



Appendix K: SARWQCB Approved Regional BMP, Retrofit or Restoration Projects

Santa Ana Regional Water Quality Control Board

August 12, 2014

Mr. Louis Abi-Younes, P.E., City Engineer
City of Ontario - Engineering Department
303 East "B" Street,
Ontario, CA 91764-4105

APPROVAL TO ADD THE CUCAMONGA CREEK WATERSHED REGIONAL WATER QUALITY PROJECT (MILL CREEK WETLANDS) AS A REGIONAL BEST MANAGEMENT PRACTICE (BMP) TO THE SAN BERNARDINO COUNTY WATERSHED ACTION PLAN

Dear Mr. Abi-Younes:

On October 3, 2013, we received a letter from the City of Ontario (City) requesting that the Cucamonga Creek Watershed Regional Water Quality Project (Mill Creek Wetlands) be added as an approved regional treatment Best Management Practice (BMP) to the San Bernardino County Watershed Action Plan (WAP).

Regional Board staff reviewed the supporting documents and determined that additional information was needed. On May 14, 2014, the City submitted the additional information via electronic mail. Subsequently, our office received the following revised section of the Resource Management Plan (RMP)¹ : 1) Mill Creek Bioassessment Methodology, dated June 4, 2014 (Section 4), 2) Water Quality Monitoring Plan, dated June 6, 2014 (Section 5), and 3) Operations and Maintenance Program, dated June 13, 2014 (Section 6). These revised sections were approved by the Regional Board Prop 40/13 Grant Manager on July 22, 2014,

After reviewing the documents submitted, Regional Board staff has determined that the Mill Creek Wetlands, designed to receive urban runoff from Cucamonga Channel including flow from the upstream County Line Channel, meet the municipal separate storm water system permit (MS4 Permit)² requirements for a regional treatment BMP and may therefore be added to the San Bernardino County WAP as a Regional Treatment BMP with the following provisions:

¹ Water Quality Monitoring Plan for the Cucamonga Creek Watershed Regional Water Quality Project (Mill Creek Wetlands), June 2014, VCS Environmental

² Waste Discharge Requirements for the County of San Bernardino and the Incorporated Cities of San Bernardino County, Order No. R8-2010-0036, NPDES NO. CAS618036, Area-wide Urban Storm Water Runoff
http://www.waterboards.ca.gov/santaana/board_decisions/adopted_orders/orders/2010/10_036_SBC_MS4_Permit_01_29_10.pdf

- 1) Section II.G.15 of the MS4 Permit reflects the Regional Board's intent to provide an alternative integrated approach to project-level analysis for new development projects. Addition of the Mill Creek Wetlands as a regional BMP to the WAP allows exemption from project level analysis of hydrologic conditions of concern (HCOC) for the 3,000 acre new development (New Development) within the footprint specified in the enclosed maps (Exhibits 1 & 2) in the cities of Ontario and Chino. The New Development includes part of the residential development called the New Model Colony – East, within the City of Ontario, which drains through the County Line Channel and then onto Cucamonga Creek to the Mill Creek Wetlands, as well as a portion of Planning Area B, Planning Areas F & G of the Chino Preserve within the City of Chino. However, the cities of Ontario and Chino must continue to ensure that projects within the footprint of the New Development meet onsite source control and low impact development performance standards, including the preferential BMP hierarchy, the 24 hour, 85th percentile storm event design capture volume and other applicable requirements of the MS4 Permit. The cities of Ontario and Chino must continue to ensure that projects within the New Development satisfy or have satisfied these requirements through properly approved Water Quality Management Plans under the MS4 Permit.
- 2) During wet weather, the Mill Creek Wetlands is reported to have the capacity to capture and treat the 2-year, 24-hour storm runoff from the 3,000 acres of the New Development. It is also designed to capture and treat dry weather nuisance flows from existing development within the entire 77 square mile watershed, including the New Development areas.

The City shall monitor tributary watershed and influent and effluent flows to validate the Mill Creek Wetland's wet and dry weather design capacity utilization from tributary areas and report this as part of BMP performance assessment. The City shall also track and provide a summary of the number of acres, name of the developers, as well as an updated tract map showing the new development areas that have received approval to discharge into the Mill Creek Wetlands. The above information shall be provided in the City's annual report required under the MS4 Permit at a minimum until after the first reporting period following construction completion and storm drain connection of the 3,000 acre development.

- 3) Monitoring will be conducted in accordance with the Mill Creek Wetlands RMP consistent with the grant agreements and regulatory permits issued by various agencies for this project. The Bioassessment Monitoring specified in the RMP does not include monitoring for benthic macroinvertebrates; Therefore, in addition to the Bioassessment Monitoring in the RMP, please implement bioassessment monitoring and reporting consistent with the Methods for Conducting Bioassessments in Freshwater Streams and Rivers

as described in the State Water Resources Control Board (SWRCB) website³. This methodology is consistent with the regional bioassessment monitoring procedures being conducted pursuant to the MS4 permit.

- 4) Section XI.B.3.b.vi of the MS4 Permit requires that BMP effectiveness monitoring and other design and operation maintenance information be included for all regional treatment control BMPs that are submitted for Regional Board approval. Approved regional BMPs must demonstrate effectiveness in reducing the target Pollutants of Concern. If the monitoring data and performance assessment submitted as part of the reporting requirements in the RMP and as specified in this letter do not continue to validate regional water quality benefits or if monitoring information shows the BMP to be detrimental to aquatic beneficial uses and sensitive habitats despite BMP modifications, the City must re-evaluate the Mill Creek Wetland's designation as a Regional Treatment BMP in the WAP.

Please submit the monitoring results and performance assessment as part of the City of Ontario's Annual Report under the MS4 Permit. Within 30 days of completion of all the required Performance and Bioassessment Monitoring and Reporting required under the State Water Resources Control Board (SWRCB) and Department of Water Resources (DWR) grants, the City must propose a revised monitoring and reporting plan and the basis for the revision. At a minimum, post-grant monitoring shall provide information on long term BMP effectiveness, demonstrate regional benefits and/or determine need for operational adjustment to attain water quality goals and protect beneficial uses of streams within the Cucamonga Watershed that may benefit from the regional BMP.

The summary below provides the basis for our approval of the HCOC exemption and inclusion of the Mill Creek Wetlands as a regional BMP for the Cucamonga Watershed.

