

CONTRACT NO. MA-012-14011241
LAKE MANAGEMENT AND
LAKE WATER QUALITY MAINTENANCE SERVICES

This Agreement, hereinafter referred to as “Contract”, is made and entered into as of the date fully executed by and between the County of Orange, OC Community Resources/OC Parks, a political subdivision of the State of California, hereinafter referred to as “County”, and Aquatechnex, LLC, hereinafter referred to as “Contractor”, which are sometimes referred to as “Party”, or collectively as “Parties”.

RECITALS

WHEREAS, Contractor responded to a Request for Proposal (“RFP”) for Lake Management Services and Lake Water Quality Maintenance Services for the County; and

WHEREAS, Contractor represented that its proposed services shall meet or exceed the requirements and specifications of the RFP; and

WHEREAS, the County Board of Supervisors has authorized the Purchasing Agent or designee to enter into a Contract for Lake Management Services and Lake Water Quality Maintenance Services;

NOW, THEREFORE, the Parties mutually agree as follows:

ARTICLES

Contract Specific Terms and Conditions:

1. **Scope of Contract:** This Contract specifies the contractual terms and conditions by which the County will procure lake maintenance and lake water quality maintenance services from Contractor as further detailed in the Scope of Work, identified and incorporated herein by this reference as “Attachment A”.
2. **Term of Contract:** This Contract shall commence upon approval by the County Board of Supervisors or execution of all necessary signatures, whichever occurs later, and shall be effective for one year, renewable for four additional one-year terms.
3. **Contingency of Funds:** Contractor acknowledges that funding or portions of funding for this Contract may also be contingent upon the receipt of funds from, and/or appropriation of funds by, the state of California to County. If such funding and/or appropriations are not forthcoming, or are otherwise limited, County may immediately terminate or modify this Contract without penalty.
4. **Fiscal Appropriations:** This contract is subject to and contingent upon applicable budgetary appropriations being approved by the County of Orange Board of Supervisors for each fiscal year during the term of this contract. If such appropriations are not approved, the contract will be terminated without penalty to the County.
5. **Adjustments – Scope of Work:** No adjustments made to the Scope of Work will be authorized without prior written approval of the County assigned Deputy Purchasing Agent.
6. **Breach of Contract:** The failure of Contractor to comply with any of the provisions, covenants or conditions of this Contract shall be a material breach of this Contract. In such event the County may, and in addition to any other remedies available at law, in equity, or otherwise specified in this Contract:

Terminate the Contract immediately, pursuant to Section K herein;

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Afford Contractor written notice of the breach and ten calendar days or such shorter time that may be specified in this Contract within which to cure the breach;

Discontinue payment to the Contractor for and during the period in which Contractor is in breach; and

Offset against any monies billed by Contractor but yet unpaid by the County those monies disallowed pursuant to the above.

7. **Contractor – Change in Ownership:** Contractor agrees that if there is a change in ownership prior to completion of this contract, the new owner will be required, under terms of sale, to assume this contract and complete it to the satisfaction of the County.
8. **Conditions Affecting Work:** Contractor shall be responsible for taking all steps reasonably necessary, to ascertain the nature and location of the work to be performed under this Contract; and to know the general conditions which can affect the work or the cost thereof. Any failure by Contractor to do so will not relieve Contractor from responsibility for successfully performing the work without additional cost to the County. The County assumes no responsibility for any understanding or representations concerning the nature, location(s) or general conditions made by any of its officers or agents prior to the execution of this Contract, unless such understanding or representations by the County are expressly stated in the Contract.
9. **Conflict of Interest – Contractor’s Personnel:** Contractor shall exercise reasonable care and diligence to prevent any actions or conditions that could result in a conflict with the best interests of the County. This obligation shall apply to Contractor; Contractor’s employees, agents, and relatives; sub-tier Contractors; and third Parties associated with accomplishing work and services hereunder. Contractor’s efforts shall include, but not be limited to establishing precautions to prevent its employees or agents from making, receiving, providing or offering gifts, entertainment, payments, loans or other considerations which could be deemed to appear to influence individuals to act contrary to the best interests of the County.
10. **Conflict of Interest – County Personnel:** The County of Orange Board of Supervisors policy prohibits its employees from engaging in activities involving a conflict of interest. Contractor shall not, during the period of this contract, employ any County employee for any purpose.
11. **Contingent Fees:** Contractor warrants that no person or selling agency has been employed or retained to solicit or secure this agreement upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, except bona fide employees of Contractor or bona fide established commercial or selling agencies maintained by Contractor for the purpose of securing business.

For breach or violation of this warranty, the County shall have the right to terminate this contract in accordance with the termination clause and at its sole discretion to deduct from the contract price or consideration, or otherwise recover, the full amount of such commission, percentage, brokerage, or contingent fee from Contractor.
12. **Contractor Bankruptcy/Insolvency:** If Contractor should be adjudged bankrupt or should have a general assignment for the benefit of its creditors or if a receiver should be appointed on account of Contractor’s insolvency, the County may terminate this contract.
13. **Contractor Personnel – Reference Checks:** Contractor warrants that all persons employed to provide service under this Contract have satisfactory past work records indicating their ability to accept the kind of responsibility anticipated under this Contract. Contractor’s employees assigned to this project must meet character standards as demonstrated by background investigation and reference checks, coordinated by the agency/department issuing this Contract.
14. **Contractor’s Project Manager and Key Personnel:** Contractor shall appoint a project manager to direct Contractor’s efforts in fulfilling Contractor’s obligations under this Contract. This project manager shall be subject to approval by the County and shall not be changed without the written consent of the County’s project manager, which consent shall not be unreasonably withheld.

Contractor’s Project Manager shall be assigned to this project for the duration of this Contract and shall diligently pursue all work and services to meet the project time lines. The County’s Project Manager shall have the right to require the removal and replacement of Contractor’s Project Manager from providing services to the County under this Contract. The County’s Project Manager shall notify Contractor in writing of such action. Contractor shall accomplish the removal within three (3) business days after written notice by the County’s Project Manager. The County’s Project Manager shall review and approve the appointment of the replacement for Contractor’s Project Manager. The County

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is not required to provide any additional information, reason or rationale in the event it elects to request the removal of Contractors Project Manager from providing services to the County under this Contract.

15. **Contractor's Records:** Contractor shall keep an accurate record of time expended by Contractor in the performance of this Contract. Such record shall be available for periodic inspection by the County at reasonable times. Such records will be retained for four (4) years after the expiration or termination of this Contract.

16. **County Of Orange Child Support Enforcement Requirements:** Contractor is required to comply with the child support enforcement requirements of the County. Failure of the Contractor to comply with all federal, state, and local reporting requirements for child support enforcement or to comply with all lawfully served Wage and Earnings Assignment Orders and Notices of Assignment shall constitute a material breach of the Contract. Failure to cure such breach within 60 calendar days of notice from the County shall constitute grounds for termination of the Contract.

Failure of Contractor to timely submit the data and/or certifications required may result in the Contract being awarded to another Contractor. In the event a Contract has been issued, failure of Contractor to comply with all federal, state, and local reporting requirements for child support enforcement or to comply with all lawfully served Wage and Earnings Assignment Orders and Notices of Assignment shall constitute a material breach of the Contract. Failure to cure such breach within sixty (60) calendar days of notice from the County shall constitute grounds for termination of the Contract.

17. **Data – Title To:** All materials, documents, data or information obtained from the County data files or any County medium furnished to Contractor in the performance of this contract will at all times remain the property of the County. Such data or information may not be used or copied for direct or indirect use by Contractor after completion or termination of this contract without the express written consent of the County. All materials, documents, data or information, including copies, must be returned to the County at the end of this contract.

18. **Disputes – Contract:**

a. The Parties shall deal in good faith and attempt to resolve potential disputes informally. If the dispute concerning a question of fact arising under the terms of this Contract is not disposed of in a reasonable period of time by Contractor's project manager and the County's project manager, such matter shall be brought to the attention of the County Purchasing Agent by way of the following process:

i. Contractor shall submit to the agency/department assigned Deputy Purchasing Agent a written demand for a final decision regarding the disposition of any dispute between the Parties arising under, related to, or involving this Contract, unless the County, on its own initiative, has already rendered such a final decision.

ii. Contractor's written demand shall be fully supported by factual information, and, if such demand involves a cost adjustment to the Contract, Contractor shall include with the demand a written statement signed by a senior official indicating that the demand is made in good faith, that the supporting data are accurate and complete, and that the amount requested accurately reflects the Contract adjustment for which Contractor believes the County is liable.

b. Pending the final resolution of any dispute arising under, related to, or involving this Contract, Contractor agrees to diligently proceed with the provision of services under this Contract. Contractor's failure to diligently proceed shall be considered a material breach of this Contract.

Any final decision of the County shall be expressly identified as such, shall be in writing, and shall be signed by the County Purchasing Agent or his designee. If the County fails to render a decision within ninety (90) days after receipt of Contractor's demand, it shall be deemed a final decision adverse to Contractor's contentions. Nothing in this section shall be construed as affecting the County's right to terminate the Contract for Cause or Terminate for Convenience as stated in Section K herein.

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19. **Gratuities:** Contractor warrants that no gratuities, in the form of entertainment, gifts or otherwise, were offered or given by Contractor or any agent or representative of Contractor to any officer or employee of the County with a view toward securing the Contract or securing favorable treatment with respect to any determinations concerning the performance of the Contract. For breach or violation of this warranty, the County shall have the right to terminate the Contract, either in whole or in part and any loss or damage sustained by the County in procuring on the open market any services which Contractor agreed to supply shall be borne and paid for by Contractor. The rights and remedies of the County provided in the clause shall not be exclusive and are in addition to any other rights and remedies provided by law or under the Contract.
20. **News/Information Release:** Contractor agrees that it will not issue any news releases in connection with either the award of this contract or any subsequent amendment of or effort under this agreement without first obtaining review and written approval of said news releases from the County through the County's project manager.
21. **Notices:** Any and all notices, requests demands and other communications contemplated, called for, permitted, or required to be given hereunder shall be in writing, except through the course of the parties' project managers' routine exchange of information and cooperation during the terms of the work and services. Any written communications shall be deemed to have been duly given upon actual in-person delivery, if delivery is by direct hand, or upon delivery on the actual day of receipt or no greater than four calendar days after being mailed by US certified or registered mail, return receipt requested, postage prepaid, whichever occurs first. The date of mailing shall count as the first day. All communications shall be addressed to the appropriate party at the address stated herein or such other address as the parties hereto may designate by written notice from time to time in the manner aforesaid.

