Discharge Elimination System Permit for Residual Pesticide Discharges to Waters of the United States from Algae and Aquatic Weed Control Applications, General Permit No. CAG990005 ("General Permit"), WDID NO. 2 01AP00013, the City's Aquatic Pesticide Application Plan (APAP) and the City of Alameda Integrated Pest Management Policy, **Exhibit C**. The APAP specifies the aquatic herbicides and algaecides that may be used in the aquatic plant and algae control program, the criteria for when these are used, the best management practices that are required during application, the monitoring and reporting requirements, and sampling methodology. The



Contractor is required to use the forms included in the APAP to track information required for each treatment event.

- Discuss indicators (thresholds) that will be used to trigger a chemical treatment.
- Discuss process for communicating and coordinating the aquatic pesticide treatment schedule with the City prior to any chemical treatments to allow for public notice, water sampling that may be required by a NPDES permit, or other purpose(s).
- Describe process for notifying City and applicable regulatory bodies of any non-compliance with the NPDES Permit or APAP within the timeframes specified in the NPDES permit.
- Describe your firm's pesticide application strategy that will be used to abate or minimize the use of copper-based formulations.
- Contractor is responsible for the preparation of the Annual Report, as required in the Monitoring and Reporting Program of the General Permit. A draft must be prepared for City review and signature 30 days in advance of its due date to the Water Board.

**6. Communication and Reporting.**

- Attendance by a contractor representative is required at the monthly AWLHOA Board meetings, hosted in Alameda's City Hall West, to provide summary of the past month's work and answer questions.
- Monthly reports are due no later than the second Tuesday of each month outlining the previous month's activities, amount of debris removal, water quality sampling results and current budget status. The report shall include:
  - General observation and description of plant growth and debris material removed for each week.
  - Detailed summary of work performed and locations for each week
  - Tentative action plan for the upcoming month, including recommendations to improve the lagoon system operation and maintenance, if necessary
  - Summary of types, product names, and amounts of aquatic pesticides used for each treatment, using Department of Pesticide Regulation (DPR) monthly pesticide use report form or equivalent
  - Current budget status
- Lagoon residents are advised to contact the City with service requests. However, the selected firm will likely have regular interaction with residents and recreationists. Describe in detail your firm's customer service complaint resolution process and cite examples of its use in similar projects. Residents and recreationists shall be treated with courtesy and respect and may be directed to contact the City directly with questions, complaints or service requests.

**Cost Schedule and Cost Projection.** Prepare a cost schedule for all possible work unit pricing. Define each unit of service and list any exclusions for each work type. Be sure to include a unit cost for each control option or activity presented in the Work Plan. Unit costs shall include all incidental costs including travel, equipment, documentation, etc.... At minimum, the Cost Schedule shall include costs for the following:

- Professional consulting (includes research, reports, and meetings), per hour
- Inspections & monitoring of aquatic plant growth and visual water quality indicators, per hour
- Mechanical control method(s), unit per day
- Aquatic pesticide application(s), unit per acre

- Debris and Trash removal, unit per hour (include equipment and materials handling and disposal)
- Water quality sampling (sample acquisition and analytics) for all constituents in routine sampling and sampling required per APAP, per sample

#### Cost Projection

Prepare estimated itemized costs, as delineated in the Cost Schedule, for each monthly period of a 12 month period, the duration of the first term of the Agreement. Information provided should have a direct nexus to the proposed work plan and cost schedule. The City and selected firm will negotiate the expected services for the duration of the contract and determine a not to exceed amount.

## V. EVALUATION CRITERIA

The City will adhere to the following procedures in evaluating proposals. An Evaluation/Selection Committee (Committee), which may include members of the City's staff and possibly one or more outside experts, will screen and review all proposals. The factors to be considered by the Committee in reviewing the proposals will be:

1. Ability of the Proposer to Carry Out and Manage the Proposed Project (30%)  
An assessment of the statement of qualifications, including past experience of the organization in general. Qualities and indicators that will receive consideration include the number and types of projects the organization or its employees have completed; the variety of projects completed and a demonstration of the organization's ability to undertake this project; and the demonstrated ability to work with governmental bodies and a full understanding of applicable laws or regulations that relate to the project.
2. Qualifications (40%)  
The qualifications (including education, training, licenses, experience, and past performance) of the Proposer and its agents, employees, and subcontractors. The City may consider Proposer's timely and accurate performance on contracts of a similar nature.
3. Willingness to Comply with the Proposed Agreement Terms (5%)  
A sample agreement is attached. Proposals will be rated based on the exceptions taken to the proposed contract.
4. Cost of Proposal (25%)  
Cost, while not determinative, will be considered in the selection process.

Proposals will first be screened to ensure responsiveness to the RFP. The City may reject as non-responsive any proposal that does not include the documents required to be submitted by this RFP. At any time during the evaluation process, the City reserves the right to request clarifications or additional information from any or all Proposers regarding their proposals. The Committee will initially review all responsive written proposals based upon the Evaluation Criteria set forth above. The Committee may also contact references. The City may reject any proposal in which a Proposer's approach, qualifications, or price is not considered acceptable by the City. An unacceptable proposal is one that would have to be substantially rewritten to make it acceptable. The City may conclude the evaluation process at this point and recommend award. Alternatively, the City may elect to negotiate

directly with one or more Proposers to obtain the best result for the City prior to making a recommendation or selection. And lastly, the City may ask selected Contractors to participate in an oral interview. Interviews, if held, are tentatively scheduled for June 5, 2017 and will be conducted at City of Alameda City Hall West, 950 West Mall Sq, City of Alameda, CA 94501. This date is subject to change. The individual(s) from Proposer's firm or entity that will be directly responsible for carrying out the contract, if awarded, should be present at the oral interview. In addition to conducting an oral interview, the City may during this stage of the evaluation process also contact and evaluate references, contact any Proposer to clarify any response or request revised or additional information, contact any current users of a Proposer's services, solicit information from any available source concerning any aspect of a proposal, and seek and review any other information deemed pertinent to the evaluation process.

The City may reserves the right to negotiate the terms and conditions of the agreement with the highest ranked firm. Recommendation for award is contingent upon the successful negotiation of final contract terms. If contract negotiations cannot be concluded successfully within a time period determined by the City, the City may terminate negotiations and commence negotiations with the next highest scoring Proposer or withdraw the RFP.

Once the City selects a preferred Proposer, all other Proposers will be notified by the City in writing within fourteen working days of the decision.

**EXHIBIT A. Standard Agreement and Insurance Requirements**

## **SERVICE PROVIDER AGREEMENT**

THIS SERVICE PROVIDER AGREEMENT (“**Agreement**”) is entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_, by and between CITY OF ALAMEDA, a municipal corporation (the "**City**"), and COMPANY (a California corporation, partnership, sole proprietor, individual), whose address is ADDRESS (the “**Provider**”), in reference to the following:

### **RECITALS:**

A. City is a municipal corporation duly organized and validly existing under the laws of the State of California with the power to carry on its business as it is now being conducted under the statutes of the State of California and the Charter of the City.

B. The City is in need of the following services: vegetation and debris management and water quality services for Alameda West Lagoons. City staff issued a RFP on September 4, 2019 and after a submittal period of NUMBER days received NUMBER of timely submitted proposals. Staff reviewed the proposals, interviewed qualified firms and selected the service provider that best meets the City’s needs

C. Provider is specially trained, experienced and competent to perform the special services which will be required by this Agreement.

D. City and Provider desire to enter into an agreement for vegetation and debris management and water quality services for Alameda West Lagoons, upon the terms and conditions herein.

NOW, THEREFORE, it is mutually agreed by and between the undersigned parties as follows:

### **1. TERM:**

The term of this Agreement shall commence on the \_\_\_\_ day of \_\_\_\_\_ 20\_\_, and shall terminate on the \_\_\_\_ day of \_\_\_\_\_ 20\_\_, unless terminated earlier as set forth herein.

This Agreement may be mutually extended on a year-by-year basis, for up to four (4) additional years, at the sole discretion of the Public Works Director, based, at a minimum, upon satisfactory performance of all aspects of this Agreement. Public Works Director may submit written notice that the Agreement is to be extended and the compensation adjusted by the Consumer Price Index for the San Francisco Bay area as reported by the U.S. Department of Labor, Bureau of Labor Statistics for the previous calendar year.

### **2. SERVICES TO BE PERFORMED:**

Provider agrees to do all necessary work at its own cost and expense, to furnish all labor, tools, equipment, materials, except as otherwise specified, and to do all necessary work included in Exhibit A as requested. The Provider acknowledges that the work plan included in Exhibit A is tentative and does not commit the City to request Provider to perform all tasks included therein.

**3. COMPENSATION TO PROVIDER:**

a. By the 7<sup>th</sup> day of each month, Provider shall submit to the City an invoice for the total amount of work done the previous month. Pricing and accounting of charges are to be according to the fee schedule as set forth in Exhibit B and incorporated herein by this reference. Extra work must be approved in writing by the City Manager or his/her designee prior to performance and shall be paid on a Time and Material basis as set forth in Exhibit B.

b. The total compensation for the work under this Agreement is not to exceed \$\_\_\_\_\_.

**4. TIME IS OF THE ESSENCE:**

Provider and City agree that time is of the essence regarding the performance of this Agreement.

**5. STANDARD OF CARE:**

Provider agrees to perform all services hereunder in a manner commensurate with the prevailing standards of like professionals or service providers, as applicable, in the San Francisco Bay Area and agrees that all services shall be performed by qualified and experienced personnel who are not employed by the City.

**6. INDEPENDENT PARTIES:**

Provider hereby declares that Provider is engaged as an independent business and Provider agrees to perform the services as an independent contractor. The manner and means of conducting the services and tasks are under the control of Provider, except to the extent they are limited by statute, rule or regulation and the express terms of this Agreement. No civil service status or other right of employment will be acquired by virtue of Provider's services. None of the benefits provided by City to its employees, including but not limited to unemployment insurance, workers' compensation plans, vacation and sick leave are available from City to Provider, its employees or agents. Deductions shall not be made for any state or federal taxes, FICA payments, PERS payments, or other purposes normally associated with an employer-employee relationship from any compensation due to Provider. Payments of the above items, if required, are the responsibility of Provider.

**7. IMMIGRATION REFORM AND CONTROL ACT (IRCA):**

Provider assumes any and all responsibility for verifying the identity and employment authorization of all of its employees performing work hereunder, pursuant to all applicable IRCA or other federal, or state rules and regulations. Provider shall indemnify, defend, and hold City harmless from and against any loss, damage, liability, costs or expenses arising from any noncompliance of this provision by Provider.

**8. NON-DISCRIMINATION:**

Consistent with City's policy and state and federal law that harassment and discrimination are unacceptable conduct, Provider agrees that harassment or discrimination directed toward a job applicant, a City employee, or a citizen by Provider or Provider's employee on the basis of race, religious creed, color, national origin, ancestry, handicap, disability, marital status, pregnancy, sex,

age, or sexual orientation will not be tolerated. Provider agrees that any and all violations of this provision shall constitute a material breach of this Agreement.

**9. HOLD HARMLESS:**

a. Provider shall indemnify, defend, and hold harmless the City, its City Council, boards, commissions, officials, employees, and volunteers ("**Indemnitees**") from and against any and all loss, damages, liability, claims, suits, costs and expenses whatsoever, including reasonable attorneys' fees ("**Claims**"), arising from or in any manner connected to Provider's negligent act or omission, whether alleged or actual, regarding performance of services or work conducted or performed pursuant to this Agreement. If Claims are filed against Indemnitees which allege negligence on behalf of the Provider, Provider shall have no right of reimbursement against Indemnitees for the costs of defense even if negligence is not found on the part of Provider. However, Provider shall not be obligated to indemnify Indemnitees from Claims arising from the sole negligence or willful misconduct of Indemnitees.

b. **Indemnification for Claims for Professional Liability Only:** As to Claims for professional liability only, Provider's obligation to defend Indemnitees (as set forth above) is limited as provided in California Civil Code Section 2782.8.

c. Provider's obligation to indemnify, defend and hold harmless Indemnities shall expressly survive the expiration or early termination of this Agreement.

**10. INSURANCE:**

a. On or before the commencement of the terms of this Agreement, Provider shall furnish the City's Risk Manager with certificates showing the type, amount, class of operations covered, effective dates and dates of expiration of insurance coverage in compliance with subsections 10A, B, C and D. Such certificates, which do not limit Provider's indemnification, shall also contain substantially the following statement:

"Should any of the above insurance covered by this certificate be canceled or coverage reduced before the expiration date thereof, the insurer affording coverage shall provide ten (10) days' advance written notice to the City of Alameda. Attention: Risk Manager."

b. It is agreed that Provider shall maintain in force at all times during the performance of this Agreement all appropriate coverage of insurance required by this Agreement with an insurance company that is acceptable to City and licensed to do insurance business in the State of California. Endorsements naming the City, its City Council, boards, commissions, officials, employees, and volunteers as additional insured shall be submitted with the insurance certificates.

A. COVERAGE:

Provider shall maintain the following insurance coverage:

(1) Workers' Compensation:

Statutory coverage as required by the State of California.

(2) Liability:

Commercial general liability coverage in the following minimum limits:

Bodily Injury:                      \$1,000,000 each occurrence  
   \$2,000,000 aggregate - all other

Property Damage:                \$1,000,000 each occurrence  
   \$2,000,000 aggregate

If submitted, combined single limit policy with aggregate limits in the amounts of \$2,000,000 will be considered equivalent to the required minimum limits shown above.

(3) Automotive:

Comprehensive automobile liability coverage (any auto) in the following minimum limits:

Bodily injury:                      \$1,000,000 each occurrence  
Property Damage:                \$1,000,000 each occurrence

or

Combined Single Limit:        \$2,000,000 each occurrence

(4) Professional Liability:

Professional liability insurance which includes coverage for the professional acts, errors and omissions of Provider in the following minimum limits:

\$1,000,000 each occurrence

(5) Pollution Prevention:

Legal liability required for hazardous materials excavation in the amount of \$2,000,000 each occurrence.

