



California Regional Water Quality Control Board San Diego Region

Linda S. Adams
Secretary for
Environmental
Protection

Over 50 Years Serving San Diego, Orange, and Riverside Counties
Recipient of the 2004 Environmental Award for Outstanding Achievement from USEPA



Arnold
Schwarzenegger
Governor

9174 Sky Park Court, Suite 100, San Diego, California 92123-4340
(858) 467-2952 • Fax (858) 571-6972
[http:// www.waterboards.ca.gov/sandiego](http://www.waterboards.ca.gov/sandiego)

January 8, 2009

In reply refer to: WPN:07C-114:cloflen

Roger Cunliffe-Owen
City of Murrieta
One Town Square
24601 Jefferson Ave.
Murrieta, CA 92562

File No. 07C-114
CIWQS
Place ID: 710610
Reg. Measure ID 339174
Party ID: 348547
Person ID: 388812

Certified Mail:
70081140000499718993

Dear Roger Cunliffe-Owen:

SUBJECT: Action on Request for Clean Water Act Section 401 Water Quality Certification for the **Clinton Keith Road at I-215 Interchange Project** Water Quality Certification No. **07C-114**.

Enclosed find Clean Water Act Section 401 Water Quality Certification for the **Clinton Keith Road at I-215 Interchange Project** (Project). A description of the project and project location can be found in the project information sheet, project location map, and project site maps, which are included as Attachments 1 through 6.

Any petition for reconsideration of this Certification must be filed with the State Water Resources Control Board within 30 days of certification action (23 CCR § 3867). If no petition is received, it will be assumed that you have accepted and will comply with all the conditions of this Certification.

Failure to comply with all conditions of this Certification may subject you to enforcement actions by the California Regional Water Quality Control Board, San Diego Region (Regional Board), including administrative enforcement orders requiring you to cease and desist from violations, or to clean up waste and abate existing or threatened conditions of pollution or nuisance; administrative civil liability in amounts of up to \$10,000 per day per violation; referral to the State Attorney General for injunctive relief; and, referral to the District Attorney for criminal prosecution.

The heading portion of this letter includes a Regional Board code number noted after "In reply refer to:" In order to assist us in the processing of your correspondence please include this code number in the heading or subject line portion of all correspondence and reports to the Regional Board pertaining to this matter.

California Environmental Protection Agency

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our Web-site at <http://www.swrcb.ca.gov>.

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Roger Cunliffe-Owen
401 Certification 07C-114

- 2 -

January 8, 2009

If you have any questions regarding this notification, please contact Chad Loflen directly at 858-467-2727 or by email via cloflen@waterboards.ca.gov.

Respectfully,


JOHN H. ROBERTUS
Executive Officer

Enclosure:

Clean Water Act Section 401 Water Quality Certification No. 07C-114 for Clinton Keith Road at I-215 Interchange Project, with 6 attachments

cc: Refer to Attachment 2 of Certification 07C-114 for Distribution List.



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Action on Request for
Clean Water Act Section 401 Water Quality Certification
and General Waste Discharge Requirements
for Discharge of Dredged and/or Fill Materials

PROJECT: Clinton Keith at I-215 Interchange Project (File No. 07C-114)
WDID No. 9000001731

APPLICANT: Roger Cunliffe-Owen
City of Murrieta
One Town Square
24601 Jefferson Ave.
Murrieta, CA 92562

CIWQS Reg. Meas. ID: 339174 Place ID: 710610
--

ACTION:

<input type="checkbox"/> Order for Low Impact Certification	<input type="checkbox"/> Order for Denial of Certification
<input checked="" type="checkbox"/> Order for Technically-conditioned Certification	<input type="checkbox"/> Waiver of Waste Discharge Requirements
<input checked="" type="checkbox"/> Enrollment in SWRCB GWDR Order No. 2003-017 DWQ	<input type="checkbox"/> Enrollment in Isolated Waters Order No. 2004-004 DWQ

The project proposes to modify the existing interchange from a diamond configuration to a partial cloverleaf configuration by adding northbound and southbound loop on-ramps in the northwest and southeast quadrants. The existing two-lane overcrossing would be removed and replaced with a six-lane overcrossing. The remaining existing ramps would be reconstructed to accommodate these two new loop ramps.

STANDARD CONDITIONS:

The following three standard conditions apply to all certification actions, except as noted under Condition 3 for denials (Action 3).

1. This certification action is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to section 13330 of the California Water Code and section 3867 of Title 23 of the California Code of Regulations (23 CCR).

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Recycled Paper



2. This certification action is not intended and must not be construed to apply to any discharge from any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent certification application was filed pursuant to 23 CCR subsection 3855(b) and the application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.
3. The validity of any non-denial certification action (Actions 1 and 2) must be conditioned upon total payment of the full fee required under 23 CCR section 3833, unless otherwise stated in writing by the certifying agency.

ADDITIONAL CONDITIONS:

In addition to the three standard conditions, the City of Murrieta must satisfy the following:

A. GENERAL CONDITIONS:

1. The City of Murrieta must, at all times, fully comply with the engineering plans, specifications and technical reports submitted to the California Regional Water Quality Control Board, San Diego Region (Regional Board), to support this 401 Water Quality Certification and all subsequent submittals required as part of this certification and as described in Attachment 1. The conditions within this certification supersede conflicting provisions within such plans submitted prior to the certification action. Any modifications thereto, would require notification to the Regional Board and reevaluation for individual Waste Discharge Requirements and/or certification amendment.
2. During construction, the City of Murrieta must maintain a copy of this certification at the project site so as to be available at all times to site personnel and agencies.
3. The City of Murrieta must permit the Regional Board or its authorized representative at all times, upon presentation of credentials:
 - a. Entry onto project premises, including all areas on which wetland fill or wetland mitigation is located or in which records are kept.
 - b. Access to copy any records required to be kept under the terms and conditions of this certification.
 - c. Inspection of any treatment equipment, monitoring equipment, or monitoring method required by this certification.
 - d. Sampling of any discharge or surface water covered by this Order.

4. The City of Murrieta must notify the Regional Board within 24 hours of any unauthorized discharge, including hazardous or toxic materials, to waters of the U.S. and/or State; measures that were implemented to stop and contain the discharge; measures implemented to clean-up the discharge; the volume and type of materials discharged and recovered; and additional best management practice (BMPs) or other measures that will be implemented to prevent future discharges.
5. The City of Murrieta must, at all times, maintain appropriate types and sufficient quantities of materials onsite to contain any spill or inadvertent release of materials that may cause a condition of pollution or nuisance if the materials reach waters of the U.S. and/or State.
6. This Certification is not transferable to any person except after notice to the Executive Officer of the Regional Board. The City of Murrieta must also notify the Regional Board of any change in ownership of the project area. Notification must include, but not be limited to, a statement that the property owner has provided the purchaser or transferee with a copy of the Section 401 Water Quality Certification and that the purchaser or transferee understands the Certification requirements and must implement them. If the property is sold, the seller and purchaser must sign and date the notification. If the Certification is transferred, the Certification holder and transferee must sign and date the notification. The notification for transfer of mitigation responsibility shall include a signed statement from the new party demonstrating acceptance and understanding of the responsibility to meet the mitigation conditions and applicable requirements of the Certification. Notification must be provided within **10 days** of the sale and/or transfer of the property.
7. In the event of any violation or threatened violation of the conditions of this certification, the violation or threatened violation is 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.
8. In response to a suspected violation of any condition of this certification, the Regional Board may require the holder of any permit or license subject to this certification to furnish, under penalty of perjury, any technical or monitoring reports the Regional Board deems appropriate, provided that the burden, including costs, of the reports must bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports.

