

CITY COUNCIL

For City Clerk's Use:

☐ **APPROVED** ☐ **DENIED**

Reso No. _____ File No. _____

Ord No. _____

Agenda Item No.: 13

Date: August 1, 2012

TO: Honorable Mayor and Members of the City Council

FROM: Christopher W. McKinney, Director of Utilities

SUBJECT: Lake Wohlford Dam Replacement Design Consulting Agreement

RECOMMENDATION:

The Utilities Department requests that the City Council:

1. Adopt Resolution No. 2012-127 authorizing the Mayor and City Clerk to execute a Consulting Agreement with Black & Veatch Corporation for the Lake Wohlford Dam Replacement Design in the amount of \$3,496,740.
2. Approve a budget adjustment in the amount of \$3,000,000 to CIP 704912 (Lake Wohlford Dam Project) with \$1,000,000 from CIP 704708 (Reed Reservoir Design and Construction) and \$2,000,000 from CIP 704606 (Rincon Penstock Replacement).

FISCAL ANALYSIS:

The Lake Wohlford Dam Project CIP 704912 currently has \$1,059,585 available. Additional funding is available in the amount of \$1,000,000 from the Reed Reservoir Design and Construction project CIP 704708 and \$2,000,000 from the Rincon Penstock Replacement Project CIP 704606. The Reed Reservoir project has recently been completed, is beginning the one year warranty period, and has excess funds available. The Rincon Penstock Replacement project has significant funds allocated with no immediate time frame set for implementing the work.

PREVIOUS ACTION:

In February 2009 City Council authorized a contract with GEI Consultants, Inc. (GEI) for the Evaluation of Alternatives for Replacement of Lake Wohlford Dam. In February 2011 City Council authorized the submission of a grant application for Proposition 1E Stormwater Flood Management grant.

BACKGROUND:

Over the last few years the City has had numerous investigations and studies performed on the Lake Wohlford Dam. In 2007 the water level at the lake was lowered following a determination that the upper portion of the dam was susceptible to failure during a significant seismic event. In June 2010

the last report was received, "Evaluation of Alternatives for Replacement of Lake Wohlford Dam", which evaluated two alternative dam types downstream of the existing structure. The evaluation included an Earth Core Rockfill dam and Roller Compacted Concrete (RCC) dam. The preliminary geotechnical data indicated that the Earth Core Rockfill dam was the preferred alternative at that time.

Due to the estimated cost of the overall project, the Water CIP could not execute the project without significant outside financial assistance. The City has been actively pursuing funding opportunities since receiving the Evaluation of Alternatives report in June 2010. At the end of 2011 the City received confirmation of an award of up to \$14.9M in matching funds for the dam replacement from the State of California, Prop 1E Grant.

The Utilities Department issued a Request for Proposals in March 2012 and received proposals in April 2012 from five (5) consulting teams. A selection panel of eight (8) City staff members evaluated the proposals and selected three (3) for interviews in June 2012. The selection panel unanimously selected the team lead by Black & Veatch Corporation as the best qualified to meet the needs of the City.

This contract to Black & Veatch Corporation includes not only full design drawings and specifications, but also all required environmental studies and documentation as well as acquisition of all required permits. One of the initial elements of their work will be to re-evaluate the dam type selection as there are significant differences in the environmental impacts to the two types.

This design contract is a single element to the effort required to replace Wohlford Dam. In the near future the Utilities Department will also be retaining a consultant to perform construction management services for the dam. This contract will begin during the design and continue through the end of construction. Additionally, the City will be required by the state and federal regulating agencies for the dam to retain a Board of Consultants, specialists in specific fields related to dams, to provide project oversight.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "Chris McKinney", with a long horizontal flourish extending to the right.

for Christopher W. McKinney
Director of Utilities



CITY OF ESCONDIDO
BUDGET ADJUSTMENT REQUEST

Date of Request: July 23, 2012
Department: Utilities
Division: Engineering/Construction
Project/Budget Manager: Craig Whittemore 4038
Name Extension
Council Date (if applicable): August 1, 2012
(attach copy of staff report)

For Finance Use Only	
Log #	
Fiscal Year	
	Budget Balances
	General Fund Accts
	Revenue
	Interfund Transfers
	Fund Balance

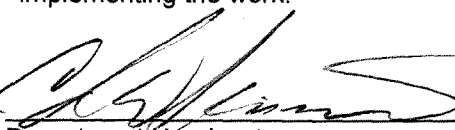
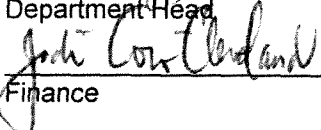
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Project/Account Description	Account Number	Amount of Increase	Amount of Decrease
Lake Wohlford Dam Project	556-704912	3,000,000	
Reed Reservoir Design & Const.	556-704708		1,000,000
Rincon Penstock Replacement	556-704606		2,000,000

Explanation of Request:

Additional funds are required to initiate the design for the Lake Wohlford Dam Replacement. The Reed Reservoir project has recently been completed, is beginning the one year warranty period, has excess funds available. The Rincon Penstock Replacement project has significant funds allocated with no immediate time frame set for implementing the work.

APPROVALS

	<u>7/24/2012</u>		
Department Head	Date	City Manager	Date
	<u>7/24/12</u>		
Finance	Date	City Clerk	Date

Distribution (after approval):

Original: Finance

RESOLUTION NO. 2012-127

A RESOLUTION OF THE CITY COUNCIL OF
THE CITY OF ESCONDIDO, CALIFORNIA,
AUTHORIZING THE MAYOR AND CITY
CLERK TO EXECUTE, ON BEHALF OF THE
CITY, A CONSULTING AGREEMENT WITH
BLACK & VEATCH CORPORATION FOR
THE LAKE WOHLFORD DAM
REPLACEMENT DESIGN

WHEREAS, the City desires to regain full storage capacity for water at Lake Wohlford; and

WHEREAS, the current condition of the Lake Wohlford Dam prevents said full storage capacity and requires a replacement dam; and

WHEREAS, a selection panel has selected Black & Veatch Corporation as being the most qualified proposer; and

WHEREAS, the Director of Utilities recommends that the Consulting Agreement ("Agreement") with Black & Veatch Corporation be approved; and

WHEREAS, this City Council desires at this time and deems it to be in the best public interest, to approve said Agreement with Black & Veatch Corporation.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Escondido, California, as follows:

1. That the above recitations are true.
2. That the Mayor and City Clerk are hereby authorized to execute, on behalf of the City, an Agreement with Black & Veatch Corporation. A copy of the Agreement is attached as Exhibit "1" and is incorporated by this reference.



CITY OF ESCONDIDO
CONSULTING AGREEMENT FOR DESIGN PROFESSIONALS

(ONLY for licensed architects, landscape architects, professional engineers, and professional land surveyors who are performing design services for the City)

This Agreement is made this _____ day of _____, 20__.

Between: CITY OF ESCONDIDO
 a Municipal Corporation
 201 N. Broadway
 Escondido, California 92025
 Attn: Craig Whittemore
 760-839-4038
 ("CITY")

And: Black & Veatch Corporation
 300 Rancheros Drive, Suite 250
 San Marcos, CQA 92069
 Kevin Davis
 760-571-7705
 ("CONSULTANT")

Witness that whereas:

- A. It has been determined to be in the CITY's best interest to retain the professional services of a consultant to prepare design drawings and specifications including environmental documentation for the Lake Wohlford Dam Replacement; and
- B. The CONSULTANT is considered competent to perform the necessary professional services for CITY;

NOW, THEREFORE, it is mutually agreed by and between CITY and CONSULTANT as follows:

- 1. Services. The CONSULTANT will furnish all of the services as described in "Attachment A" which is attached and incorporated by this reference.
- 2. Compensation. The CITY will pay the CONSULTANT in accordance with the conditions specified in "Attachment A," in the sum of \$3,496,740. Any breach of this Agreement will relieve CITY from the obligation to pay CONSULTANT, if CONSULTANT has not corrected the breach after CITY provides notice and a reasonable time to correct it.
- 3. Scope of Compensation. The CONSULTANT will be compensated for performance of tasks specified in "Attachment A" only. No compensation will be provided for any other tasks without specific prior written consent from the CITY.

4. Duties. CONSULTANT will be responsible for the professional quality, technical accuracy, timely completion, and coordination of all reports and other services furnished by the CONSULTANT under this Agreement, except that the CONSULTANT will not be responsible for the accuracy of information supplied by the CITY.
5. Personnel. The performance of services under this Agreement by certain professionals is significant to the CITY. CONSULTANT will assign the persons listed on "Attachment B," which is attached and incorporated by this reference, to perform the Services described in Paragraph 1, and will not add or remove persons from the list without the prior written consent of the CITY. CONSULTANT will not subcontract any tasks under this Agreement without obtaining the advance written consent of the CITY.
6. Termination. Either CONSULTANT or the CITY may terminate this Agreement with thirty (30) days advance written notice.
7. City Property. All original documents, drawings, electronic media, and other material prepared by CONSULTANT under this Agreement immediately becomes the exclusive property of the CITY, and may not be used by CONSULTANT for any other purpose without prior written consent of the CITY.
8. Insurance.
 - a. The CONSULTANT shall secure and maintain at its own costs, for all operations, the following insurance coverage, unless reduced by the City Attorney:
 - (1) General liability insurance. Occurrence basis with minimum limits of \$1,000,000 each occurrence, \$2,000,000 General Aggregate, and \$1,000,000 Products/Completed Operations Aggregate; and
 - (2) Automobile liability insurance of \$1,000,000 combined single-limit per accident for bodily injury and property damage, unless waived as provided in 8(b) below; and
 - (3) Workers' compensation and employer's liability insurance as required by the California Labor Code, as amended, or certificate of sole proprietorship; and
 - (4) Errors and Omissions professional liability insurance with minimum coverage of \$1,000,000.
 - b. It is the parties' understanding that the use of a motor vehicle is not a primary subject of this Agreement. CONSULTANT acknowledges that operating a motor vehicle is outside the scope of this Agreement and occurs only at the convenience of the CONSULTANT. A waiver of automobile liability insurance is only effective if both sets of initials appear below, otherwise such insurance is required.

Acknowledged by CONSULTANT _____

Waiver appropriate by CITY _____

- c. Each insurance policy required above must be acceptable to the City Attorney:
 - (1) Each policy must provide for written notice within no more than thirty (30) days if cancellation or termination of the policy occurs. Insurance coverage must be provided by an A.M. Best's A- rated, class V carrier or better, admitted in California, or if non-admitted, a company that is not on the Department of Insurance list of unacceptable carriers.
 - (2) All non-admitted carriers will be required to provide a service of suit endorsement in addition to the additional insured endorsement.