B. SUBROGATION WAIVER:

Provider agrees that in the event of loss due to any of the perils for which it has agreed to provide comprehensive general and automotive liability insurance, Provider shall look solely to its insurance for recovery. Provider hereby grants to City, on behalf of any insurer providing comprehensive general and automotive liability insurance to either Provider or City with respect to the services of Provider herein, a waiver of any right to subrogation which any such insurer of said Provider may acquire against City by virtue of the payment of any loss under such insurance.



C. FAILURE TO SECURE:

If Provider at any time during the term hereof should fail to secure or maintain the foregoing insurance, City shall be permitted to obtain such insurance in the Provider's name or as an agent of the Provider and shall be compensated by the Provider for the costs of the insurance premiums at the maximum rate permitted by law and computed from the date written notice is received that the premiums have not been paid.

D. ADDITIONAL INSURED:

City, its City Council, boards, commissions, officials, employees, and volunteers shall be named as an additional insured under all insurance coverages, except worker's compensation and professional liability insurance. The naming of an additional insured shall not affect any recovery to which such additional insured would be entitled under this policy if not named as such additional insured. An additional insured named herein shall not be held liable for any premium, deductible portion of any loss, or expense of any nature on this policy or any extension thereof. Any other insurance held by an additional insured shall not be required to contribute anything toward any loss or expense covered by the insurance provided by this policy.

E. SUFFICIENCY OF INSURANCE:

The insurance limits required by City are not represented as being sufficient to protect Provider. Provider is advised to consult Provider's insurance broker to determine adequate coverage for Provider.

11. CONFLICT OF INTEREST:

Provider warrants that it is not a conflict of interest for Provider to perform the services required by this Agreement. Provider may be required to fill out a conflict of interest form if the services provided under this Agreement requires Provider to make certain governmental decisions or serve in a staff capacity as defined in Title 2, Division 6, Section 18700 of the California Code of Regulations.

12. PROHIBITION AGAINST TRANSFERS:

a. Provider shall not assign, sublease, hypothecate, or transfer this Agreement, or any interest therein, directly or indirectly, by operation of law or otherwise, without prior written consent of the City Manager. Provider shall submit a written request for consent to transfer to the City Manager at least thirty (30) days in advance of the desired transfer. The City Manager may consent or reject such request in his/her sole and absolute discretion. Any attempt to do so without said consent shall be null and void, and any assignee, sublessee, hypothecate or transferee shall acquire no right or interest by reason of such attempted assignment, hypothecation or transfer. However, claims for money against the City under this Agreement may be assigned by Provider to a bank, trust company or other financial institution without prior written consent.

b. The sale, assignment, transfer or other disposition of any of the issued and outstanding capital stock of Provider, or of the interest of any general partner or joint venturer or syndicate member or cotenant, if Provider is a partnership or joint venture or syndicate or cotenancy, which shall result in changing the control of Provider, shall be construed as an

assignment of this Agreement. Control means fifty percent or more of the voting power of the corporation.

### **13. APPROVAL OF SUB-PROVIDERS:**

a. Only those persons and/or businesses whose names and resumes are attached to this Agreement shall be used in the performance of this Agreement. However, if after the start of this Agreement, Provider wishes to use sub-providers, at no additional costs to the City, then Provider shall submit a written request for consent to add sub-providers including the names of the sub-providers and the reasons for the request to the City Manager at least five (5) days in advance. The City Manager may consent or reject such requests in his/her sole and absolute discretion.

b. Each sub-provider shall be required to furnish proof of workers' compensation insurance and shall also be required to carry general, automobile and professional liability insurance (as applicable) in reasonable conformity to the insurance carried by the Provider. In addition, any tasks or services performed by sub-providers shall be subject to each provision of this Agreement.

c. The requirements in this Section 13 shall not apply to persons who are merely providing materials, supplies, data or information which the Provider then analyzes and incorporates into its work product.

### **14. PERMITS AND LICENSES:**

Provider, at its sole expense, shall obtain and maintain during the term of this Agreement, all appropriate permits, certificates and licenses, including a City Business License that may be required in connection with the performance of the services and tasks hereunder.

### **15. REPORTS:**

a. Each and every report, draft, work product, map, record and other document produced, prepared or caused to be prepared by Provider pursuant to or in connection with this Agreement shall be the exclusive property of City.

b. No report, information or other data given to or prepared or assembled by Provider pursuant to this Agreement shall be made available to any individual or organization by Provider without prior approval of the City Manager or his/her designee.

c. Provider shall, at such time and in such form as City Manager or his/her designee may require, furnish reports concerning the status of services and tasks required under this Agreement.

### **16. RECORDS:**

a. Provider shall maintain complete and accurate records with respect to the services, tasks, work, documents and data in sufficient detail to permit an evaluation of the Provider's performance under the Agreement, as well as maintain books and records related to sales, costs, expenses, receipts and other such information required by City that relate to the performance of the services and tasks under this Agreement (collectively the "**Records**").

b. All Records shall be maintained in accordance with generally accepted accounting principles and shall be clearly identified and readily accessible. Provider shall provide free access to the Records to the representatives of City or its designees during regular business hours upon reasonable prior notice. The City has the right to examine and audit the Records, and to make copies or transcripts therefrom as necessary, and to allow inspection of all proceedings and activities related to this Agreement. Such Records, together with supporting documents, shall be kept separate from other documents and records and shall be maintained by Provider for a period of three (3) years after receipt of final payment.

c. If supplemental examination or audit of the Records is necessary due to concerns raised by City's preliminary examination or audit of records, and the City's supplemental examination or audit of the records discloses a failure to adhere to appropriate internal financial controls, or other breach of this Agreement or failure to act in good faith, then Provider shall reimburse the City for all reasonable costs and expenses associated with the supplemental examination or audit.

## **17. NOTICES:**

a. All notices shall be in writing and delivered: (i) by hand; or (ii) sent by registered, express, or certified mail, with return receipt requested or with delivery confirmation requested from the U.S. postal service; or (iii) sent by overnight or same day courier service at the party's respective address listed in this Section.

b. Each notice shall be deemed to have been received on the earlier to occur of: (x) actual delivery or the date on which delivery is refused; or (y) three (3) days after notice is deposited in the U.S. mail or with a courier service in the manner described above (Sundays and City holidays excepted).

c. Either party may, at any time, change its notice address (other than to a post office box address) by giving the other party three (3) days prior written notice of the new address.

d. All notices, demands, requests, or approvals from Provider to City shall be addressed to City at:

City of Alameda  
Public Works Department  
950 W Mall Sq  
Alameda, CA 94501  
ATTENTION: Erin Smith, Deputy Public Works Director  
Ph: (510) 747-7900 / Fax: (510) 769-6030

All notices, demands, requests, or approvals from City to Provider shall be addressed to Provider at:

[Provider Name]  
[Department]  
[Address]  
[City, State, zip]  
ATTENTION: [Title]

**18. SAFETY:**

a. The Provider will be solely and completely responsible for conditions of all vehicles owned or operated by Provider, including the safety of all persons and property during performance of the services and tasks under this Agreement. This requirement will apply continuously and not be limited to normal working hours. In addition, Provider will comply with all safety provisions in conformance with U.S. Department of Labor Occupational Safety and Health Act, any equivalent state law, and all other applicable federal, state, county and local laws, ordinances, codes, and any regulations that may be detailed in other parts of the Agreement. Where any of these are in conflict, the more stringent requirements will be followed. The Provider's failure to thoroughly familiarize itself with the aforementioned safety provisions will not relieve it from compliance with the obligations and penalties set forth herein.

b. The Provider will immediately notify the City within 24 hours of any incident of death, serious personal injury or substantial property damage that occurs in connection with the performance of this Agreement. The Provider will promptly submit to the City a written report of all incidents that occur in connection with this Agreement. This report must include the following information: (i) name and address of injured or deceased person(s); (ii) name and address of Provider's employee(s) involved in the incident; (iii) name and address of Provider's liability insurance carrier; (iv) a detailed description of the incident; and (v) a police report.

**19. TERMINATION:**

a. In the event Provider fails or refuses to perform any of the provisions hereof at the time and in the manner required hereunder, Provider shall be deemed in default in the performance of this Agreement. If such default is not cured within two (2) business days after receipt by Provider from City of written notice of default, specifying the nature of such default and the steps necessary to cure such default; City may thereafter immediately terminate the Agreement forthwith by giving to the Provider written notice thereof.

b. The foregoing notwithstanding, City shall have the option, at its sole discretion and without cause, of terminating this Agreement by giving seven (7) days' prior written notice to Provider as provided herein.

c. Upon termination of this Agreement either for cause or for convenience, each party shall pay to the other party that portion of compensation specified in this Agreement that is earned and unpaid prior to the effective date of termination. The obligation of the parties under this Section 19.c. shall survive the expiration or early termination of this Agreement.

**20. ATTORNEY'S FEES:**

In the event of the bringing of any action or suit by a party hereto against the other party by reason of any breach of any covenants, conditions, obligation or provision arising out of this Agreement, the prevailing party shall be entitled to recover from the non-prevailing party all of its costs and expenses of the action or suit, including reasonable attorneys' fees, experts' fees, all court costs and other costs of action incurred by the prevailing party in connection with the prosecution or defense of such action and enforcing or establishing its rights hereunder (whether

or not such action is prosecuted to a judgment). For the purposes of this Agreement, reasonable fees of attorneys of the Alameda City Attorney shall be based on the fees regularly charged by private attorneys with the equivalent number of years of experience in the subject matter area of the law for which the Alameda City Attorney's services were rendered who practice in Alameda County in law firms with approximately the same number of attorneys as employed by the Alameda City Attorney's Office.

**21. COMPLIANCE WITH ALL APPLICABLE LAWS:**

During the Term of this Agreement, Provider shall keep fully informed of all existing and future state and federal laws and all municipal ordinances and regulations of the City of Alameda which affect the manner in which the services or tasks are to be performed by the Provider, as well as all such orders and decrees of bodies or tribunals having any jurisdiction or authority over the same. Provider shall comply with all applicable laws, state and federal and all ordinances, rules and regulations enacted or issued by City.

**22. CONFLICT OF LAW:**

This Agreement shall be interpreted under, and enforced by the laws of the State of California without regard to any choice of law rules which may direct the application of laws of another jurisdiction. The Agreement and obligations of the parties are subject to all valid laws, orders, rules, and regulations of the authorities having jurisdiction over this Agreement (or the successors of those authorities.) Any suits brought pursuant to this Agreement shall be filed with the courts of the County of Alameda, State of California.

**23. WAIVER:**

A waiver by City of any breach of any term, covenant, or condition contained herein shall not be deemed to be a waiver of any subsequent breach of the same or any other term, covenant, or condition contained herein, whether of the same or a different character.

**24. INTEGRATED CONTRACT:**

The Recitals and Exhibits are a material part of this Agreement and are expressly incorporated herein. This Agreement represents the full and complete understanding of every kind or nature whatsoever between the parties hereto, and all preliminary negotiations and agreements of whatsoever kind or nature are merged herein. No verbal agreement or implied covenant shall be held to vary the provisions hereof. Any modification of this Agreement will be effective only by written execution signed by both City and Provider.

**25. DEPARTMENT OF INDUSTRIAL RELATIONS COMPLIANCE AND PREVAILING WAGE REQUIREMENTS ON PUBLIC WORKS PROJECTS:**

Effective January 1, 2015, no Contractor or Subcontractor may be listed on a bid proposal for a public works project (submitted after March 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code Section 1725.5 (with the limited exceptions from this requirement for bid purposed only under Labor code Section 1771.1(a)). Register at <https://efiling.dir.ca.gov/PWCR>

No Contractor or Subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code Section 1725.5.

This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

The Prime Contractor is required to post job site notices prescribed by regulations. See 8 Calif. Code Regulation §16451(d).

Effective April 1, 2015, All Contractors and Subcontractors must furnish electronic certified payroll records directly to the Labor Commissioner at: <https://apps.dir.ca.gov/ecpr/das/altlogin>

## **26. REGISTRATION OF CONTRACTORS:**

Before submitting bids, contractors shall be licensed in accordance with the provisions of Chapter 9, Division 3, of the Business and Professional Code of the State of California.

## **27. PCC SECTION 9204 SUMMARY - CLAIMS SUBMITTED BETWEEN 01-01-2017 AND 01-01-2020.:**

Notwithstanding anything else to the contrary stated in the Information For Bidders (IFB) or the Contract Documents, all claims, regardless of dollar amount, submitted between January 1, 2017 and January 1, 2020 shall be governed by PCC Section 9204 and this section.

The following provisions and procedures shall apply:

A. For the purposes of this section, the term “Claim”, “Contractor”, “mediation”, “Public Entity” “Public works project” and “Subcontractor” shall have the meaning provided for in PCC Section 9204.

B. Contractor shall submit each Claim (whether for a time extension, payment for money or damages) in writing and in compliance with PCC Section 9204. Contractor must include reasonable documentation to support each claim.

C. Upon receipt of a Claim, the City shall conduct a reasonable review and respond in writing within 45 days of receipt and shall identify in a written statement what portions of the claim are disputed and undisputed. Undisputed portions of the Claim shall be process and paid within 60 days of the written statement. Undisputed amounts not paid in a timely manner shall bear interest at 7% per annum. The City and Contractor may mutually agree to extend the 45 day response time.

D. If the City needs approval from the City Council to provide a written statement, the 45 days may be extended to 3 days following the next duly noticed public meeting pursuant to PCC Section 9204(d)(1)(C).

E. If the City fails to timely respond to a Claim or if Contractor disputes the City’s response, Contractor may submit a written demand for an informal meet and confer conference with the City to settle the issues in dispute. The demand must be sent via registered or certified mail, return receipt requested. Upon receipt, the City shall schedule the conference within 30 days.

F. Within 10 business days following the informal meet and confer conference, the City shall submit to Contractor a written statement describing any issues remaining in dispute and that

portion which is undisputed. Undisputed portions of the Claim shall be process and paid within 60 days of the written statement. Undisputed amounts not paid in a timely manner shall bear interest at 7% per annum. The issues remaining in dispute shall be submitted to non-binding mediation. If the City and Contractor mutually agree on a mediator, each party shall pay equal portions of all associated costs. If within 10 business days, the City and Contractor cannot agree on a mediator, each party shall select a mediator (paying all costs associated with their selected mediator), and those mediators shall select a qualified neutral third party to mediate the disputed issues. The City and Contractor shall pay equal portions of all associated costs of such third party mediator.

