KEN ORTEGA
Public Works Director

Public Works Administration
305 West Third Street • Oxnard, CA 93030 • (805) 385-8281 • Fax (805) 385-7907

April 7, 2009

Bureau of Reclamation
Acquisition Operations Group
Denver Federal Center, Bldg. 67, Rm. 152
6th and Kipling Street
Denver, CO 80225

Attn: Randale Jackson

Subject: Request for Recovery Act funds of Title XVI

Dear Mr. Jackson:

Please find enclosed the following information:

- Oxnard GREAT Program Title Information
- Executive Summary
- Activity Description
- Project Schedule and Cost Estimate
- Attachment A - Map of Project
- Attachment B - Proposed Project Budget
- Attachment C - Construction Schedule - Quarterly Milestones
- Attachment D - Cash Flow Projection
- Attachment E - Estimate of Job Creation

Based on the Bureau's letter dated March 16, 2009, American Recovery and Reinvestment Act of 2009 (Recovery Act) Funding Allocation for the Bureau of Reclamation's Water Reclamation and Reuse Program, these documents, combined, comprise the information necessary to be considered for Recovery Act Funding.

We greatly appreciate your time and consideration for this project's funding eligibility. If you have any questions or desire additional information, please do not hesitate to contact me.

Sincerely,

Ken Ortega, Public Works Director

I

Title Information

- **Project Title**

  City of Oxnard Groundwater Recovery Enhancement and Treatment (GREAT) Program – Phase I Facilities

- **City Project Manager Information:**

First Name	Ken
Last Name	Ortega
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Mailing Address	Public Works Administration 305 West Third Street, 3rd Flr. Oxnard, CA 93030

- **Authorization/Legislation**

  House of Representatives Legislation – HR146

  Senate Bill – S.22, SEC. 9113. GREAT PROJECT, CALIFORNIA

  Public Law No. 111-11

- **Project Location (see Attachment A)**

City:	Oxnard
County:	Ventura
State:	California
Reclaimed Water Production:	Phase 1 – 6.25 Million Gallons per Day (Ultimate – 25 Million Gallons per Day)

II

Executive Summary

This application is for funding assistance for two Groundwater Recovery Enhancement and Treatment (GREAT) Program –Phase I projects. The projects include design and construction of an Advanced Water Purification Facility (AWPF) to produce recycled water and the Recycled Water Backbone (RWB) pipeline to transport recycled water for Municipal and Industrial (M&I) uses within the City of Oxnard. The total cost for the projects including land acquisition and environmental compliance is estimated as $130 million. ***A portion of the AWPF administration building is dedicated for educational and visitor functions. Recovery Act funds of Title XVI would not be used to fund this portion of the AWPF project.*** The Proposed Budget is Attachment B.

Project Background

Like many cities in Southern California, the City of Oxnard's water supply is a combination of local groundwater and imported water from Northern California. The future reliability of the import source is uncertain given the State's current drought situation and the pumping restrictions from the San Francisco Bay Delta. In addition, there is also a need to manage the water resources in the Oxnard Plain due to environmental constraints. Historically, water users in the southern Oxnard Plain have relied on groundwater wells to irrigate crops. Over time, the rate of groundwater recharge has not kept up with the rate of withdrawal resulting in a water imbalance condition and potential seawater intrusion into the coastal aquifers. Also, water supply from the Santa Clara River is being reduced due to Steelhead Trout water requirements. Consequently, less water may be available for municipal and industrial (M&I) uses. The City of Oxnard looked at these issues comprehensively and established the Groundwater Recovery Enhancement and Treatment (GREAT) Program, a water resources project that combines wastewater recycling and reuse; groundwater injection, storage, and recovery; and groundwater desalination to provide regional water supply solutions for its users.