9. In response to any violation of the conditions of this certification, the Regional Board may add to or modify the conditions of this certification as appropriate to ensure compliance.
10. The City of Murrieta and successor owners must submit annual progress reports to the Regional Board prior to **August 1** of each year following the issuance of this certification until the mitigation has been deemed successful by the Regional Board. At minimum, the annual reports must include:
 - a. The date of initial dredge or fill to waters of the U.S.;
 - b. The status of construction activities;
 - c. Best management practices implementation;
 - d. Mitigation implementation update;
 - e. A report on the required annual training for pollution prevention measures, spill response, and BMP implementation and maintenanceIf no progress has been made on the project, the annual report must state this.
11. The City of Murrieta must comply with the requirements of State Water Resources Control Board Water Quality Order No. 2003-017-DWQ, *Statewide General Waste Discharge Requirements for Discharges of Dredged or Fill Material that have Received State Water Quality Certification*. These General Waste Discharge Requirement are accessible at:
http://www.waterboards.ca.gov/cwa401/docs/generalorders/go_wdr401regulated_projects.pdf.

B. PROJECT CONDITIONS:

1. Prior to the start of the project, and annually there after, the City of Murrieta must educate all personnel on the requirements in this certification, pollution prevention measures, spill response, and BMP implementation and maintenance.
2. The City of Murrieta must notify the Regional Board in writing at least **5 days** prior to the actual commencement of dredge, fill, and discharge activities.
3. The City of Murrieta must comply with the requirements of State Water Resources Control Board (State Board) Water Quality Order No. 99-08-DWQ, the NPDES General Permit for Storm Water Discharges Associated with Construction Activity. The City of Murrieta must comply with any subsequent reissuance or amendments to State Board Order No. 99-08-DWQ.
4. The City of Murrieta must comply with the requirements of Regional Board Order No. R9-2008-0002, the NPDES Permit for discharges from groundwater extraction waste to surface waters within the San Diego Region. The City of Murrieta must comply with any subsequent reissuance or amendments to Regional Board Order No. R9-2008-0002.

5. Discharges of concentrated flow during construction and after project completion must not cause downstream erosion or damage to properties or stream habitat. All storm drain outlets (including drains that discharge onsite or offsite flows) on the Clinton Keith at I-215 Interchange Project site must be designed to prevent downstream erosion (e.g. through the use of velocity dissipaters). If it is found that any flows from the project site are causing downstream erosion or damage to properties or habitat, The City of Murrieta must notify the Regional Board immediately and implement measures to eliminate the erosive flows.
6. The treatment, storage, and disposal of wastewater during the life of the project must be done in accordance with waste discharge requirements established by the Regional Board pursuant to CWC § 13260.
7. Water containing mud, silt, or other pollutants from equipment washing or other activities, must not be discharged to waters of the United States and/or the State or placed in locations that may be subjected to storm flows. Pollutants discharged to areas within a stream diversion area must be removed at the end of each work day or sooner if rain is predicted.
8. All surface waters, including ponded waters, must be diverted away from areas undergoing grading, construction, excavation, vegetation removal, and/or any other activity which may result in a discharge to the receiving water. Diversion activities must not result in the degradation of beneficial uses or exceedance of water quality objectives of the receiving waters. Any temporary dam or other artificial obstruction constructed must only be built from materials such as clean gravel which will cause little or no siltation. Normal flows must be restored to the affected stream immediately upon completion of work at that location.
9. Construction activities or vegetative clearing shall not occur within 300 feet of riparian vegetation located in the southeastern portion of the site (see Attachment 4) during the breeding season (March 15-September 15) for coastal California gnatcatcher, southwestern willow flycatcher, least Bell's vireo and migratory bird species protected under the Migratory Bird Treaty Act (e.g. raptors). If construction activities or vegetative clearing must occur during the breeding season in the southeastern portion of the site, a qualified wildlife biologist must demarcate the required 300 foot buffer and conduct a one-time biological survey of the site no more than 72 hours in advance of commencement of construction. If nesting birds are located within or adjacent to the project site, the qualified wildlife biologist shall determine if additional avoidance measures are necessary.
10. Substances hazardous to aquatic life including, but not limited to, petroleum products, raw cement/concrete, asphalt, and coating materials, must be

prevented from contaminating the soil and/or entering waters of the United States and/or State. BMPs must be implemented to prevent such discharges during each project activity involving hazardous materials.

C. POST CONSTRUCTION STORM WATER MANAGEMENT:

1. All storm drain inlet structures within the project boundaries must be stamped and/or stenciled (or equivalent) with appropriate language prohibiting non-storm water discharges.
2. Best management practices (BMPs) must be implemented as shown in Attachment 4 to treat stormwater runoff from the 10.3 acres of new impervious area and 3.7 acres of existing impervious areas that can convey stormwater to the stormdrain system and/or waters of the State/U.S. All BMPs, including, but not limited to, bioswales, media filters and biostrips, must be sized to comply with the following numeric sizing criteria:
 - a. Volume-based BMPs must be designed to mitigate (infiltrate, filter, or treat) either:
 - i. The volume of runoff produced from a 24-hour 85th percentile storm event, as determined from the local historical rainfall record (0.6 inch approximate average for the Riverside County area); or
 - ii. The volume of runoff produced by the 85th percentile 24-hour rainfall event, determined as the maximized capture storm water volume for the area, from the formula recommended in Urban Runoff Quality Management, WEF Manual of Practice No. 23/ASCE Manual of Practice No. 87, (1998); or
 - iii. The volume of annual runoff based on unit basin storage volume, to achieve 90% or more volume treatment by the method recommended in California Stormwater Best Management Practices Handbook – Industrial/Commercial, (1993); or
 - iv. The volume of runoff, as determined from the local historical rainfall record, that achieves approximately the same reduction in pollutant loads and flows as achieved by mitigation of the 85th percentile 24-hour runoff event; or
 - b. Flow-based BMPs must be designed to mitigate (infiltrate, filter, or treat) either:
 - i. The maximum flow rate of runoff produced from a rainfall intensity of 0.2 inch of rainfall per hour; or
 - ii. The maximum flow rate of runoff produced by the 85th percentile hourly rainfall intensity, as determined from the local historical rainfall record, multiplied by a factor of two; or
 - iii. The maximum flow rate of runoff, as determined from the local historical rainfall record, that achieves approximately

the same reduction in pollutant loads and flows as achieved by mitigation of the 85th percentile hourly rainfall intensity multiplied by a factor of two.

3. The City of Murrieta must submit a copy of the Final Water Quality Management Plan for the Clinton Keith at I-215 Interchange Project to the Regional Board prior to the initiation of clearing and grubbing.
4. Post-construction BMPs must be installed and functional prior to occupancy and/or planned use of development areas.
5. Prior to discharging to receiving waters, all runoff from the project area designated in Attachment 4 must be treated by bioswales, biostrips, Austin Sand Filters, or equivalent that provides medium to high removal efficiency, per California Stormwater Quality Association, for the expected and potential pollutants for the project.
6. The City of Murrieta must design and construct all vegetated swales/bioswales/strips according to the most recent California Stormwater Quality Association guidance for vegetated swales.
7. The project's runoff peak flow rate and velocity for the post-construction condition must not exceed the pre-development condition for the 2-year, 5-year and 10-year 24-hour rainfall events. Flows from the Clinton Keith at I-215 Interchange Project storm drain outlets must not cause erosion or degradation of beneficial uses of downstream waters of the State. If it is found that flows from the storm drain outlets are causing erosion in the downstream areas, the Regional Board must be notified and the City of Murrieta must implement measures to reduce and eliminate the erosive flows.

D. COMPENSATORY MITIGATION FOR LOSS OF WATERS OF THE U.S./STATE:

1. Mitigation for permanent discharges to 0.37 acre (450 linear feet) of waters of the State, including 0.02 acre of waters of the United States, and temporary impacts to 0.09 acre must be achieved as follows and as described in the *Final Habitat Mitigation and Monitoring Plan for the Clinton Keith Road/I-215 Interchange Project Murrieta, CA dated July, 2008 by ICF Jones and Stokes*:
 - a. On-site establishment (creation) of a 450 linear foot (0.37 acre) open conveyance channel located in the northern portion of the project, which is currently occupied by non-native species. The channel will be planted with native riparian vegetation and will receive treated flows from the project site.
 - b. The enhancement of 0.04 acre of southern riparian scrub. Enhancement will consist of removal of non-native vegetation,

including, but not limited to, tamarisk, pampas grass, giant reed and castor bean, and planting of native vegetation.

