

STAFF REPORT

To: Coastside County Water District Board of Directors

From: David Dickson, General Manager

Agenda: May 13, 2008

Report

Date: May 8, 2008

Subject: El Granada Pipeline Phase 3 Construction Progress Update

Recommendation:

No Board action required. Information only.

Project Progress:

As of April 30, construction is at day 85 of the 240-day schedule.

Highlights of progress to date:

- Contractor has installed approximately 10,500 feet of 16" ductile iron pipe (DIP)
- Section 1 (Main Street to SAM access road) main-line pipe has passed:
 - o Pressure-test (250 psi for 2 hours)
 - o Bacteria / coli-form test
- The new Section 1 is now in service in parallel with the old 10" pipe. The old pipe section will be abandoned the week of May 19.
- 30" Casing and 16" DIP has been installed under Pullman Ditch and Naples Creek
- Sheet piles have been driven at the jacking-pit at Frenchman's Creek
- Sheet piles have been driven at both the jacking and receiving pits at Arroyo de en Medio Creek. The jacking pit has been excavated.

The map in Attachment A shows progress as of April 30. Assuming that the jack and bore operations at Frenchman's and Arroyo de en Medio begin in May, we are projecting completion of the entire project by the end of July, more than a month ahead of schedule.

Updated Project Cost Projection:

With a significant portion of the project now complete, Carollo Engineers has provided cost projections which include the contractor's proposed change orders, as well as increases in construction management costs due to factors beyond Carollo's control. The projected total cost is \$5.23 million - higher than initially anticipated but still well under the engineer's original estimate of \$5.7 million.

Cost elements comprising the total include (figures in thousands):

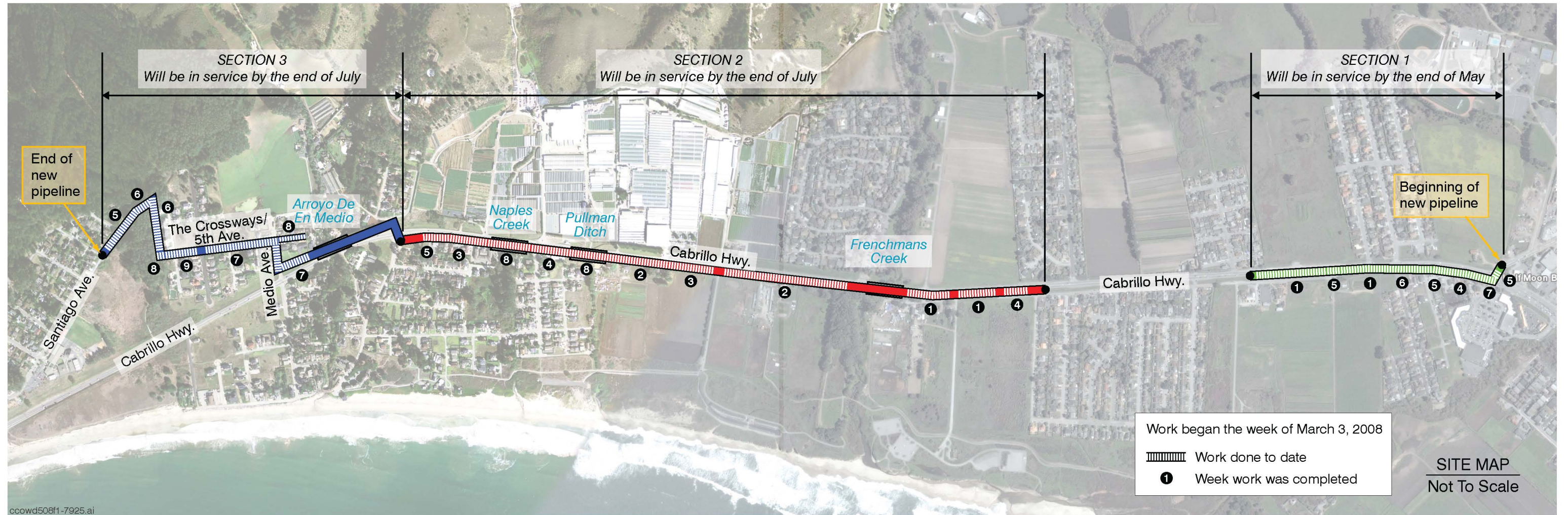
JMB Original Contract	\$ 4,549
Construction Change Orders	147
Construction Management Original Estimate	401
<u>CM Additional Cost</u>	<u>133</u>
Estimated Project Total	\$ 5,230

Attachment B, a table taken from Carollo's monthly progress report, details JMB's change order requests. We can anticipate that there will be some additional change orders and that the final figures for the change orders shown in the table may change.

Additional construction management costs have resulted primarily from the greater inspection effort required to deal with JMB's aggressive construction schedule and from the high level of biological and archaeological monitoring required by our permit conditions. Attachment C presents Carollo's original cost estimate and their projection of CM costs to complete the project.

The Carollo Engineers memo included as Attachment D further explains the additional CM effort and identifies savings the District has realized through Carollo's efforts.