G. Unless otherwise agreed by the City and Contractor, any mediation conducted hereunder shall excuse any further obligation under Public Contract Code Section 20104.4 to mediate after litigation has commenced.

H. The City reserves all rights and remedies that it has pursuant to the Construction Contract, plans and specification, at law or in equity which are not in conflict with PCC 9204.

I. This Section shall be automatically extended if legislation is lawfully passed which extends the terms of Public Contract Code Section 9204 beyond January 1, 2020.

## **28. CAPTIONS:**

The captions in this Agreement are for convenience only, are not a part of the Agreement and in no way affect, limit or amplify the terms or provisions of this Agreement.

*Signatures on next page*

IN WITNESS WHEREOF, the parties have caused the Agreement to be executed on the day and year first above written.

COMPANY  
(A California corporation, partnership,  
sole proprietor, individual)

CITY OF ALAMEDA  
A Municipal Corporation

\_\_\_\_\_  
NAME  
TITLE

\_\_\_\_\_  
Elizabeth D. Warmerdam  
Acting City Manager

RECOMMENDED FOR APPROVAL

\_\_\_\_\_  
NAME  
TITLE

\_\_\_\_\_  
[DEPARTMENT HEAD NAME]  
[DEPARTMENT HEAD TITLE]

APPROVED AS TO FORM:  
City Attorney

\_\_\_\_\_  
[NAME]  
[Assistant] City Attorney



POLICY NUMBER:

COMMERCIAL GENERAL LIABILITY  
CG 20 10 10 93

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

## ADDITIONAL INSURED - OWNERS, LESSEES or PROVIDERS FORM B

This endorsement modifies insurance provided under the following:

### COMMERCIAL GENERAL LIABILITY COVERAGE PART

#### SCHEDULE

Name of Person or Organization:

City of Alameda  
Public Works Department  
Alameda Point, Building 1  
950 West Mall Square, Room 110  
Alameda, CA 94501-7558

**SAMPLE**

(If no entry appears above, information required to complete this endorsement will be shown in the Declarations as applicable to this endorsement.)

WHO IS AN INSURED (Section II) is amended to include as an insured the person or organization shown in the Schedule, but only with respect to liability arising out of your ongoing operations performed for that insured.

#### REF:

**The City of Alameda, its City Council, boards and commissions, officers & employees are additional insured for work done on their behalf by the named insured.**

#### PRIMARY INSURANCE:

IT IS UNDERSTOOD AND AGREED THAT THIS INSURANCE IS PRIMARY AND ANY OTHER INSURANCE MAINTAINED BY THE ADDITIONAL INSURED SHALL BE EXCESS ONLY AND NOT CONTRIBUTING WITH THIS INSURANCE.

#### SEVERABILITY OF INTEREST:

IT IS AGREED THAT EXCEPT WITH RESPECT TO THE LIMIT OF INSURANCE, THIS COVERAGE SHALL APPLY AS IF EACH ADDITIONAL INSURED WERE THE ONLY INSURED AND SEPARATELY TO EACH INSURED AGAINST WHOM CLAIM IS MADE OR SUIT IS BROUGHT.

#### WAIVER OF SUBROGATION:

IT IS UNDERSTOOD AND AGREED THAT THE COMPANY WAIVES THE RIGHT OF SUBROGATION AGAINST THE ABOVE ADDITIONAL INSURED (S), BUT ONLY AS RESPECTS THE JOB OR PREMISES DESCRIBED IN THE CERTIFICATE ATTACHED HERETO.

#### NOTICE OF CANCELLATION:

IT IS UNDERSTOOD AND AGREED THAT IN THE EVENT OF CANCELLATION OF THE POLICY FOR ANY REASON OTHER THAN NON-PAYMENT OF PREMIUM, 30 DAYS WRITTEN NOTICE WILL BE SENT TO THE CERTIFICATE HOLDER BY MAIL. IN THE EVENT THE POLICY IS CANCELED FOR NON-PAYMENT OF PREMIUM, 10 DAYS WRITTEN NOTICE WILL BE SENT TO THE ABOVE.

POLICY NUMBER:

COMMERCIAL AUTO  
CG 20 48 02 99

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

## DESIGNATED INSURED

This endorsement modifies insurance provided under the following:

BUSINESS AUTO COVERAGE FORM  
GARAGE COVERAGE FORM  
MOTOR CARRIER COVERAGE FORM  
TRUCKERS COVERAGE FORM

With respect to coverage provided by this endorsement, the provisions of the Coverage Form apply unless modified by this endorsement.

This endorsement identifies person(s) or organization(s) who are "insureds" under the Who Is An Insured Provisions of the Coverage Form. This endorsement does not alter coverage provided in the Coverage Form.

This endorsement changes the policy effective on the inception date of the policy unless another date is indicated below.

Endorsement Effective:	Countersigned By:
Named Insured:	(Authorized Representative)

Name of Person or Organization:

City of Alameda  
Public Works Department  
950 West Mall Square, Room 110  
Alameda, CA 94501-7558

WHO IS AN INSURED (Section II) is amended to include as an insured the person or organization shown in the Schedule, but only with respect to liability arising out of your ongoing operations performed for that insured.

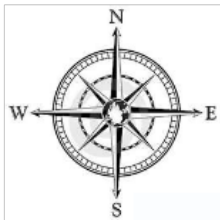
**REF:** \_\_\_\_\_

**The City of Alameda, its City Council, boards and commissions, officers, employees and volunteers are additional insured for work done on their behalf by the named insured.**

### NOTICE OF CANCELLATION:

IT IS UNDERSTOOD AND AGREED THAT IN THE EVENT OF CANCELLATION OF THE POLICY FOR ANY REASON OTHER THAN NON-PAYMENT OF PREMIUM, 30 DAYS WRITTEN NOTICE WILL BE SENT TO THE CERTIFICATE HOLDER BY MAIL. IN THE EVENT THE POLICY IS CANCELED FOR NON-PAYMENT OF PREMIUM, 10 DAYS WRITTEN NOTICE WILL BE SENT TO THE ABOVE.

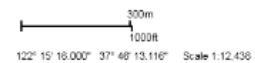
**EXHIBIT B. Map of Alameda West Lagoon System**



# City of Alameda Web Map



The City of Alameda does not guarantee the information contained in this map to be an accurate representation of actual existing conditions.



**EXHIBIT C. City of Alameda Aquatic Pesticide Application Plan**

**Attachment E – Notice of Intent**

**WATER QUALITY ORDER NO. 2013-0002-DWQ  
GENERAL PERMIT NO. CAG990005**

**STATEWIDE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM  
(NPDES) PERMIT FOR RESIDUAL AQUATIC PESTICIDE DISCHARGES TO WATERS OF  
THE UNITED STATES FROM ALGAE AND AQUATIC WEED CONTROL APPLICATIONS**

**I. NOTICE OF INTENT STATUS (see Instructions)**

Mark only one item	A. New Applicator	B. Change of Information: WDID# _2 01AP00013
	C. <input type="checkbox"/> Change of ownership or responsibility: WDID# _____	

**II. DISCHARGER INFORMATION**

A. Name City of Alameda Public Works Department			
B. Mailing Address 950 W. Mall Square, Room 110			
C. City Alameda	D. County Alameda County	E. State CA	F. Zip 92501
G. Contact Person	H. E-mail address	I. Title	J. Phone

**III. BILLING ADDRESS (Enter Information only if different from Section II above)**

A. Name			
B. Mailing Address			
C. City	D. County	E. State	F. Zip
G. E-mail address	H. Title	I. Phone	

#### IV. RECEIVING WATER INFORMATION

A. Algaecide and aquatic herbicides are used to treat (check all that apply):	
1.	<input type="checkbox"/> Canals, ditches, or other constructed conveyance facilities owned and controlled by Discharger. Name of the conveyance system: _____
2.	<input type="checkbox"/> Canals, ditches, or other constructed conveyance facilities owned and controlled by an entity other than the Discharger. Owner's name: _____ Name of the conveyance system: _____
3.	Directly to river, lake, creek, stream, bay, ocean, etc. Name of water body: <u>Alameda Lagoons</u>
B. Regional Water Quality Control Board(s) where treatment areas are located (REGION 1, 2, 3, 4, 5, 6, 7, 8, or 9): <u>Region San Francisco Bay RWQCB (2)</u> (List all regions where algaecide and aquatic herbicide application is proposed.)	

#### V. ALGAECIDE AND AQUATIC HERBICIDE APPLICATION INFORMATION

A. Target Organisms: _____ Widgeon Grass, Planktonic and Filamentous algae	
B. Algaecide and Aquatic Herbicide Used: List Name and Active ingredients Herbicides - Reward (diquat) Nautique (Copper Carbonate) Algaecides - Cutrine Plus (Copper as Elemental) GreenClean Liquid (Hydrogen Dioxide) PAK27 (Sodium Carbonate Peroxyhydrate Hydrothol 191 (Mono N,N-dimethylalkylamine salt of endothall))	
C. Period of Application: Start Date <u>January 2014</u> End Date <u>December 2014</u>	
D. Types of Adjuvants Used: <u>Cygnat Plus (Active Ingredients - Limonene, methylated vegetable oil, alkyl hydroxypoly oxyethylene)</u>	

#### VI. AQUATIC PESTICIDE APPLICATION PLAN

Has an Aquatic Pesticide Application Plan been prepared and is the applicator familiar with its contents? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
If not, when will it be prepared? _____	

#### VII. NOTIFICATION

Have potentially affected public and governmental agencies been notified? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
---	--

#### VIII. FEE

Have you included payment of the filing fee (for first-time enrollees only) with this submittal? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> NA	
---	--



# **AQUATIC PESTICIDE APPLICATION PLAN (APAP) Alameda Lagoons**



**Prepared By:  
CLEAN LAKES, INC.  
2150 Franklin Canyon Road  
Martinez, California 94553  
[www.cleanlake.com](http://www.cleanlake.com)**

**CITY OF ALAMEDA  
Public Works Department  
950 W. Mall Square, Room 110  
Alameda, CA 92501**

**August 2013**

**Purpose: To meet the requirements and ensure compliance with Water Quality Order No. 2013-0002-DWQ, Statewide General National Pollutant Discharge Elimination System Permit for Residual Aquatic Pesticide Discharges to Waters of the United States from Algae and Aquatic Weed Control Applications, General Permit No. CAG990005, adopted by the State Water Resource Control Board on March 5, 2013**



**CERTIFICATION**

In accordance with Attachment B, Section V.B.1. Standard Provisions – Reporting, Signatory and Certification Requirements, Water Quality Order No. 2013-0002-DWQ Statewide General National Pollutant Discharge Elimination System Permit for Residual Aquatic Pesticide Discharges to Waters of the United States from Algae and Aquatic Weed Control Applications, General Permit No. CAG 990005:

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.” (40 C.F.R. § 122.22(d).)



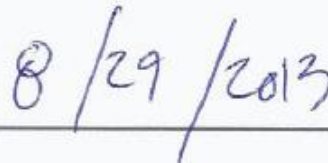
\_\_\_\_\_  
**Public Works Director**  
**City of Alameda Public Works Department**  
**950 W. Mall Square, Room 110**  
**Alameda, CA 92501**



\_\_\_\_\_  
**Date**



\_\_\_\_\_  
**Tyler Fowler**  
**Manager**  
**Clean Lakes, Inc.**  
**2150 Franklin Canyon Rd.**  
**Martinez, CA 94553**



\_\_\_\_\_  
**Date**

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## **BACKGROUND INFORMATION**

This Aquatic Pesticide Application Plan (APAP) is a comprehensive plan developed by the discharger to comply with the provisions of Water Quality Order No. 2013-0002-DWQ, Statewide General National Pollutant Discharge Elimination System Permit for Residual Aquatic Pesticide Discharges to Waters of the United States from Algae and Aquatic Weed Control Applications, General Permit No. CAG990005, adopted by the State Water Resource Control Board on March 5, 2013.

This Aquatic Pesticide Application Plan (APAP) describes the project site, aquatic plant and algae nuisances, aquatic pesticide products expected to be used, the monitoring program, and Best Management Practices to be followed, as well as the other conditions addressed in the General Permit, Section VIII C, Aquatic Pesticide Use Requirements, Aquatic Pesticide Application Plan.

The use of aquatic pesticides within the Alameda Lagoons is necessary to manage the lake and maintain the beneficial uses that include storm water retention, fishing, swimming, boating, aesthetics, and a habitat and resting place for waterfowl and migratory birds. The Aquatic Vegetation Control Program is an undertaking necessary to control specific types of aquatic vegetation and algae that have become a nuisance to the management of the water body and are impacting its health and beneficial uses. The need for aquatic pesticide application events as part of this program vary from week to week and from season to season due to such things as water temperature, sunlight, nutrient levels, plant and algae growth and other factors. This APAP per the General Permit requirements described below provides the outline to ensure that the Aquatic Vegetation Control Program is successful.

**PERMIT COVERAGE:** The General Permit (No. CAG990005) addresses the discharge of aquatic pesticides related to the application of 2,4-D, acrolein, copper, diquat, endothall, fluridone, imazapyr, glyphosate, sodium carbonate peroxyhydrate, triclopyr based algaecides and aquatic pesticides, and adjuvants containing ingredients represented

by the surrogate nonylphenol. Aquatic pesticides that are applied to application areas within waters of the United States in accordance with FIFRA label requirements and Use Permit restrictions are not considered pollutants. However, residues associated with aquatic pesticide application require coverage under the General Permit. These include over-applied or misdirected pesticide products and pesticide residues. Residues are any pesticide byproduct, or breakdown product, or pesticide product that is present after the use of the pesticide to kill or control the target weed.

The General Permit does not cover agricultural storm water discharges or return flows from irrigated agriculture because these discharges are not defined as “point sources” and do not require coverage under an NPDES permit. The General Permit also does not cover other indirect or non-point source discharges from applications of pesticides, including discharges of pesticides to land that may be conveyed in storm water or irrigation runoff. The General Permit does not cover the discharge of pollutants related to applications of pesticides other than 2,4-D, acrolein, copper, diquat, endothall, fluridone, imazapyr, glyphosate, sodium carbonate peroxyhydrate, triclopyr based algaecides and aquatic pesticides, and adjuvants containing ingredients represented by the surrogate nonylphenol based pesticides; however, the General Permit includes a re-opener statement specifying that the permit may be reopened for the specific purpose of modifying the list of pesticides whose associated discharge is authorized by this General Permit.

