



**CHINO BASIN  
DESALTER  
AUTHORITY**

# Technical Advisory Committee Meeting

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October 13, 2020 • 1:30 p.m.

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## TECHNICAL ADVISORY COMMITTEE

### CHINO BASIN DESALTER AUTHORITY

3550 E. Philadelphia Street, Suite 170, Ontario, CA 91761

**OCTOBER 13, 2020 • 1:30 p.m.**

*All documents available for public review are on file with the Authority's secretary located at 3550 E. Philadelphia Street, Suite 170, Ontario, CA 91761*

### NOTICE AND AGENDA

According to the directives from the California Department of Public Health and Executive Order N-33-20 issued by Governor Gavin Newsom, members of the public are invited to participate via video or teleconference:

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**Teleconference:** Dial-in #: [\(669\) 900 6833](#) [Meeting ID: 874 5710 8844](#) [Passcode: 567390](#)

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### **CALL TO ORDER**

### **ROLL CALL**

### **PUBLIC COMMENT**

*Members of the public may address the Committee on any item that is within the jurisdiction of the Committee; however, no action may be taken on any item not appearing on the agenda unless the action is otherwise authorized by Subdivision (b) of Section 54954.2 of the Government Code. Those persons wishing to address the Committee on any matter, whether or not it appears on the agenda, are requested to submit their request to comment to the Executive Assistant no less than one hour prior to the start of the meeting at (909) 218-3230 or [ccosta@chinodesalter.org](mailto:ccosta@chinodesalter.org). Comments will be limited to five minutes per speaker.*

### **ADDITIONS TO THE AGENDA**

*In accordance with Section 54954.2 of the Government Code (Brown Act), additions to the agenda require two-thirds vote of the legislative body, or, if less than two-thirds of the members are present, a unanimous vote of those members present, that there is a need to take immediate action and that the need for action came to the attention of the local agency subsequent to the agenda being posted.*

- 1. MINUTES OF SEPTEMBER 8, 2020 TECHNICAL ADVISORY COMMITTEE MEETING**
- 2. CHINO I OPERATIONS REPORT**  
Report By: Ian Tillery/Inland Empire Utilities Agency
- 3. CHINO II OPERATIONS REPORT**  
Report By: Aaron Anderson/Jurupa Community Services District
- 4. CHINO II CONCENTRATE REDUCTION FACILITY OPERATIONAL UPDATE**  
Report By: Thomas O'Neill, CDA General Manager/CEO
- 5. WATER DELIVERIES**  
Report By: Thomas O'Neill, CDA General Manager/CEO

**6. SOUTH ARCHIBALD PLUME UPDATE**

Report By: Cindy Miller, South Archibald Plume Program Manager

**7. CHINO I GAC UPDATE**

Report By: Cindy Miller, Hazen & Sawyer Program Manager

**8. BOARD MEETING AGENDA ITEMS REVIEW**

Report By: Thomas O'Neill, CDA General Manager/CEO

**9. NEW BUSINESS/FUTURE TECHNICAL ADVISORY AGENDA ITEMS REVIEW**


Report By: Thomas O'Neill, CDA General Manager/CEO

**ADJOURN**

Any person with a disability who requires accommodations in order to participate in this meeting or for package materials in an alternative format should telephone Executive Assistant C. at (909) 218-3730, at least 48 hours prior to the meeting in order to make a request for a disability-related modification or accommodation. Copies of records provided to Board Members which relate to any agenda item to be discussed in open session may be obtained from Chino Basin Desalter Authority at 3550 E. Philadelphia Street, Suite 170, Ontario, CA 91761

***Declaration of Posting***

I, Casey Costa, Executive Assistant to the Chino Basin Desalter Authority, hereby certify that a copy of this agenda has been posted at the Chino Basin Desalter Authority's main office, 3550 E. Philadelphia Street, Suite 170, Ontario, CA 91761 by October 9, 2020 at 1:30 p.m.

  
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Casey Costa, Executive Assistant



# **Technical Advisory Committee Meeting**

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## **Agenda Item**

### **No. 1**

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**CHINO BASIN DESALTER AUTHORITY  
TECHNICAL ADVISORY COMMITTEE**

**MINUTES**

**September 22, 2020**

A meeting of the Chino Basin Desalter Authority Technical Advisory Committee was held via audio/teleconference. CDA General Manager O'Neill called the meeting to order at 1:30 p.m.