Treated effluent from the Oxnard Wastewater Treatment Plant (OWTP) is discharged directly to the City-permitted deep ocean outfall and this discharge currently does not contribute to the benefit of the region's water resources. Reclaiming this lost resource is the foundation of the GREAT Program. A cornerstone of the GREAT program is the AWPF. The AWPF will provide further treatment of the secondary effluent from the OWTP. Initially, 8 to 9 million gallons per day (mgd) of secondary effluent from OWTP will be treated at the AWPF to produce 6.25 mgd of recycled water. Ultimately, the AWPF will be expanded to produce up to 25 mgd of recycled water. The recycled water will conform to CA Department of Public Health (CDPH) "Title 22" Recycled Water criteria for groundwater recharge. By treating all recycled water to the most stringent criteria (groundwater recharge criteria), the City has the flexibility to deliver recycled water for (1) irrigation of landscape and edible food crops to reduce agricultural pumping of the local aquifers, (2) industrial process water and (3) direct injection into the groundwater basin to relieve overdrafted aquifers and serve as a barrier to seawater intrusion. Additionally, the GREAT Program has the potential to reduce energy consumption.

An estimated 2,600 KWh per acre-foot of water is expended to pump water from Northern California to Oxnard in comparison to an estimated 1,500 KWh per acre–foot to produce Reverse Osmosis treated reclaimed water.

Project Description

The AWPF will employ a multiple barrier treatment train consisting of microfiltration (MF), reverse osmosis (RO), and ultraviolet (UV)-light-based advanced oxidation (AOX) processes to purify the secondary effluent. In addition, the facility will be sustainably designed to achieve LEED® certification including such things as solar panels for energy recovery. The City will be pursuing a LEED®, "gold" certification rating for the AWPF Facilities.

The main treatment processes of the AWPF are summarized in the following paragraphs.

The MF process uses low- pressure filtration for removal of particulate and microbial contaminants, including turbidity, Giardia, and Crytosporidium. A lift station will feed the screened secondary effluent to the MF system. Solids are retained on the membrane surface and filtered water is discharge to a break tank. Not all of the feed water processed by the accumulated solids will be available for RO treatment. Some secondary effluent will be used to remove accumulated solids from the membrane surface through backwashing. Backwash water will be discharged to OWTP.

Filtered effluent from the MF process is further treated though the downstream RO process. RO feed pumps will deliver pressurized flow from the break tank to the RO vessels. Due to the high calcium, bicarbonate, and sulfate concentrations in the secondary effluent, sulfuric acid and scale inhibitor will be added as pre-treatment to increase solubility.

The RO system is a pressure-driven membrane separation process that employs a semi-permeable membrane to remove dissolved contaminants (i.e., total dissolved solids (TDS), organic compounds) from the feed water. Similar to the MF system, not all of the feed water is recovered as product water. Some feed water will be used to carry the rejected contaminants away from the RO membrane surface in the form of concentrate. The concentrate or waste stream from the RO process will be discharged to the ocean via the OWTP outfall. A portion of the concentrate stream will be utilized for an on site demonstration wetland.

RO product flow will undergo UV/AOX treatment. The UV/AOX process is both a disinfection process and micro-pollutant-reduction process. Hydrogen peroxide is added to the RO permeate prior to passing through the UV lamps reactors. Destruction of organic constituents is accomplished when UV light breaks the hydrogen peroxide down to hydroxyl radicals resulting in the oxidation of many micro-pollutants. Subsequently, liquid lime will be added for pH balance. Recycled water will be used for landscape irrigation, industrial processes, agricultural irrigation, and groundwater injection.

The treatment process used in the AWPF produce a waste stream with high concentrations of salt and other constituents. The potential to use this waste stream as a water resource to restore coastal wetlands is being evaluated as part of the AWPF Project.

The results of this pilot-scale work (2003) will be used to design a demonstration wetlands system to accept membrane concentrate from the AWPF. The wetland will serve as a demonstration project for the treatment of a portion of the RO concentrate waste stream to support environmental education programs and additional research on the construction,

operation, and performance requirements of wetlands receiving membrane concentrate. Ultimately, the City hopes to provide this water resource to restore and maintain the Ormond Beach Wetland located very near the AWPF.

Recycled water from the AWPF will be used for Title 22 industrial processes and landscape irrigation within the City of Oxnard. Construction of the RWB Pipeline is a major component of the GREAT Program - Phase I. The Recycled Water Backbone Project will utilize portions an existing abandon trunk sewer for the recycled water line. This will minimized potential construction impacts on the neighboring communities. The project consists of slip lining, pipe bursting and open trench construction.