**WATERS OF THE UNITED STATES:** The General Permit regulates the discharge of residues associated with the application of aquatic pesticides to waters of the United States. “Waters of the United States” are defined by the General Permit as follows:

1. All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
2. All interstate waters, including interstate “wetlands;”
3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sand flats, “wetlands,” sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:
  - a. Which are or could be used by interstate or foreign travelers for recreational or other purposes;

- b. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
- c. Which are used or could be used for industrial purposes by industries in interstate commerce.
- 4. All impoundments of waters otherwise defined as waters of the United States under this definition;
- 5. Tributaries of waters identified in items 1 through 4 of this definition;
- 6. The territorial sea; and
- 7. "Wetlands" adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (1) through (6) of this definition. Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 C.F.R. section 423.11(m) which also meet the criteria of this definition) are not waters of the United States. This exclusion applies only to manmade bodies of water which neither were originally created in waters of the United States (such as disposal area in wetlands) nor resulted from the impoundment of waters of the United States [See Note 1 of this Section.] Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with U.S. EPA.

**WATER QUALITY STANDARDS:** The Clean Water Act (CWA) defines Water Quality Standards as “Provisions of state or federal law which consist of designated uses for the waters of the United States, water quality criteria for waters based upon such uses, and antidegradation policies. Water quality standards are to protect the public health or welfare, enhance the quality of water and serve the purposes of the Act.” [40 Code of Federal Regulations (CFR) section 131.3(i)].

In California, *Water Quality Control Plans* designate the beneficial uses of waters of the State and water quality objectives (WQOs) to protect those uses. The *Water Quality Control Plans* are adopted by the State and Regional Boards through a formal administrative rulemaking process, and, upon approval by USEPA, the WQOs for waters of the United States (generally surface waters) become State water quality standards.

USEPA has established water quality criteria in California for priority pollutants in the National Toxics Rule and the California Toxics Rule (CTR). The CTR criteria are also water quality standards.

EFFLUENT LIMITATIONS: NPDES permits for discharges to surface waters must meet all applicable provisions of sections 301 and 402 of the CWA. These provisions require controls that utilize best available technology economically achievable (BAT), best conventional pollutant control technology (BCT), and any more stringent controls necessary to reduce pollutant discharge and meet water quality standards.

Title 40, CFR section 122.44 states that if a discharge causes, has the reasonable potential to cause, or contributes to an excursion (Reasonable Potential) of a numeric or narrative water quality criterion, the permitting authority must develop effluent limits as necessary to meet water quality standards. Title 40, CFR section 122.44(k)(3) allows these effluent limits to be requirements to implement BMPs if numeric effluent limits are infeasible. It is infeasible for the State Board to establish numeric effluent limitations in this General Permit, because the application of aquatic pesticides is not necessarily considered a discharge of pollutants according to the Talent decision. The regulated discharge is the discharge of residues associated with the application of aquatic pesticides. These include over-applied and misdirected pesticide product and pesticide residue. At what point the pesticide becomes a residue is not precisely known and varies depending on such things as target weed, water chemistry, and flow. Therefore, the effluent limitations contained in the General Permit are narrative and include requirements to develop and implement this APAP that describes appropriate BMPs, including compliance with all pesticide label instructions, and to comply with receiving water limitations.

The BMPs required herein constitute BAT and BCT and will be implemented to minimize the area and duration of impacts caused by the discharge of aquatic pesticides in the treatment area, and to allow for the restoration of water quality and protection of beneficial uses of the receiving waters to pre-application quality following completion of a treatment event.

Once an aquatic pesticide has been applied to an application area, the pesticide product can actively treat the target species within the treatment area. During the treatment event, the aquatic pesticide is at a sufficient concentration to actively kill or control the target weeds plants or algae. When active ingredient concentrations are below this effective

concentration, the aquatic pesticide becomes a residue. The minimum effective concentration, and the time required to reach it, vary due to site specific conditions, such as flow, target species, and water chemistry. The Receiving Water Limitations require that an application event does not result in an exceedance of water quality standards in the receiving water. The receiving water includes:

- Anywhere outside of the treatment area at any time, and
- Anywhere inside the treatment area after completion of the treatment event.

In recognition of the variability in the temporal extent of a treatment event, the General Permit does not require it to be discretely defined. Instead, post-event monitoring of the water is required no more than a week from the time of aquatic pesticide application.

Receiving water limitations are provided in the General Permit and are provided as follows: The instantaneous maximum receiving water limitations are based on promulgated water quality criteria such as those provided in the CTR, water quality objectives adopted by the State and Regional Water Boards in their Basin Plans, water quality criteria adopted by the California Department of Fish and Wildlife, water quality standards such as drinking water standards adopted by U.S. EPA or the California Department of Public Health (CDPH), or the U.S. EPA's National Recommended Ambient Water Quality Criteria.

This General Permit provides receiving water limitations based on the lowest water quality criteria/objectives to protect all designated beneficial uses of the receiving water. The receiving water limitations in this General Permit are similar as those in Order No. 2004-0009-DWQ, with the exception of copper, which has an update formula to calculate copper exceedence limits based on the CTR.



The rationale for each limitation is summarized in the table below:

Constituent/ Parameter	BENEFICIAL USE <sup>1</sup>				Basis
	MUN, µg/L	WARM or COLD, µg/L	Other than MUN, WARM, or COLD, µg/L	All Designations	
2,4,-D	70				U.S. EPA MCL
Acrolein <sup>2</sup>	320	21	780		U.S. EPA Water Quality Criteria, 1986.
Copper <sup>2</sup>				Dissolved Freshwater <sup>3</sup> Copper Chronic = $0.960 \exp\{0.8545 [\ln(\text{hardness}^4)] - 1.702\}$ <sup>5,6</sup>  Dissolved saltwater <sup>3</sup> Copper Chronic = $0.83 \exp\{0.8545 [\ln(\text{hardness}^4)] - 1.702\}$ <sup>5,6</sup>	California Toxics Rule
Diquat	20				U.S. EPA MCL
Endothall	100				U.S. EPA MCL
Fluridone	560				U.S. EPA Integrated Risk Information System
Glyphosate	700				U.S. EPA MCL
Nonylphenol				Freshwater Chronic Criterion = 6.6 µg/L  Saltwater Chronic Criterion = 1.7 µg/L	U.S. EPA National Recommended Ambient Water Quality Criteria
Toxicity	Algaecide and aquatic herbicide applications shall not cause or contribute to toxicity in receiving water(s).				Regional Water Boards' Basin Plans

#### Notes

1. See Regional Water Boards' Water Quality Control Plans (Basin Plans) for beneficial use definitions.
2. Public entities and mutual water companies listed in Attachment G are not required to meet this receiving water limitation during the exception period described in Section VIII.C.10, Limitations
3. For waters in which the salinity is equal to or less than 1 part per thousand 95% or more of the time, the freshwater criteria apply. For waters in which the salinity is equal to or greater than 10 parts per thousand 95% or more of the time, saltwater criteria apply. For waters in which the salinity is between 1 and 10 parts per thousand, the applicable criteria are the more stringent of the freshwater or saltwater criteria.
4. For freshwater aquatic life criteria, waters with a hardness 400 mg/L or less as calcium carbonate, the actual ambient hardness of surface water shall be used. For waters with a hardness of over 400 mg/L as calcium carbonate, a hardness of 400 mg/L as calcium carbonate shall be used with a default Water-Effect Ratio of 1.
5. Values should be rounded to two significant figures.
6. This limitation does not apply to the Sacramento River and its tributaries above the State Highway 32 Bridge at Hamilton City. See Table III-1 of the Basin Plan for the Sacramento and San Joaquin River Basins for copper limitation.



**MONITORING REQUIREMENTS:** The General Permit requires dischargers to comply with the Monitoring and Reporting Program (MRP). The goals of the MRP are to:

1. Identify and characterize algaecide or aquatic herbicide application projects conducted by the Discharger;
2. Determine compliance with the receiving water limitations and other requirements specified in this General Permit;
3. Measure and improve the effectiveness of the APAP;
4. Support the development, implementation, and effectiveness of BMPs;
5. Assess the chemical, physical, and biological impacts on receiving waters resulting from algaecide or aquatic herbicide applications;
6. Assess the overall health and evaluate long-term trends in receiving water quality;
7. Demonstrate that water quality of the receiving waters following completion of resource or weed management projects are equivalent to pre-application conditions; and
8. Ensure that projects that are monitored are representative of all algaecide or aquatic herbicide applications and methods used by the Discharger.

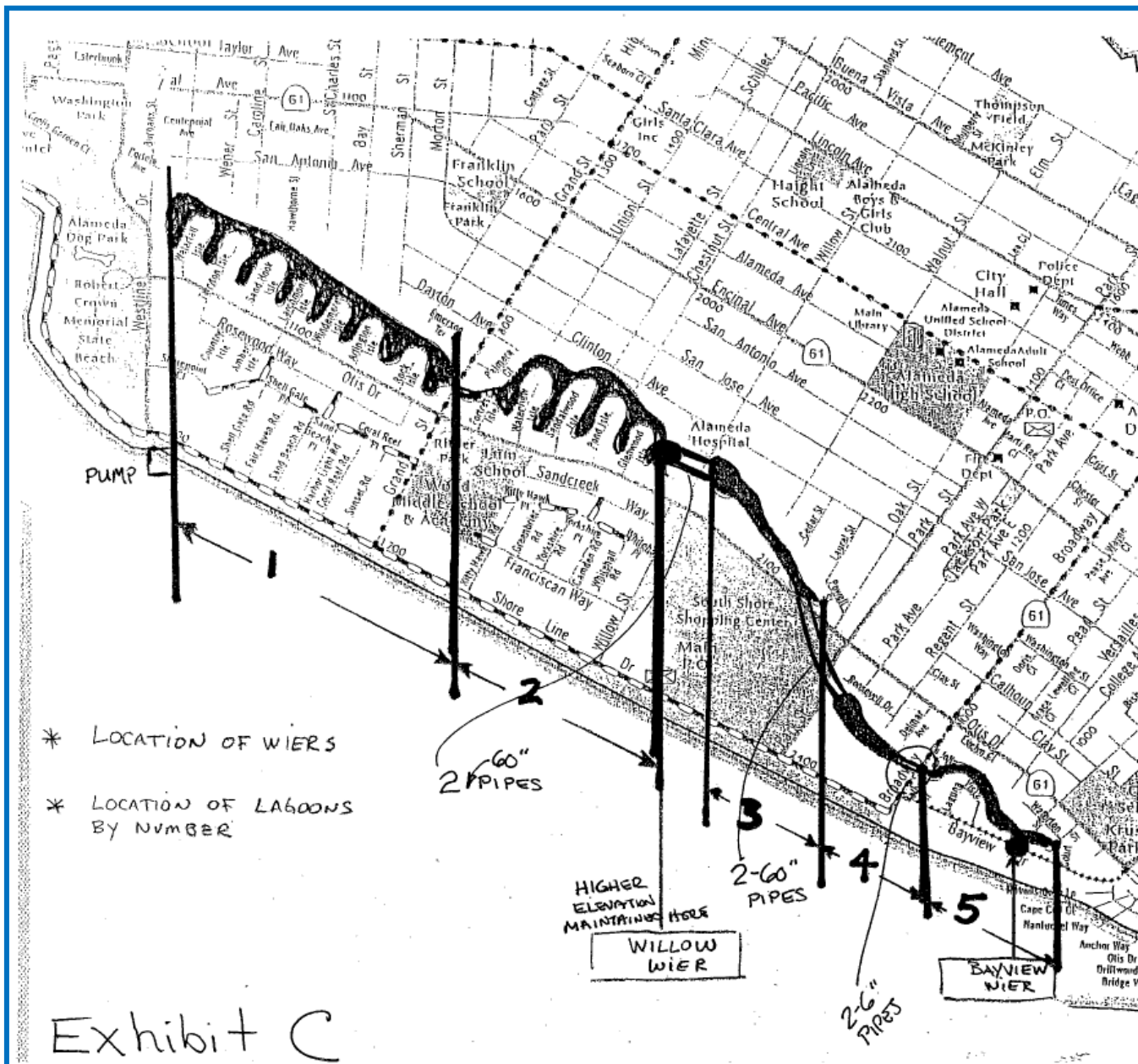
This APAP was prepared to address the above requirements and those detailed in the General Permit.

## **DESCRIPTION OF THE WATER SYSTEM**

The South shore lagoon system consists of five individual lagoons linked together by approximately 3,070 linear feet of 60-inch reinforced concrete pipe (Exhibit C below). The lagoon system was constructed in the late 1950's and early 1960's, when the existing San Francisco Bay shoreline was filled to create additional single-family residential units, some multi-family structures, and a few commercial properties. The lagoons are approximately two miles in length, have a total surface area of approximately 50 acres,

and vary in depth from one foot at the perimeter walls to approximately eight feet in the center.





Lagoon No. 1 extends from Westline Drive (near Shoreline Drive) to Grand Street; Lagoon No. 2 extends from Grand Street to Willow Street; Lagoon No. 3 extends from Willow Street to Park Street; Lagoon No. 4 extends from Park Street to Broadway; and Lagoon No. 5 extends from Broadway to Bayview Drive (near Court Street).

The lagoons are supplied with water from the San Francisco Bay by a 3,000-gallon per minute pump housed in a station located near the Westline Drive/Shoreline Drive curve.



The pump only operates during high tides because of the shallow location of the intake structure. Once the water is pumped into the westerly-most lagoon, it flows through the lagoons by gravity and returns to the Bay at the easterly-most lagoon. The water level is controlled by two weir structures with sluice gates, the Willow weir located at the end of Lagoon No. 2 and the Bayview weir located at the end of Lagoon No. 5 at the outlet structure. These structures allow the water level to be manually raised or lowered to the required height. Water is maintained at a constant level except during the winter rainy season and for annual maintenance.