**Committee Members Present:**

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Dave Crosley, City of Chino  
Mark Wiley, City of Chino Hills  
Ian Tillery, Inland Empire Utilities Agency  
Ben Armel, Jurupa Community Services District  
Aaron Anderson, Jurupa Community Services District (Alternate)  
Todd Minten, Santa Ana River Water Company  
John Lopez, Santa Ana River Water Company (Alternate)  
Paul Rugge, Western Municipal Water District  
Derek Kawaii, Western Municipal Water District (Alternate)

**Others Present:**

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Thomas O'Neill, CDA General Manager/CEO  
Michael Chung, CDA CFO/Treasurer  
Jose Garcia, CDA Principal Accountant  
Casey Costa, CDA Executive Assistant  
Courtney Jones, City of Ontario  
Matt Abel, Jurupa Community Services District  
Cindy Miller, Hazen & Sawyer  
Kevin Alexander, Hazen & Sawyer  
Bob Bowcock, Integrated Resources Management/SB County Airports

**PUBLIC COMMENT** - There were no public comments.

**ADDITIONS TO THE AGENDA** – There were no additions to the agenda.

**AGENDA ITEMS**

General Manager O'Neill reordered the agenda.

**7. HAZEN & SAWYER AGREEMENT FOR CHINO II DESALTER MEMBRANE SYSTEM OPERATION MONITORING USING POWER-BI DYNAMIC DASHBOARDS**

Report By: Thomas O'Neill, CDA General Manager/CEO

General Manager O'Neill reviewed the recommendation to the Board of Directors to approve a Professional Services Agreement with Hazen & Sawyer to perform operations upgrades at the Chino II Desalter to improve efficiency and performance of operations monitoring using Python Data Analytics and Microsoft Power BI Dynamic Dashboards. He introduced Kevin Alexander/Hazen & Sawyer who reviewed the CDA RO Systems to be monitored, data to be collected and the proposal to leverage technology to reduce inefficiencies and provide the reports/dashboards utilized by all levels of Operations. It was questioned if ongoing maintenance costs would occur and Kevin Alexander/Hazen & Sawyer replied that Python Data Analytic is an open platform, as is Power Bi, which is a Microsoft product. Once the data acquisition programming is set up, data can be pulled from any database. Data can be manipulated without programming in other languages. It was asked

if any JCSD staff is trained to perform ongoing programming. General Manager O'Neill replied that SCADA programming is currently contracted as an outside service with SPI. If this item is approved, SPI services would no longer be needed and it is anticipated that little additional programming will be needed after initial set up. If needed a support contract could be put into place. Kevin Alexander added that Power BI and Python are not difficult to learn, and short training programs are available. Contracting these services as a sole-source procurement was discussed; General Manager O'Neill replied that, while other consultants have the capability to program using both platforms, Hazen and Sawyer has unique experience and capabilities to set this up specifically for our applications. There were no further questions and there were no objections to moving this item forward to the Finance Committee and Board.

**1. MINUTES OF SEPTEMBER 8, 2020 TECHNICAL ADVISORY COMMITTEE MEETING**

Minutes were approved as submitted.

**2. CHINO I OPERATIONS REPORT**

Report By: Ian Tillery/Inland Empire Utilities Agency

- Plant Production: 12.03 MGD
- Well meters were calibrated on 9/4
- Caustic tank leak was repaired. Tank will be filled today.
- Chemsan performed factory service on all units. They are aging but in good condition.

**3. CHINO II OPERATIONS REPORT**

Report By: Aaron Anderson/Jurupa Community Services District

- Plant Production: 22.8 MGD
- Air stripper project is ongoing
- Chemsan performed annual maintenance
- II-2 in service
- II-11 in service
- Contractor looking at corrosion control assessment at CRF Clarifiers/GT's
- CRF is operating with two clarifiers

**4. CHINO II CONCENTRATE REDUCTION FACILITY OPERATIONAL UPDATE**

Report By: Thomas O'Neill, CDA General Manager/CEO

Matt Abel/JCSD reported that recovery rate has increased from 66% to 70% out of secondary RO.

**5. JCSD CREDIT FOR MISCALCULATION OF OPERATIONAL COSTS**

Report By: Michael Chung, CDA CFO/Treasurer

Treasurer Chung reviewed the miscalculation of JCSD billings during the periods FY 2017/18, 2018/19 and 2019/20, totaling \$910,534.84. Future JCSD billings to CDA will be adjusted to resolve FY 2017/18 and 2018/19 credits. He reported each member agency's share of overcharges. General Manager O'Neill added that the credit will be included in upcoming quarterly billings to member agencies. When FY 2019/20 is reconciled, those overcharges will be credited.