- c. Restoration of 1.11 acres of streambed through contribution to the Mission Resource Conservation District in-lieu fee program.
2. The City of Murrieta must restore all areas of temporary impacts to waters of the United States/State and all other areas of temporary disturbance which could result in a discharge or a threatened discharge to waters of the State. Restoration must include grading of disturbed areas to pre-project contours and revegetation with native species. The City of Murrieta must implement all necessary BMPs to control erosion and runoff from areas associated with this project.
3. The City of Murrieta must notify the Regional Board in writing at least **5 days** prior to the actual commencement of mitigation installation, and completion of mitigation installation.
4. Mitigation Site Preparation: The City of Murrieta must salvage leaf litter, coarse woody debris, and upper soil horizons from impacted jurisdictional water sites that are relatively free of invasive exotic species for use in on-site mitigation areas.
5. The City of Murrieta must also salvage large cuttings from appropriate tree species if they exist at the impact site and use them as pole plantings at the mitigation site.
6. Within **90 days** of the issuance of this certification, the City of Murrieta must provide the Regional Board a draft preservation mechanism (e.g. deed restriction, conservation easement, etc.) that will protect all mitigation areas and their buffers in perpetuity. At a minimum, the areas that must be included in the preservation mechanism are the 0.04 acre enhancement area and the 450 linear foot open conveyance channel (from top of bank to top of bank). Within **one year** of the issuance of this certification, The City of Murrieta must submit proof of a completed preservation mechanism that will protect all mitigation areas and their buffers in perpetuity. **Clearing and grubbing of the site must not be initiated until a completed preservation mechanism is received.** The conservation easement, deed restriction, or other legal limitation on the mitigation property must be adequate to demonstrate that the site will be maintained without future development or encroachment on the site which could otherwise reduce the functions and values of the site for the variety of beneficial uses of waters of the U.S. that it supports. The legal limitation must prohibit, without exception, all residential, commercial, industrial, institutional, and transportation development, and any other infrastructure development that would not maintain or enhance the wetland and streambed functions and values of the site. The preservation mechanism

must clearly prohibit activities that would result in soil disturbance or vegetation removal, other than the removal of non-native vegetation. Other infrastructure development to be prohibited includes, but is not limited to, additional utility lines, maintenance roads, and areas of maintained landscaping for recreation.

7. The City of Murrieta must submit a receipt of payment to the Mission Resource Conservation District into the in-lieu fee program for the restoration of 1.11 acres of streambed. The City of Murrieta must submit receipt of payment from the Mission Resource Conservation District **prior to clearing and grubbing of the Project site**. The receipt of payment must include, but not be limited to, the following:
 - a. Total streambed restoration purchased.
 - b. Location said restoration will occur.
 - c. Date of restoration initiation and estimated completion.
8. The City of Murrieta must submit a report (including topography maps and planting locations) to the Regional Board within **60 days** of completion of mitigation site preparation and planting, describing as-built status of the mitigation project.
9. The construction of proposed mitigation must be concurrent with project grading and completed no later than **9 months** following the initial discharge of dredge or fill material into on-site waters. Delays in implementing mitigation must be compensated for by an increased mitigation implementation of **10% of the cumulative compensatory mitigation** for each month of delay.
10. Prior to initiation of mitigation activities, the City of Murrieta must conduct a conditional assessment of the areas proposed for permanent impacts and the proposed 450 linear feet creation area, as described in the Mitigation Plan.
 - a. The results of the assessments must be submitted to the Regional Board no later than **within the first mitigation annual report (see Condition D.13)** following the initiation of mitigation activities.
 - b. The same methodology used in the initial assessments will be utilized in measuring the progress of the mitigation through the monitoring period. At a minimum, The City of Murrieta must conduct one additional assessment, evaluating the 450 linear feet creation area prior to the end of the monitoring period. The results of the assessment must be submitted in the **final annual mitigation report (see Condition D.13)**.
 - c. The results of the assessments will be used to evaluate success of the mitigation areas in replacing the resources impacted by the

proposed fill. To be considered successful, the mitigation areas must meet or exceed the baseline scores, established by the initial assessments.

11. Throughout the mitigation monitoring program mitigation areas must be maintained free of perennial exotic plant species including, but not limited to, pampas grass, giant reed, tamarisk, sweet fennel, tree tobacco, castor bean, and pepper tree. Annual exotic plant species must not occupy more than 5 percent of the onsite or offsite mitigation areas. Whenever possible, removal of non-native and/or invasive species must be conducted by hand or hand-operated power tools rather than by chemical means.
12. Any maintenance activities that do not contribute to the success of the mitigation site and enhancement of beneficial uses and ecological functions and services are prohibited. Maintenance activities are limited to the removal of trash and debris, removal of exotic plant species, replacement of dead native plant species and remedial measures deemed necessary for the success of the restoration program.
13. If at any time during the implementation and establishment of the mitigation area(s), and prior to verification of meeting success criteria, a catastrophic natural event (e.g., fire, flood) occurs and impacts the mitigation area, the City of Murrieta is responsible for repair and replanting of the damaged area(s).
14. Mitigation Monitoring Reports must be submitted annually after mitigation has commenced for a minimum of 5 years. Mitigation Monitoring Reports must be submitted annually until mitigation has been deemed successful by the Regional Board. Annual Mitigation Monitoring Reports must be submitted prior to **August 1** of each year. Monitoring reports must include, but not be limited to, the following:
 - a. Names, qualifications, and affiliations of the persons contributing to the report;
 - b. Tables presenting the raw data collected in the field as well as analyses of the physical and biological data, including at a minimum;
 - i. Topographic complexity characteristics at each mitigation site;
 - ii. Upstream and downstream habitat and hydrologic connectivity;
 - iii. Source of hydrology;
 - iv. Width of native vegetation buffer around the entire mitigation site;
 - c. Qualitative and quantitative comparisons of current mitigation conditions with pre-construction conditions and previous mitigation monitoring results;
 - d. Results of the conditional assessment, if one was conducted during that year;

- e. Photodocumentation from established reference points;
 - f. A Survey report documenting boundaries of mitigation area; and
 - g. Any other requirements pursuant to H.6, Reporting Requirements
15. Responsible Party Updates: The City of Murrieta must provide the name and contact information of any third party accepting responsibility for implementing the mitigation requirements of this Certification. The notification must be submitted to the Regional Board pursuant to Condition A.6.
16. Regional Board acceptance of the final mitigation plan applies only to the site and plan that mitigates for the Clinton Keith at I-215 Interchange Project and must not be construed as approval of the mitigation site or plan for use by other current or future projects.
17. For purposes of this Certification, establishment is defined as the creation of vegetated or unvegetated waters of the U.S./State where the resource has never previously existed (e.g. conversion of nonnative grassland to a freshwater marsh). Restoration is divided into two activities, re-establishment and rehabilitation. Re-establishment is defined as the return of natural/historic functions to a site where vegetated or unvegetated waters of the U.S./State previously existed (e.g., removal of fill material to restore a drainage). Rehabilitation is defined as the improvement of the general suite of functions of degraded vegetated or unvegetated waters of the U.S./State (e.g., removal of a heavy infestation or monoculture of exotic plant species from jurisdictional areas and replacing with native species). Enhancement is defined as the improvement to one or two functions of existing vegetated or unvegetated waters of the U.S./State (e.g., removal of small patches of exotic plant species from an area containing predominantly natural plant species). Preservation is defined as the acquisition and legal protection from future impacts in perpetuity of existing vegetated or unvegetated waters of the U.S./State (e.g., conservation easement).

E. STREAM PHOTO DOCUMENTATION PROCEDURE:

1. The City of Murrieta, and its successors, must conduct photo documentation of the project site, including all areas of permanent and temporary impact, prior to and after project construction, and mitigation areas, including all areas of permanent and temporary impact, prior to and after project construction. Photo documentation must be conducted in accordance with the State Water Resources Control Board Standard Operating Procedure 4.2.1.4: Stream Photo Documentation Procedure, included as Attachment Number 6. In addition, photo documentation must include Geographic Positioning System (GPS) coordinates for each of the photo points referenced. The City of Murrieta must submit this information in a photo documentation report to the Regional Board to be included in each annual Mitigation Monitoring Reports.

The report must include a compact disc that contains digital files of all the photos (jpeg file type or similar).