- (3) Both the General Liability and the Automotive Liability policies must name the CITY specifically as an additional insured under the policy on a separate endorsement page. The endorsement must be ISO Form CG2010 11/85 edition or its equivalent for General Liability endorsements and CA 20-01 for Automobile Liability endorsements.
 - (4) The General Liability policy must include coverage for bodily injury and property damage arising from CONSULTANT's work including its ongoing operations and products-completed operations hazard.
 - (5) The General Liability policy must be primary and noncontributory and any insurance maintained by CITY is excess.
 - d. In executing this Agreement, CONSULTANT agrees to have completed insurance documents on file with the CITY within fourteen (14) days after the date of execution. Failure to comply with insurance requirements under this Agreement will be a material breach of this Agreement, resulting in immediate termination at CITY's option.
9. Indemnification. CONSULTANT (which in this paragraph 9 includes its agents, employees and subcontractors, if any) agrees to indemnify, defend, and hold harmless the CITY from all claims, lawsuits, damages, judgments, loss, liability, or expenses, including attorneys' fees, for any of the following:
- a. Any claim of liability arising out of, pertaining to, or relating to the negligence, recklessness, or willful misconduct of CONSULTANT in the performance of this Agreement, excepting only those claims resulting from the sole negligence, active negligence or intentional misconduct of CITY, its employees, officials, or agents, not including CONSULTANT;
 - b. Any personal injuries, property damage or death that CONSULTANT may sustain while using CITY-controlled property or equipment, while participating in any activity sponsored by the CITY, or from any dangerous condition of property; or
 - c. Any injury or death which results or increases by any action taken to medically treat CONSULTANT.
10. Anti-Assignment Clause. The CONSULTANT may not assign, delegate or transfer any interest or duty under this Agreement without advance written approval of the CITY, and any attempt to do so will immediately render this entire Agreement null and void.
11. Costs and Attorney's Fees. In the event that legal action is required to enforce the terms and conditions of this Agreement, the prevailing party will be entitled to reasonable attorneys' fees and costs.
12. Independent Contractor. CONSULTANT is an independent contractor and no agency or employment relationship, either express or implied, is created by the execution of this Agreement.
13. Merger Clause. This Agreement and its Attachments, if any, are the entire understanding of the parties, and there are no other terms or conditions, written or oral, controlling this matter. In the event of any conflict between the provisions of this Agreement and any of its Attachments, the provisions of this Agreement must prevail.
14. Anti-Waiver Clause. None of the provisions in this Agreement will be waived by CITY because of previous failure to insist upon strict performance, nor will any provision be waived by CITY because any other provision has been waived, in whole or in part.

15. Severability. The invalidity in whole or in part of any provision of this Agreement will not void or affect the validity of any other provisions of this Agreement.
16. Choice of Law. This Agreement is governed by the laws of the State of California. Venue for all actions arising from this Agreement must be exclusively in the state or federal courts located in San Diego County, California.
17. Multiple Copies of Agreement/Counterparts. Multiple copies and/or counterparts of this Agreement may be executed, including duplication by photocopy or by computerized scanning device. Each duplicate will be deemed an original with the same effect as if all the signatures were on the same instrument. However, the parties agree that the Agreement on file in the office of the Escondido City Clerk is the copy of the Agreement that shall take precedence should any differences exist among copies or counterparts of the document.
18. Provisions Cumulative. The foregoing provisions are cumulative and in addition to and not in limitation of any other rights or remedies available to the CITY.
19. Notices to Parties. Any statements, communications or notices to be provided pursuant to this Agreement must be sent to the attention of the persons indicated below. Each party agrees to promptly send notice of any changes of this information to the other party, at the address first above written.
20. Business License. The CONSULTANT is required to obtain a City of Escondido Business License prior to execution of this Agreement.
21. Compliance with Applicable Laws, Permits and Licenses. CONSULTANT shall keep itself informed of and comply with all applicable federal, state, and local laws, statutes, codes, ordinances, regulations, and rules in effect during the term of this Agreement. CONSULTANT shall obtain any and all licenses, permits, and authorizations necessary to perform services set forth in this Agreement. Neither CITY, nor any elected nor appointed boards, officers, officials, employees, or agents of CITY shall be liable, at law or in equity, as a result of any failure of CONSULTANT to comply with this section.
22. Immigration Reform and Control Act of 1986. CONSULTANT shall keep itself informed of and comply with the Immigration Reform and Control Act of 1986. CONSULTANT affirms that as an employer in the State of California, all new employees must produce proof of eligibility to work in the United States within the first three days of employment and that only employees legally eligible to work in the United States will be employed on this public project. CONSULTANT agrees to comply with such provisions before commencing and continuously throughout the performance of this Agreement.

IN WITNESS WHEREOF, the parties below are authorized to act on behalf of their organizations, and have executed this Agreement as of the date set forth below.

CITY OF ESCONDIDO

Date: _____

Sam Abed
Mayor

Date: _____

Diane Halverson
City Clerk

Black & Veatch Corporation

Date: _____

(Consultant signature)

Title

(The above signature must be notarized)

APPROVED AS TO FORM:

OFFICE OF THE CITY ATTORNEY
JEFFREY R. EPP, City Attorney

By: _____

THE CITY OF ESCONDIDO DOES NOT DISCRIMINATE AGAINST QUALIFIED PERSONS WITH DISABILITIES.

ATTACHMENT "A"



WOHLFORD DAM REPLACEMENT DESIGN			ASSUMPTIONS/DELIVERABLES
TASK NO.	TITLE	SCOPE	
1.0	PROJECT MANAGEMENT, MEETINGS, AND WORKSHOPS		
1.1	Project Management / Administration	- Request, prepare and submit Contract Amendments to the Contract Provisions. - Submit acceptable progress reports with monthly invoice. - Prepare tracking reports, log of design issue resolutions, and submit with monthly progress reports. - Prepare a change impact report for each proposed change to the project. - Prepare and update design project schedule.	- Assume project duration of 34 months. - Monthly invoices will be submitted electronically via email. - Assumes monthly schedule updates.
1.2	Meetings and Workshops		
1.2.1	Kickoff Meeting	- Prepare for and conduct one project kickoff meeting. - Issue draft meeting minutes within 7 working days following meeting. - Incorporate draft comments and finalize.	- Assume one, 4 hour meeting at HARRF. - Minutes to be distributed via email. - Project Director, Project Manager, Lead dam designer, geotechnical, and environmental professionals will be in attendance.
1.2.2	Progress Meetings	- Prepare for and conduct monthly progress meetings. - Issue draft meeting minutes within 7 working days following meeting. - Incorporate draft comments and finalize.	- Assume 20, 2 hour meetings at HARRF. - Minutes to be distributed via email. - Leads professionals will be in attendance or available via teleconference as required.
1.2.3	Workshops	- Prepare for and conduct the following workshops: - Dam alternative workshop - Intake tower alternatives workshop - Issue draft meeting minutes within 7 working days following meeting. - Incorporate draft comments and finalize.	- Assume 4 hour durations. - Minutes to be distributed via email. - Leads professionals will be in attendance or available via teleconference as required. - Agency professionals will be in attendance as required.
1.2.4	Review Meetings	- Prepare for and conduct the following meetings: 60% review 90% review 100% review - Issue draft meeting minutes within 7 working days following meeting. - Incorporate draft comments and finalize. - Review comments will be provided by the City in a spreadsheet format. B&V will provide responses for each comment within the spreadsheet.	- Assume 4 hour durations. - Minutes to be distributed via email. - Leads professionals will be in attendance or available via teleconference as required.
2.0	PRELIMINARY ENGINEERING SERVICES		
2.1	Topographic survey	- Aerial survey - Provide six targets tied to City of Escondido GPS control and benchmark	- Preliminary title reports for 2 parcels. - Prepare legal description and sketch of new roadway.

WOHLFORD DAM REPLACEMENT DESIGN

TASK NO.	TITLE	SCOPE	ASSUMPTIONS/DELIVERABLES
		- system - o Provide 20 scale mapping at 1 foot contours - o Field survey to augment aerial mapping. • Field survey existing Oakvale roadway along portion to be re-aligned. • Coordinate with underground utilities services to get field mark-outs. • Provide preliminary title reports (2 parcels). • Provide legal descriptions and sketch of new road. • Provide ortho photo and associated targets for entire lake area. • Contours will only be developed for area near the dam and marina.	• As an additional service perform survey of lot 3 and prepare record of survey. • As an additional service, field survey County road so that existing legal description can be located. Doesn't include record of survey. • See Attachment A for areas where contours will be developed.
2.2	Geotechnical Services		
2.2.1	Geotechnical Review and Field Preparation	• Review and compile all available geologic and geotechnical data. • Contact USA and obtain borehole and other field exploration permitting. • Facilitate field exploration site visits with subcontractors. • Prepare scope of work for subcontractor activities. • Prepare Health & Safety Plan for field explorations (Kleinfelder).	• City to provide all existing geologic/geotechnical data performed to date that is in their possession. • Compile initial site plan with all existing data and geotechnical data volume with all borings and other geotechnical data. • Utilize previous investigations and background summary for GDR. • Copies of permits to be retained in Kleinfelder files. • Submit Health & Safety Plan.
2.2.2	Geotechnical and Seismic input to Work Plan for DSOD & FERC	• Develop field exploration plan. • Draft Work Plan preparation followed by design team review and comments and finalize Work Plan for agency submittal. • Follow up on geotechnical and seismic review comments from DSOD/FERC. • Attend one half day meeting with DSOD. • Attend one half day meeting with FERC. • Finalize Work Plan based on DSOD and FERC review comments.	• Field exploration plan. • Field exploration health and safety plan. • Draft Work Plan for design team review. • Final Work Plan incorporating DSOD and FERC comments. • Provide summary minutes from DSOD and FERC meetings. Distribute in pdf format.
2.2.3	Geotechnical explorations and laboratory testing	• Develop geotechnical alternatives analysis explorations: - o Boring in RCC dam foundation • Geotechnical 30% design exploration: - o Mobilization - o Dam exploration (4 borings to 100 feet in dam foundation) - o Perform shall backhoe test pit for tower bridge option - o Geophysical and televiwer surveys in dam borings - o Sampling of reservoir sediment at two locations near dam by Vibracore - o Demobilization and site cleanup	• City to provide core storage. • Table of laboratory test results including representative subsurface engineering units consistent with section and profiles in 2.2.5. • Vibracore sampling assumes no granular materials are present and sediments are up to 15 feet thick. • Assumes that backhoe test pit for tower bridge option is within the limits shown from the GEI report. If this information if found to be inaccurate in the field a boring may requires as an additional service.



WOHLFORD DAM REPLACEMENT DESIGN		
TASK NO.	TITLE	SCOPE
		- Laboratory testing: - Soil - Sieve analyses - Moisture and density - Atterbergs - Environmental and geotechnical testing of Vibracore sediment samples - Rock - Unconfined compressive strength - Optional services (not included in current scope and fee): - Road re-alignment explorations - Landslide explorations - Separate early mobilization for dam toe boring
2.2.4	Seismic Analyses	- Update ground motion analyses. - Prepare Technical Memorandum for Seismic Design Parameters. - Optional services (not included in current scope and fee): - Earthquake time history development (3 total) - Prepare draft and final Geotechnical Data Report (GDR) Amendment.
2.2.5	Prepare Geotechnical Data Report (GDR) Amendment	
2.2.6	Prepare Geotechnical Interpretive Report (GIR)	- Prepare RCC Dam profiles (heel and toe) (2 total). - Prepare RCC maximum dam sections (3 total). - Prepare Geotechnical Interpretive Report.
2.3	Permitting Assistance	
2.3.1	DSOD Coordination, meetings, and permitting approval	- Meet with DSOD staff to present initial results of preliminary data review and initial dam selection. - Present proposed field work to DSOD based on selected dam alternative and obtain approval. - Provide Design Criteria Report for review and approval. Incorporate review comments as necessary. - Provide 60%, 90%, and 100% design packages to DSOD for review and approval. Incorporate DSOD review comments.
2.3.2	FERC coordination, meetings, and	Meet with FERC staff to present initial results of preliminary data review and initial dam selection.