Background:

The Mill Creek Wetlands are located in the City of Chino in San Bernardino County along Mill Creek/Cucamonga Creek, just upstream of the Prado Dam in the Santa Ana River Basin. Cucamonga Creek currently collects storm runoff, nuisance flows, and treated wastewater discharge from an approximate 77 square mile watershed that includes the cities of Ontario, Chino, Rancho Cucamonga and Upland in San Bernardino County and the city of Eastvale in Riverside County. The County Line Channel confluences with Cucamonga Creek Channel upstream of the diversion channel that convey dry and wet weather flows from the Cucamonga Creek Watershed

³ Collecting Benthic Macroinvertebrate Samples & Associated Physical and Chemical Data for Ambient Bioassessments in California - Standard Operating Procedures Manual - February 2007; http://www.waterboards.ca.gov/water_issues/programs/swamp/docs/swamp_sop_bio.pdf

onto the Mill Creek Wetlands Regional Treatment BMP. Cucamonga Creek and the upstream County Line Channel are engineered, hardened, and regularly maintained channels. South of the Hellman Avenue Bridge and north of Chino Corona Road, Cucamonga Creek transitions to a rip-rap lined outfall. Beyond the outfall, the name of the creek changes to Mill Creek, which continues in a southwesterly direction as a natural, unlined creek, until it confluences with the Santa Ana River within Prado Basin. The watershed, as a whole, is approximately 25% impervious based on land use data from 2005 (SCAG, 2005)⁴. The following reaches tributary to the Mill Creek Wetlands are on the Clean Water Act Section 303(d) list of impaired waters⁵ for the specified pollutants of concern (POCs):

- Cucamonga Creek Reach 1 (Valley Ranch) is listed as impaired for metals (cadmium, copper, lead and zinc) and Coliform Bacteria.
- Mill Creek (Prado Area) is listed as impaired for nutrients, pathogens, and Total Suspended Solids (TSS).
- Middle Santa Ana River, Reach 3, is listed as impaired for metals (copper and lead) and Pathogens.

The Mill Creek Wetlands project is designed to achieve water quality treatment by diverting wet weather flows from the Cucamonga Creek Channel, routing them through a series of cascading ponds that combine constructed wetlands and wet extended detention basin treatment features prior to returning treated flows back to Mill Creek, 0.67 mile downstream of the diversion.⁶ During wet weather, this project is designed to capture and treat the 2-year, 24-hour storm runoff from 3,000 acres of new residential developments, which include part of the New Model Colony – East within the City of Ontario, as well as a portion of Planning Area B, Planning Areas F & G of the Chino Preserve within the City of Chino. Based on previous phone conversation with City staff, it's Regional Board staff's understanding that only a certain percentage of each Specific Plan area (i.e., all of the colored areas shown in Exhibit 1), and not the entire New Model Colony – East, will be captured and treated by the Mill Creek Wetlands. The exact percentage depends on the number of acres that have been allotted to each developer based on a construction agreement between each developer and the New Model Colony Builders, LLC. The City of Ontario will be responsible for keeping track of the number of the acres allotted to each developer to ensure no more than 3,000 acres of new development will be draining to the Mill Creek Wetlands project. Storm water

⁴ Geosyntec (September 2012). Quality Assurance Project Plan (QAPP), Sections 3.4 (Cucamonga Creek Channel Contribution), page 3-3

⁵ 2010 California 303(d) list of Water Quality Limited Segments (category 5), USEPA Final Approval: October 11, 2011
http://www.waterboards.ca.gov/water_issues/programs/tmdl/2010state_ir_reports/category5_report.shtml

⁶ Geosyntec, Cucamonga Creek Watershed Regional Water Quality Project (Mill Creek Wetlands) Water Quality Design Report, Revision 2: August 13, 2012, Section 2.1

conveyance from Planning Area G of the Chino Preserve has not been determined yet and is therefore not indicated on the map shown in Exhibit 2.

The Mill Creek Wetlands will also provide treatment for a portion of dry weather flows in Cucamonga Creek Channel from the entire 77 square mile watershed, including the new development areas. Nutrients and bacteria will be treated within the constructed wetlands integrated within each treatment pond. To a lesser degree sediments and metals will also be treated depending on the dry weather influent quality.⁷

The Mill Creek Wetlands project is intended to reduce the levels of the POCs mentioned above, which left untreated, can further impair the Mill Creek/Cucamonga Creek. Construction of this project was completed and water has since been diverted to the Mill Creek Wetlands. The official operation date has been tentatively set for September 2014.

State Water Resources Control Board (SWRCB) 2005-2006 Consolidated Grants - Proposition 40, Integrated Watershed Management Implementation Program and Proposition 13, Watershed Protection Program Grant Funding Agreements

The City of Ontario received Proposition 40 and Proposition 13 grant funding from the (SWRCB) that require the Mill Creek Wetlands project to demonstrate a measurable reduction of any pollutants of concern (sediment, metals, bacteria/pathogens and nutrients).

The executed Grant Agreement (Agreement No. 06-176-558-3) between the SWRCB and the city of Ontario requires the submittal of Global Positioning System (GPS) information for project site and monitoring locations and the preparation and implementation of a Project Assessment and Evaluation Plan (PAEP) to detail the methods of measuring and reporting the Mill Creek Wetlands project benefits. Subsequently, a PAEP (May 2012) was submitted to the Grant Manager for review. The PAEP indicates that a Water Quality Monitoring Plan, including schedule for submitting monitoring reports, was to be developed and provides the following list of desired outcomes (deliverables) for the Mill Creek Wetlands project:

- Prepare a Water Quality Monitoring Plan to assess pre-Project conditions of Cucamonga/Mill Creek;
- Construction of a regional water quality treatment wetlands project designed to reduce pollutant loads during both the wet- and dry-weather conditions, including targeting reductions of total suspended solids, metals, bacteria and nutrients;

⁷ Geosyntec (October 2012). Monitoring and Reporting Program, Sections 3.1.2 (Analytical Program), page 7

- Reduce pollutant loads on a regional basis to support the regional goal of providing clean drinking water to downstream water users;
- Optimize the water quality treatment system design to provide regional water quality benefits;
- Increase quality and quantity of native habitat; and
- Provide for passive recreational uses within the Project site.

While the PAEP provides a framework for assessing and evaluating the Mill Creek Wetlands project, the Resource Management Plan (RMP) is the actual implementation plan that includes water quality monitoring and reporting and specifies details as to how the deliverables listed above can be achieved. The Agreement states that projects that propose pollution load and/or concentration reductions must report such reductions annually. The term of the Agreement began on December 31, 2006 and continues through final payment plus thirty-five years. All work is required to be completed by June 30, 2014. The Agreement lists project deliverables including submittal of a Final Project Report that includes but not limited to, a determination of the effectiveness of the project in preventing or reducing pollution and the results of the monitoring program.

Department of Water Resources (DWR) Proposition 84 Integrated Regional Water Management Program (IRWMP) Implementation Grant Funding Agreements

The DWR Proposition 84 grant project description states that the Mill Creek Wetlands project will improve water quality, preserve and enhance the environment, improve regional integration and coordination, provide recreational opportunities, maintain quality of life, and provide economically effective water solutions.

The DWR and the Santa Ana Watershed Project Authority (SAWPA) entered into a Grant Funding Agreement (IRWMP Agreement) providing that SAWPA serve as the program manager for the disbursement of the IRWMP funds to Sub-Grantees. SAWPA subsequently entered into a Funding Contract with the City of Ontario as the Sub-Grantee of IRWMP funds. The Funding Contract requires the City of Ontario to prepare and maintain the Project Monitoring Plan (PMP) and requires DWR and SAWPA approval before the City implements any sampling or monitoring activities. Section 19 of the Contract requires the submittal of Post-Performance Reports to SAWPA within 75 calendar days after the first operational year of the project, then by March 15 of each year thereafter. The record keeping and reporting process is repeated annually for a total of 10 years after the completed project begins operations. Surface water quality monitoring data is required to be uploaded to the California Environmental Data Exchange Network (CEDEN) and a copy must be submitted to SAWPA.