For Contractor: Aquatechnex, LLC
 Attention: Ian Cormican
 PO Box 4193
 Palm Desert, CA 92261
 Telephone: 760-272-5842
 Email: ian@aquatechnex.com

For County: County of Orange
 OC Community Resources - OC Parks
 Attn: Jeffrey Miller, DPA
 13042 Old Myford Rd
 Irvine, CA 92620
 Telephone: 949-923-3767
 Email: jeffrey.miller@ocparks.com

22. **Ownership of Documents:** The County has permanent ownership of all directly connected and derivative materials produced under this contract by Contractor. All documents, reports and other incidental or derivative work or materials furnished hereunder shall become and remains the sole property of the County and may be used by the County as it may require without additional cost to the County. None of the documents, reports and other incidental or derivative work or furnished materials shall be used by Contractor without the express written consent of the County.
23. **Precedence:** The Contract documents consist of this Contract and its attachments, table(s) and appendices. In the event of a conflict between or among the Contract documents, the order of precedence shall be the provisions of the main body of this Contract, i.e., those provisions set forth in the articles of this Contract, and then the attachments, tables, appendices, and exhibits.
24. **Project Manager, County:** The County shall appoint a project manager to act as liaison between the County and Contractor during the term of this contract. The County's Project Manager shall coordinate the activities of the County staff assigned to work with Contractor.

The County's Project Manager shall have the right to require the removal and replacement of Contractor's Project Manager and key personnel. The County's Project Manager shall notify Contractor in writing of such action. Contractor shall accomplish the removal within 14 calendar days after written notice by the County's Project Manager. The County's Project Manager shall review and approve the appointment of the replacement for Contractor's Project Manager and key personnel. Said approval shall not be unreasonably withheld.

25. **Reports/Meetings:** Contractor shall develop reports and any other relevant documents necessary to complete the services and requirements as set forth in this Contract. The County's project manager and Contractor's project manager will meet on reasonable notice to discuss Contractor's performance and progress under this Contract. If requested, Contractor's project manager and other project personnel shall attend all meetings. Contractor shall provide such information that is requested by the County for the purpose of monitoring progress under this Contract.
26. **Termination – Orderly:** After receipt of a termination notice from the County of Orange, Contractor shall submit to the County a termination claim, if applicable. Such claim shall be submitted promptly, but in no event later than sixty (60) days from the effective date of the termination, unless one or more extensions in writing are granted by the County upon written request of Contractor. Upon termination County agrees to pay Contractor for all services performed prior to termination which meet the requirements of the Contract, provided, however, that such compensation plus previously paid compensation shall not exceed the total compensation set forth in the Contract. Upon termination or other expiration of this Contract, each Party shall promptly return to the other Party all papers, materials, and other properties of the other held by each for purposes of execution of the Contract. In addition, each Party will assist the other Party in orderly termination of this Contract and the transfer of all aspects, tangible and intangible, as may be necessary for the orderly, non-disruptive business continuation of each Party.
27. **Publication:** No copies of sketches, schedules, written documents, computer based data, photographs, maps or graphs, including graphic art work, resulting from performance or prepared in connection with this Contract, are to be released by Contractor and/or anyone acting under the supervision of Contractor to any person, partnership, company, corporation, or agency, without prior written approval by the County, except as necessary for the performance of the services of this Contract. All press releases, including graphic display information to be published in newspapers, magazines, etc., are to be administered only by the County unless otherwise agreed to by both Parties.
28. **Errors and Omissions:** All reports, files and other documents prepared and submitted by Contractor shall be complete and shall be carefully checked by the professional(s) identified by Contractor as project manager and key personnel attached hereto, prior to submission to the County. Contractor agrees that County review is discretionary and Contractor shall not assume that the County will discover errors and/or omissions. If the County discovers any errors or omissions prior to approving Contractor's reports, files and other written documents, the reports, files or documents will be returned to Contractor for correction. Should the County or others discover errors or omissions in the reports, files or other written documents submitted by Contractor after County approval thereof, County approval of Contractor's reports, files or documents shall not be used as a defense by Contractor in any action between the County and Contractor, and the reports, files or documents will be returned to Contractor for correction.
29. **Cooperative Agreement:** The provisions and pricing of this contract will be extended to other political sub-divisions and County of Orange agencies/departments. Political sub-divisions and County of Orange agencies/departments wishing to use this contract will be responsible for issuing their own purchase documents/price agreements, providing for their own acceptance, and making any subsequent payments. These entities will hold harmless the County of Orange from all claims, demands, actions or causes of actions of every kind resulting directly or indirectly, arising out of, or in any way connected with the use of this contract. The cooperative entities are responsible for obtaining all certificates of insurance and bonds required. The contractor is responsible for providing each cooperative entity a copy of the contract upon request by the cooperative entity. The County of Orange makes no guarantee of usage by other users of this contract. The County of Orange may authorize the loading of this agreement into an electronic commerce system.

General Terms and Conditions:

- A. **Governing Law and Venue:** This Contract has been negotiated and executed in the state of California and shall be governed by and construed under the laws of the state of California. In the event of any legal action to enforce or interpret this Contract, the sole and exclusive venue shall be a court of competent jurisdiction located in Orange County, California, and the parties hereto agree to and do hereby submit to the jurisdiction of such court, notwithstanding Code of Civil Procedure Section 394. Furthermore, the parties specifically agree to waive any and all rights to request that an action be transferred for trial to another County.
- B. **Entire Contract:** This Contract, including all its Attachment(s), Tables, and Appendices, which are attached hereto and incorporated herein by this reference, when accepted by Contractor either in writing or by the shipment of any article or other commencement of performance hereunder, contains the entire Contract between the parties with respect to the matters herein, and there are no restrictions, promises, warranties or undertakings other than those set forth herein or referred to herein. No exceptions, alternatives, substitutes or revisions are valid or binding on County unless authorized by County in writing. Electronic acceptance of any additional terms, conditions or supplemental Contracts by any County employee or agent, including but not limited to installers of software, shall not be valid or binding on County unless accepted in writing by County's Purchasing Agent or his designee, hereinafter "Purchasing Agent."
- C. **Amendments:** No alteration or variation of the terms of this Contract shall be valid unless made in writing and signed by the parties; no oral understanding or agreement not incorporated herein shall be binding on either of the parties; and no exceptions, alternatives, substitutes or revisions are valid or binding on County unless authorized by County in writing.
- D. **Taxes:** Unless otherwise provided herein or by law, price quoted does not include California state sales or use tax.
- E. **Delivery:** Time of delivery of services is of the essence in this Contract. County reserves the right to refuse any services and to cancel all or any part of the descriptions or services that do not conform to the prescribed statement of work. Delivery shall not be deemed to be complete until all services have actually been received and accepted in writing by County.
- F. **Acceptance/Payment:** Unless otherwise agreed to in writing by the County; 1) acceptance shall not be deemed complete unless in writing and until all the services have actually been received to the satisfaction of County and, 2) payment shall be made in arrears after satisfactory acceptance.
- G. **Warranty:** Contractor expressly warrants that the services covered by this Contract are fit for the particular purpose for which they are intended. Acceptance of this order shall constitute an agreement upon Contractor's part to indemnify, defend and hold County and its indemnities as identified in paragraph "P" below, and as more fully described in paragraph "P", harmless from liability, loss, damage and expense, including reasonable counsel fees, incurred or sustained by County by reason of the failure of the services to conform to such warranties, faulty work performance, negligent or unlawful acts, and non-compliance with any applicable state or federal codes, ordinances, orders, or statutes, including the Occupational Safety and Health Act (OSHA) and the California Industrial Safety Act. Such remedies shall be in addition to any other remedies provided by law.
- H. **Patent/Copyright Materials/Proprietary Infringement:** Unless otherwise expressly provided in this Contract, Contractor shall be solely responsible for clearing the right to use any patented or copyrighted materials in the performance of this Contract. Contractor warrants that any software as modified through services provided hereunder will not infringe upon or violate any patent, proprietary right, or trade secret right of any third party. Contractor agrees that, in accordance with the more specific requirement contained in paragraph "P" below, it shall indemnify, defend and hold County and County Indemnities harmless from any and all such claims and be responsible for payment of all costs, damages, penalties and expenses related to or arising from such claim(s), including, but not limited to, attorney's fees, costs and expenses.
- I. **Assignment or Sub-Contracting:** The terms, covenants, and conditions contained herein shall apply to and bind the heirs, successors, executors, administrators and assigns of the parties. Furthermore, neither the performance of this Contract nor any portion thereof may be assigned or sub-contracted by Contractor without the express written consent of County. Any attempt by Contractor to assign or sub-contract the performance or any portion thereof of this Contract without the express written consent of County shall be invalid and shall constitute a breach of this Contract.

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- J. **Non-Discrimination:** In the performance of this Contract, Contractor agrees that it will comply with the requirements of Section 1735 of the California Labor Code and not engage nor permit any subcontractors to engage in discrimination in employment of persons because of the race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, marital status, or sex of such persons. Contractor acknowledges that a violation of this provision shall subject Contractor to all the penalties imposed for a violation of Section 1720 et seq. of the California Labor Code.
- K. **Termination:** In addition to any other remedies or rights it may have by law, County has the right to terminate this Contract without penalty immediately with cause or after 30 days' written notice without cause, unless otherwise specified. Cause shall be defined as any breach of Contract, any misrepresentation or fraud on the part of Contractor. Exercise by County of its right to terminate the Contract shall relieve County of all further obligations.
- L. **Consent to Breach Not Waiver:** No term or provision of this Contract shall be deemed waived and no breach excused, unless such waiver or consent shall be in writing and signed by the party claimed to have waived or consented. Any consent by any party to, or waiver of, a breach by the other, whether express or implied, shall not constitute consent to, waiver of, or excuse for any other different or subsequent breach.
- M. **Remedies Not Exclusive:** The remedies for breach set forth in this Contract are cumulative as to one another and as to any other provided by law, rather than exclusive; and the expression of certain remedies in this Contract does not preclude resort by either party to any other remedies provided by law.
- N. **Independent Contractor:** Contractor shall be considered an independent Contractor and neither Contractor nor its employees; nor anyone working under Contractor shall be considered an agent or an employee of County. Neither Contractor nor its employees; nor anyone working under Contractor shall qualify for workers' compensation or other fringe benefits of any kind through County.
- O. **Performance:** Contractor shall perform all work under this Contract, taking necessary steps and precautions to perform the work to County's satisfaction. Contractor shall be responsible for the professional quality, technical assurance, timely completion and coordination of all documentation and other services furnished by Contractor under this Contract. Contractor shall perform all work diligently, carefully, and in a good and workman-like manner; shall furnish all labor, supervision, machinery, equipment, materials, and supplies necessary therefore; shall at its sole expense obtain and maintain all permits and licenses required by public authorities, including those of County required in its governmental capacity, in connection with performance of the work; and, if permitted to subcontract, shall be fully responsible for all work performed by sub-contractors.
- P. **Insurance Provisions:** Prior to the provisions of services under this Contract, Contractor agrees to purchase all required insurance at Contractor's expense and to deposit with the County Certificates of Insurance, including all endorsements required herein, necessary to satisfy the County that the insurance provisions of this Contract have been complied with and to keep such insurance coverage and the certificates therefore on deposit with the County during the entire term of this Contract. In addition, all subcontractors performing work on behalf of Contractor pursuant to this Contract shall obtain insurance subject to the same terms and conditions as set forth herein for Contractor.