ASSUMPTIONS/DELIVERABLES

- If the backhoe test pit and associated geotechnical evaluations for the tower bridge design are not required a savings of \$11,000 will be deducted from this task.
- Design Seismic Parameters Technical Memorandum.
- Prepare draft and final reports. Provide 5 hard copies and 1 pdf.
- Geotechnical/Geologic profiles (4 total).
- Geotechnical/Geologic sections (5 total).
- Prepare draft and final reports. Provide 5 hard copies and 1 pdf.
- Assumes four local meeting with DSOD, each lasting four hours in duration.
- Submittal packages will include 3 half size and 1 full size set of drawings, along with 4 sets of specifications and 1 electronic pdf.
- Remaining hours for general coordination.
- Assumes five local meeting with FERC, each lasting four hours in duration.



WOHLFORD DAM REPLACEMENT DESIGN		
TASK NO.	TITLE	SCOPE
	permitting approval	- Present proposed field work to FERC based on selected dam alternative and obtain approval. - Provide 60%, 90%, and 100% design packages to FERC for review and approval. Incorporate FERC review comments.
2.3.3	Local agency coordination (County of San Diego, City of Escondido, SDG&E)	- Agency coordination with County of San Diego to obtain the following permits: - Roadway re-alignment - Traffic Control - Agency coordination with SDG&E for construction power needs (i.e. RCC batch plant). - Agency coordination with City of Escondido to obtain the following permits: - Traffic control
2.4	Evaluation of Dam and Intake Tower Alternatives	
2.4.1	Dam Alternatives	
2.4.1.1	Development of Alternatives	- Develop schematic layouts, material quantities, and cost estimates for each alternative. - Describe each alternative relative to critical criteria including cost, constructability, environmental effects, etc.
2.4.1.2	Decision Memorandum	- Prepare technical memorandum that records the discussion and decision made during the dam alternative workshop. - The memorandum will include the primer package (Item 2.4.1.2) and summary of workshop minutes.
2.4.2	Intake Tower Alternatives	
2.4.2.1	Development of	Develop schematic layouts, material quantities, and cost estimates for each

ASSUMPTIONS/DELIVERABLES

- Submittal packages will include 3 half size and 1 full size set of drawings, along with 4 sets of specifications and 1 electronic pdf.
- Remaining hours for general coordination.
- Assumes 4 meetings with County of San Diego each lasting 2 hours in duration. Meeting minutes will be issued. Project Manager and lead roadway designer will be in attendance.
- Assumes 20 hours of coordination with SDG&E.
- Assumes 2 meetings with City of Escondido each lasting 2 hours in duration. Meeting minutes will be issued. Project Manager and lead roadway designer will be in attendance.
- Drawings and specification will be provided as outlined in Task 4.0.
- County and City review comments to be provided in spreadsheet format.
- SWPPP for the roadway re-alignment will be performed by the selected construction Contractor.
- Assumes no underground utilities exist within the existing roadway.
- City to pay for all permitting fees.
- Assumes three alternatives will be developed (RCC, RCC modified and zoned rockfill).
- Assumes 2 to 3, 11x17 schematics prepared for each alternative.
- Draft and final memoranda will be prepared in digital format. Submit 5 hard copies and 1 pdf.
- Final memorandum delivered as searchable PDF(s).
- Assumes up to four alternatives will be developed



WOHLFORD DAM REPLACEMENT DESIGN			ASSUMPTIONS/DELIVERABLES
TASK NO.	TITLE	SCOPE	
	Alternatives	- alternative. - Complete necessary structural and seismic calculations to confirm viability of each alternative. - Describe each alternative relative to critical criteria including cost, constructability, environmental effects, operation, etc.	(rehab, stand-alone, integrated with dam, combination). - Assumes 1 to 2, 11x17 schematics prepared for each alternative.
2.4.2.2	Decision Memorandum	- Prepare technical memorandum that records the discussion and decision made during the dam alternative workshop. - The memorandum will include the primer package (Item 2.4.2.2) and summary of workshop minutes.	- Draft and final memoranda will be prepared in digital format. Submit 5 hard copies and 1 pdf. - Final memorandum delivered as searchable PDF(s).
2.5	Engineering Analyses		
2.5.1	Design Criteria Memorandum	- Prepare a technical memorandum outlining the specific criteria and methodologies to be followed during the design process including: - Spillway design flood - Liquefaction potential - Stability loading conditions - Deformation - Structural - Mechanical, electrical and I&C - Draft document will be submitted to DSOD/FERC for review comment.	- Draft and final memoranda will be prepared. Submit 5 hard copies and 1 pdf. - Final memorandum delivered as hard copy, and PDF.
2.5.2	Facilities Plan	Prepare a technical memorandum outlining the overall operation of the facility including past, current and future operations.	- Draft and final memoranda will be prepared. Submit 5 hard copies and 1 pdf. - Final memorandum delivered as 5 hard copies and pdf.
2.5.3	Dam Analyses	- Perform engineering analyses associated with an RCC dam alternative, including: - Seismic hazard analysis (update previous study) - Stability of existing dam (at the conclusion of the project) - RCC mix design - Foundation identification - Stability (FEA) - Seepage - Deformation/stress (FEA) - Abutment stability - Liquefaction of existing dam - Wave and seiche	- Assumes RCC dam alternative. - Variable RCC strength considered through up to 3 different mix designs (paper designs, actual design mix to be performed under task 2.6). - Part of Comprehensive Memorandum (task 2.5.7)
2.5.4	Intake Tower & Pipeline Analyses	Perform engineering analyses for design of renovations to existing Intake Tower and modifications to the outlet pipe:	- Part of Comprehensive Memorandum (task 2.5.7). - Assumes selected tower alternative (Task 2.4.2) is



WOHLFORD DAM REPLACEMENT DESIGN

TASK NO.	TITLE	SCOPE	ASSUMPTIONS/DELIVERABLES
		- o Seismic stability - o Structural - o Mechanical - o Electrical and I&C - o Pipe alignment (vertical & horizontal)	renovation of existing tower and minor structural rehabilitation is required.
2.5.5	Oakvale Road Relocation Analyses	• Perform engineering analyses associated with the relocation of Oakvale Road, including: - o Road alignment (vertical & horizontal) • Rock cut stability.	• Part of Comprehensive Memorandum (task 2.5.7).
2.5.6	Spillway Analyses	• Perform engineering analyses associated with sizing of the principal/emergency spillway: - o Design storm rainfall (update previous study) - o Hydrology (update previous study) - o Spillway hydraulics (weir configuration) • Downstream channel hydraulics.	• Assumes typical spillway for RCC dam (integral to dam). • Part of Comprehensive Memorandum (task 2.5.7).
2.5.7	Comprehensive Memorandum	• Compile engineering analyses from Items 2.5.3 to 2.5.6. • Prepare summary of the analyses. • Submit draft memorandum to DSOD/FERC review and comment. • Modify, revise analyses as necessary to achieve regulatory acceptance.	• Draft and final memoranda will be prepared. Submit 5 hard copies and pdf of draft and final.
2.6	RCC Mix Design		
2.6.1	Identify material suppliers and analyze material properties		
2.6.1.1	Identify material types to be used in RCC Mix	• Evaluate material types to be used in the RCC mix design	• Up to 5 suppliers will be contacted. • Expected duration of this phase is 1 month.
2.6.1.2	Develop estimated quantities of material types	• Estimate daily production rates and final quantities needed to construct the RCC dam.	• Based on RCC dam option.
2.6.1.3	Test proposed water supply	• Testing the proposed water supply to evaluate suitability for use in RCC.	• Assumes that water from Lake Wohlford will be used for RCC production.
2.6.1.4	Survey local suppliers of cement, fly ash, admixtures and	• Develop survey document for material suppliers • Review and evaluate survey document of material type properties from suppliers • Aggregate test results from 3rd party laboratories will be reviewed	• Assumes that cement, fly ash, and admixtures tests from suppliers provided at no cost.



WOHLFORD DAM REPLACEMENT DESIGN		
TASK NO.	TITLE	SCOPE
	aggregates	ASSUMPTIONS/DELIVERABLES
2.6.1.5	Produce report of identified suppliers	Develop report identifying material suppliers and their material types to be used in the trial batching of RCC.
2.6.2	Develop batch testing program and test trial batch	
2.6.2.1	Develop RCC Mix design trial batch testing program	- Develop bracketed range water to cementitious ration (W/C+P) trial batch testing program. - Developing aggregate percentages. - Performing setting time tests to establish admixture dosage rates.
2.6.2.2	Trial batch RCC Mix Design	- Test and confirm material type properties for aggregate suppliers. - Material preparation. - Trial batch mixing and cylinder casting. - Trial batch testing.
2.6.2.3	Review testing results and produce report with recommendations	Evaluating testing results of the trial batching and prepare a report with recommended final mix design to be used in the Phase 3.
2.6.3	Trial batch final mix design proportions	
2.6.3.1	Trial batch RCC Mix design	- Material preparation. - Trial batch mixing and cylinder casting. - Trial batching testing.

- Report will be prepared in digital format. Submit 5 hard copies and 1 pdf.
- This initial testing based on single source supplier.
- Expected duration of this phase is 8-14 months and will initiate at the end of Phase 1.
- 7 coarse aggregate specific gravity tests.
- 3 fine aggregates specific gravity tests.
- 7 coarse aggregate absorption tests.
- 3 fine aggregate absorption tests.
- 3 sand equivalent tests.
- 3 clay lumps and friable particle tests.
- 7 LA abrasion, Flat and elongated, and fracture tests.
- 100 compressive strength results.
- 10 direct tensile tests.
- Report will be prepared in digital format. Submit 5 hard copies and 1 pdf.
- Will utilize all identified suppliers and their material types of aggregates, admixture, cement and fly ash from Phase 1.
- Expected duration of this phase is 8-14 months and will initial one month after the initiation of Phase 2.



WOHLFORD DAM REPLACEMENT DESIGN		
TASK NO.	TITLE	SCOPE
2.6.3.2	Review testing results and produce report with recommendations	Evaluate testing results of trial batching and prepare report with recommendations for final mix design for the RCC dam.
ASSUMPTIONS/DELIVERABLES		
		Report will be prepared in digital format. Submit 5 hard copies and 1 pdf.
3.0 ENVIRONMENTAL		
3.1	Preparation of Environmental Technical Studies	
3.1.1	Biological Assessment	
3.1.1.1	Biological Reports and Agency Coordination	- Biological Technical Report: - Prepare a Biological Technical report at conclusion of survey and delineation tasks. - Include current literature review, description of field survey techniques and methods, focused survey results, current site conditions, vegetation map, identified plant communities on the project site, and a compendia of all species observed. - Identify project impacts based on project design. - Provide recommendations for mitigation strategies to lessen any findings of significance. - Identify areas of special concern such as vegetation communities or habitats addressed in the City's Subarea Plan or MHCP. - Biological Assessment (BA): - Determine if species protected by the Federal Endangered Species Act (FESA) that are not "covered species" under the MHCP would be potentially affected by the proposed project. - Evaluate within the BA, the nature and extent of impacts to listed species and develop mitigation measures to facilitate and expedite USFWS consideration of FERC and/or USACE actions (e.g., issuance of permits, etc.) and issuance of a Biological Opinion (BO). 2080.1 Consistency Letter: - Facilitate coordination between the City and both the USFWS and CDFG during the FESA Section 7 consultation process. - Prepare a 2080.1 Consistency Determination Request Letter for submittal to the CDFG once the USFWS issues a Biological Opinion for the project. - Assess existing vegetation mapping and compare existing conditions for
3.1.1.2	Botanical Surveys	- Assumes two meetings with agencies for facilitation of Section 7 Consultation. B&V meeting attendance is not required. - Assumes one review of draft documents by the City. - Assumes submittal of three hard copies and a digital PDF copy of the draft documents. - Assumes submittal of three hard copies and a digital PDF copy of final documents.
3.1.1.2	Botanical Surveys	Assumes Survey Area does not exceed 500 acres in size.