Project Implementation

The following is a summary of the implementation schedule including key milestones for Phase I, a more detailed schedule is presented in Attachments C and D:

- Environmental Planning Complete – April 2004
- Preliminary Design of AWPF Complete – September 2006
- Title 22 Permit to Discharge – October 2008
- Final Design of AWPF Complete – June 2009
- Financial planning Complete – August 2009
- Award AWPF construction contract – September 2009
- Final Design of Backbone Pipeline Complete – November 2009
- Award Backbone Pipeline construction contract(s) – February 2010
- Completion of Backbone Pipeline construction – July 2011
- Substantial Completion (Recycled Water in Production) of AWPF Construction – September 30, 2011
- Final Completion of AWPF Construction – March 2012

Project Funding

The design and construction of the recycled water facilities will be funded through bond sales, connection charges, and (where possible) government-sponsored low-interest loans and grants. The City has completed a comprehensive a review of water rates and their capability to generate funds to repay bonded indebtedness. Based on the Standard and Poor's (S&P) recent ratings, the City of Oxnard has exhibited a stable credit profile and has been given a rating of (A+). The report States that "Oxnard's water utility has made regular rate adjustments that have allowed it to maintain strong debt service coverage, even excluding one-time development impact fees. We understand the utility's new desalter plant and recycled water network, which management is funding, in part, with a 2006 revenue bond issuance are proceeding on schedule and will help moderate long-term supply costs " The City will be issuing additional revenue bonds in 2009 to finance the remainder of the GREAT Program- Phase I costs.

Repayment of bonds will be from recycled water customers through the purchase of water and water rates paid by domestic users. The City has adjusted the water rates in anticipation of the bond financing and is developing a reserve to be used toward the GREAT Program.

III

Activity Description

Since the GREAT Program's conception, the City of Oxnard has financed and completed several studies and reports as part of its planning and regulatory requirements. These reports include:

- *GREAT Program Advanced Planning Study* (Kennedy/Jenks Consultants, 2002)
- *Program Environmental Impact Report, SCH #2003011045*(CH2M HILL, February 2004)
- *Decision Science Model and Selection of Treatment Process* (CH2M HILL, June 2005)
- *2005 Urban Water Management Plan* (Kennedy/Jenks Consultants, 2006)
- *AWPF Project Definition Report* (CH2M HILL, April 2006)
- *AWPF Preliminary Design Report* (CH2M HILL, September 2006)
- *Oxnard Recycled Water Facilities Plan* (Kennedy/Jenks Consultants, 2007)
- *Title XVI Report* (CH2M HILL, February 2008)
- *Title 22 Report* (CH2M HILL, March 2008)
- *Recycled Water Master Plan* (Kennedy/Jenks Consultants, January 2009)
- *Recycled water Backbone System Preliminary Design Report* (Black and Veatch, July 2008)

Several GREAT Program projects were identified during planning. The projects were subsequently divided into Phases of the GREAT Program. The following is a list of Phase I projects and the implementation status of each project:

- Blending Station Number 5
  - Construction complete, May, 2007
- Desalter at Blending Station Number 1
  - Construction Complete, November, 2008
- Advanced Water Purification Facility (AWPF)
  - Design Complete, May, 2009
  - ***Recycled Water Production, September 30, 2011***
  - Construction Complete, March 2012
- Recycled Water Backbone Pipeline (RWB)
  - Design Complete, November 2009
  - Construction Complete, July 2011

The AWPF and RWB pipeline projects will follow the necessary Recovery Act Funding and Financial Assistance requirements. Design service contracts for the AWPF and the RWB pipeline have been awarded. Delivery of both projects follows the traditional Design-Bid-Build approach. Design documents for the AWPF are nearly complete and are in production for the RWB Pipeline. These contract documents will be written to include the Recovery Act Funding and Financial Assistance Requirements for "Buy American" and Wage Rate Requirements per the Davis-Bacon Act.