All self-insured retentions (SIRs) and deductibles shall be clearly stated on the Certificate of Insurance. If no SIRs or deductibles apply, indicate this on the Certificate of Insurance with a 0 by the appropriate line of coverage. Any self-insured retention (SIR) or deductible in an amount in excess of \$25,000 (\$5,000 for automobile liability), shall specifically be approved by the County Executive Office (CEO)/Office of Risk Management.

If Contractor fails to maintain insurance acceptable to the County for the full term of this Contract, the County may terminate this Contract.

Qualified Insurer: Minimum insurance company ratings as determined by the most current edition of the **Best's Key Rating Guide/Property-Casualty/United States or ambest.com** shall be A-(Secure A.M. Best's Rating) and VIII (Financial Size Category).

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The policy or policies of insurance must be issued by an insurer licensed to do business in the state of California (California Admitted Carrier). If the carrier is a non-admitted carrier in the state of California and does not meet or exceed an A.M. Best rating of A-/VIII, CEO/Office of Risk Management retains the right to approve or reject carrier after a review of the company's performance and financial ratings. If the non-admitted carrier meets or exceeds the minimum A.M. Best rating of A-/VIII, the agency can accept the insurance.

This policy or policies of insurance maintained by Contractor shall provide the minimum limits and coverage as set forth below:

Coverage	Minimum Limits
Commercial General Liability	\$1,000,000 per occurrence/\$2,000,000 aggregate
Automobile Liability including coverage for owned, non-owned and hired vehicles	\$1,000,000 per occurrence
Workers Compensation	Statutory
Employers' Liability Insurance	\$1,000,000 per occurrence

Required Coverage Forms

The Commercial General Liability coverage shall be written on Insurance Services Office (ISO) form CG 00 01, or a substitute form providing liability coverage at least as broad.

The Business Auto Liability coverage shall be written on ISO form CA 00 01, CA 00 05, CA 0012, CA 00 20, or a substitute form providing coverage at least as broad.

Required Endorsements

The Commercial General Liability policy shall contain the following endorsements, which shall accompany the Certificate of insurance:

- 1) An Additional Insured endorsement using ISO form CG 2010 or CG 2033 or a form at least as broad naming the County of Orange, its elected and appointed officials, officers, employees, agents as Additional Insureds.
- 2) A primary non-contributing endorsement evidencing that Contractor's insurance is primary and any insurance or self-insurance maintained by the County of Orange shall be excess and non-contributing.

All insurance policies required by this contract shall waive all rights of subrogation against the County of Orange and members of the Board of Supervisors, its elected and appointed officials, officers, agents and employees when acting within the scope of their appointment or employment.

The Workers' Compensation policy shall contain a waiver of subrogation endorsement waiving all rights of subrogation against the County of Orange, and members of the Board of Supervisors, its elected and appointed officials, officers, agents and employees.

All insurance policies required by this contract shall give the County of Orange 30 days-notice in the event of cancellation and 10 days for non-payment of premium. This shall be evidenced by policy provisions or an endorsement separate from the Certificate of Insurance.

If Contractor's Professional Liability policy is a "claims made" policy, Contractor shall agree to maintain professional liability coverage for two years following completion of contract.

The Commercial General Liability policy shall contain a severability of interest's clause also known as a "separation of insureds" clause (standard in the ISO CG 0001 policy).

Insurance certificates should be forwarded to:

County of Orange
OC Community Resources - OC Parks
Purchasing & Contract Services
Attn: Jeffrey Miller, DPA
13042 Old Myford Rd
Irvine, CA 92620

If Contractor fails to provide the insurance certificates and endorsements within seven days of notification by OC Parks purchasing division, award may be made to the next qualified vendor.

County expressly retains the right to require Contractor to increase or decrease insurance of any of the above insurance types throughout the term of this Contract. Any increase or decrease in insurance will be as deemed by County of Orange Risk Manager as appropriate to adequately protect County.

County shall notify Contractor in writing of changes in the insurance requirements. If Contractor does not deposit copies of acceptable certificates of insurance and endorsements with County incorporating such changes within thirty days of receipt of such notice, this Contract may be in breach without further notice to Contractor, and County shall be entitled to all legal remedies.

The procuring of such required policy or policies of insurance shall not be construed to limit Contractor's liability hereunder nor to fulfill the indemnification provisions and requirements of this Contract, nor act in any way to reduce the policy coverage and limits available from the insurer

- Q. Bills and Liens:** Contractor shall pay promptly all indebtedness for labor, materials, and equipment used in performance of the work. Contractor shall not permit any lien or charge to attach to the work or the premises, but if any does so attach, Contractor shall promptly procure its release and, in accordance with the requirements of paragraph "HH" below, indemnify, defend, and hold County harmless and be responsible for payment of all costs, damages, penalties and expenses related to or arising from or related thereto.
- R. Changes:** Contractor shall make no changes in the work or perform any additional work without the County's specific written approval.
- S. Change of Ownership:** Contractor agrees that if there is a change or transfer in ownership of Contractor's business prior to completion of this Contract, the new owners shall be required under terms of sale or other transfer to assume Contractor's duties and obligations contained in this Contract and complete them to the satisfaction of County.
- T. Force Majeure:** Contractor shall not be assessed with liquidated damages or unsatisfactory performance penalties during any delay beyond the time named for the performance of this Contract caused by any act of God, war, civil disorder, employment strike or other cause beyond its reasonable control, provided Contractor gives written notice of the cause of the delay to County within thirty-six (36) hours of the start of the delay and Contractor avails himself of any available remedies.
- U. Confidentiality:** Contractor agrees to maintain the confidentiality of all County and County-related records and information pursuant to all statutory laws relating to privacy and confidentiality that currently exist or exist at any time during the term of this Contract. All such records and information shall be considered confidential and kept confidential by Contractor and Contractor's staff, agents and employees.
- V. Compliance with Laws:** Contractor represents and warrants that services to be provided under this Contract shall fully comply, at Contractor's expense, with all standards, laws, statutes, restrictions, ordinances, requirements, and regulations (collectively "laws"), including, but not limited to those issued by County in its governmental capacity and all other laws applicable to the services at the time services are provided to and accepted by County. Contractor acknowledges that County is relying on Contractor to ensure such compliance, and pursuant to the requirements of paragraph "P" above, Contractor agrees that it shall defend, indemnify and hold County and County Indemnities harmless from all liability, damages, costs, and expenses arising from or related to a violation of such laws.

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- W. **Freight (F.O.B. Destination):** Contractor assumes full responsibility for all transportation, transportation scheduling, packing, handling, insurance, and other services associated with delivery of all products deemed necessary under this Contract.
- X. **Pricing:** The Contract bid price shall include full compensation for providing all required goods in accordance with required specifications, or services as specified herein or when applicable, in the Scope of Work attached to this Contract, and no additional compensation will be allowed therefore, unless otherwise provided for in this Contract.
- Y. **Waiver of Jury Trial:** Each Party acknowledges that it is aware of and has had the opportunity to seek advise of counsel of its choice with respect to its rights to trial by jury, and each Party, for itself and its successors, creditors, and assigns, does hereby expressly and knowingly waive and release all such rights to trial by jury in any action, proceeding or counterclaim brought by any Party hereto against the other (and/or against its officers, directors, employees, agents, or subsidiary or affiliated entities) on or with regard to any matters whatsoever arising out of or in any way connected with this Contract and /or any other claim of injury or damage.
- Z. **Terms and Conditions:** Contractor acknowledges that it has read and agrees to all terms and conditions included in this Contract.
- AA. **Headings:** The various headings and numbers herein, the grouping of provisions of this Contract into separate clauses and paragraphs, and the organization hereof are for the purpose of convenience only and shall not limit or otherwise affect the meaning hereof.
- BB. **Severability:** If any term, covenant, condition, or provision of this Contract is held by a court of competent jurisdiction to be invalid, void or unenforceable, the remainder of the provisions hereof shall remain in full force and effect and shall in no way be affected, impaired or invalidated thereby.
- CC. **Calendar Days:** Any reference to the word "day" or "days" herein shall mean calendar day or calendar days, respectively, unless otherwise expressly provided.
- DD. **Attorney Fees:** In any action or proceeding to enforce or interpret any provision of this Contract, or where any provision hereof is validly asserted as a defense, each party shall bear its own attorney's fees, costs and expenses.
- EE. **Interpretation:** This Contract has been negotiated at arm's length and between persons sophisticated and knowledgeable in the matters dealt with in this Contract. In addition, each party has been represented by experienced and knowledgeable independent legal counsel of their own choosing or has knowingly declined to seek such counsel despite being encouraged and given the opportunity to do so. Each party further acknowledges that they have not been influenced to any extent whatsoever in executing this Contract by any other party hereto or by any person representing them, or both. Accordingly, any rule or law (including California Civil Code Section 1654) or legal decision that would require interpretation of any ambiguities in this Contract against the party that has drafted it is not applicable and is waived. The provisions of this Contract shall be interpreted in a reasonable manner to affect the purpose of the parties and this Contract.
- FF. **Authority:** The Parties to this Contract represent and warrant that this Contract has been duly authorized and executed and constitutes the legally binding obligation of their respective organization or entity, enforceable in accordance with its terms.
- GG. **Employee Eligibility Verification:** Contractor warrants that it fully complies with all Federal and State statutes and regulations regarding the employment of aliens and others and that all its employees performing work under this Contract meet the citizenship or alien status requirement set forth in Federal statutes and regulations. Contractor shall obtain, from all employees, consultants and subcontractors performing work hereunder, all verification and other documentation of employment eligibility status required by Federal or State statutes and regulations including, but not limited to, the Immigration Reform and Control Act of 1986, 8 U.S.C. §1324 et seq., as they currently exist and as they may be hereafter amended. Contractor shall retain all such documentation for all covered employee, consultants and subcontractors for the period prescribed by the law. Contractor shall indemnify, defend with counsel approved in writing by County, and hold harmless, the County, its agents, officers, and employees from employer sanctions and any other liability which may be assessed against Contractor or the County or both in connection with any alleged violation of any Federal or State statutes or regulations pertaining to the eligibility for employment of any persons performing work under this Contract.

EXHIBIT B

HH. Indemnification: Contractor agrees to indemnify, defend with counsel approved in writing by County, and hold County, its elected and appointed officials, officers, employees, agents and those special districts and agencies which County's Board of Supervisors acts as the governing Board ("County Indemnitees") harmless from any claims, demands or liability of any kind or nature, including but not limited to personal injury or property damage, arising from or related to the services, products or other performance provided by Contractor pursuant to this Contract. If judgment is entered against Contractor and County by a court of competent jurisdiction because of the concurrent active negligence of County or County Indemnitees, Contractor and County agree that liability will be apportioned as determined by the court. Neither party shall request a jury apportionment.

CONTRACT SIGNATURE PAGE

The Parties hereto have executed this Contract on the dates shown opposite their respective signatures below.

AQUATECHNEX, LLC

Print Name Title

Signature Date

Print Name Title

Signature Date

*** If Contractor is a corporation, signatures of two specific corporate officers are required as further set forth.**

The first corporate officer signature must be one of the following: 1) the Chairman of the Board; 2) the President; 3) any Vice President.