WOHLFORD DAM REPLACEMENT DESIGN

TASK NO.	TITLE	SCOPE	ASSUMPTIONS/DELIVERABLES
		vegetation types, their boundaries with current biological study area • Conduct botanical surveys throughout the Survey Area during the appropriate blooming periods for target sensitive species. Surveys will document plant species observed, mapping the locations of special status plant species: ○ Survey 1: March –April, complete coverage of Survey Area. ○ Survey 2: May-June, complete coverage of Survey Area. • Count the number of individuals when a target special status plant is observed (or subsampled and estimated for large populations). Special status plant locations will be recorded with handheld GPS units as individual point locations, will be attributed with population estimates, and will subsequently be mapped on aerial photo-based field maps. ○ Prepare a complete floral species inventory for the Survey Area upon conclusion of botanical surveys.	• Assumes two report submittals, draft and final. Draft submittal will be electronic only, and the final submittal will include electronic delivery plus five hard copies. • Assumes no late-season survey (Survey 3) is necessary, but may not be required dependent on climatic and phenologic observations during the first two surveys. B&V will notify the City immediately if a third Botanical Survey is determined to be necessary for complete survey results.
3.1.1.3	Wildlife Surveys	• Coastal California Gnatcatcher Surveys: ○ Per USFWS guidelines, a total of 3 protocol surveys will be conducted during the breeding season from February 15 through August 30 with a minimum of seven days between surveys. ○ A qualified permitted biologist with a valid 10(a) (1)(A) permit will conduct the surveys and will be assisted by a second biologist for safety purposes. ○ Survey area estimated to be around 55 acres, but this may change pending a detailed habitat assessment. ○ Assumes two biologists will be able to sufficiently cover all potential gnatcatcher habitat during the survey window on 1 day for a total of 3 survey days. ○ A 45-day summary report will be submitted within 45 days of the completion of surveys to the USFWS. • Least Bell's Vireo Surveys: ○ Per USFWS guidelines, a total of 8 protocol surveys will be conducted during the breeding season from April 10 through July 31 with a minimum of 10 days between surveys. ○ Two qualified biologists familiar with the vocalizations, plumages, and habits of least Bell's vireo will conduct the surveys. A valid 10(a)(1)(A) permit is not required as no "take" will occur through use of a playback. Survey area estimated to be around 44 acres, but this may change pending a detailed habitat assessment. ○ Assumes two biologists will be able to sufficiently cover all potential vireo habitat during the survey window on 2 days for a total of 16 survey days.	• Assumes no burrowing owl surveys as there are no known occurrences in the nearby vicinity and bare or sparsely vegetated habitat preferred by burrowing owls does not occur around Lake Wohlford. The Roller Compacted Concrete Dam does not involve the use of burrow pits where the majority of nonnative grassland is found. • A 45-day summary report to the USFWS is required for the protocol surveys conducted for each species. Thus, a summary report for the coastal California gnatcatcher, least Bell's vireo, southwestern willow flycatcher, and arroyo toad will be submitted within 45 days of the completion of surveys to the USFWS. • Assumes one draft of each 45-day report summary in digital format to the client for review prior to submittal to USFWS.



WOHLFORD DAM REPLACEMENT DESIGN			ASSUMPTIONS/DELIVERABLES
TASK NO.	TITLE	SCOPE	
		○ A 45-day summary report will be submitted within 45 days of the completion of surveys to the USFWS. ● Southwestern Willow Flycatcher Surveys: ○ Per USFWS guidelines, a total of 5 protocol surveys will be conducted during the breeding season from May 15 through July 17 with a minimum of 5 days between surveys. ○ A qualified permitted biologist with a valid 10(a)(1)(A) permit will conduct the surveys and will be assisted by a second biologist for safety purposes. ○ These surveys will be conducted on the same day as least Bell's vireo surveys to save costs. One biologist will conduct the least Bell's vireo survey and one biologist will conduct the southwestern willow flycatcher survey. Thus, the total cost for these surveys is included in the cost estimate for the least Bell's vireo surveys. ○ A 45-day summary report will be submitted within 45 days of the completion of surveys to the USFWS. ● Arroyo Toad Surveys: ○ Per USFWS guidelines, a total of 6 protocol surveys will be conducted from March 15 through July 1 with a minimum of seven days between surveys. ○ At least one survey will be conducted per month during April, May, and June. Surveys will include both a daytime and nighttime portion during the same 24 hr period. ○ Assumes two biologists will be able to sufficiently cover all potential arroyo toad habitat during the survey window on 1 day. Therefore six survey days will be required. ○ A 45-day summary report will be submitted within 45 days of the completion of surveys to the USFWS. ● General Wildlife Surveys: ○ Conduct a general wildlife survey throughout the project area to assess the potential habitat for a variety of CDFG Species of Special Concern. ○ Surveys will be conducted during the spring (April and May) and fall (October and November) for 1 week during both seasons. ○ Assumes two qualified biologists will be able to search for various reptile and amphibian, bird, bat, and mammal species of special concern. ○ Assumes five survey days will be required. ● Prepare a summary report at the conclusion of wildlife surveys. ● Conduct pre-field surveys and analysis to identify areas of potential jurisdictional waters of the U.S. and state (including wetlands).	
3.1.1.4	Jurisdictional Wetland		● Assumes survey area will not exceed 10 acres. ● Assumes formal field delineation can be completed in 8



WOHLFORD DAM REPLACEMENT DESIGN		
TASK NO.	TITLE	SCOPE
	Delineation	- Conduct the formal field delineations utilizing the <i>latest</i> federal and state guidance, methodologies, and mapping standards. - Map the boundaries of all potential jurisdictional waters delineated within the project boundary with sub-meter GPS equipment and, ascertained for area and extent, using the latest available ESRI GIS software. - Compile field data to display quantitative and biological information for aquatic features formally delineated within the survey area to summarizing the type, location and extent of potential jurisdictional waters. - Prepare a formal Jurisdictional Delineation Report (JDR) and Jurisdictional Delineation Form per all appropriate regulatory frameworks and <i>latest</i> guidance documents for potential jurisdictional waters of the U.S. and state, formally delineated within the survey area that would be subject to review by the requisite resource agencies. - Include a functions and values assessment documenting ecological baseline conditions at the time of the delineation, utilizing the California Rapid Assessment Method (CRAM). - Submit JDR to the USACE for the purposes of acquiring a jurisdictional determination for the presence and/or absence of federal waters based upon verification of field findings by the USACE. The JDR will also contain information required to obtain necessary permits. - Clean Water Act (CWA) Section 404 Permitting: - Confirm in a pre-application meeting(s) with the USACE the applicability of a CWA Section 404 Individual Permit (IP). - Prepare IP permit application, including standard application, cover letter, project description, biological resources binder, avoidance and minimization measures, BMP maintenance manual and mitigation plan, and other necessary support documentation. - CWA Section 401 Permitting: - Prepare the CWA 401 Water Quality Certification application package. - CDFG 1601 Streambed Alteration Agreement (SAA) - Prepare the SAA form and provide the backup information for the package to be considered complete by CDFG. - Review all existing documentation that has been previously prepared. - Facilitate early discussion with the City engineering and stormwater staff to lay out project impact expectations and propose BMP strategies for permitting and water quality compliance negotiations with the San Diego RWQCB and USACE. - Conduct site visit to assess potential impacts from erosion, sedimentation,
3.1.1.5	Permitting	- Assumes the formal field delineations utilizing the <i>latest</i> federal and state guidance, methodologies, and mapping standards. - Map the boundaries of all potential jurisdictional waters delineated within the project boundary with sub-meter GPS equipment and, ascertained for area and extent, using the latest available ESRI GIS software. - Compile field data to display quantitative and biological information for aquatic features formally delineated within the survey area to summarizing the type, location and extent of potential jurisdictional waters. - Prepare a formal Jurisdictional Delineation Report (JDR) and Jurisdictional Delineation Form per all appropriate regulatory frameworks and <i>latest</i> guidance documents for potential jurisdictional waters of the U.S. and state, formally delineated within the survey area that would be subject to review by the requisite resource agencies. - Include a functions and values assessment documenting ecological baseline conditions at the time of the delineation, utilizing the California Rapid Assessment Method (CRAM). - Submit JDR to the USACE for the purposes of acquiring a jurisdictional determination for the presence and/or absence of federal waters based upon verification of field findings by the USACE. The JDR will also contain information required to obtain necessary permits. - Clean Water Act (CWA) Section 404 Permitting: - Confirm in a pre-application meeting(s) with the USACE the applicability of a CWA Section 404 Individual Permit (IP). - Prepare IP permit application, including standard application, cover letter, project description, biological resources binder, avoidance and minimization measures, BMP maintenance manual and mitigation plan, and other necessary support documentation. - CWA Section 401 Permitting: - Prepare the CWA 401 Water Quality Certification application package. - CDFG 1601 Streambed Alteration Agreement (SAA) - Prepare the SAA form and provide the backup information for the package to be considered complete by CDFG. - Review all existing documentation that has been previously prepared. - Facilitate early discussion with the City engineering and stormwater staff to lay out project impact expectations and propose BMP strategies for permitting and water quality compliance negotiations with the San Diego RWQCB and USACE. - Conduct site visit to assess potential impacts from erosion, sedimentation,
3.1.2	Water Quality Analysis	Assumes City will provide supporting data and information, such as previous project site and drainage designs and pertinent CEQA studies, existing drainage infrastructure drawings, photos, plans, dam reports, and local water quality/stormwater compliance

ASSUMPTIONS/DELIVERABLES

- person days.
- Assumes incorporation of any additional delineation guidance provided by the resource agencies during and after all formal field delineation efforts.
- Assumes the City will provide 1-foot contour data and high resolution aerial imagery.
- Assumes one draft report submitted to the City in PDF format for review prior to USACE submittal.
- Assumes one site visit with the USACE and the CDFG both present at the same visit.
- Assumes the specialists who will conduct the field delineation survey will participate in meetings with USACE and CDFG.
- Assumes the JDR will not contain a detailed impact analysis or mitigation section. A detailed impact analysis will be presented in the suite of requisite permits and a detailed Conceptual Mitigation/Restoration plan will be provided separately as stand-alone documents.
- Assumes all permit fees will be paid by the City.
- Assumes NEPA requirements will be resolved prior to submission of the IP to the USACE.
- Assumes CEQA will be resolved prior to submission of the 401 Certification package to the RWQCB and SAA to CDFG.
- Assumes two meetings with the client and resource agencies to discuss potential and continuing permit approach and issues.
- Assumes City will provide supporting data and information, such as previous project site and drainage designs and pertinent CEQA studies, existing drainage infrastructure drawings, photos, plans, dam reports, and local water quality/stormwater compliance



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TASK NO.	TITLE	SCOPE
		turbidity, dredge/fill, and other related project activities. • Borrow areas, laydown sites, construction zones, similar construction related project areas, and nearby receiving waters will be evaluated. • Describe regulatory background, site topography, land use, impervious surface, groundwater and water quality characteristics and analyze these topics relative to proposed project design. • Incorporate information provided in the project Drainage Study and Hydromodification Management Plan. • Identify the receiving water and potential project-related storm water discharges, and evaluate the existing surface water quality and potential project-related storm water impacts on the receiving water quality and hydromodification. • Recommended project design features, BMP designs, or mitigation measures to minimize potential impacts if required. • Assessment of regulatory compliance will focus on potential construction impacts and post-construction storm water management requirements that will include, but not be limited to: ◦ National Pollutant Discharge Elimination System General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order 2010-0014-DWQ; amending 2009-0009-DWQ). ◦ Waste Discharge Requirements for Discharges of Urban Runoff from the Municipal Separate Storm Sewer Systems (MS4s) Draining the Watersheds of the County of San Diego, the Incorporated Cities of San Diego County, the San Diego Unified Port District, and the San Diego County Regional Airport Authority (Order R9-2007-0001). ◦ The City of Escondido Jurisdictional Urban Runoff Management Plan, including the Standard Urban Stormwater Mitigation Plan and the Hydromodification Management Plan. • Summarize Section 303(d) Clean Water Act-listed water bodies (and their respective impairment constituents) in the project vicinity. Pollutants of concern will be linked with potential mitigation measures. • Assess effects on hydrology conditions within the project footprint relative to site conditions and maintenance/repair expectations. Standard information such as floodplain limits and flood flow information will be obtained from FEMA maps. • Provide NEPA analysis of Coastal Resources, as well as Wild and Scenic Rivers with a brief discussion of these issues and reasons why no adverse impacts are
		ASSUMPTIONS/DELIVERABLES requirements if different from described. • Assumes City will supply any appropriate GIS layers for accurately depicting the environmental resources and utilities within the area affected. • Assumes no development of a construction SWPPP and any related filing requirements with the State of California. • Assumes three hard copies and CDs of the Water Quality Technical Report will be submitted to the City. Revisions are not proposed. • Two multiagency (e.g., San Diego RWQCB, USACE, CDFG) meetings will be attended by a senior environmental scientist and an environmental engineer.