IV

Project Schedule and Cost Estimate

This funding application is for the Advanced Water Purification Facility and the Recycled Water Backbone Pipeline which are scheduled for simultaneous construction. The estimated cost for the projects including land acquisition and environmental compliance is $ 130M. Attachment B is a proposed cost budget for the two projects. The anticipated construction schedule and quarterly milestones for each project are summarized in Attachment C. Using the proposed cost budget and anticipated construction milestones as well as ongoing project activities, a project schedule with estimated quarterly cash flow was created (see Attachment D).

The AWPF and RWB projects have the potential to create 538 jobs and 197 jobs, respectively within the next two to three years (see Attachment E).

V

Attachments

- A - Map of Project
- B – Proposed Project Budget
- C - Construction Schedule – Quarterly Milestones
- D – Cash Flow Projection
- E - Estimate of Job Creation

ATTACHMENT A

Aerial Photo: USGS, 1994.

Legend

- Phase 1 & 2 Treatment Facilities
- Phase 1 & 2 Pipeline Facilities
- Potential Phase 1 Recycled Water Distribution Area
- Potential Phase 2 Recycled Water Distribution Area

N

0 1.125 2.25 Miles

Source: CH2M HILL and Kennedy/Jenks Consultants, 2003.

Note: Facility and pipeline locations and recycled water distribution area boundaries are approximate and are for graphical purposes only.