The second corporate officer signature must be one of the following: a) Secretary; b) Assistant Secretary; c) Chief Financial Officer; d) Assistant Treasurer.

In the alternative, a single corporate signature is acceptable when accompanied by a corporate resolution demonstrating the legal authority of the signature to bind the company.

COUNTY OF ORANGE, A POLITICAL SUBDIVISION OF THE STATE OF CALIFORNIA

Print Name Title

Signature Date

APPROVED AS TO FORM
Office of the County Counsel
County of Orange, California

Michael A. Haubert Deputy County Counsel

Print Name Title

Michael A. Haubert 2/13/14

Signature Date

ATTACHMENT A SCOPE OF WORK

This Contract, **MA 012-14011241**, is to provide lake maintenance and lake water quality maintenance at various OC Parks locations per Table-A.

General Description of Work:

The lakes in the Orange County (OC) Regional Parks provide an aesthetic and recreational benefit to the public and are considered jewels within the park system. To ensure the beneficial uses of the lakes are maintained, a lake management program has been established that requires contractor support to implement.

The Scope of Work for this Contract shall consist of providing all necessary labor, materials, and equipment for providing a full-service, all-inclusive lake management program for OC Parks over a one-year basis, with renewable options for four one year options. Contractor performance will be evaluated on an annual basis to determine contract renewal status. The work shall include all needed services to manage the lakes including, but not limited to:

- Water quality monitoring and evaluation through routine inspections
- Nuisance weed and algae control
- Lake nutrient control
- Lake vegetation management
- Enhancing lake aesthetics, including measurable and progressive clarity improvement
- Waterfowl habitat management
- Consultation on lake dredging and sedimentation issues
- Assisting with established fish stocking programs
- Aeration/recirculation system management/diagnosis
- National Pollutant Discharge Elimination System (NPDES) program implementation for the lakes

In fulfilling these services, Contractor shall comply with all applicable Federal, State, County, and local laws and regulations. Contractor is responsible for mitigating any damages or spills that impact the lakes or County property resulting from their actions.

The following seventeen (17) lakes located at eleven (11) County parks will be included in the active management program. Additional details are provided in **Tables A & B**.

1. Carbon Canyon Park Lake
2. Clark Park Lake
3. Craig Park Lake (part of the Fullerton Creek Watershed)
4. Irvine Park Lakes (Upper and Lower connected lakes)
5. Laguna Canyon Lakes (Barbara's Lake and Lake 1)
6. Laguna Niguel Lake (part of the Sulphur Creek/Aliso Creek Watershed)
7. Mason Park Lake
8. Mile Square Park Lakes (North Lake, South Lake, and
9. Nature Area Pond)
10. Peters Canyon Reservoir
11. Tri-City Park Lake
12. Yorba Park Lakes: #'s 1 through 4

EXHIBIT B
ATTACHMENT A
SCOPE OF WORK

Water Quality Objectives:

The intent of this lake management contract is to enhance and improve the health, water quality, clarity, fish sustainability, and aquatic environment of the OC Parks lake facilities. Although none of the lakes include body contact for swimming, the lakes are used for other forms of public recreation including fishing, viewing wildlife, model boating, paddle boats, waterfowl survivability, and for overall park aesthetics. The County will utilize a number of qualitative and quantitative performance metrics to assess water quality improvements in the lakes including, but not limited to: water clarity, nutrient levels, algae biomass, visual observations, fish populations, and public complaints.

In order to assess changes in water quality during the course of the contract, an initial survey of each lake will be conducted by the Contractor at the onset of the contract. A WORK PLAN will be generated by Contractor with recommended routine management techniques and activities for the contract (including the recommended routine monitoring frequency for each lake) and be submitted to County for review and approval. Upon receipt of approval from the County, Contractor will implement the approved WORK PLAN. Any recommended changes or modification to the lake management WORK PLAN can be initiated during the course of the year through monthly updates and as changes in water quality occur. All changes will be discussed and approved by OC Parks Management prior to implementation.

At the end of each 12 month contract year, Contractor will submit an ANNUAL LAKES REPORT summarizing the results achieved for each lake included in the management program. The report shall document changes in water quality and clarity over the year and serve as a basis for future lake management procedures. Park management would desire to view a progressive accumulation of measurements from all lakes concerning the eutrophic condition being improved over time, time period chosen according to Contractor 'S data model. Recommendations from the ANNUAL LAKES REPORT will be used to update and modify the WORK PLAN for the lake management program.

Additional submittals are required as part of this contract, and are discussed in the sections below.

Lake Descriptions and Management Issues:

The following sections describe the typical problems and management issues associated with each lake.

Carbon Canyon Lake: This shallow lake is located within Carbon Canyon Regional Park upstream of the U.S. Army Corps of Engineer's Carbon Canyon Dam. The lake is fed by a municipal water supply maintained by OC Parks. The lake typically experiences nuisance aquatic weed growth throughout the spring and summer months. Filamentous algae also grow on top of the aquatic weeds, detracting from visual aesthetics. In addition to seasonal algae growth, the lake is subject to episodic sedimentation from storm debris flows during the wet season. The most recent event occurred in late 2008, which resulted in a large influx of sediment on the south side of the lake. In general, however, the lake remains a closed system with no direct outflows. The lake is used by bass fisherman and is periodically stocked with catfish by OC Parks. Future dredging projects are being considered at this location.

Craig Park Lake: This shallow park lake is located upstream of Fullerton Dam and is part of the Fullerton Creek/Loftus Diversion Channel watershed drainage system. The lake's water source is urban runoff, which is perennially flowing through the system. A simple diffuser aeration system has been installed in the lake to maintain high dissolved oxygen concentrations. Common lake management issues include periodic planktonic algae blooms and poor water clarity. The lake is stocked periodically with catfish by OC Parks. In addition "First Flush" nuisance trash and urban runoff/wastes will impact the lake during storm events.

EXHIBIT B
ATTACHMENT A
SCOPE OF WORK

Clark Park Lake: Clark Park Lake is one of three parks that receive California Department of Fish & Wildlife (DFW) trout and catfish stockings. The fish stocking rate is determined by DFW, which notifies the County of Orange in advance of a stocking event. The lake is fed by a municipal water source and includes both diffuser aeration and circulation systems. Rooted aquatic vegetation is prevalent throughout the lake, which provides habitat for the fish population. Common management issues include physical removal of excess vegetation, nuisance algae control, and seasonal variations in water clarity. There are no direct outflows from the lake.

Irvine Park Lakes: Irvine Park contains two lakes that are connected through a recirculation system equipped with a waterfall that connects the “Upper Lake” to the “Lower Lake.” In addition, a diffuser aeration system has been installed to add additional dissolved oxygen to each lake. The water source for the lakes is from the Metropolitan Water District (MWD) supply line at nearby Irvine Lake; however this larger water district lake is not part of this Scope of Work. The Irvine Park Lakes are popular with bass fisherman, and catfish are also stocked periodically by OC Parks. The upper lake features paddle boat rentals supplied by a concessionaire. Common lake management problems include excessive aquatic weeds, filamentous algae growth, and bio-debris removal from the surrounding trees. In addition, freshwater shellfish living in the lakes have clogged portions of the recirculation system in the past.

Laguna Canyon Lakes: In addition to these lakes, Laguna Coast Wilderness Park contains two natural lakes, Barbara’s Lake and Lake 1, that are monitored quarterly by the County. These two Laguna Canyon Lakes are located off Highway 133 (Laguna Canyon Road) between the 405 Freeway and the 73 Toll Road. These lakes may dry up during periods of low precipitation. The County will require quarterly water quality monitoring support as part of the contract, but active management of these three lakes will not likely be required as part of the routine Scope of Work. The project includes an annual presentation to the Coastal Greenbelt Authority on the water quality status of the lakes

Laguna Niguel Lake (Sulphur Creek Dam): Laguna Niguel Lake’s water supply is from Sulphur Creek, which is a tributary of Aliso Creek. The lake’s water level is maintained by the County’s dam operator at a nearly constant level. This creates two islands in the lake that contain domestic and migratory waterfowl populations. Lake operations are maintained by a concessionaire that oversees a trout stocking program from November to April. The lake is managed in part by a lease agreement with the concessionaire. Management issues include aquatic weed growth, periodic algae blooms, water color/clarity problems, shoreline maintenance, bio-debris and storm debris removal, fall turnovers, and coordinating fish stockings with the concessionaire. A diffuser aeration system has been installed to supply dissolved oxygen to the deeper half of the lake.

Mason Park Lake: This lake has the most complicated management issues of all the parks due to its shallow conditions (less than 6 feet deep), reclaimed water supply (excess nutrients), poor circulation, eutrophic condition, and year-round planktonic algae blooms. The common management challenges for the lake include poor water quality, excess surface algae scum (often requiring physical removal), nuisance odors, elevated inorganic nutrient concentrations, high waterfowl populations, public complaints, and other related hypereutrophic lake conditions. For years, aquatic herbicides and pesticides have been used to control heavy planktonic algae growth in the lake. However, the County would prefer to identify a more sustainable long term approach to address the algae problems in the lake as opposed to only chemical controls. Such a plan could include alternative treatment products including Phoslock treatments, additional vegetation for the uptake of excess nutrients, or other potential ideas to be recommended by Contractor. It is requested that Contractor submit their unique ideas on how to best manage this particular lake. The primary use of the lake is by model boat hobbyists. If water quality conditions can be improved, OC Parks may consider re-opening the lake for fish stockings.

EXHIBIT B
ATTACHMENT A
SCOPE OF WORK

Mile Square Park Lakes: Mile Square Park contains two larger lakes in the main turf areas of the park and one small pond within the Nature Area. Municipal water from the City of Fountain Valley's well supply is used as the water source for the lakes. Although there are no direct outflows of the lakes, pumps have been installed to draw water from the lakes for turf irrigation, thereby creating additional water turnover. The South Lake (also called Lake 1) contains planktonic algae and aquatic weeds that periodically require mitigation. This lake currently receives DFW trout and catfish stockings. The North Lake (also called Lake 2) contains moderate planktonic algae and a bird sanctuary island. A concessionaire is located on-site that rents small boats for public use in this lake. Both lakes are also used for public fishing. The nature pond water feature is located in the Nature Area portion of the park. This pond is fed by a municipal water source, and contains a solar-powered recirculation system to assist in improving water quality. The pond contains cattails year-round and occasionally exhibits nuisance algae blooms. The Nature Pond is never stocked, but mosquito fish are placed in the pond by OC Vector Control District for mosquito control purposes.

Peters Canyon Reservoir: This facility is a flood control reservoir operated by OC Public Works, OC Parks, and the Irvine Ranch Water District (IRWD). Water levels are variable in the reservoir and dependent on storm flows. Water quality in the reservoir is monitored on a quarterly basis. The reservoir is currently low in volume with episodic weed and algae blooms in the summer months. Due to its surrounding natural habitat and lack of direct public access, the lake is not typically subject to active management techniques such as algacide spraying. Any maintenance activities conducted through this contract will need to be approved by the County prior to implementation.