Regional Treatment:

The Mill Creek Wetlands project is intended to address POCs (sediment, metals, bacteria/pathogens and nutrients) in wet weather storm flows. As designed, the Mill Creek Wetlands project is expected to provide additional benefit of treating a portion of dry weather flows in Cucamonga Creek to address nutrients and bacteria. The Mill Creek wetlands include the following three types of treatment BMPs:

- Forebay: the project includes a forebay as the first in the series of treatment BMPs, which allow trash, debris, and heavy sediments to separate from runoff.
- Wet weather: the project functions as a “hybrid” wet pond/wet extended detention basin system to provide treatment during wet weather conditions.
- Dry weather: the project includes a constructed wetlands system located within the wet pond/wet extended detention system to provide treatment during dry weather conditions.

The Water Quality Design Report that the City of Ontario provided as part of the October 3, 2013 submittal includes the following performance ratings for the wet extended detention Basin and for the Constructed Wetlands:

Table 1. Relative Performance Ratings of Wet Extended Detention Basin BMPs⁸

Pollutant Category	Wet Pond/Wet Extended Detention Basin		Dry Extended Detention Basin (REFERENCE ONLY)	
	CASQA BMP Handbook (2003)	San Bernardino County Model WQMP Guidance (2012)	CASQA BMP Handbook (2003)	San Bernardino County Model WQMP Guidance (2012)
Sediment	H	H/M	M	M
Metals	H	H	M	M
Pathogens	H	U	M	U
Nutrients	M	H/M	L	M
Trash	H	U	H	M

L = Low effectiveness H/M = High or medium effectiveness U = Unknown effectiveness

⁸ Geosyntec (August 2012). Water Quality Design Report, Sections 3.2.2.1 (Wet Pond/Wet Extended Detention Basin), page 12

Table 2. Relative Performance Ratings of Constructed Wetlands⁹

Pollutant Category	Constructed Wetlands	
	CASQA BMP Handbook (2003)	San Bernardino County Model WQMP Guidance (2012)*
Sediment	H	H/M
Metals	H	H
Pathogens (i.e., indicator bacteria)	H	U
Nutrients	M	H/M
Trash	H	U

* Wetlands are grouped with wet ponds for purpose of ranking.

L = Low effectiveness

H/M = High or medium effectiveness

U = Unknown effectiveness

Both the Proposition 40/13 and DWR grants require that the Mill Creek Wetlands monitoring: 1) show a demonstrable improvement in water quality (Performance Monitoring) and 2) identify any stress placed on existing riparian habitat potentially caused by dry weather diversion of runoff from Cucamonga Creek (Bioassessment Monitoring)¹⁰. The RMP identifies the City of Ontario as the party responsible for Performance Monitoring, Bioassessment Monitoring and Operation and Maintenance. The requirements of the Grant Projects are consistent with requirements for implementation of Regional Treatment systems.

Exemption from Project Level Demonstration of Hydrologic Condition of Concern for 3,000 Acres of Proposed New Development Within the Cucamonga Creek Watershed:

On November 6, 2012, the City of Ontario requested that Regional Board staff review proposed revisions to the HCOC Map for the Cucamonga/Mill Creek Watershed as part of the Watershed Action Plan.

- 1) The City provided design information, calculations and associated assumptions¹¹ to show that the Mill Creek Wetlands are designed to provide capture, detention, and controlled release of volumes greater than the increase in the 2-year, 24 hour storm runoff volumes estimated for the planned 3,000 acres of the New Development in the Cities of Ontario and Chino during wet weather.

⁹ Geosyntec (August 2012). Water Quality Design Report, Sections 3.2.2.2 (Constructed Wetland), page 16

¹⁰ VCS Environmental (June 2014). Resource Management Plan, Section 5, Water Quality Monitoring Plan for the Cucamonga Creek Watershed Regional Water Quality Project (Mill Creek Wetlands), Sub-section 3.3, page 11

¹¹ Geosyntec Consultants (October 29, 2012). Exhibit 4, Technical Memorandum from Ken Susilo, Aaron Poresky, Julie Stephenson, to Raymond Lee, Assistant Engineer, City of Ontario, Information Supporting HCOC Evaluation Exemption for Development in the Lower Cucamonga/ Mill Creek (Mill Creek Wetlands Project), submitted to Regional Board via email on November 6, 2012

- a. The Mill Creek Wetlands was reported to be designed with a wet weather detention volume of 147 acre-feet (AF) which is greater than the 2 year 24-year storm runoff volume of 120 AF estimated from the planned development.
- b. Diversion structure for the Mill Creek Wetlands was reported to be designed to divert approximately 127 cfs which represent 9% of the total estimated 2-year flow rate in the Cucamonga Channel. The portion of the flow rate attributable to the planned development is estimated to be equivalent to 6% of the total 2-year flow in the channel which is within the design capacity of the diversion structure.
- c. Outlet structures were reported to be designed to drawdown over a period of 48 hours resulting in peak flow reduction. The controlled release delays the volumetric discharge back to Mill Creek. The controlled release also lengthens the time of concentration compared to the travel time between the Mill Creek Wetlands diversion and return channel.
- d. The outlet structures were designed to maintain normal dry weather water surface elevation in the basins while detaining surcharge volume and target a drawdown time of approximately 48 hours prior to returning the flow to the natural segment of Mill Creek.

Since the flow characteristics of storm water runoff generated by a 2 year, 24 hour storm event from the New Development will be substantially controlled and modified by flow diversions into the Mill Creek Wetlands prior to discharge into the natural unlined segment of Mill Creek, Regional Board staff have determined that requiring Hydrologic Conditions of Concern evaluation at the project level in these drainage areas would not provide additional stream protection. However, Low Impact Development (LID) and site design BMPs, including design capture volume (DCV), are still required to be implemented on new development and any significant redevelopment projects within these drainage areas and will provide additional volume reduction to protect the unlined segment of Mill Creek downstream of the Mill Creek Wetlands.

2) Sensitive Stream Habitat Areas

The City provided a Summary of Measures for Sensitive Habitat Mitigation Related to the Mill Creek Wetlands to address HCOC exemption requirements related to sensitive habitat areas.¹²

a. NEPA/CEQA Compliance

The Mill Creek Wetlands is located on land owned by the U.S. Army Corps of Engineers (USACE). As required under NEPA, the USACE finalized an

¹² VCS Environmental (October 26, 2012). Technical Memorandum from Peter Carlson to Raymond Lee, Assistant Engineer, City of Ontario, Summary of Measures for Sensitive Habitat Mitigation Related to the Mill Creek Wetland.

Environmental Assessment (EA) and issued a Finding of No Significant Impact (FONSI) on January 20, 2012. Subsequent engineering design and review resulted in changes that required additional analysis that those changes will not cause new or more intense environmental impacts. An Addendum to the EA was finalized on June 12, 2012 and the USACE issued a new FONSI.