PHASE 3 EL GRANADA TRANSMISSION PIPELINE REPLACEMENT PROJECT





Phase 3 El Granada Transmission Pipeline Replacement Project

Change Order Requests

Coastside County Water District

All

7925A.30

COR	Date	CO No.	Ref DC	Ref RFI	Type	Requested			Approved			Proceed?	
						Time Ext.	Amount		Time Ext.	Amount			
						Cont	MS1	MS2	Cont	MS1	MS2		
1	3/18/2008	0			CIC	0	0	0	0	0	0	0	<input type="checkbox"/>
									\$4,217.50				
2	4/3/2008	1			VE	0	0	0	0	0	0	(\$21,773.00)	<input checked="" type="checkbox"/>
									(\$21,773.00)				
3	4/3/2008	0			CIC	0	0	0	0	0	0	0	<input checked="" type="checkbox"/>
4	4/3/2008	0			CIC/FA	0	0	0	0	0	0	\$6,204.00	<input checked="" type="checkbox"/>
5	4/3/2008	0			CIC/FA	0	0	0	0	0	0	\$8,062.00	<input checked="" type="checkbox"/>
6	4/3/2008	0			CIC/FA	0	0	0	0	0	0	\$9,087.00	<input checked="" type="checkbox"/>
7	4/7/2008	0			CIC/FA	0	0	0	0	0	0	\$6,122.25	<input checked="" type="checkbox"/>
8	4/7/2008	0			CIC	0	0	0	0	0	0	\$0.00	<input type="checkbox"/>
9	4/8/2008	0			CIC/FA	0	0	0	0	0	0	\$0.00	<input checked="" type="checkbox"/>



Phase 3 El Granada Transmission Pipeline Replacement Project Change Order Requests

All

7925A.30

Coastside County Water District

COR	Date	CO No.	Ref DC	Ref RFI	Type	Requested			Approved			Proceed?	
						Cont	MS1	MS2	Amount	Cont	MS1		MS2
10	4/8/2008	0			CIC	0	0	0	\$8,514.50	0	0	0	<input type="checkbox"/>
11	4/8/2008	0			CIC/FA	0	0	0	\$0.00	0	0	0	<input checked="" type="checkbox"/>
12	4/10/2008	0			FA	0	0	0	\$6,895.00	0	0	0	<input checked="" type="checkbox"/>
13	3/31/2008	0			CIC	0	0	0	\$76,895.00	0	0	0	<input type="checkbox"/>
14	4/24/2008	0			FA	0	0	0	\$3,459.00	0	0	0	<input checked="" type="checkbox"/>
15	4/24/2008	0			CIC/FA	0	0	0	\$5,847.16	0	0	0	<input checked="" type="checkbox"/>
16	4/7/2008	0			Centerline Boring Inc. Delay Costs (Withdrawn)	0	0	0	\$0.00	0	0	0	<input type="checkbox"/>
17	4/28/2008	0			CIC/FA	0	0	0	\$5,260.00	0	0	0	<input checked="" type="checkbox"/>
18	4/28/2008	0			CIC/FA	0	0	0	\$11,265.00	0	0	0	<input checked="" type="checkbox"/>

REVISED BUDGET ESTIMATE

Coastside County Water District

Phase 3 El Granada Transmission Pipeline Replacement Project - Construction Management

Original Cost Estimate									
Task No.	Task Description	Senior Professional \$222	Lead Project Professional \$195	Professional \$157	Assistant Professional \$122	Senior Technician \$135	Word Processing \$85	Total	Labor Cost (\$)
Task 1	Meetings	56	72	16	8	0	12	164	\$30,980
Task 2	Contract Administration	10	92	0	0	0	36	138	\$23,220
Task 3	Construction Inspection	0	0	0	576	0	0	576	\$70,272
Task 4	Coordination of Startup and Testing	2	8	8	0	0	0	18	\$3,260
Task 5	Project Closeout	8	16	16	0	16	4	60	\$9,908
Task 6	Engineering Support Services- Respond to RFIs, review submittals, evaluate and process change orders, review value engineering proposals, manage mitigation monitoring and overall project management	74	138	164	88	12	4	480	\$81,782
	Subtotal								
	Total	150	326	204	672	28	56	1436	\$ 219,422

Other Direct Costs									
	PECE Charge ¹ (9.00/hr)	Mileage	Printing	Subconsultant.	Subtotal Other Direct Costs	Labor Costs (above)	Task Total		
Task 7	Other Services	\$12,924	\$18,100	\$1,000	\$100,000	\$132,024	\$ 219,422	\$351,446	
								\$50,000	
								Total	
								Original Rounded Total:	
								\$401,446	
								\$401,400	