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TASK NO.	TITLE	SCOPE	ASSUMPTIONS/DELIVERABLES
3.1.3	Traffic Study	expected to occur. - Document existing conditions including street widths, number of lanes, traffic signal locations and phasing, parking restrictions, and any special traffic control measures. - Conduct AM/PM peak hour counts at up to six key intersections in the project area, focusing on the East Valley Parkway, Valley Center Road, and Lake Wohlford Road corridors. Exact intersections will be chosen once the source of materials and haul routes determined. - Conduct or obtain recent 24-hour machine counts (ADTs) for the streets near the project site from City of Escondido and County of San Diego records. Fifteen segments will be analyzed. Specific segments will be chosen once materials source and haul routes are determined. - Obtain traffic reports and relevant data for all short-term approved/pending cumulative projects in the project area. - Determine the existing peak hour Levels of Service (LOS) at the key intersections using the 2000 Highway Capacity Manual (HCM) methodology and street segments using the City's or County's look-up table. - Prepare construction trip generation forecast for the project on an AM/PM peak hour and twenty-four hour basis using site-specific parameters. Distribute and assign project construction traffic to the street system, separately for trucks and construction workers. - Determine intersection and street segment LOS for the existing + project scenario. Focus on the East Valley Parkway, Valley Center Road, and Lake Wohlford Road corridors and Oakvale Road. - Address the impacts of potential relocation of Oakvale Road. - Identify the potential significant traffic impacts of the project and identify measures required to mitigate calculated project traffic impacts, if required. - Determine cumulative traffic by reviewing traffic generation/distribution/assignment forecasts for cumulative projects in the nearby area from their respective traffic reports. Calculate the intersection LOS for the existing + project + cumulative projects scenario, determine the significance of potential cumulative impacts, and recommend mitigation if necessary.	- Assumes analysis of 6 intersections and 15 roadway segments. - Assumes one submittal of Draft Traffic report with text, tables, and graphic material for review. - Assumes one revision of Draft Traffic report and resubmit Final Report (no new analysis assumed). - Assumes one construction route. - Assumes no quantitative analysis of project alternatives. - Assumes attendance at two meetings. B&V meeting attendance not required. - Assumes no project description changes once calculations have commenced. - Assumes no response to public comment.
3.1.4	Visual Impact Assessment	- Discuss with City staff the areas of known visual sensitivity and specific community concerns. - Conduct field reconnaissance and complete viewshed analysis of the study area to identify segments where potential facilities could be visible, overlaid by	- Visual Impact Assessment will be directed by a landscape architect licensed to practice in the State of California. - Assume surrounding visual character imagery may be



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	SCOPE
	existing mapping layers of public facilities (e.g., schools, recreational areas, roadways). Mapping analysis will assist in focusing the initial site reconnaissance on visible areas. - Identify receptors to determine any potentially sensitive locations. - Select, in consultation with the City a maximum of four Key Observation Points (KOPs) representing: - Most critical viewpoints, special landscape features, or areas with a high degree of visual integrity, and - Typical views encountered in the project area. - Photograph selected KOPs. Photography of KOPs captured using digital SLR at a 50mm equivalent to most closely replicate the horizontal angle of observation experienced by the human eye. GPS points recorded for each photo location. - Digital design drawings of proposed project features to be used for 3D Modeling. - Describe local, state, and other applicable visual quality objectives and policies. - Describe locations of sensitive visual resources and the types and interests of sensitive viewers. - Develop baseline visual characterization of landscape setting, viewpoints, and viewer sensitivity based on the viewer typology and their typical expectation of views. - Prepare a site plan showing the project viewshed and the locations of the KOPs. - Develop still (i.e., not animated) 2D photo-realistic visual simulations of the project site and proposed project features. Includes four visual simulations depicting daytime post-project conditions. - Evaluate potential impacts, accounting for design criteria and the intended project design features. - Provide project design features or mitigation measures, if necessary. - Prepare a GIS viewshed analysis for CEQA/NEPA documentation to measure adverse conditions for each alternative (assumes 1 viewshed analysis per alternative). Quantitative measurements will be utilized where feasible, such as acres of disturbance or the area of potential adverse condition occurrence. - Discuss with City staff the areas of known sensitivity and specific community concerns. - Conduct a noise survey with six short-term (15-30 minute) noise measurements and two 24-hour measurements. - Discuss with project team the anticipated construction equipment use. - Develop analysis of construction noise based on typical scenarios from similar types of projects.
3.1.5	Noise Analysis

ASSUMPTIONS/DELIVERABLES

- used to supplement contextual and regional visual setting discussions, but will not be included as part of the impact analysis.
- Assumes one review and one revision cycle for the visual simulations. These simulations will be revised per comments received and any additional data that becomes available during the review.
- Assumes AECOM will be provided digital design drawings (AutoCAD) by project design engineer to facilitate any 3D modeling and the simulation process. This includes, but is not limited to, proposed layout plans, engineering drawings, and dimensions.
- Assumes that simulations will not be prepared as a part of cumulative impact analysis.
- Assumes one hard copy and one electronic file in PDF format of the Visual Impact Assessment per submittal.
- Assumes one revision of Draft Noise Analysis and resubmit Final Report (no new analysis assumed).
- Assumes submittal of three hard copies and a digital PDF copy of the draft and final documents.
- Assumes no quantitative analysis of project alternatives.



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TASK NO.	TITLE	SCOPE	
3.1.6	Air Quality Analysis	- Determine potential construction-related noise impacts, specifically focusing on heavy equipment operations at the dam site, the material source site (if not from commercial sources), and increased noise for haul truck material delivery. - Assess changes with the existing and future noise environment based on changes to dam operations and noise from new stationary sources. - Recommend design features or mitigation measures to reduce noise levels to comply with the City's Noise Element and Municipal Code. - Discuss with project team the anticipated construction equipment use. - Present relevant background information on the science of air quality, applicable regulations from the California Air Resources Board (ARB) and San Diego Air Pollution Control District (SDAPCD), and existing air pollutant conditions in the project area. - Assess potential for air quality impacts, focusing on heavy equipment operations at the dam site, the material source site (if not from commercial sources), and increased emissions from haul trucks. - Evaluate potential short-term construction scenarios and long-term operational criteria air pollutant emissions based on long-term project operations and new emissions sources. - Model emissions using the most recent recommendations of SDAPCD and ARB, and most recent emission factors and usage statistics of identified project equipment. - Assess impacts to nearby sensitive receptors from construction operation using SDAPCD localized significance thresholds methodology. - Evaluate potential for Toxic Air Contaminants, carbon monoxide "hotspots", and increased odors from construction, stationary source, and vehicle operations to nearby sensitive receptors. - Analyze project's compliance with regional air quality and land use policies and programs.	- Assumes one revision of Draft Air Quality Analysis and resubmit Final Report (no new analysis assumed). - Assumes submittal of three hard copies and a digital PDF copy of the draft and final documents. - Assumes no quantitative analysis of project alternatives.
3.1.7	Greenhouse Gas (GHG) Emissions Analysis	- Discuss with project team the anticipated construction equipment use. - Describe the background and scientific basis for climate change concerns and action and discuss any applicable federal, state, and local legislation relative to climate change. - Calculate future GHG emissions using the methods of the California Climate Action Registry (CCAR) General Reporting Protocol, and emissions prepared for the primary air quality analysis where applicable. - Determination impacts for GHG emissions generated by the project assessed with the most recent recommendations and requirements of the ARB and	- Assumes one revision of Draft Air Quality Analysis and resubmit Final Report (no new analysis assumed). - Assumes submittal of three hard copies and a digital PDF copy of the final document. - Assumes no quantitative analysis of project alternatives.



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TASK NO.	TITLE	SCOPE	ASSUMPTIONS/DELIVERABLES
3.1.8	Cultural Resources Technical Report	SCAQMD. - Conduct records search at the South Coastal Information Center. Examine reports, records, maps, and documents at other institutions, libraries, agencies, and archives. - Contact the California Native American Heritage Commission (NAHC) to request a Sacred Lands file check. Conduct a contact program with Native American tribal representatives identified by the NAHC. Contact other interested parties, including local historical societies for information regarding historic resources in the study area. - Conduct an intensive survey of the study area to identify archaeological and historic architectural resources. All undisturbed portions of the project corridor walked in transects by archaeologists to visually examine the ground surface for evidence of cultural resources. - Map discovered archaeological resources using handheld GPS data recorders and recorded on Department of Parks and Recreation 523 forms. All appropriate procedures will be followed if historic architectural resources or archaeological resources are found. - Assess impacts to all significant cultural resources potentially affected by construction or other substantial impact in technical report. - Address impact thresholds set forth in NEPA and NHPA because of the involvement of federal agencies including FERC and the USACE, in addition to compliance with the City's CEQA requirements. - Provide avoidance or mitigation measures, such as data recovery, if significant impacts are identified. Section 106 consultation with SHPO is an anticipated federal requirement. Assist the lead federal agency with the Section 106 process by preparing documents and information for the lead agency to send to SHPO for concurrence.	- Assumes one revision of Draft Cultural Resources report and resubmit Final Report (no new analysis assumed). - Assumes submittal of three hard copies and a digital PDF copy of the final document. - Assumes no meeting attendance. - Tribal representative outreach will include a letter and up to 3 follow-up phone calls. - Assumes survey area of approximately 272 acres based on April 2010 water level. - Assumes up to 5 cultural resources to be recorded on DPR 523 forms. - Assumes two round of revisions of draft technical report (one from City, one from FERC) - Assumes submittal of three hard copies and 1 digital copy of final technical report. - Assumes no response to public comment.
3.2	Preparation of EIR/EA		
3.2.1	Kickoff Meeting/Site Visit	- Facilitate kickoff meeting with City, FERC, project staff, and key environmental team members to review information needs, discuss expectations for the environmental review process and products, and finalize schedule. - Attend a site visit with the environmental team, project engineers, City staff, and FERC staff to share information. AECOM will photograph the site and environs to record existing conditions.	- Assumes kickoff meeting and site visit will occur on the same day. - Assumes 8 hours for meeting preparation and attendance. - Assumes 4 AECOM staff will attend. B&V Project Director and Project Manager will attend meeting.
3.2.2	Categorical Exemption/	Work with project engineers and geotechnical specialists to identify and provide environmental clearance for preliminary geotechnical work for geotechnical	Assumes geotechnical work will utilize existing areas of exposed rock mostly free of vegetation that can be