The City of Ontario, as the Lead Agency under CEQA, filed a Notice of Determination (NOD) after circulating an Expanded Initial Study/Mitigated Negative Declaration (IS/MND). As with the NEPA documents, revisions to the project required the City to prepare an Addendum IS/MND. The City filed a new NOD on June 27, 2012.

b. Endangered Species Act

The Mill Creek Wetlands project is located within designated Critical Habitat for the endangered Least Bell's Vireo (LBV) and will impact riparian habitat within the Critical Habitat area. After Section 7 consultation and discussion of the Biological Assessment document with USACE and the California Department of Fish and Wildlife, the USFWS issued a Not Likely to Adversely Affect determination. The determination concludes that with mitigation, the Mill Creek Wetlands project will not adversely affect the LBV and take authorization is not required.

c. Regulatory Permits issued for the Mill Creek Wetlands project includes:

- Clean Water Act Section 401 Water Quality Certification issued by the RWQCB on June 4, 2012.
- Clean Water Act Section 404 Individual Permit issued by the USACE on August 10, 2012.
- Fish and Game Code Section 1602 Streambed Alteration Agreement issued by CDFG (now CDFW) on September 25, 2012.

All of the environmental documents noted above include mitigation measures designed to minimize and mitigate potential biological impacts¹³.

Operation and Maintenance:

The City of Ontario staff confirmed that the City is the ultimate responsible party for monitoring the treatment effectiveness as well as implementing the Operation and Maintenance Program for the Mill Creek Wetlands. The City has indicated that they may contract out many, if not all, of the management and implementation duties of the project. Also, given the numerous sensitive biological issues surrounding this project,

¹³ Appendix A of the Resource Management Plan

the City also anticipates the hiring, either on staff or as a consultant, a biologist who will act as the Project Biologist to oversee certain tasks of the project.

Finally, Regional Board staff commend and appreciate the City of Ontario's efforts to improve water quality discharged from the Cucamonga Creek Watershed and to enhance aquatic and riparian habitat. The recreational and educational focus of the Mill Creek Wetlands project will also provide a regional benefit to the watershed.

Should you have any questions, please contact Kathleen Fong at (951) 774-0114 or at Kathleen.Fong@waterboards.ca.gov, Keith Elliott at (951) 782-4925 or at Keith.Elliott@waterboards.ca.gov or Milasol Gaslan at (951) 782-4419 or at Milasol.Gaslan@waterboards.ca.gov.

Sincerely,



Kurt V. Berchtold
Executive Officer

Enclosures: 401 Certification Letter Dated June 4, 2012,
Exhibits 1 & 2 showing footprint of the new residential development
included in the project

cc (via e-mail): Raymond Lee, Assistant City Engineer, City of Ontario,
rlee@ci.ontario.ca.us

Steve Wilson, NPDES Coordinator, City of Ontario
swilson@ci.ontario.ca.us

Ruben Valdez, NPDES Coordinator, City of Chino
rvaldez@cityofchino.org

Marc Rodabaugh, Stormwater Program Manager, San Bernardino
County Flood Control District, marc.rodabaugh@dpw.sbcounty.gov

James E. Mace, Senior Project Manager, South Coast Branch, U.S.
Army Corps of Engineer, james.e.mace@usace.army.mil

Jeff Brandt, California Department of Fish and Wildlife,
Jeff.Brandt@wildlife.ca.gov

Michele Stebbins, Project Analyst, Division of Financial Assistance,
State Water Resources Control Board,
Michele.Stebbins@waterboards.ca.gov

cc: (continued)

Mark Norton, Santa Ana Watershed Project Authority,
mnortor@sawpa.org

NMC Builders, Omar Dandashi, NMC Builders/Lewis Operating
Corp., omar.dandashi@lewisop.com



EDMUND G. BROWN JR.
GOVERNOR



MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Santa Ana Regional Water Quality Control Board

June 4, 2012

Louis Abi-Younes
City of Ontario
303 East B Street
Ontario, CA 91764

labiyoun@ci.ontario.ca.us

**CLEAN WATER ACT SECTION 401 WATER QUALITY STANDARDS
CERTIFICATION FOR THE CUCAMONGA CREEK WATERSHED REGIONAL
WATER QUALITY (MILL CREEK WETLANDS) PROJECT, COUNTY OF SAN
BERNARDINO, CALIFORNIA (ACOE REFERENCE NO. NOT AVAILABLE)
(SARWQCB PROJECT NO. 362012-09)**

Dear Mr. Abi-Younes:

On March 19, 2012, we received an application for Clean Water Act Section 401 Water Quality Standards Certification ("Certification") from the City of Ontario, for its Cucamonga Creek Watershed Regional Water Quality Project (Mill Creek Wetlands) project (the Project). The purpose of the project is to construct, operate and maintain a regional Best Management Practice (BMP) that will improve the quality of runoff discharged from the Cucamonga Creek Watershed, enhance aquatic and riparian habitat, and create associated passive outdoor recreational opportunities. This letter responds to your request for certification that the proposed project, described in your application and summarized below, will comply with State water quality standards outlined in the Water Quality Control Plan for the Santa Ana River Basin (1995) (Basin Plan) and subsequent Basin Plan amendments:

Project Description: The Project is one component of the City of Ontario's strategy to treat discharges from the City's target municipal separate storm sewer system (MS4) watershed, including New Model Colony. Flows will be diverted from Cucamonga Creek, which currently carries storm runoff, nuisance flows, and treated wastewater from an approximate 77 square-mile watershed that includes the cities of Ontario, Chino, Rancho Cucamonga, and Upland. The Project includes the construction, operation, and maintenance of a diversion pipe and a series of wetland ponds for the purpose of regional water quality treatment of urban runoff. These facilities will be located in uplands adjacent to Cucamonga/Mill Creek.

CAROLE H. BESWICK, CHAIR | KURT V. BERCHTOLD, EXECUTIVE OFFICER

3737 Main St., Suite 500, Riverside, CA 92501 | www.waterboards.ca.gov/santaana

requirements of Order No. R8-2010-0036 (NPDES Permit No. CAS618036), commonly known as the San Bernardino County Municipal Storm Water Permit, and subsequent iterations thereof. As a co-permittee of Order No. R8-2010-0036, you are required to substantially comply with the requirements of the State Water Resources Control Board's General Permit for Storm Water Discharges Associated with Construction Activity, including the preparation of a SWPPP.

Over time, the Project's constructed water quality treatment wetlands will support beneficial uses that are recognized in the Basin Plan. Likely beneficial uses of the wetlands will include WILD, WARM, RARE, REC1 and REC2. These wetlands will become waters of the State and of the United States. If necessary, the Regional Board may take regulatory actions that it deems necessary and appropriate to ensure that the wetlands are not adversely affecting other waters, and that they are properly operated and maintained and that their beneficial uses are reasonably protected.

A Notice of Determination for a Mitigated Negative Declaration for the project was filed by the City of Ontario on January 20, 2012. Pursuant to California Code of Regulations, Title 14, Chapter 3, Section 15096, as a responsible agency, the Regional Board is required to consider an Environmental Impact Report (EIR) or a Negative Declaration prepared by the lead agency in determining whether to approve a project. A responsible agency has responsibility for mitigating and avoiding only the direct and indirect environmental effects of those parts of the project which it decides to carry out, finance, or approve. Further, the responsible agency must make findings as required by Sections 15091 and, if necessary, 15093, for each and every significant impact of the project. The Regional Board has independently considered the City's Negative Declaration in making this certification and finds that changes or alterations have been required or incorporated into the proposed project which avoid or mitigate impacts to water quality to a less than significant level.