F. POST-CONSTRUCTION BEST MANAGEMENT PRACTICES PHOTO DOCUMENTATION PROCEDURE:

1. The City of Murrieta must conduct photo documentation of implemented post-construction BMPs. Photo-documentation must be modeled after the State Water Resources Control Board Standard Operating Procedure 4.2.1.4: Stream Photo Documentation Procedure, included as Attachment 6. In addition, photo documentation must include Global Positioning System (GPS) coordinates for each of the photo points referenced. The City of Murrieta must submit this information in a photo documentation report to the Regional Board within the first Project Annual Report following post-construction BMP installation. If no post-construction BMPs have been installed, this must be stated in the Project Annual Report. The report must include a compact disc that contains digital files of all the photos (jpeg file type or similar).

G. GEOGRAPHIC INFORMATION SYSTEM REPORTING:

1. The City of Murrieta must submit the following Geographic Information System (GIS) shape files:
 - a. The impact area within the first Project Annual Report
 - b. The mitigation area within the first Annual Mitigation and Monitoring Report
 - c. Post-construction BMP locations within the Project Annual Report following post-construction BMP installation.

All impact and mitigation areas shapefiles must be polygons. Two GPS readings (points) must be taken on each line of the polygon and the polygon must have a minimum of 10 points. BMP locations may be submitted as points. GIS metadata must also be submitted.

H. REPORTING:

1. All information requested in this Certification is pursuant to California Water Code (CWC) section 13267. Civil liability may be administratively imposed by the Regional Board for failure to furnish requested information pursuant to CWC section 13268.
2. All reports and information submitted to the Regional Board must be submitted in both hardcopy and electronic format.
3. The City of Murrieta must submit a Final Project Annual Report to the Regional Board. In addition to required Project Annual Report Requirements (Condition

A.10), the report should include as-built drawings no bigger than 11” x 17” and photos of the completed project including post-construction BMPs.

4. All applications, reports, or information submitted to the Regional Board must be signed and certified as follows:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

5. The City of Murrieta must submit reports required under this certification, or other information required by the Regional Board, to:

Executive Officer
 California Regional Water Quality Control Board
 San Diego Region
 Attn: 401 Certification; Project No. 06C-118
 9174 Sky Park Court, Suite 100
 San Diego, California 92123

6. Required Reports: The following list summarizes the reports, excluding spill notifications and emergency situations, required per the conditions of this Certification to be submitted to the Regional Board.

Report Topic	Certification Condition	Due Date(s)
Project Annual Report	A.10	Annually Prior to August 01
Final Project Annual Report	A.10, H.3	Prior to August 01 following project completion
Pre-Discharge Notification	B.2	5 days prior to discharge of fill
Notification of downstream erosion (if needed)	B.6	Immediately
Final WQMP	C.3	Prior to initiation of clearing and grubbing
Initiation and Completion of Mitigation	D.3	5 days prior to initiation and completion
Draft Preservation Mechanism	D.6	Within 90 days of issuance of this Certification
Final Preservation Mechanism	D.6	Within 1 year of issuance of this Certification and prior to initiation of clearing and grubbing

Receipt of In-lieu fee payment	D.7	Prior to clearing and grubbing of the site
Mitigation As-Builts	D.8	Within 60 days of completion of mitigation
Annual Mitigation Monitoring Reports	D.14	Annually prior to August 01 until mitigation deemed successful
Baseline Conditional Assessment, Mitigation Conditional Assessment	D.10.a	Must be included in the first Annual Mitigation and Monitoring Report and last Annual Mitigation and Monitoring Report
Stream Photo Documentation	E.1	Must be included with each Annual Mitigation and Monitoring Report
BMP Photo Documentation	F.1	Must be included in the Project Annual Report
GIS Shapefiles – Impact areas	G.1	Must be included in the first Project Annual Report
GIS Shapefiles – Mitigation Areas	G.1	Must be included in the first Annual Mitigation and Monitoring Report
GIS Shapefiles – BMPs	G.1	Must be included in the Project Annual Report

PUBLIC NOTIFICATION OF PROJECT APPLICATION:

On January 09, 2008 receipt of the project application was posted on the Regional Board web site to serve as appropriate notification to the public.

REGIONAL WATER QUALITY CONTROL BOARD CONTACT PERSON:


Chad Loflen
California Regional Water Quality Control Board, San Diego Region
9174 Sky Park Court, Suite 100
San Diego, CA 92123
(858) 467-2727
cloflen@waterboards.ca.gov

WATER QUALITY CERTIFICATION:

I hereby certify that the proposed discharge from the Clinton Keith at I-215 Interchange Project (Project No. 06C-118) will comply with the applicable provisions of sections 301 ("Effluent Limitations"), 302 ("Water Quality Related Effluent Limitations"), 303 ("Water Quality Standards and Implementation Plans"), 306 ("National Standards of Performance"), and 307 ("Toxic and

Pretreatment Effluent Standards") of the Clean Water Act. This discharge is also regulated under California Regional Water Quality Control Board, San Diego Region, Waiver of Waste Discharge Requirements (Waiver Policy) No. 17. Please note that this waiver is conditional and, should new information come to our attention that indicates a water quality problem, the Regional Board may issue waste discharge requirements at that time. This discharge is also regulated under State Water Board Order No. 2003-0017-DWQ, "General Waste Discharge Requirements for Dredged or Fill Discharges that have Received State Water Quality Certification," which requires compliance with all conditions of this Water Quality Certification.

Except insofar as may be modified by any preceding conditions, all certification actions are contingent on (a) the discharge being limited and all proposed mitigation being completed in strict compliance with the applicants' project description and/or on the attached Project Information Sheet, and (b) on compliance with all applicable requirements of the Regional Water Quality Control Board's Water Quality Control Plan (Basin Plan).



JOHN H. ROBERTUS
Executive Officer
Regional Water Quality Control Board

1/8/2009
Date

- Attachments:
1. Project Information
 2. Distribution List
 3. Location Map
 4. Site Maps
 5. Mitigation Maps
 6. Stream Photo Documentation Procedure

**ATTACHMENT 1
PROJECT INFORMATION**

Applicant: City of Murrieta
Attention: Roger Cunliffe-Owen
One Town Square
24601 Jefferson Ave.
Murrieta, CA 92562
Telephone: (951) 461-6001 x6200
Facsimile: (951) 461-6048
Email: rowen@murrieta.org

Applicant Representatives: IFC Jones & Stokes
Attention: Linda Archer
1776 Park Avenue, Suite 146
Redlands, CA 92373
Telephone: (714) 260-1080 Facsimile: (714) 260-1081
Email: larcher@jsanet.com

Project Name: Clinton Keith Road at I-215 Interchange Project

Project Location: The project is located in the City of Murrieta, Riverside County, California, at the Clinton Keith Road/I-215 Interchange. USGS Murrieta Quadrangle, Township 6 South, Range 3 West. Latitude 33°35'54"N, Longitude 117°10'28"W.

Type of Project: Linear Transportation

Need for Project: The project is needed to reduce or avoid future traffic congestion at the Clinton Keith Road/I-215 interchange, to improve efficiency and reduce vehicle delay at the interchange and to provide adequate road width and separation on Clinton Keith Road and at the interchange.

Project Description The project proposes to modify the existing interchange from a diamond configuration to a partial cloverleaf configuration by adding northbound and southbound loop on-ramps in the northwest and southeast quadrants. The existing two-lane overcrossing would be removed and replaced with a six-lane overcrossing. The remaining existing ramps would be reconstructed to accommodate these two new loop ramps.

Federal Agency/Permit: U.S. Army Corps of Engineers §404, NWP 14, Stephanie Hall

Other Required Regulatory Approvals: California Department of Fish and Game Streambed Alteration Agreement, Jeff Brandt

California Environmental Quality Act (CEQA) Compliance: The California Department of Transportation issued a Final Initial Study with Mitigated Negative Declaration on January 08, 2008.