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TASK NO.	TITLE	SCOPE	ASSUMPTIONS/DELIVERABLES
	Exclusion for Preliminary Geotech Work	boring sites in the area surrounding the existing dam.	- accessed easily by existing roads or helicopters. - Assumes geotechnical borings will avoid the spring breeding season for nesting birds (approximately February 15 – August 31) - Preparation of draft and final Categorical Exemption per CEQA and Categorical Exclusion per NEPA - Assumes City and FERC will process the Categorical Exemption and Categorical Exclusion. - Assumes City shall arrange meeting place and time for scoping meeting. - Assumes NEPA document is an EA; thus, Notice of Intent is required. - Assumes scoping meeting noticing is included in NOP distribution. - Assumes City provides NOP distribution list. - Assumes two AECOM team members attendance at scoping meeting. B&V meeting attendance not required. - Assumes submittal of three hard copies and one digital version of the Administrative Draft EIR/EA. - Assumes project description will have only minor future modifications that would not affect analysis or require new analysis once this task is complete. - Assumes no quantitative analysis of alternatives. - Assumes City will provide list of project in City jurisdiction. - Assumes research at County of San Diego Department of Planning and Land Use to identify projects in County jurisdiction. - Assumes submittal of 3 hard copies of and one digital version of the Screencheck Draft EIR/EA. - Assumes printing of 30 hard copies of the EIR/EA and 50 cds of the documents. Digital files will be made available for posting on City website.
3.2.3	Initial Study/Noticing/ Scoping Meeting	- Prepare an Initial Study checklist per Appendix G of the CEQA Guidelines. - Develop a Notice of Preparation (NOP) for the project in accordance with Section 15082 of the CEQA Guidelines stating that an EIR will be prepared. Assist City is distribution of NOP. - Assist the City in noticing and facilitating a scoping meeting to receive comments on the NOP per CEQA requirements. The parallel NEPA environmental process will be presented to the public at this scoping meeting as well. - Prepare appropriate materials for use and distribution at the scoping meeting.	
3.2.4	Administrative Draft EIR/EA	- Prepare Administrative Draft EIR/EA once technical studies have been completed. The technical studies will meet the requirements of both CEQA and NEPA, and the joint EIR/EA will contain all required CEQA and NEPA sections and be legally adequate per all applicable requirements. - Work with project team to define details of project description necessary for environmental analysis and completion of technical reports. - Develop project objectives. - Work with the project team to develop assumptions to use for environmental analyses. - Work with project team to identify adequate range of project alternatives for evaluation in the EIR/EA. - Identify projected growth and uses proposed in the project vicinity, and specific known projects, which would be additive to specific impacts of the project for cumulative analysis.	
3.2.5	Screencheck Draft EIR/EA	Incorporate all revisions and comments provide by the City, FERC, and project team on the Administrative Draft EIR/EA.	
3.2.6	Public Review Draft EIR/EA	- Make final revisions from review of Screencheck Draft. - Prepare and print a Public Review Draft EIR/EA once all Screencheck Draft revisions are approved by lead agencies.	



WOHLFORD DAM REPLACEMENT DESIGN			ASSUMPTIONS/DELIVERABLES
TASK NO.	TITLE	SCOPE	
		• Prepare a CEQA Notice of Availability (NOA) pursuant to CEQA requirements. • Request FERC to post a NEPA NOA on the Federal register pursuant to NEPA requirements. • Assist City in distribution of Public Review Draft EIR/EA and NOA. • Assist City with submittal to the State Clearinghouse. • Assist City in facilitating a public meeting to accept comments on the Draft EIR/EA during the 45-day public review period.	• Assumes 2 environmental team members will attend public meeting. B&V meeting attendance not required.
3.2.7	Response to Comments	• Prepare formal responses to comments provided on the Public Review Draft EIR/EA. • Responses will be placed in side-by-side format with written comments to be included in the Final EIR/EA.	• Assumes 75 substantial comments requiring response.
3.2.8	Final EIR/EA	• Evaluate need for revisions to EIR/EA based on comments received. • Prepare and print a Final EIR/EA once all revisions are approved. • Prepare NEPA Finding of No Significant Impact (FONSI) and other required noticing. • Prepare CEQA Findings of Fact and Overriding Considerations if necessary, and Notice of Determination (NOD).	• Assumes printing of 30 hard copies of the EIR/EA and 50 cds of the documents. Digital files will be made available for posting on City website.
3.2.9	Mitigation Monitoring and Reporting Plan	• Prepare a Mitigation Monitoring and Reporting Plan (MMRP) that incorporates all mitigation measures required by the EIR/EA and other supporting documents. • MMRP shall specify the measure to be implemented, responsible party, timing, and reporting method.	• Assumes printing of 30 hard copies of the MMRP and inclusion on the 50 cds of the Final EIR/EA. Digital files will also be made available for posting on City website.
4.0	DETAILED DESIGN SERVICES		
4.1	60% Design Submittal		
4.1.1	60% drawings and specifications	• Prepare 60% drawings. • Prepare 60% specification. • Includes internal QA/QC review.	• See anticipated drawings list for 60% package. • Assumes 4 half size and 1 full size. • Assumes 5 sets of specifications. • Assumes 1 electronic pdf of drawings and specifications. • Assumes 3 week review period by City. • City to provide all relevant GIS files. • All drawings to be produced in AutoCAD. • Electrical design assumes that existing utility service is adequate to serve new facilities. Backup power (diesel generator) is not required. • A new buried cast in place concrete vault will be provided along the emergency drain to house a new



WOHLFORD DAM REPLACEMENT DESIGN

TASK NO.	TITLE	SCOPE	ASSUMPTIONS/DELIVERABLES
4.1.2	60% opinion of probable construction cost	Prepare 60% opinion of probable construction cost estimate.	- shut off gate valve. No HVAC design will be required. - The existing penstock isolation valves (3 total) will be replaced with new gate valves. - Design effort includes renovations to existing Intake Tower including new pedestrian bridge from shore or design of a new integral Intake Tower to the dam face. - Final Intake Tower option to be determined from Task 2.4.2 above. Design of a new stand along Intake Tower is outside the scope of this contract. - If the tower bridge design is not required a savings of \$10,000 will be deducted from this task. - Assumes 5 hard copies and 1 pdf copy.
4.1.3	Constructability Review	Perform constructability review on 60% documents.	40 hours allotted for this review. - Review to occur concurrently with City review.
4.2	90% Design Submittal		
4.2.1	90% drawings and specifications	- Incorporate 60% review comments. - Prepare 90% drawings. - Prepare 90% specification. - Review City Front End Documents and provide comments. - Prepare bid quantity. - Includes internal QA/QC review.	- See anticipated drawings list for 90% package. - Assumes 4 half size and 1 full size. - Assumes 5 sets of specifications. - Assumes 1 electronic pdf of drawings and specifications. - Assumes 3 week review period by City. - If the tower bridge design is not required a savings of \$10,000 will be deducted from this task. - Assumes 5 hard copies and 1 pdf copy.
4.2.2	90% opinion of probable construction cost	Prepare 90% opinion of probable construction cost estimate.	
4.2.3	Constructability Review	Perform constructability review on 90% documents.	40 hours allotted for this review. - Review to occur concurrently with City review.
4.3	100% Design Submittal		
4.3.1	100% drawings and specifications	- Incorporate 90% review comments. - Prepare 100% drawings. - Prepare 100% specification. - Review City Front End Documents and provide comments.	- See anticipated drawings list for 100% package. - Assumes 4 half size and 1 full size. - Assumes 5 sets of specifications. - Assumes 1 electronic pdf of drawings and specifications.

WOHLFORD DAM REPLACEMENT DESIGN

TASK NO.	TITLE	SCOPE	ASSUMPTIONS/DELIVERABLES
4.4	Final Design Submittal	• Prepare bid quantity. • Includes internal QA/QC review.	• Assumes 3 week review period by City. • If the tower bridge design is not required a savings of \$5,000 will be deducted from this task.
4.4.1	Final drawings and specifications	• Incorporate 100% • Prepare Final camera ready bid drawings. • Prepare Final camera ready bid specification. • Review City Front End Documents and provide comments. • Prepare bid quantity. • Includes internal QA/QC review.	• See anticipated drawings list for Final package. • Assumes 1 full size signed copy on bond. • Assumes 1 hard set of original specifications with signed cover. • Assumes 1 electronic pdf of drawings and specifications.
4.4.2	Final opinion of probable construction cost	• Prepare Final opinion of probable construction cost estimate.	• Assumes 5 hard copy and 1 pdf copy.
5.0	PUBLIC OUTREACH		
5.1	Public Information and Outreach Plan	• Draft and finalize a Public Information Plan at initiation of the project, to include public outreach and involvement activities that will support the Lake Wohlford Dam Replacement.	• Assumes two rounds of review by City.
5.2	Informational Materials	• Notices: Draft and design notices for up to two community meetings; also draft copy for up to four notices of construction activity to be placed with news publications, at businesses in the Lake Wohlford area, and on the City website. • Fact Sheet and FAQ: Develop an easy-to-read fact sheet and one FAQ which will include project contact names and numbers. Katz & Associates (K&A) will also send the materials to the city to include on the city's website and to place at the Lake Wohlford information kiosk.	• All content will be drafted by Katz & Associates with up to two rounds of revisions and review by the City. • Assumes meeting notices are one color, double-sided postcard size. • Assumes fact sheet and FAQ are two color, double-sided 8.5" x 11". • Assumes printing of all materials will be paid by City.
5.3	Community Meetings	• Prepare for and conduct up to two community meetings (open house format) to share project information with the public. Includes meeting design and facilitation, coordinating meeting logistics, as well as developing poster boards, sign in sheets and comment forms). Katz & Associates staff will staff the sign-in table, collect written comments and prepare a summary of each meeting for review by city staff.	• Assumes 3 hour duration per meeting. • Assumes meeting facilitation by K&A project manager, as well as meeting management and support by two K&A staff. B&V project director and project manager will also attend. • Agency professionals will be in attendance as required.
5.4	Stakeholder Meetings	• Identify key stakeholders, community and business leaders and organization representatives that reflect the range of interests related to Lake Wohlford. Develop a stakeholder database and update it based on sign-in sheets for scoping meetings and other community meetings for the project.	• Assumes questionnaire to be reviewed and approved by City project manager. • Expenses include mileage to conduct one-on-one stakeholder interviews.