This 401 Certification is contingent upon the execution of the following conditions:

- 1) The applicant must comply with the requirements of the applicable Clean Water Act section 404 permit.
- 2) All materials generated from construction and maintenance activities associated with this project shall be managed appropriately. This shall include identifying all potential pollution sources within the scope of work of this project, and incorporating all necessary pollution prevention BMPs as they relate to each potential pollution source identified.
- 3) The project proponent shall utilize BMPs during project construction and maintenance to minimize the controllable discharges of sediment and other wastes to drainage systems or other waters of the state and of the United States.

- 10) Best management practices to stabilize disturbed soils must include the use of native plant species whenever feasible.
- 11) Construction de-watering discharges, including temporary stream diversions necessary for project construction may be regulated under Regional Board Order No. R8-2009-0003, General Waste Discharge Requirements for Discharges to Surface Waters that Pose an Insignificant (De Minimus) Threat to Water Quality. For more information, please review Order No. R8-2009-0003 at www.waterboards.ca.gov/santaana/
- 12) May 29, 2012 The applicant shall ensure that all fees associated with this project are paid to each respective agency prior to conducting any on-site construction activities.

Under California Water Code, Section 1058, and Pursuant to 23 CCR §3860, the following shall be included as conditions of all water quality certification actions:

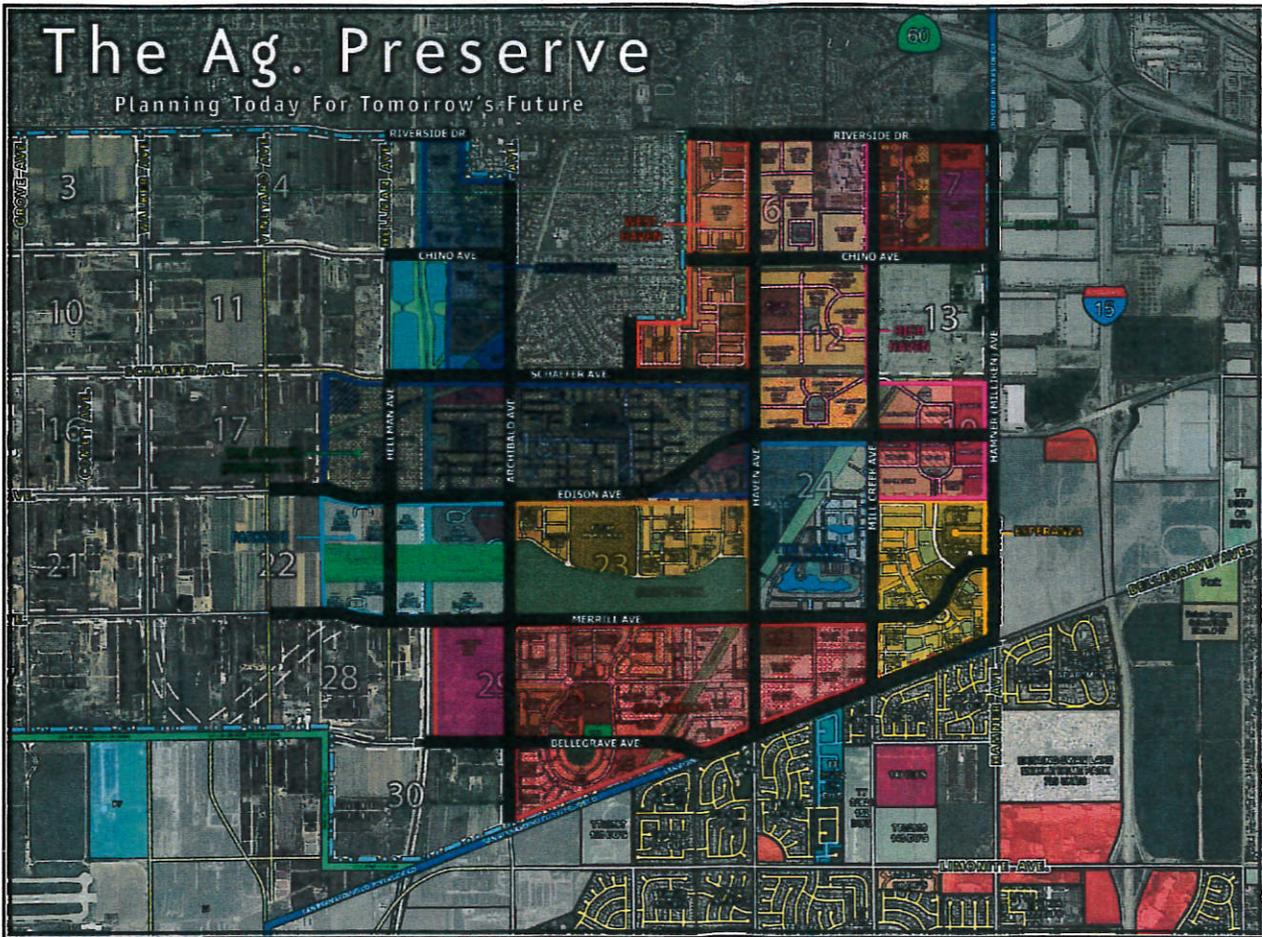
- (a) Every certification action is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to Section §13330 of the Water Code and Article 6 (commencing with Section 3867) of this Chapter.
- (b) Certification is not intended and shall not be construed to apply to any activity involving a hydroelectric facility and requiring a FERC license or an amendment to a FERC license unless the pertinent certification application was filed pursuant to Subsection §3855(b) of this Chapter and that application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.
- (c) Certification is conditioned upon total payment of any fee required under this Chapter and owed by the applicant.

If the above stated conditions are changed, any of the criteria or conditions as previously described are not met, or new information becomes available that indicates a water quality problem, the Regional Board may require the applicant to submit a report of waste discharge and obtain Waste Discharge Requirements.

In the event of any violation or threatened violation of the conditions of this certification, the holder of any permit or license subject to this certification shall be subject to any remedies, penalties, process or sanctions as provided for under state law. For purposes of section 401(d) of the Clean Water Act, the applicability of any state law authorizing remedies, penalties, process or sanctions for the violation or threatened violation constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into this certification. Violations of the conditions of this certification may subject the applicant to civil liability pursuant to Water Code section 13350 and/or 13385. This letter constitutes a Water Quality Standards Certification issued pursuant to Clean Water Act Section 401. I

The Ag. Preserve

Planning Today For Tomorrow's Future



LEGEND

Specific Plan

- Countryside
- Park Place
- Esperanza
- Edenglen
- Parkside
- Rich-Haven
- The Avenue
- West Haven
- Great Park
- The Lakes

Summary

Countryside	104 Acres
Park Place	390 Acres
Esperanza	105 Acres
Edenglen	75 Acres
Parkside	130 Acres
Rich-Haven	226 Acres
The Avenue	288 Acres
West Haven	122 Acres
Great Park	48 Acres
The Lakes	87 Acres
	1575 Acres