The lagoons serve as a private, recreational area for the enjoyment of residents living along the lagoons, as well as a channel for storm water during periods of rain. The City of Alameda maintains the lagoons for purposes of storm drainage, private recreational use, and aesthetics.

During the winter months there is an increase in turbidity and the amount of debris entering the lagoons. Migratory waterfowl also frequent the lagoons as well as resident birds. Egrets, herons, and various ducks are the primary migratory waterfowl. Resident birds consist mostly of mallards, Canadian geese, and coots.

The Alameda West Lagoon Home Owners' Association (AWLHOA), made up of the residents fronting the south side of the lagoons, is the record title owner of the lagoon system, and the City has a perpetual easement over it for maintenance purposes. As such, the City consults with the AWLHOA on the maintenance and monitoring of the lagoon system.

The Alameda Lagoons have been experiencing nuisance growths of submerged aquatic vegetation as well as planktonic and filamentous algae blooms that have impacted the beneficial uses of the system that include storm water retention, recreational use, and aesthetics.

As mentioned above the lagoons are approximately two miles in length, have a total surface area of approximately 50 acres, and vary in depth from one foot at the perimeter walls to approximately eight feet in the center.

## DESCRIPTION OF THE TREATMENT AREA



Throughout the spring and summer the lagoons are impacted by nuisance growths of submerged aquatic vegetation and algae. All of the lagoons are fairly shallow so aquatic weed growth can occur throughout the entire area of the lagoons. The aquatic weed most commonly controlled in the Alameda lagoons is Widgeon Grass (*Ruppia maritima* L.) The lagoons also get planktonic and filamentous algae blooms. Water volume of the area targeted for submerged aquatic plant control will vary based on water levels within the system, but typical water depths in the treatment areas will average approximately 4-6 feet. The acreages for each lagoon are outlined in the diagram above.

The Alameda Lagoons contain two weir structures and sluice gates. The gates are primarily left open as the lagoons operate as a flow through system. When applications are performed these gates will be closed and inspected prior to the treatments to ensure that they are in good working condition and not open.

### APPLICATION SCHEDULE

The City of Alameda and or applicator will provide a phone number or other specific contact information to all persons who request the City of Alameda and or applicator's application schedule and will inform the requester if the schedule is subject to change. Information may be made available posting it on a well-known website.

### PUBLIC NOTICE REQUIREMENTS

Every calendar year at least 15 days prior to the first application of algaecide or aquatic herbicide, the City of Alameda and or the applicator will notify potentially affected public agencies. The notification will include all of the information outlined in Section VIII. B.

### AQUATIC PESTICIDES AND ADJUVANTS EXPECTED TO BE USED AND APPLICATION METHODS

Provided in the table below are the aquatic herbicides and algaecides that may be used in the aquatic plant and algae control program for the Alameda Lagoons. The need for treatments is based on aquatic weed growth, algal counts and visual monitoring.

	<i>Water Use Restrictions</i>			
<i>Herbicide* Algaecide*</i>	<i>Days for Swimming</i>	<i>Days for Fish Consumption</i>	<i>Days for Irrigation of Turf/Food Crops</i>	<i>Degradation Byproducts</i>
<b><u>Citrine Plus</u></b> (Copper as elemental 9.0%)	0	0	0	None
<b><u>Reward</u></b> ( <i>Diquat dibromide</i> )	0	0	3-5	None
<b><u>Hydrothol 191</u></b> ( <i>Mono(N,N- dimethylalkylamine salt of endothall)</i> )	0	0	0	None

<b><u>Green Clean Liquid</u></b> ( <i>Hydrogen Dioxide</i> )	0	0	0	None
<b><u>Nautique</u></b> ( <i>Copper Carbonate 15.9%</i> )	0	0	0	None
<b><u>Cygnat Plus</u></b> ( <i>Adjuvant</i> ) ( <i>Limonene</i> ) ( <i>Methylated Vegetable Oil</i> ) <i>Alkyl hydrooxypolyoxyethylene</i> )	0	0	0	None

*\*Refer to Product Labels and MSDS's for Further Information*

PAK27, GreenClean Liquid, Hydrothol 191, and Cutrine Plus are all of the algaecides used to control planktonic algae in the Alameda Lagoons. Reward and Nautique are all of the herbicides used to control submerged aquatic weeds in the water column. The Cutrine Plus and Nautique have copper based active ingredients. Based on the City of Alameda's Integrated Pest Management Policy (IPM) the City does not want Copper based products used in the lagoons, unless they are used when all other alternatives do not work or if there is an emergency situation. Therefore the applicator will not use these products without first getting approval from the City of Alameda and only when alternatives do not work or when there is an emergency.

Aquatic herbicide and algaecide applications are performed utilizing Best Management Practices (BMP's) by licensed personnel in accordance with a Pest Control Recommendations (PCR) issued by a State of California, Department of Pesticide Regulation (DPR) Pest Control Advisor. Clean Lakes, Inc. performs aquatic plant control applications and water quality monitoring. Clean Lakes, Inc.'s application staff hold State of California, Department of Pesticide Regulation (DPR), Pest Control Advisor licenses and Qualified Applicator Licenses or Certificates. Applications are performed from a boat as surface or subsurface applications based on the target species. Alternatively, if a granular product is used, an educator or blower application system is used to apply the granular formulation. Aquatic herbicide applications are carried out using GPS technology to track treatment location, date, time and boat speed.

## **FACTORS INFLUENCING ALGAE AND WEED CONTROL**

The decision to implement aquatic vegetation control treatments is based on the plant's growth stage in the spring of each season, and re-evaluated during the summer months. Planktonic and filamentous algae treatments are based on growth as well their nuisance level as they develop, typically through the spring and summer months. When submerged vegetation or planktonic algae is treated in an early growth stage, there is less plant biomass that is controlled, and decomposing in the system, which helps reduce and protect against impacts to dissolved oxygen depletion from decomposing biomass. Based on nuisance levels of aquatic plant growth, and or algae densities and their potential to impact beneficial uses of the lagoon system, a Pest Control Advisor (PCA) will review control options. Based on the PCA's findings, a Pest Control Recommendation (PCR) will be developed for aquatic pesticide applications.

Aquatic herbicide and algaecide treatments are determined based on the following characteristics:

- Clean Lakes Inc. regularly monitors the lagoons for algal growth. When the threshold (Algae Count) is reached Clean Lakes Inc. provides an algaecide treatment. Aquatic weeds are continually monitored throughout the growing season. When aquatic weed growth reaches a nuisance level Clean Lakes Inc. provides aquatic weed treatments.
- The surface area of the Alameda Lagoons is approximately 50 surface acres.
- The water volume of the Alameda Lagoons is calculated to be approximately 200 acre feet (50 surface acres x 4' foot average depth)
- The water volume of the area targeted for aquatic weed control is calculated by determining the surface acreage of the treatment area and then multiplying it by the average depth in the treatment plot. For example: A two (2) acre plot with an average depth of six feet would result in a 12 acre ft. water volume.



- Water movement through the system is supplied with water from the San Francisco Bay by a 3,000-gallon per minute pump housed in a station located near the Westline Drive/Shoreline Drive curve. The pump only operates during high tides because of the shallow location of the intake structure. Once the water is pumped into the westerly-most lagoon, it flows through the lagoons by gravity and returns to the Bay at the easterly-most lagoon.

## **MONITORING AND REPORTING PROGRAM**

**Monitoring Requirements:** The General Permit requires that dischargers comply with the Monitoring and Reporting Program (MRP) outlined in the General Permit. The goals of the MRP are to:

1. Identify and characterize algaecide or aquatic herbicide application projects conducted by the Discharger;
2. Determine compliance with the receiving water limitations and other requirements specified in this General Permit;
3. Measure and improve the effectiveness of the APAP;
4. Support the development, implementation, and effectiveness of BMPs;
5. Assess the chemical, physical, and biological impacts on receiving waters resulting from algaecide or aquatic herbicide applications;
6. Assess the overall health and evaluate long-term trends in receiving water quality;
7. Demonstrate that water quality of the receiving waters following completion of resource or weed management projects are equivalent to pre-application conditions; and
8. Ensure that projects that are monitored are representative of all algaecide or aquatic herbicide and application methods used by the Discharger.

### **General Monitoring**

1. The Alameda Lagoons aquatic weed treatments will occur as full lagoon, partial lagoon and spot treatments. Since the Alameda Lagoons receive water continuously from the San Francisco Bay, sample locations will be established in areas not influenced by incoming water according to pre and post event monitoring schedules outlined in the General Permit. The Event Monitoring

samples will be collected at the outlet of the lagoon while the pre and post event monitoring will occur within the treatment area.

2. Algaecide and aquatic herbicide application practices will be established based on the Pest Control Recommendations (PCR) from a DPR licensed Pest Control Advisor (PCA). Aquatic plant and algae growth will be evaluated to determine the potential for creating impacts or nuisances to lake use and management prior to any treatments. The aquatic herbicide and or algaecide labels directions are factored into treatments to determine timing and application rates. Application practices utilize the most appropriate application technique to comply with BMP's via surface or subsurface treatment methods. GIS and GPS technology allow a high level of precision when calculating area and for guiding treatments, respectively.
3. Aquatic herbicides and algaecides are registered by the US Environmental Protection Agency (USEPA) nationally, and the CA Department of Pesticide Regulation (CADPR) within California. Manufacturers of products must provide information to the USEPA for registration or re-registration purposes that includes information with regard to transport, environmental fate and effects of algaecides and aquatic herbicides. Algaecides and aquatic herbicides planned for use in the Alameda Lagoons are registered for use by both the USEPA and the CADPR. Detailed information about transport, fate and effects of algaecides and aquatic herbicides are addressed in USEPA's Re-registration Eligibility Decisions. (RED) Documents for a few of the active ingredients are as follows, the rest can be found on the EPA website:
  - Cutrine Plus/Captain (copper):  
[http://www.epa.gov/oppsrrd1/REDs/copper\\_red.pdf](http://www.epa.gov/oppsrrd1/REDs/copper_red.pdf)
  - Reward (diquat dibromide):  
<http://www.epa.gov/oppsrrd1/REDs/0288.pdf>
  - Green Clean (sodium carbonate peroxyhydrate):  
[http://www.epa.gov/pesticides/chem\\_search/reg\\_actions/registration/decision\\_PC-128860\\_16-Sep-02.pdf](http://www.epa.gov/pesticides/chem_search/reg_actions/registration/decision_PC-128860_16-Sep-02.pdf)
4. Designated Beneficial Uses for the Alameda Lagoons include boating, swimming, fishing, storm water detention, and aesthetics. Cumulative and indirect effects of

- algaecides and aquatic herbicides are discussed in USEPA Re-registration Eligibility Documents (RED) discussed in item 3 above. No known negative impacts have been observed from aquatic herbicide and or algaecide applications in the Alameda Lagoons.
5. The potential for algaecide and aquatic herbicide applications leading to designated use impacts is unlikely since DPR licensed Qualified Applicators implement the treatments based on a Pest Control Recommendation (PCR) and by following herbicide label directions. Misuse, over use, or use of incorrect products are not expected to occur due to the preparations and planning that take place prior to implementing a treatment.
  6. No known or potential impacts from algaecides and aquatic herbicide applications on water quality are anticipated based on following herbicide label requirements, the infrequent applications that are anticipated to take place, and the short duration that algaecides or aquatic herbicides are present in the water column. A Risk Assessment is provided for each of the active ingredients in the USEPA REDs discussed in Item 3.
  7. Pre and post water quality sampling stations are sufficient to assess algaecide or aquatic herbicide applications due to the small nature of the lake, the size of the treatments, and the relative ease that sample locations can be visited.
  8. The monitoring plan prepared for this APAP is described below.

### **Receiving Water Monitoring**

Treatment Maps: For each application at each site, a treatment map will be developed with a convenient scale showing the application area, treatment area, immediately adjacent untreated areas (if entire water body is not treated), and water bodies receiving treated water. Information about surface area and/or volume of the application area, treatment area, and any other information used to calculate dosage and quantity of each pesticide used at each application site will be included with the algaecide and aquatic herbicide application monitoring log forms (see below). Sampling locations will be noted on the treatment map and global positioning systems

(GPS) coordinates for each sampling site will be noted on application monitoring log forms.

Control Structure Inspections: Prior to every application, an inspection of the integrity of the weirs and sluice gates will be performed to ascertain that treated water does not unintentionally get discharged from the lagoon system.

Aquatic Pesticide Monitoring Frequency: Samples will be collected from a minimum of six application events for each active ingredient. If there are less than six application events in a year, samples will be collected during each application event for each active ingredient. If the results from six consecutive sampling events show concentrations that are less than the receiving water limitation/trigger for an active ingredient, sampling shall be reduced to one application event per year for that active ingredient. If the yearly sampling event shows exceedence of the receiving water limitation/trigger for an active ingredient, then sampling shall return to six application events for that active ingredient.

Aquatic Pesticide Monitoring: The following monitoring activities will be performed for a minimum of six application events, or as many applications as occur in a year if there are less than six application events, at representative locations:

1. Background Monitoring. Background monitoring samples will be collected upstream at the time of the application event or in the application area just prior to (up to 24 hours in advance of) the application event.
2. Event Monitoring. Event monitoring samples will be collected immediately downstream of the treatment area in flowing waters or immediately outside of the treatment area in non-flowing waters immediately after the application event, but after sufficient time has elapsed that treated water would have exited the treatment area.
3. Post-Event Monitoring. Post-event monitoring samples will be collected within the treatment area within one week after application.

Sample Analysis: All samples requiring laboratory analyses will be collected and analyzed by a laboratory certified for such analyses by the California Department of Health Services. All analyses will be conducted in accordance with the latest edition of “Guidelines Establishing Test Procedures for Analysis of Pollutants” (Guidelines), promulgated by the U.S. Environmental Protection Agency (USEPA) (Title 40 Code of Federal Regulations part 136). Field analysis for the parameters of temperature, dissolved oxygen (DO), electrical conductivity, and pH will be performed using a Portable Multi-Parameter Meter (YSI or equivalent) with a sufficiently long probe cable, and will be maintained and calibrated at regular intervals according to the manufacturer specifications. Secchi Disk measurements will be performed using a standard Secchi disk. Water samples collected for laboratory analysis will be accompanied with a completed chain of custody form identifying the chemical constituents requiring analysis, and delivered to a State of California Certified Laboratory per the NPDES Permit requirements.