**6. LAND EXCHANGE AGREEMENT FOR CHINO II – WELL NO. II-2 AND WELL NO. II-3 BETWEEN THE CDA AND LENNAR HOMES OF CALIFORNIA, INC.**

Report By: Thomas O’Neill, CDA General Manager/CEO

General Manager O’Neill reviewed the recommendation to the Board to approve the Land Exchange Agreement for Wells II-2 and II-3 between CDA and Lennar Homes. Lennar Homes wishes to adjust property lines at both sites. In exchange, Lennar will install steel sliding gates at each wellsite, at a cost to Lennar of \$59,110. Both proposed lot adjustments will have no impact on the operations or maintenance of the facilities.

**8. SOUTH ARCHIBALD PLUME PROJECT: AMENDMENT #4 TO GEOSCIENCE’S AGREEMENT FOR DESIGN OF TWO MONITORING WELLS**

Report By: Cindy Miller, South Archibald Plume Program Manager

Program Manager Miller reviewed the recommendation to the Board to approve an amendment to Geoscience for the design of two monitoring wells. This, and previous Geoscience amendments are due to requirements of the Regional Board, including two nested monitoring wells and additional anticipated construction management and inspection support. There were no objections to moving this item forward to the Finance Committee and Board.

**9. SOUTH ARCHIBALD PLUME UPDATE**

Report By: Cindy Miller, South Archibald Plume Project Program Manager

**Phase 1 Pipeline** – Complete

**Phase 2 Pipeline** – Discussions have continued with the City of Jurupa Valley regarding pipeline alignment near SCE’s project. Last week Webb completed evaluation of an alternative alignment and briefed the city. Construction of pipeline has begun on CDA property to Harrel Street.

**Phase 3 Pipeline** – 95% Complete. Waiting for Lewis to complete grading operations to install dry utilities.

**Well II-12** – Drilling complete. Water quality samples taken. Will remove test pump this week and prepare video of well. Driller will screen off lower screen interval, pursuant to agreement with Regional Board.

**Decarbonator Modifications** – Project is in submittal phase. Mobilization should begin next month.

**Monitoring Wells** – Out to bid.

**10. CHINO I GAC UPDATE**

Report By: Cindy Miller, South Archibald Plume Project Program Manager

- Working on 50% design submittal
- DDW has no significant comments after review of the revised BODR.
- Working on analysis of water quality data.
- Scheduled to meet with DDW on 10/16/2020 to present results of analysis of water quality data and plan to close data gaps.
- Expected completion of final design is expected at end of this year.
- \$750,000 USBR Grant Agreement for the project was finalized.

**11. BOARD MEETING AGENDA ITEMS REVIEW**

Report By: Thomas O’Neill, CDA General Manager/CEO

General Manager O’Neill reviewed upcoming Board Items.

**12. NEW BUSINESS/FUTURE TECHNICAL ADVISORY AGENDA ITEMS REVIEW**

Report By: Thomas O'Neill, CDA General Manager/CEO

General Manager O'Neill reviewed upcoming TAC Items and opened discussion for new business.

There being no further business, the meeting was adjourned at 2:29 p.m.

Submitted by Casey Costa, CDA Executive Assistant





# **Technical Advisory Committee Meeting**

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## **Agenda Item**

### **No. 2**

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**Chino I Desalter  
Treatment Plant Operations**

Summary of Activities  
September 16th to October 7th, 2020

**Well Field**

Well Name	VFD Speed	Original Design Rate (gpm)	Current Production Rate (gpm)	Percent of Production	Operational (Yes/No)	Production Rate (gpm)	Status (Idle/Run)	Current Operation (gpm)
****I-1	0%	600	0	0%	No	0	Idle	0
****I-2	0%	300	0	0%	No	0	Idle	0
****I-3	0%	600	0	0%	No	0	Idle	0
I-4	0%	300	0	0%	Yes	0	Idle	0
I-5	100%	1,200	1,292	11%	Yes	1,292	Run	1,292
I-6	95%	350	337	3%	Yes	337	Run	337
*I-7	77%	1,200	235	2%	Yes	235	Run	235
I-8	96%	900	851	7%	Yes	851	Run	851
I-9	96%	1,200	1,080	9%	Yes	1,080	Run	1,080
I-10	94%	1,200	1,121	10%	Yes	1,121	Run	1,121
I-11	92%	1,200	957	8%	No	0	Idle	0
**I-13	76%	2,000	779	7%	Yes	779	Run	779
I-14	88%	2,200	1,594	14%	Yes	1,594	Run	1,594
****I-15	93%	2,000	2,054	18%	Yes	2,054	Run	2,054
I-16	100%	250	167	1%	Yes	167	Run	167
I-17	0%	200	0	0%	No	0	Idle	0
I-20	100%	400	388	3%	Yes	388	Run	388
I-21	100%	400	602	5%	Yes	602	Run	602
gpm	Total	16,500	11,457	100%	92%	10,500	92%	10,500
MGD		23.76	16.50			15.12		15.12