Available Residential Water Quality Capacity 442 Acres

Master Planned Streets 289 Acres

Public Parks 214

Acres 507 Acres
Fire Station 4 Acres

Approved: _____

Louis Abi-Younes, P.E. Date
City Engineer



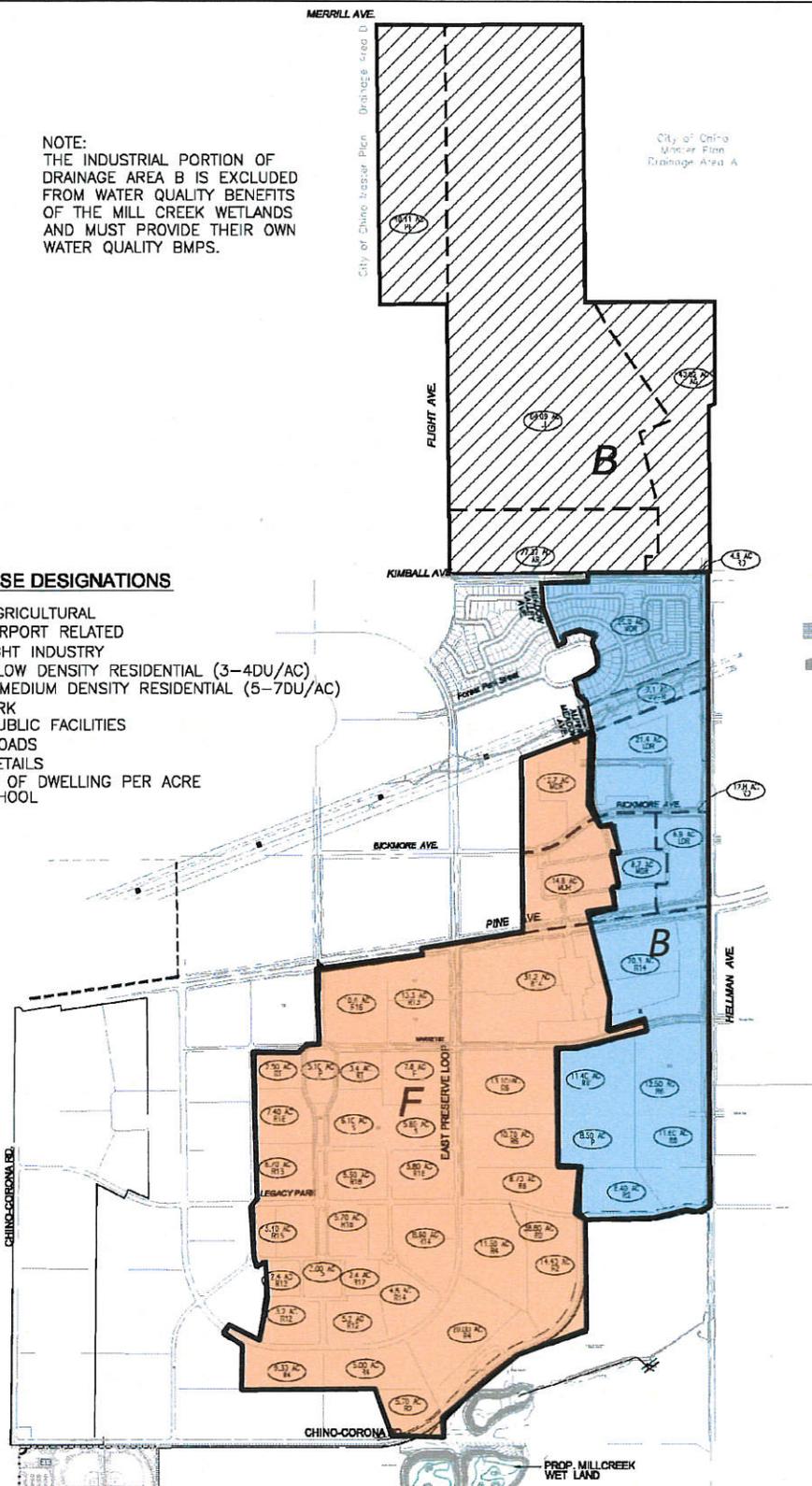
New Model Colony - East

Green Water Treatment Plant, Abstraction Wells, Ponds, etc.

NOTE:
THE INDUSTRIAL PORTION OF
DRAINAGE AREA B IS EXCLUDED
FROM WATER QUALITY BENEFITS
OF THE MILL CREEK WETLANDS
AND MUST PROVIDE THEIR OWN
WATER QUALITY BMPS.

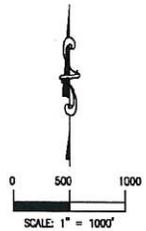
LAND USE DESIGNATIONS

- AG - AGRICULTURAL
- AR - AIRPORT RELATED
- LI - LIGHT INDUSTRY
- LDR - LOW DENSITY RESIDENTIAL (3-4DU/AC)
- MDR - MEDIUM DENSITY RESIDENTIAL (5-7DU/AC)
- P - PARK
- PF - PUBLIC FACILITIES
- RD - ROADS
- RT - RETAILS
- R4 - # OF DWELLING PER ACRE
- S - SCHOOL



LEGEND

- DRAINAGE SUB-AREA IN ACRE
- PROPOSED LAND USE
- DRAINAGE AREA BOUNDARY
- DRAINAGE AREA DESIGNATION



L.D. KING, INC.
ENGINEERS/PLANNERS/SURVEYORS
2151 CONVENTION CENTER WAY
SUIT 100
ONTARIO, CA. 91764

**Water Quality
Overall Drainage Areas**



PAUL S. LEON
MAYOR

ALAN D. WAPNER
MAYOR PRO TEM

JIM W. BOWMAN
DEBRA DORST-PORADA
PAUL VINCENT AVILA
COUNCIL MEMBERS

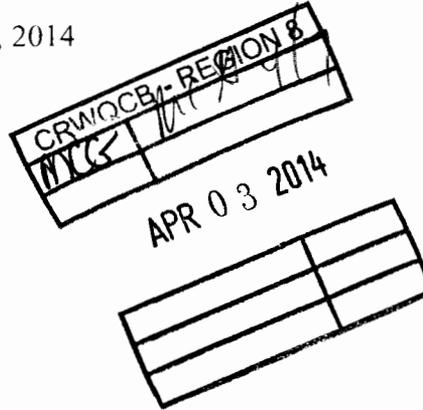
ENGINEERING DEPARTMENT

March 28, 2014

AL C. BOLING
CITY MANAGER

MARY E. WIRTES, MMC
CITY CLERK

JAMES R. MILHISER
TREASURER



Mr. Mark Rodabaugh
Stormwater Program Manager
San Bernardino County Flood Control District
825 E Third Street
San Bernardino, CA 92415

SUBJECT: Addition of the Mill Creek Wetland project as an approved regional BMP to the San Bernardino County Watershed Action Plan

Dear Mr. Rodabaugh:

The City of Ontario is requesting inclusion of the Mill Creek Wetlands (MCW) project in the San Bernardino County Watershed Action Plan (WAP) under a new Section to be entitled "Approved Regional Treatment Control and HCOC Mitigation Projects". The City would like to recommend the new section replace the current Section 7.9 "Recommendations for Streamlining the Regulatory Process" and the current Section 7.9 be renamed, Section 7.10.