Tri-City Park Lake: This facility is the newest lake to be incorporated into the OC Parks system. The lake contains two levels (upper and lower) and a recirculation system. The lake has a heavy waterfowl population and issues with planktonic algae blooms. The lake is stocked with fish by DFW, and experiences a considerable amount of park visitors. OC Parks will be looking at water quality treatment programs to improve clarity and overall aesthetics.

Yorba Park Lakes: Yorba Park contains two pairs of connected lakes numbered 1 through 4. Lake 1 is a shallow pond that receives a steady supply of well water. The pond has established cattails and lily pads that grow seasonally. Water clarity in the pond is generally good; however, the pond does have problems with bio-debris accumulation from the surrounding trees. The pond water flows westward into Lake 2 via a small man-made creek. Yorba Lake 2 is a large, shallow water body with an aeration system and a recirculation system that distributes water back to Lake 1. Common management issues for Lake 2 include excessive aquatic weed growth, bio-debris removal on the downwind side of the lake, and water clarity issues. Lake 2 is separated from Lakes 3 and 4 by a foot bridge. Lakes 3 and 4 are linked by a recirculation system with a flow through wetlands area, and Lakes 3 and 4 each contain aeration systems. Water clarity has improved in these lakes through the use of Phoslock treatments. Lakes 2 and 3 are stocked with catfish by DFW and the County and support a paddle-boat rental concession.

Contractor Project Manager:

Contractor shall designate a project manager to oversee lake management activities under this contract. The Project Manager will be the primary point of contact for the County on lake management requests. The Project Manager will also coordinate lake report submittals and oversee invoicing under this Contract. When the Project Manager is unavailable, a backup contact list shall be furnished to the County for submitting lake service requests.

Contractor shall maintain a telephonic communications system (office and/or cellular phones) such that calls are answered within four business hours, five days a week, 8 a.m. through 4 p.m. Contractor may receive verbal work requests from County management, park rangers, maintenance supervisors, and other designated County employees.

EXHIBIT B
ATTACHMENT A
SCOPE OF WORK

License Requirements:

Contractor is responsible for retaining all appropriate government licenses required to complete the Scope of Work at no additional cost to the County. At all times during the term of the Agreement, Contractor shall have in full force and effect, all licenses required by law for the performance of the services described in this Agreement. Copies of the licensing information shall be made available to the County upon request.

Cooperation:

Contractor shall cooperate with County staff in scheduling work around park operations. All parks have posted operating hours, and Contractor will abide by these hours. No additional compensation or adjustment of allotted working schedule shall be granted for compliance with these requirements.

Full compensation for Cooperation shall be included in the contract bid and no additional compensation will be allowed therefore.

On-Call Lake Inspection/Management:

Contractor is responsible for conducting routine inspections and maintenance of the lakes on a scheduled basis. The frequency of routine Contractor inspections for each park lake shall be determined after the completion of the initial lake assessment and WORK PLAN at the onset of the contract. At a minimum, each park lake should be inspected monthly as part of the routine monitoring program.

In addition to routine inspections, Contractor, when notified, shall respond within 72 hours for on-call inspection and lake management service requests at the County's discretion. Upon request, Contractor shall supply necessary water quality field test equipment to measure physical parameters (temperature, pH, dissolved oxygen, specific conductivity, Secchi depth) and nutrients (nitrogen, phosphorous) of the lake as part of the monitoring request with no additional charge to the County. Upon completion of a lake inspection, Contractor shall provide written recommendations to the County for maintenance.

Some of the park lakes require boat access to conduct lake treatment or maintenance activities. Contractor is responsible for providing and maintaining a boat suitable for completion of this task at no additional cost to the County. Contractor shall follow all boating safety regulations.

Aeration Systems Management:

The County currently has functioning aeration systems at Clark, Craig, Irvine, Laguna Niguel, Mason, Mile Square, Tri-City, and Yorba park lakes. Upon request, Contractor will provide routine maintenance of these systems. This may include repairing or replacing faulty equipment, installing additional aeration units, and/or making recommendations for system upgrades. Dissolved oxygen (DO) readings shall be used to formulate recommendations for upgrades and/or changes to the aeration units. All aeration system work under this agreement must be approved by the County prior to implementation.

Lake Treatment Products:

Contractor shall coordinate with the designated County Inspector on the type and amount of products or chemicals recommended for treating algae and/or weeds to improve water quality in the lakes. Upon approval by the County Inspector, Contractor shall apply chemicals at rates in accordance with applicable product labels and regulations.

EXHIBIT B
ATTACHMENT A
SCOPE OF WORK

Vegetation and Shoreline Maintenance Services:

Upon request, Contractor shall conduct visual surveys to map aquatic vegetation and plants in a lake. This work includes identifying the types of plant and algae species in the lake and their distribution across the lake.

Upon request, Contractor will provide recommendations for vegetation and shoreline maintenance on the lakes. Contractor shall conduct physical removal of nuisance aquatic and shoreline vegetation using work crews as authorized by the County. Contractor may be required to assist the County with obtaining appropriate regulatory permits for this work. In addition, re-planting of the lake with desirable aquatic plants can also be completed as part of this task in consultation with the County Inspector.

Monthly Lake Maintenance Plan and Report:

A summary of maintenance activities planned shall be completed monthly for each park lake and submitted to the County for review. This maintenance plan shall summarize activities planned for the lakes during the upcoming month. The maintenance plan should also be accompanied by a maintenance report for the previous month, which will include a summary of activities conducted and field water quality monitoring results. This maintenance report may include, but is not limited to, the name and amount of chemical applied/application rate, water clarity, plant growth, water level, water temperature, dissolved oxygen content, pH, aeration equipment maintenance activities, and other pertinent observations or water quality measurements. In lieu of submitting monthly lake maintenance plans and reports, the information may alternatively be submitted through an online web-based platform. Copies of the backup information shall be provided to the County for review as needed. Invoices shall itemize all costs in accordance with the bid items.

Performance:

Work shall generally be performed between 7 a.m. and 4 p.m., Monday through Friday. Necessary pre-scheduled weekend work is allowable under this agreement. No non-emergency work on Holidays.

Contractor shall provide uniforms or other approved methods of employee identification for all personnel working at a County facility. All Contractor personnel shall present a neat, clean appearance.

Contractor is responsible for all personal protective equipment and safety devices used by Contractor personnel engaged in the handling, formulation, transfer, application and disposal of lake treatment products. Such items appropriate to the operation being conducted shall include, but not be limited to, face mask, respirators, goggles, caps or hats, protective clothing, gloves, etc. All clothing and protective gear used in the performance of lake treatment shall be in conformance with applicable legal and regulatory requirements.

EXHIBIT B
ATTACHMENT A
SCOPE OF WORK

NPDES REQUIREMENTS AND BEST MANAGEMENT PRACTICES

The Santa Ana and San Diego Regional Water Quality Control Boards (RWQCB) have issued permits which govern stormwater and non-stormwater discharges to the storm drain system from areas owned and operated by the County of Orange, Orange County Flood Control District and incorporated cities of Orange County (collectively referred to as Permittees). RWQCB Permits are National Pollutant Discharge Elimination System (NPDES) Permits Numbers R8-2002-0001 and R9-2002-0001, respectively. Copies of the RWQCB Permits are available for review upon request.

In order to comply with the Permit requirements, the Permittees have developed a Drainage Area Management Plan (DAMP) which contains Model Maintenance Procedures with Best Management Practices (BMPs) to which parties conducting the municipal activities must adhere. These Model Maintenance Procedures apply to any party conducting municipal activities and contain pollution prevention and source control techniques to minimize the impact of those activities upon dry weather urban runoff, storm water runoff, and receiving water quality. Contractor is responsible for mitigation and cleanup of spills that occur while performing work under this Contract as directed by the County Inspector.

Work performed under this Contract shall conform to the Permit requirements, the DAMP, and the Model Maintenance Procedures and must be performed as described within all applicable Model Maintenance Procedures. Contractor shall fully understand the Model Maintenance Procedures applicable to activities that are being conducted under this Contract prior to conducting them and maintain copies of the Model Maintenance Procedures throughout the Contract duration. The applicable Model Maintenance Procedures are included as **Appendix: A & B** of this Contract.

Evaluation of activities subject to DAMP requirements performed under this Contract will be conducted to verify compliance with DAMP requirements and may be required through Contractor self-evaluation as determined by the County.

Contractor shall complete the annual Integrated Pest Management (IPM) report form required for the annual Program Effectiveness Assessment (PEA), submitted by the County to the Regional Water Quality Control Boards (RWQCB). This IPM report will only be related to products used during the County fiscal cycle (July – June), and needs to be submitted by August 1 for the previous July – June fiscal cycle.

Should Contractor elect to use lake pesticides regulated by the National Pollutant Discharge Elimination System (NPDES) Aquatic Pesticide Permit (NAPP), Contractor will be responsible for assisting OC Parks in obtaining NAPP coverage under Water Quality Order 2004-0009-DWQ and/or Order 2013-0002-DWQ. Contractor shall perform and be proficient in preparation of regulatory enrollment documents, NAPP sampling requirements, and completing the annual NAPP reporting and other related permit requirements. In addition, Contractor application schedules will need to be coordinated with County water quality monitoring personnel to ensure all proper NAPP sampling is conducted.

In addition to the NAPP requirements, Contractor shall be familiar with San Diego RWQCB requirements for applying Phoslock to Waters of the United States, which could be required for Laguna Niguel Lake. Upon request, Contractor will need to organize lake treatment applications with Phoslock, oversee required water quality monitoring tasks, and perform required regulatory reporting to the San Diego RWQCB under Order No. R9-2012-0063.

EXHIBIT B
TABLE: A
OC PARKS LAKE DATA

LAKES	SURFACE ACREAGE	VOLUME CU FT.	MEAN' DEPTH	WATER SOURCE	COMMON ALGAE/WEED TYPES IN EACH LAKE
Carbon Canyon	3.3	718,700	5.0	MUNI	Planktonic Algae, Common Naiad
Clark	3.0	784,100	6.5	MUNI	Filamentous Algae, Chara, Nitella
Craig	3.0	784,100	6.5	MUNI	Filamentous Algae, Chara, Nitella
Irvine (upper)	1.6	348,500	5.0	MWD	Planktonic and Filamentous Algae,
Irvine (lower)	0.6	130,700	5.0	MWD	Planktonic and Filamentous Algae
Laguna Coast Wilderness Park	Variable	Variable	Variable	WATERSHED	Planktonic Algae, Filamentous Algae, and Aquatic Weeds
Laguna Niguel	44	22,999,700	12	SULPHUR CREEK	Planktonic and Filamentous Algae(Cladophora), Brittle Naiad, Cattails
Mason	9.3	2,025,500	5.0	IRWD	Planktonic Algae (<i>Mycrocystis sp.</i>)
Mile Square 1	3.0	784,100	4.5	WELL	Planktonic Algae, Brittle Naiad
Mile Square 2	6.5	1,274,100	4.5	WELL	Planktonic Algae
Mile Square pond	0.3	39,200	3.0	MUNI	Planktonic Algae, Cattails
Peters Canyon Reservoir	55.0	21,780,000	12	WATERSHED	Planktonic Algae, Filamentous Algae, and Aquatic Weeds
Tri-City Park	7.8	338,000	5.6	MUNI	Planktonic Algae
Yorba 1 (pond)	0.3	39,200	3.0	WELL	Pond Lilies, Cattails
Yorba 2	6.3	823,300	3.0	WELL	Planktonic and Filamentous Algae, Sago Pondweed, Brittle Naiad
Yorba 3	3.4	740,500	5.0	WELL	Planktonic Algae
Yorba 4	3.6	940,900	6.0	WELL	Planktonic Algae
Total Managed	151	54,560,600			

MUNI = Municipal Water Supply
WELL = Water District Ground Water
IRWD = Irvine Water District Reclaimed Water
MWD = Metropolitan Water District (from Irvine Lake)

' Mean Depth as designed
" Surface area and volume vary with water level, estimated maximum volume given.