Receiving Water:	Unnamed tributary to Murrieta Creek. Santa Margarita Hydrologic Unit, Murrieta Hydrologic Area, Murrieta Hydrologic Subarea (902.32)
Affected Waters of the United States:	<p>Size of impact: The project will permanently fill 0.37 acre (450 linear feet) of waters of the State, of which 0.02 acres are waters of the United States. The project will have 0.09 acre of temporary impacts to waters of the State.</p> <p>Location of impact: The area proposed to be filled is the northwest quadrant of the interchange, between Clinton-Keith southbound off-ramp and the I-215.</p>
Dredge Volume:	n/a
Related Projects Implemented/to be Implemented by the Applicant(s):	Caltrans is planning to widen the I-215 from Murrieta Hot Springs Road to Scott Road. Additional lanes will be added in the existing median in the area of the Clinton Keith at I-215 Interchange Project.
Compensatory Mitigation:	<p>Compensatory mitigation for the proposed impacts will consist of the following (Refer to Attachment 5 for map):</p> <ul style="list-style-type: none">▪ On-site creation of a 450 linear foot (0.37 acre) open conveyance channel located in the northern portion of the project, which is currently occupied by non-native species. The channel will be planted with native grasses.▪ Enhancement of 0.04 acre of southern riparian scrub within the 0.09 acres of temporary impacts.▪ Restoration of 1.11 acres of streambed through contribution to the Mission Resource Conservation District in-lieu fee program . <p>Mitigation Ratios:</p> <ul style="list-style-type: none">▪ Creation: 1:1 in terms of linear feet for permanent impacts.▪ Restoration/Enhancement: Approximately 2.55:1 in terms of acreage for temporal loss from permanent and temporary impacts. <p>Mitigation Plan: Final <i>Habitat Mitigation and Monitoring Plan for the Clinton Keith Road/I-215 Interchange Project Murrieta, CA</i> dated July, 2008 by ICF Jones and Stokes.</p>

Best Management Practices (BMPs):

During construction, the City of Murrieta will comply with the requirements of State Water Resources Control Board Water Quality Order No. 99-08-DWQ, and any subsequent reissuance, the NPDES General Permit for Storm Water Discharges Associated with Construction Activity.

Post-construction water quality for the Clinton Keith at I-215 Interchange Project will be managed through a combination of two Austin sand filters (located in the northwest and southeast quadrants of the interchange), 5 bioswales, and multiple biostrips (located throughout the interchange).

Public Notice:

On January 09, 2008 receipt of the project application was posted on the San Diego Regional Water Quality Control Board (Regional Board) web site to serve as appropriate notification to the public.

Fees:

Total Due: \$2,750.00
Total Paid: \$2,750.00 (Check No. 70529)

CIWQS:

Regulatory Measure ID: 339174
Place ID: 710610
Party ID: 348547

**ATTACHMENT 2
E-MAIL DISTRIBUTION LIST**

Stephanie Hall
U.S. Army Corps of Engineers, Regulatory Branch
Los Angeles Office
P.O. Box 532711
Los Angeles, CA 90053-2325
Stephanie.j.hall@usace.army.mil

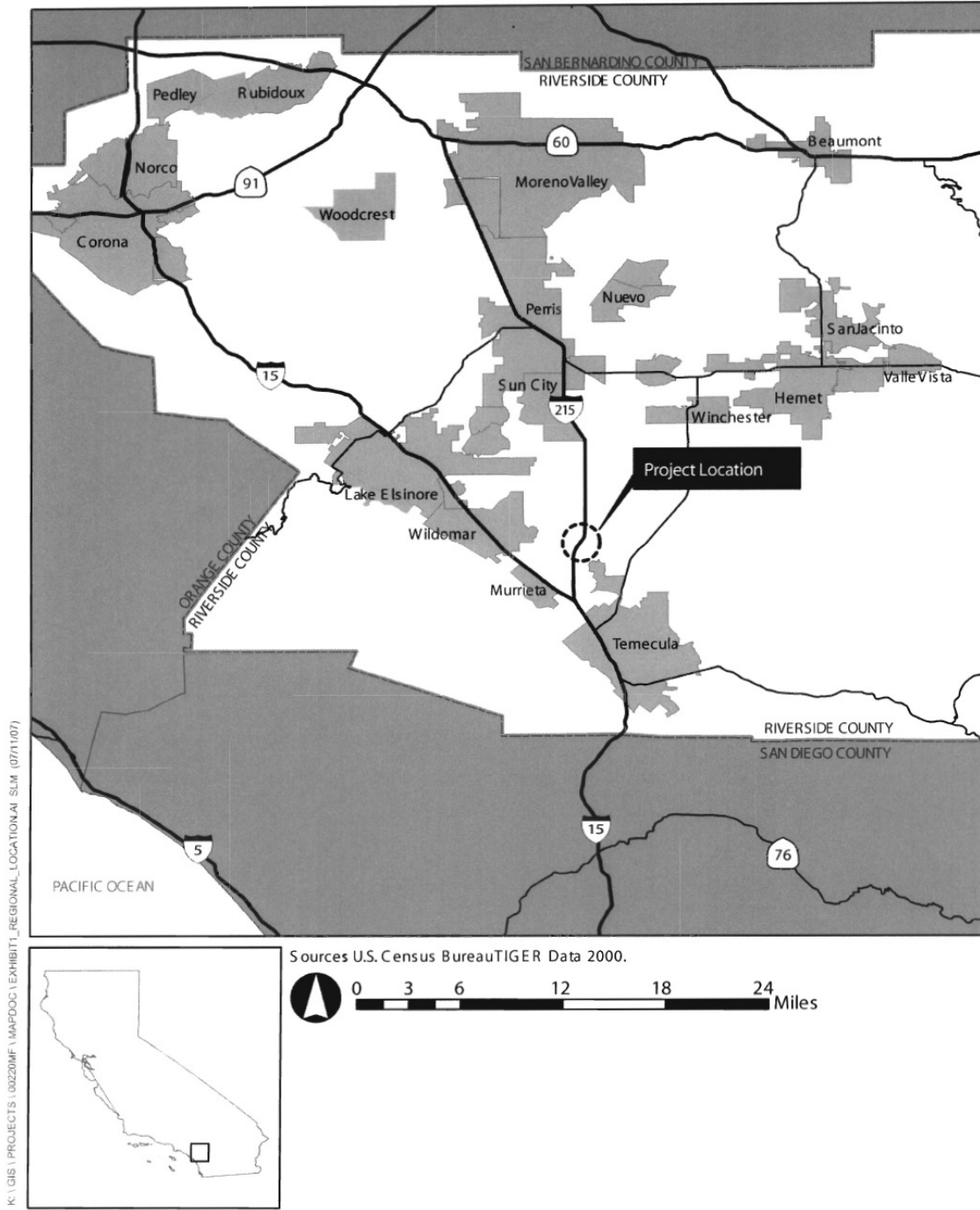
Jeff Brandt
California Department of Fish and Game
Inland Deserts Region
3602 Inland Empire Boulevard, Suite C-220
Ontario, CA 91764
jbrandt@dfg.ca.gov

State Water Resources Control Board, Division of Water Quality
401 Water Quality Certification and Wetlands Unit
Attn: Bill Orme
P.O. Box 100
Sacramento, CA 95812-0100
borme@waterboards.ca.gov

David W. Smith
Wetlands Regulatory Office
U.S. Environmental Protection Agency, Region 9
75 Hawthorne Street
San Francisco, CA 94105
smith.davidw@epa.gov

Shelah Riggs,
Linda Archer
Jones and Stokes
17310 Red Hill Ave., Suite 320
Irvine, CA 92614
sriggs@jsanet.com
larcher@jsanet.com