The following text is recommended under the new Section 7.9 heading:

"As approved regional treatment control BMPs and retrofit sites are developed in accordance with Section XI.B.3.a.ix. and XI.B.3.b.vi-vii. of the Permit, those project will be included in Appendix L. Each project description will include the information items listed in Section 7.10 (below) as well as supporting documentation including regulatory agency approvals and permits and operation and maintenance agreements for these regional facilities."

In Appendix L of the WAP, the City would like to include the information listed in the attached description for the Mill Creek Wetland Project (below), as well as the attached Cucamonga Creek Trails & Riparian Restoration Project illustration Map. Additional information may eventually be included, for this project, in Appendix L, following the Regional Board Staff's approval of this project.

In recommending inclusion of the Mill Creek Wetland project in Appendix L of the WAP, prior to the submittal of the final revisions to the WAP- Phase 2 document, the City of Ontario is citing the Regional Board Staff's previous comments on the Draft Revised WAP, dated January 8, 2014, under Comment

2(c), regarding identification of retrofit opportunities in the WAP, Board staff stated: "You can identify projects that are already in place with regional treatment benefits for existing development or drainage areas—i.e. Mill Creek Wetland in the Cucamonga/Mill Creek watershed—providing dry weather treatment for existing (*urbanized area runoff*) and about 3500 acres of dry and wet (*weather flows*) from proposed development."

We appreciate your time in reviewing our request and appreciate the support of the San Bernardino County Flood Control District on our proposal to include the Mill Creek Wetlands project, in the final revisions to the San Bernardino County WAP, Phase 2 document, as a regional BMP.

Sincerely,

A handwritten signature in black ink that reads "Stephen Wilson". The signature is fluid and cursive, with the first name "Stephen" and last name "Wilson" clearly legible.

Stephen Wilson, CPESC/QSD
Environmental Water/Wastewater Engineer
City of Ontario
(909) 395-2389

Enclosure

c: Raymond Lee, City of Ontario
Milasol Gaslan, Santa Ana Regional Water Board

PUBLIC AMENITIES

COMET ROAD



1 REGIONAL RECREATION

A multi-modal regional trail connecting numerous communities to the open space along the Creek could accommodate hikers, bicyclists, and equestrians.



2 LOCAL RECREATION

A trail system around the water treatment ponds will provide a local recreational component as well as allow for maintenance of the site.



3 PUBLIC ACCESS

A small permeable-surface parking area off of Chino-Corona Road will serve as a trailhead for both the local and regional trail systems. Interpretive signage and area trail maps will assist visitors.



4 INTERPRETIVE OPPORTUNITIES

Informative signage located at overlooks will illustrate the environmental issues of the area including stormwater management, habitat restoration, and the wetland treatment system.



5 PUBLIC ENTRYWAY

The welcoming entry area from Chino-Corona Road could feature such amenities as interpretive exhibits, trail maps, and bicycle racks.



6 INTERPRETIVE GATE

Utility gates could be modified to become artistic interpretive elements that greet visitors at the site entry.



7 MEASURED LOOPS & COURSES

Trail markers could be placed at trailside for runners and other recreational users benefit and to accommodate organized cross-country events.



REGIONAL TRAIL CONNECTION TO EDGEWATER

REGIONAL TRAIL CONNECTIONS TO ONTARIO NEIGHBORHOODS

DROP-OFF AREA

PARKING LOT

CHINO-CORONA ROAD

DIVERSION LINE

MILL CREEK

CUCAMONGA CREEK

CITY OF ONTARIO



Cucamonga Creek Trails and Riparian Restoration Project

TRAIL FEATURES



8 WETLAND POND OVERLOOK

Walking through the willow riparian habitat provides an opportunity to experience birds and plants up close. Interpretive signs could further describe the ecology and importance of the riparian habitat.



9 UPLAND & WILLOW RIPARIAN HABITATS

A trail along the pond embankment provides opportunities to experience the treatment ponds and natural creek. Interpretive signs could elaborate the value of willows, mulefat, alders, and poplars for wildlife.



10 WIND FAMILY HISTORY

From the trail around the forebay—the top settling basin—interpretive signage could detail local farming history, the Wind Family, and other early settlers.



11 CALIFORNIA HABITATS TRAIL

A diverse series of native habitats will establish themselves along a hydraulic gradient from the river to the higher elevations. The changes in habitat provide shelter and food for native animals, birds, and insects.

EDUCATIONAL FOCUS



12 INTERPRETIVE SIGNAGE

Signage located throughout the Project could be increased and feature a wide variety of topics including local history, habitat, environmental water quality and the regional value of the Prado Basin.



13 INTERACTIVE OPPORTUNITIES

Interactive educational opportunities will provide visitors with hands-on experiences to engage their senses as they expand their knowledge on local resources, history and culture.



14 LOOK BUT DO NOT TOUCH

With images of area wildlife that a visitor might encounter, interpretive signage could highlight the roles that each plays in the environment and how to interact safely with these local residents.



15 RAPTORS OVERHEAD

Irrigated areas within the site support trees along the trail for raptor habitat. Visitors may observe hawks and falcons circling high above the fields and creek flood plain.



16 WATER QUALITY

Cleaned stormwater will re-enter Mill Creek through a naturalized drainage outlet. Visitors will be able to experience the reestablished riparian habitats adjacent to the stream course.

Funding for this project has been provided in full or in part through an agreement with the Santa Water Resources Control Board. The contents of this document do not necessarily reflect the views and policies of the Santa Water Resources Control Board, nor does mention of trade names or commercial products constitute endorsement or recommendation on its part. (Gov. Code 7550, 40 CFR 31.20)

MILL CREEK WETLAND REGIONAL BMP FACILITY

Introduction

In addition to creating, protecting and restoring the region's ecosystems, while enhancing recreational and educational uses, the Mill Creek Wetland is a unique multi-jurisdictional project designed to serve as a regional LID BMP to mitigate runoff from 3,000 acres of new residential development within the Cities of Ontario and Chino.

The Mill Creek Wetland (MCW) is located in the City of Chino, at the terminus of Cucamonga Creek and immediately west of the Mill Creek crossing, at Chino Corona Road. The project is designed to restore and protect the beneficial uses of water in the Santa Ana River through the control of non-point source pollution. Specifically, the MCW will provide an effective natural treatment process for reducing 303(d) listed pollutants including Bacteria/Pathogens, Nutrients, Suspended Solids and Metals, as well as other pollutants commonly found in urban runoff including Organic Compounds, Oil & Grease, Sediment, Trash/Debris and TDS.

Spearheaded by the City of Ontario, in partnership with the US Army Corps of Engineers, the City of Chino, and private landowners, the MCW project is supported by the County of San Bernardino, the Inland Empire Utilities Agencies, the Orange County Water District, and other local state agencies. The Project's regional approach is also supported by the State Natural Resources Agency, State Water Quality Resources Control Board and the Department of Water Resources through grant funding and is an integral part of the Santa Ana Watershed Project Authority's (SAWPA) Integrated Regional Watershed Management Plan, "One Water, One Watershed" (OWOW). The project has already received CEQA/NEPA approval, CWA 401, 404 and 408 Permits and a CDFG 1602 Streambed Alteration Permit for diversion of flows in Mill Creek. An outgrant from the Army Corp of Engineers for construction of this project on Army Corps land was also applied for and received, based on the Corps determination that the project had regional benefits.