Monitoring Parameters: The following parameters will be collected or analyzed:

Sample Type	Constituent/Parameter	Units	Sample Method	Minimum Sampling Frequency	Sample Type Requirement	Required Analytical Test Method
Visual	1. Monitoring area description (pond, lake, open waterway, channel, etc.) 2. Appearance of waterway (sheen, color, clarity, etc.) 3. Weather conditions (fog, rain, wind, etc.)	Not applicable	Visual Observation	1	Background, Event and Post-event Monitoring	Not applicable
Physical	1. Temperature <sup>2</sup>	°F	Grab <sup>4</sup>	5	Background, Event and Post-event Monitoring	6
	2. pH <sup>3</sup>	Number				
	3. Turbidity <sup>3</sup>	NTU				
	4. Electric Conductivity <sup>3</sup> @ 25°C	µmhos/cm				
Chemical	1. Active Ingredient <sup>7</sup>	µg/L	Grab <sup>4</sup>	5	Background, Event and Post-event Monitoring	6
	2. Nonylphenol <sup>8</sup>	µg/L				
	3. Hardness (if copper is monitored)	mg/L				
	4. Dissolved Oxygen <sup>2</sup>	mg/L				

<sup>1</sup> All applications at all sites.

<sup>2</sup> Field testing.

<sup>3</sup> Field or laboratory testing.

<sup>4</sup> Samples shall be collected at three feet below the surface of the water body or at mid water column depth if the depth is less than three feet.

<sup>5</sup> Collect samples from a minimum of six application events for each active ingredient in each environmental setting (flowing water and non-flowing water) per year, except for glyphosate. If there are less than six application events in a year, collect samples during each application event for each active ingredient in each environmental setting (flowing water and non-flowing water). If the results from six consecutive sampling events show concentrations that are less than the receiving water limitation/trigger for an active ingredient in an environmental setting, sampling shall be reduced to one application event per year for that active ingredient in that environmental setting. If the yearly sampling event shows exceedance of the receiving water limitation/trigger for an active ingredient in an environmental setting, then sampling shall return to six application events for that active ingredient in each environmental setting. For glyphosate, collect samples from one application event from each environmental setting (flowing water and non-flowing water) per year.

<sup>6</sup> Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136.

<sup>7</sup> 2,4-D, acrolein, dissolved copper, diquat, endothall, fluridone, glyphosate, imazamox, imazapyr, penoxsulam, and triclopyr.

<sup>8</sup> It is required only when a surfactant is used.

Sampling Procedures: Samples will be collected using sampling procedures which minimize loss of monitored constituents during sample collection and analysis to maintain sample integrity.

Sampling protocols: Samples will be retrieved, stored, recorded, and shipped to a third party laboratory using the following methods and precautions. Any deviation from these methods and precautions will be recorded and explained.

**Materials for in field sampling:**

- 1) New sampling bottles, one per sample with sample ID label.
- 2) Cooler(s) sufficient to hold ample bottles, with ice- or gel-packs
- 3) Plastic gloves
- 4) Subsurface grab sampler
- 5) Depth finder, marked pole, Secchi Disk (cord marked with half foot increments), or water quality monitoring probe with depth sensor.
- 6) Instrument(s) for measurement of temperature, pH, dissolved oxygen, hardness, electrical conductivity, depth.
- 7) GPS for sample location coordinates.
- 8) Field data sheets and clipboard
- 9) A clean boat and a transport vehicle

**Method to collect a single sample:** Samples will be simple grab samples.

- 1) When approaching a sampling location, care will be taken to not stir up sediments and to approach from downstream or down wind direction. If anchoring is required, lower anchor gently.
- 2) Immediately prior to collecting the sample, the sample bottle label details will be completed (i.e. date, time, sample collector...)
- 3) When taking the sample, the cap will be left on the bottle until it is at three feet of depth or at midpoint in the water column if less than three feet, per the monitoring forms outlined below.
- 4) Once the bottle is at the appropriate depth, the cap will be removed below the surface. Stirring of the sediments will be avoided.
- 5) The bottle will be rinsed with sample water and emptied twice, then filled completely
- 6) Once the bottle is full, it will be capped.
- 7) The bottle will be placed in the appropriate cooler. The bottles will be kept in contact with ice packs
- 8) Other water quality measurements will be taken and recorded
- 9) The Water Sampling Data Sheet will be filled out with information for the sample



- 10) In the office, the bottle will be placed into a refrigerator, unless samples are taken immediately to a laboratory.

**SPECIAL NOTES:**

- 1) For a spot treatment, a sketch map will be made showing the site of the treatment and the location of the sample relative to the treated area
- 2) In addition, a Global Positioning System (GPS) reading will be taken, noting the latitude and longitude in WGS 1984 datum to six decimal places and recording on the application monitoring form.

**Submitting sample to lab:**

- 1) Samples will be submitted within 48 hours of sample collection or sooner to a laboratory.
- 2) Samples will be packed in a cooler with ice packs between each bottle
- 3) Chain of Custody (COC) form will be prepared to include details on the sample bottle labels.
- 4) If the samples are shipped to the lab, the pick-up person will sign the COC and a copy will be made before sending out the shipment. If the samples are delivered to the lab, the delivering person will have the receiving person sign the COC form and provide a copy before turning over the shipment.

**Retention of Records:** Records of all monitoring information including all calibration and maintenance records, copies of all reports required by the General Permit, and records of all data used to complete the application per the General Permit will be retained. Records will be maintained for a minimum of three years from the date of the sampling event. This period may be extended during the course of any unresolved litigation regarding a discharge, or when requested by the appropriate Regional Board Executive Officer.

**Monitoring Records:** Records of monitoring events will include the following information:

- a. The date, exact place, and time of sampling or measurements;
- b. The individuals who performed the sampling or measurements;
- c. The date's analyses were performed;
- d. The individuals who performed the analyses;
- e. The analytical techniques or method used; and
- f. The results of such analyses.



The following forms will be used to collect and track information required for each treatment event as required by the Genera Permit:

**CLEAN LAKES, INC.**

**AQUATIC WEED CONTROL  
NPDES AQUATIC PESTICIDE APPLICATION LOG**

<b>Date of Application:</b>		<b>Location:</b>		<b>App. Start Time:</b> <b>App. Stop Time:</b>	
<b>Applicator Name:</b>			<b>APAP Certification:</b>		
<b>Attach map showing application area, treatment area, immediately adjacent untreated area, and water bodies receiving treated water.</b>					
<b>Discharge Gates or Control Structures</b>					
<b>Name</b>	<b>Date Closed</b>	<b>Time Closed</b>	<b>Date Opened</b>	<b>Time Opened</b>	
1.					
<b>Calculations to Determine Opening and Closures:</b>					
<b>2. Provide information on surface area and/or volume of application area and treatment area and other information used to calculate dosage and quantity of each pesticide used at each application site:</b>					
<b>2.a Application Area – Surface Area:</b>			<b>2.b Application Area – Volume:</b>		
<b>2.c Treatment Area – Surface Area:</b>			<b>2.d Treatment Area – Volume:</b>		
<b>2.e Dosage and Quantity Information for each pesticide used:</b>					
<b>Application Details</b>					
<b>Plot Number</b>	<b>Area (ac. or sq. ft.)</b>	<b>Average Depth</b>	<b>Product</b>	<b>Product Quantity</b>	<b>Concentration or Rate</b>

For additional treatment areas use additional forms.

## AQUATIC WEED CONTROL NPDES RECEIVING WATER MONITORING

### Visual Observation Form (Background Monitoring)

<b>Monitoring Date:</b>		<b>Location:</b>		<b>Sampled by:</b>	
<b>Monitoring Area Description (pond, lake, waterway channel,...):</b>					
<b>Site Conditions/Appearance of Waterway</b>					
<b>Floating or suspended matter:</b> Present <input type="checkbox"/> Absent <input type="checkbox"/>		<b>Discoloration:</b> Present <input type="checkbox"/> Absent <input type="checkbox"/>		<b>Bottom deposits:</b> Present <input type="checkbox"/> Absent <input type="checkbox"/>	
<b>Visible films, sheens or coatings:</b> Present <input type="checkbox"/> Absent <input type="checkbox"/>		<b>Fungi, slimes, or objectionable growths:</b> Present <input type="checkbox"/> Absent <input type="checkbox"/>		<b>Aquatic life:</b> Present <input type="checkbox"/> Absent <input type="checkbox"/>	
<b>Potential nuisance conditions:</b> Present <input type="checkbox"/> Absent <input type="checkbox"/>					
<b>Weather conditions and other observations (fog, rain, wind, wind direction...):</b>					

### Visual Observation Form (Event Monitoring)

<b>Monitoring Date:</b>		<b>Location:</b>		<b>Sampled by:</b>	
<b>Monitoring Area Description (pond, lake, waterway channel,...):</b>					
<b>Site Conditions/Appearance of Waterway</b>					
<b>Floating or suspended matter:</b> Present <input type="checkbox"/> Absent <input type="checkbox"/>		<b>Discoloration:</b> Present <input type="checkbox"/> Absent <input type="checkbox"/>		<b>Bottom deposits:</b> Present <input type="checkbox"/> Absent <input type="checkbox"/>	
<b>Visible films, sheens or coatings:</b> Present <input type="checkbox"/> Absent <input type="checkbox"/>		<b>Fungi, slimes, or objectionable growths:</b> Present <input type="checkbox"/> Absent <input type="checkbox"/>		<b>Aquatic life:</b> Present <input type="checkbox"/> Absent <input type="checkbox"/>	
<b>Potential nuisance conditions:</b> Present <input type="checkbox"/> Absent <input type="checkbox"/>					
<b>Weather conditions and other observations (fog, rain, wind, wind direction...):</b>					

### Visual Observation Form (Post Event Monitoring)

<b>Monitoring Date:</b>		<b>Location:</b>		<b>Sampled by:</b>	
<b>Monitoring Area Description (pond, lake, waterway channel,...):</b>					
<b>Site Conditions/Appearance of Waterway</b>					
<b>Floating or suspended matter:</b> Present <input type="checkbox"/> Absent <input type="checkbox"/>		<b>Discoloration:</b> Present <input type="checkbox"/> Absent <input type="checkbox"/>		<b>Bottom deposits:</b> Present <input type="checkbox"/> Absent <input type="checkbox"/>	
<b>Visible films, sheens or coatings:</b> Present <input type="checkbox"/> Absent <input type="checkbox"/>		<b>Fungi, slimes, or objectionable growths:</b> Present <input type="checkbox"/> Absent <input type="checkbox"/>		<b>Aquatic life:</b> Present <input type="checkbox"/> Absent <input type="checkbox"/>	
<b>Potential nuisance conditions:</b> Present <input type="checkbox"/> Absent <input type="checkbox"/>					
<b>Weather conditions and other observations (fog, rain, wind, wind direction...):</b>					

## AQUATIC WEED CONTROL NPDES RECEIVING WATER MONITORING

**Physical and Chemical Monitoring**      **Location:** \_\_\_\_\_ **Sampled by:** \_\_\_\_\_

(Physical and chemical monitoring required for six (6) applications for each type of pesticide at each waterbody site. See General Permit)

<b>1. Background Monitoring Parameters</b> (u/s or at treatment area up to 24 hours before or at time of treatment)			<b>Date:</b>
<b>Physical Sample Type</b> (3 feet below water surface or mid depth if < 3 feet)	<b>Temperature (F)</b> <sup>1</sup>	<b>Turbidity (NTU)</b> <sup>2</sup>	<b>Electrical Conductivity (µmhos/cm)</b> <sup>2</sup>
<b>Chemical Sample Type</b> (3 feet below water surface or mid depth if < 3 feet)	<b>Active Ingredient (µg/l)</b>	<b>Nonylphenol (µg/l)</b> <sup>3</sup>	<b>pH</b> <sup>2</sup>
	<b>Dissolved Oxygen (mg/L)</b> <sup>2</sup>	<b>Hardness (CaCO<sub>3</sub>)</b> <sup>4</sup>	<b>GPS latitude and longitude coordinates</b>
<b>2. Event Monitoring Parameters</b> (d/s or immediately adjacent to treatment area immediately after application)			<b>Date:</b>
<b>Physical Sample Type</b> (3 feet below water surface or mid depth if < 3 feet)	<b>Temperature (F)</b> <sup>1</sup>	<b>Turbidity (NTU)</b> <sup>2</sup>	<b>Electrical Conductivity (µmhos/cm)</b> <sup>2</sup>
<b>Chemical Sample Type</b> (3 feet below water surface or mid depth if < 3 feet)	<b>Active Ingredient (µg/l)</b>	<b>Nonylphenol (µg/l)</b> <sup>3</sup>	<b>pH</b> <sup>2</sup>
	<b>Dissolved Oxygen (mg/L)</b> <sup>2</sup>	<b>Hardness (CaCO<sub>3</sub>)</b> <sup>4</sup>	<b>GPS latitude and longitude coordinates</b>
<b>3. Post Event Monitoring Parameters</b> (w/i treatment area + immediately d/s in flowing water or adjacent to treatment area w/i 1 week)			<b>Date:</b>
<b>Physical Sample Type</b> (3 feet below water surface or mid depth if < 3 feet)	<b>Temperature (F)</b> <sup>1</sup>	<b>Turbidity (NTU)</b> <sup>2</sup>	<b>Electrical Conductivity (µmhos/cm)</b> <sup>2</sup>
<b>Chemical Sample Type</b> (3 feet below water surface or mid depth if < 3 feet)	<b>Active Ingredient (µg/l)</b>	<b>Nonylphenol (µg/l)</b> <sup>3</sup>	<b>pH</b> <sup>2</sup>
	<b>Dissolved Oxygen (mg/L)</b> <sup>2</sup>	<b>Hardness (CaCO<sub>3</sub>)</b> <sup>4</sup>	<b>GPS latitude and longitude coordinates</b>

<sup>1</sup> Field Test; <sup>2</sup> Field or Laboratory Test; <sup>3</sup> Required when nonylphenol is used; <sup>4</sup> Required for copper applications.