**Primary RO Treatment**

Train	Recovery Rate	Production (gpm)	(MGD)
1	79.0%	1,267	1.82
2	79.0%	1,267	1.82
3	79.0%	1,267	1.82
4	79.0%	1,267	1.82
5	79.0%	1,267	1.82
		6,335	9.12

**Ion Exchange Treatment**

Train	(gpm)	(MGD)
1	498	0.72
2	498	0.72
3	498	0.72
4	498	0.72
	1,992	2.87

**VOC Bypass**

Production (gpm)	(MGD)
0	0.00

**Brine Flow**

Production (gpm)	(MGD)
1,646	2.37

**Summary of Activities**

- 9/19 Wells I-7 & I-21 HVAC problems
- 9/21 Well I-18 ran for 9 hours
- 9/22 VFD job walk
- 9/22 Well I-18 Title 22 samples collected
- 9/23 Arc Flash study
- 9/24 CT-450 leak
- 9/24 Q basin cleaning
- 9/25 Vibration testing wells I-9, I-10, & I-11
- 9/28 Well I-6 reinstalled as submersible
- 10/1 Well I-11 sheared shaft

**Plant Efficiency**

	Flow in Vs. Flow Out (gpm)	(MGD)
Wells	10,500	15.12
Brine	-1646	-2.37
	8,854	12.75

10/2 294 RO membranes received

**Plant Production**

	All Treatment Trains (gpm)	(MGD)
Primary RO	6,335	9.12
Ion Exchange	1,992	2.87
Raw Bypass	0	0.00
	8,327	11.99

- \* Air Problem
- \*\* Sand Problem
- \*\*\*Cooling Problem
- \*\*\*\*Out of Service



# **Technical Advisory Committee Meeting**

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## **Agenda Item**

### **No. 3**

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**Well Field**

Well Name	VFD Speed	Original Design Rate (gpm)	Current Production Rate (gpm)	Percent of Production	Operational (Yes/No)	Production Rate (gpm)	Status (Idle/Run)	Current Operation (gpm)
II-1	100%	2,000	1,396	8%	Yes	1,396	Run	1,300
II-2	Fixed	2,000	1,435	8%	Yes	1,435	Run	1,300
II-3	Fixed	2,000	1,500	9%	Yes	1,500	Run	1,452
II-4	100%	2,000	1,576	9%	Yes	1,576	Run	1,537
II-6	100%	2,000	1,460	9%	Yes	1,460	Run	1,395
II-7	100%	1,200	829	5%	Yes	829	Run	920
II-8	Fixed	1,500	1,045	6%	Yes	1,045	Run	920
II-9	Fixed	2,000	1,575	9%	Yes	1,575	Run	1,482
II-10	100%	3,700	3,260	19%	Yes	3,260	Run	3,200
II-11	100%	3,300	3,001	18%	Yes	3,001	Run	3,000
II-12								
gpm	Total	21,700	17,077	100%	100%	17,077	97%	16,506
MGD		31.25	24.59			24.59		23.77

**Primary RO Treatment**

Train	Recovery Rate	Production (gpm)	(MGD)
1	83.5%	1,390	2.00
2	83.5%	1,390	2.00
3	83.5%	1,390	2.00
4	83.5%	2,050	3.00
5	83.5%	2,200	3.17
		8,420	12.12

**Ion Exchange Treatment**

NRV			NRV		
	(gpm)	(MGD)		(gpm)	(MGD)
1	745	1.07	5	781	1.12
2	765	1.10	6	781	1.12
3	799	1.15	7	0	0.00
4	0	0.00	8	773	1.11
				4,630	6.67

**Raw Bypass**

Production	
(gpm)	(MGD)
1,800	2.59

**Brine Flow**

Production	
(gpm)	(MGD)
740	1.07

**Secondary RO Treatment**

Train	Recovery Rate	Production (gpm)	(MGD)
1	70.0%	500	0.72
2	70.0%	0	0.00
3	70.0%	500	0.72
		1,000	1.44

**Plant Efficiency**

Flow in Vs. Flow Out		
	(gpm)	(MGD)
Wells	16,506	23.77
Brine	-740	-1.07
	15,766	22.70
	95.5%	

**Plant Production**

All Treatment Trains		
	(gpm)	(MGD)
Primary RO	8,420	12.12
Ion Exchange	4,630	6.67
Raw Bypass	1,800	2.59
Secondary RO	1,000	1.44
	15,850	22.8

