



**Chino Basin Desalter Authority  
Chino I Expansion and Chino II Desalter Project  
SAWPA Grant Contract Number 502-15-68  
July 2005 Progress Report**

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## **The Project**

The Project, commonly known as the Chino I Expansion/Chino II Desalter Project, primarily consists of construction of the facilities necessary to expand the Chino I Desalter by 5 MGD and construction of a new 10 MGD Chino II Desalter. The Chino I Desalter Expansion Project began in June 2002 and is estimated to continue through February 2006. The Chino II Desalter Project began in June 2002 and is estimated to continue through January 2006. The progress of each of the facilities is described below.

## **CHINO I DESALTER EXPANSION FACILITIES**

### **Well Drilling**

These facilities include the construction of three wells (Extraction Well Nos. I-13, I-14, and I-15) and one monitoring well (Monitoring Well No. I-MW-1). Progress on these facilities this month included completing the drilling of Monitoring Well I-MW-1. These facilities are completed.

### **Well Equipping**

These facilities include equipping the three extraction wells described in the Well Drilling Section. The construction contract was awarded to Pascal and Ludwig Constructors. These facilities are in the construction phase and are complete. Progress on these facilities this month included completing the final five percent of the construction from 95 to 100 percent.

### **Raw Water Pipeline**

These facilities include the raw water pipeline from the new extraction wells to the existing raw water pipeline. The construction contract was awarded to Norstar Plumbing and Engineering Company, Incorporated. These facilities are completed.

### **Onsite Improvements (excluding Ion Exchange)**

These facilities include onsite improvements at the Chino I Desalter site including bypass piping, sodium hypochlorite station, volatile organic compound (VOC) treatment system, and expansion of product water pump stations. The construction contract was awarded to Coons Construction. These facilities are completed.

### **Ion Exchange Treatment Facilities**

These facilities include ion exchange treatment facilities at both the Chino I Desalter and the Chino II Desalter. The construction contract was awarded to Brutoco Engineering and Construction. These facilities are in the construction phase and are approximately 99 percent complete. Progress on these facilities this month included completing an additional two percent of the construction from 97 to 99 percent.

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### **Archibald Product Water Pipeline**

These facilities include a product water pipeline from the Chino I Desalter to the City of Ontario service connection. The pipeline will be located in Cloverdale Road and Archibald Avenue. These facilities are in the construction phase and are approximately one percent complete. Progress on these facilities this month included completing one percent of the construction from zero to one percent.

### **Archibald Product Water Pump Station**

These facilities include a product water pump station to deliver water to the City of Ontario service connection. The pump station is located at approximately the Riverside/San Bernardino County Line and Archibald Avenue. The construction contract was awarded to Social Pacific Construction Corporation. These facilities are in the construction phase and are approximately one percent complete. There was no progress on these facilities this month.

### **Chino Hills Product Water Pipeline**

These facilities include a product water pipeline in Soquel Canyon Parkway for the connection to the City of Chino Hills water system. The construction contract was awarded to Norstar Plumbing and Engineering Company, Incorporated. These facilities are completed.

### **Chino Hills Pump Station**

These facilities include the construction of a pump station in Soquel Canyon Parkway in the City of Chino Hills. This station will lift water into the City of Chino Hills water system. The construction contract was awarded to SCW Contracting Corporation. These facilities are in the construction phase and are approximately 98 percent complete. There was no progress on these facilities this month.

### **Chino I Storm Drain and SARI Meter Facilities**

These facilities include the construction of a storm drain within the plant, connecting to the existing City of Chino Storm Drain, air gap structure and replacement of the SARI flow meter system. These facilities are completed.

### **City of Chino Turnout**

These facilities include connection to the City of Chino water system from the existing Chino Basin Desalter Authority product water pipeline in Kimball Avenue. These facilities are in the design phase and are approximately 95 percent complete. Progress on these facilities this month included completing an additional 20 percent of the design from 75 to 95 percent.

## **CHINO II DESALTER FACILITIES**

### **Well Drilling Package No. 1**

These facilities include the construction of two extraction wells (Well Nos. II-6 and II-7) and two monitoring wells (Monitoring Well Nos. II-MW-1 and II-MW-2). The construction contract was awarded to Bakersfield Well and Pump Company. The two extraction wells and Monitoring Well II-MW-1 are complete. Progress on these facilities this month included completing Monitoring Well II-MW-1 and completing 75 percent of Monitoring Well II-MW-2.

### **Well Drilling Package No. 2**

These facilities include the construction of three extraction wells (Well Nos. II-1, II-8 and II-9a). The construction contract was awarded to Layne Christensen Company. These facilities are completed.

### **Well Drilling Package No. 3**

These facilities include the construction of three extraction wells (Well Nos. II-2, II-3 and II-4). The construction contract was awarded to Bakersfield Well and Pump Company. These facilities are completed.

### **Well Equipping Package No. 1**

These facilities include equipping four extraction wells (Well Nos. II-6, II-7, II-8, and II-9a). The construction contract was awarded to Pascal and Ludwig Constructors. These facilities are in the construction phase and are approximately 15 percent complete. There was no progress on these facilities this month.