Device Calibration and Maintenance: All monitoring instruments and devices that will be used by the discharger to fulfill the prescribed monitoring program will be properly maintained and calibrated as necessary to ensure their continued accuracy.

## **Reporting**

### **Annual Report**

All reports will be submitted to the appropriate Regional Board Executive Director or Deputy Director. All reports submitted in response to the Water Quality Order will comply with the provisions stated in the Standard Provisions (Attachment B) and Monitoring and Reporting Program (Attachment C), of the General Permit. The Annual reports will contain the following information:

- An executive summary discussing compliance or violation of the General Permit, and the effectiveness of the APAP to reduce or prevent the discharge of pollutants associated with algaecide and aquatic herbicide applications;
- A summary of monitoring data, including the identification of water quality improvements, or degradation as a result of the algaecide or aquatic pesticide application, if appropriate, and recommendations for improvements to the APAP (including proposed best management practices (BMPs) and monitoring program based on the monitoring results). All receiving water monitoring data will be compared to receiving water limitations and receiving water monitoring triggers;
- Identification of BMPs currently in use and a discussion of their effectiveness in meeting the requirements in this General Permit;
- A discussion of BMP modifications addressing violations of this General Permit;
- A map showing the location of each treatment area;
- Types and amounts of algaecides and aquatic herbicides used at each application event;

- Information on surface area and/or volume of treatment areas and any other information used to calculate dosage, concentration, and quantity of each algaecide and aquatic herbicide used;
- Sampling results will indicate the name of the sampling agency or organization, detailed sampling location information (including latitude and longitude or township/range/section if available), detailed map or description of each sampling area (address, cross roads, etc.), collection date, name of constituent/parameter and the concentration detected, minimum levels, method detection limits for each constituent analysis, name or description of water body sampled, and a comparison with applicable water quality standards, and a description of the analytical QA/quality control plan. Sampling results will be tabulated so that they are readily discernible; and
- A summary of the algaecide and aquatic herbicide application logs.

## **24 Hour Report and Five Day Reporting**

The City of Alameda and or applicator will orally report any non-compliance. This includes any unexpected or unintended effect of the use of an algaecide or aquatic herbicide that may danger health or the environment. This information will be provided orally within 24 hours from the time the City of Alameda or applicator becomes aware of the circumstances. A written report of the non-compliance will be provided within five (5) days of the time the City of Alameda and or applicator becomes aware of the noncompliance. The 24 hour report as well as the 5 day written report will follow the format in Attachment C.

Data Storage: All data will be recorded on supplied forms. At the end of each day, all data forms will be double copied. The original will stay in specified notebooks. The first copy will be stored in a file cabinet. The second copy will be stored and shipped with the samples.

**Quality Assurance Audits and Personnel:** The discharger will provide a Quality Assurance Officer and the Certified Laboratory will provide one Quality Assurance Officer. In addition, the Water Quality Control Board is welcome to provide third party validation of the sampling procedures.

**Methods for Determination of Other Water Quality Parameters:** Water quality parameters such as pH, dissolved oxygen, and temperature will be measured by appropriate instrumentation within the manufacturer's tolerances. These parameters will be measured at the same sites where water samples for aquatic pesticides are retrieved. These parameters will be measured at the same depths from which the water samples for aquatic pesticides are retrieved, within +/- 0.5 meters. Data and deviations will be recorded on specified forms and/or lab notebooks.

**Methods for Data Summarization, Analysis, Review, and Reporting:** All data will be included in the final report. The final report will also contain narrative and numerical summaries as appropriate. Final data reports will also be reviewed by a Quality Assurance Officer.

**Training on Sampling Techniques:** All personnel performing water sampling will have been trained before water sampling is scheduled to begin, a training session will be held reviewing sampling technique; equipment and instrument calibration, maintenance, and operation; sample storage and delivery; the proper use of COC and other forms; and other records and deviations.

## **DESCRIPTION OF PROCEDURES TO PREVENT SAMPLE CONTAMINATION**

Measures will be taken to prevent sample collection contamination from persons, equipment and vehicles associated with algaecide and aquatic herbicides application, as follows:

- Background monitoring sample collection will be carried out prior to application equipment or algaecides/aquatic herbicides being loaded into a boat. Background monitoring sampling, as well as post event monitoring sampling (within one week), if appropriate, sampling may be carried out from shore at a dock within the sampling areas to eliminate the potential for contamination. Sampling equipment, with particular emphasis on cooler and sample bottles will be transported separately from algaecides or

aquatic herbicides and application equipment on the day of the application event.

Background monitoring will take place immediately prior to the application event.

- For event monitoring, sampling will be carried out after application equipment and all application related equipment and devices including personal protection equipment (PPE) used during the application has been removed from the boat, if no other boats are available to support sampling efforts. If there are multiple personnel supporting applications, one will be designated the sample collector while the other will be responsible for boat operation. Hands will be washed with soap and clean potable water before handling sampling equipment, cooler and sample bottle. During sample bottle handling and sample collection, disposable rubber gloves will be used to collect a water sample. The pre labeled sample bottle will be completed with time and date of sample collection immediately after removing from the sample cooler and replaced in the cooler immediately after sample collection. Once sampling has been completed, water samples will be delivered immediately to the laboratory, if possible. If background and event samples cannot be delivered the same days, sample bottles will be stored in a clean refrigerator at the office until samples can be delivered the next business day.

#### **DESCRIPTION OF BEST MANAGEMENT PRACTICES (BMPs) TO BE IMPLEMENTED:**

A variety of approaches will be utilized to minimize the impacts of aquatic pesticides used while still achieving their goals.

- Techniques that help reduce pesticide impacts include:
  - Non-pesticide control methods as outlined below (Alternatives) have been attempted or considered.
  - Pre Treatment surveys are carried out to identify potential treatment areas and timing
  - Adjustments will be made to treatment protocols based upon survey results
  - Choice of pesticides based on toxicity
  - All attempts will be made to time treatments when no water is being discharged from the lake system



- Aquatic Pesticide use rates will be per the EPA label and will be limited to ensure compliance with Receiving Water Limitations
  - Partial water body treatments or split treatments will be utilized to minimize impacts that might otherwise occur
- From the aquatic herbicides available, the most effective and safest options have been selected for use in this program. The Pest Control Advisor (PCA) and Herbicide application personnel (Qualified Applicators) know the strengths and weaknesses of the various available options, and take them into consideration when choosing a treatment protocol for a specific site.
- In order to avoid inadvertent or accidental soil or water contamination with aquatic pesticides, application personnel follow the storage, transport, and spill control procedures per USEPA and DPR rules, regulations and label instructions.
- Over application is avoided by following the specific product labels for the aquatic pesticides used in the program. Algaecide and aquatic herbicide quantities required for each treatment are calculated at the office and only sufficient material to carry out the treatment is transported for the day's application. Application equipment is routinely cleaned and maintained, and all label directions and DPR guidelines are followed as to acceptable application methods as well as weather conditions. Surface applications are not made in winds above 10 miles per hour.
- The various BMP's being implemented ensures that the Aquatic Vegetation Control Program will meet the requirements of the general NPDES Permit for the use of aquatic pesticides.
- Licensing: All crew leaders and biologists that apply or supervise the application of aquatic pesticides are certified and or licensed by DPR.
- Notification: As detailed elsewhere in this document, whenever pesticides are used that might lead to damage to irrigated landscape (the most severe potential impact on beneficial uses caused by the program), potentially affected users in the area are informed

of the treatments so that means can be taken to avoid using the treated water for irrigation purposes.

- **Site Evaluations:** As has been detailed in this section and elsewhere, both preliminary and secondary site evaluations are a major aspect of the program, as represented by the extensive surveying carried out by the field crews.
- **Alternative Treatments:** Staff considers a number of potential alternative control strategies in every situation, and will make use of non-herbicide options when conditions are suitable.
- **Treatment Conditions:** Every application is made according to label directions and other requirements as directed by DPR or the agricultural commissioner, which not only specify the amounts and situations where pesticides may be applied, but the atmospheric and environmental conditions under which they may be applied. If there are conditions where it is determined that the treatment would be ineffective, application staff wait for other conditions or use a different treatment method.
- **Post-treatment:** Surveys are also carried out for post-treatment assessment of treatment efficacy and non-target impacts. Survey crews are instructed to look for possible non-target impacts that can be seen with the naked eye, such as dead fish or damage to plants on the shoreline.
- The applicator follows all pesticide label instructions and any Use Permits issued by a CAC;
- The discharger's applicators are licensed by DPR, or work with or under the supervision of someone who is licensed;
- The discharger's applicators comply with effluent limitations
- The discharger's applicators will follow this Aquatic Pesticide Application Plan (APAP);

- The discharger's applicator's comply with applicable receiving water limitations; and
- The discharger's applicators will comply with the monitoring and reporting requirements outlined in this APAP.

**Aquatic Pesticide Use Requirements:**

- **License Requirements.** Dischargers applicators will be licensed by DPR if such licensing is required for the aquatic pesticide application project
- **Application Requirements.** The pesticide will be consistent with FIFRA pesticide label instructions and any Use Permits issued by CACs.
- **Application Schedule.** When requested, the City of Alameda and or Applicator will provide a phone number to persons who request the discharger's application schedule. The City of Alameda and or Applicator will provide the requester with the most current application schedule and inform the requester if the schedule is subject to change. Information may be made available by electronic means.
- **Public Notice Requirements.** Every calendar year, at least 15 days prior to the first application of aquatic pesticides, the City of Alameda will notify potentially affected public agencies. The City of Alameda will post the notification on its website if available. The notification will include the following information:
  1. A statement of the discharger's intent to apply algaecide or aquatic herbicide(s);
  2. Name of algaecide and or aquatic herbicide to be used;
  3. Purpose of use;
  4. General time period and locations of expected use;
  5. Any water use restrictions or precautions during treatment; and
  6. A phone number that interested persons may call to obtain additional information from the Discharger.

## **EXAMINATION OF AQUATIC VEGETATION CONTROL ALTERNATIVES**

All appropriate aquatic plant management technologies within the context of the identified beneficial uses and impacted areas of the lagoons have been evaluated, and include all available cultural, biological, mechanical, and aquatic pesticide formulations.

Aquatic weed and algae control options have been broken down into four basic categories that include:

- Watershed Management
- Biological Control
- Physical and Mechanical Control
- Aquatic Algaecides and Herbicides

### **A discussion on each of the options follows:**

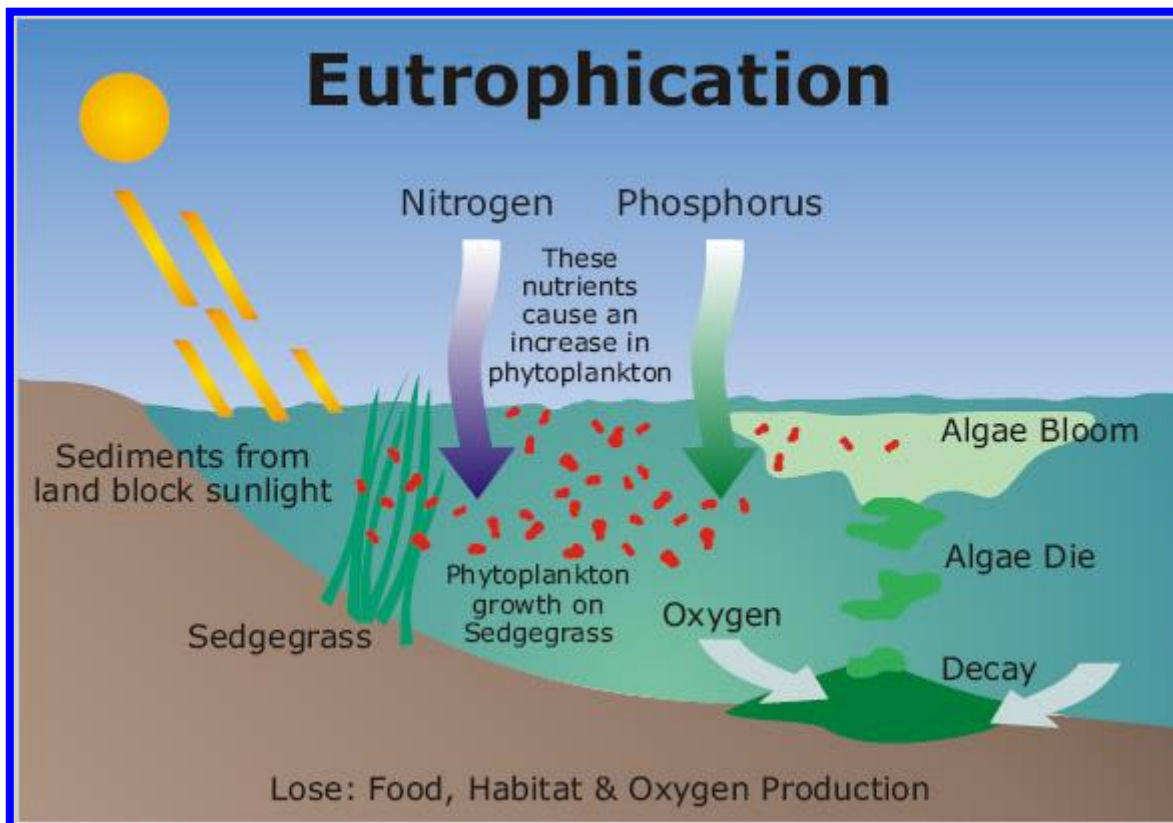
#### **Watershed Management and the Runoff Impacts:**

Watershed management is one of the most important control parameters as it deals with limiting nutrients and runoff into a lake system from the watershed. It entails implementing practices in the watershed that will support the reduction of nutrient and other pollutant runoff into the lake system. In natural areas, 10 % is runoff and 50 to 60 % is direct infiltration (*Runoff Coefficients for the Rational Method of Estimating Rainfall* (McCuen, 1989)).