Figure 1-1

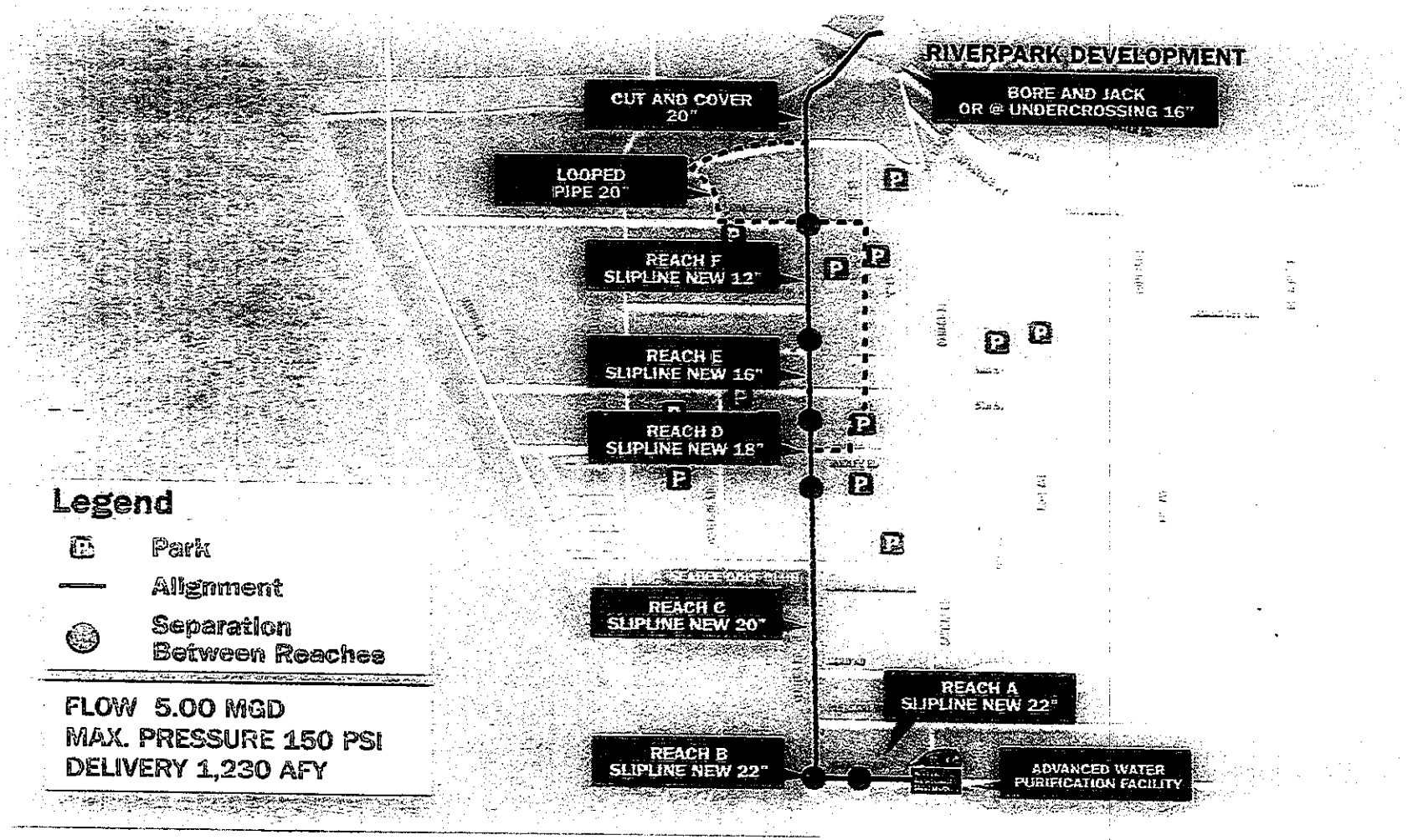
Project Study Area

City of Oxnard GREAT Program

CH2MHILL

Nov 2007

W811200700ISCO351733.TR.04 OxnardGREAT-005a.ai 3/08


RIVERPARK DEVELOPMENT
CUT AND COVER 20"
BORE AND JACK OR @ UNDERCROSSING 16"
LOOPED PIPE 20"
REACH F SLIPLINE NEW 12"
REACH E SLIPLINE NEW 16"
REACH D SLIPLINE NEW 18"
REACH C SLIPLINE NEW 20"
REACH A SLIPLINE NEW 22"
REACH B SLIPLINE NEW 22"
ADVANCED WATER PURIFICATION FACILITY
Legend
Park
Alignment
Separation Between Reaches
FLOW 5.00 MGD
MAX. PRESSURE 150 PSI
DELIVERY 1,230 AFY

ATTACHMENT B

GREAT Program (Phase 1) Budget

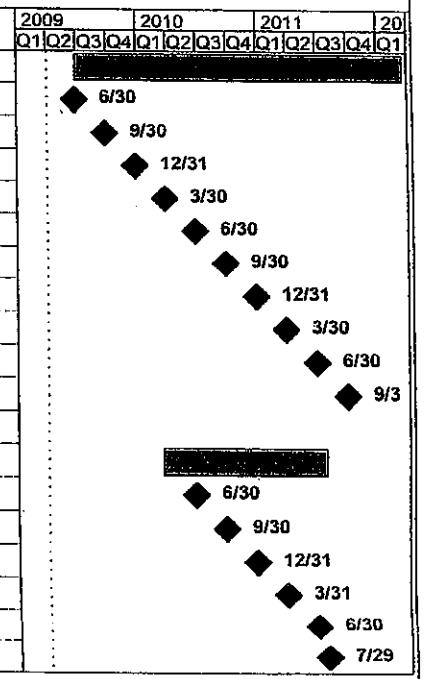
Budget Item Description	Computations		Recipient Funding	Reclamation Funding	Total Cost
	Rate/Unit Price	Quantity			
Travel					$ -
Airfare	$ 500	4	$ 2,000	$ -	$ 2,000
Per Diem	$ 250	4	$ 1,000	$ -	$ 1,000
Mileage			$ 500	$ -	$ 500
Equipment					
Computers	$ 1,000	5	$ 5,000	$ -	$ 5,000
Supplies/Material					
Misc Office Supplies			$ 10,000	$ -	$ 10,000
Land Acquisition			$ 2,500,000	$ -	$ 2,500,000
Environmental Compliance					
GREAT CEQA/NEPA			$ 145,000	$ -	$ 145,000
Phase 1 Recycled Water Master Plan			$ 170,720	$ -	$ 170,720
Title 22 Engineering Report			$ 206,075	$ -	$ 206,075
Preliminary Design					
Phase 1 AWPF Preliminary Design			$ 1,554,801	$ -	$ 1,554,801
Phase 1 Recycled Water Backbone System Preliminary Design			$ 287,288	$ -	$ 287,288
Design					
Phase 1 AWPF Design			$ 5,462,604	$ -	$ 5,462,604
Phase 1 Recycled Water Backbone System Design			$ 1,052,216	$ -	$ 1,052,216
Ventura Road Utility Improvements (Recycled Water Only)			$ 200,537	$ -	$ 200,537
Salaried and Wages					
See supporting documentation			$ 2,944,232	$ -	$ 2,944,232
Contractual/Construction 1					
Phase 1 AWPF Post Design			$ 3,311,692	$ -	$ 3,311,692
Phase 1 Recycled Water Backbone System Post Design			$ 367,120	$ -	$ 367,120
Phase 1 GREAT Construction Management (1)			$ 3,750,000	$ 1,250,000	$ 5,000,000
Phase 1 AWPF Construction (2)			$ 52,500,000	$ 17,500,000	$ 70,000,000
Phase 1 Recycled Water Backbone System Construction (2)			$ 23,750,000	$ 1,250,000	$ 25,000,000
Total Direct Costs			$ 98,220,785	$ 20,000,000	$ 118,220,785
Indirect Costs - 10%			$ 11,822,079	$ -	$ 11,822,079
Total Project Costs			$ 110,042,864	$ 20,000,000	$ 130,042,864