### **Well Equipping Package No. 2**

These facilities include equipping four extraction wells (Well Nos. II-1, II-2, II-3 and II-4). The construction contract was awarded to Pascal and Ludwig Constructors. These facilities are in the construction phase and are approximately 15 percent complete. There was no progress on these facilities this month.

### **Raw Water Pipeline Phase 1**

These facilities include the raw water pipeline east of the Interstate 15 Freeway from the new extraction wells to the Chino II Desalter site. The construction contract was awarded to Norstar Plumbing and Engineering Company, Incorporated. These facilities are in the construction phase and are approximately 95 percent complete. There was no progress on these facilities this month.

### **Raw Water Pipeline Phase 2**

These facilities include the raw water pipeline crossing the Interstate 15 Freeway. The construction contract was awarded to SJ&B Group Inc. These facilities are in the construction phase and are approximately one percent complete. There was no progress on these facilities this month.

### **Raw Water Pipeline Phase 3**

These facilities include the raw water pipeline west of the Interstate 15 Freeway from the new extraction wells to the Interstate 15 Freeway. These facilities are in the construction phase and are approximately 95 percent complete. There was no progress on these facilities this month.

### **Onsite Improvements (excluding Ion Exchange)**

These facilities include onsite improvements at the Chino II Desalter site including all new facilities excluding the ion exchange treatment facility. The construction contract was awarded to Brutoco Engineering and Construction. These facilities are in the construction phase and are approximately 98 percent complete. There was no progress on these facilities this month.

### **Ion Exchange Treatment Facilities**

These facilities include ion exchange treatment facilities at both the Chino I Desalter and the Chino II Desalter. The construction contract was awarded to Brutoco Engineering and Construction. These facilities are in the construction phase and are approximately 95 percent complete. There was no progress on these facilities this month.

### **SARWC Product Water Pipeline**

These facilities include the product water pipeline in Bellegrave Avenue for the connection to the Santa Ana River Water Company water system. These facilities are completed.

### **Ontario Product Water Pipeline**

These facilities include the product water pipeline in Milliken Avenue for connection to the City of Ontario water system. The construction contract was awarded to A. W. Davies. These facilities are in the construction phase and are approximately eight percent complete. Progress on these facilities this month included completing an additional three percent of the construction from five to eight percent.

### **Ontario Pump Station**

These facilities include the construction of a pump station on Jurupa Street in the City of Ontario. This station will lift water into the City of Ontario water system. These facilities are in the construction phase and are approximately 15 percent complete. Progress on these facilities

this month included completing an additional five percent of the construction from ten to 15 percent.

### **Brine Line**

These facilities include brine pipeline from the Chino II Desalter site to the Santa Ana River Interceptor (SARI) system. The construction contract was awarded to Norstar Plumbing and Engineering Company, Incorporated. These facilities are completed.

### **Attachments**

- Project Schedule
- Cash Flow Projection
- Construction Progress Pictures

**Chino I Expansion and Chino II Desalters Project**  
**Schedule Projection**  
**July 2005**

	<u>Contractor</u>	<u>Design Completion</u>	<u>Bid Opening</u>	<u>Start Construction</u>	<u>% Completed</u>	<u>Construction Completion Date</u>
<u>Chino I Desalter Expansion Facilities</u>						
Well Drilling	Bakersfield	Completed	Completed	Completed	100	Completed
Well Equipping	Pascal & Ludwig	Completed	Completed	Completed	100	Completed
Raw Water Pipeline	Norstar	Completed	Completed	Completed	100	Completed
Onsite Improvements (excluding Ion Exchange)	Coons	Completed	Completed	Completed	100	Completed
Ion Exchange Treatment Facilities	BEC	Completed	Completed	Completed	99	Aug. 2005
Archibald Product Water Pipeline	Genesis	Completed	Completed	Completed	1	Dec. 2005
Archibald Product Water Pump Station	SoCal Pacific	Completed	Completed	Completed	1	Feb. 2006
Chino Hills Product Water Pipeline	Norstar	Completed	Completed	Completed	100	Completed
Chino Hills Pump Station	SCW	Completed	Completed	Completed	98	Aug. 2005
Chino I Storm Drain and SARI Meter Facilities	Ecology	Completed	Completed	Completed	100	Completed
City of Chino Turnout		Aug. 2005	Aug. 2005	Sep. 2005	95% Design	Dec. 2005
<u>Chino II Desalter Facilities</u>						
Well Drilling Package No. 1 (Well II-6 & 7)	Bakersfield	Completed	Completed	Completed	100	Completed
Well Drilling Package No. 2 (Well II-1, 8, & 9a)	Layne	Completed	Completed	Completed	100	Completed
Well Drilling Package No. 3 (Well II-2, 3, & 4)	Bakersfield	Completed	Completed	Completed	100	Completed
Well Equipping Package No. 1 (Well II-6, 7, 8 & 9a)	Pascal & Ludwig	Completed	Completed	Completed	15	Dec. 2005
Well Equipping Package No. 2 (Well II-1, 2, 3, & 4)	Pascal & Ludwig	Completed	Completed	Completed	15	Nov. 2005
Raw Water Pipeline Phase 1	Norstar	Completed	Completed	Completed	95	Aug. 2005
Raw Water Pipeline Phase 2	SJ&B	Completed	Completed	Completed	1	Nov. 2005
Raw Water Pipeline Phase 3	Choctaw	Completed	Completed	Completed	95	Aug. 2005
Onsite Improvements (excluding Ion Exchange)	BEC	Completed	Completed	Completed	98	Sep. 2005
Ion Exchange Treatment Facilities	BEC	Completed	Completed	Completed	95	Sep. 2005
SARWC Product Water Pipeline	E.J. Meyer Co	Completed	Completed	Completed	100	Completed
Ontario Product Water Pipeline	A. W. Davies	Completed	Completed	Completed	8	Dec. 2005
Ontario Pump Station	M. W. Lyles Co.	Completed	Completed	Completed	15	Jan. 2006
Brine Line	Norstar	Completed	Completed	Completed	100	Completed
Overall Project Completion						Feb. 2006