WOHLFORD DAM REPLACEMENT DESIGN		
TASK NO.	TITLE	SCOPE
		ASSUMPTIONS/DELIVERABLES
5.5	Project Management / Administration	- Schedule and conduct up to 8 one-on-one meetings with key stakeholders to discuss the project concept and gather input. Includes development of a meeting guide questionnaire. - Prepare a brief summary of key findings and associated recommendations as appropriate. - Submit acceptable progress reports with monthly invoice. - Prepare tracking reports, log of design issue resolutions, and submit with monthly progress reports. - Participate in up to three progress meetings
		- K&A project manager along with B&V project director and project manager will attend meetings. - Assumes project duration of 24 months. - Monthly invoices will be submitted electronically via email. - Assumes 2 hours per progress meeting at HARRF.
		Not applicable.
6.0	FUNDING	
6.1	Funding Workshop	- Expand upon the City's Project planning efforts to identify agency funding and legislative funding options that originate from direct legislative action. This effort results in the development of a matrix providing a summary of available funding programs. - Meet with the City to discuss legislative funding and to determine the nature, scope, project makeup and cost of implementation of a Project or Project component to be included in a legislative funding request. This activity will focus on determining unique Project features and include an initial technical review of all existing funding and Project background information. - This effort will target all available project funding possibilities. These includes, but is not limited to, the following traditional Appropriations Bills that have contained Dam Replacement Funding in the past: - Interior, Environment and Related Agencies. - Energy and Water Development. - Agriculture, Rural Development, Food and Drug Administration and Related Agencies.
6.2	Legislative Funding Packaging	- Upon final Project component selection, draft an initial Legislative Funding Package including the technical aspects of the Project for review by the City and draft typical Package support letters for the City's use in securing written funding support from interested parties. - Provide the draft Package to the City for review, comments, input and strategic information to help sharpen the presentation. - Revise the Package accordingly and provide the City with a final Package for use in presentations to local, state and federal officials with an interest in the Project. - Not applicable.



WOHLFORD DAM REPLACEMENT DESIGN		
TASK NO.	TITLE	SCOPE
6.3	Legislative Monitoring Assistance	- Update the Package prepared in Phase 2 to include information learned from the results of the FY2013 Congressional Appropriations process. - Be available by phone, e-mail and fax to discuss, review and support the Package to interested parties throughout the two Appropriations cycle. - Attend up to 4 days of meetings and/or presentations with the agency personal or Congressional Delegation Members or their Staff to discuss, review and support the Package. - Monitor and update the City on national funding happenings that may affect the scope or content of the Package presentations or provide alternative capital funding opportunities for the entire Congressional Appropriations cycle.
ASSUMPTIONS/DELIVERABLES		
		Not applicable.
ADDITIONAL ASSUMPTIONS		
		- All permit fees to be paid for by City. - Scope of work and fee as outlined above and in the associated fee spreadsheet is based upon RCC dam type selection for design.



City of Escondido
Wohlfarth Dam Replacement Design Project
Cost Proposal

TASK #	DESCRIPTION	5455	5460	5465	5470	5475	5480	5485	5490	5495	5500	5505	5510	5515	5520	5525	5530	5535	5540	5545	5550	5555	5560	5565	5570	5575	5580	5585	5590	5595	5600	5605	5610	5615	5620	5625	5630	5635	5640	5645	5650	5655	5660	5665	5670	5675	5680	5685	5690	5695	5700	5705	5710	5715	5720	5725	5730	5735	5740	5745	5750	5755	5760	5765	5770	5775	5780	5785	5790	5795	5800	5805	5810	5815	5820	5825	5830	5835	5840	5845	5850	5855	5860	5865	5870	5875	5880	5885	5890	5895	5900	5905	5910	5915	5920	5925	5930	5935	5940	5945	5950	5955	5960	5965	5970	5975	5980	5985	5990	5995	6000	6005	6010	6015	6020	6025	6030	6035	6040	6045	6050	6055	6060	6065	6070	6075	6080	6085	6090	6095	6100	6105	6110	6115	6120	6125	6130	6135	6140	6145	6150	6155	6160	6165	6170	6175	6180	6185	6190	6195	6200	6205	6210	6215	6220	6225	6230	6235	6240	6245	6250	6255	6260	6265	6270	6275	6280	6285	6290	6295	6300	6305	6310	6315	6320	6325	6330	6335	6340	6345	6350	6355	6360	6365	6370	6375	6380	6385	6390	6395	6400	6405	6410	6415	6420	6425	6430	6435	6440	6445	6450	6455	6460	6465	6470	6475	6480	6485	6490	6495	6500	6505	6510	6515	6520	6525	6530	6535	6540	6545	6550	6555	6560	6565	6570	6575	6580	6585	6590	6595	6600	6605	6610	6615	6620	6625	6630	6635	6640	6645	6650	6655	6660	6665	6670	6675	6680	6685	6690	6695	6700	6705	6710	6715	6720	6725	6730	6735	6740	6745	6750	6755	6760	6765	6770	6775	6780	6785	6790	6795	6800	6805	6810	6815	6820	6825	6830	6835	6840	6845	6850	6855	6860	6865	6870	6875	6880	6885	6890	6895	6900	6905	6910	6915	6920	6925	6930	6935	6940	6945	6950	6955	6960	6965	6970	6975	6980	6985	6990	6995	7000	7005	7010	7015	7020	7025	7030	7035	7040	7045	7050	7055	7060	7065	7070	7075	7080	7085	7090	7095	7100	7105	7110	7115	7120	7125	7130	7135	7140	7145	7150	7155	7160	7165	7170	7175	7180	7185	7190	7195	7200	7205	7210	7215	7220	7225	7230	7235	7240	7245	7250	7255	7260	7265	7270	7275	7280	7285	7290	7295	7300	7305	7310	7315	7320	7325	7330	7335	7340	7345	7350	7355	7360	7365	7370	7375	7380	7385	7390	7395	7400	7405	7410	7415	7420	7425	7430	7435	7440	7445	7450	7455	7460	7465	7470	7475	7480	7485	7490	7495	7500	7505	7510	7515	7520	7525	7530	7535	7540	7545	7550	7555	7560	7565	7570	7575	7580	7585	7590	7595	7600	7605	7610	7615	7620	7625	7630	7635	7640	7645	7650	7655	7660	7665	7670	7675	7680	7685	7690	7695	7700	7705	7710	7715	7720	7725	7730	7735	7740	7745	7750	7755	7760	7765	7770	7775	7780	7785	7790	7795	7800	7805	7810	7815	7820	7825	7830	7835	7840	7845	7850	7855	7860	7865	7870	7875	7880	7885	7890	7895	7900	7905	7910	7915	7920	7925	7930	7935	7940	7945	7950	7955	7960	7965	7970	7975	7980	7985	7990	7995	8000	8005	8010	8015	8020	8025	8030	8035	8040	8045	8050	8055	8060	8065	8070	8075	8080	8085	8090	8095	8100	8105	8110	8115	8120	8125	8130	8135	8140	8145	8150	8155	8160	8165	8170	8175	8180	8185	8190	8195	8200	8205	8210	8215	8220	8225	8230	8235	8240	8245	8250	8255	8260	8265	8270	8275	8280	8285	8290	8295	8300	8305	8310	8315	8320	8325	8330	8335	8340	8345	8350	8355	8360	8365	8370	8375	8380	8385	8390	8395	8400	8405	8410	8415	8420	8425	8430	8435	8440	8445	8450	8455	8460	8465	8470	8475	8480	8485	8490	8495	8500	8505	8510	8515	8520	8525	8530	8535	8540	8545	8550	8555	8560	8565	8570	8575	8580	8585	8590	8595	8600	8605	8610	8615	8620	8625	8630	8635	8640	8645	8650	8655	8660	8665	8670	8675	8680	8685	8690	8695	8700	8705	8710	8715	8720	8725	8730	8735	8740	8745	8750	8755	8760	8765	8770	8775	8780	8785	8790	8795	8800	8805	8810	8815	8820	8825	8830	8835	8840	8845	8850	8855	8860	8865	8870	8875	8880	8885	8890	8895	8900	8905	8910	8915	8920	8925	8930	8935	8940	8945	8950	8955	8960	8965	8970	8975	8980	8985	8990	8995	9000	9005	9010	9015	9020	9025	9030	9035	9040	9045	9050	9055	9060	9065	9070	9075	9080	9085	9090	9095	9100	9105	9110	9115	9120	9125	9130	9135	9140	9145	9150	9155	9160	9165	9170	9175	9180	9185	9190	9195	9200	9205	9210	9215	9220	9225	9230	9235	9240	9245	9250	9255	9260	9265	9270	9275	9280	9285	9290	9295	9300	9305	9310	9315	9320	9325	9330	9335	9340	9345	9350	9355	9360	9365	9370	9375	9380	9385	9390	9395	9400	9405	9410	9415	9420	9425	9430	9435	9440	9445	9450	9455	9460	9465	9470	9475	9480	9485	9490	9495	9500	9505	9510	9515	9520	9525	9530	9535	9540	9545	9550	9555	9560	9565	9570	9575	9580	9585	9590	9595	9600	9605	9610	9615	9620	9625	9630	9635	9640	9645	9650	9655	9660	9665	9670	9675	9680	9685	9690	9695	9700	9705	9710	9715	9720	9725	9730	9735	9740	9745	9750	9755	9760	9765	9770	9775	9780	9785	9790	9795	9800	9805	9810	9815	9820	9825	9830	9835	9840	9845	9850	9855	9860	9865	9870	9875	9880	9885	9890	9895	9900	9905	9910	9915	9920	9925	9930	9935	9940	9945	9950	9955	9960	9965	9970	9975	9980	9985	9990	9995	10000
TASK 1: PROJECT MANAGEMENT, MEETINGS, AND WORKSHOPS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															

City of Escondido
Wichford Dam Replacement Design Project
Cost Proposal

TASK #	DESCRIPTION	\$235	\$200	\$235	Technical Advisor, QC Manager, Technical	Specialist	Task Manager	Senior Engineer II	Senior Engineer	Staff Engineer	Cost Estimator	CAD Technician	Admin, Finance, Critical	Total Hours	Total Labor	Indirect Expenses (Monthly)	Direct Expenses (Monthly)	Subcontractor - Geotech (M)	Subcontractor - Enviro (M)	Subcontractor - Misc (Survey, Traffic, Control, Roadway)	Total
2.5.5	Complete final observations analysis																				
2.5.5.1	Vertical & horizontal layout	2	6	2	2	2	4	4	8	12	4	4	2	18	\$2,660	\$140	\$0	\$0	\$0	\$2,780	\$10,060
2.5.5.2	Can stability (USPC analysis)													78	\$11,900	\$500	\$0	\$0	\$0	\$50	\$12,400
2.5.6	Spillway Analyses																				
2.5.6.1	Hydrology and PMF development	2	2	4	12	34	20	8	2	8	12	2	2	84	\$13,720	\$620	\$0	\$0	\$0	\$50	\$14,340
2.5.6.2	Spillway hydraulics	2	2	4	16	36	20	8	2	8	12	2	2	152	\$22,960	\$1,160	\$0	\$0	\$0	\$50	\$24,120
2.5.6.3	Downstream channel hydraulics	2	2	2	8	20	50							100	\$15,670	\$750	\$0	\$0	\$0	\$50	\$16,420
2.5.7	Design and submit memorandum to City and regulatory agencies																				
2.5.7.1	Complete analyses	2	4	2	8				16				4	38	\$5,840	\$270	\$0	\$0	\$0	\$50	\$6,110
2.5.7.2	Drawing development	2	4	2	16	36			16				4	116	\$17,040	\$970	\$0	\$0	\$0	\$50	\$18,010
2.5.7.3	Incorporate review comments and issue final memorandum	2	4	4	8	8			12				8	90	\$7,370	\$380	\$0	\$0	\$0	\$50	\$7,750
2.6	RCC Mix Design																				
2.6.1	Identify material suppliers and analyze material properties																				
2.6.1.1	Identify material types to be used in RCC Mix													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.1.2	Develop estimated quantities of material types													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.1.3	Test proposed water supply													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.1.4	Survey local suppliers of cement, fly ash, admixtures and aggregates													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.1.5	Produce report of identified suppliers													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.2	Develop RCC Mix design trial batch testing program																				
2.6.2.1	Develop RCC Mix design trial batch testing program													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.2.2	Test trial batch RCC Mix designs													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.2.3	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3	Final batch RCC mix design																				
2.6.3.1	Test trial batch RCC mix designs													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.2	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.3	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.4	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.5	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.6	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.7	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.8	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.9	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.10	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.11	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.12	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.13	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.14	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.15	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.16	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.17	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.18	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.19	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.20	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.21	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.22	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.23	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.24	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.25	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.26	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.27	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.28	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.29	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.30	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.31	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.32	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.33	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.34	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.35	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.36	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.37	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.38	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.39	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.40	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.41	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.42	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.43	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.44	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.45	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.46	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.47	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.48	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.49	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.50	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.51	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.52	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.53	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.54	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.55	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.56	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.57	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.58	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.59	Review testing results and produce report with recommendations													0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.3.60	Review testing results and produce report with recommendations																				