(1) Services including construction management, inspection, schedule review, start-up, and material testing
(2) Services including construction and project contingency

ATTACHMENT C

Oxnard GREAT Program, Phase I
Construction Schedule
Quarterly Milestones

ID		Task Name	Duration	Start	Finish	Predecessors
1		**AWPF Construction**	710 days	Wed 7/1/09	Tue 3/20/12	
2		Plan Check Complete	0 days	Tue 6/30/09	Tue 6/30/09	
3		Procurement Complete / Contract Awarded	0 days	Wed 9/30/09	Wed 9/30/09	
4		Sitework Complete	0 days	Thu 12/31/09	Thu 12/31/09	
5		Structural Concrete Complete	0 days	Tue 3/30/10	Tue 3/30/10	
6		Masonry Complete	0 days	Wed 6/30/10	Wed 6/30/10	
7		Roof Structure Complete / Mech & Elect. Equip Delivered	0 days	Thu 9/30/10	Thu 9/30/10	
8		Roof Closed Out	0 days	Fri 12/31/10	Fri 12/31/10	
9		Yard Piping Complete	0 days	Wed 3/30/11	Wed 3/30/11	
10		Unit Process Areas Complete	0 days	Thu 6/30/11	Thu 6/30/11	
11		Recycled Water Production (1,100 AFY)	0 days	Fri 9/30/11	Fri 9/30/11	
12						
13		**Backbone System Trenchwork**	355 days	Mon 3/22/10	Fri 7/29/11	
14		Backbone System Trenchwork 20% Complete	0 days	Wed 6/30/10	Wed 6/30/10	
15		Backbone System Trenchwork 40% Complete	0 days	Thu 9/30/10	Thu 9/30/10	
16		Backbone System Trenchwork 60% Complete	0 days	Fri 12/31/10	Fri 12/31/10	
17		Backbone System Trenchwork 80% Complete	0 days	Thu 3/31/11	Thu 3/31/11	
18		Backbone System Trenchwork 100% Complete	0 days	Thu 6/30/11	Thu 6/30/11	
19		Backbone System Trenchwork Testing Complete	0 days	Fri 7/29/11	Fri 7/29/11	



Project: AttachmentC.mpp
Date: Fri 4/3/09

Task		Milestone		External Tasks	
Split		Summary		External Milestone	
Progress		Project Summary		Deadline	