**Summary of Activities**

- Daily Plant Rounds/Weekly Samples
- Weekly Calibrations
- P&L/Gwinco onsite for Air Stripper Project
- ACCO onsite for MCC room AC unit repairs
- Clarifier # 2 mixer chain coupling replaced after failure
- Well II-11 Motor pulled due to upper bearing Issue, re installed on 10/5
- Chino II/CRF total production - 23.3 MGD as of 10/6



# **Technical Advisory Committee Meeting**

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## **Agenda Item**

### **No. 5**

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## FY 2020/21 CDA (Chino I and Chino II) Water Deliveries (Draft)

Month	Chino	Chino Hills	JCSD	Norco	Ontario	SARWC	Western MWD	Total
Jul-20	427.132	356.844	991.292	87.597	736.790	102.381	301.153	<b>3,003.189</b>
Aug-20	433.651	363.384	973.886	89.228	741.172	102.461	301.748	<b>3,005.530</b>
Sep-20	419.417	350.156	1,121.142	85.116	700.120	105.401	310.405	<b>3,091.757</b>
Oct-20	0.000	0.000	0.000	0.000	0.000	0.000	0.000	<b>0.000</b>
Nov-20	0.000	0.000	0.000	0.000	0.000	0.000	0.000	<b>0.000</b>
Dec-20	0.000	0.000	0.000	0.000	0.000	0.000	0.000	<b>0.000</b>
Jan-21	0.000	0.000	0.000	0.000	0.000	0.000	0.000	<b>0.000</b>
Feb-21	0.000	0.000	0.000	0.000	0.000	0.000	0.000	<b>0.000</b>
Mar-21	0.000	0.000	0.000	0.000	0.000	0.000	0.000	<b>0.000</b>
Apr-21	0.000	0.000	0.000	0.000	0.000	0.000	0.000	<b>0.000</b>
May-21	0.000	0.000	0.000	0.000	0.000	0.000	0.000	<b>0.000</b>
Jun-21	0.000	0.000	0.000	0.000	0.000	0.000	0.000	<b>0.000</b>
<b>Total FY 20/21 Deliveries</b>	<b>1,280.200</b>	<b>1,070.384</b>	<b>3,086.320</b>	<b>261.941</b>	<b>2,178.082</b>	<b>310.243</b>	<b>913.306</b>	<b>9,100.476</b>
<b>Contract Entitlement</b>								
Annual (AF/YR)	5,000.0	4,200.0	11,733.0	1,000.0	8,533.0	1,200.0	3,534.0	35,200
Monthly (AF)	416.7	350.0	977.8	83.3	711.1	100.0	294.5	2,933.3
Delivered through September 2020 (AF)	<b>1,280.2</b>	<b>1,070.4</b>	<b>3,086.3</b>	<b>261.9</b>	<b>2,178.1</b>	<b>310.2</b>	<b>913.3</b>	<b>9,100.5</b>
	<b>102.4%</b>	<b>101.9%</b>	<b>105.2%</b>	<b>104.8%</b>	<b>102.1%</b>	<b>103.4%</b>	<b>103.4%</b>	<b>103.4%</b>

**Notes:**

1. Actual deliveries to date are shaded.

Water Deliveries Through

**Sep-20**



# **Technical Advisory Committee Meeting**

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## **Agenda Item**

### **No. 8**

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***Chino Basin Desalter Authority***  
**Board Meeting Agenda Items**

<b>November 5, 2020 Board Meeting (Special)</b>		<b>TAC</b>	<b>Finance</b>
Monitoring Well Drilling	Miller/H&S	10/27/2020	10/22/2020

<b>December 3, 2020 Board Meeting (Special)</b>		<b>TAC</b>	<b>Finance</b>

<b>FUTURE</b>	<b>TAC</b>	<b>Finance</b>	<b>Board</b>
O&M Agreement			
Records Retention Policy			
Appoint CDA Representative for ACWA/JPIA Board of Directors	O'Neill/CDA		12/3/2021





# **Technical Advisory Committee Meeting**

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## **Agenda Item**

### **No. 9**

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# *Chino Basin Desalter Authority*

## TAC Meeting Agenda Items

<b>October 27, 2020</b>
Meeting Minutes
Chino I Operations Report
Chino II Operations Report
Drilling of Monitoring Well
CRF Update
Chino I GAC Update
South Archibald Plume Update

<b>November 10, 2020</b>
Meeting Minutes
Chino I Operations Report
Chino II Operations Report
Water Deliveries
CRF Update
Chino I GAC Update
South Archibald Plume Update

<b>FUTURE</b>
O&M Agreement Update
Records Retention Policy