EXHIBIT B

**TABLE: B
OC PARKS LAKE LOCATIONS**

Carbon Canyon Regional Park
4442 Carbon Canyon Rd.
Brea, CA 92621
(714) 973-3161

Mile Square Regional Park
16801 Euclid St.
Fountain Valley, CA 92708
(714) 973-6600

Clark Regional Park
8800 Rosecrans Ave.
Buena Park, CA 90621
(714) 973-3171

Peters Canyon Reservoir
8548 E. Canyon View
Orange, CA 92689
(714) 973-6612

Craig Regional Park
3300 State College Blvd.
Fullerton, CA 92631
(714) 973-3181

Tri-City Regional Park
2301 Kraemer Blvd
Placentia, CA 92870
(714) 973-3180

Irvine Regional Park
1 Irvine Park Road
Orange, CA 92669
(714) 973-6834

Yorba Regional Park
7600 E. La Palma
Anaheim, CA 92807
(714) 973-6616

Laguna Coast Wilderness Park
18751 Laguna Canyon Rd
Laguna Beach, CA 92651
(949) 923-2235

Laguna Niguel Regional Park
28241 La Paz Rd.
Laguna Niguel, CA 92677
(949) 926-2241

Mason Regional Park
18712 University Dr.
Irvine, CA 92715
(949) 923-2221

ATTACHMENT B
PAYMENT, COMPENSATION & INVOICING

I. Compensation: This is a fixed fee price Contract, in an amount not to exceed **\$550,000** per year, between the County and Contractor for services as provided in Attachment A – Scope of Work and Contractor’s pricing on Attachment – B. Contractor agrees to accept the specified compensation as set forth in this Contract as full remuneration for performing all services and furnishing all staffing, labor, tax, shipping, freight, insurance requirements, and materials required, for any reasonably unforeseen difficulties which may arise or be encountered in the execution of the services until acceptance, for risks connected with the services and for performance by Contractor of all its duties and obligations hereunder. Contractor shall only be compensated as set forth herein below for work performed in accordance with the Scope of Work. County shall have no obligation to pay any sum in excess of total Contract amount specified herein unless authorized by amendment in accordance with Paragraphs “C” and “R” of County Contract Terms and Conditions.

II. Payment Terms: Payment will be paid in arrears. Payment will be net 30 days after receipt of an invoice in a format acceptable to the County. Invoices shall be verified and approved by the County and subject to routine processing requirements. The responsibility for providing an acceptable invoice to the County for payment rests with Contractor. Incomplete or incorrect invoices are not acceptable and will be returned to Contractor for correction.

Billing shall cover services and/or goods not previously invoiced. Contractor shall reimburse the County for any monies paid to Contractor for goods or services not provided or when goods or services do not meet the Contract requirements.

Payments made by the County shall not preclude the right of the County from thereafter disputing any items or services involved or billed under this Contract and shall not be construed as acceptance of any part of the goods or services.

III. Invoicing Instructions: Contractor will provide an invoice on Contractor’s letterhead. Each invoice will have a unique number and will include the following information:

1. Contractor’s name and address
2. Contractor’s remittance address, if different from above
3. Name of County Agency/Department
4. Contract number: **MA 012-14011241** (must list on ALL invoices)
5. Service Date(s)
6. Total Cost
7. Federal Taxpayer I.D. number

Invoices and support documentation are to be forwarded to:

OC Community Resources
Attn: Accounts Payable
1770 N. Broadway
Santa Ana, CA 92705-4407

The responsibility for providing all acceptable invoice(s) to the County for payment rests with Contractor. Incomplete or incorrect invoices are not acceptable and will be returned to Contractor for correction. OC Parks Contract Administrator, or designee, is responsible for approval of invoices and subsequent submittal of invoices to the Auditor-Controller for processing of payment.

EXHIBIT B

ATTACHMENT B
PAYMENT, COMPENSATION & INVOICING

LABOR RATES

CATEGORY	MISSION	HOURLY RATE
Limnologist/Senior Scientist	Evaluation and planning for Lake Management	\$100.00
Licensed Pest Control Advisor	Provides required recommendations when pesticides are necessary	\$95.00
Project Manager	Oversees implementation of Lake Management Activities	\$95.00
Staff Scientist	Supports monitoring and data collection	\$75.00
Licensed Applicator	Conducts pesticide applications as necessary	\$55.00
Field Support Staff	Implement directions from Project Management and Completes Lake Management tasks	\$45.00

WATER QUALITY MONITORING

CATEGORY	COST
Water quality sampling	To be included in labor
Water quality sampling equipment	To be included in labor
Replace reagents for HACH sampling kit,	\$175.00 per month
Blue Water Satellite twice monthly analysis of all lakes for Phosphorus and cyano-bacteria	\$480.00 per month
YSI Ecomapper	\$560.00 per day

PRODUCTS AND EQUIPMENT

PRODUCT/EQUIPMENT/SERVICE	COST
Application labor	To be included in labor
Alum/Phoslock application vessel	\$990.00 per day
Alum Instant Powder	\$1.00 per pound
Alum liquid	\$1.25 per gallon
Phoslock Phosphorus Removal System	\$1.77 per pound

EXHIBIT B
ATTACHMENT B
PAYMENT, COMPENSATION & INVOICING

PRODUCT/EQUIPMENT/SERVICE	COST
Application labor	To be included in labor
PCA recommendations	To be included in labor
Survey/Mapping Vessel with equipment	To be included in labor
WeDOO Debris Boat/larger application equipment	\$175.00 per hour with operator
Alum/Phoslock Application Vessel Large	\$1,250.00 per day
Chelated Copper Algaecides	\$31.09 per gallon
CleanGreen Peroxygen Algaecide	\$1.78 per pound
Reward (diquat) herbicide	\$82.00 per gallon
Aquathol (endothol) herbicide	\$72.00 per gallon
Sonar AS aquatic herbicide	\$1,902.00 per gallon
Sonar One aquatic herbicide	\$29.43 per pound
Sonar PR aquatic herbicide	\$34.78 per pound
Galleon aquatic herbicide	\$521.73 per quart
Clearcast aquatic herbicide	\$243.37 per gallon
Glyphosate aquatic herbicide	\$31.92 per gallon
Nautique Aquatic Herbicide	\$34.56 per gallon
Renovate MAX G aquatic herbicide	\$3.06 per pound
Renovate OTF aquatic herbicide	\$3.66 per pound
Renovate 3 Liquid aquatic herbicide	\$99.74 per gallon
Sculpin G aquatic herbicide	\$2.17 per pound
Revive Biological Water Clarifier	\$18.81 per pound
SePRO Natural Refection Black Dye	\$14.18 per packet
SePRO Blue Lake and Pond Colorant	\$13.48 per packet
Aquashade	\$54.00 per gallon
Triploid Grass Carp Stocking Permit Application to State of CA	Cost Plus 15 %
Triploid Grass Carp annual license fee to State of CA	Cost Plus 15 %
Deliver and stock triploid grass carp	\$7.50 per fish
Deliver and stock channel catfish (various weights)	Cost Plus 15 %
Deliver and stock trout (various species and weights)	Cost Plus 15 %
NPDES Aquatic Herbicide Required Sampling per herbicide per lake where required by NPDES	Cost Plus 15 %
NPDES Permit Fee	Cost Plus 15 %

EXHIBIT B
ATTACHMENT B
PAYMENT, COMPENSATION & INVOICING

PRODUCT/EQUIPMENT/SERVICE	COST
Sonar Genesis	\$267.20 per gallon
Sonar Q	\$28.82 per pound
Sonar H4C	\$16.96 per pound
Clearcast 2.7G Granular	\$8.45 per pound
SeClear Algaecide and Water Quality Enhancer	\$16.00 per gallon
Komeen Crystal Herbicide	\$11.25 per pound
Captain XTR liquid copper algaecide	\$34.50 per gallon
Habitat herbicide	\$114.00 per gallon
Copper Sulfate Pentahydrate	\$3.25 per pound
Bathymetry/3d mapping Laguna Park	\$600.00 per lake
Bathymetry/3d mapping Mason Park	\$500.00 per lake
Bathymetry/3d mapping Mile Square Park Each Lake	\$500.00 per lake
Bathymetry/3d mapping Irvine Park	\$250.00 per lake
Bathymetry/3d mapping Peters Canyon Reservoir	\$800.00 per lake
Bathymetry/3d mapping Tri-City Park	\$500.00 per lake
Bathymetry/3d mapping Yorba Linda Park	\$600.00 per lake
Bathymetry/3d mapping Carbon Canyon Park	\$500.00 per lake
Bathymetry/3d mapping Clark Park	\$500.00 per lake
Bathymetry/3d mapping Craig Park	\$500.00 per lake
Diver Dredge system for small scale removal	\$195.00 per hour with operator
Permitting Labor	To be included in labor costs
Harvester Mobilization	\$1,500.00 in and out
Aquamog Mobilization	\$1,500.00 in and out
Crane Launch if necessary	\$2,000.00 in and out
Large Aquatic Weed Harvester	\$1,535.00 per day
Aquamog Dredging System	\$1,600.00 per day
Material Disposal	\$1.00 per unit

EXHIBIT B

ATTACHMENT B
PAYMENT, COMPENSATION & INVOICING

LAKE AERATION SYSTEM MANAGEMENT/DIAGNOSES

PRODUCT/EQUIPMENT/SERVICE	COST
Inspection/Consulting labor	Included in labor costs
Aeration System parts/replacement	Cost plus 15%

ITEMS COVERED UNDER OTHER REIMBURSABLE DIRECT COSTS:

ITEM	COST
Identifiable communication expense, such as long distance telephone and fax, overnight shipping, telegraph, cable express charges and postage, other than for general correspondence required in the performance of the work.	Actual Cost
Identifiable printing or reproduction services required in the performance of the work. This includes copying fees for preparation of written submittals required by the Scope of Work.	Actual Cost
Third party services directly applicable to the work such as environmental services, dredging, weed and cattails harvesting, waste disposal, construction services, lake treatment product/chemical purchases (from an outside vendor), and outside administrative and laboratory charges that are not applicable to general overhead.	Cost PLUS 10%
Materials used for special in-house Contractor testing, laboratory, and field supplies not addressed in the Scope of Work. This includes special water quality monitoring equipment used during lake management activities.	Actual Cost
Permit fees, application fees, and other government filing fees.	Actual Cost
Special vehicle and equipment rentals.	Actual Cost

EXHIBIT B

ATTACHMENT B
PAYMENT, COMPENSATION & INVOICING

**CONSIDERED
ITEMS NOT REIMBURSEABLES:**

Travel, mileage, hotel and meal expenses for Contractor employees being utilized during the course of working on this project.
Computer software and associated computer equipment operation related to the production of exhibits, work plans, reports, and related documentation required by the Scope of Work shall be considered included in the cost of general overhead and included in the hourly personnel rates for this project.
General overhead costs such as accounting, computers, office supplies, and items generally required for the basic operation of daily business directly related to the project.
Local telephone and fax services.
Contractor is responsible for supplying a boat and basic water quality monitoring equipment specified in the Scope of Work.
Mileage and parking fees to conduct work at County facilities. The County will provide access to the parks covered in the Scope of Work.