PROJECT DESCRIPTION AND TECHNICAL SUMMARY

1. Project Description:

The Mill Creek Wetlands project consists of a series of hydraulically connected water quality detention basins that incorporate wetland and riparian areas, recreational trails and educational kiosks, and water treatment components (see attached). The MCW is designed to treat portions of both dry and wet weather flows in the Cucamonga Creek Channel/Mill Creek channels, which would otherwise continue flowing into the Middle Santa Ana River, Santa Ana River Reaches 1 and 2 and the Pacific Ocean, untreated for pollutants of concern.

The MCW achieves water quality treatment and HCOC mitigation by diverting flows from the Cucamonga Creek Channel, routing diverted flows through a series of cascading wetland/wet extended detention basins and returning treated flows back to Mill Creek, 0.67 miles downstream of the diversion. The Cucamonga Creek Channel, at the point of diversion, drains a watershed of approximately 77 square miles. This watershed area incorporates the tributary areas of Lower Deer Creek, West Cucamonga Creek and Cucamonga Creek Channel. The MCW will also accept diverted stormwater runoff and nuisance flows from two storm drains that pass through the Project area from the City of Chino, the Chino-Corona Road drain and the Hellman Avenue drain. These drains currently discharge untreated into Cucamonga Creek/Mill Creek.

Grading and construction of the project was completed in June, 2013. Landscaping of the project began in October, 2013. Beginning in June, 2014, the completed project will begin accepting diverted dry weather flows from Cucamonga Creek.

2. Permit Process and Outside Agency Approvals:

Previously, the City of Ontario applied for and received CEQA/NEPA approval, CWA 401, 404 and 408 Permits and a CDFG 1602 Streambed Alteration Permit for diversion of flows in Mill Creek. An outgrant from the Army Corp of Engineers for construction of this project on Army Corps land was also applied for and received, based on the Corps determination that the project had regional benefits.

3. Expected benefits:

Anticipated Water Quality benefits include regional treatment of both dry-weather nuisance flows as well as stormwater flows, reduction of floodwaters to Mill Creek, conserving natural open space for recreational and educational uses and reduction of erosion and sediment transport and Hydrologic Conditions of Concern on Mill Creek, through the creation of detention ponds and wetland channeling. In addition, the project will benefit the dry-weather TMDL for Bacteria/Pathogens issued for Mill Creek/Cucamonga Creek and the Middle Santa Ana River.

As designed, the Mill Creek Wetland project implements Region 8 mandates for applying post-construction BMPs in new development projects, on a regional basis and meets the objective of the WAP to improve integration of water quality, stream protection, storm water management and flood protection with land use planning and development processes.

4. MS4 Permit Required Reporting items for approval of a regional treatment control BMP:

- 1) **BMP Location** – Prado Basin, west of Mill Creek at Chino Corona Road.
- 2) **Type & Effectiveness in removing pollutants of concern** – Wetlands and Wet Detention Basins are rated as Medium to High in effectiveness for removing Bacteria/Pathogens, Nutrients Suspended Solids and Metals and reductions in constituent concentrations of 50% to 90% are typically achieved with all expected

pollutants of concern generated from proposed developments and with typical pollutants generated from the greater Cucamonga Creek and Mill Creek watershed. Reductions in POCs are expected through the processes of infiltration, plant use and uptake, adsorption, destruction by UV and predation.

- 3) **Projects tributary to Mill Creek Wetlands** – 2,000 acres of residential development projects in the area identified as the “New Model Colony – East”, including 500 acres of master planned streets and public parks and 500 acres of new residential development in the City of Chino.
- 4) **Engineering Design Details** – The Design Details of this project are found in the Project plans, currently on file with the City of Ontario. The Forebay and Retention Basins included in this project provide adequate Design Capture Volume of 147 acre feet of stormwater runoff, which is appropriate for treating the 2-yr, 24-hour storm event runoff from 3000 acres of new development, described above.

Additional information on the Mill Creek Wetland project is provided in the following reference documents, which are on file with the City of Ontario, Engineering Department:

- Water Quality Design Report
- Construction Drawings
- Hydraulic Analysis
- Resource Management Plan

- 5) **Funding Sources for construction, operation and maintenance** – The City of Ontario entered into a binding agreement with the NMC Builders, LLC, a consortium of developers of New Model Colony (NMC) development projects, within Ontario, to finance a significant portion of the Mill Creek Wetland project construction. In addition to matching funds from the City of Ontario, grant funding was applied for and received from Proposition 40, Proposition 84 and a Rivers and Parkway Grant, to fund project engineering and construction. The City of Ontario will fund ongoing maintenance through a Community Facilities Maintenance District assessment on new property owners in the New Model Colony (East) area.
- 6) **Parties responsible for monitoring effectiveness, operation and maintenance** - The City of Ontario is named as the responsible party for monitoring effectiveness, operation and maintenance of the MCW. Operation and Maintenance will include monitoring of all POCs in order to evaluate the effectiveness and modeling of treatment wetlands hydrodynamics and pollutant kinetics. This project will also provide a platform for increasing the knowledge base on wetland hydrodynamics and pollutant removal mechanisms. Since new residential project development in the NMC East area, with connection to the MCW, is only in the beginning stages of grading and construction, the current monitoring program for the project is in the process of establishing a historical database for the Cucamonga Creek watershed. Upstream measurements include stream flows, rain gage data and effluent monitoring data. At the project site, six

monitoring stations will be established to sample upstream and downstream levels of Bacteria/pathogens, Nutrients, TSS, and Metals. Consequent monitoring will direct design modifications and refine loading parameters and reductions. The monitoring database will conform to the Surface Water Ambient Monitoring Program template and Quality Assurance Project Plan with appropriate chain-of-custody and certified laboratory analysis. Quantitative water quality sampling will begin in the Spring of 2014, which follows a six month vegetative establishment period. Samples at all six locations will be provided to meet the grant requirements. The following three years are considered the adaptive management period. During this time, water quality sampling will occur to determine the effectiveness of the MCW and whether stressors are being placed on the riparian habitat in Mill Creek. During dry weather, sampling shall occur on a monthly frequency and during wet weather, three rain events per season shall be sampled. A requirement of the monitoring plan is to demonstrate a measureable reduction of any pollutant of concern

5. Additional benefits associated with the Mill Creek Wetland project:

- Increases the acreage of regional wetlands in San Bernardino County
- Incorporates riparian buffer zones between the wetlands and Mill Creek
- Protects downstream wetlands, riparian corridors & aquatic habitat in Prado Basin
- Improves outreach to community and promotes awareness of water quality
- Promotes understanding of stormwater management plans
- Integrates surface and groundwater improvement activities,
- Promotes cooperation by all agencies in Prado Basin
- Promotes technology transfer and improved coordination of Land Use Planning
- Improves ecological function
- Promotes regional technical assistance
- Project is consistent with ongoing efforts of the Santa Ana Watershed Project Authority in the Chino Basin to improve local stormwater and nuisance runoff quality prior to groundwater recharge