City of Escondido
 Wohlford Dam Replacement Design Project
 Cost Proposal

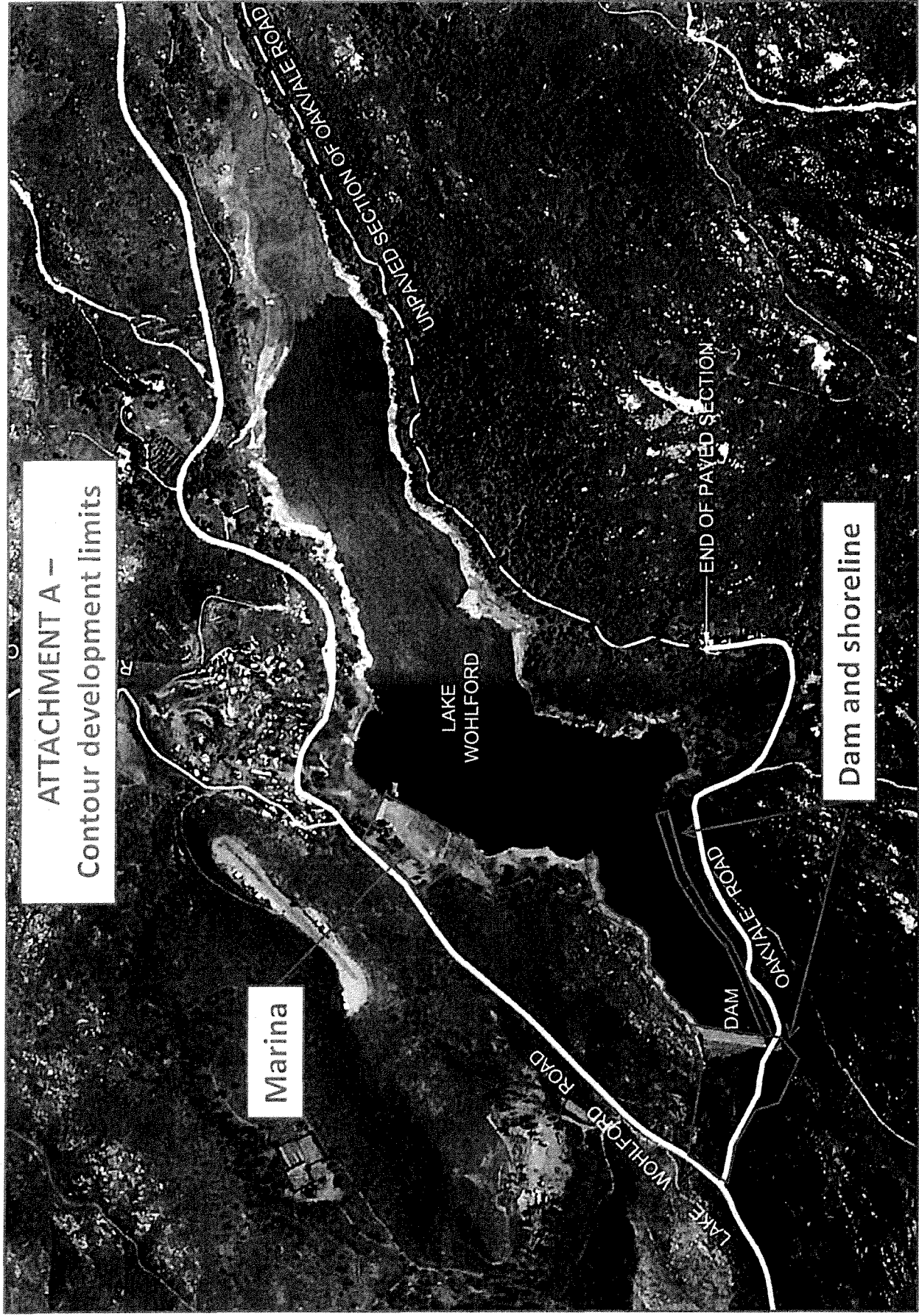
TASK #	DESCRIPTION	Project Director	Project Manager	Technical Advisor, QC Manager, Technical	Specialist	Task Manager	Senior Engineer II	Senior Engineer I	Project Engineer	Staff Engineer	Cost Estimator	CAD Technician	Admin, Finance, General	Total Hours	Total Labor	Indirect Expenses (\$/Hour)	Direct Expenses ⁽¹⁾	Subconsultant - Geotech ⁽²⁾	Subconsultant - Enviro ⁽²⁾	Subconsultant - Survey, Utility, Control, Roadway Design ⁽²⁾	Total
TASK 5: PUBLIC OUTREACH																					
Task 5.1	Public Information and Outreach Plan	2	8						4				2	16	\$2,760	\$120	\$3,920			\$3,920	\$5,880
Task 5.2	Informational Materials		4						4			2	2	12	\$1,200	\$60	\$6,600			\$6,600	\$10,470
Task 5.3	Community Meetings	6	8						2				2	36	\$3,180	\$120	\$8,800			\$8,800	\$12,110
Task 5.4	Stakeholder Meetings	8	8						2				2	20	\$3,910	\$100	\$10,000			\$10,000	\$14,560
Task 5.5	Project Management / Administration													0	\$0	\$0	\$0			\$0	\$1,280
TASK 5 TOTAL		16	28	0	0	0	0	0	10	0	0	0	8	64	\$11,050	\$400	\$24,320	\$0	\$0	\$24,320	\$26,200
TASK 6: FUNDING																					
Task 6.1	Legislative Workshop	2	4						2				2	10	\$1,210	\$80	\$5,150			\$5,150	\$6,940
Task 6.2	Legislative Funding Package	2	4											6	\$1,270	\$50	\$10,300			\$10,300	\$11,670
Task 6.3	Legislative Monitoring Assistance	2	4											6	\$1,270	\$50	\$10,300			\$10,300	\$11,670
TASK 6 TOTAL		6	12	0	0	0	0	0	2	0	0	0	2	22	\$3,750	\$180	\$25,750	\$0	\$0	\$25,750	\$30,180
PROJECT TOTAL (TASKS 1-6)		22	40	0	0	0	0	0	12	0	0	0	10	86	\$14,800	\$580	\$50,070	\$0	\$0	\$50,070	\$56,380

Notes:
 (1) Includes travel and outside representation costs.
 (2) Includes a 15% markup. Excludes Task 5.6 REC Mkt. Design.



WOHLFORD DAM REPLACEMENT DESIGN
PRELIMINARY DRAWING LIST

DWG NO	DESCRIPTION OR TITLE	DWG NO	DESCRIPTION OR TITLE
GENERAL		R-28	Access Bridge Plan and Elevation
G-1	Cover	R-29	Access Bridge Substructure Details
G-2	Sheet List / General Notes	R-30	Access Bridge Superstructure Details
G-3	Legends	R-31	Typical Structural Details and Notes
G-4	Abbreviations	R-32	Spillway Training Wall Details - Sheet 1 of 2
CIVIL		R-33	Spillway Training Wall Details - Sheet 2 of 2
C-1	Plan of Dam Site	R-34	Spillway Details
C-2	Dam Alignment Layout (survey controls)	R-35	Stilling Basin Left Wall Plan and Sections
C-3	Geotechnical Program (plan)	R-36	Stilling Basin Right Wall Plan and Sections
C-4	BMP Control Plan	R-37	Stilling Basin Details - Sheet 1 of 2
C-5	BMP Details	R-38	Stilling Basin Details - Sheet 2 of 2
C-6	Environmental Sensitive Areas	R-39	RCC Trial Placement Plan and Details
C-7	Environmental Details	INTAKE TOWER	
C-8	Oakvale Road Plan	T-1	Intake Tower Plan and Profile
C-9	Oakvale Road Vertical Profile	T-2	Intake Tower Modifications Plan
C-10	Oakvale Road Sections and Details	T-3	Intake Tower Modifications Sections and Details
C-11	Rock Bolt Details	T-4	Intake Tower Modifications Details 1 of 3
C-12	Reclamation Plan	T-5	Intake Tower Modifications Details 2 of 3
C-13	Reclamation Details - Sheet 1 of 2	T-6	Intake Tower Modifications Details 3 of 3
C-14	Reclamation Details - Sheet 2 of 2	T-7	Intake Tower Modifications Misc Metals
DEMOLITION		T-8	Intake Tower Bridge Plan
D-1	Spillway Demolition Plan	T-9	Intake Tower Bridge Sections and Details
D-2	Spillway Demolition Details	T-10	Intake Tower Bridge Details
D-3	Existing Dam Removal Plan	OUTLET WORKS PIPELINE	
D-4	Existing Dam Removal Sections and Details	O-1	Outlet Works Profile
D-5	Intake Tower Demolition Plan & Section	O-2	Outlet Works Sections
D-6	Intake Tower Demolition Details	O-3	Outlet Works Connection Details
RCC DAM		O-4	Outlet Works Details
R-1	Profile Along Dam Axis	O-5	Outlet Works Access Vault Plan & Section
R-2	Typical Non-Overflow Section	O-6	Outlet Works Access Vault Details
R-3	Typical Principal Spillway Section	O-7	Top of Dam Details
R-4	RCC Lift and Bedding Mix Details	O-8	Fence and Guiderail Details
R-5	Dam Contraction Joint Details	ELECTRICAL	
R-6	Foundation Excavation Plan	E-1	Electrical - Standards/Abbreviations
R-7	Foundation Excavation Sections	E-2	One-Line Diagrams
R-8	Dam Sections - Sheet 1 of 4	E-3	One-Line Diagrams
R-9	Dam Sections - Sheet 2 of 4	E-4	Site Plan
R-10	Dam Sections - Sheet 3 of 4	E-5	Enlarged Site Plan
R-11	Dam Sections - Sheet 4 of 4	E-6	Lighting Plan
R-12	Spillway Sections - Sheet 1 of 3	E-7	Details/Schedules
R-13	Spillway Sections - Sheet 2 of 3	E-8	Schematics
R-14	Spillway Sections - Sheet 2 of 3	INSTRUMENTATION	
R-15	Dam Gallery and Adits - Sheet 1 of 3	I-1	Instrumentation - Standards/Abbreviations
R-16	Dam Gallery and Adits - Sheet 2 of 3	I-2	Instrumentation Plan
R-17	Dam Gallery and Adits - Sheet 3 of 3	I-3	Intake Tower Plan
R-18	Dam Drain Hole Plan and Profile	I-4	Intake Tower Schematics
R-19	Dam Drain Hole Schedule and Details	I-5	Instrumentation ADAS Details



ATTACHMENT A -
Contour development limits

Marina

LAKE
WOHLFORD

END OF PAVED SECTION

Dam and shoreline

OAKALE ROAD

DAM

LAKE WOHLFORD ROAD

UNPAVED SECTION OF OAKALE ROAD