Additional Cost Estimate									
Task No.	Task Description	Senior Professional ² \$234	Lead Project Professional ² \$195	Professional ² \$165	Assistant Professional ² \$134	Senior Technician ² \$145	Word Processing ² \$90	Total	Labor Cost (\$)
Task 1	Meetings	0	0	0	0	0	0	0	\$0
Task 2	Contract Administration- Additional cost due to permitting conditions	52	0	21	0	0	35	108	\$18,783
Task 3	Construction Inspection- increased cost due to extended hours and crews	0	0	326	0	0	0	326	\$53,790
Task 4	Coordination of Startup and Testing- additional pipeline sections	0	0	44	0	0	0	44	\$7,260
Task 5	Project Closeout	0	0	0	0	0	0	0	\$0
Task 6	Engineering Support Services- Increased environmental and cultural monitoring (subconsultant costs) and permitting conditions	0	0	44	0	0	0	44	\$7,260
	Subtotal								
	Total	52	0	435	0	0	35	522	\$ 87,093

Other Direct Costs									
	PECE Charge ¹ (9.00/hr)	Mileage	Printing	Subconsultant.	Subtotal Other Direct Costs	Labor Costs (above)	Task Total		
Task 7	Other Services	\$4,698	\$1,281	\$0	\$39,600	\$45,579	\$ 87,093	\$132,672	
								\$0	
								Total Additional Cost:	
								\$132,672	

(1) PECE: Project Equipment and Communication Expense
 (2) Rates reflect increase effective March 1, 2008



Technical Memorandum

To: David Dickson, CCWD
Copies To: Camden O'Toole, Mike Britten
From: Mike Warriner
Date: May 5, 2008 **WO#:** 7925A.30
Subject: Request for and Justification of Additional Costs for Construction Management of the El Granada Transmission Pipeline Project

The El Granada Pipeline Project has been proceeding for five months out of the schedule nine months. The work is 66% completed and the first section of the pipeline has been placed into service. The contractor is working at a pace to complete the project ahead of schedule. This pace has also resulted in higher construction management costs associated with the fieldwork. The additional costs and the reason for them are as follows:

Additional permitting at start of project- Several permits needed to start the project were not in place. Carollo Engineers researched and identified the outstanding permit items. Time was spent researching, interpreting the permit conditions and consulting with environmental subconsultants regarding the work. In addition, several documents, such as the County encroachment permit and past correspondence with permitting agencies, was missing from the contract documents. Carollo personnel reviewed these documents and how they interacted with the existing permits. Please note that these additional hours by Carollo are offset by hours not spent by the District Engineer to perform this work.

Extended work days- The contract documents allowed the contractor to work 10 to 12 hours per day in most areas. The Carollo construction management proposal was based upon an 8-hour day while the actual field effort by the contractor was a minimum of 10 hours every day. These additional hours were not accounted for in the original agreement.

Additional work crews- In addition to the extended workdays, the contractor increased work crews and worked on multiple sites every day. This required Carollo to increase the number personnel onsite to inspect the additional work areas. The combination of the extended workdays and the multiple sites exceed the original contract hours calculated for the construction management. While the contractor is completing the project ahead of schedule, the relationship between the saved construction time and the longer days and multiple crews is not a one-to-one relationship with the time that would have been expended in an 8-hour day with one construction crew. This additional time exceeds the time estimated in the original construction contract.

Additional environmental monitoring- In order to satisfy the permit conditions, environmental monitoring was increased in areas where the conflicting conditions between the different agencies permits varied. In addition, permit conditions were identified after the proposal was submitted for construction management, resulting in additional restriction on the work. This

significantly increased monitoring costs for the project beyond what was shown in the proposal.

Cost Savings Attributable to Construction Management.

While Carollo costs have been increased, the contractor costs and resultant District costs have been reduced by the presence of the construction manager. The following are estimated savings achieved by the District to date. A summary table is also shown.

Claims and delays associated with permit restrictions at some of the work sites have been eliminated. By working with contractor to keep the work progressing and working around permit restrictions, the construction manager has been able to prevent costs associated with demobilization and re-mobilization to the site, which could have been in excess of \$150,000.

Change orders totaling \$150,000 associated with differing field conditions have been submitted by the contractor. Negotiation of these change orders by Carollo personnel has reduced this number to less than \$110,000.

Some unit prices shown in the contract have been reduced due to field changes that preserve the design intent and eliminate some of the fieldwork. The savings associated with the field changes has been estimated to be \$40,000.

The construction manager also worked with the contractor and residents to reduce potential complaints in residential areas. By serving as the on-site District representative, Carollo was able to address resident concerns immediately and prevent complaints. The value of the customer satisfaction associated with this item cannot be estimated as a specific value but is of great importance to all parties associated with the project.

In order to complete the project, Carollo estimates the additional costs to see this project through to completion to be \$132,672. The savings to the District by active construction management are estimated to exceed \$230,000 and savings may increase as the project proceeds to completion. We believe that the cost savings justify the additional expenditure to continue the Carollo contract through contract completion.

TABLE 1 - SUMMARY OF PROJECT COST SAVINGS

Modification of work activities to save re-mobilization costs	-\$150,000
Negotiation of change orders to date	-\$40,000
Unit pricing savings	-\$40,000
Additional construction management costs	\$132,672
Net cost savings to the El Granada Project	-\$97,328