EXHIBIT B

ATTACHMENT B

PAYMENT, COMPENSATION & INVOICING

MISCELLANEOUS SERVICES

Miscellaneous goods/services may be procured off this price agreement per the instructions below:

In addition to the commodity/services requirements and all other terms and conditions provided herein, Contractor shall satisfy the following billing/invoicing procedures for miscellaneous commodity/services. Failure to follow these procedures fully may delay payment of miscellaneous items.

1. An authorized OC Parks staff member will contact the contractor to obtain an itemized written quote for any commodity/services needed that are not itemized on the price agreement.
2. Contractor will email a proposal for the miscellaneous goods/services to the authorized OC Parks staff member for their review and approval. Should the authorized OC Parks staff member find the proposal satisfactory he/she shall send an email confirmation back to the vendor authorizing the miscellaneous goods/services. The contractor under no circumstance shall release or deliver any miscellaneous goods/services without a confirmation email by an authorized OC Parks staff member, in their possession.
3. Upon submission of said invoice, the contractor must attach a copy of the confirmation email authorized by the OC Parks staff member.
4. The agency/department shall certify on the invoice that the prices are per the submitted proposal and that all goods/services have been received/rendered.

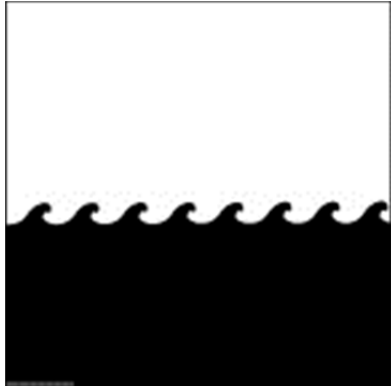
Below is a list of authorized approvers. This list is subject to change. Contractor will be notified of any changes via e-mail by the Deputy Purchasing Agent.

CURRENT AUTHORIZED APPROVERS:

Robin LaMont
Bill Reiter
John Gannaway

EXHIBIT B
APPENDIX A
LAKE MANAGEMENT MODEL MAINTENANCE PROCEDURES

FP-1



LAKE MANAGEMENT

The model procedures described below focus on minimizing the discharge of pesticides and fertilizers, landscape waste, trash, debris, sediments and other pollutants while maintaining ponds and lakes. Lake management practices may involve the following activities:

1. Fertilizer and Pesticide Management
2. Mowing, Trimming/Weeding, and Planting
3. Managing Landscape Waste
4. Controlling Litter
5. Erosion Control
6. Controlling Illegal Dumping
7. Bacteria Control
8. Monitoring

POLLUTION PREVENTION:

Pollution prevention measures have been considered and incorporated in the model procedures. Implementation of these measures may be more effective and reduce or eliminate the need to implement other more complicated or costly procedures. Possible pollution prevention measures for lake management include:

- Implementation of an integrated pest management (IPM) program. IPM is a sustainable approach to managing pests by combining biological, cultural, physical, and chemical tools. Refer to Appendix D, Fertilizer and Pesticide Management Guidance for further details.
- Once per year, educate municipal staff on pollution prevention measures.

MODEL PROCEDURES:

1. Fertilizer and Pesticide Management

EXHIBIT B

Usage

- ✓ Utilize a comprehensive management system that incorporates integrated pest management techniques.
- ✓ Follow all federal, state, and local laws and regulations governing the use, storage, and disposal of fertilizers and pesticides and training of applicators and pest control advisors.

Usage (cont')

- ✓ Educate and train employees on use of pesticides and pesticide application techniques to prevent pollution.
- ✓ Pesticide application must be under the supervision of a qualified and properly licensed or certified pesticide applicator.
- ✓ When applicable use the least toxic pesticides that will do the job. Avoid use of copper-based pesticides if possible.
- ✓ Do not mix or prepare pesticides for application near storm drains.
- ✓ Prepare the minimum amount of pesticide needed for the job and use the lowest rate that will effectively control the pest.
- ✓ Employ techniques to minimize off-target application (e.g. spray drift) of pesticides, including consideration of alternative application techniques.
- ✓ Calibrate fertilizer and pesticide application equipment to avoid excessive application.
- ✓ Periodically test soils for determining proper fertilizer use.
- ✓ Sweep pavement and sidewalk if fertilizer is spilled on these surfaces before applying irrigation water.
- ✓ Inspect pesticide/fertilizer equipment and transportation vehicles daily.
- ✓ Refer to Appendix D for further guidance on Fertilizer and Pesticide management
- ✓ Refer to permit "Monitoring and Reporting Program No.2001-160 for Discharges of Aquatic Pesticides to Waters of the United States" if lake discharges to Waters of the United States.

OPTIONAL:

- Use beneficial insects where possible to control pests (green lacewings, ladybugs, praying mantis, ground beetles, parasitic nematodes, trichogramma wasps, seedhead weevils, and spiders prey on detrimental pest species).
- Use slow release fertilizers whenever possible to minimize leaching.

Scheduling

- ✓ Do not use pesticides if rain is expected within 24 hours.
- ✓ Apply pesticides only when wind speeds are low (less than 5 mph).

EXHIBIT B

Disposal

- ✓ Purchase only the amount of pesticide that you can reasonably use in a given time period (month or year depending on the product).
- ✓ Triple rinse containers, and use rinse water as product. Dispose of unused pesticide as hazardous waste.
- ✓ Dispose of empty pesticide containers according to the instructions on the container label.

2. Mowing, Trimming/Weeding, and Planting

Mowing, Trimming/Weeding

- ✓ Whenever possible, use mechanical methods of vegetation removal rather than applying herbicides. Use hand weeding where practical.
- ✓ When conducting mechanical or manual weed control, avoid loosening the soil, which could erode into the lake.
- ✓ Use coarse textured mulches or geotextiles to suppress weed growth and reduce the use of herbicides.
- ✓ Do not blow or rake leaves, etc. into a lake or place yard waste in lake.
- ✓ Collect lawn and garden clippings, pruning waste, tree trimmings, and weeds. Chip if necessary, and compost or dispose of at a landfill (see waste management section of this procedure sheet).
- ✓ Place temporarily stockpiled material away from lakes, and berm or cover stockpiles to prevent material releases to storm drains.

Planting

- ✓ Where feasible, retain and/or plant selected native vegetation whose features are determined to be beneficial. Native vegetation usually requires less maintenance (e.g., irrigation, fertilizer) than planting new vegetation.
- ✓ When planting or replanting consider using low water use groundcovers.
- ✓ Create a grassy berm to reduce run-on and run-off when possible

OPTIONAL:

- Careful soil mixing and layering techniques using a topsoil mix or composted organic material can be used as an effective measure to reduce herbicide use and watering.

3. Managing Landscape Waste

Also see Waste Handling and Disposal procedure sheet

- ✓ Compost leaves, sticks, or other collected vegetation or dispose of at a permitted landfill. Do not dispose of collected vegetation into lakes.
- ✓ Place temporarily stockpiled material away from lakes. Berm or cover stockpiles to prevent material releases to a lake.
- ✓ Reduce the use of high nitrogen fertilizers that produce excess growth requiring more frequent mowing or trimming, and may contribute to excessive algae growth.
- ✓ Inspection should be conducted to detect illegal dumping of clippings/cuttings in or near a lake. Materials found should be picked up and properly disposed of.
- ✓ Landscape wastes in and around lakes should be avoided by either using bagging equipment or by manually picking up the material.

**Training/Education/
Outreach**

- ✓ Train municipal to recognize and report illegal dumping into lakes.
- ✓ Encourage public reporting of illegal dumping by advertising the 24-hour water pollution problem reporting hotline (714) 567-6363.

OPTIONAL:

- Educate the public with public education materials such as a hotline and/or door hanger (door hangers are placed on the front doors in neighborhoods where illegal dumping has occurred to inform the reader why illegal dumping is a problem, and that illegal dumping carries a significant financial penalty).
- Educate the public through volunteer water quality monitoring programs. Volunteers can be trained to notice and report the presence and suspected source of an observed pollutant to the appropriate public agency.

4. Controlling Litter

Enforce anti-litter laws.

Also see Solid Waste Handling procedure sheet

- ✓ Provide litter receptacles near lakes.
- ✓ Cover litter receptacles and clean out frequently to prevent leaking/spillage or overflow.

OPTIONAL:

- Post “No Littering” signs.

5. Controlling Erosion

EXHIBIT B

- ✓ Maintain vegetative cover on banks to prevent soil erosion. Apply mulch or leave clippings to serve as additional cover for soil stabilization and to reduce the velocity of storm water runoff.
- ✓ Areas should be designed (sloped) to prevent runoff and erosion and to promote better irrigation practices.
- ✓ Provide energy dissipaters (e.g. riprap) along banks to minimize potential for erosion.
- ✓ Confine excavated materials to pervious surfaces away from lakes. Material must be covered if rain is expected.

6. Controlling Illegal Dumping

Illegally dumped wastes can cause storm water and lake water quality problems. Non-hazardous solid wastes may include garbage, trash, refuse, paper, rubbish, ashes, industrial wastes, demolition and construction wastes, abandoned vehicles and parts thereof, discarded home and industrial appliances, manure, vegetable or animal solid and semi-solid wastes and other discarded solid or semi-solid waste provided that such wastes do not contain wastes which must be managed as hazardous wastes, or wastes which contain soluble pollutants in concentration which exceed applicable water quality objectives or could cause degradation of waters of the state.

Field Investigation

- ✓ Report prohibited discharges such as dumping observed during the course of normal daily activities so they can be investigated, contained and cleaned up.
- ✓ Conduct field investigations to detect and eliminate improper disposal of pollutants into the storm drain (i.e. identify problem areas where discharges or illegal connections may occur and follow up stream to determine the source(s)).
- ✓ Report all observed illicit connections and discharges to the 24-hour water pollution problem reporting hotline (714) 567-6363.
- ✓ Encourage public reporting of improper waste disposal by distributing public education materials and advertising the 24-hour water pollution problem reporting hotline.