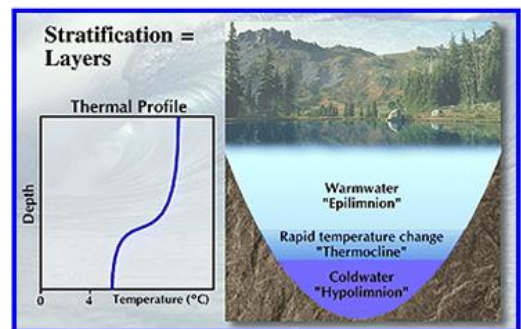
- Runoff Impacts
  - Non-point source pollution poses the most serious threat to the water quality of lakes.
  - Non-point pollution in runoff includes: sediments, oil, anti-freeze, road salt, pesticides, yard wastes and pet and waterfowl droppings.

- Nutrient Effects
  - Increase in algae blooms
  - Odor problems
  - Depletion of oxygen supply
  - Fish kills
  - Decrease in water clarity
  
- Increase in the amount of rooted aquatic plants growing in the shallow waters of a lake
- Reduction in the recreational value of the lake hinders boating, fishing, and reduces overall aesthetics of the lake

Eutrophication Process and Impacts:



- Impacts of Eutrophication
  - Fish kills due to low oxygen or high metals
  - Taste and odor problems, resulting in an increase in water treatment costs
  - Floating algae mats, decaying vegetation
  - Increased littoral vegetation in shallow areas
  - Mobilization of sediment bound metals and ions during anoxic conditions (e.g., copper, ammonia, iron, sulfur, phosphorus)
  - Increased temperature
  - Reduced water clarity
  - Nuisance algal blooms
  - Reduced dissolved oxygen in hypolimnion
  - Earlier onset and/or longer duration of periods of anoxia in hypolimnion



Several tools are available to control the use and misuse of the land surrounding the lake that includes:

- Comprehensive Plans to guide long-term growth;
- Storm Water and Surface Water Management Planning that considers data collection, land use, system site considerations, and design criteria for structures in setting goals for watershed runoff; and Rules for Lake Uses such as where, when and how a lake can be used recreationally to control shoreline erosion, nutrient recirculation and overuse.
- Other administrative alternatives may include shoreline erosion and sedimentation control management programs. Education is still probably the best way to combat water quality issues.

Non-structural alternatives: best management practices, such as buffer strips around water bodies to filter out sediments and reduce nutrients, are examples of non-structural alternatives. Chemical inactivation/precipitation of in-lake phosphorus, chemical control of algae, dredging of accumulated sediments, and mechanical harvesting of aquatic vegetation are additional examples.

Structural alternatives: Storm water detention basins and wetland treatment systems are structural alternatives that detain runoff to control peak flow rates and control downstream flooding. They also allow pollutants to settle out of the water before reaching the lake. Diversions routing storm water away from the lake and in-lake aeration systems to oxygenate the water are other structural alternatives

### **Watershed Management**

The City of Alameda currently has a Watershed Management Plan in place that helps reduce the impacts from the areas surrounding the lagoons. The City is actively involved in reviewing new and improved methods to improve the lagoons and is always updating their watershed management practices. One of the most recent additions to this program was the addition of three new trash capture devices to three different locations that drain into the lagoons. These devices not only capture trash but also organic debris that can contribute to the nutrient load in the lagoons. The City has plans to install additional units in the near future as well. The Watershed Management Plan alone has not proven to provide enough nutrient limitation to avoid aquatic weed growth and planktonic and filamentous algae blooms.

### **Biological Control**

There are very few biological control options for eliminating aquatic weeds and algae. One option used in smaller water bodies is treatment with microbes and beneficial bacteria that



digests organic wastes generated by animal and plant life in the body of water, thus reducing the bottom sludge layer which provides nutrients to the water bodies. This option is currently used in the Alameda Lagoons (Cygnet Mukkbuster) to reduce the amount of organic waste and sludge and it also works well on the odor issues that emanate from these same waste materials.



### **Physical**

**Aeration & Water Quality Alteration:** Aeration has been used for decades to circulate water and increase Dissolved Oxygen within lake and pond systems. In stratified lake systems where the bottom layers are anoxic during the summer months, a properly designed aeration system will limit nutrient recycling by supporting aerobic bacteria that support nutrient breakdown in bottom waters and the hydrosol. Aeration has proven to be a successful tool for reductions in planktonic algae growth in lakes and reservoirs. Systems vary in size and style from fountains to bottom bubbler diffuser type systems to hypolimnetic units that oxygenate the lower water below the thermocline. Aeration is an option in the lagoons and would likely help in some of the areas that don't receive a lot of water turnover. However the pump induced flow through of water going through the lagoons does a good job of aerating and flushing the system.



### **Shading/Light Attenuation:**

A basic environmental manipulation for algae control is light reduction or attenuation. Organic dye can be added to a lake or pond system and is usually a blend of blue and yellow dyes specifically designed to screen or shade portions of the sunlight spectrum (red-orange and blue-



violet) required by underwater aquatic plant and algae growth. This action effectively inhibits photosynthesis required for algae growth. Aquashade or a generic such as Cygnet Select is primarily effective at depths of 2 feet or greater.

Aquashade is non-corrosive and will not stain bathing suits, fountain surfaces or other water features at use dilution rates. This option was implemented in the lagoons in 2012 with mixed results. The dye provided a significant reduction in aquatic weed and algae growth and the residents for the most part were fond of the color. However the



lagoons have been dealing with a fecal coliform issue for decades with counts regularly going above the desired threshold. When the lagoons were shut down and made into a closed system for the dye program, the fecal coliform counts increased and stayed at a high level. Basically the closed system was not allowing the dilution and flushing that the open system provided.

Therefore the City of Alameda and the Alameda West Lagoon Home Owners Association (AWLHOA) have decided that going with an open system is in their best interest moving forward.

### **Sediment Removal:**

Dredging is usually not performed solely for aquatic plant management but to restore water bodies that have been filled in with sediments, have excess nutrients, have inadequate hypolimnetic zones, need deepening, or require removal of toxic substances. However, water bodies that are very



shallow due to sedimentation typically do have excess plant and algae growth. The City of Alameda and the Alameda West Lagoon Home Owners Association (AWLHOA) have been developing a dredging plan over the last several years. This plan includes dredging the entire lagoon system with the goal of removing a significant amount of sediment. The main issue

holding this project up is the enormous costs, which are estimated to be around a few million dollars. Not only is the actual dredging expensive but the disposal of the dredged material is

where the costs really start adding up. Even if this project is completed in the near future it would not insure a reduction in aquatic plant growth or algae blooms.



### **Mechanical**

Mechanical removal of aquatic weeds is not recommended in the Alameda Lagoons as the dominate weed species in the lagoons is Widgeon Grass (*Ruppia maritime L.*) which is capable of asexual reproduction which takes place when new stems grow from the plant's root and rhizome system. The aquatic weed harvesters while cutting would be uprooting and spreading the plants roots and rhizomes throughout the lagoons, thus creating the potential for several new Widgeon Grass infestations. Mechanical harvesting is also pretty expensive when you add up the mobilization costs, machine maintenance, support equipment, labor, and the costs of removing the harvested material from the site to the landfill.



### **INTEGRATED AQUATIC VEGETATION CONTROL RECOMMENDATIONS:**

The recommended control strategy includes establishment of treatment thresholds, monitoring protocols to determine when thresholds are exceeded, and protocols to implement control measures when thresholds are exceeded in compliance with Best Management Practices. The control recommendations to deal with exotic and nuisance aquatic vegetation growth present within the systems have been determined based on survey results, and recommended schedules

for aquatic vegetation control are outlined in the APAP. It is recommended that an integrated approach that includes both watershed management and aquatic herbicide and algaecide treatments be initiated to control nuisance growths of algae and aquatic vegetation prior to their impact to the beneficial uses of the system.

A matrix that presents the control methods that have been reviewed for implementation follows:

**Matrix of Control Options**

<b>OPTION</b>	<b>METHOD</b>	<b>PRACTICAL</b>	<b>RANK</b>
<b>Watershed Management</b>	Structural	Implemented	10
	Non Structural	Implemented	10
<b>Biological Control</b>	Beneficial Bacteria and Enzymes	Implemented	5
<b>Physical and Cultural Control</b>	<b>Sediment Removal</b>	Planned	4
	<b>Light Limitation</b>	Being Tested	4
	<b>Aeration</b>	Not Practical	2
	<b>Draw Down</b>	Not Practical	1
	<b>Hand Harvesting</b>	Not Practical	1
	<b>Benthic Barriers</b>	Not Practical	1
<b>Mechanical Control</b>	Diver Dredging	Not Practical	1
	Harvesting	Not Practical	1
<b>Herbicides/ Algaecides</b>	Various	Implemented	8

**APAP UPDATES:** This APAP will be updated as the General Permit conditions change, any new algaecides or aquatic herbicides are need for the aquatic vegetation management program, or as new control technologies are developed and become available.

**END OF APAP**

**References**

- Water Quality Order No. 2013-0002-DWQ, General Permit No. CAG990005, Statewide General National Pollutant Discharge Elimination System Permit for Residual Aquatic Pesticide Discharges to Waters of the United States from Algae and Aquatic Weed Control Applications.

**EXHIBIT D. City of Alameda Integrated Pest Management Policy**

## **COMPLIANCE WITH THE CITY'S INTEGRATED PEST MANAGEMENT POLICY:**

The Contractor shall follow the requirements of the City's Integrated Pest Management (IPM) Policy to ensure the City is in compliance with its Municipal Regional Stormwater NPDES Permit, Order No. R2-2009-0074, issued by the San Francisco Bay Regional Water Quality Control Board.

- ☐ Contractor shall use the most current IPM technologies available to ensure the long-term prevention or suppression of pest problems and to minimize negative impacts on the environment, non-target organisms, and human health for the control or management of pests in and around City buildings and facilities, parks and golf courses, urban landscape areas, rights-of-way, and other City properties.
- ☐ Contractor will consider the City IPM Policy's hierarchy of options or alternatives listed below, in the following order before recommending the use of or applying any pesticide on City property: (1)
  1. No controls (e.g. tolerating the pest infestation, use of resistant plant varieties or allowing normal life cycle of weeds);
  2. Physical or mechanical controls (e.g. hand labor, mowing, exclusion);
  3. Cultural controls (e.g. mulching, disking, alternative vegetation) and good housekeeping (e.g. cleaning desk area);
  4. Biological controls (e.g., natural enemies or predators); (5)
  5. Reduced-risk chemical controls (e.g., soaps or oils);
  6. Other chemical controls.
- ☐ Prior to applying chemical controls the contractor shall complete a checklist (attached) for the City's pre-approval that explains why a chemical control is necessary. For annual contracts that require regular application of chemical controls the contractor shall submit one checklist prior to the initiation of the project demonstrating that the hierarchy has been reviewed and no other options exist. Additionally, the contractor shall provide documentation to the City's project manager of the implementation of the IPM techniques hierarchy described in the City's IPM Policy.
- ☐ Contractor shall avoid the use of the following pesticides that threaten water quality, human health and the environment:
  1. Acute Toxicity Category I chemicals as identified by the Environmental Protection Agency (EPA)
  2. Organophosphate pesticides (e.g., those containing Diazinon, chlorpyrifos or malathion)
  3. Pyrethroids (bifenthrin, cyfluthrin, beta-cyfluthrin, cypermethrin, deltamethrin, esfenvalerate, lambda-cyhalothrin, permethrin, and tralomethrin), carbamates (e.g., carbaryl), and fipronil
  4. Copper-based pesticides unless their use is judicious, other approaches and techniques have been considered, and the threat of impact to water quality is prevented.
- ☐ Contractor shall sign the Contractor Verification Form (attached) indicating the intent to implement the City's IPM Policy, and return a signed copy to the City's project manager.
- ☐ Contractor shall provide to the City's project manager an annual Report of all pesticide usage in support of City operations including pesticide name, active ingredient(s), target pest(s), the total amounts used and the reasons for any increase in use of any pesticide.
- ☐ Contractor shall provide a copy of any current IPM certifications(s) to the City's project manager prior to initiation of the service work.

A copy of the City's IPM Policy may be obtained from the City's project manager and is also on file with the City Clerk.

Revised: June14, 2012

**City of Alameda Contractor Verification Form**  
**Implementation of City of Alameda Integrated Pest Management Policy**

The City of Alameda (City) is mandated to:

- (a) Minimize its reliance on pesticides that threaten water quality, and
- (b) Require the effective use of Integrated Pest Management (IPM) in all municipal operations and on all municipal property.

To ensure compliance with this mandate, all City operations need to verifiably implement the practices and policies described in the City's IPM Policy adopted June 15, 2010. A copy of this IPM Policy is included with this form. The implementation of the IPM Policy is applicable to all municipal contractors that provide landscaping, structural pest control, or other pest management services in support of City operations and/or on municipal property.

The undersigning parties acknowledge that all elements of the City's IPM Policy will be implemented throughout the period of contractual services provided to City operations and on municipal property. Specific actions to document this performance shall include:

- ☐ Pest Management Contractor shall provide to City project manager for pre-approval the Pest Management Considerations Checklist.
- ☐ Pest Management Contractor shall avoid the use of the following pesticides that threaten water quality, human health and the environment:
  - Acute Toxicity Category I chemicals as identified by the Environmental Protection Agency (EPA)
  - Organophosphate pesticides (e.g., those containing Diazinon, chlorpyrifos or malathion)
  - Pyrethroids (bifenthrin, cyfluthrin, beta-cyfluthrin, cypermethrin, deltamethrin, esfenvalerate, lambda-cyhalothrin, permethrin, and tralomethrin), carbamates (e.g., carbaryl), and fipronil
  - Copper-based pesticides unless their use is judicious, other approaches and techniques have been considered and the threat of impact to water quality is prevented.
- ☐ Pest Management Contractor shall provide to the City's project manager an annual Report of all pesticide usage in support of City operations including product name and manufacturer, active ingredient(s), target pest(s), the total amounts used and reasons for any increase in use of any pesticide.
- ☐ If the Contractor's on-site personnel are currently IPM certified through either the EcoWise or GreenPro programs, or through another program, the contractor shall provide written evidence of any certifications to the City's project manager.

\_\_\_\_\_  
City Departmental Representative

\_\_\_\_\_  
Contractor Representative

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Date

\_\_\_\_\_  
Date

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City Department

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City Contractor