ATTACHMENT D

CITY OF OXNARD
GREAT PROGRAM
TITLE XVI RECOVERY ACT
CASH FLOW PROJECTION

Item	Description	Budget ($)	Q1 2009 ($)	Q2 2009 ($)	Q3 2009 ($)	Q4 2009 ($)	Q1 2010 ($)	Q2 2010 ($)	Q3 2010 ($)	Q4 2010 ($)	Q1 2011 ($)	Q2 2011 ($)	Q3 2011 ($)	Q4 2011 ($)	Q1 2012 ($)
1	Advanced Water Purification Facility (AWPF)														
	Land	$ 2,500,000	$ 2,500,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Planning	$ 2,076,596	$ 2,076,596	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Design	$ 5,462,604	$ 4,916,344	$ 476,260	$ 70,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Post Design	$ 3,311,692	$ -	$ -	$ 152,338	$ 457,014	$ 327,858	$ 327,858	$ 327,858	$ 327,858	$ 258,312	$ 258,312	$ 258,312	$ 258,312	$ 357,663
	Construction Management														
	City Staff	$ 1,472,116	$ -	$ -	$ -	$ 147,212	$ 147,212	$ 147,212	$ 147,212	$ 147,212	$ 147,212	$ 147,212	$ 147,212	$ 147,212	$ 147,212
	Consultant	$ 2,500,000	$ -	$ -	$ -	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000
	Travel	$ 3,500	$ -	$ 1,167	$ -	$ 1,167	$ 1,167	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Equipment	$ 15,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 15,000	$ -	$ -	$ -	$ -	$ -	$ -
	Mobilization	$ 3,336,310	$ -	$ -	$ -	$ 3,336,310	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Sitework	$ 6,366,045	$ -	$ -	$ -	$ 2,514,636	$ 608,117	$ 608,117	$ 608,117	$ 608,117	$ 608,117	$ 608,117	$ 202,706	$ -	$ -
	Concrete	$ 9,436,350	$ -	$ -	$ -	$ 3,299,996	$ 3,299,996	$ 1,678,785	$ 868,180	$ -	$ -	$ -	$ -	$ -	$ 289,393
	Masonry	$ 1,569,400	$ -	$ -	$ -	$ -	$ -	$ 1,046,267	$ 523,133	$ -	$ -	$ -	$ -	$ -	$ -
	Metals	$ 3,877,040	$ -	$ -	$ -	$ -	$ -	$ 817,353	$ 1,226,030	$ 883,670	$ 712,490	$ 237,497	$ -	$ -	$ -
	Wood	$ 465,500	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 62,067	$ 93,100	$ 93,100	$ 93,100	$ 93,100	$ 31,033
	Thermal & Moisture Protection	$ 1,203,650	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 160,487	$ 240,730	$ 240,730	$ 240,730	$ 240,730	$ 80,243
	Doors & Windows	$ 1,449,700	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 193,293	$ 289,940	$ 289,940	$ 289,940	$ 289,940	$ 96,647
	Finishes	$ 585,200	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 78,027	$ 117,040	$ 117,040	$ 117,040	$ 117,040	$ 39,013
	Specialties	$ 179,550	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 23,940	$ 35,910	$ 35,910	$ 35,910	$ 35,910	$ 11,970
	Equipment	$ 14,377,300	$ -	$ -	$ -	$ 718,865	$ 718,865	$ -	$ 4,792,433	$ 3,441,838	$ 1,568,433	$ 1,568,433	$ 1,568,433	$ -	$ -
	Furnishings	$ 97,755	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 13,034	$ 19,551	$ 19,551	$ 19,551	$ 19,551	$ 6,517
	I & C	$ 6,570,200	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,628,080	$ 1,664,451	$ 525,616	$ 525,616	$ 525,616	$ 525,616	$ 175,205
	Conveying Equipment	$ 186,200	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 24,827	$ 37,240	$ 37,240	$ 37,240	$ 37,240	$ 12,413
	Mechanical	$ 9,802,100	$ -	$ -	$ -	$ 980,210	$ -	$ -	$ 3,267,367	$ 2,346,563	$ 1,069,320	$ 1,069,320	$ 1,069,320	$ -	$ -
	Electrical	$ 10,560,200	$ -	$ -	$ -	$ -	$ 1,056,020	$ -	$ 3,520,067	$ 2,323,244	$ 844,816	$ 844,816	$ 844,816	$ 844,816	$ 281,605