ATTACHMENT 3 PROJECT LOCATION



**Exhibit 1
Regional Location**

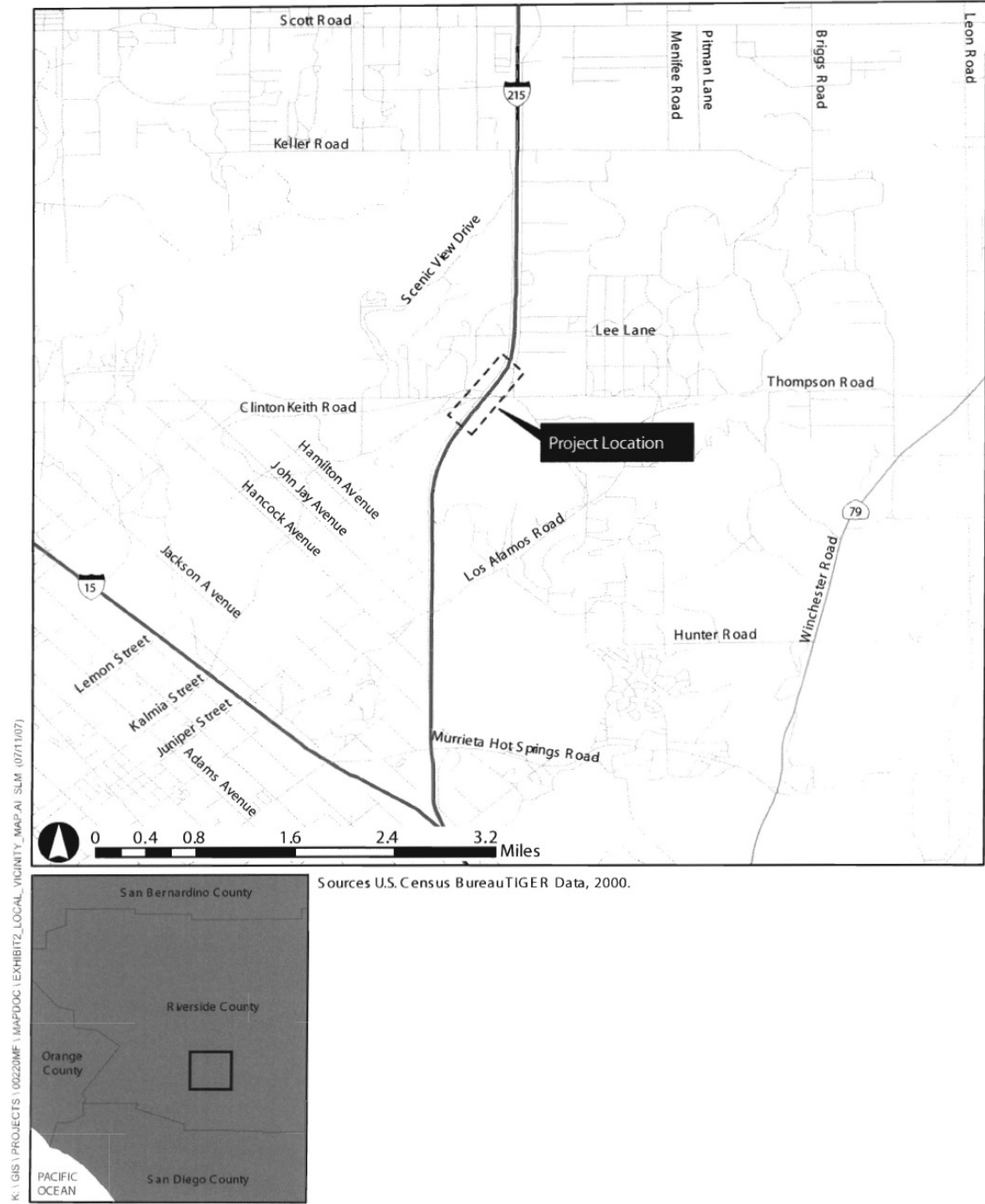
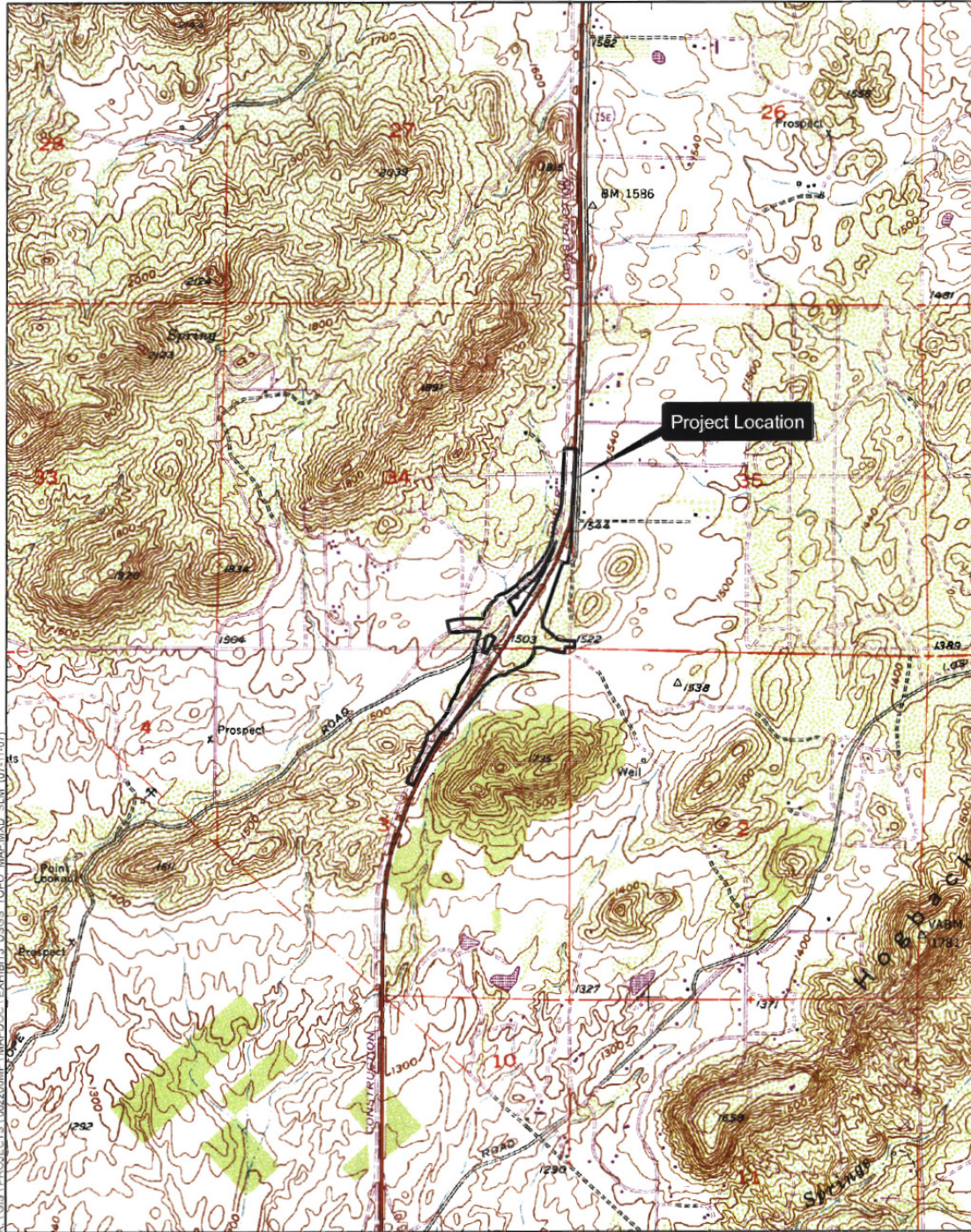