OPTIONAL:

- Post “No Dumping” signs in problem areas with a phone number for reporting dumping and disposal.

7. Bacteria Control

- ✓ Eliminate or reduce the feeding of waterfowl (i.e. ducks and geese).
- ✓ When feeding waterfowl, use food designated for waterfowl (no bread or crackers).

OPTIONAL:

- Place signage by lake with the above recommendations (see attached example)

8. Monitoring

OPTIONAL:

- Monitor fecal coliform.
- Monitor nutrient levels of both the water body and the soil.
- Monitor all trace metals found present in the soil and the water.

LIMITATIONS:

Alternative pest/weed controls may not be available, suitable, or effective in every case. Clean-up activities may create a slight disturbance for local aquatic species. If the lake is recognized as a wetland, many activities, including maintenance, may be subject to regulation and permitting.

REFERENCES:

California Storm Water Best Management Practice Handbooks. Industrial/Commercial Best Management Practice Handbook. Prepared by Camp Dresser & McKee, Larry Walker Associates, Uribe and Associates, Resources Planning Associates for Stormwater Quality Task Force. July 1993.

County of Orange. 2000. Public Facilities and Resources Department, Management Guidelines for the Use of Fertilizers and Pesticides. September.

King County Stormwater Pollution Control Manual. Best Management Practices for Businesses. 1995. King County Surface Water Management. July. On-line: <http://dnr.metrokc.gov/wlr/dss/spcm.htm>

Los Angeles County Stormwater Quality Model Programs. Public Agency Activities
http://ladpw.org/wmd/npdes/model_links.cfm

Model Urban Runoff Program: A How-To Guide for Developing Urban Runoff Programs for Small Municipalities. Prepared by City of Monterey, City of Santa Cruz, California Coastal Commission, Monterey Bay National Marine Sanctuary, Association of Monterey Bay Area Governments, Woodward-Clyde, Central Coast Regional Water Quality Control Board. July. 1998.

Santa Clara Valley Urban Runoff Pollution Prevention Program. 1997 Urban Runoff Management Plan. September 1997, updated October 2000.

California Storm Water Best Management Practice Handbooks. Municipal Best Management Practice Handbook. Prepared by Camp Dresser & McKee, Larry Walker Associates, Uribe and Associates, Resources Planning Associates for Stormwater Quality Task Force. March 1993.

Harvard University. 2002. Solid Waste Container Best Management Practices – Fact Sheet On-Line Resources – Environmental Health and Safety.

Bay Area Stormwater Management Agencies Association. 1996. Pollution From Surface Cleaning.

Oregon Association of Clean Water Agencies. Oregon Municipal Stormwater Toolbox for Maintenance Practices. June 1998.

San Diego Stormwater Copermittees Jurisdictional Urban Runoff Management Plan. 2001. Municipal Activities Model Program Guidance. November.

Santa Clara Valley Urban Runoff Pollution Prevention Program. Maintenance Best Management Practices for the Construction Industry. Brochures: Landscaping, Gardening, and Pool; Roadwork and Paving; and Fresh Concrete and Mortar Application. June 2001.

County of Orange Environmental Resource Department.

EXHIBIT B
APPENDIX B
LANDSCAPE MAINTENANCE MODEL PROCEDURES

FP-2



LANDSCAPE MAINTENANCE

The model procedures described below focus on minimizing the discharge of pesticides and fertilizers, landscape waste, trash, debris, and other pollutants to the storm drain system and receiving waters. Landscape maintenance practices may involve one or more of the following activities:

9. Mowing, Trimming/Weeding, and Planting
10. Irrigation
11. Fertilizer and Pesticide Management
12. Managing Landscape Waste
13. Erosion Control

POLLUTION PREVENTION:

Pollution prevention measures have been considered and incorporated in the model procedures. Implementation of these measures may be more effective and reduce or eliminate the need to implement other more complicated or costly procedures. Possible pollution prevention measures for landscape maintenance include:

- Implement an integrated pest management (IPM) program. IPM is a sustainable approach to managing pests by combining biological, cultural, physical, and chemical tools.
- Choose low water using flowers, trees, shrubs, and groundcover.
- Appropriate maintenance (i.e. properly timed fertilizing, weeding, pest control, and pruning) will preserve the landscapes water efficiency.
- Once per year, educate municipal staff on pollution prevention measures.

MODEL PROCEDURES:

1. Mowing, Trimming/Weeding, and Planting

- Mowing, Trimming/Weeding**
- ✓ Whenever possible, use mechanical methods of vegetation removal rather than applying herbicides. Use hand weeding where practical.
 - ✓ When conducting mechanical or manual weed control, avoid loosening the soil, which could erode into streams or storm drains.
 - ✓ Use coarse textured mulches or geotextiles to suppress weed growth and reduce the use of herbicides.
 - ✓ Do not blow or rake leaves, etc. into the street or place yard waste in gutters or on dirt shoulders. Sweep up any leaves, litter or residue in gutters or on street.
 - ✓ Collect lawn and garden clippings, pruning waste, tree trimmings, and weeds. Chip if necessary, and compost or dispose of at a landfill (see waste management section of this procedure sheet).
 - ✓ Place temporarily stockpiled material away from watercourses, and berm or cover stockpiles to prevent material releases to storm drains.

Planting

- ✓ Where feasible, retain and/or plant selected native vegetation whose features are determined to be beneficial. Native vegetation usually requires less maintenance (e.g., irrigation, fertilizer) than planting ornamental vegetation.
- ✓ When planting or replanting consider using low water use groundcovers.

OPTIONAL:

- Careful soil mixing and layering techniques using a topsoil mix or composted organic material can be used as an effective measure to reduce herbicide use and watering.

2. Irrigation

- ✓ Utilize water delivery rates that do not exceed the infiltration rate of the soil.
- ✓ Use timers appropriately or a drip system to prevent runoff and then only irrigate as much as is needed.
- ✓ Inspect irrigation system periodically to ensure that the right amount of water is being applied and that excessive runoff is not occurring. Minimize excess watering, and repair leaks in the irrigation system as soon as they are observed.
- ✓ Where practical, use automatic timers to minimize runoff.
- ✓ Use popup sprinkler heads in areas with a lot of activity or where there is a chance the pipes may be broken. Consider the use of mechanisms that reduce water flow to sprinkler heads if broken.
- ✓ If re-claimed water is used for irrigation, ensure that there is no runoff from the landscaped area(s).
- ✓ If bailing of muddy water is required (e.g. when repairing a water line leak), do not put it in the storm drain; pour over landscaped areas.

3. Fertilizer and Pesticide Management

Usage

- ✓ Utilize a comprehensive management system that incorporates integrated pest management techniques.
- ✓ Follow all federal, state, and local laws and regulations governing the use, storage, and disposal of fertilizers and pesticides and training of applicators and pest control advisors.
- ✓ Educate and train employees on use of pesticides and in pesticide application techniques to prevent pollution.
- ✓ Pesticide application must be under the supervision of a California qualified pesticide applicator.
- ✓ When applicable use the least toxic pesticides that will do the job. Avoid use of copper-based pesticides if possible.
- ✓ Do not mix or prepare pesticides or fertilizers for application near storm drains.
- ✓ Prepare the minimum amount of pesticide needed for the job and use the lowest rate that will effectively control the pest.
- ✓ Employ techniques to minimize off-target application (e.g. spray drift) of pesticides, including consideration of alternative application techniques.
- ✓ Calibrate fertilizer and pesticide application equipment to avoid excessive application.
- ✓ Periodically test soils for determining proper fertilizer use.
- ✓ Sweep pavement and sidewalk if fertilizer is spilled on these surfaces before applying irrigation water.

EXHIBIT B

- ✓ Inspect pesticide/fertilizer equipment and transportation vehicles daily.

OPTIONAL:

- Work fertilizers into the soil rather than dumping or broadcasting them onto the surface.
- Use beneficial insects where possible to control pests (green lacewings, ladybugs, praying mantis, ground beetles, parasitic nematodes, trichogramma wasps, seedhead weevils, and spiders prey on detrimental pest species).
- Use slow release fertilizers whenever possible to minimize leaching.

Scheduling

- ✓ Do not use pesticides if rain is expected within 24 hours.
- ✓ Apply pesticides only when wind speeds are low (less than 5 mph).

Disposal

- ✓ Purchase only the amount of pesticide that you can reasonably use in a given time period (month or year depending on the product).
- ✓ Triple rinse containers, and use rinse water as product. Dispose of unused pesticide as hazardous waste.
- ✓ Dispose of empty pesticide containers according to the instructions on the container label.

4. Managing Landscape Waste

*Also see Waste Handling
and Disposal procedure
sheet*

- ✓ Compost leaves, sticks, or other collected vegetation or dispose of at a permitted landfill. Do not dispose of collected vegetation into waterways or storm drainage systems.
- ✓ Place temporarily stockpiled material away from watercourses and storm drain inlets, and berm or cover stockpiles to prevent material releases to the storm drain system.
- ✓ Reduce the use of high nitrogen fertilizers that produce excess growth requiring more frequent mowing or trimming.
- ✓ Inspection of drainage facilities should be conducted to detect illegal dumping of clippings/cuttings in or near these facilities. Materials found should be picked up and properly disposed of.
- ✓ Landscape wastes in and around storm drain inlets should be avoided by either using bagging equipment or by manually picking up the material.

5. Erosion Control

*Also see Waste Handling
and Disposal procedure
sheet*

- ✓ Maintain vegetative cover on medians and embankments to prevent soil erosion. Apply mulch or leave clippings to serve as additional cover for soil stabilization and to reduce the velocity of storm water runoff.
- ✓ Minimize the use of disking as a means of vegetation management because the practice may result in erodable barren soil.
- ✓ Confine excavated materials to pervious surfaces away from storm drain inlets, sidewalks, pavement, and ditches. Material must be covered if rain is expected.

LIMITATIONS:

Alternative pest/weed controls may not be available, suitable, or effective in every case.

REFERENCES:

California Storm Water Best Management Practice Handbooks. Industrial/Commercial Best Management Practice Handbook. Prepared by Camp Dresser & McKee, Larry Walker Associates, Uribe and Associates, Resources Planning Associates for Stormwater Quality Task Force. July 1993.

County of Orange. 2000. Public Facilities and Resources Department, Management Guidelines for the Use of Fertilizers and Pesticides. September.

King County Stormwater Pollution Control Manual. Best Management Practices for Businesses. 1995. King County Surface Water Management. July. On-line: <http://dnr.metrokc.gov/wlr/dss/spcm.htm>

Los Angeles County Stormwater Quality Model Programs. Public Agency Activities
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Model Urban Runoff Program: A How-To Guide for Developing Urban Runoff Programs for Small Municipalities. Prepared by City of Monterey, City of Santa Cruz, California Coastal Commission, Monterey Bay National Marine Sanctuary, Association of Monterey Bay Area Governments, Woodward-Clyde, Central Coast Regional Water Quality Control Board. July. 1998.

Santa Clara Valley Urban Runoff Pollution Prevention Program. 1997 Urban Runoff Management Plan. September 1997, updated October 2000.