2	Recycled Water Backbone System - Slip Lining & Pipe Bursting														
	Planning	$ 143,644	$ 143,644	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Design	$ 526,108	$ 25,000	$ 160,000	$ 215,000	$ 119,250	$ 6,858	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Post Design	$ 183,560	$ -	$ -	$ -	$ -	$ 12,500	$ 37,500	$ 30,000	$ 30,000	$ 30,000	$ 25,000	$ 18,560	$ -	$ -
	Construction Management														
	City Staff	$ 736,058	$ -	$ -	$ -	$ -	$ 43,298	$ 129,893	$ 129,893	$ 129,893	$ 129,893	$ 129,893	$ 43,298	$ -	$ -
	Consultant	$ 1,250,000	$ -	$ -	$ -	$ -	$ 73,529	$ 220,588	$ 220,588	$ 220,588	$ 220,588	$ 220,588	$ 73,529	$ -	$ -
	Mobilization	$ 309,581	$ -	$ -	$ -	$ -	$ 309,581	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Trenchless	$ 6,191,625	$ -	$ -	$ -	$ -	$ 169,031	$ 985,088	$ 1,181,362	$ 1,181,362	$ 1,181,362	$ 1,125,637	$ 367,782	$ -	$ -
3	Recycled Water Backbone System - Open Trench														
	Planning	$ 143,644	$ 143,644	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Design	$ 726,645	$ 60,554	$ 181,661	$ 181,661	$ 181,661	$ 121,108	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Post Design	$ 183,560	$ -	$ -	$ -	$ -	$ 12,500	$ 37,500	$ 30,000	$ 30,000	$ 30,000	$ 25,000	$ 18,560	$ -	$ -
	Construction Management					$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	City Staff	$ 736,058	$ -	$ -	$ -	$ -	$ 43,298	$ 129,893	$ 129,893	$ 129,893	$ 129,893	$ 129,893	$ 43,298	$ -	$ -
	Consultant	$ 1,250,000	$ -	$ -	$ -	$ -	$ 73,529	$ 220,588	$ 220,588	$ 220,588	$ 220,588	$ 220,588	$ 73,529	$ -	$ -
	Mobilization	$ 877,919	$ -	$ -	$ -	$ -	$ 877,919	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Open Trench	$ 17,558,375	$ -	$ -	$ -	$ -	$ 410,866	$ 2,872,550	$ 3,687,259	$ 3,687,259	$ 3,687,259	$ 2,763,688	$ 449,492	$ -	$ -
	Indirect Costs	$ 11,822,079	$ -	$ -	$ -	$ 1,477,760	$ 1,477,760	$ 1,477,760	$ 1,477,760	$ 1,477,760	$ 1,477,760	$ 1,477,760	$ 1,477,760	$ -	$ -
	Total	$ 130,042,864	$ 9,865,782	$ 819,088	$ 618,999	$ 13,484,080	$ 10,041,011	$ 10,986,951	$ 25,280,819	$ 19,655,970	$ 13,925,169	$ 12,460,880	$ 8,265,733	$ 2,859,467	$ 1,778,916
	Cum Total		$ 9,865,782	$ 10,684,870	$ 11,303,869	$ 24,787,949	$ 34,828,959	$ 45,815,911	$ 71,096,730	$ 90,752,699	$ 104,677,868	$ 117,138,749	$ 125,404,481	$ 128,263,948	$ 130,042,864

ATTACHMENT E

City of Oxnard GREAT Program - Phase I

Estimated Jobs Created

Item	Estimated Capital Cost	Direct	Indirect		Induced	Total
		Construction	Manufacturing	Trade, Transport & Services	Other	
AWPF Construction	$ 70,000,000.00	236	203	86	33	558
RWB Pipeline Construction	$ 25,000,000.00	82	68	33	14	197

References

1. Ball, Robert: *Employment Created by Construction Expenditures*, Monthly Labor Review, December 1981, US Department of Labor Statistics.
2. Pollin, Robert and Garrett-Peltier, Heidi, *The U.S. Employment Effects of Military and Domestic Spending Priorities*, Department of Economics and Political Economy Research Institute, University of Massachusetts, Amherst, October, 2007

Estimates were derived using the total jobs created per $1 billion as shown in article by Robert Ball and adjusted for inflation from 1980 to 2009
Estimates were compared to similar construction projects and tables from Reference No. 2