Exhibit 2
Local Vicinity Map

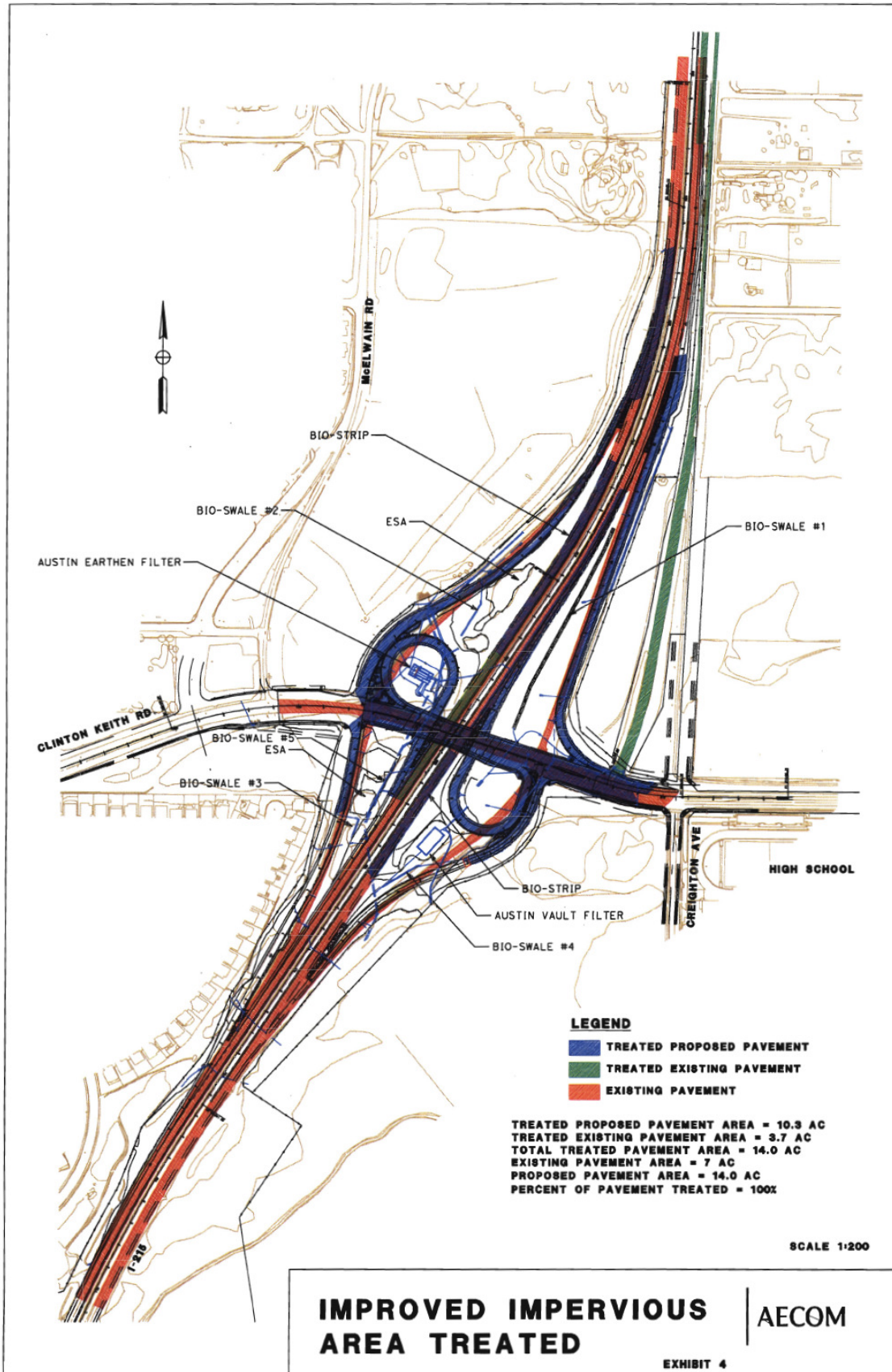
ATTACHMENT 4 SITE MAP



SOURCE: USGS 7.5' Quad., California: Murrieta (1953; Photorevised 1979)



Exhibit 3
USGS Topographic Map



ATTACHMENT 5 MITIGATION MAP



Figure continued on next page

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Source: TerraServer 62908 IGIS/projects/00220/m/m/napdoc/20080630/Fig05_proposed_mi.mxd SLM



Clinton Keith/I-21

ATTACHMENT 6 STREAM PHOTO DOCUMENTATION PROCEDURES

Standard Operating Procedure (SOP)

Stream Photo Documentation Procedure

(CARCD 2001, Written by TAC Visual Assessments work group)

Introduction:

Photographs provide a qualitative, and potentially semi-quantitative, record of conditions in a watershed or on a water body. Photographs can be used to document general conditions on a reach of a stream during a stream walk, pollution events or other impacts, assess resource conditions over time, or can be used to document temporal progress for restoration efforts or other projects designed to benefit water quality. Photographic technology is available to anyone and it does not require a large degree of training or expensive equipment. Photos can be used in reports, presentations, or uploaded onto a computer website or GIS program. This approach is useful in providing a visual portrait of water resources to those who may never have the opportunity to actually visit a monitoring site.

Equipment:

Use the same camera to the extent possible for each photo throughout the duration of the project. Either 35 mm color or digital color cameras are recommended, accompanied by a telephoto lens. If you must change cameras during the program, replace the original camera with a similar one comparable in terms of media (digital vs. 35 mm) and other characteristics. A complete equipment list is suggested as follows:

Required:

- Camera and backup camera
- Folder with copies of previous photos (do not carry original photos in the field)
- Topographic and/or road map
- Aerial photos if available
- Compass
- Timepiece
- Extra film or digital disk capacity (whichever is applicable)
- Extra batteries for camera (if applicable)
- Photo-log data sheets or, alternatively, a bound notebook dedicated to the project
- Yellow photo sign form and black marker, or, alternatively, a small black board and chalk

Optional:

- GPS unit
- Stadia rod (for scale on landscape shots)
- Ruler (for scale on close up views of streams and vegetation)
- Steel fence posts for dedicating fixed photo points in the absence of available fixed landmarks

How to Access Aerial Photographs:

Aerial Photos can be obtained from the following federal agencies:

USGS Earth Science Information Center
507 National Center
12201 Sunrise Valley Drive
Reston, VA 22092

800-USA-MAPS

USDA Consolidated Farm Service Agencies
Aerial Photography Field Office
222 West 2300 South
P.O. Box 30010
Salt Lake City, UT 84103-0010
801-524-5856

Cartographic and Architectural Branch
National Archives and Records Administration
8601 Adelphi Road
College park, MD 20740-6001
301-713-7040

Roles and Duties of Team:

The team should be comprised of a minimum of two people, and preferably three people for restoration or other water quality improvement projects, as follows:

1. Primary Photographer
2. Subject, target for centering the photo and providing scale
3. Person responsible for determining geographic position and holding the photo sign forms or blackboard.

One of these people is also responsible for taking field notes to describe and record photos and photo points.

Safety Concerns:

Persons involved in photo monitoring should **ALWAYS** put safety first. For safety reasons, always have at least two 2 volunteers for the survey. Make sure that the area(s) you are surveying either are accessible to the public or that you have obtained permission from the landowner prior to the survey.

Some safety concerns that may be encountered during the survey include, but are not limited to:

- Inclement weather
- Flood conditions, fast flowing water, or very cold water
- Poisonous plants (e.g.: poison oak)
- Dangerous insects and animals (e.g.: bees, rattlesnakes, range animals such as cattle, etc.)
- Harmful or hazardous trash (e.g.: broken glass, hypodermic needles, human feces)

We recommend that the volunteer coordinator or leader discuss the potential hazards with all volunteers prior to any fieldwork.

General Instructions:

From the inception of any photo documentation project until it is completed, always take each photo from the same position (photo point), and at the same bearing and vertical angle at that photo point. Photo point positions should be thoroughly documented, including photographs taken of the photo point. Refer to copies of previous photos when arriving at the photo point. Try to maintain a level (horizontal) camera view unless the terrain is sloped. (If the photo can not be horizontal due to the slope, then record the angle for that photo.) When photo points are first being selected, consider the type of project (meadow or stream restoration, vegetation

management for fire control, ambient or event monitoring as part of a stream walk, etc.) and refer to the guidance listed on *Suggestions for Photo Points by Type of Project*.

When taking photographs, try to include landscape features that are unlikely to change over several years (buildings, other structures, and landscape features such as peaks, rock outcrops, large trees, etc.) so that repeat photos will be easy to position. Lighting is, of course, a key ingredient so give consideration to the angle of light, cloud cover, background, shadows, and contrasts. Close view photographs taken from the north (i.e., facing south) will minimize shadows. Medium and long view photos are best shot with the sun at the photographer's back. Some artistic expression is encouraged as some photos may be used on websites and in slide shows (early morning and late evening shots may be useful for this purpose). Seasonal changes can be used to advantage as foliage, stream flow, cloud cover, and site access fluctuate. It is often important to include a ruler, stadia rod, person, farm animal, or automobile in photos to convey the scale of the image. Of particular concern is the angle from which the photo is taken. Oftentimes an overhead or elevated shot from a bridge, cliff, peak, tree, etc. will be instrumental in conveying the full dimensions of the project. Of most importance overall, however, is being aware of the goal(s) of the project and capturing images that clearly demonstrate progress towards achieving those goal(s). Again, reference to *Suggestions for Photo Points by Type of Project* may be helpful.