**Chino I Expansion and Chino II Desalters Project**

**Cash Flow Projection**

June 2005

		Chino I	Chino II	Total	
		29%	71%		
	\$	25,900,857.00	\$ 63,412,443.00	\$ 89,313,300.00	
	<u>Date</u>			<u>Projected Cost</u>	
\$	59,376,209.83	Costs To Date	\$ 17,219,100.85	\$ 42,157,108.98	\$ 59,376,209.83
	Jul. 2005	\$ 964,639.57	\$ 2,361,703.78	\$ 3,326,343.35	
	Aug. 2005	\$ 964,639.57	\$ 2,361,703.78	\$ 3,326,343.35	
	Sep. 2005	\$ 964,639.57	\$ 2,361,703.78	\$ 3,326,343.35	
	Oct. 2005	\$ 964,639.57	\$ 2,361,703.78	\$ 3,326,343.35	
	Nov. 2005	\$ 964,639.57	\$ 2,361,703.78	\$ 3,326,343.35	
	Dec. 2005	\$ 964,639.57	\$ 2,361,703.78	\$ 3,326,343.35	
	Jan. 2006	\$ 964,639.57	\$ 2,361,703.78	\$ 3,326,343.35	
	Feb. 2006	\$ 964,639.57	\$ 2,361,703.78	\$ 3,326,343.35	
	<u>Mar. 2006</u>	<u>\$ 964,639.57</u>	<u>\$ 2,361,703.78</u>	<u>\$ 3,326,343.35</u>	
	\$	25,900,857.00	\$ 63,412,443.00	\$ 89,313,300.00	

**Work Performed for Invoiced Costs**

Description	Cost
Inland Empire Utilities Agency for project management of the Chino I Desalter Expansion & Chino II Desalter	\$ 28,974.46
Inland Empire Utilities Agency for construction management of Chino I & II Desalter	\$ 23,945.51
RBF for Engineering Services, Construction Management, and Inspection for Chino I Desalter Expansion & Chino II Desalter	\$ 619,249.24
Jurupa Community Services District for Chino II Desalter water meter fees	\$ 85.20
County of Riverside Encroachment Permit for Archibald Pipeline	\$ 2,722.88
County of Riverside Encroachment Permit for Chino II Monitoring Well (II-MW-1)	\$ 387.00
Jurupa Community Services District Encroachment Permit for Chino II Desalter Raw Water Pipeline Phase 1	\$ 5,946.70
Southern California Edison Service Charge for Chino I Desalter Well I-13 Startup	\$ 16.94
Southern California Edison Service Charge for Chino I Desalter Well I-15 Startup	\$ 17.17
Southern California Edison Supplemental Invoice for Service for Chino II Desalter	\$ 3,384.95
Hughes Networking for Chino II Trailer Satellite for Network Access	\$ 94.99
Pascal & Ludwig for Chino I Desalter Well Equipping (Wells I-13,14,& 15)	\$ 201,113.60
Layne Christensen for Chino II Desalter Well Drilling Package No. 1 (Wells II-1,8,9A)	\$ 165,188.94
Norstar Plumbing for the construction of Chino II Desalter Raw Water Pipeline, Phase I	\$ 373,947.56
Choctaw Contractors for the Construction of the Chino II Raw Water Pipeline, Phase III	\$ 113,568.33
E.S. Babcock for Chino II Desalter Onsite Water Quality Testing	\$ 900.00
Lea Associates for Archibald Pump Station Property Appraisal	\$ 437.50
<b>Total Invoices paid for the month =</b>	<b>\$ 1,539,980.97</b>

## Ontario 42" Pipeline at Philadelphia and Milliken



Lateral A



Lateral B

## **Ontario Pump Station**



Excavation Pit with the Three Pump Cans

## **Chino II Desalter Wells**



Drilled Monitoring Well II-MW-1

Continued Chino II Desalter Wells



Drilling Monitoring Well II-MW-2