If possible, try to include a black board or yellow photo sign in the view, marked at a minimum with the location, subject, time and date of the photograph. A blank photo sign form is included in this document.

Recording Information:

Use a systematic method of recording information about each project, photo point, and photo. The following information should be entered on the photo-log forms (blank form included in this document) or in a dedicated notebook:

- Project or group name, and contract number (if applicable, e.g., for funded restoration projects)
- General location (stream, beach, city, etc.), and short narrative description of project's habitat type, goals, etc.
- Photographer and other team members
- Photo number
- Date
- Time (for each photograph)
- Photo point information, including:
 - Name or other unique identifier (abbreviated name and/or ID number)
 - Narrative description of location including proximity to and direction from notable landscape features like roads, fence lines, creeks, rock outcrops, large trees, buildings, previous photo points, etc. – sufficient for future photographers who have never visited the project to locate the photo point
 - Latitude, longitude, and altitude from map or GPS unit
- Magnetic compass bearing from the photo point to the subject
- Specific information about the subject of the photo
- Optional additional information: a true compass bearing (corrected for declination) from photo point to subject, time of sunrise and sunset (check newspaper or almanac), and cloud cover.

For ambient monitoring, the stream and shore walk form should be attached or referenced in the photo-log.

When monitoring the implementation of restoration, fuel reduction, or Best Management Practices (BMP) projects, include or attach to the photo-log a narrative description of observable progress in achieving the goals of the project. Provide supplementary information along with the photo, such as noticeable changes in habitat, wildlife, and water quality and quantity.

Archive all photos, along with the associated photo-log information, in a protected environment.

The Photo Point: Establishing Position of Photographer:

1. Have available a variety of methods for establishing position: maps, aerial photos, GPS, permanent markers and landmarks, etc. If the primary method fails (e.g., a GPS or lost marker post) then have an alternate method (map, aerial photo, copy of an original photograph of the photo-point, etc).
2. Select an existing structure or landmark (mailbox, telephone pole, benchmark, large rock, etc.), identify its latitude and longitude, and choose (and record for future use) the permanent position of the photographer relative to that landmark. Alternatively, choose the procedure described in *Monitoring California's Annual Rangeland Vegetation* (UC/DANR Leaflet 21486, Dec. 1990). This procedure involves placing a permanently marked steel fence post to establish the position of the photographer.
3. For restoration, fuel reduction, and BMP projects, photograph the photo-points and carry copies of those photographs on subsequent field visits.

Determining the Compass Bearing:

1. Select and record the permanent magnetic bearing of the photo center view. You can also record the true compass bearing (corrected for declination) but do not substitute this for the magnetic bearing. Include a prominent landmark in a set position within the view. If possible, have an assistant stand at a fixed distance from both the photographer and the center of the view, holding a stadia rod if available, within the view of the camera; preferably position the stadia rod on one established, consistent side of the view for each photo (right or left side).
2. Alternatively, use the procedure described in *Monitoring California's Annual Rangeland Vegetation* (UC/DANR Leaflet 21486, Dec. 1990). This procedure involves placing a permanently marked steel fence post to establish the position of the focal point (photo center).
3. When performing ambient or event photo monitoring, and when a compass is not available, then refer to a map and record the approximate bearing as north, south, east or west.

Suggestions for Photo Points by Type of Project:

Ambient or Event Monitoring, Including Photography Associated with Narrative Visual Assessments:

1. When first beginning an ambient monitoring program take representative long and/or medium view photos of stream reaches and segments of shoreline being monitored. Show the positions of these photos on a map, preferably on the stream/shore walk form. Subjects to be

photographed include a representative view of the stream or shore condition at the beginning and ending positions of the segment being monitored, storm drain outfalls, confluence of tributaries, structures (e.g., bridges, dams, pipelines, etc.).

2. If possible, take a close view photograph of the substrate (streambed), algae, or submerged aquatic vegetation.
3. Time series: Photographs of these subjects at the same photo points should be repeated annually during the same season or month if possible.
4. Event monitoring refers to any unusual or sporadic conditions encountered during a stream or shore walk, such as trash dumps, turbidity events, oil spills, etc. Photograph and record information on your photo-log and on your Stream and Shore Walk Visual Assessment form. Report pollution events to the Regional Board. Report trash dumps to local authorities.

All Restoration and Fuel Reduction Projects – Time Series:

Take photos immediately before and after construction, planting, or vegetation removal. Long term monitoring should allow for at least annual photography for a minimum of three years after the project, and thereafter at 5 years and ten years.

Meadow Restoration:

1. Aerial view (satellite or airplane photography) if available.
2. In the absence of an aerial view, a landscape, long view showing an overlapping sequence of photos illustrating a long reach of stream and meadow (satellite photos, or hill close by, fly-over, etc.)
3. Long view up or down the longitudinal dimension of the creek showing riparian vegetation growth bounded on each side by grasses, sedges, or whatever that is lower in height
4. Long view of conversion of sage and other upland species back to meadow vegetation
5. Long view and medium view of streambed changes (straightened back to meandering, sediment back to gravel, etc.)
6. Medium and close views of structures, plantings, etc. intended to induce these changes

Stream Restoration/stabilization:

1. Aerial view (satellite or airplane photography) if available.
2. In the absence of an aerial view, a landscape, long-view showing all or representative sections of the project (bluff, bridge, etc.)
3. Long view up or down the stream (from stream level) showing changes in the stream bank, vegetation, etc.
4. Long view and medium view of streambed changes (thalweg, gravel, meanders, etc.)
5. Medium and close views of structures, plantings, etc. intended to induce these changes.
6. Optional: Use a tape set perpendicular across the stream channel at fixed points and include this tape in your photos described in 3 and 4 above. For specific procedures refer to Harrelson, Cheryl C., C.L. Rawlins, and John P. Potyondy, *Stream Channel Reference Sites*:

An Illustrated Guide to Field Techniques, United States Department of Agriculture, Forest Service, Rocky Mountain Forest and Range Experiment Station, General Technical Report RM-245.

Vegetation Management for Fire Prevention (“fuel reduction”):

1. Aerial view (satellite or airplane photography) if available.
2. In the absence of an aerial view, a landscape, long view showing all or representative sections of the project (bluff, bridge, etc.)
3. Long view (wide angle if possible) showing the project area or areas. Preferably these long views should be from an elevated vantage point.
4. Medium view photos showing examples of vegetation changes, and plantings if included in the project. It is recommended that a person (preferably holding a stadia rod) be included in the view for scale
5. To the extent possible include medium and long view photos that include adjacent stream channels.

Stream Sediment Load or Erosion Monitoring:

1. Long views from bridge or other elevated position.
2. Medium views of bars and banks, with a person (preferably holding a stadia rod) in view for scale.
3. Close views of streambed with ruler or other common object in the view for scale.
4. Time series: Photograph during the dry season (low flow) once per year or after a significant flood event when streambed is visible. The flood events may be episodic in the south and seasonal in the north.
5. Optional: Use a tape set perpendicular across the stream channel at fixed points and include this tape in your photos described in 1 and 2 above. For specific procedures refer to Harrelson, Cheryl C., C.L. Rawlins, and John P. Potyondy, *Stream Channel Reference Sites: An Illustrated Guide to Field Techniques*, United States Department of Agriculture, Forest Service, Rocky Mountain Forest and Range Experiment Station, General Technical Report RM-245.

PHOTO- LOG FORM

Project:
Location:
Date:
Photographer:
Team members:

Photo #	Time	Photo Point ID	Photo Pt. Description & Location	Bearing to Subject	Subject Description

General Notes or Comments (weather, cloud cover, time of sunrise and sunset, other pertinent information):

PHOTO SIGN FORM: Print this form on yellow paper. Complete the following information for each photograph. Include in the photographic view so that it will be legible in the finished photo.

Location:

Subject Description:

Date:

Time: