City of Ridgecrest  Kern County  Inyo County  San Bernardino County  Indian Wells Valley Water District

# INDIAN WELLS VALLEY GROUNDWATER AUTHORITY

**Ridgecrest City Hall  100 W California Ave., Ridgecrest, CA 93555  760-499-5002**

# BOARD OF DIRECTORS
# A G E N D A

**Thursday, June 18, 2020**
**Closed Session 10:00 a.m.**
**Open Session 11:00 a.m.**

***NOTICE:*** ***In accordance with the evolving public health declarations, we are temporarily limiting public attendance to virtual alternatives only. Please see the Public Comment Notice below for detailed instructions on submitting public comment as well as websites for livestream broadcasting. Telephonic participation by the majority of Board Members and staff is expected.***

*In compliance with the Americans with Disabilities Act, if you are a disabled person and you need a disability-related modification or accommodation to participate in this meeting, please contact April Nordenstrom at (760) 384-5511. Requests must be made as early as possible and at least one full business day before the start of the meeting. Documents and material relating to an open session agenda items that are provided to the IWVGA Board of Directors prior to a regular meeting will be available for public inspection and copying at Indian Wells Valley Water District, 500 Ridgecrest Blvd, Ridgecrest, CA 93555, or online at* https://iwvga.org/.

*Statements from the Public*
*The public will be allowed to address the Board during Public Comments about subjects within the jurisdiction of the IWVGA Board and that are NOT on the agenda. No action may be taken on off-agenda items unless authorized by law. Questions posed to the Board may be answered after the meeting or at future meeting. Dialog or extended discussion between the public and the Board or staff will be limited in accordance with the Brown Act. The Public Comments portion of the meeting shall be limited to three (3) minutes per speaker. Each person is limited to one comment during Public Comments.*

***Due to the length of the agenda, one or more recesses should be expected.***

1. **CALL ORDER**

2. **PUBLIC COMMENT ON CLOSED SESSION**

3. **CLOSED SESSION**
   - CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION (Government Code Section 54956.9(d)(4)) Number of cases: 3 or more: Based on existing facts and circumstances, the Board of Directors, on the advice of legal counsel, is meeting to decide whether, and when, to initiate litigation for failure to properly provide well registration and reporting.

   - CONFERENCE WITH LEGAL COUNSEL – POTENTIAL LITIGATION (Government Code Section 54956.9(d)(2)(e)(1)) Number of cases: One (1) Significant exposure to litigation in the opinion of the Board of Directors on the advice of legal counsel, based on: Facts and circumstances that might result in litigation against the

IWVGA but which are not yet known to a potential plaintiff or plaintiffs, which facts and circumstances need not be disclosed.

4. **OPEN SESSION - 11:00 a.m.**
   a. Report on Closed Session
   b. Pledge of Allegiance
   c. Roll Call

5. **PUBLIC COMMENTS**
   This time is reserved for the public to address the Board about matters NOT on the agenda. No action will be taken on non-agenda items unless authorized by law. Comments are limited to three minutes per person.

6. **CONSENT AGENDA**
   a. Approve Minutes of Board Meeting May 21, 2020
   b. Approve Expenditures
      i. $3,542.50 - RWG Law
      ii. $113,815.49 - Stetson Engineers
      iii. $9,412.50 - Capitol Core Group
      iv. $14,000 – Packwrap Prop 218 Notice; Quote Received: $10,705.24 17,000 Self-mailers

7. **BOARD CONSIDERATION AND APPROVAL OF LITIGATION TOLLING AGREEMENTS WITH MEADOWBROOK DAIRY, MOJAVE PISTACHIO, AND SEARLES VALLEY MINERAL**

8. **BOARD CONSIDERATION AND ADOPTION OF RESOLUTION 05-20 – ESTABLISHING A REPORTING POLICY FOR ALL NEW GROUNDWATER EXTRACTION WELLS IN THE BASIN**

9. **BOARD CONSIDERATION AND INTRODUCTION OF ORDINANCE 02-20 AND SUPPORTING DATA PACKAGE AMENDING ORDINANCE 02-18 TO PROVIDE FOR A NEEDED INCREASE IN THE CURRENT GROUNDWATER EXTRACTION FEE DUE TO INCREASED STUDIES AND LITIGATION COSTS**

10. **BOARD CONSIDERATION AND PRELIMARY ADOPTION OF REPORT ON THE INDIAN WELLS VALLEY GROUNDWATER BASIN'S SUSTAINABLE YIELD OF 7,650 ACRE-FEET AND SETTING HEARING ON SAME FOR JULY BOARD MEETING**

11. **BOARD CONSIDERATION AND ADOPTION OF ENGINEER'S REPORT FOR THE ADOPTION OF A BASIN REPLENISHMENT FEE, AUTHORIZE THE MAILING OF NOTICES ON THE SAME AND SETTING HEARING FOR AUGUST BOARD MEETING**

12. **BOARD CONSIDERATION AND PRELIMARY ADOPTION OF REPORT ON TRANSIENT POOL AND FALLOWING PROGRAM AND SETTING HEARING ON SAME FOR JULY BOARD MEETING**

13. **WATER RESOURCES MANAGER REPORT**
    a. Report on Proposition 1 Grant Status
    b. Severely Disadvantaged Communities (SDAC) Programs Update
    c. Proposition 68 Grant Status Update

d. Groundwater Pumping Verification
e. Coso Royalty Funding
f. Schedule

**14. GENERAL MANAGER'S REPORT**

a. Monthly Financial Report
b. Report on IWVGA's Water Marketer (Capitol Core Group)
c. General Manager Recruitment
d. Delinquent Accounts
e. Well Registration Update

**15. CLOSING COMMENTS**

This time is reserved for comments by Board members and/or staff and to identify matters for future Board business.

**16. DATE AND TIME OF NEXT MEETING –** July 16, 2020

**17. ADJOURN**

## PUBLIC COMMENT NOTICE

On March 17, 2020, Governor Newsom issued Executive Order N-29-20, relating to the convening of public meetings in light of the COVID-19 pandemic. At this time, the Indian Wells Valley Groundwater Authority is continuing to hold board meetings in order to conduct essential business. However, as suggested by the Center for Disease Control and set forth in the Executive Order, we are temporarily limiting public attendance through the following virtual alternatives:

- **Watch meetings on-line:**
  All of our meetings are streamed live at https://ridgecrest-ca.gov/369/Watch (4 second streaming delay) or on YouTube at https://www.youtube.com/cityofridgecrest/live (22 second streaming delay) and are also available for playback after the meeting.

- **Call in for public comments:**
  If you wish to make verbal comment, ***please call (760) 499-5010.*** This phone line will allow only one caller at a time, so if the line is busy, please continue to dial. We will be allowing a 20-30 second pause between callers to give time for media delays and callers to dial in. Due to media delays, please mute your streaming device while making public comment. If you wish to comment on multiple items, you will need to call in as each item is presented.
  *Please Note – This process will be a learning curve for all, *please be patient.*

- **Submit written comments:**
  We encourage submittal of written comments supporting, opposing, or otherwise commenting on an agenda item, for distribution to the Board prior to the meeting. Send emails to apriln@iwvwd.com written correspondence may be sent to April Nordenstrom, Clerk of the Board, 500 W. Ridgecrest Blvd., **Ridgecrest, CA 93555**. Please specify to which agenda item your comment relates. All communication, whether it is a formal letter or an online informal email, is read by the Clerk of the Board.

- **Large Groups:**

If you are part of a large group that would like to comment on an agenda item, please consider commenting in writing. This will be as impactful to the Council as having a large group in attendance.

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# INDIAN WELLS VALLEY GROUNDWATER AUTHORITY

City of Ridgecrest, Indian Wells Valley Water District, Inyo County, Kern County, San Bernardino County

## BOARD OF DIRECTORS MEETING MINUTES

**Thursday, May 21, 2020; 10:00 a.m.**

**IWVGA Members Present:**

| | |
|---|---|
| Chairman Mick Gleason, Kern County | Don Zdeba, IWVGA General Manager |
| John Vallejo, Inyo County | Phillip Hall, Legal Counsel |
| Ron Kicinski, IWVWD | Steve Johnson, Stetson Engineers |
| Scott Hayman, City of Ridgecrest | Commander Peter Benson, US Navy, DoD Liaison |
| Thomas Bickauskas, Bureau of Land Management | April Nordenstrom, Clerk of the Board |
| Bob Page, San Bernardino County | |

Attending via teleconference is Bob Page, John Vallejo, Steve Johnson, Commander Peter Benson, Thomas Bickauskas.

Meeting recording and public comment letters submitted are made available at:
https://iwvga.org/iwvga-meetings/

**1. CALL TO ORDER:**

The meeting is called to order by Chairman Gleason at 10:00 a.m.

**2. PUBLIC COMMENT ON CLOSED SESSION:**

None.

Chairman Gleason calls the meeting into Closed Session at 10:02 a.m.

**3. CLOSED SESSION:**

- CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION (Government Code Section 54956.9(d)(4)) Number of cases: 3 or more: Based on existing facts and circumstances, the Board of Directors, on the advice of legal counsel, is meeting to decide whether, and when, to initiate litigation for failure to properly provide well registration and reporting.

- CONFERENCE WITH LEGAL COUNSEL - POTENTIAL LITIGATION (Government Code Section 54956.9(d)(2)(e)(1)) Number of cases: One (1) Significant exposure to litigation in the opinion of the Board of Directors on the advice of legal counsel, based on: Facts and circumstances that might result in litigation against the IWVGA but which are not yet known to a potential plaintiff or plaintiffs, which facts and circumstances need not be disclosed.

**4. OPEN SESSION:**

Meeting was reconvened into open session at 11:00 a.m.

a. Report on Closed Session:
   Counsel Hall reports that no action was taken which would require disclosure under the Brown Act.
b. The Pledge of Allegiance is led by Vice Chair Hayman
c. April Nordenstrom calls the following roll call:

| | |
|---|---|
| Director Vallejo | Present |
| Director Kicinski | Present |
| Chairman Gleason | Present |
| Director Page | Present |
| Vice Chair Hayman | Present |

**5. PUBLIC COMMENT:**
None.

**6. CONSENT AGENDA:**
a. Approve Minutes of Board Meeting April 16, 2020
b. Approval of Resolution No. 04-20 Appointing Steven Kourakos as TAC representative for Searles Valley Minerals (SVM).
c. Approve Expenditures
   i. $2,242.50 - RWG Law
   ii. $224,563.05 - Stetson Engineers (March & April)
   iii. $6,710.00 - Capitol Core Group
   iv. $3.800.00 – Brown Armstrong
   v. $1,260.00 – Wellntel Inc.

The Board hears public comment from Camille Anderson of SVM and Judie Decker.

Director Kicinski asks for the Stetson invoice to be pulled for further discussion.

Motion made by Scott Hayman and seconded by Ron Kicinski to approve Minutes of Board Meeting April 16, 2020, Resolution No. 04-20 and the following expenditures in the amount of $2,242.50 to RWG Law, $6,710.00 to Capitol Core Group, $3,800.00 to Brown Armstrong and $1,260.00 to Wellntel Inc. Motion unanimously carries by the following roll call vote:

| | |
|---|---|
| Director Vallejo | Aye |
| Director Kicinski | Aye |
| Chairman Gleason | Aye |
| Vice Chair Hayman | Aye |
| Director Page | Aye |

Director Kicinski asks where the approval of Stetson expenditures is coming from and if all the tasks performed were crucial to the GA at this time. Kicinski expresses concern for the increase in costs due to the current financial situation. Steve Johnson responds that tasks listed in the invoices are budgeted items. Johnson further states that Stetson does provide a quarterly report, offering a more in depth look into these tasks.

Counsel Hall assures Director Kicinski that the tasks were not only crucial but that the work load in the past couple months has been very significant.

Chairman Gleason questions the possibility of changing Stetson's quarterly financial report to a monthly financial report. Don Zdeba and Steve Johnson agree to explore options.

Motion made by Ron Kicinski and seconded by Scott Hayman to approve the Stetson expenditure in the amount of $224,563.05. Motion unanimously carries by the following roll call vote:

| | |
|---|---|
| Director Vallejo | Aye |
| Director Kicinski | Aye |
| Chairman Gleason | Aye |
| Vice Chair Hayman | Aye |
| Director Page | Aye |

**7. REQUEST FOR RECONSIDERATION – GROUNDWATER SUSTAINABILITY REPORT TO UNITED STATES NAVY:**
Don Zdeba provides a staff report on the Groundwater Sustainability Report (documents made available on the IWVGA website). At the January IWVGA meeting, Capitol Core Group (CCG) gained approval to move forward with the Groundwater Sustainability Report, with the understanding

that any mention of potential sources of imported water need be removed. Michael McKinney of CCG states that the request for reconsideration is due to the Department of Navy demanding additional information on the interconnection projects being considered by the IWVGA. Therefore, in order to move forward the potential projects with Los Angeles Department of Water and Power (LADWP) and Antelope Valley East Kern (AVEK) need to be added back into the Report.

Vice Chair Hayman clarifies if the Report must be narrowed down to one project. McKinney responds that both the LADWP and AVEK projects can be included.

Director Kicinski commends CCG's work and agrees that both projects must be mentioned in the Report to provide full transparency to the Navy by reflecting what is in our Groundwater Sustainability Plan (GSP). Kicinski questions whether the water banking project with LADWP should be included. McKinney confirms that the banking project is of interest to the Navy and recommends including it in the Report.

Commander Benson asserts that the Navy has not committed to funding any projects at this time.

Chairman Gleason acknowledges the efforts needed by members of the IWVGA to convince the Navy that our agency needs their support.

Director Vallejo questions McKinney concerning policy statements made in May of 2019 by LADWP asserting LADWP has no interest in wheeling or exchanging water with the IWVGA but may consider a banking project. Jeff Simonetti of CCG responds that LADWP and AVEK are waiting on the IWVGA to identify a preferred transfer partner before engaging in further project discussion; both are aware of the challenges that lie ahead. Simonetti further explains that because both projects are mentioned in the GSP, the Navy prefers that reflect in the Report as well. Vallejo states that if transparency is our goal, pushing for an exchange project with LADWP who has no interest in that project, is misleading to the Navy and not achieving said transparency. Vallejo also asserts that the LADWP project is short sighted for the IWV constituents, and that the AVEK project is a better project for the basin's future. Vallejo requests that any information provided to the Navy include the fact that the exchange project identified in the GSP lacks any support from LADWP.

Director Page questions what comes first, acquiring supplemental water or identifying the partner. Counsel Hall states that we need to identify the source of water then plan the infrastructure to bring it here.

The Board hears public comment from Camille Anderson of SVM.

Motion made by Scott Hayman and seconded by Ron Kicinski to approve the Request for Reconsideration for the Groundwater Sustainability Report to reference potential water banking and interconnection projects with LADWP and AVEK." Motion carries by the following roll call vote.

| | |
|---|---|
| Director Vallejo | Nay |
| Director Kicinski | Aye |
| Chairman Gleason | Aye |
| Vice Chair Hayman | Aye |
| Director Page | Nay |

**8. DISCUSSION ON INDEPENDENT IWVGA GENERAL MANAGER**

Don Zdeba provides a staff report and job description for an independent IWVGA General Manager (GM) position (documents made available on the IWVGA website). With authorization from the Board, Staff will start recruitment in June with a final recommendation being presented to the Board in August.

Director Kicinski wants to see this happen as soon as possible to relieve this workload from the Water District but expresses concern for finances. He asks staff to look into a firm as well as an independent GM. If possible, he would like to keep the hiring process local. Kicinski questions whether the GM position will take over all administrative work including clerk and financial duties. Zdeba confirms the GM will handle all administrative

tasks currently provided through in-kind services.

Director Vallejo questions if staff will be leaving the salary range open, as this may have a significant impact on the recruitment effort. Zdeba states that at this time the salary is $150,000, but staff is looking into all options. Director Page identifies edits needed to be made for tasks listed in the GM job description. Zdeba acknowledges edits and will review the responsibilities with staff.

Chairman Gleason agrees the GA needs to be financially stable moving forward with a GM. Gleason does not want to limit the hiring process to local only.

The Board hears public comment from Mike Neel, Renee Westa-Lusk, and Judie Decker.

Motion made by Ron Kicinski and seconded by Scott Hayman directing staff to move forward with the process of hiring a General Manager or firm to assume all administrative tasks for the IWVGA. Motion unanimously carries by the following roll call vote.

| | |
|---|---|
| Director Vallejo | Aye |
| Director Kicinski | Aye |
| Chairman Gleason | Aye |
| Vice Chair Hayman | Aye |
| Director Page | Aye |

**9. WATER RESOURCES MANAGER REPORT:**

Steve Johnson provides updates on the following grants/programs; (presentations made available on the IWVGA website). Johnson identifies a list of key dates which can be found on the IWVGA website.

a. Report on Proposition 1 Grant Status
Invoice #3, covering the months of April 2019 – June 2019 has been approved by Department of Water Resources (DWR). Total payment after retention is $186,185.71. Invoice #4, covering the months of July 2019 – September 2019 has been approved by DWR. Total payment after retention is $90,978.92. Invoice #5, covering the months of October 2019 – December 2019 has been approved by DWR. Total payment after retention is $61,603.54. Invoice #6, covering the months of January 2020 – March 2020 is being prepared for submission to DWR by the end of the week.

b. Severely Disadvantaged Communities (SDAC) Program
The Prop 1 grant extension approved a SDAC deadline for June 2021. Given the number of tasks needing to be completed under this program, Johnson is seeking direction from the Board. The SDAC is fully funded through the State, however the GA must pay for all costs up front and await reimbursement. Zdeba states that if the Board chooses to go forward with the SDAC, based on the $30 per acre foot pump fee, the GA will have an ending balance of -$92,326 for the year 2020. Should they choose to forgo this program the 2020 ending balance will be -$433,619.

c. Proposition 68 Grant Status
IWVGA awarded $330,000 with $300,000 of that immediately available. The remaining $30,000 is subject to availability of funds. Grant agreement fully executed on May 4.

d. Groundwater Pumping Verification
Groundwater Extraction Questionnaire was sent to Non de minimis pumpers both registered and suspected within the Indian Wells Valley Basin. The questionnaire was to be submitted to the WRM by March 1, 2020. As of May 18, Stetson has received 32 responses. Those who did not submit the questionnaire will not receive a pumping report. Draft Reports anticipated to be released to pumpers on May 27.

e. Groundwater Sustainability Plan (GSP) Annual Report
First GSP Annual Report was due to DWR by April 1, 2020, covering water year 2018-2019. Stetson requested a deadline extension to the end of April, which was approved by DWR. The contents of that

report include progress towards GSP implementation and groundwater elevation, storage and supply data. Report is currently under staff review. Projected submission to DWR by end of week.

f. Reporting Requirements for New Pumpers within the Indian Wells Valley Basin
IWVGA Staff will coordinate with the counties of Kern, San Bernardino, and Inyo to ensure the Authority is notified of all new well permits issued within the Basin. Authority Staff will review all new Well Registration Forms (WRF) submitted by both new and current residents in the Basin to verify the required information has been submitted.

g. Transient Pool/ Fallowing Program Draft Report
Both draft Reports are currently under Legal review. Reports are expected to be released for review at the June meeting.

h. Coso Royalty Funding
List of potential projects identified by IWVGA Staff and Navy Representatives. A conference call took place days before the meeting that reduced the list to the following two projects; Project 3: Rose Valley Exploratory Well Installation and Project 4: Controlled Source Audio Magnetic Telluric Geophysical Investigation (CSAMT). Details need to be provided to Commander Benson by end of next week.

i. Schedule
Johnson reviews the dates provided on the draft schedule. Counsel Hall clarifies the GSP notes the August 1 date for the Ag Fallowing Program but if needed, the date can change to accommodate the current Covid-19 Pandemic.

Chairman Gleason commends the selection process made for the Coso Royalty Funding projects list.

The Board hears public comment from Judie Decker, Camille Anderson of SVM, Mike Neel, Elaine Mead, Renee Westa-Lusk and Marilyn Neel.

**10. GENERAL MANAGER'S REPORT:**

a. Monthly Financial Report
Don Zdeba provides a report on IWVGA finances (made available on the IWVGA website). The current account balance of $108,180.00 will cover the costs of invoices listed under the Consent Agenda excluding Stetson. Invoice #4 and #5 are currently under review with DWR, with a projected payout of $152,582.46. Zdeba states that once those grants are received, they will be used to pay the previously deferred Stetson invoices. The Prop 1 grant holds a remaining balance of $1,005,566.58; $646,000.00 reserved for the SDAC.

b. Delinquent Accounts
Zdeba states April Nordenstrom, Clerk of the Board, created a list of the registered Non de minimis pumpers whose account is in a delinquent status. Once the list was reviewed by staff Nordenstrom reached out to those pumpers in an effort to obtain the missing data and payments. Some accounts have been resolved. Contact will be made once again to those still in delinquent status.

c. Report on IWVGA's Water Marketer (Capitol Core Group)
Zdeba summarizes the project update memorandum provided by CCG (documents made available on the IWVGA website). McKinney is requesting direction from the Board regarding the Defense Community Infrastructure Program (DCIP). He suggests not commenting on what has been published. McKinney further requests Chairman Gleason's signature on a Letter of Support for America's Water Infrastructure Act of 2020 (S. 3591) and the Drinking Water Infrastructure Act of 2020 (S. 3590) (document made available on the IWVGA website). McKinney informs the Board of an opportunity to create complex Public Private Partnership Programs for infrastructure, delivery, and finance. This program allows for loans and private financing in advance public private partnerships.

McKinney states they are looking for Board direction as to whether they would like CCG to engage, monitor or disregard any opportunity to form this type of arrangement.

d. Well Registration Update
Non de minimis – 116 (among 56 pumpers)
De minimis – 120

Director Kicinski agrees with signing and submitting the letter of support and further agrees with no comment regarding DCIP at this time. Kicinski states they need to keep a closer eye on finances to ensure the costs are just and controlled.

Vice Chair Hayman questions if there is a time constraint on the Public Private Partnership Program and if CCG feels the Board should proceed. McKinney states this is not time critical and suggests monitoring at this time.

The Board hears public comment from Renee Westa-Lusk.

**11. CLOSING COMMENTS :**

Director Vallejo wishes everyone well.

Director Kicinski thanks City IT as well as the public.

Vice Chair Hayman applauds the work done by City IT to repair the damage resulting from the power outage the previous day in time for the IWVGA to hold the meeting.

**12. DATE AND TIME OF NEXT MEETING –** June 18, 2020; 10:00 a.m.

**13. ADJOURN:**
Chairman Gleason adjourned the meeting at 1:36 p.m.

Respectfully submitted,

*April Nordenstrom*

Clerk of the Board
Indian Wells Valley Groundwater Authority

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STETSON ENGINEERS INC.

2171 E. Francisco Blvd., Suite K • San Rafael, California 94901
Phone: (415) 457-0701 • FAX: (415) 457-1638 • Website: www.stetsonengineers.com
Northern California • Southern California • Arizona • Colorado • Oregon

# Invoice

County of Kern
County Administrative Office
1115 Truxton Ave., 5th Floor
Bakersfield, CA 93301
ATTN.: Mr. Alan Christensen

**Invoice Number:** **2652-34**
**Invoice Date:** **06/10/20**

Project #: 2652 **Indian Wells Valley Groundwater Authority**

Professional Services through 5/31/2020

## Water Resources Management

### 01 - POAM No. 134 Prep & Attend Board,PAC & TAC Mtgs/Consult w/ Authority & Co

| **Professional Services** | Bill Hours | Bill Rate | Charge |
|---|---|---|---|
| Principal | 16.50 | $230.00 | $3,795.00 |
| Supervisor I | 24.50 | $200.00 | $4,900.00 |
| Senior Associate | 15.75 | $120.00 | $1,890.00 |
| Associate III | 9.25 | $105.00 | $971.25 |
| GIS Specialist I | 3.50 | $95.00 | $332.50 |
| | *Professional Services Subtotal:* | | *$11,888.75* |

| **Reimbursables** | Charge |
|---|---|
| Reproduction (Color) | $21.36 |
| Reproduction | $21.60 |
| Telephone - Conference Call | $302.34 |
| *Reimbursables Subtotal:* | *$345.30* |

*'OAM No. 134 Prep & Attend Board,PAC & TAC Mtgs/Consult w/ Authority & Com* *$12,234.05*

### 02.01 - POAM No. 15,16 Prop 1 Grant Administration

| **Professional Services** | Bill Hours | Bill Rate | Charge |
|---|---|---|---|
| Principal | 1.00 | $230.00 | $230.00 |
| Supervisor I | 1.50 | $200.00 | $300.00 |
| Senior Associate | 28.75 | $120.00 | $3,450.00 |
| Associate III | 3.00 | $105.00 | $315.00 |
| Administrative II | 30.50 | $65.00 | $1,982.50 |
| | *Professional Services Subtotal:* | | *$6,277.50* |
| | *POAM No. 15,16 Prop 1 Grant Administration Subtotal:* | | *$6,277.50* |

### 04.02 - POAM No. 20 Data Management System

| **Professional Services** | Bill Hours | Bill Rate | Charge |
|---|---|---|---|
| Principal | 3.00 | $230.00 | $690.00 |
| Supervisor I | 2.00 | $200.00 | $400.00 |
| Senior Associate | 3.50 | $120.00 | $420.00 |
| Associate I | 58.25 | $115.00 | $6,698.75 |
| Assistant I | 37.25 | $95.00 | $3,538.75 |
| GIS Specialist I | 8.75 | $95.00 | $831.25 |
| Technical Illustrator | 11.50 | $85.00 | $977.50 |
| | *Professional Services Subtotal:* | | *$13,556.25* |
| | *POAM No. 20 Data Management System Subtotal:* | | *$13,556.25* |

**05 - POAM No. 126 Project Management Costs & Schedule**

| **Professional Services** | Bill Hours | Bill Rate | Charge |
|---|---|---|---|
| Principal | 3.50 | $230.00 | $805.00 |
| Supervisor I | 6.25 | $200.00 | $1,250.00 |
| Senior Associate | 36.75 | $120.00 | $4,410.00 |
| Associate III | 2.50 | $105.00 | $262.50 |
| | *Professional Services Subtotal:* | | *$6,727.50* |

| **Reimbursables** | Charge |
|---|---|
| Telephone - Conference Call | $81.36 |
| *Reimbursables Subtotal:* | *$81.36* |

*POAM No. 126 Project Management Costs & Schedule Subtotal:* *$6,808.86*

**06 - POAM No. 36 IWVGW Basin 3rd Party Sustainability/Safe Yield Rev (GSP Compli**

| **Professional Services** | Bill Hours | Bill Rate | Charge |
|---|---|---|---|
| Supervisor I | 5.00 | $200.00 | $1,000.00 |
| | *Professional Services Subtotal:* | | *$1,000.00* |

*POAM No. 36 IWVGW Basin 3rd Party Sustainability/Safe Yield Rev (GSP Complia* *$1,000.00*

**07.01 - Imported Water RFP**

| **Professional Services** | Bill Hours | Bill Rate | Charge |
|---|---|---|---|
| Principal | 1.50 | $230.00 | $345.00 |
| Supervisor I | 0.75 | $200.00 | $150.00 |
| Associate III | 1.00 | $105.00 | $105.00 |
| | *Professional Services Subtotal:* | | *$600.00* |
| | *Imported Water RFP Subtotal:* | | *$600.00* |

**08.05.01 - Pumping Allocation**

| **Professional Services** | Bill Hours | Bill Rate | Charge |
|---|---|---|---|
| Supervisor I | 1.50 | $200.00 | $300.00 |
| | *Professional Services Subtotal:* | | *$300.00* |
| | *Pumping Allocation Subtotal:* | | *$300.00* |

**11.01 - POAM No. 56 Monitoring Wells - Planning**

| **Professional Services** | Bill Hours | Bill Rate | Charge |
|---|---|---|---|
| Supervisor I | 30.00 | $200.00 | $6,000.00 |
| Assistant I | 24.50 | $95.00 | $2,327.50 |
| | *Professional Services Subtotal:* | | *$8,327.50* |

*POAM No. 56 Monitoring Wells - Planning Subtotal:* *$8,327.50*

**11.02 - POAM No. 56 Monitoring Wells - Implementation**

| **Sub-Contractors** | Charge |
|---|---|
| Board of Regents | $1,628.52 |
| *Sub-Contractors Subtotal:* | *$1,628.52* |

*POAM No. 56 Monitoring Wells - Implementation Subtotal:* *$1,628.52*

**11.04 - POAM No. 64 Stream Gages - Implementation**

| **Professional Services** | Bill Hours | Bill Rate | Charge |
|---|---|---|---|
| Principal | 2.25 | $230.00 | $517.50 |
| Associate I | 13.00 | $115.00 | $1,495.00 |
| | *Professional Services Subtotal:* | | *$2,012.50* |

*POAM No. 64 Stream Gages - Implementation Subtotal:* *$2,012.50*

**11.08 - POAM No. 69 Weather Stations - Implementation**

| Professional Services | Bill Hours | Bill Rate | Charge |
|---|---|---|---|
| Associate I | 5.50 | $115.00 | $632.50 |
| *Professional Services Subtotal:* | | | *$632.50* |
| *POAM No. 69 Weather Stations - Implementation Subtotal:* | | | *$632.50* |

**12 - POAM No. 119 SDAC Projects; Water Conservation & Rebate Program**

| Professional Services | Bill Hours | Bill Rate | Charge |
|---|---|---|---|
| Supervisor I | 0.25 | $200.00 | $50.00 |
| Associate III | 0.50 | $105.00 | $52.50 |
| *Professional Services Subtotal:* | | | *$102.50* |
| *POAM No. 119 SDAC Projects; Water Conservation & Rebate Program Subtotal:* | | | *$102.50* |

**13 - POAM No. 120 SDAC Projects: Water Audit, Leak Detection & Leak Rpr Program**

| Professional Services | Bill Hours | Bill Rate | Charge |
|---|---|---|---|
| Associate III | 0.50 | $105.00 | $52.50 |
| *Professional Services Subtotal:* | | | *$52.50* |
| *POAM No. 120 SDAC Projects: Water Audit, Leak Detection & Leak Rpr Program S* | | | *$52.50* |

**14 - POAM No. 139 Pumping Assessment Support**

| Professional Services | Bill Hours | Bill Rate | Charge |
|---|---|---|---|
| Senior Associate | 7.75 | $120.00 | $930.00 |
| *Professional Services Subtotal:* | | | *$930.00* |
| *POAM No. 139 Pumping Assessment Support Subtotal:* | | | *$930.00* |

**17 - Navy-COSO**

| Professional Services | Bill Hours | Bill Rate | Charge |
|---|---|---|---|
| Principal | 19.00 | $230.00 | $4,370.00 |
| Supervisor I | 16.25 | $200.00 | $3,250.00 |
| Senior Associate | 7.75 | $120.00 | $930.00 |
| Administrative II | 3.75 | $65.00 | $243.75 |
| *Professional Services Subtotal:* | | | *$8,793.75* |
| *Navy-COSO Subtotal:* | | | *$8,793.75* |

**21 - Prop. 218 Report Preparation**

| Professional Services | Bill Hours | Bill Rate | Charge |
|---|---|---|---|
| Principal | 4.50 | $230.00 | $1,035.00 |
| Supervisor I | 7.00 | $200.00 | $1,400.00 |
| Senior Associate | 3.25 | $120.00 | $390.00 |
| Associate III | 42.00 | $105.00 | $4,410.00 |
| *Professional Services Subtotal:* | | | *$7,235.00* |
| *Prop. 218 Report Preparation Subtotal:* | | | *$7,235.00* |

**22 - Prepare Meter Testing Specifications**

| Professional Services | Bill Hours | Bill Rate | Charge |
|---|---|---|---|
| Principal | 2.50 | $230.00 | $575.00 |
| Supervisor I | 28.50 | $200.00 | $5,700.00 |
| Senior I | 10.50 | $160.00 | $1,680.00 |
| Associate I | 1.25 | $115.00 | $143.75 |
| Associate III | 0.25 | $105.00 | $26.25 |
| *Professional Services Subtotal:* | | | *$8,125.00* |

| | | | |
|---|---|---|---|
| | | *Prepare Meter Testing Specifications Subtotal:* | *$8,125.00* |

**23 - Pumping Verification**

| **Professional Services** | Bill Hours | Bill Rate | Charge |
|---|---|---|---|
| Principal | 7.00 | $230.00 | $1,610.00 |
| Supervisor I | 18.50 | $200.00 | $3,700.00 |
| Supervisor II | 48.00 | $185.00 | $8,880.00 |
| Associate III | 55.50 | $105.00 | $5,827.50 |
| Senior Assistant | 57.75 | $100.00 | $5,775.00 |
| | | *Professional Services Subtotal:* | *$25,792.50* |

| **Reimbursables** | | Charge |
|---|---|---|
| Telephone - Conference Call | | $25.31 |
| | *Reimbursables Subtotal:* | *$25.31* |
| | *Pumping Verification Subtotal:* | *$25,817.81* |

**24 - Sustainable Yield Allocation Report**

| **Professional Services** | Bill Hours | Bill Rate | Charge |
|---|---|---|---|
| Principal | 4.50 | $230.00 | $1,035.00 |
| Senior Associate | 1.50 | $120.00 | $180.00 |
| Associate III | 3.00 | $105.00 | $315.00 |
| | | *Professional Services Subtotal:* | *$1,530.00* |
| | | *Sustainable Yield Allocation Report Subtotal:* | *$1,530.00* |

**25 - GSP Annual Report 2020**

| **Professional Services** | Bill Hours | Bill Rate | Charge |
|---|---|---|---|
| Principal | 1.50 | $230.00 | $345.00 |
| Supervisor I | 2.00 | $200.00 | $400.00 |
| Senior Associate | 14.50 | $120.00 | $1,740.00 |
| Assistant I | 0.50 | $95.00 | $47.50 |
| GIS Specialist I | 2.75 | $95.00 | $261.25 |
| | | *Professional Services Subtotal:* | *$2,793.75* |
| | | *GSP Annual Report 2020 Subtotal:* | *$2,793.75* |

**26 - Allocation Process & Transient Pool Support**

| **Professional Services** | Bill Hours | Bill Rate | Charge |
|---|---|---|---|
| Principal | 6.00 | $230.00 | $1,380.00 |
| Supervisor I | 7.25 | $200.00 | $1,450.00 |
| Associate III | 4.50 | $105.00 | $472.50 |
| | | *Professional Services Subtotal:* | *$3,302.50* |
| | | *Allocation Process & Transient Pool Support Subtotal:* | *$3,302.50* |

**27 - 2020 Data Collection/Monitoring/Data Gaps**

| **Professional Services** | Bill Hours | Bill Rate | Charge |
|---|---|---|---|
| Senior Associate | 1.00 | $120.00 | $120.00 |
| Assistant I | 5.25 | $95.00 | $498.75 |
| | | *Professional Services Subtotal:* | *$618.75* |
| | | *2020 Data Collection/Monitoring/Data Gaps Subtotal:* | *$618.75* |

**29 - 2020 Grant Review/Application**

| **Professional Services** | Bill Hours | Bill Rate | Charge |
|---|---|---|---|
| Associate III | 3.50 | $105.00 | $367.50 |

**29 - 2020 Grant Review/Application**

| | | | |
|---|---|---|---|
| | | *Professional Services Subtotal:* | *$367.50* |
| | | *2020 Grant Review/Application Subtotal:* | *$367.50* |

**30 - 2020 General Engineering**

**Professional Services**

| | Bill Hours | Bill Rate | Charge |
|---|---|---|---|
| Principal | 3.00 | $230.00 | $690.00 |
| Associate III | 0.25 | $105.00 | $26.25 |
| | | *Professional Services Subtotal:* | *$716.25* |
| | | *2020 General Engineering Subtotal:* | *$716.25* |

**31 - Develop Rules and Regulations**

**Professional Services**

| | Bill Hours | Bill Rate | Charge |
|---|---|---|---|
| Associate III | 0.50 | $105.00 | $52.50 |
| | | *Professional Services Subtotal:* | *$52.50* |
| | | *Develop Rules and Regulations Subtotal:* | *$52.50* |
| | | ***Water Resources Management Subtotal:*** | ***$113,815.49*** |

***** Invoice Total ***** **$113,815.49**

STETSON ENGINEERS INC.

2171 E. Francisco Blvd., Suite K • San Rafael, California 94901
Phone: (415) 457-0701 • FAX: (415) 457-1638 • Website: www.stetsonengineers.com
Northern California • Southern California • Arizona • Colorado • Oregon

# REIMBURSABLE SUMMARY

County of Kern
County Administrative Office
1115 Truxtun Ave., 5th Floor
Bakersfield CA 93301
ATTN.: Mr. Alan Christensen

**Invoice Number:** **2652-34**
**Invoice Date:** **06/10/20**

Project #: 2652 **Indian Wells Valley Groundwater Authority**
Manager: Stephen Johnson
Professional Services through 05/31/2020

## Water Resources Management

### 01 - POAM No. 134 Prep & Attend Board,PAC & TAC Mtgs/Consult w/ Authority & Committees to Dev GSP

**Reimbursables**

| Description | Date | Units | Unit Rate | Charge | Notes |
|---|---|---|---|---|---|
| Telephone - Conference Call | 04/01/2020 | 1.00 | $27.83 | $27.83 | |
| Telephone - Conference Call | 04/07/2020 | 1.00 | $67.23 | $67.23 | |
| Telephone - Conference Call | 04/15/2020 | 1.00 | $39.42 | $39.42 | |
| Telephone - Conference Call | 04/16/2020 | 1.00 | $25.46 | $25.46 | |
| Telephone - Conference Call | 04/20/2020 | 1.00 | $25.59 | $25.59 | |
| Telephone - Conference Call | 04/21/2020 | 1.00 | $25.60 | $25.60 | |
| Telephone - Conference Call | 04/21/2020 | 1.00 | $25.28 | $25.28 | |
| Telephone - Conference Call | 04/29/2020 | 1.00 | $34.31 | $34.31 | |
| Telephone - Conference Call | 05/15/2020 | 1.00 | $31.62 | $31.62 | |
| Reproduction | 05/31/2020 | 144.00 | $0.15 | $21.60 | |
| Reproduction (Color) | 05/31/2020 | 24.00 | $0.89 | $21.36 | |
| | | | POAM No. 134 Prep & Attend Board,PAC & TAC Mtgs/Consult w/ Auth | $345.30 | |

### 05 - POAM No. 126 Project Management Costs & Schedule

**Reimbursables**

| Description | Date | Units | Unit Rate | Charge | Notes |
|---|---|---|---|---|---|
| Telephone - Conference Call | 05/14/2020 | 1.00 | $55.65 | $55.65 | |
| Telephone - Conference Call | 05/19/2020 | 1.00 | $25.71 | $25.71 | |
| | | | POAM No. 126 Project Management Costs & Schedule Sub-Total: | $81.36 | |

### 11.02 - POAM No. 56 Monitoring Wells - Implementation

**Sub-Contractors**

| Description | Date | Units | Unit Rate | Charge | Notes |
|---|---|---|---|---|---|
| Board of Regents | 04/30/2020 | 1.00 | $1,628.52 | $1,628.52 | |
| | | | POAM No. 56 Monitoring Wells - Implementation Sub-Total: | $1,628.52 | |

### 23 - Pumping Verification

**Reimbursables**

| Description | Date | Units | Unit Rate | Charge | Notes |
|---|---|---|---|---|---|
| Telephone - Conference Call | 04/29/2020 | 1.00 | $25.31 | $25.31 | |
| | | | Pumping Verification Sub-Total: | $25.31 | |

# Project Accounting Summary

**Account #:** 1757778 **Invoice #:** 1744718778 **Date:** 05/31/2020

**PAC:**

| Owner Name | Conference | Date | Minutes | Conf Charge |
|---|---|---|---|---|
| Reich, Steve | 349249824 | 05/01/20 | 4 | $25.29 |
| Reich, Steve | 349248298 | 05/01/20 | 6 | $25.30 |
| Total Conferences: | 2 | | 10 | $50.59 |

**PAC: 1126**

| Owner Name | Conference | Date | Minutes | Conf Charge |
|---|---|---|---|---|
| Sharoody, Ali | 351068048 | 05/12/20 | 459 | $69.08 |
| Total Conferences: | 1 | | 459 | $69.08 |

**PAC: 1129**

| Owner Name | Conference | Date | Minutes | Conf Charge |
|---|---|---|---|---|
| Sharoody, Ali | 353693486 | 05/28/20 | 119 | $25.67 |
| Total Conferences: | 1 | | 119 | $25.67 |

**PAC: 1336**

| Owner Name | Conference | Date | Minutes | Conf Charge |
|---|---|---|---|---|
| Sharoody, Ali | 353263062 | 05/26/20 | 424 | $63.81 |
| Sharoody, Ali | 350315157 | 05/07/20 | 376 | $56.58 |
| Total Conferences: | 2 | | 800 | $120.39 |

**PAC: 253301**

| Owner Name | Conference | Date | Minutes | Conf Charge |
|---|---|---|---|---|
| Castaneda, Fatima | 350797305 | 05/11/20 | 202 | $30.40 |
| Total Conferences: | 1 | | 202 | $30.40 |

**PAC: 2595**

| Owner Name | Conference | Date | Minutes | Conf Charge |
|---|---|---|---|---|
| Krueger, Robyn | 351517871 | 05/14/20 | 61 | $25.47 |
| Krueger, Robyn | 351508732 | 05/14/20 | 44 | $25.41 |
| Total Conferences: | 2 | | 105 | $50.88 |

**PAC: 2628**

| Owner Name | Conference | Date | Minutes | Conf Charge |
|---|---|---|---|---|
| Reich, Steve | 353500614 | 05/27/20 | 477 | $71.79 |
| Total Conferences: | 1 | | 477 | $71.79 |

**PAC: 265201**

| Owner Name | Conference | Date | Minutes | Conf Charge |
|---|---|---|---|---|
| Castaneda, Fatima | 351822240 | 05/15/20 | 210 | $31.62 |

# Project Accounting Summary

**Account #:** 1757778 **Invoice #:** 1744718778 **Date:** 05/31/2020

| Total Conferences: | 1 | | 210 | $31.62 |
|---|---|---|---|---|

**PAC: 2681**

| *Owner Name* | *Conference* | *Date* | *Minutes* | *Conf Charge* |
|---|---|---|---|---|
| Castaneda, Fatima | 353428796 | 05/27/20 | 22 | $25.36 |
| Castaneda, Fatima | 352495283 | 05/20/20 | 78 | $25.52 |
| Castaneda, Fatima | 351251754 | 05/13/20 | 59 | $25.49 |
| Castaneda, Fatima | 349982255 | 05/06/20 | 35 | $25.41 |
| Total Conferences: | 4 | | 194 | $101.78 |

**PAC: 2710**

| *Owner Name* | *Conference* | *Date* | *Minutes* | *Conf Charge* |
|---|---|---|---|---|
| Sharoody, Ali | 352071886 | 05/18/20 | 306 | $46.02 |
| Total Conferences: | 1 | | 306 | $46.02 |

**PAC: 2756**

| *Owner Name* | *Conference* | *Date* | *Minutes* | *Conf Charge* |
|---|---|---|---|---|
| Krueger, Robyn | 349171454 | 05/01/20 | 107 | $25.62 |
| Total Conferences: | 1 | | 107 | $25.62 |

**PAC: 3104**

| *Owner Name* | *Conference* | *Date* | *Minutes* | *Conf Charge* |
|---|---|---|---|---|
| Castaneda, Fatima | 352298713 | 05/19/20 | 134 | $25.71 |
| Castaneda, Fatima | 351606414 | 05/14/20 | 370 | $55.65 |
| Total Conferences: | 2 | | 504 | $81.36 |

# Project Accounting Summary

**Account #:** 1757778 **Invoice #:** 1744698224 **Date:** 04/30/2020

**PAC:**

| Owner Name | Conference | Date | Minutes | Conf Charge |
|---|---|---|---|---|
| Castaneda, Fatima | 348795236 | 04/29/20 | 7 | $25.31 |
| Total Conferences: | 1 | | 7 | $25.31 |

**PAC: 01**

| Owner Name | Conference | Date | Minutes | Conf Charge |
|---|---|---|---|---|
| Reich, Steve | 348973224 | 04/30/20 | 154 | $25.78 |
| Total Conferences: | 1 | | 154 | $25.78 |

**PAC: 08**

| Owner Name | Conference | Date | Minutes | Conf Charge |
|---|---|---|---|---|
| Reich, Steve | 346000207 | 04/16/20 | 108 | $25.62 |
| Total Conferences: | 1 | | 108 | $25.62 |

**PAC: 1336**

| Owner Name | Conference | Date | Minutes | Conf Charge |
|---|---|---|---|---|
| Sharoody, Ali | 347005291 | 04/21/20 | 390 | $58.79 |
| Sharoody, Ali | 344054147 | 04/07/20 | 427 | $64.30 |
| Total Conferences: | 2 | | 817 | $123.09 |

**PAC: 19611003**

| Owner Name | Conference | Date | Minutes | Conf Charge |
|---|---|---|---|---|
| Castaneda, Fatima | 349071480 | 04/30/20 | 572 | $86.00 |
| Total Conferences: | 1 | | 572 | $86.00 |

**PAC: 253301**

| Owner Name | Conference | Date | Minutes | Conf Charge |
|---|---|---|---|---|
| Castaneda, Fatima | 348206707 | 04/27/20 | 329 | $49.50 |
| Total Conferences: | 1 | | 329 | $49.50 |

**PAC: 2628**

| Owner Name | Conference | Date | Minutes | Conf Charge |
|---|---|---|---|---|
| Reich, Steve | 347331535 | 04/22/20 | 678 | $102.00 |
| Total Conferences: | 1 | | 678 | $102.00 |

**PAC: 2652**

| Owner Name | Conference | Date | Minutes | Conf Charge |
|---|---|---|---|---|
| Reich, Steve | 347026911 | 04/21/20 | 104 | $25.60 |
| Reich, Steve | 347018058 | 04/21/20 | 3 | $25.28 |
| Reich, Steve | 344041844 | 04/07/20 | 447 | $67.23 |
| Reich, Steve | 342505075 | 04/01/20 | 185 | $27.83 |

# Project Accounting Summary

**Account #:** 1757778 **Invoice #:** 1744698224 **Date:** 04/30/2020

| | | | |
|---|---|---|---|
| **Total Conferences:** | 4 | 739 | $145.94 |

**PAC: 265201**

| *Owner Name* | *Conference* | *Date* | *Minutes* | *Conf Charge* |
|---|---|---|---|---|
| Castaneda, Fatima | 348801558 | 04/29/20 | 228 | $34.31 |
| **Total Conferences:** | 1 | | 228 | $34.31 |

**PAC: 2681**

| *Owner Name* | *Conference* | *Date* | *Minutes* | *Conf Charge* |
|---|---|---|---|---|
| Castaneda, Fatima | 348703659 | 04/29/20 | 61 | $25.46 |
| Castaneda, Fatima | 347243432 | 04/22/20 | 64 | $25.49 |
| Castaneda, Fatima | 345676832 | 04/15/20 | 93 | $25.56 |
| Castaneda, Fatima | 344274178 | 04/08/20 | 40 | $25.41 |
| Castaneda, Fatima | 342581166 | 04/01/20 | 96 | $25.58 |
| Castaneda, Fatima | 342555098 | 04/01/20 | 722 | $108.61 |
| **Total Conferences:** | 6 | | 1076 | $236.11 |

**PAC: 2706**

| *Owner Name* | *Conference* | *Date* | *Minutes* | *Conf Charge* |
|---|---|---|---|---|
| Krueger, Robyn | 344619143 | 04/09/20 | 181 | $27.23 |
| Krueger, Robyn | 342610164 | 04/01/20 | 542 | $81.54 |
| **Total Conferences:** | 2 | | 723 | $108.77 |

**PAC: 2710**

| *Owner Name* | *Conference* | *Date* | *Minutes* | *Conf Charge* |
|---|---|---|---|---|
| Sharoody, Ali | 343340040 | 04/03/20 | 82 | $25.54 |
| **Total Conferences:** | 1 | | 82 | $25.54 |

**PAC: 2719**

| *Owner Name* | *Conference* | *Date* | *Minutes* | *Conf Charge* |
|---|---|---|---|---|
| Castaneda, Fatima | 346680045 | 04/20/20 | 136 | $25.71 |
| **Total Conferences:** | 1 | | 136 | $25.71 |

**PAC: 2751**

| *Owner Name* | *Conference* | *Date* | *Minutes* | *Conf Charge* |
|---|---|---|---|---|
| Krueger, Robyn | 348789901 | 04/29/20 | 139 | $25.70 |
| **Total Conferences:** | 1 | | 139 | $25.70 |

**PAC: 2758**

| *Owner Name* | *Conference* | *Date* | *Minutes* | *Conf Charge* |
|---|---|---|---|---|
| Krueger, Robyn | 348506880 | 04/28/20 | 297 | $44.70 |
| Krueger, Robyn | 348492232 | 04/28/20 | 23 | $25.34 |
| **Total Conferences:** | 2 | | 320 | $70.04 |

DRI
Desert Research Institute

## Invoice for Stetson Engineers Inc, Isotopic Support

INVOICE TO

**Stetson Engineers Inc**
**Attn: Accounts Payable**
**2171 East Francisco Blvd. Suite K**
**San Rafael, CA 94901**

INVOICE NUMBER: **CI-06-3615 / 08**

DATE: 05/18/20

AMOUNT: **$1,628.52**

TERMS: Due Upon Receipt

| Contract/Grant/Agreement/Purchase Order | Period Billed | |
|---|---|---|
| | From | To |
| **Stetson Engineers Inc. Contract # 2652 - 001** | | |
| **Contract Dated 5/24/19** | 4/1/2020 | 4/30/2020 |

Title: Stetson Engineers Inc, / Isotopic Support - Indian Wells Valley Groundwater Authority
P.I.: Chapman, Jenny
DRI Acct: AWD-06-00000523 / GR09067 RC0068 TAX ID # : 886000024

| Cost Elements/Services | Current | Cumulative |
|---|---|---|
| Stetson Engineers, Inc. - Isotopic Support - Indian Wells Valley Groundwater Authority | | |
| Salaries | 1,628.52 | 25,686.82 |
| Travel | 0.00 | 0.00 |
| Operating | 0.00 | 0.00 |
| **Totals** | 1,628.52 | 25,686.82 |
| **Total Amount Due This Invoice** | 1,628.52 | |

| | |
|---|---|
| Budget Amount | 28,137.00 |
| Invoiced to Date | 25,686.82 |
| Budget Balance | **2,450.18** |

"I certify to the best of my ability that all expenditures reported are for appropriate purposes and in accordance with the provisions of the award documentation."

Sherril Schmidt

05/18/20

Sherril Schmidt, Sponsored Research Specialist — Date

(775) 673-7404

Make Check Payable To: **Board of Regents**

Mail Check To: Desert Research Institute
Financial Services Office
2215 Raggio Parkway
Reno, Nevada 89512-1095

* Please return Invoice Copy with Check *

**Apr-20**

**GR09067**

**Stetson Engineers - Isotopic Support - IWVGA**

**Contract # 2652 - 001**

| Position | Worker | Rate | Hours | Cost |
|---|---|---|---|---|
| Groundwater Modeler-SME | Karl Pohlmann | 230.78 | 0.000000 | 0.00 |
| Hydrogeologist-SME | Jenny Chapman | 258.45 | 0.000000 | 0.00 |
| Hourly Data Analyst | Austin Chapman | 29.46 | 11.761032 | 346.48 |
| Geochemist-SME | Jim Thomas | 193.52 | 0.000000 | 0.00 |
| Geochemist | Ron Hershey | 184.51 | 3.743862 | 690.78 |
| GIS Professional | Cheryl Collins | 98.95 | 5.975341 | 591.26 |

**Total Salaries & Fringe** **1,628.52**

# Project Accounting Summary

**Account #:** 1757778 **Invoice #:** 1744698224 **Date:** 04/30/2020

**PAC: 2982**

| *Owner Name* | *Conference* | *Date* | *Minutes* | *Conf Charge* |
|---|---|---|---|---|
| Reich, Steve | 347861536 | 04/24/20 | 132 | $25.71 |
| Total Conferences: | 1 | | 132 | $25.71 |

**PAC: 3104**

| *Owner Name* | *Conference* | *Date* | *Minutes* | *Conf Charge* |
|---|---|---|---|---|
| Castaneda, Fatima | 346643550 | 04/20/20 | 94 | $25.59 |
| Castaneda, Fatima | 346095732 | 04/16/20 | 57 | $25.46 |
| Castaneda, Fatima | 345716754 | 04/15/20 | 262 | $39.42 |
| Total Conferences: | 3 | | 413 | $90.47 |

# Project Accounting Summary

**Account #:** 1757778 **Invoice #:** 1744698224 **Date:** 04/30/2020

**PAC:**

| *Owner Name* | *Conference* | *Date* | *Minutes* | *Conf Charge* |
|---|---|---|---|---|
| Castaneda, Fatima | 348795236 | 04/29/20 | 7 | $25.31 |
| Total Conferences: | 1 | | 7 | $25.31 |

**PAC: 01**

| *Owner Name* | *Conference* | *Date* | *Minutes* | *Conf Charge* |
|---|---|---|---|---|
| Reich, Steve | 348973224 | 04/30/20 | 154 | $25.78 |
| Total Conferences: | 1 | | 154 | $25.78 |

**PAC: 08**

| *Owner Name* | *Conference* | *Date* | *Minutes* | *Conf Charge* |
|---|---|---|---|---|
| Reich, Steve | 346000207 | 04/16/20 | 108 | $25.62 |
| Total Conferences: | 1 | | 108 | $25.62 |

**PAC: 1336**

| *Owner Name* | *Conference* | *Date* | *Minutes* | *Conf Charge* |
|---|---|---|---|---|
| Sharoody, Ali | 347005291 | 04/21/20 | 390 | $58.79 |
| Sharoody, Ali | 344054147 | 04/07/20 | 427 | $64.30 |
| Total Conferences: | 2 | | 817 | $123.09 |

**PAC: 19611003**

| *Owner Name* | *Conference* | *Date* | *Minutes* | *Conf Charge* |
|---|---|---|---|---|
| Castaneda, Fatima | 349071480 | 04/30/20 | 572 | $86.00 |
| Total Conferences: | 1 | | 572 | $86.00 |

**PAC: 253301**

| *Owner Name* | *Conference* | *Date* | *Minutes* | *Conf Charge* |
|---|---|---|---|---|
| Castaneda, Fatima | 348206707 | 04/27/20 | 329 | $49.50 |
| Total Conferences: | 1 | | 329 | $49.50 |

**PAC: 2628**

| *Owner Name* | *Conference* | *Date* | *Minutes* | *Conf Charge* |
|---|---|---|---|---|
| Reich, Steve | 347331535 | 04/22/20 | 678 | $102.00 |
| Total Conferences: | 1 | | 678 | $102.00 |

**PAC: 2652**

| *Owner Name* | *Conference* | *Date* | *Minutes* | *Conf Charge* |
|---|---|---|---|---|
| Reich, Steve | 347026911 | 04/21/20 | 104 | $25.60 |
| Reich, Steve | 347018058 | 04/21/20 | 3 | $25.28 |
| Reich, Steve | 344041844 | 04/07/20 | 447 | $67.23 |
| Reich, Steve | 342505075 | 04/01/20 | 185 | $27.83 |

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**Capitol Core Group, Inc.**
205 Cartwheel Bend (Operations Dept.)
Austin, TX 78738 US
949.274.9605
operations@capitolcore.com
www.capitolcore.com

**BILL TO**
Indian Wells Valley Groundwater Authority
500 West Ridgecrest Blvd.
Ridgecrest, California 93555
USA

# INVOICE 2020-033

**DATE** 06/05/2020 **TERMS** Net 45

**DUE DATE** 07/20/2020

| DATE | ACCOUNT SUMMARY | AMOUNT |
|---|---|---|
| 05/01/2020 | Balance Forward | $6,710.00 |
| | Other payments and credits after 05/01/2020 through 06/04/2020 | -6,710.00 |
| 06/05/2020 | Other invoices from this date | 0.00 |
| | New charges (details below) | 9,412.50 |
| | Total Amount Due | $9,412.50 |

| ACTIVITY | HOURS | RATE | AMOUNT |
|---|---|---|---|
| **Charges** | | | |
| Task 2 -- Transfer Partners | | | |
| **Strategic Communications:Water Procurement Assistance** Project conference calls, internal memorandum and briefings w/ IWVGA [Tatum] | 1.50 | 250.00 | 375.00 |
| **Strategic Communications:Water Procurement Assistance** Advocacy: Transfer Partner Developments/calls [Tatum] | 1 | 250.00 | 250.00 |
| Task 2 Total (2.5 hours) $625.00 | | | |
| Task 3 -- Identify and Secure Funding Sources | | | |
| **Government Relations:Federal Legislative Affairs** Direct Advocacy: Federal Bill Analysis (America's Water Infrastructure Act S. 3591 /Drinking Water Infrastructure Act S. 3590) [Newman] | 3 | 150.00 | 450.00 |
| **Government Relations:Federal Legislative Affairs** Direct Advocacy: House Bill Analysis (Moving Forward Framework/Infrastructure Provisions) [Newman] | 3 | 150.00 | 450.00 |
| **Government Relations:Federal Legislative Affairs** Direct Advocacy: Conf. calls/briefings Senate Environment & Public Works Committee staff [Newman] | 1.50 | 150.00 | 225.00 |
| **Government Relations:Federal Legislative Affairs** Direct Advocacy: Conf. calls/briefings House Transportation & Infrastructure Committee staff [Newman] | 1.50 | 150.00 | 225.00 |
| **Government Relations:Federal Legislative Affairs** Direct Advocacy: Regulatory -- Final review of DCIP Implementation Guidelines [Newman] | 1.50 | 150.00 | 225.00 |

| ACTIVITY | HOURS | RATE | AMOUNT |
|---|---|---|---|
| **Government Relations:Federal Legislative Affairs**<br>Direct Advocacy: House/Senate Appropriations Staff (infrastructure financing priorities) [Newman] | 1.50 | 150.00 | 225.00 |
| **Government Relations:Federal Legislative Affairs**<br>Direct Advocacy: Briefing on S. 3590/S.3591 Senator Harris (D-CA) [Newman] | 1 | 150.00 | 150.00 |
| **Government Relations:Federal Legislative Affairs**<br>Direct Advocacy: Various video conferences w/ industry coalitions and stakeholders, coordination and Washington Representative advocacy, internal briefing memoranda, and conf. calls re: Strategy [Newman] | 3.50 | 150.00 | 525.00 |
| **Government Relations:Federal Legislative Affairs**<br>Direct Advocacy: Materials preparation and coordination for Dept. of Navy conf. call [Simonetti] | 1.25 | 225.00 | 281.25 |
| **Government Relations:Federal Legislative Affairs**<br>Direct Advocacy: China Lake Alliance call and coordination [Simonetti] | 0.75 | 225.00 | 168.75 |
| **Government Relations:Federal Legislative Affairs**<br>Reporting: Conf. call w/ IWVGA Chairman to de-brief on Dept. Navy Call [Simonetti] | 1.50 | 225.00 | 337.50 |
| **Government Relations:Federal Legislative Affairs**<br>Direct Advocacy: Conf. call w. U.S. Dept. of Navy (D.C.) [Simonetti] | 2.50 | 225.00 | 562.50 |
| **Government Relations:Federal Legislative Affairs**<br>Direct Advocacy: Materials preparation and coordination for U.S. Navy SW Command call [Simonetti] | 1 | 225.00 | 225.00 |
| **Government Relations:Federal Legislative Affairs**<br>Direct Advocacy: Conf. Call Rep. Paul Cook COSand preparation [Simonetti] | 1.25 | 225.00 | 281.25 |
| **Government Relations:Federal Legislative Affairs**<br>Direct Advocacy: Final Report preparation and transmittal to IWVGA [McKinney] | 2.50 | 250.00 | 625.00 |
| **Government Relations:Federal Legislative Affairs**<br>Direct Advocacy: China Lake Alliance Call and coordination [McKinney] | 0.75 | 250.00 | 187.50 |
| **Government Relations:Federal Legislative Affairs**<br>Direct Advocacy: Letter preparation re: S. 3590 and S. 3591 [McKinney] | 2 | 250.00 | 500.00 |
| **Government Relations:Federal Legislative Affairs**<br>Direct Advocacy: Conf. call w/ U.S. Dept. of Navy (EIE,DC) [McKinney] | 2.50 | 250.00 | 625.00 |
| **Government Relations:Federal Legislative Affairs**<br>Reporting: Debrief w/ Chairman Gleason re: U.S. Navy call [McKinney] | 1.50 | 250.00 | 375.00 |
| **Government Relations:Federal Legislative Affairs**<br>Reporting: Memorandum to IWVGA re: House/Senate Infrastructure bills [McKinney] | 0.75 | 250.00 | 187.50 |
| **Government Relations:Federal Legislative Affairs**<br>Direct Advocacy: Conf. call w/ Rep. Garamendi Office providing initial briefing [McKinney] | 0.50 | 250.00 | 125.00 |
| Task 3 Total = (30.5 hours) $6,956.25 | | | |
| Task 4 -- Reporting and Board Meetings | | | |
| **Government Relations:Public Policy**<br>Monthly Report preparation, Document review/revise [Simonetti] | 1.75 | 225.00 | 393.75 |

| ACTIVITY | HOURS | RATE | AMOUNT |
|---|---|---|---|
| **Government Relations:Public Policy**<br>Monthly Report preparation, various memos not related to legislation and administration [McKinney] | 1 | 250.00 | 250.00 |
| **Government Relations:Public Policy**<br>Board Meeting Attendance [Simonetti] | 2.50 | 225.00 | 562.50 |
| **Government Relations:Public Policy**<br>Board Meeting Attendance [McKinney] | 2.50 | 250.00 | 625.00 |
| Total Task 4 = (7.75 hours) $1,831.25 | | | |
| Total Hours May 2020 | 40.75 | | 0.00 |

Thank you for your business. Please make checks payable to Capitol Core Group, Inc.

| | |
|---|---|
| TOTAL OF NEW CHARGES | 9,412.50 |
| TOTAL DUE | **$9,412.50** |

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**apriln@iwvwd.com**

**From:** PackWrap Business Center <packwrap@hotmail.com>
**Sent:** Friday, June 12, 2020 12:55 PM
**To:** apriln@iwvwd.com
**Subject:** Fw: Prop 218 Notice

Hi,

Below is the 2 quotes for this mailing project. #1 is for the self-mailer - no envelope and #2 has the sheets inserted into an envelope.

Quote #1 - This quote is for a self-mailer, no envelope:

Quantity: 17,000
# of Sheets: 2
Paper size: 8 1/2" x 11"
Paper weight: 70lb (Heavier paper to withstand the mailing process without an envelope)
Ink: Customer's choice. On this quantity, black ink only is the same price as full color
Imaging: 2 sides
Finishing: Folded, 3 mailing tabs, address correction, bulk mail sorting, addressing, traying and delivery to the post office.

$10,705.24

Self-mailer Printing - $3,492.04
Mail Processing - $2,190.00
Postage - 25.9¢ = $4,351.20 to 29.9¢ = $5,023.20

Quote #2 - This 2nd quote is for an envelope with 2 sheets inserted:

Quantity: 17,000
# of Sheets: 2
Paper size: 8 1/2" x 11"
Paper weight: 70lb
Envelope Size: #10
Ink: Customer's choice. On this quantity, black ink only is the same price as full color
Imaging: 2 sides
Finishing: Folded, inserted into envelope, sealed, address correction, bulk mail sorting, addressing, traying and delivery to the post office.

$12,514.39

Envelope plus 2 inserted sheets - $5301.16
Mail Processing - $2,190.00
Postage - 25.9¢ = $4,351.20 to 29.9¢ = $5,023.20

Hopefully this all makes sense. Please let me if you have any questions.

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# IWVGA ADMINISTRATIVE OFFICE

***STAFF REPORT***

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**TO:** IWVGA Board Members **DATE:** June 18, 2020

**FROM:** IWVGA Staff

**SUBJECT:** **Agenda Item No. 7 – Consideration and Approval of Litigation Tolling Agreements with Meadowbrook Dairy, Mojave Pistachio, and Searles Valley Mineral**

## DISCUSSION

As the Board is aware, tolling agreements have been previously entered into with Meadowbrook Dairy, Mojave Pistachio, and Searles Valley Mineral. Those agreements are set to expire at the end of this month. It has been requested that the agreements be extended. The attached agreements provided for an extension until September 30. The agreements also include a provision that would allow the IWVGA to withdraw from the agreements on 14 days prior notice.

## RECOMMENDED BOARD ACTION(S)

Consider and approve litigation tolling agreements with Meadowbrook Dairy, Mojave Pistachio, and Searles Valley Mineral

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# Agreement to Toll the Statute of Limitations Regarding Potential Challenges to the Indian Wells Valley Groundwater Basin Groundwater Sustainability Plan

## OFFER OF COMPROMISE

This Agreement to Toll the Statute of Limitations Regarding Potential Challenges to the Indian Wells Valley Groundwater Basin Groundwater Sustainability Plan ("**Agreement"**) is hereby entered into by and among the Indian Wells Valley Groundwater Authority ("**IWV GSA"**) and Mojave Pistachios, LLC, John Thomas Conaway, John Thomas Conaway Trust, John Thomas Conaway Living Trust u/d/t August 7, 2008, Nugent Family Trust, and Sierra Shadows Ranch LP (the "**Producers**"), (hereinafter referred to collectively as "**Parties**" and may be referred to individually as a "**Party**").

## Recitals

1. WHEREAS, the **IWV GSA** is a groundwater sustainability agency, formed and designated under the Sustainable Groundwater Management Agency Act (Water Code § 10720 et seq.) with responsibility for adopting a groundwater sustainability plan ("**GSP**") for the Indian Wells Valley Groundwater Basin ("**Basin**");

2. WHEREAS, the **IWV GSA** adopted the **GSP** on January 16, 2020;

3. WHEREAS, the **Parties** entered into an Agreement to Toll the Statute of Limitations Regarding Potential Challenges to the Indian Wells Valley Groundwater Basin Groundwater Sustainability Plan effective March 13, 2020 ("**March 13, 2020 Agreement**");

4. WHEREAS, the purpose of the **March 13, 2020 Agreement** was to toll any and all applicable statutes of limitation, without exception, regarding any claims that may be asserted by a Party to the **March 13, 2020 Agreement** (whether by petition or complaint) arising from the **IWV GSA's** adoption and/or implementation of the **GSP,** including but not limited to any and all actions expressly and impliedly authorized under applicable law (collectively "**Claims**");

5. WHEREAS, the **Parties** to the **March 13, 2020 Agreement** agreed to toll and extend the applicable statute of limitations for each **Party** to file any **Claims** that arise from the adoption and/or implementation of the **GSP** until the earlier of: (i) seven (7) calendar days from the date at which the **IWV GSA** formally adopts the Transient Pool and Fallowing Program (as defined within the **GSP**), or (ii) June 30, 2020;

6. WHEREAS, in light of the prevailing conditions in California and the updated **IWV GSA** approval schedule for the Transient Pool and Fallowing Program and the Replenishment Fee, the **Parties** wish to extend the **Tolling Period** set forth in the **March 13, 2020 Agreement until September 30, 2020**.

**NOW, THEREFORE**, in consideration of the foregoing recitals, which are incorporated into the operative provisions of this **Agreement** by this reference, and the mutual and dependent covenants herein contained, it is hereby mutually agreed by the **Parties** hereto as follows:

1. The Recitals set forth in the beginning of this **Agreement** are hereby incorporated into the terms of the **Agreement** as though set forth in full herein.

2. This **Agreement** is effective on June __, 2020 ("**Effective Date**").

3. The **Parties** hereby agree to toll and extend the applicable statute of limitations for each **Party** to file any **Claims** (regardless of the cause of action, remedy and the judicial or administrative tribunal) that arise from the adoption and/or implementation of the **GSP** including any and all actions expressly or impliedly authorized under applicable law, until September 30, 2020. The period from the **Effective Date** to September 30, 2020 is the "**Tolling Period.**"

4. The **Parties** hereby waive, and shall not assert, any defense based on statute of limitations or other claim of or related to delay or lack of timeliness of filing based on the fact that a claim, defense, cause of action, or argument expired during the **Tolling Period**.

5. If any third party asserts in a judicial or administrative proceeding brought by any **Party** that a statute of limitations or other applicable time period established by statute, code, equity, rule of court, or other law prevents the prosecution of any **Claims**, the **Parties** agree and will argue to the Court that all statute of limitations and other applicable time period established by statute, code, rule of court, or law were tolled during the **Tolling Period**, and the running of any such period shall be calculated by excluding the **Tolling Period**. Further they will inform the Court that their intention was to facilitate compromise among the Parties hereto.

6. This **Agreement**:

    a. Represents the sole and entire agreement by and among the **Parties**;

    b. Shall be construed in accordance with the laws of the State of California;

    c. May be executed in counterparts with the same force and effect as if executed in one complete document by all **Parties**;

    d. May not be modified, except by a writing executed by each of the **Parties**;

    e. Does not preclude a claim being commenced by any **Party** prior to the expiration of the **Tolling Period** and without prior notice of filing;

f. Is not admissible in any legal proceeding except to prove the **Tolling Period** or to resolve a dispute concerning its interpretation or enforcement;

g. Shall not be construed as an admission of any claims, allegations, disputes or defenses referenced herein;

h. May be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument; and

i. Shall be subject to early termination only effective by the **Party** providing fourteen (14) days' advance written notice to legal counsel for all undersigned **Parties**, as follows:

**Producers:** sslater@bhfs.com

**IWV GA:** phall@kerncounty.com

7. Each individual signing this **Agreement** in a representative capacity warrants that he or she has the authority to do so on behalf of the **Party** he or she represents.

**Indian Wells Valley Groundwater Authority**

By:_____

Name: _____

Title: _____

Date: _____

**Mojave Pistachios, LLC**

By:_____

Name: _____

Title:_____

Date: _____

**John Thomas Conaway**

By:_____

Name: _____

Title: _____

Date: _____

**John Thomas Conaway Trust**

By:_____

Name: _____

Title:_____

Date: _____

**John Thomas Conaway Living Trust u/d/t August 7, 2008**

By:_____

**Nugent Family Trust**

By:_____

Name: _____

Title: _____

Date: _____

Name: _____

Title:_____

Date: _____

**Sierra Shadows Ranch LP**

By:_____

Name: _____

Title: _____

Date: _____

21056405

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# Agreement to Toll the Statute of Limitations Regarding Potential Challenges to the Indian Wells Valley Groundwater Basin Groundwater Sustainability Plan

## OFFER OF COMPROMISE

This Agreement to Toll the Statute of Limitations Regarding Potential Challenges to the Indian Wells Valley Groundwater Basin Groundwater Sustainability Plan ("**Agreement"**) is hereby entered into by and among the Indian Wells Valley Groundwater Authority ("**IWVGA"**) and Meadowbrook Dairy Real Estate, LLC, Big Horn Fields, LLC, Brown Road Fields, LLC, Highway 395 Fields, LLC, and The Meadowbrook Mutual Water Company (collectively, "**Meadowbrook**"), (hereinafter referred to collectively as "**Parties**" and may be referred to individually as a "**Party**").

Recitals

1. WHEREAS, the IWVGA is a groundwater sustainability agency, formed and designated under the Sustainable Groundwater Management Agency Act (Water Code § 10720 et seq.) with responsibility for adopting a groundwater sustainability plan ("**GSP**") for the Indian Wells Valley Groundwater Basin ("**Basin**");

2. WHEREAS, the IWVGA adopted the GSP on January 16, 2020;

3. WHEREAS, the Parties entered into an Agreement to Toll the Statute of Limitations Regarding Potential Challenges to the Indian Wells Valley Groundwater Basin Groundwater Sustainability Plan effective March 13, 2020 ("**March 13, 2020 Agreement**");

4. WHEREAS, the purpose of the March 13, 2020 Agreement was to toll any and all applicable statutes of limitation, without exception, regarding any claims that may be asserted by a Party to the March 13, 2020 Agreement (whether by petition or complaint) arising from the IWVGA's adoption and/or implementation of the GSP, including but not limited to any and all actions expressly and impliedly authorized under applicable law (collectively "**Claims**");

5. WHEREAS, the Parties to the March 13, 2020 Agreement agreed to toll and extend the applicable statute of limitations for each Party to file any Claims that arise from the adoption and/or implementation of the GSP until the earlier of: (i) seven (7) calendar days from the date at which the IWVGA formally adopts the Transient Pool and Fallowing Program (as defined within the GSP), or (ii) June 30, 2020;

6. WHEREAS, in light of the prevailing conditions in California and the updated IWVGA approval schedule for GSP implementation actions including the Transient Pool and Fallowing Program and the Replenishment Fee, the Parties wish to extend the Tolling Period set forth in the March 13, 2020 Agreement until September 30, 2020.

NOW, THEREFORE, in consideration of the foregoing recitals, which are incorporated into the operative provisions of this Agreement by this reference, and the mutual and dependent covenants herein contained, it is hereby mutually agreed by the Parties hereto as follows:

1. The Recitals set forth in the beginning of this Agreement are hereby incorporated into the terms of the Agreement as though set forth in full herein.

2. This Agreement is effective on June 18, 2020 ("**Effective Date**").

3. The Parties hereby agree to toll and extend the applicable statute of limitations for each Party to file any Claims (regardless of the cause of action, remedy and the judicial or administrative tribunal) that arise from the adoption and/or implementation of the GSP including any and all actions expressly or impliedly authorized under applicable law, until September 30, 2020. The period from the Effective Date to September 30, 2020 is the "**Tolling Period**."

4. The Parties hereby waive, and shall not assert, any defense based on statute of limitations or other claim of or related to delay or lack of timeliness of filing based on the fact that a claim, defense, cause of action, or argument expired during the Tolling Period.

5. If any third party asserts in a judicial or administrative proceeding brought by any Party that a statute of limitations or other applicable time period established by statute, code, equity, rule of court, or other law prevents the prosecution of any Claims, the Parties agree and will argue to the Court that all statute of limitations and other applicable time period established by statute, code, rule of court, or law were tolled during the Tolling Period, and the running of any such period shall be calculated by excluding the Tolling Period. Further they will inform the Court that their intention was to facilitate compromise among the Parties hereto.

6. This Agreement:

    a. Represents the sole and entire agreement by and among the Parties;

    b. Shall be construed in accordance with the laws of the State of California;

    c. May be executed in counterparts with the same force and effect as if executed in one complete document by all Parties;

    d. May not be modified, except by a writing executed by each of the Parties;

    e. Does not preclude a claim being commenced by any Party prior to the expiration of the Tolling Period and without prior notice of filing;

    f. Is not admissible in any legal proceeding except to prove the Tolling Period or to resolve a dispute concerning its interpretation or enforcement;

g. Shall not be construed as an admission of any claims, allegations, disputes or defenses referenced herein;

h. May be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument; and

i. Shall be subject to early termination only effective by the Party providing fourteen (14) days' advance written notice to legal counsel for all undersigned Parties, as follows:

Meadowbrook: derek.hoffman@greshamsavage.com

IWVGA: phall@kerncounty.com

7. Each individual signing this Agreement in a representative capacity warrants that he or she has the authority to do so on behalf of the Party he or she represents.

Indian Wells Valley Groundwater Authority

By:_____

Name:_____

Title:_____

Date:_____

Meadowbrook Dairy Real Estate, LLC

By:_____

Name:_____

Title:_____

Date:_____

Big Horn Fields, LLC

By:_____

Name:_____

Title: _____

Date: _____

Brown Road Fields, LLC

By:_____

Name:_____

Title:_____

Date:_____

Highway 395 Fields, LLC

By:_____

Name:_____

Title:_____

Date:_____

The Meadowbrook Mutual Water Company

By:_____

Name:_____

Title:_____

Date:_____

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# Agreement to Toll the Statute of Limitations Regarding Potential Challenges to the Indian Wells Valley Groundwater Basin Groundwater Sustainability Plan

## OFFER OF COMPROMISE

This Agreement to Toll the Statute of Limitations Regarding Potential Challenges to the Indian Wells Valley Groundwater Basin Groundwater Sustainability Plan ("**Agreement"**) is hereby entered into by and among the Indian Wells Valley Groundwater Authority ("**IWV GSA"**) and Searles Valley Minerals Inc. (the "**Producers**"), (hereinafter referred to collectively as "**Parties**" and may be referred to individually as a "**Party**").

## Recitals

1. WHEREAS, the **IWV GSA** is a groundwater sustainability agency, formed and designated under the Sustainable Groundwater Management Agency Act (Water Code § 10720 et seq.) with responsibility for adopting a groundwater sustainability plan ("**GSP**") for the Indian Wells Valley Groundwater Basin ("**Basin**");
2. WHEREAS, the **IWV GSA** adopted the **GSP** on January 16, 2020;
3. WHEREAS, the **Parties** entered into an Agreement to Toll the Statute of Limitations Regarding Potential Challenges to the Indian Wells Valley Groundwater Basin Groundwater Sustainability Plan effective March 13, 2020 ("**March 13, 2020 Agreement**");
4. WHEREAS, the purpose of the **March 13, 2020 Agreement** was to toll any and all applicable statutes of limitation, without exception, regarding any claims that may be asserted by a Party to the **March 13, 2020 Agreement** (whether by petition or complaint) arising from the **IWV GSA's** adoption and/or implementation of the **GSP,** including but not limited to any and all actions expressly and impliedly authorized under applicable law (collectively "**Claims**");
5. WHEREAS, the **Parties** to the **March 13, 2020 Agreement** agreed to toll and extend the applicable statute of limitations for each **Party** to file any **Claims** that arise from the adoption and/or implementation of the **GSP** until the earlier of: (i) seven (7) calendar days from the date at which the **IWV GSA** formally adopts the Transient Pool and Fallowing Program (as defined within the **GSP**), or (ii) June 30, 2020;
6. WHEREAS, in light of the prevailing conditions in California and the updated **IWV GSA** approval schedule for the Transient Pool and Fallowing Program and the Replenishment Fee, the **Parties** wish to extend the **Tolling Period** set forth in the **March 13, 2020 Agreement until September 30, 2020**.

**NOW, THEREFORE**, in consideration of the foregoing recitals, which are incorporated into the operative provisions of this **Agreement** by this reference, and the mutual and dependent covenants herein contained, it is hereby mutually agreed by the **Parties** hereto as follows:

1. The Recitals set forth in the beginning of this **Agreement** are hereby incorporated into the terms of the **Agreement** as though set forth in full herein.

2. This **Agreement** is effective on June 18, 2020 ("**Effective Date**").

3. The **Parties** hereby agree to toll and extend the applicable statute of limitations for each **Party** to file any **Claims** (regardless of the cause of action, remedy and the judicial or administrative tribunal) that arise from the adoption and/or implementation of the **GSP** including any and all actions expressly or impliedly authorized under applicable law, until September 30, 2020. The period from the **Effective Date** to September 30, 2020 is the "**Tolling Period.**"

4. The **Parties** hereby waive, and shall not assert, any defense based on statute of limitations or other claim of or related to delay or lack of timeliness of filing based on the fact that a claim, defense, cause of action, or argument expired during the **Tolling Period**.

5. If any third party asserts in a judicial or administrative proceeding brought by any **Party** that a statute of limitations or other applicable time period established by statute, code, equity, rule of court, or other law prevents the prosecution of any **Claims**, the **Parties** agree and will argue to the Court that all statute of limitations and other applicable time period established by statute, code, rule of court, or law were tolled during the **Tolling Period**, and the running of any such period shall be calculated by excluding the **Tolling Period**. Further they will inform the Court that their intention was to facilitate compromise among the Parties hereto.

6. This **Agreement**:

    a. Represents the sole and entire agreement by and among the **Parties**;

    b. Shall be construed in accordance with the laws of the State of California;

    c. May be executed in counterparts with the same force and effect as if executed in one complete document by all **Parties**;

    d. May not be modified, except by a writing executed by each of the **Parties**;

    e. Does not preclude a claim being commenced by any **Party** prior to the expiration of the **Tolling Period** and without prior notice of filing;

    f. Is not admissible in any legal proceeding except to prove the **Tolling Period** or to resolve a dispute concerning its interpretation or enforcement;

g. Shall not be construed as an admission of any claims, allegations, disputes or defenses referenced herein;

h. May be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument; and

i. Shall be subject to early termination only effective by the **Party** providing fourteen (14) days' advance written notice to legal counsel for all undersigned **Parties**, as follows:

**Producers:** sslater@bhfs.com

**IWV GA:** phall@kerncounty.com

7. Each individual signing this **Agreement** in a representative capacity warrants that he or she has the authority to do so on behalf of the **Party** he or she represents.

| **Indian Wells Valley Groundwater Authority** | **Searles Valley Minerals Inc.** |
|---|---|
| By:_____ | By:_____ |
| Name: _____ | Name: _____ |
| Title: _____ | Title:_____ |
| Date: _____ | Date: _____ |

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# IWVGA ADMINISTRATIVE OFFICE

***STAFF REPORT***

---

**TO:** IWVGA Board Members **DATE:** June 18, 2020

**FROM:** IWVGA Staff

**SUBJECT:** **Agenda Item No. 8 – Consideration and Adoption of Resolution 05-20 – Establishing a Reporting Policy for all New Groundwater Extraction Wells in the Basin**

## DISCUSSION

As this Board is aware current groundwater extractions in the Basin have been subject to reporting requirements for some time. The attached Resolution adopts a policy requiring new groundwater extractions from the Basin be reported to the GA so that the Water Resource Manager may adjust the importation program and GSP as needed for the new Basin demands.

## RECOMMENDED BOARD ACTION(S)

Consider and adopt Resolution 05-20 – Establishing a Reporting Policy for all New Groundwater Extraction Wells in the Basin.

# BEFORE THE BOARD OF DIRECTORS
# INDIAN WELLS VALLEY GROUNDWATER AUTHORITY

**In the matter of:** **Resolution No. 05-20**

**ESTABLISHING A REPORTING POLICY FOR ALL NEW GROUNDWATER EXTRACTION WELLS IN THE BASIN.**

**I, _____, Clerk of the Board of Directors for the Indian Wells Valley Groundwater Authority, do certify that the following resolution, on motion of Director _____, seconded by Director _____, was duly passed and adopted by the Board of Directors at an official meeting this 18th day of June, 2020, by the following vote:**

**AYES:**

**NOES:**

**ABSENT:**

_____
Clerk of the Board of Directors
Indian Wells Valley Groundwater Authority

# RESOLUTION

Section 1. WHEREAS:

(a) The Sustainable Groundwater Management Act requires the IWVGA to bring the Basin into sustainability by 2040 at the latest to make ongoing reports on extractions and progress; and,

(b) In order to meet those requirements the IWVGA must obtain accurate data on all

current and future groundwater extractions.

Section 2. IT IS RESOLVED by the Board of Directors of the Indian Wells Valley Groundwater Authority, as follows:

1. This Board finds that the recited facts are true and that it has the jurisdiction to consider, approve, and adopt this Resolution.

2. This Board incorporates and makes all the findings recommended by staff, whether verbally or in their written reports.

3. This Board hereby adopts the attached “Requirements for All New Wells” effective immediately.

# Indian Wells Valley Groundwater Authority

# Requirements for All New Wells

As described in the Sustainable Groundwater Management Act (SGMA) and in California Water Code Section 10726, the Indian Wells Valley Groundwater Authority (Authority) possesses the authority to regulate groundwater extractions within its jurisdiction by regulating the construction of new groundwater extraction wells. New groundwater extraction wells are defined as extraction wells that do not presently exist but are proposed to be constructed.

**New extraction wells proposed to be constructed within the jurisdiction of the Authority must be registered with Authority staff.** The jurisdiction of the Authority includes all lands within the boundaries of the Indian Wells Valley Groundwater Basin (Basin), defined as Basin No. 6-054 in the California Department of Water Resources Bulletin 118 Interim Update 16.

Authority staff will coordinate with the counties of Kern, San Bernardino, and Inyo to ensure that the Authority is notified of all new well permits issued. Authority staff will also contact all known well drillers and request notification of all new wells planned for construction.

The Authority will not approve the construction of new extraction wells that may cause Material Injury. Material Injury is defined by the Authority as impacts to the Basin caused by pumping or storage of groundwater that causes material physical harm to the Basin, any Subarea, or any Producer/Party, including, but not limited to, overdraft, degradation of water quality by introduction of contaminants to the aquifer by a Party and/or transmission of those introduced contaminants through the aquifer, liquefaction, land subsidence, and other material physical injury caused by elevated or lowered groundwater levels. Material physical harm does not include economic injury that results from other than direct physical causes, including any adverse effect on water rates, lease rates, or demand for water. If fully mitigated, Material Injury shall no longer be considered to be occurring.

The following outlines the step-by-step procedures for owners of new wells to adhere to the Authority's current regulatory requirements for new extraction wells drilled within the Authority's jurisdiction. These procedures reflect the full scope of Authority regulatory requirements for groundwater extraction wells at this time.

**New extraction wells may <u>not</u> begin groundwater extraction activities until the requirements of these parts have been completed in full.** Violations of these parts shall be subject to the provisions of all applicable laws including, but not limited to, the penalties and procedures set forth in California Water Code Section 10732.

# Requirements for All New Extraction Wells
**(As of June 2020)**

## Step 1: Well Owner Registers Well with Authority

As described in California Water Code Section 10725, SGMA grants the Authority the power to establish regulations requiring that groundwater extraction wells within the Authority's jurisdiction be formally registered with the Authority.

All new wells proposed for groundwater extraction within the Authority's jurisdiction must be registered with the Authority through completion of the Authority's *Well Registration Form* (via either hard copy or online at https://iwvga.org/online-form). Submission of the *Well Registration Form* to Authority staff must occur no later than **30 days** after the well has been drilled.

New well owners that fail to register their wells with the Authority within the 30-day period shall be contacted by phone or by mail, and may be summoned for a Board Hearing before the Authority's Board of Directors.

## Step 2: Authority Determines Well Status as De Minimis or Non De Minimis

Authority staff shall review the new well registration form and determine the status of the new well(s) as either a de minimis well or a non-de minimis well. As defined in SGMA, a de minimis extractor refers to "a person who extracts, for domestic purposes, two acre-feet or less per year." Because de minimis extractors/wells are exempt from the monitoring and reporting requirements of SGMA, all new wells classified as de minimis by the Authority require no additional action after well registration and may begin groundwater extractions.

Authority staff shall also review the potential of the new well(s) to cause Material Injury to the Basin and/or to other current Basin Producers.

The Authority shall inform owners of new wells classified as non de minimis in writing of the status of the new well(s) as non de minimis, as well as the applicable extraction fees (General Pumping Assessment, Mitigation Fee, and Augmentation Fee) that shall be paid by the new well owner for each acre-foot of groundwater extracted.

## Step 3: Well Owner Submits Meter Compliance Information

As described in California Water Code Section 10725, SGMA grants the Authority the power to establish regulations requiring that the use of groundwater extraction wells within the Authority's jurisdiction be measured by water-measuring devices satisfactory to the Authority.

In accordance with Authority Ordinance No. 01-20, owners of new wells classified as non

de minimis by the Authority shall, at their own expense, install a water meter and an hour meter on each new well before groundwater extraction commences. A list of meters acceptable to the Authority is provided in the Authority's Groundwater Well Flowmeter Standards in Authority Resolution No. 02-20.

All metering equipment shall be installed and tested for accuracy by a person(s) qualified to test, repair, and install meters. A list of contractors qualified for meter installation and testing is provided in the Authority's Groundwater Well Flowmeter Standards in Authority Resolution No. 02-20.

No later than **30 days** after issuance of the Authority's written statement regarding the non de minimis status of the new well, new well owners shall submit to Authority staff a meter test report certifying the meter installation and accuracy. Meter tests shall be performed every two (2) years thereafter, and subsequently submitted to Authority staff for review. All meters shall be installed, tested, and repaired/replaced in adherence to the Authority's Groundwater Well Flowmeter Standards.

All Authority ordinances and resolutions, including Groundwater Well Flowmeter Standards, are available upon request or at the Authority's website: https://iwvga.org/resolutions-ordinances

**Step 4: Well Owner Submits Monthly Reporting Form and Payment for Groundwater Extraction**

The Authority's Groundwater Sustainability Plan establishes that groundwater extractors within the Authority's jurisdiction must comply with all Authority fees and assessments to contribute toward funding the development of supplemental water supplies and other projects and management actions that will achieve Basin sustainability by 2040, as required by SGMA.

All new wells classified as non de minimis shall be responsible for submitting monthly production reporting forms to Authority staff. To complete the monthly production reporting form, well owners shall take a first water meter reading on the first day of each month, then take a second water meter reading on the first day of the following month.

Completed monthly production reporting forms, along with monthly payment of all applicable extraction fees, shall be submitted to the Authority no later than the 10$^{th}$ of each month of the second water meter reading, and each month thereafter.

New well owners that fail to submit their monthly production reporting form and/or fail to pay their extraction fees shall be immediately contacted by phone or by mail, and may be summoned for a Board Hearing before the Authority's Board of Directors.

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# IWVGA ADMINISTRATIVE OFFICE

***Memorandum***

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**TO:** IWVGA Board Members **DATE: June 18, 2020**

**FROM:** IWVGA Staff

**SUBJECT:** Ordinance No. 02-20 – Amending Ordinance No. 02-18 Establishing Groundwater Extraction Fees and the Rules, Regulations and Procedures For Their Imposition and Supporting Data Package Providing for an Increased Pumping Fee.

## DISCUSSION

On June 21, 2018, the Indian Wells Valley Groundwater Authority ("IWVGA") Board of Directors ("Board") set the original Groundwater Extraction Fee at $30.00 per acre foot ("A/F") to finance the development and adoption of the Groundwater Sustainability Plan ("GSP"). Ordinance No. 02-18 – Establishing Groundwater Extraction Fees and the Rules, Regulations and Procedures for their Imposition was subsequently adopted on July 19, 2018 and the fee became effective September 1, 2018.

The fee was intended to generate $1,522,384.00 in approximately 24 months to finance the estimated costs to develop and adopt the GSP. To date, the fee has only generated around $750,000 due to less than estimated pumping by those subject to the fee. This, along with additional studies and costs to develop the GSP have created a budget deficit and cashflow problem that needs to be addressed. The Board has directed staff to develop a revised groundwater extraction fee ("Revised Fee") to address the GSP development costs and time needed to pay off these costs. Ordinance No. 02-20 (attached) is one component in implementing the Revised Fee.

Authority to Increase Fees:

The existing Groundwater Extraction Fee was imposed pursuant to California Water Code Section 10730 ("Section 10730"), which was enacted through the California Sustainable Groundwater Management Act ("SGMA"). Section 10730 authorizes the IWVGA to not only impose, but also increase a fee pursuant to Section 10730. Accordingly, staff recommends the IWVGA Board increase the amount of the existing fee. Section 10730(a) states in part as follows:

> (a) A groundwater sustainability agency may impose fees, including, but not limited to, permit fees and fees on groundwater extraction or other regulated activity, to fund the costs of a groundwater sustainability program, including, but not limited to, preparation, adoption, and amendment of a groundwater sustainability plan, and investigations, inspections, compliance assistance, enforcement, and program administration, including a prudent reserve.

In addition, Water Code Section 10725.2(a) authorizes the IWVGA to "perform any act necessary or proper to carry out the purposes of this part" [SGMA].

Exempted Pumpers:

As with the original extraction fee, de minimis pumpers[1], the United States Navy ("Navy") and United States Department of Interior Bureau of Land Management ("BLM") are not subject to the revised extraction fee. SGMA exempts federal agencies from the requirements of SGMA and prohibits the imposition of fees on de minimis extractors unless regulated pursuant to SGMA.[2]

Public Engagement:

Before imposing or increasing a fee, a GSA shall hold a public meeting, "at which oral or written presentations may be made" (Section 10730(b)). The GSA must provide notice prior to the meeting, pursuant to California Government Code Section 6066, including the time and place of the public meeting, "a general explanation of the matter to be discussed and a statement that the data required by this section is available." *Id.* At least 20 days prior to the meeting, the GSA "shall make available to the public data upon which the proposed fee is based. *Id.* After the public meeting, the fee shall be imposed or increased "only by ordinance or resolution."

Gap Funding Requirement:

Initially, it is important to note that although the GSP has been adopted, GSP preparation costs don't necessarily end upon adoption. The original estimates used for the original fee were made in June 2018. Since that time, staff has become more knowledgeable about what is needed to complete development of the GSP. Staff, along with the WRM, updated the original costs estimated to prepare the GSP. Additional tasks and the associated costs to complete preparation of the GSP were also identified. Additional revenue has also been added. The following provides an overview of the items included in this revised budget (see Exhibit 2, Data Package for supporting attachments for budget items).

Expenditures: The WRM estimated that the total cost of developing and adopting the GSP to be about $3.1 million. The $87,600 for the USGS Recharge Study remains the same. The WRM initially identified $515,155 in estimated costs not covered by the Proposition 1 grant for the WRM's support of the IWVGA. Those "support costs" are now estimated at $1,071,298. The WRM has also identified new "Additional Tasks" needed to complete the GSP estimated at $855,096. IWVGA Administrative Costs of $161,500 are included to fund the hiring of a part-time General Manager. Legal costs, originally estimated at $200,000, have been increased $500,000 for anticipated litigation. The City of Ridgecrest provided $210,466 in services and facilities which are referred to as Reimbursable Costs. The $500,000 advances by Indian Wells Valley Water District and Kern County have also been included as these advances must be repaid. Finally, the reserve in the amount of $227,268 remains unchanged. Total expenditures for preparation of the GSP are now estimated at $6,982,905.

Revenue: The California Department of Water Resources ("DWR") awarded the IWVGA a Proposition 1 grant award of $1.5 million for development of the GSP. The GSP development grant award requires a $1.5-million local match. It is estimated more than two-thirds ($1,157,300)

1 "De minimis extractor' means a person who extracts, for domestic purposes, two acre-feet or less per year (California Water Code Section 10721(e)).

2 For purposes of this Proposal, any reference to groundwater pumpers excludes de minimis extractors, the Navy and BLM unless otherwise specified.

of the local match requirement can be achieved with in-kind services and existing investments by parties in the Basin. The Proposition 1 grant award of $646,000 for SDAC projects is not included as the SDAC projects are fully funded by the grant and have no net impact on the GSP budget. The Initial General Member Agency Contribution of $75,000 reflects the $15,000 provided by each of the 5 General Members pursuant to the Joint Exercise of Powers Agreement creating the IWVGA (Section 9.02). The Proposition 1 Distressed Counties Grant is included. The Proposition 1 Distressed Counties Grant total is $250,000 which includes reimbursement for the USGS Recharge Study and other GSP support costs. The total Proposition 1 Distressed Counties Grant revenue has been increased from $170,000 to $225,501 based on monies received. The revenue from the Pumping Fee, originally estimated at $1,522,384 has been cut in half to just over $750,000 based on actual revenue collected. Finally, the Proposition 68 grant of $300,000 has been added as revenue as well. Total revenue through 2021 is estimated at $5,027,984.

The following table summarizes all of these estimated financial impacts resulting in a total estimated gap funding requirement of $2,188,082 which the proposed pumping fee would address. Although total expenditures are $1,954,921 greater than revenue, staff recommends using a Gap Funding requirement of $2,188,082 in order to maintain the $233,161 as a reserve.

| Budget Items | Original Estimate | Revised Estimates | Over/Under |
|---|---|---|---|
| **EXPENDITURES** | | | |
| **GSP Preparation** | **$3,000,000** | $3,086,960 | ($86,960) |
| **USGS Recharge Study** | **$87,600** | $87,600 | |
| **IWVGA Support Costs** | **$515,155** | | |
| Stetson-IWVGA /TAC/PAC Coordination | $144,250 | $543,677 | ($399,427) |
| Stetson-Prop 1 Application/Reporting | $103,000 | $207,468 | ($104,468) |
| Stetson-Schedule/Budget Management (POAM) | $52,000 | $34,779 | $17,221 |
| Stetson-Groundwater Pumping Fee Support | $121,500 | $190,710 | ($69,210) |
| Stetson-Database Management Coordination (Ramboll) | $10,000 | $10,298 | ($298) |
| Stetson - CASGEM Coordination | $4,500 | $4,470 | $30 |
| Stetson - Data Management System Development | $48,605 | $48,596 | $9 |
| Stetson - Model Review | $31,300 | $31,300 | |
| **IWVGA Administrative Costs** | **$161,500** | | |
| GSA Board Meetings | $42,000 | | $42,000 |
| Consultant Management and GSP Development | $24,500 | | $24,500 |
| Financial Management | $8,500 | | $8,500 |
| Community Outreach | $21,000 | | $21,000 |
| Budget Development & Admin | $12,500 | | $12,500 |
| PAC/TAC Meetings | $19,000 | $6,142 | $12,858 |
| Travel | $6,000 | $635 | $5,365 |
| Insurance | $15,000 | $9,967 | $5,033 |
| Conferences/Training | $3,000 | | $3,000 |
| Miscellaneous | $10,000 | $8,224 | $1,776 |
| Legal Costs | **$200,000** | $646,519 | ($446,519) |
| Reserve | **$227,268** | | $227,268 |
| **Additional Tasks** | | | |
| Stetson - GSP Management | | $39,634 | ($39,634) |
| Stetson - DWR Technical Support Services | | $10,096 | ($10,096) |
| Stetson - Brackish Water Study Coordination | | $23,113 | ($23,113) |
| Stetson - Imported Water Coordination for GSP | | $46,075 | ($46,075) |
| Stetson - Allocation Process Development | | $226,470 | ($226,470) |
| Stetson - Prop 68 Application/Processing | | $105,383 | ($105,383) |
| Stetson - Pumping Verification | | $125,000 | ($125,000) |
| Stetson - Sustainable Yield Allocation Report | | $15,000 | ($15,000) |
| Stetson - GSP Annual Report | | $40,000 | ($40,000) |
| Stetson - Fallowing Program Development | | $25,000 | ($25,000) |
| Stetson - Allocation Workshop/Meetings | | $8,000 | ($8,000) |
| Stetson - Develop GSP Rules/Regulations | | $10,000 | ($10,000) |
| Stetson - Coordination with DWR on GSP | | $30,000 | ($30,000) |
| Stetson/DRI - Review of Groundwater in Storage and HCM | | $42,700 | ($42,700) |
| Audit | | $6,276 | ($6,276) |
| Water Importation Marketing Analysis for GSP | | $102,349 | ($102,349) |
| **City of Ridgecrest Reimbursable Costs** | | $210,466 | ($210,466) |
| **County Loan** | | $500,000 | ($500,000) |
| **IWVWD Loan** | | $500,000 | ($500,000) |
| **Total Expenditures** | **$4,191,523** | **$6,982,905** | **($2,791,382)** |
| | | | |
| **REVENUE** | | | |
| **Proposition 1 Grant Award** | | | |
| GSP Preparation | **$1,500,000** | $1,500,000 | |
| **In-kind Services** | **$1,157,300** | | |
| U.S. Navy/Federal/Searles in-kind Services | $1,097,300 | $1,097,300 | - |
| IWVWD/CITY in-kind Services | $60,000 | $80,000 | $20,000 |
| **Initial General Member Agency Contribution** | **$75,000** | $75,000 | |
| **Proposition 1 Distressed Counties Grant** | **$170,000** | $225,501 | $55,501 |
| **Pumping Fee** | **$1,522,384** | $750,183 | ($772,201) |
| **Additional Revenue** | | | |
| **Kern County Loan** | | $500,000 | $500,000 |
| **IWVWD Loan** | | $500,000 | $500,000 |
| **Prop 68** | | $300,000 | $300,000 |
| **Total Revenue** | **$4,424,684** | **$5,027,984** | **$603,300** |
| **Gap Funding Needed** | $233,161 | ($1,954,921) | ($2,188,082) |

Calculation of Fees:

The standard volumetric fee would be imposed on each Groundwater Extractor pumping groundwater and would be based on the amount of groundwater pumped. Groundwater Extraction Fees would be imposed based on the amount of groundwater pumped in relation to the funds required to prepare the GSP. We know that $2,188,082 is needed to finance the GSP (Exhibit 2, Data Package). Since the original groundwater extraction fee was imposed, the IWVGA now requires monthly reporting by groundwater pumpers and pumping verifications are required as well. All of the sources have been used to refine and confirm anticipated pumping. These pumpers include the City, Kern County, IWVWD, Inyokern CSD, small mutuals and Searles Valley Minerals. (See Sustainable Yield Allocation attached as Exhibit 3 to the Data Package).

Estimated groundwater pumping by those subject to the fee is 10,000 A/F annually. A Groundwater Extraction Fee of $218.81 per acre foot would generate $2,188,100 in one year. The lower the fee, the longer it takes until the GSP costs are paid.

Below are alternatives to collect the $2,188,082 based on 10,000 A/F of annual pumping. Staff's recommended amount for the Revised Fee is in parenthesis depending on the duration of the fee selected.

| IWVGA Pumping Fee Alternatives | |
|---|---|
| **Required Fund Gap** | $2,188,0852 |
| **Assumed Total Pumping** | 10,000 acre-feet |
| | |
| **Duration (Years)** | **Fee** |
| 1 | $218.81 ($225) |
| 1.5 | $145.87 ($150) |
| 2 | $109.40 ($125) |
| 2.5 | $87.52 ($100) |

Staff is recommending a revised Groundwater Extraction Fee of ($225) which should finance the final costs to prepare the GSP by the end of 2021 at the latest.

Groundwater Extractors Identification and Well Registration:

Existing Groundwater Extractors who would be charged the proposed fee were identified using well registrations required by Ordinance 02-18 imposing the original fee and Ordinance 01-19 which required all wells to be registered by October 1, 2019. (See list of registered non de minimis wells attached as Exhibit 4 to the Data Package). IWVGA and County records and other available public documents were also used to identify pumpers subject to the fee. The list of wells in IWV basin continues to be updated and verified.

Groundwater Extraction Measurement Method:

On March 19, 2020, the Board adopted Ordinance No. 01-20 – Requiring the Installation of, Use and Reporting on Metering Equipment for Groundwater Extraction Facilities in the Indian Wells Valley Groundwater Basin. Ordinance No.01-20 requires non de minimis pumpers to install an approved water meter on all wells. The Board also adopted Resolution No. 02-20 – Adopting Groundwater Well Flowmeter Standards for the Indian Wells Valley Groundwater Basin. The Resolution sets standard specifications and provides a list of approved meters and contractors to install and test the wells. The IWVGA requires monthly reporting by groundwater pumpers and pumping verifications. Moving forward, extractions will be measured using water meters that have been approved by the WRM.

Groundwater Extraction Reporting and Fee Payment.

Commencing on the first day of each month, Groundwater Extractors shall read and record the needed data for the measuring method used by the Groundwater Extraction Facility. By the 10th day of each calendar month, the Groundwater Extractor shall self-report the needed data from their Groundwater Extraction Facility on the self-reporting form provided by the IWVGA. Additionally, the Groundwater Extractor shall simultaneously pay the Groundwater Extraction Fee provided for on the Form. Payments would be made to the IWVGA. Payments not made with thirty (30) days of becoming due would be considered delinquent. The reporting and payment terms will not change for the revised fee.

If unusual circumstances exist, a Groundwater Extractor may request that their Groundwater Extraction Facility be placed on a modified reporting and billing schedule approved by both the IWVGA's General Manager and the Water Resources Manager.

Delinquent Accounts:

Water Code Section 10730.6 of SGMA authorizes the IWVGA to collect groundwater fees imposed pursuant to Section 10730 and provides multiple remedies that the IWVGA may pursue to collect delinquent accounts. As prescribed by California Water Code section 10730.6, if the owner and/or operator of a Groundwater Extraction Facility knowingly fails to pay the Groundwater Extraction Fee within thirty (30) days of it becoming due, it is delinquent and the owner and/or operator shall be liable to the IWVGA for interest at a rate of one (1) percent per month on the delinquent amount of the Groundwater Extraction Fee and a ten (10) percent penalty on the delinquent amount of the Groundwater Extraction Fee.

As an additional remedy, the IWVGA may, after a public hearing, order an owner and/or operator to cease extraction of groundwater until all delinquent fees, interests and penalties are paid. In such an instance, the IWVGA shall give notice to the owner and/or operator by certified mail not less than 15 days in advance of the public hearing.

These above cited rights are additional rights to those rights which the IWVGA may otherwise be prescribed by law.

**RECOMMENDATION**

Staff recommends that your Board:

1. Make a finding that the proposed Ordinance is exempt from further environmental review pursuant to California Environmental Quality Act Guidelines section 15273 and Public Resources Code section 21080(b)(8) because it is the establishment of operational rates and charges. Additionally, it has been determined that this action is exempt from further environmental review pursuant Guidelines section 15061(b)(3) because it can be seen with a certainty that this action will not have a significant effect on the environment. Moreover it has been determined that this action is exempt from further environmental review pursuant Guidelines section 15378(b)(5) because it involves administrative activities that will not result in direct or indirect physical changes in the environment.

2. Introduce the attached Ordinance by reading aloud its Title: Ordinance No 02–20 Amending Ordinance No. 02-18 Establishing Groundwater Extraction Fees and the Rules, Regulations and Procedures for the Imposition.

3. Waive reading the entirety of the Ordinance and set the next regular meeting of this Board for the date of the Ordinance's second reading.

4. Set the Revised Fee At $225 and set the public meeting for the fee increase on July 16, 2020 and authorize staff to release the Data Package no later than 20 days before the public meeting.

5. Authorize staff to do all things necessary to implement the Groundwater Extraction Fee.

# BEFORE THE BOARD OF DIRECTORS OF THE INDIAN WELLS VALLEY GROUNDWATER AUTHORITY

**In the matter of:** **Ordinance No. 02-20**

**AMENDING ORDINANCE NO. 02-18 ESTABLISHING GROUNDWATER EXTRACTION FEES AND THE RULES, REGULATIONS AND PROCEDURES FOR THEIR IMPOSITION**

**I, _____, Clerk of the Board of Directors for the Indian Wells Valley Groundwater Authority, do certify that the following ordinance, on motion of Director _____, seconded by Director _____, was duly passed and adopted by the Board of Directors at an official meeting this ___ day of August , 2020, by the following vote:**

**AYES:**

**NOES:**

**ABSENT:**

_____
Clerk of the Board of Directors
Indian Wells Valley Groundwater Authority

_____
**Deputy Clerk**

**Section 1. WHEREAS**

(a) On July 19, 2018, the Board of Directors (Board) of the Indian Wells Valley Groundwater Authority (Authority) adopted Ordinance No. 02-18 - Establishing the Rules, Regulations and Procedures For The Imposition and Collection of Groundwater Extractions Fees.

(b) The Groundwater Extraction Fee was set at $30 per acre foot and became effective September 1, 2018.

(c) The fee was intended to finance a portion of the estimated costs to develop and adopt the Groundwater Sustainability Plan (GSP). The Groundwater Extraction Fee only raised approximately half

of the expected revenue due to less than estimated pumping by those subject to the fee. Additional studies and costs to develop the GSP have created a need for additional funding to prepare the GSP.

(d) The Board directed staff to develop a revised groundwater extraction fee ("Revised Fee") to address the GSP development costs and time needed to pay off these costs.

(e) Staff recommends amending Section 3 of Ordinance No. 02-18 and increasing the groundwater Extraction Fee to twenty-two dollars and fifty cents ($22.50) per tenth (.10) of an acre foot.

**THE BOARD OF DIRECTORS OF INDIAN WELLS VALLEY GROUNDWATER AUTHORITY ORDAINS AS FOLLOWS:**

**Section 2.** This Ordinance shall become effective 30 days from the date of adoption and the entire Ordinance shall be published in accordance with California Government Code section 25124.

**Section 3.** Section 3 of Ordinance No. 02-18 is hereby amended in whole to read as follows:

**Groundwater Extraction Fee.** Effective September 1, 2020, and continuing until rescinded by the Board, all groundwater extractions from and within the Basin shall be subject to measurement and the Groundwater Extraction Fee of twenty two dollars and fifty cents ($22.50) per tenth (.10) of an acre foot for all groundwater extracted from the Basin. The Groundwater Extraction Fee shall be determined and paid on a monthly basis with water extraction measurements rounded down to the nearest tenth (.10) of an acre foot per month.

**Section 4.** All other provisions of Ordinance No. 02-18 shall remain in full force and effect.

INDIAN WELLS VALLEY GROUNDWATER AUTHORITY

# REVISED

# GROUNDWATER EXTRACTION FEE

# DATA PACKAGE

INDIAN WELLS VALLEY GROUNDWATER AUTHORITY

# REVISED

# GROUNDWATER EXTRACTION FEE

# DATA PACKAGE

## Contents

# Exhibit 1: IWVGA Staff Report

# IWVGA ADMINISTRATIVE OFFICE

***Memorandum***

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**TO:** IWVGA Board Members **DATE: June 18, 2020**

**FROM:** IWVGA Staff

**SUBJECT:** Ordinance No. 02-20 – Amending Ordinance No. 02-18 Establishing Groundwater Extraction Fees and the Rules, Regulations and Procedures For Their Imposition and Supporting Data Package Providing for an Increased Pumping Fee.

## DISCUSSION

On June 21, 2018, the Indian Wells Valley Groundwater Authority ("IWVGA") Board of Directors ("Board") set the original Groundwater Extraction Fee at $30.00 per acre foot ("A/F") to finance the development and adoption of the Groundwater Sustainability Plan ("GSP"). Ordinance No. 02-18 – Establishing Groundwater Extraction Fees and the Rules, Regulations and Procedures for their Imposition was subsequently adopted on July 19, 2018 and the fee became effective September 1, 2018.

The fee was intended to generate $1,522,384.00 in approximately 24 months to finance the estimated costs to develop and adopt the GSP. To date, the fee has only generated around $750,000 due to less than estimated pumping by those subject to the fee. This, along with additional studies and costs to develop the GSP have created a budget deficit and cashflow problem that needs to be addressed. The Board has directed staff to develop a revised groundwater extraction fee ("Revised Fee") to address the GSP development costs and time needed to pay off these costs. Ordinance No. 02-20 (attached) is one component in implementing the Revised Fee.

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In addition, Water Code Section 10725.2(a) authorizes the IWVGA to "perform any act necessary or proper to carry out the purposes of this part" [SGMA].

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|---|---|---|---|
| **EXPENDITURES** | | | |
| **GSP Preparation** | **$3,000,000** | $3,086,960 | ($86,960) |
| **USGS Recharge Study** | **$87,600** | $87,600 | |
| **IWVGA Support Costs** | **$515,155** | | |
| Stetson-IWVGA /TAC/PAC Coordination | $144,250 | $543,677 | ($399,427) |
| Stetson-Prop 1 Application/Reporting | $103,000 | $207,468 | ($104,468) |
| Stetson-Schedule/Budget Management (POAM) | $52,000 | $34,779 | $17,221 |
| Stetson-Groundwater Pumping Fee Support | $121,500 | $190,710 | ($69,210) |
| Stetson-Database Management Coordination (Ramboll) | $10,000 | $10,298 | ($298) |
| Stetson - CASGEM Coordination | $4,500 | $4,470 | $30 |
| Stetson - Data Management System Development | $48,605 | $48,596 | $9 |
| Stetson - Model Review | $31,300 | $31,300 | |
| **IWVGA Administrative Costs** | **$161,500** | | |
| GSA Board Meetings | $42,000 | | $42,000 |
| Consultant Management and GSP Development | $24,500 | | $24,500 |
| Financial Management | $8,500 | | $8,500 |
| Community Outreach | $21,000 | | $21,000 |
| Budget Development & Admin | $12,500 | | $12,500 |
| PAC/TAC Meetings | $19,000 | $6,142 | $12,858 |
| Travel | $6,000 | $635 | $5,365 |
| Insurance | $15,000 | $9,967 | $5,033 |
| Conferences/Training | $3,000 | | $3,000 |
| Miscellaneous | $10,000 | $8,224 | $1,776 |
| Legal Costs | **$200,000** | $646,519 | ($446,519) |
| Reserve | **$227,268** | | $227,268 |
| **Additional Tasks** | | | |
| Stetson - GSP Management | | $39,634 | ($39,634) |
| Stetson - DWR Technical Support Services | | $10,096 | ($10,096) |
| Stetson - Brackish Water Study Coordination | | $23,113 | ($23,113) |
| Stetson - Imported Water Coordination for GSP | | $46,075 | ($46,075) |
| Stetson - Allocation Process Development | | $226,470 | ($226,470) |
| Stetson - Prop 68 Application/Processing | | $105,383 | ($105,383) |
| Stetson - Pumping Verification | | $125,000 | ($125,000) |
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| Stetson - GSP Annual Report | | $40,000 | ($40,000) |
| Stetson - Fallowing Program Development | | $25,000 | ($25,000) |
| Stetson - Allocation Workshop/Meetings | | $8,000 | ($8,000) |
| Stetson - Develop GSP Rules/Regulations | | $10,000 | ($10,000) |
| Stetson - Coordination with DWR on GSP | | $30,000 | ($30,000) |
| Stetson/DRI - Review of Groundwater in Storage and HCM | | $42,700 | ($42,700) |
| Audit | | $6,276 | ($6,276) |
| Water Importation Marketing Analysis for GSP | | $102,349 | ($102,349) |
| **City of Ridgecrest Reimbursable Costs** | | $210,466 | ($210,466) |
| **County Loan** | | $500,000 | ($500,000) |
| **IWVWD Loan** | | $500,000 | ($500,000) |
| **Total Expenditures** | **$4,191,523** | **$6,982,905** | **($2,791,382)** |
| | | | |
| **REVENUE** | | | |
| **Proposition 1 Grant Award** | | | |
| GSP Preparation | **$1,500,000** | $1,500,000 | |
| **In-kind Services** | **$1,157,300** | | |
| U.S. Navy/Federal/Searles in-kind Services | $1,097,300 | $1,097,300 | - |
| IWVWD/CITY in-kind Services | $60,000 | $80,000 | $20,000 |
| **Initial General Member Agency Contribution** | **$75,000** | $75,000 | |
| **Proposition 1 Distressed Counties Grant** | **$170,000** | $225,501 | $55,501 |
| **Pumping Fee** | **$1,522,384** | $750,183 | ($772,201) |
| **Additional Revenue** | | | |
| **Kern County Loan** | | $500,000 | $500,000 |
| **IWVWD Loan** | | $500,000 | $500,000 |
| **Prop 68** | | $300,000 | $300,000 |
| **Total Revenue** | **$4,424,684** | **$5,027,984** | **$603,300** |
| **Gap Funding Needed** | $233,161 | ($1,954,921) | ($2,188,082) |

Calculation of Fees:

The standard volumetric fee would be imposed on each Groundwater Extractor pumping groundwater and would be based on the amount of groundwater pumped. Groundwater Extraction Fees would be imposed based on the amount of groundwater pumped in relation to the funds required to prepare the GSP. We know that $2,188,082 is needed to finance the GSP (Exhibit 2, Data Package). Since the original groundwater extraction fee was imposed, the IWVGA now requires monthly reporting by groundwater pumpers and pumping verifications are required as well. All of the sources have been used to refine and confirm anticipated pumping. These pumpers include the City, Kern County, IWVWD, Inyokern CSD, small mutuals and Searles Valley Minerals. (See Sustainable Yield Allocation attached as Exhibit 3 to the Data Package).

Estimated groundwater pumping by those subject to the fee is 10,000 A/F annually. A Groundwater Extraction Fee of $218.81 per acre foot would generate $2,188,100 in one year. The lower the fee, the longer it takes until the GSP costs are paid.

Below are alternatives to collect the $2,188,082 based on 10,000 A/F of annual pumping. Staff's recommended amount for the Revised Fee is in parenthesis depending on the duration of the fee selected.

| IWVGA Pumping Fee Alternatives | |
|---|---|
| **Required Fund Gap** | $2,188,0852 |
| **Assumed Total Pumping** | 10,000 acre-feet |
| | |
| **Duration (Years)** | **Fee** |
| 1 | $218.81 ($225) |
| 1.5 | $145.87 ($150) |
| 2 | $109.40 ($125) |
| 2.5 | $87.52 ($100) |

Staff is recommending a revised Groundwater Extraction Fee of ($225) which should finance the final costs to prepare the GSP by the end of 2021 at the latest.

Groundwater Extractors Identification and Well Registration:

Existing Groundwater Extractors who would be charged the proposed fee were identified using well registrations required by Ordinance 02-18 imposing the original fee and Ordinance 01-19 which required all wells to be registered by October 1, 2019. (See list of registered non de minimis wells attached as Exhibit 4 to the Data Package). IWVGA and County records and other available public documents were also used to identify pumpers subject to the fee. The list of wells in IWV basin continues to be updated and verified.

Groundwater Extraction Measurement Method:

On March 19, 2020, the Board adopted Ordinance No. 01-20 – Requiring the Installation of, Use and Reporting on Metering Equipment for Groundwater Extraction Facilities in the Indian Wells Valley Groundwater Basin. Ordinance No.01-20 requires non de minimis pumpers to install an approved water meter on all wells. The Board also adopted Resolution No. 02-20 – Adopting Groundwater Well Flowmeter Standards for the Indian Wells Valley Groundwater Basin. The Resolution sets standard specifications and provides a list of approved meters and contractors to install and test the wells. The IWVGA requires monthly reporting by groundwater pumpers and pumping verifications. Moving forward, extractions will be measured using water meters that have been approved by the WRM.

Groundwater Extraction Reporting and Fee Payment.

Commencing on the first day of each month, Groundwater Extractors shall read and record the needed data for the measuring method used by the Groundwater Extraction Facility. By the 10th day of each calendar month, the Groundwater Extractor shall self-report the needed data from their Groundwater Extraction Facility on the self-reporting form provided by the IWVGA. Additionally, the Groundwater Extractor shall simultaneously pay the Groundwater Extraction Fee provided for on the Form. Payments would be made to the IWVGA. Payments not made with thirty (30) days of becoming due would be considered delinquent. The reporting and payment terms will not change for the revised fee.

If unusual circumstances exist, a Groundwater Extractor may request that their Groundwater Extraction Facility be placed on a modified reporting and billing schedule approved by both the IWVGA's General Manager and the Water Resources Manager.

Delinquent Accounts:

Water Code Section 10730.6 of SGMA authorizes the IWVGA to collect groundwater fees imposed pursuant to Section 10730 and provides multiple remedies that the IWVGA may pursue to collect delinquent accounts. As prescribed by California Water Code section 10730.6, if the owner and/or operator of a Groundwater Extraction Facility knowingly fails to pay the Groundwater Extraction Fee within thirty (30) days of it becoming due, it is delinquent and the owner and/or operator shall be liable to the IWVGA for interest at a rate of one (1) percent per month on the delinquent amount of the Groundwater Extraction Fee and a ten (10) percent penalty on the delinquent amount of the Groundwater Extraction Fee.

As an additional remedy, the IWVGA may, after a public hearing, order an owner and/or operator to cease extraction of groundwater until all delinquent fees, interests and penalties are paid. In such an instance, the IWVGA shall give notice to the owner and/or operator by certified mail not less than 15 days in advance of the public hearing.

These above cited rights are additional rights to those rights which the IWVGA may otherwise be prescribed by law.

**RECOMMENDATION**

Staff recommends that your Board:

1. Make a finding that the proposed Ordinance is exempt from further environmental review pursuant to California Environmental Quality Act Guidelines section 15273 and Public Resources Code section 21080(b)(8) because it is the establishment of operational rates and charges. Additionally, it has been determined that this action is exempt from further environmental review pursuant Guidelines section 15061(b)(3) because it can be seen with a certainty that this action will not have a significant effect on the environment. Moreover it has been determined that this action is exempt from further environmental review pursuant Guidelines section 15378(b)(5) because it involves administrative activities that will not result in direct or indirect physical changes in the environment.

2. Introduce the attached Ordinance by reading aloud its Title: Ordinance No 02–20 Amending Ordinance No. 02-18 Establishing Groundwater Extraction Fees and the Rules, Regulations and Procedures for the Imposition.

3. Waive reading the entirety of the Ordinance and set the next regular meeting of this Board for the date of the Ordinance's second reading.

4. Set the Revised Fee At $225 and set the public meeting for the fee increase on July 16, 2020 and authorize staff to release the Data Package no later than 20 days before the public meeting.

5. Authorize staff to do all things necessary to implement the Groundwater Extraction Fee.

# Exhibit 2: Estimated Costs Required to be Funded by the Revised Groundwater Extraction Fee

## Supporting Attachments

- Proposition 1 Application Budget Tables
- Revised IWVGA Support Costs
- City of Ridgecrest Reimbursable Costs Budget Breakdown
- Advance Agreement Between Kern County and the IWVGA
- Advanced Funds Agreeemnt Between the Indian Wells Valley Water District and the IWVGA
- Final Proposition 1 Funding Recommendations
- Final Proposition 68 Round 3 Final Award List

| Budget Items | Original Estimate | Estimated Costs through 2021 | Over/Under |
|---|---|---|---|
| **EXPENDITURES** | | | |
| **GSP Preparation** | **$3,000,000** | $3,086,960 | ($86,960) |
| **USGS Recharge Study** | **$87,600** | $87,600 | |
| **IWVGA Support Costs** | **$515,155** | | |
| Stetson-IWVGA /TAC/PAC Coordination | $144,250 | $543,677 | ($399,427) |
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| Stetson-Database Management Coordination(Ramboll) | $10,000 | $10,298 | ($298) |
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| Stetson - Data Management System Development | $48,605 | $48,596 | $9 |
| Stetson - Model Review | $31,300 | $31,300 | |
| **IWVGA Administrative Costs** | **$161,500** | | |
| GSA Board Meetings | $42,000 | | $42,000 |
| Consultant Management and GSP Development | $24,500 | | $24,500 |
| Financial Management | $8,500 | | $8,500 |
| Community Outreach | $21,000 | | $21,000 |
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| PAC/TAC Meetings | $19,000 | $6,142 | $12,858 |
| Travel | $6,000 | $635 | $5,365 |
| Insurance | $15,000 | $9,967 | $5,033 |
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| Miscellaneous | $10,000 | $8,224 | $1,776 |
| Legal Costs | **$200,000** | $646,519 | ($446,519) |
| Reserve | **$227,268** | | $227,268 |
| **Additional Tasks** | | | |
| Stetson - GSP Management | | $39,634 | ($39,634) |
| Stetson - DWR Technical Support Services | | $10,096 | ($10,096) |
| Stetson - Brackish Water Study Coordination | | $23,113 | ($23,113) |
| Stetson - Imported Water Coordination for GSP | | $46,075 | ($46,075) |
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| Stetson - Sustainable Yield Allocation Report | | $15,000 | ($15,000) |
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| Stetson/DRI - Review of Groundwater in Storage and HCM | | $42,700 | ($42,700) |
| Audit | | $6,276 | ($6,276) |
| Water Importation Marketing Analysis for GSP | | $102,349 | ($102,349) |
| **City of Ridgecrest Reimbursable Costs** | | $210,466 | ($210,466) |
| **County Loan** | | $500,000 | ($500,000) |
| **IWVWD Loan** | | $500,000 | ($500,000) |
| **Total Expenditures** | **$4,191,523** | $6,982,905 | ($2,791,382) |
| | | | |
| **REVENUE** | | | |
| **Proposition 1 Grant Award** | | | |
| GSP Preparation | **$1,500,000** | $1,500,000 | |
| **In-kind Services** | **$1,157,300** | | |
| U.S. Navy/Federal/Searles in-kind Services | $1,097,300 | $1,097,300 | - |
| IWVWD/CITY in-kind Services | $60,000 | $80,000 | $20,000 |
| **Initial General Member Agency Contribution** | **$75,000** | $75,000 | |
| **Proposition 1 Distressed Counties Grant** | **$170,000** | $225,501 | $55,501 |
| **Pumping Fee** | **$1,522,384** | $750,183 | ($772,201) |
| **Additional Revenue** | | | |
| **Kern County Loan** | | $500,000 | $500,000 |
| **IWVWD Loan** | | $500,000 | $500,000 |
| **Prop 68** | | $300,000 | $300,000 |
| **Total Revenue** | **$4,424,684** | **$5,027,984** | **$603,300** |
| **Gap Funding Needed** | $233,161 | ($1,954,921) | ($2,188,082) |

## Table 5 - Proposal Budget

**Proposal Title: Indian Wells Valley Groundwater Basin - Groundwater Sustainability Plan Development and SDAC Groundwater Conservation Pilot Project**

| | Individual Project Title | (a) Requested Grant Amount | (b) Cost Share: Non-State Fund | (c) Other Cost Share | (d) Total Cost | (e) % Cost Share |
|---|---|---|---|---|---|---|
| 1 | Indian Wells Valley Groundwater Basin - Groundwater Sustainability Plan Development[1] | $1,500,000 | $1,602,600 | $0 | $3,102,600 | 52% |
| | Proposal Total | $1,500,000 | $1,602,600 | $0 | $3,102,600 | 52% |

1. Sources of funding from the IWVGA (including Kern County, Inyo County, San Bernardino County, Indian Wells Valley Water District, and City of Ridgecrest), Searles Valley Minerals, and from the U.S. Navy. A breakdown of funding sources is provided in Table 4.

Excerpt from Prop 1 Grant Application

# Table 4 - Project Budget

**Proposal Title: Indian Wells Valley Groundwater Basin - Groundwater Sustainability Plan Development and SDAC Groundwater Conservation Pilot Project**

**Project Title: Indian Wells Valley Groundwater Basin - Groundwater Sustainability Plan Development**

**Project serves a need of a DAC?:** ☑ Yes ☐ No

**Cost Share Waiver Request?:** ☑ Yes ☐ No

| | Tasks | (a) Requested Grant Amount | (b) Cost Share: Non-State Fund Source | (c) Other Cost Share | (d) Total Cost |
|---|---|---|---|---|---|
| | **Objective 1** | | | | |
| 1 | **Task 1 - Model Development** | **$235,072** | **$691,328** | **$0** | **$926,400** |
| | Task 1a - Hydrogeologic Conceptual Model | $24,137.54 | $7,262 [1] | $0 | $31,400 |
| | Task 1b - Numerical Groundwater Model (Review Existing Model, Create Sustainable Basin Model Updates and Scenarios, Trasport Modeling to Evaluate Groundwater Quality, Evaluate Potential Land Subsidence) | $210,934.40 | $63,466 [1] | $0 | $274,400 |
| | Previous and Ongoing Model Development In-Kind Services | $0 | $620,600 [2] | $0 | $620,600 |
| 2 | **Task 2 - Salt and Nutrient Management Plan Development** | **$20,000** | **$60,000** [3] | **$0** | **$80,000** |
| | Task 2a - Loading Analysis (Existing) | $0 | $30,000 | $0 | $30,000 |
| | Task 2b - Mixing Model Development (Existing) | $0 | $30,000 | $0 | $30,000 |
| | Task 2c - Reporting and Coordination | $20,000 | $0 | $0 | $20,000 |

| | Tasks | (a) Requested Grant Amount | (b) Cost Share: Non-State Fund Source | (c) Other Cost Share | (d) Total Cost |
|---|---|---|---|---|---|
| | **Objective 2** | | | | |
| 3 | **Task 3 -** Data Management System | **$274,737** | **$82,663** [1] | **$0** | **$357,400** |
| | Task 3a - Develop a Web-Based GeoDatabase (DMS) | $37,436.24 | $11,264 | $0 | $48,700 |
| | Task 3b - Establish Monitoring Protocols and Reporting Standards | $23,753.18 | $7,147 | $0 | $30,900 |
| | Task 3c - Populate Database with Historical Data | $41,664.16 | $12,536 | $0 | $54,200 |
| | Task 3d - Install Transducers and Telemetry Equipment | $138,137.43 | $41,563 | $0 | $179,700 |
| | Task 3e - Integrate GSP Goals and Objectives - Adaptive Management | $33,746.43 | $10,154 | $0 | $43,900 |
| 4 | **Task 4 -** Identify and Evaluate Hydrogeologic Data Gaps | **$51,273** | **$15,427** [1] | **$0** | **$66,700** |
| | Task 4a - Review Existing Model and Monitoring Network | $32,593.36 | $9,807 | $0 | $42,400 |
| | Task 4b - Identification and Prioritization of Data Gaps | $18,679.69 | $5,620 | $0 | $24,300 |
| 5 | **Task 5 -** Monitoring Wells | **$108,619** | **$509,381** | **$0** | **$618,000** |
| | Task 5a - Design and Location Siting | $11,453.80 | $3,446 [1] | $0 | $14,900 |
| | Task 5b - Work Plan and Well Construction | $0 | $476,700 [4] | $0 | $476,700 |
| | | $53,886.67 | $16,213 [1] | $0 | $70,100 |
| | Task 5c - Collection of Monitoring Well Data | $43,278.45 | $13,022 [1] | $0 | $56,300 |

| | Tasks | (a) Requested Grant Amount | (b) Cost Share: Non-State Fund Source | (c) Other Cost Share | (d) Total Cost |
|---|---|---|---|---|---|
| 6 | **Task 6 - Stream Gages** | **$114,154** | **$34,346** [1] | **$0** | **$148,500** |
| | Task 6a - Hydrologic Analysis | $16,373.55 | $4,926 | $0 | $21,300 |
| | Task 6b - Design and Location Siting | $31,978.39 | $9,622 | $0 | $41,600 |
| | Task 6c - Equipment Purchase, Installation, and Testing | $65,801.69 | $19,798 | $0 | $85,600 |
| 7 | **Task 7 - Weather Stations** | **$64,725** | **$19,475** [1] | **$0** | **$84,200** |
| | Task 7a - Design and Location Siting | $17,603.49 | $5,297 | $0 | $22,900 |
| | Task 7b - Equipment Purchase | $27,750.48 | $8,350 | $0 | $36,100 |
| | Task 7c - Installation and Testing | $19,371.53 | $5,828 | $0 | $25,200 |
| 8 | **Task 8 - Water Quality and Stable Isotope Sampling and Analysis** | **$83,559** | **$25,141** [1] | **$0** | **$108,700** |
| | Task 8a - Surface and Groundwater Sampling | $62,649.98 | $18,850 | $0 | $81,500 |
| | Task 8b - Perform Geochemical Reaction and Transport Analysis | $20,908.95 | $6,291 | $0 | $27,200 |
| 9 | **Task 9 - Aquifer Tests** | **$132,449** | **$39,851** [1] | **$0** | **$172,300** |
| | Task 9a - Prepare Aquifer Test Work Plan | $27,750.48 | $8,350 | $0 | $36,100 |
| | Task 9b - Perform Aquifer Testing | $104,698.49 | $31,502 | $0 | $136,200 |

| | Tasks | (a) Requested Grant Amount | (b) Cost Share: Non-State Fund Source | (c) Other Cost Share | (d) Total Cost |
|---|---|---|---|---|---|
| | **Objective 3** | | | | |
| 10 | **Task 10 -** Imported Water Study | **$134,524** | **$40,476** [1] | **$0** | **$175,000** |
| | Task 10a - Evaluate Potential Imported Water Sources | $57,653.35 | $17,347 | $0 | $75,000 |
| | Task 10b - Evaluate Water Banking Alternatives and Extraction Schedule | $19,217.78 | $5,782 | $0 | $25,000 |
| | Task 10c - Evaluate Infrastructure Requirements | $19,217.78 | $5,782 | $0 | $25,000 |
| | Task 10d - Prepare Technical Memorandum | $38,435.57 | $11,564 | $0 | $50,000 |
| 11 | **Task 11 -** Recycled Water Study | **$46,891** | **$14,109** [1] | **$0** | **$61,000** |
| | Task 11a - Existing Supply and Demand Analysis | $5,073.50 | $1,527 | $0 | $6,600 |
| | Task 11b - Identify Existing Recycled Water Infrastructure and Users | $4,612.27 | $1,388 | $0 | $6,000 |
| | Task 11c - Review Regulatory and Institutional Requirements | $2,613.62 | $786 | $0 | $3,400 |
| | Task 11d - Identify and Evaluate Potential Recycled Water Users | $15,374.23 | $4,626 | $0 | $20,000 |
| | Task 11e - Prepare Technical Memorandum | $19,217.78 | $5,782 | $0 | $25,000 |

| | Tasks | (a) Requested Grant Amount | (b) Cost Share: Non-State Fund Source | (c) Other Cost Share | (d) Total Cost |
|---|---|---|---|---|---|
| | **Objective 4** | | | | |
| 12 | **Task 12 -** GSP Development and Compilation | **$233,996** | **$70,404** [1] | **$0** | **$304,400** |
| | Task 12a - Prepare Executive Summary Chapter | $691.84 | $208 | $0 | $900 |
| | Task 12b - Prepare Introduction Chapter | $922.45 | $278 | $0 | $1,200 |
| | Task 12c -Prepare Plan Area and Basin Setting Chapter | $12,453.12 | $3,747 | $0 | $16,200 |
| | Task 12d - Prepare Sustainable Management Criteria Chapter | $23,061.34 | $6,939 | $0 | $30,000 |
| | Task 12e - Prepare Projects and Management Actions to Achieve Sustainability Goal Chapter | $38,435.57 | $11,564 | $0 | $50,000 |
| | Task 12f - Prepare Plan Implementation Chapter | $26,904.90 | $8,095 | $0 | $35,000 |
| | Task 12g- Prepare References and Technical Studies Chapter | $1,537.42 | $463 | $0 | $2,000 |
| | Task 12h - Develop Draft and Final GSP | $24,060.67 | $7,239 | $0 | $31,300 |
| | Task 12i - Project Management | $57,499.61 | $17,300 | $0 | $74,800 |
| | Task 12j - Stakeholder/DWR Coordination | $48,428.82 | $14,571 | $0 | $63,000 |
| | **Grand Total (Tasks 1-12)** | **$1,500,000** | **$1,602,600** | **$0** | **$3,102,600** |

**Notes**

1. Funding Source: IWVGA
2. Funding Source: Navy
3. Funding Source: City of Ridgecrest and IWVWD
4. Funding Source: Navy, Searles Valley Minerals, and Kern County

| Budget Items | Original Estimate | Additional Costs | Total Costs |
|---|---|---|---|
| **IWVGA Support Costs** | | | |
| Stetson-IWVGA /TAC/PAC Coordination | $144,250 | $399,427 | $543,677 |
| Stetson-Prop 1 Application/Reporting | $103,000 | $104,468 | $207,468 |
| Stetson-Schedule/Budget Management (POAM) | $52,000 | $0 | $34,779 |
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| Stetson-Database Management Coordination(Ramboll) | $10,000 | $298 | $10,298 |
| Stetson - CASGEM Coordination | $4,500 | $0 | $4,470 |
| Stetson - Data Management System Development | $48,605 | $0 | $48,596 |
| Stetson - Model Review | $31,300 | $0 | 31,300 |
| | $515,155 | | $1,071,298 |

## City of Ridgecrest Reimbursable Costs - Budget Breakdown

| Attorney Fees | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|
| Jan. | | $ 8,842.50 | $ 6,500.00 | $ 4,000.00 |
| Feb | | $ 4,860.00 | $ 6,500.00 | $ 4,000.00 |
| Mar | | $ 7,321.49 | $ 6,500.00 | $ 4,000.00 |
| April | | $ 5,767.50 | $ 6,500.00 | $ 4,000.00 |
| May | | $ 2,097.30 | $ 6,500.00 | $ 4,000.00 |
| June | | $ 630.00 | $ 6,500.00 | $ 4,000.00 |
| July | | $ 5,308.00 | $ 6,500.00 | $ 4,000.00 |
| August | $ 2,587.50 | $ 2,304.49 | $ 6,500.00 | $ 4,000.00 |
| Sept. | $ 2,452.50 | $ 2,551.87 | $ 6,500.00 | $ 4,000.00 |
| Oct. | $ 2,385.00 | $ 3,217.50 | $ 6,500.00 | $ 4,000.00 |
| Nov. | $ 8,857.78 | $ 3,037.50 | $ 6,500.00 | $ 4,000.00 |
| Dec. | $ 4,977.50 | $ 2,677.50 | $ 6,500.00 | $ 4,000.00 |
| | $ 21,260.28 | $ 48,615.65 | $ 78,000.00 | $ 48,000.00 |
| **Total Attorney Costs** | | **$ 195,875.93** | | |

| Chamber hours | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|
| Jan. | | 4 | 3 | 3 |
| Feb | | 3.5 | 3 | 3 |
| Mar | | 3 | 3 | 3 |
| April | | 3 | 3 | 3 |
| May | | 3 | 3 | 3 |
| June | | 7 | 3 | 3 |
| July | | 2.5 | 3 | 3 |
| August | 2 | 2 | 3 | 3 |
| Sept. | 3.5 | 3 | 3 | 3 |
| Oct. | 2 | 2.5 | 3 | 3 |
| Nov. | 2.5 | 4 | 3 | 3 |
| Dec. | 2.5 | 2 | 3 | 3 |
| | 12.5 | 39.5 | 36 | 36 |
| Total Chamber hours | 124 | | | |
| X $40/hour | $ 40.00 | | | |
| **Total Chamber costs** | **$ 4,960.00** | | | |

| IT Support | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|
| Jan. | | $ 270.00 | $ 250.00 | $ 250.00 |
| Feb | | $ 240.00 | $ 250.00 | $ 250.00 |
| Mar | | $ 210.00 | $ 250.00 | $ 250.00 |
| April | | $ 210.00 | $ 250.00 | $ 250.00 |
| May | | $ 210.00 | $ 250.00 | $ 250.00 |
| June | | $ 450.00 | $ 250.00 | $ 250.00 |
| July | | $ 180.00 | $ 250.00 | $ 250.00 |
| August | $ 150.00 | $ 150.00 | $ 250.00 | $ 250.00 |
| Sept. | $ 240.00 | $ 210.00 | $ 250.00 | $ 250.00 |
| Oct. | $ 150.00 | $ 180.00 | $ 250.00 | $ 250.00 |
| Nov. | $ 180.00 | $ 270.00 | $ 250.00 | $ 250.00 |
| Dec. | $ 180.00 | $ 150.00 | $ 250.00 | $ 250.00 |
| | $ 900.00 | $ 2,730.00 | $ 3,000.00 | $ 3,000.00 |

Council Chamber IT services include:
Audio monitoring and leveling
Broadcasting to OTA Channel 41 and Mediacom Channel 6
Broadcasting to City webpage
Assistance with PowerPoint presentations
Digital copy of event/meeting within 2 business days

**Total IT Support $ 9,630.00**

| | |
|---|---|
| **Total Attorney Costs** | **$ 195,875.93** |
| **Total Chambers use costs** | **$ 4,960.00** |
| **Total IT Support** | **$ 9,630.00** |
| **2016-2019 Cost to be reimbursed** | **$ 210,465.93** |

Kern County
Agt. # 453-2018

# ASSESSMENT ADVANCE AGREEMENT BETWEEN THE COUNTY OF KERN AND THE INDIAN WELLS VALLEY GROUNDWATER AUTHORITY

This Advanced Fees Agreement (the "Agreement") is entered into as of June 26, 2018 ("Effective Date"), between the County of Kern ("County") and the Indian Wells Valley Groundwater Authority, a Joint Powers Authority created pursuant to the provisions of California Government Code sections 6500 et seq., ("Authority"). County and Authority are sometimes hereinafter individually or collectively called a "Party" or the "Parties".

## RECITALS

**WHEREAS,** the Authority was formed after enactment of the "Sustainable Groundwater Management Act" ("SGMA") for the purpose achieving groundwater sustainability through the adoption and implementation of a Groundwater Sustainability Plans ("GSP") for the Indian Wells Valley basin.

**WHEREAS,** the County is a General Member of the Authority.

**WHEREAS,** the Authority was initially funded with General Member contributions of Fifteen Thousand Dollars (15,000.00) each.

**WHEREAS,** the Authority is authorized to levy assessments against the General Members of the Authority pursuant to Article IX of the Joint Exercise of Powers Agreement and the County is in the unique position of having police powers over the majority of non-federal lands within the Basin that currently extract groundwater from the Basin.

**WHEREAS,** the Authority is authorized to levy assessments, charges and fees as provided in SGMA, including permit fees and groundwater extraction fees pursuant to California Water Code section 10730 to fund the costs, including preparation and adoption, of a GSP.

**WHEREAS,** the Authority is currently in the process of imposing a groundwater extraction fees pursuant to California Water Code section 10730 to fund the Authority costs, including preparation and adoption, of a GSP.

**WHEREAS,** the Authority is in need of additional funds to continue preparation of the GSP.

**WHEREAS,** given the County's unique position, the County has agreed to advance funds to the Authority in lieu of the Authority imposing any additional assessments on its General Members for the purpose of filing the funding gap that has been created by the delay in imposing a groundwater extraction fee.

**NOW THEREFORE,** in consideration of the foregoing Recitals, which are incorporated

herein by this reference, and of the covenants and agreements herein contained, the Parties hereto agree as follows:

1. Purpose. The purpose of this Agreement is to provide the Authority with the initial funding capital to close the funding gap created by the delay in imposing a groundwater extraction fee, while simultaneously providing provisions that will ensure that the County's contributions are refunded to the County as the Authority becomes self-sufficient.

2. Payment. County agrees to advance to the Authority up to Five Hundred Thousand Dollars ($500,000.00) to fund preparation of the GSP and related Authority business. County agrees to immediately deposit with the Authority a sum of $500,000 (Initial Deposit).

3. Reimbursement and/or Credit. The Authority hereby agrees that all monies paid by the County pursuant to this Agreement shall be subject to the following:

(a) All money paid by the County pursuant to this Agreement shall have a first priority to reimbursement from other Authority funding sources, including Proposition 1 Grant funds, to the extent permitted by law.

(b) The County shall receive credit for any money not reimbursed to the County pursuant to Section 2(a) herein, which shall be deducted from any future assessments, charges and/or fees imposed by the Authority on the County to fund the costs of the GSP and/or the costs of groundwater management pursuant to SGMA and/or the GSP.

(c) The Parties reserve the right to mutually agree upon different terms subject to the written approval of the Parties.

4. Further County Payments. The Authority hereby agrees that it shall be an Authority priority to reimburse the County pursuant to Section 3 of this Agreement and this Agreement does not place an obligation on the County to pay any additional funds to the Authority.

5. Accounting. The Parties agree to each maintain separate and distinct accounting of any funds advanced by County pursuant to this Agreement. The Parties shall meet and confer on a monthly basis to compare and reconcile any discrepancies the Parties may have with respect to the accounting of County funds advanced pursuant to this Agreement.

6. Dispute Resolution. In the event there are disputes and/or controversies relating to the interpretation, construction, performance, termination or breach of this Agreement, the Parties shall in good faith meet and confer in an attempt to informally resolve such matter(s). If the Parties are unsuccessful in resolving such matter(s) through an informal meeting process, they may attempt to resolve such matter(s) through mediation, through arbitration under the rules and regulations of the American Arbitration Association or they may exercise whatever other legal rights and remedies they may have.

7. Indemnity. The Authority hereby agrees and undertakes to indemnify, defend and hold harmless the County, its officers, agents, volunteers and employees from any and all losses, costs, expenses (including reasonable attorneys' fees), claims, liabilities, actions or damages of any nature whatsoever, in any way arising out of or connected with or incident to or alleged to have arisen in any manner out of the County's performance of this Agreement or to have occurred as a result of any acts or omissions by the County, its officers, agents, volunteers and employees in the performance of this Agreement. Nothing herein shall alleviate the County from its obligations as a member of the Authority.

8. Termination. Either Party retains the right to terminate this Agreement, at its sole discretion, upon thirty (30) days written notice. Upon such termination, the Parties agree that any County funds advanced pursuant to this Agreement and/or further County payments shall be subject to the terms and provisions of this Agreement.

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the date first above written.

**INDIAN WELLS VALLEY GROUNDWATER AUTHORITY**

By: _____
Peggy Breeden, President
Board of Directors

**COUNTY OF KERN**

By: _____
Mike Maggard, Chairman of the
Board of Supervisors JUN 26 2018

By: _____
Ryan J. Alsop, County Administrative Officer

Approved as to Form

By: _____
Phillip W. Hall,
Deputy County Counsel

# ADVANCED FUNDS AGREEMENT

This Advanced Funds Agreement (the "Agreement") is entered into as of December 13, 2017 ("Effective Date"), between the Indian Wells Valley Water District, a County Water District ("District") and the Indian Wells Valley Groundwater Authority, a Joint Powers Authority created pursuant to the provisions of California Government Code sections 6500 et seq., ("Authority"). District and Authority are sometimes hereinafter individually or collectively called a "Party" or the "Parties".

## RECITALS

**WHEREAS,** the Authority was formed after enactment of the "Sustainable Groundwater Management Act" ("SGMA") for the purpose of becoming the exclusive Groundwater Sustainability Agency and achieving groundwater sustainability through the adoption and implementation of a Groundwater Sustainability Plan ("GSP") for the Indian Wells Valley basin.

**WHEREAS,** the District is a General Member of the Authority exercising water supply responsibilities and is a significant pumper of groundwater within the Authority's boundary.

**WHEREAS,** the General Members of the Authority each provided a contribution of Fifteen Thousand Dollars (15,000.00) to initially fund the Authority.

**WHEREAS,** the Authority is presently in need of additional funds to continue work on the preparation of the GSP while other funding streams are developed in accordance with legal mandates.

**WHEREAS,** the Authority may impose additional assessments on its General Members and/or is authorized to levy assessments, charges and fees as provided in SGMA, including permit fees and groundwater extraction fees pursuant to California Water Code section 10730 to fund the costs, including preparation and adoption, of a GSP.

**WHEREAS,** District agrees to advance funds to the Authority in lieu of the Authority imposing any additional assessments on its General Members pursuant to the Authority's Joint Exercise of Powers Agreement and/or any assessments, charges and/or fees authorized by SGMA.

**NOW THEREFORE,** in consideration of the foregoing Recitals, which are incorporated herein by this reference, and of the covenants and agreements herein contained, the Parties hereto agree as follows:

1. Purpose. The purpose of this Agreement is to provide the Authority with funding capital to continue preparation of the GSP while the Authority prepares for and seeks to implement other funding sources.

2. Payment. District agrees to advance to the Authority up to Five Hundred Thousand Dollars ($500,000.00) to fund preparation, Authority adoption and DWR evaluation and approval of the GSP. District agrees to immediately deposit with the Authority the sum of One Hundred Thousand Dollars ($100,000) ("Initial Deposit"). The remaining funds will be retained by the District and deposited with the Authority on a monthly basis as the Initial Deposit is used by the Authority. The monthly amount to be deposited by the District shall be the amount needed at that time to bring the funds held by the Authority back to the amount of the Initial Deposit. The Authority shall submit a monthly invoice to District requesting any additional funds needed to bring the funds held by the Authority back to the amount of the Initial Deposit. The invoice shall include copies of all invoices/charges paid by the Authority from the Initial Deposit. District shall remit payment within thirty (30) days receipt of said invoice.

3. Reimbursement and/or Credit. The Authority hereby agrees that all monies paid by the District pursuant to this Agreement shall be subject to the following:

(a) All money paid by the District pursuant to this Agreement shall have a first priority to reimbursement from other Authority funding sources, including Proposition 1 Grant funds, to the extent permitted by law.

(b) The District shall receive credit for any money not reimbursed to the District pursuant to Section 3(a) herein, which shall be deducted from any future assessments, charges and/or fees imposed by the Authority to fund the costs of the GSP and/or the costs of groundwater management pursuant to SGMA and/or the GSP.

(c) The Parties reserve the right to mutually agree upon different terms subject to the written approval of the Parties

4. Further District Payments. The Authority hereby agrees that District shall not be required to pay any additional funds to the Authority unless and until all funds paid by the District pursuant to this Agreement have been reimbursed pursuant to Section 3(a) herein and/or District's "credit" pursuant to Section 3(b) herein has been fully exhausted.

5. Accounting. The Parties agree to each maintain separate and distinct accounting of any funds advanced by District pursuant to this Agreement. The Parties shall meet and confer on a monthly basis to compare and reconcile any discrepancies the Parties may have with respect to the accounting of District funds advanced pursuant to this Agreement.

6. Dispute Resolution. In the event there are disputes and/or controversies relating to the interpretation, construction, performance, termination or breach of this Agreement, the Parties shall in good faith meet and confer in an attempt to informally resolve such matter(s). If the Parties are unsuccessful in resolving such matter(s) through an informal meeting process, they may attempt to resolve such matter(s) through mediation, through arbitration under the rules and regulations of the American Arbitration Association or they may exercise whatever other legal rights and remedies they may have.

7. Indemnity. The Authority hereby agrees and undertakes to indemnify, defend and hold harmless District, its officers, agents, and employees from any and all losses, costs, expenses (including reasonable attorneys' fees), claims, liabilities, actions or damages of any nature whatsoever, in any way arising out of or connected with or incident to or alleged to have arisen in any manner out of District's performance of this Agreement or to have occurred as a result of any acts or omissions by District, its officers, agents, and employees in the performance of this Agreement. Nothing herein shall alleviate the District from its obligations as a member of the Authority.

8. Termination. Either Party retains the right to terminate this Agreement, at its sole discretion, upon thirty (30) days written notice. Upon such termination, the Parties agree that any District funds advanced pursuant to this Agreement and/or further District payments shall be subject to the terms and provisions of this Agreement.

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the date first above written.

**INDIAN WELLS VALLEY WATER DISTRICT**

By: _____
Peter Brown, President
Board of Directors

**INDIAN WELLS VALLEY GROUNDWATER AUTHORITY**

By: _____
Mick Gleason, Chairman
Board of Directors

# AMENDMENT TO THE ADVANCED FUNDS AGREEMENT

Whereas, the **INDIAN WELLS VALLEY WATER DISTRICT** (District) and the **INDIAN WELLS VALLEY GROUNDWATER AUTHORITY** (Authority) entered into an Advanced Funds Agreement on December 13, 2017, regarding the District's advancement of funds to the Authority to allow work to continue on the Groundwater Sustainability Plan (Agreement).

Whereas, Section 3 of the Agreement specifies the terms for reimbursement of said funds to the District.

Whereas, Section 3(c) of the Agreement states that "[T]he Parties reserve the right to mutually agree upon different terms subject to the written approval of the Parties."

Whereas, the Parties now desire to clarify the terms for reimbursement of said funds to the District.

The Parties, based upon mutual consideration, hereby agree as follows:

1. Reimbursement and/or a credit of the $500,000 Advance from the District will be deferred and the District will seek reimbursement and/or credit from "future assessments, charges and/or fees imposed by the Authority" to fund the costs of groundwater management pursuant to SGMA.

2. All other provisions of the Agreement shall remain in full force and effect.

3. This modification shall be effective immediately upon execution by the Parties.

Dated this 29 day of June, 2018.

**INDIAN WELLS VALLEY WATER DISTRICT**

By: RR Kicinski
Ron Kicinski, President
Board of Directors

**INDIAN WELLS VALLEY GROUNDWATER AUTHORITY**

By: Peggy Breeden
Peggy Breeden, Chairperson
Board of Directors

# Final Awards

## 2017 Groundwater Sustainability Plans and Projects Solicitation

**April 2018**

| Note | Cat 1 Map ID | Grantee | Project Title | Category 1 Grant Award[A] | Category 2 Grant Award | Total Grant Award |
|---|---|---|---|---|---|---|
| | | Arroyo Santa Rosa Basin Groundwater Sustainability Agency | Arroyo Santa Rosa Basin Groundwater Sustainability Plan | $ - | $ 177,081 | $ 177,081 |
| B | 20 | Asian Business Institute Resource Center | Southeast Asian Groundwater and Sustainability Advocacy and Outreach Program | $ 400,000 | $ - | $ 400,000 |
| | | Atascadero Mutual Water Co. | 2017 Atascadero Basin Sustainable Groundwater Proposal | $ - | $ 809,250 | $ 809,250 |
| | | Bear Valley Basin Groundwater Sustainability Agency | Bear Valley Basin Groundwater Sustainability Plan | $ - | $ 177,000 | $ 177,000 |
| | | Bedford-Coldwater Sub-basin Groundwater Sustainability Agency | Bedford-Coldwater Sub-basin Groundwater Sustainability Plan Proposal | $ - | $ 1,000,000 | $ 1,000,000 |
| | 18 | Big Bear Lake Department of Water and Power | Basin Resiliency Sawmill Well Pumping Plant Project | $ 782,298 | $ - | $ 782,298 |
| | 9 | Biola Community Services District | Biola Groundwater Recharge Project | $ 705,000 | $ - | $ 705,000 |
| | | Butte County Department of Water and Resource Conservation | Groundwater Sustainability Plan Development for the Vina, East Butte, West Butte and Wyandotte Creek Subbasins | $ - | $ 1,498,800 | $ 1,498,800 |
| | | Castaic Lake Water Agency | Santa Clarita Valley Groundwater Sustainability Agency 2017 Sustainable Groundwater Planning Grant Program Category 2 Proposal | $ - | $ 416,106 | $ 416,106 |
| | | City of Brentwood | Tracy Subbasin Groundwater Sustainability Plan Development Prop 1 Proposal | $ - | $ 1,000,000 | $ 1,000,000 |
| | | City of Corona | Sustainable Groundwater Planning Grant For the City of Corona Temescal Subbasin | $ - | $ 732,338 | $ 732,338 |
| | | City of Modesto | Sustainable Groundwater Planning Grant for the Modesto Groundwater Subbasin | $ - | $ 1,000,000 | $ 1,000,000 |
| C | | City of Paso Robles | Paso Robles Basin Groundwater Sustainability Plan Development | $ - | $ 1,500,000 | $ 1,500,000 |
| | | City of Redding | EAGSA Enterprise and Anderson Subbasin Groundwater Sustainability Plan | $ - | $ 983,230 | $ 983,230 |
| | | City of San Diego - Public Utilities Department | Groundwater Sustainability Plan for the San Pasqual Valley Groundwater Basin | $ - | $ 989,550 | $ 989,550 |
| | | Colusa Groundwater Authority | Colusa Subbasin Groundwater Sustainability Plan Development | $ - | $ 1,000,000 | $ 1,000,000 |
| | 10 | Community Water Center | Facilitate Participation of Severely Disadvantaged Community Stakeholders In The Tulare Lake Basin And Develop A Drinking Water Vulnerability Tool | $ 614,353 | $ - | $ 614,353 |
| | | County of Glenn | Groundwater Sustainability Plan Development in the Corning Subbasin | | $ 999,980 | $ 999,980 |
| C | 6 | County of San Diego | San Diego County GSP Development | $ 1,000,000 | $ 2,000,000 | $ 3,000,000 |
| | | County of San Luis Obispo | 2017 County of San Luis Obispo Sustainable Groundwater Proposal | $ - | $ 1,397,125 | $ 1,397,125 |
| C | 3 | Cuyama Basin Groundwater Sustainability Agency | Cuyama Basin Groundwater Sustainability | $ 648,124 | $ 1,500,000 | $ 2,148,124 |
| | | Del Norte County | Smith River Plain Groundwater Basin GSP | $ - | $ 250,000 | $ 250,000 |
| | | East Bay Municipal Utility District | East Bay Plain Subbasin Groundwater Sustainability Plan Development | $ - | $ 1,000,000 | $ 1,000,000 |
| C | | Eastern San Joaquin Groundwater Authority | Eastern San Joaquin Subbasin Groundwater Sustainability Plan Grant | $ - | $ 1,500,000 | $ 1,500,000 |
| | | Elsinore Valley Municipal Water District | Elsinore Valley Groundwater Sustainability Agency Groundwater Sustainability Planning Grant Proposal | $ - | $ 1,000,000 | $ 1,000,000 |
| | | Fillmore Piru GSA | Fillmore and Piru Basins Groundwater Sustainability Plans | $ - | $ 1,500,000 | $ 1,500,000 |
| | 7 | Freshwater Trust | Engaging Severely Disadvantaged Communities in the Development of the Solano Subbasin Groundwater Sustainability Plan | $ 490,000 | $ - | $ 490,000 |
| C | 13 | Indian Wells Valley Groundwater Authority | Indian Wells Valley Groundwater Basin - Groundwater Sustainability Plan Development and SDAC Groundwater Conservation Pilot Project | $ 646,000 | $ 1,500,000 | $ 2,146,000 |
| | | Inyo-Water Department, County of | Groundwater Sustainability Planning for the Owens Valley Groundwater Basin | $ - | $ 713,155 | $ 713,155 |
| C | | Kern River Groundwater Sustainability Agency | Kern County Subbasin Groundwater Sustainability Plan Support - 2017 Grant Application | | $ 1,500,000 | $ 1,500,000 |
| | | Lassen County | Big Valley Groundwater Sustainability Plan | $ - | $ 999,185 | $ 999,185 |
| | 14 | Leadership Counsel for Justice and Accountability | Partnering for Equitable Groundwater | $ 758,000 | $ - | $ 758,000 |
| | 15 | Linda County Water District | Linda County Water District-Well 17 Project Funding Application Groundwater Sustainability Planning Grant Program Proposal | $ 999,500 | $ - | $ 999,500 |
| | | Los Angeles County Waterworks District No. 37, Acton | Fringe Area Antelope Valley Groundwater Sustainability Plan | $ - | $ 300,000 | $ 300,000 |
| C | | Lower Tule River Irrigation District Groundwater Sustainable Agency | Lower Tule River Irrigation District GSA, SGWP Planning Grant | $ - | $ 1,500,000 | $ 1,500,000 |
| C | 16 | Madera County Water and Natural Resources | Groundwater Monitoring Well Installation and GSP Development For The Chowchilla Subbasin | $ 1,000,000 | $ 1,500,000 | $ 2,500,000 |
| C | 11 | Madera County Water and Natural Resources | Groundwater Monitoring Well Installation and GSP Development for the Madera Subbasin | $ 1,000,000 | $ 1,500,000 | $ 2,500,000 |
| | | Marina Coast Water District | Monterey Subbasin Groundwater Sustainability Plan Development | $ - | $ 1,000,000 | $ 1,000,000 |
| | | Mendocino County Water Agency | Phase 2 of the Ukiah Valley Basin Groundwater Sustainability Plan Development | $ - | $ 764,255 | $ 764,255 |
| C | 1 | Merced Irrigation District | 2017 Merced Groundwater Subbasin Sustainability | $ 901,261 | $ 1,500,000 | $ 2,401,261 |
| C | | Mid-Kaweah Groundwater Sustainability Agency | Kaweah Sub-Basin Groundwater Sustainability Plans Development | $ - | $ 1,500,000 | $ 1,500,000 |
| C | | Mid-Kings River Groundwater Sustainability Agency | Tulare Lake Subbasin GSP Development and SGMA Compliance Project | $ - | $ 1,500,000 | $ 1,500,000 |
| | | Mound Basin Groundwater Sustainability Agency | Mound Basin GSA and GSP | $ - | $ 758,100 | $ 758,100 |
| | 2 | North Cal-Neva Resource Conservation and Development Council, Inc. | Big Valley GSP Monitoring and Data Development | $ 782,344 | $ - | $ 782,344 |
| C | | North Fork Kings Groundwater Sustainability Agency | Kings Basin Groundwater Sustainability Plans | $ - | $ 1,500,000 | $ 1,500,000 |
| | | Padre Dam Municipal Water District | San Diego River Valley Groundwater Sustainability Plan (GSP) Development Proposal | $ - | $ 600,000 | $ 600,000 |
| C,D | | Pajaro Valley Water Management Agency | Pajaro Valley Groundwater Sustainability Plan | $ - | $ 1,500,000 | $ 1,500,000 |
| | | Petaluma Valley GSA | Petaluma Valley Groundwater Sustainability Plan | $ - | $ 1,000,000 | $ 1,000,000 |
| D | | Sacramento Central Groundwater Authority | Development of the South American Subbasin Groundwater Sustainability Plan (Bulletin 118 Subbasin NO. 5-21.65) | $ - | $ 970,693 | $ 970,693 |
| | | Sacramento Groundwater Authority | North American Subbasin Groundwater Sustainability Plan Development | $ - | $ 994,276 | $ 994,276 |
| C | | Salinas Valley Basin Ground Water Sustainability Agency | Salinas Valley Basin Groundwater Sustainability Plan | $ - | $ 1,500,000 | $ 1,500,000 |
| | | San Antonio Basin Groundwater Sustainability Agency | San Antonio Basin Groundwater Sustainability Plan | $ - | $ 300,000 | $ 300,000 |
| | | San Benito County Water District | Sustainable Groundwater Planning Grant for GSP Preparation: Bolsa, Hollister, and San Juan Bautista Groundwater Subbasins | $ - | $ 830,336 | $ 830,336 |
| | | San Bernardino Valley Municipal Water District | Yucaipa Groundwater Sustainability Plan | $ - | $ 815,100 | $ 815,100 |
| | 4 | San Gorgonio Pass Water Agency | 2017 Sustainable Groundwater Planning Grant for the San Gorgonio Pass Subbasin | $ 1,000,000 | $ 1,000,000 | $ 2,000,000 |
| C | | Santa Cruz Mid-County Groundwater Agency | Santa Cruz Mid-County Groundwater Sustainability Plan Development | $ - | $ 1,500,000 | $ 1,500,000 |
| | | Santa Margarita Groundwater Agency | Santa Margarita Groundwater Sustainability Plan Development | $ - | $ 1,000,000 | $ 1,000,000 |
| | | Santa Rosa Plain GSA | Santa Rosa Plain Groundwater Sustainability Plan | $ - | $ 1,000,000 | $ 1,000,000 |
| | | Santa Ynez River Water Conservation District | Santa Ynez River Valley Basin GSP Planning and Preparation | $ - | $ 1,000,000 | $ 1,000,000 |
| | 8 | Self-Help Enterprises | Self-Help Enterprises - SDACs Project | $ 1,000,000 | $ - | $ 1,000,000 |
| | 19 | Shasta Valley Resource Conservation District | Groundwater Monitoring Implementation Program for the Shasta Valley GSA | $ 976,884 | $ - | $ 976,884 |
| | | Siskiyou County Flood Control and Water Conservation District | Development | $ - | $ 1,367,000 | $ 1,367,000 |
| | | Solano Subbasin Groundwater Sustainability Agency | Solano Subbasin Groundwater Sustainability Plan Development | $ - | $ 1,000,000 | $ 1,000,000 |
| | | Sonoma Valley GSA | Sonoma Valley Groundwater Sustainability Plan | $ - | $ 1,000,000 | $ 1,000,000 |
| | | Southeast Sacramento County Agricultural Water Authority | Establishing a Groundwater Sustainability Plan and Governance Structure for the Cosumnes Groundwater Sub Basin | $ - | $ 1,000,000 | $ 1,000,000 |
| D | | Sutter County Development Services | Sutter Subbasin Groundwater Sustainability Plan Development | $ - | $ 956,814 | $ 956,814 |
| | | Tehama County Flood Control & Water Conservation District | Tehama County Groundwater Sustainability Plan Development Grant Application | $ - | $ 1,498,960 | $ 1,498,960 |
| | 12 | The Nature Conservancy | Demonstrating Multi-Benefit On-Farm Managed Aquifer Recharge in the Central Valley | $ 300,000 | $ - | $ 300,000 |
| | | Tulelake Irrigation District | Protecting Our Groundwater Resource: Securing a Sustainable Future for the Tule Lake Subbasin | $ - | $ 721,120 | $ 721,120 |
| | | Upper Ventura River Groundwater Agency | Upper Ventura River Basin GSA and GSP | $ - | $ 630,061 | $ 630,061 |
| | | Walnut Valley Water District | Spadra Groundwater Basin Groundwater Sustainability Plan Development | $ - | $ 338,500 | $ 338,500 |
| C | 17 | West Stanislaus ID | 2017 Sustainable Groundwater Planning Grant for the Delta-Mendota Subbasin | $ 1,178,500 | $ 1,500,000 | $ 2,678,500 |
| | | West Turlock Subbasin GSA | Sustainable Groundwater Planning Grant for the Turlock Groundwater Subbasin | $ - | $ 1,000,000 | $ 1,000,000 |
| | | Western Municipal Water District | Riverside-Arlington Subbasin Groundwater Sustainability Plan | $ - | $ 130,000 | $ 130,000 |
| C | 5 | Westlands Water District | Groundwater Monitoring Well Installation Project and Groundwater Sustainability Plan Development for the Westside Subbasin | $ 1,000,000 | $ 1,500,000 | $ 2,500,000 |
| | | White Wolf Groundwater Sustainability Agency | White Wolf Subbasin Groundwater Sustainability Plan Development | $ - | $ 557,998 | $ 557,998 |
| | | Yolo County Flood Control and water Conservation District | Yolo Subbasin - GSP Planning and Preparation | $ - | $ 1,000,000 | $ 1,000,000 |
| | | Yuba County Water Agency | Groundwater Sustainability Plans for the North Yuba Subbasin and South Yuba Subbasin | $ - | $ 893,948 | $ 893,948 |
| | | | | **$ 16,182,264** | **$ 69,569,961** | **$ 85,752,225** |

A All Category 1 Projects: Grantee shall obtain written (i.e., letter) approval of proposed scope of work from GSA, of respective basin/GSP where project is located in, prior to execution of Grant Agreement

B Recommended funding less than requested due to recalculation of Direct Project Administration (DPA) Costs

C Critically Over Draft Basin included in application

D Applicant submitted an Alternative Plan to DWR for review


Table 1 – Proposition 68 SGM Grant Program's Planning – Round 3 Final Award List

Disclaimer: The Recommended Award and Total Project Cost are conditional until final terms and conditions are agreed upon and an agreement has been executed. The awarded grant amount listed in the executed agreement can be less than the Recommended Award amount listed here based upon final negotiations between the Awardee and DWR. DWR staff may determine certain tasks are not eligible or do not meet the requirements outlined in the 2019 SGM Grant Program Guidelines and 2019 SGM Grant Program Planning-Round 3 PSP and are subject to change.

| Organization Name | Proposal Title | Recommended Revised Award Title | Notes | Recommended Award | Prop 68/Prop 1 Available Funds | Prop 1 Funds Subject to Future Appropriations | Minimum Required Local Cost Share | Total Project Cost | Percent Local Cost Share |
|---|---|---|---|---|---|---|---|---|---|
| Alameda County Water District | The Alternative Update and Model Upgrade Project | The Alternative Update and Model Upgrade Project | C | $500,000 | $500,000 | $0 | $167,000 | $667,000 | 25.04% |
| Arroyo Seco GSA (ASBGSA) | Arroyo Seco Groundwater Sustainability Plan | Salinas Valley Basin GSPs | B | $0 | $0 | $0 | $0 | $0 | - |
| Carpinteria Valley Water District | Carpinteria Groundwater Basin GSP Development | Carpinteria Groundwater Basin GSP Development | C | $1,942,900 | $1,942,900 | $0 | $675,000 | $2,617,900 | 25.78% |
| City of Brentwood | East Contra Costa Subbasin GSP Development | East Contra Costa Subbasin and Tracy Subbasin GSP Development | A, G | $1,078,600 | $970,000 | $108,600 | $359,500 | $1,438,100 | 25.00% |
| City of Modesto | Modesto Subbasin Monitoring Network Augmentation Proposal | Modesto Subbasin GSP Development and Monitoring Network Augmentation | - | $1,000,000 | $1,000,000 | $0 | $0 | $1,000,000 | 0.00% |
| City of Redding | Enterprise Anderson Groundwater Sustainability Agency (EAGSA) Enterprise and Anderson Sub-Basin Groundwater Sustainability Plan | EAGSA Enterprise and Anderson Sub-Basin GSP | - | $544,500 | $544,500 | $0 | $0 | $544,500 | 0.00% |
| Coachella Valley Water District | Indio Subbasin Modelling, Data Collection, and Alternative Plan Update | Indio Subbasin Alternative Plan Update | A, C | $500,000 | $500,000 | $0 | $167,000 | $667,000 | 25.04% |
| Coachella Valley Water District | Mission Creek Subbasin Modelling, Data Collection, and Alternative Plan Update | Mission Creek Subbasin Alternative Plan Update | A, C | $500,000 | $500,000 | $0 | $167,000 | $667,000 | 25.04% |
| Colusa Groundwater Authority | Colusa Subbasin Groundwater Sustainability Plan Development | Colusa Subbasin GSP Development | - | $999,600 | $999,600 | $0 | $0 | $999,600 | 0.00% |
| County of Madera | Madera Subbasin Domestic Well Inventory and Groundwater Monitoring Well Installation Project | Madera Subbasin GSP Development, Domestic Well Inventory, and Monitoring Well Installation Project | H, I | $0 | $0 | $0 | $0 | $0 | - |
| County of Madera | Chowchilla Subbasin Domestic Well Inventory and Groundwater Monitoring Well Installation Project | Chowchilla Subbasin GSP Development, Domestic Well Inventory, and Monitoring Well Installation Project | I | $500,000 | $500,000 | $0 | $0 | $500,000 | 0.00% |
| Cuyama Basin GSA | Cuyama Valley Groundwater Basin Supplemental GSP Development | Cuyama Basin GSP Development | I | $500,000 | $500,000 | $0 | $0 | $500,000 | 0.00% |
| East Bay Municipal Utility District | East Bay Plain Subbasin Characterization and Data Management | East Bay Plain Subbasin GSP Development and Characterization and Data Management | G | $758,467 | $680,000 | $78,467 | $134,000 | $892,467 | 15.01% |
| East Kaweah GSA | Kaweah Subbasin Groundwater Sustainability Planning Project | Kaweah Subbasin GSP Development | I | $500,000 | $500,000 | $0 | $0 | $500,000 | 0.00% |
| Eastern Municipal Water District | West San Jacinto Groundwater Sustainability Plan and Monitoring | West San Jacinto GSP Development and Monitoring | C | $1,166,500 | $1,166,500 | $0 | $390,000 | $1,556,500 | 25.06% |

Sustainable Groundwater Management (SGM) GRANT PROGRAM

| Organization Name | Proposal Title | Recommended Revised Award Title | Notes | Recommended Award | Prop 68/Prop 1 Available Funds | Prop 1 Funds Subject to Future Appropriations | Minimum Required Local Cost Share | Total Project Cost | Percent Local Cost Share |
|---|---|---|---|---|---|---|---|---|---|
| Eastern San Joaquin Groundwater Authority | Eastern San Joaquin Proposal for Studies and Equipment to Support GSP Development | Eastern San Joaquin GSP Development and Support | F, G, I | $500,000 | $325,000 | $175,000 | $55,500 | $555,500 | 9.99% |
| Fox Canyon GMA | Develop GSPs for the Oxnard Subbasin, Pleasant Valley Basin and Las Posas Valley Basin | Oxnard Subbasin, Pleasant Valley Basin, and Las Posas Valley Basin GSP Development | C | $854,600 | $854,600 | $0 | $285,000 | $1,139,600 | 25.01% |
| Humboldt County | Eel River Valley Groundwater Sustainability Plan and Monitoring Well Installation Project | Eel River Valley GSP and Monitoring Well Installation Project | C | $1,900,000 | $1,900,000 | $0 | $0 | $1,900,000 | 0.00% |
| Indian Wells Valley Groundwater Authority | Indian Wells Valley Groundwater Basin - Implementation Projects and Additional GSP Development | Indian Wells Valley GSP Development and Projects | A, F, G, I | $330,000 | $300,000 | $30,000 | $58,250 | $388,250 | 15.00% |
| Kern River GSA | Kern County Subbasin Groundwater Sustainability Plan Support - Phase II | Kern County Subbasin GSP Development | F, G, I | $500,000 | $442,285 | $57,715 | $0 | $500,000 | 0.00% |
| Lake County Watershed Protection District | Big Valley Basin GSP | Big Valley Basin GSP | C | $1,392,205 | $1,392,205 | $0 | $0 | $1,392,205 | 0.00% |
| Lower Tule River Irrigation District GSA | Tule Subbasin Sustainable Groundwater Management Planning Grant | Lower Tule River GSA Development | A, G, I | $1,000,000 | $1,000,000 | $0 | $0 | $1,000,000 | 0.00% |
| Marina Coast Water District | GSP Development Activities in the Monterey Subbasin | Monterey Subbasin GSP Development | D, G | $1,000,000 | $700,000 | $300,000 | $335,000 | $1,335,000 | 25.09% |
| Mendocino County Water Agency | Ukiah Valley Basin GSP Development Support | Ukiah Valley Basin GSP Development Support | - | $1,233,800 | $1,233,800 | $0 | $0 | $1,233,800 | 0.00% |
| Merced Irrigation District | Merced Subbasin GSP Development Project for Addressing Critical Data Gaps | Merced Subbasin GSP Development and Addressing Critical Data Gaps | - | $500,000 | $500,000 | $0 | $0 | $500,000 | 0.00% |
| Mid-Kings River GSA | Tulare Lake Subbasin Supplemental GSP Development | Tulare Lake Subbasin GSP Development and SGMA Compliance | F, G, I | $500,000 | $450,000 | $50,000 | $0 | $500,000 | 0.00% |
| Modoc County GSA | Big Valley Groundwater Sustainability Plan Water Measurement Enhancement Project | Big Valley GSP Water Measurement Enhancement Project | C | $987,660 | $987,660 | $0 | $0 | $987,660 | 0.00% |
| Montecito Groundwater Basin GSA | MGB GSA GSP and Sustainability Projects' Development | MGB GSA GSP and Sustainability Projects Development | C | $1,627,205 | $1,627,205 | $0 | $544,000 | $2,171,205 | 25.06% |
| Napa County | Napa Valley Subbasin Groundwater Sustainability Plan and Monitoring Well Installation Project | Napa Valley Subbasin GSP and Monitoring Well Installation Project | C | $1,958,500 | $1,958,500 | $0 | $655,000 | $2,613,500 | 25.06% |
| North Fork Kings GSA | Kings Basin SGMA Round 3 Planning Grant | Kings Basin GSP | I | $500,000 | $500,000 | $0 | $0 | $500,000 | 0.00% |
| Ojai Basin Groundwater Management Agency | Ojai Valley Basin GSP Development | Ojai Valley Basin GSP Development | C | $400,000 | $400,000 | $0 | $133,600 | $533,600 | 25.04% |
| Pajaro Valley Water Management Agency | Pajaro Valley Sustainable Groundwater Planning Project | Pajaro Valley Alternative Plan Update | C | $500,000 | $500,000 | $0 | $167,000 | $667,000 | 25.04% |

# Exhibit 3: Calculation of Fees

## Supporting Attachments

- Sustainable Yield Allocation
- IWVGA Pumping Fee Alternatives

| Pumping Group | Current Est Pumping | Navy Use/Carryover | Augment Supply Need |
|---|---|---|---|
| Navy | 1,450 | 1,450 | 0 |
| De Minimis Wells | 800 | 800 | 0 |
| City of Ridgecrest | 373 | 373 | 0 |
| Kern County | 18 | 18 | 0 |
| IWVWD | 6,507 | 4,390 | 2,117 |
| Inyokern CSD | 102 | 102 | 0 |
| Small Mutuals | 300 | 300 | 0 |
| Trona DM | 217 | 217 | 0 |
| SVM | 2,413 | 0 | 2,413 |
| Total | 12,180 | 7,650 | 4,530 |

# IWVGA Pumping Fee Alternatives

| | |
|---|---|
| Fund Gap | $2,188,082 |
| Assumed Total Pumping | 10,000 acre-feet |

| Duration (Years) | Fee | Recommended |
|---|---|---|
| 1 | $218.81 | $225 |
| 1.5 | $145.87 | $150 |
| 2 | $109.40 | $125 |
| 2.5 | $87.52 | $100 |

# Exhibit 4: List of Non De Minimis Groundwater Extractors

| Owner/System | # of Wells Registered | Type of Use |
|---|---|---|
| Amber Glow Ranch / Patricia Davis | 2 | Agriculture |
| BLUBAUGH, PATRICK | 1 | Agriculture |
| Brady's Café and Mini Mart | 1 | Commercial |
| Buttermilk Acres | 1 | Domestic |
| China Lake Acres Mutual Water Company | 1 | Domestic |
| CHLT Water Group | 1 | Domestic |
| City of Ridgecrest | 5 | Irrigation |
| Condon, Bethany | 1 | Domestic/livestock |
| Crestview Water System | 1 | Domestic |
| Desert Memorial Park | 1 | Irrigation |
| Desert Sands Mutual Water Co-Op | 1 | Domestic |
| Dixie Water Company | 1 | Domestic |
| DONNA SUE WATER CO-OP | 1 | Domestic |
| Dune I Water | 1 | Domestic |
| Dune III Mutual Water Company | 2 | Domestic |
| Dune V Water Company | 1 | Domestic |
| East Inyokern Mutual Water | 3 | Domestic |
| Ferran Water System | 1 | Domestic |
| Freeman, John | 1 | Domestic/Irrigation |
| Gateway Ace Hardware/Gateway Market | 1 | Commercial |
| Gilbert Mutual Water Company | 1 | Domestic |
| Hammar Water Co-Op | 1 | Domestic |
| Heritage Village | 1 | Irrigation |
| Hickle, Art (Hickle Family Trust) | 2 | Agriculture |
| Hometown Water Association | 1 | Domestic |
| Hovaten, Max | 3 | Agriculture |
| IAC Water Company | 2 | Domestic |
| Indian Wells Valley Water District | 10 | Municipal |
| Inyokern CSD | 1 | Domestic |
| Jumper St Water Co-op | 1 | Domestic |
| Kern County | 1 | Commercial |
| LIFE WATER CO-OP | 1 | Domestic |
| Marvin, Carey | 1 | Domestic/Irrigation |
| McGee, Mike | 4 | Agriculture |
| MEADOWBROOK DAIRY | 10 | Agriculture |
| Mirage St Water Co-Op | 1 | Domestic |
| MOJAVE PISTACHIO / RTS AGRI BUSINESS | 13 | Agriculture |
| Northeast Leliter Co-Op | 2 | Domestic |
| Owens Peak South | 1 | Domestic |
| Owens Peak Water Co Op | 1 | Domestic |
| Owens Peak West | 1 | Domestic |
| Pearson, Diana | 1 | Commericial/Irrigation |
| Pinon Water System | 1 | Domestic |
| Quist Farms/Don Quist | 7 | Agriculture |

| | | |
|---|---|---|
| Ridgecrest Charter School | 1 | Irrigation |
| Schiller, Larry | 1 | Domestic/Irrigation |
| Searles Valley Minerals | 5 | Industrial |
| Shaklett, Scott and Gale | 1 | Agriculture |
| Sierra Shadows Ranch / John Thomas Conaway | 4 | Agriculture |
| Simmons Farms | 1 | Agriculture |
| South Desert Mutual Water Company | 1 | Domestic |
| Sweet Water Co-Op | 1 | Domestic |
| Szelog, Matt (John) | 1 | Domestic/Irrigation |
| Warren Water System | 1 | Domestic |
| WEST VALLEY MUTUAL WATER CO | 2 | Domestic |
| Yellow Bird Water Co-Op | 1 | Domestic |

# IWVGA ADMINISTRATIVE OFFICE

***STAFF REPORT***

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**TO:** IWVGA Board Members **DATE:** June 18, 2020

**FROM:** IWVGA Staff

**SUBJECT:** **Agenda Item No. 10 – Consideration and Preliminary Adoption of Report on the Indian Wells Valley Groundwater Basin's Sustainable Yield of 7,650 Acre-Feet and Setting Hearing on Same for July Board Meeting**

## DISCUSSION

As the Board is aware, it has been determined that Basin cannot achieve sustainability without the development of an augmentation project. In order to establish fees to finance such a project, the IWVGA must determine who will be specially benefited by such a project. Accordingly, this Report provides for an analysis of the sustainable yield for the purposes of determining "beneficial impacts" only. The Report is not intended to, and does not, determine water rights and it is not a limitation on groundwater pumping.

The Report concludes that all groundwater extractors in the Basin, with the exclusion of De Minimis Extractors[1] and Federal Extractors,[2] are beneficially impacted by IWVGA's overdraft mitigation and augmentation projects. This conclusion is based on:

1) Reported Navy production rates showing more than convincing evidence that the Basin's entire sustainable yield is consumed by the Navy's Federal Reserve Water Right interest;

2) The Supremacy Clause of the U.S Constitution which prohibits the IWVGA from limiting, regulating, and/or charging Navy groundwater production in any way;

3) The IWVGA's legal inability to enquire into any challenges to the Navy's reported production rates even if it had a sufficient basis to do so; and,

4) The IWVGA's legal inability to adjudicate water rights.

Accordingly, all groundwater extractors in the Basin, with the exclusion of De Minimis Extractors and Federal Extractors, will be subject to the costs for overdraft mitigation and augmentation projects, unless an extractor obtains a court order showing they have quantifiable production rights superior to the Navy's.

## RECOMMENDED BOARD ACTION(S)

Preliminarily Adopt Report on the Indian Wells Valley Groundwater Basin's Sustainable Yield of 7,650 Acre-Feet and Set Hearing on Same for July Board Meeting.

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1 As defined by SGMA in Water Code section 10721(e) because SGMA has excluded them from the metering and reporting requirements of SGMA.
2 United States Navy; Naval Air Weapons Station (NAWS), China Lake, CA and United States Department of the Interior; Bureau of Land Management.

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# REPORT ON THE INDIAN WELLS VALLEY GROUNDWATER BASIN'S SUSTAINABLE YIELD OF 7,650 ACRE-FEET

JUNE 18, 2020


PREPARED BY:

STAFF AND CONSULTANTS FOR

THE INDIAN WELLS VALLEY GROUNDWATER AUTHORITY

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# I. PURPOSE

The Indian Wells Valley Groundwater Authority (IWVGA) has determined in its Groundwater Sustainability Plan (GSP) that the Indian Wells Valley Groundwater Basin (IWVGB or Basin) cannot achieve the required sustainability without the development of augmentation and overdraft mitigation projects. To establish fees to finance these projects, the IWVGA must determine who will be specially benefitted by them.

This report examines the use of water in the Basin to determine the "beneficial impacts" of Basin projects as a foundation for setting such fees. This Report will be used for fee setting purposes only and it is not a determination of water rights for any other purpose. This Report is not intended to be the basis for any limitation on groundwater extractions.

# II. EXECUTIVE SUMMARY

The analysis relies on, and incorporates where appropriate, all the data used in the adoption of the GSP, the timely responses to Groundwater Extraction Reporting For Pumping Verification Questionnaire 1, and the declassified report on Navy Demographics and Water Requirements at Naval Air Weapons Station (NAWS), China Lake, CA.

The GSP indicated that the IWVGA would review all pumping and make a determination of each producer's allocation of the sustainable yield for purposes of establishing fees to support groundwater mitigation projects. After reviewing the provided information provided, this analysis concludes that all groundwater extractors in the Basin, with the exclusion of De Minimis Extractors[1] and Federal Extractors,[2] are beneficially impacted by IWVGA's overdraft mitigation and augmentation projects and therefore it is not necessary to establish allocations for any extractor. This conclusion is based on:

1) Reported Navy groundwater production rates showing more than convincing evidence that the Basin's entire sustainable yield is consumed by the Navy's Federal Reserve Water Right interest;

2) The Supremacy Clause of the U.S Constitution which prohibits the IWVGA from limiting, regulating, and/or charging Navy groundwater production in any way;

3) The IWVGA's legal inability to enquire into any challenges to the Navy's reported production rates even if it had a sufficient basis to do so; and,

[1] As defined by SGMA in Water Code section 10721(e) because SGMA has excluded them from the metering and reporting requirements of SGMA.

[2] United States Navy; Naval Air Weapons Station (NAWS), China Lake, CA and United States Department of the Interior; Bureau of Land Management.

4) The IWVGA's legal inability to adjudicate water rights.

Based on the foregoing, this report concludes that the Basin's entire sustainable yield is subject to a Federal Reserve interest and is therefore beyond the jurisdiction of the Authority to regulate pursuant to Water Code § 10720.3. Accordingly, all groundwater extractors in the Basin, with the exclusion of De Minimis Extractors and Federal Extractors, are extracting water beyond the sustainable yield and will be subject to the costs for overdraft mitigation and augmentation projects, unless an extractor obtains a court order showing they have quantifiable production rights superior to the Navy's. It is therefore not necessary (or possible) to establish any party's allocation of the sustainable yield and all pumping should be treated equally.

## III. INTRODUCTION

The IWVGA is the exclusive Groundwater Sustainably Agency (GSA) for the IWVGB. As such, the Sustainable Groundwater Management Act (SGMA) requires IWVGA to adopt, monitor, and implement a Groundwater Sustainability Plan (GSP) that achieves Basin sustainability by 2040. After considerable public examination of the technical data by the IWVGA Board and two separate committees, the IWVGA determined that the Basin's sustainability cannot be achieved through pumping reductions alone because the annual sustainable yield of 7,650 acre-feet (af) is insufficient to meet the Basin's most minimal needs; let alone the anticipated minimal needs of the Basin which require an additional importation of *at least* 5,000 af annually. Accordingly, the IWVGA also concluded that Basin sustainability must rely on a combination of mitigation and augmentation projects.[3]

The GSP generally described certain projects that would benefit the Basin and provided a rough estimate of the attendant costs but it did not assign benefits and/or describe who should pay for a project. When making these determinations the IWVGA is controlled by extensive regulatory provisions in California law including the requirement that the GSA may only charge those receiving a beneficial impact from the overdraft mitigation and augmentation projects.[4]

## IV. GENERAL BASIN DESCRIPTION

The Basin has been listed as a high priority basin in critical overdraft and, as such, the IWVGA was required to adopt a GSP to achieve Basin sustainability by no later than January 31, 2020. On January 16, 2020, the IWVGA adopted its GSP which outlined the IWVGA's plans and strategies to achieve Basin sustainability by no later than 2040.

[3] The data and supporting conclusions are more thoroughly described below and in the IWVGA's GSP, adopted on January 16, 2020.

[4] Additional provision of law also requires that the charges be applied proportionately. A flat rate volumetric charge by definition meets the proportionate requirements.

As more thoroughly discussed in the GSP, there are several unique factors that drive any analysis of this Basin and its unique groundwater production challenges:

1) The Basin has an arid, high desert, climate with the long-term natural recharge achieving an annual basin sustainable yield of 7,650 af.

2) The Basin is solely dependent on groundwater and the minor use of recycled water.

3) Current estimated Basin outflows are approximately four (4) times the estimated inflows.

4) In areas of groundwater production, the Basin groundwater levels are dropping by approximately 0.5 to 2.5 feet annually.

5) The GSP's Baseline Model projects that without changes to the severe overdraft the groundwater infrastructure in the Basin will not be able to produce the needed water by 2065.

6) The Basin does not have access to imported water supplies and up to 50 miles of infrastructure will need to be built to obtain access to imported water supplies from the Delta.

7) The majority of the Basin (approximately seventy-nine percent (79%)) overlies federal lands that cannot be regulated and/or charged for basin management activities by state and local agencies such as a GSA.

8) Through the efforts of groups like the Indian Wells Valley Groundwater Cooperative Group (IWVGCG), estimates of Basin production have been complied since the 1970s that have documented severe overdraft conditions but there have been no infrastructure projects built to transport imported water supplies to the Basin.

A driving factor in the GSP's determination that sustainability cannot be achieved through extraction reductions alone is the estimated/reported Basin outflows which are approximately four (4) times the estimated inflows to the Basin. These overdraft conditions have caused groundwater levels to drop by approximately 0.5 feet to 2.5 feet annually near pumping areas. These declines in groundwater levels have historically and will continue to exceed the depths of some wells in the Basin leading to costly mitigation measures to deepen and/or replace Basin wells. Additionally, these declines in groundwater levels will cause increases in pumping costs due to the additional lifts required to produce groundwater from these lower depths. It is also reasonable to assume that these declines will lead to a degradation in water quality as contaminants will become more concentrated in the Basin's reduced groundwater storage.

# V. GSP IMPORTATION MANAGEMENT ACTION

Having concluded that the Basin cannot be brought into sustainability through extraction reductions alone, the GSP includes a management strategy of importing an average of 5,000 af of water annually. This is believed to be the minimum amount of water needed to achieve sustainability. While this level of water importation anticipates the likely cessation of large-scale agricultural uses in the Basin due to the increased cost for surface water, it does not prevent such a use.

At present, the Basin has no access to imported water supplies and up to 50 miles of infrastructure will need to be built to obtain access to imported water supplies from the Delta. As a result, a portion of the significant costs associated with infrastructure construction (roughly $46 million for a Los Angeles Aqueduct Project and $150 million for an AVEK) will be borne by the present farming operations.

In contrast, in the Central Valley of California, which is home to the some of the most significant water projects in the world, including the State Water Project, the Central Valley Project, and numerous water banking projects, these significant infrastructure cost burdens have already been incurred and seasonal fluctuations and surpluses can be captured for later use. And yet, even with this significant economic advantage, the Central Valley is expected to see very significant reductions in crop lands due to import water supply costs.[5] Kern County alone is expected to see upwards of 185,000 acres of currently farmed land in the central valley to be permanently fallowed as a result of SGMA implementation.[6]

Additionally, State Water Contractors often have "first right of refusal" provisions which allow a landowner within that State Water Contractors' boundaries to match any purchase price offered by the Authority. As a result, farmers in this Basin are at a significant disadvantage compared to competing farmers in the Central Valley.

Nevertheless, the conceptual design of the import infrastructure can support a very significant agricultural use in the Basin if there is such a demand. The facilities have been sized to take advantage of seasonally available surpluses and as a result the facilities have the capacity to deliver up to 20,000 acre-feet per year (afy) if the water was delivered on a continuous basis. Accordingly, an increased volume of imported water up to 20,000 afy, depending on the delivery schedule, would be possible. To the extent there are any additional costs, those costs would be limited to the water purchase and the associated transfer costs for that water, including operation and maintenance costs for the associated water banks and State or Federal water projects. These costs are the same for each acre foot (af) of imported water delivered and

[5] Public Policy Institute of California; Water and the Future of San Joaquin Valley Report (February 2019).
[6] Indian Wells Valley Groundwater Authority Water Marketing Strategy Technical Memo (August 2019).

therefore, a volumetric pumping fee set at an expected annual production of 5,000 af would also be adequate for an expected delivery of up to 20,000 af annually as the costs would rise in direct proportion to the excess delivery volume. In the remote chance that the 5,000 af importation project has been inadequately sized, IWVGA will readjust once such commitments are received. In this instance, those commitments will be reflected through the payment of an adopted Replenishment Fee which will be first used for the purchase of import water supplies and mitigation of the impacts on shallow wells.

Accordingly, this management action is not a determination of water rights nor a restriction on their use. Rather, all groundwater extractors may produce groundwater provided they pay the appropriate fees to augment and mitigate that extractions. While this action will not directly limit groundwater extraction by any individual entity, it is anticipated that the water supply market costs will result in voluntary extraction reductions thereby assisting in achieving sustainability.

## VI. ANALYSIS LIMITED TO SUSTAINABLE YIELD OF 7,650 ACRE FEET

SGMA, and in particular Water Code section 10730.2, provides for the adoption of a groundwater extraction fee to fund sustainability projects. The authority provided in section 10730.2, is in addition to any powers a groundwater sustainability agency has under any other law.

Under California law, in order to be subject to a fee to pay for the costs of an importation project, the payer must directly and specially benefit from that project. California law prohibits the GSA from charging for general benefits such as an increase in property value due to further community development. Accordingly, fees to pay for the costs to import water can only be charged to those that actually use the imported water.

Parties that have a legal right to extract a portion of the native sustainable yield are not benefitted by the imported water to the extent that their pumping can be ascribed to the native sustainable yield. If a groundwater user cannot meet their needs through their portion of the Basin's sustainable yield, they must be subject to the fee.

Accordingly, this Report is drafted for the sole purpose of determining the colorable legal claims to the Basin's sustainable yield, which has been established as 7,650 af. In order to make this threshold determination, the IWVGA must examine the history of water use in the Basin in accordance with the principles of California Water Law. There is no need to identify the claims to the use of water above the sustainable yield as all users of such water shall be subject to the fee based on their actual use.

## VII. NON-FEDERAL PUMPING DATA

The GSP shows that Basin extractions have been documented over the past 70 years: first, by the U.S. Geological Survey (USGS) with U.S. Navy participation and then by the U.S. Bureau of Reclamation (USBR). And then, for a period of roughly 20 years, starting in the mid 1990's, the annual production tally was maintained by the IWV Cooperative Group. Additional supporting data is more thoroughly provided and described in the IWVGA's GSP, adopted on January 16, 2020.

In early 2020, the IWVGA required each non-De minimis and non-Federal extractor in the Basin to provide it with pumping data to be used in the development of this Report. With a few notable exceptions, the majority of the significant pumpers in the Basin submitted timely pumping verification documentation to the IWVGA for inclusion in this Report.

A review of the information shows that the majority of the extractions in the Basin are undertaken by six large producers. Two of these pumpers, the Indian Wells Valley Water District (IWVWD) and Meadowbrook Dairy, have each reported historical extractions that have exceeded the Basin sustainable yield in a given year. Since 2010, the IWVWD and Meadowbrook Dairy have each reported a maximum annual extractions of approximately one-hundred percent (100%) (7,634 af) and one-hundred and seventeen percent (117%) (8,920 af) of the sustainable yield, respectively. A fourth extractor, Mojave Pistachio, reported estimated future extraction demands at tree maturity of 7,200 af, or roughly 94% of the Basin sustainable yield.[7]

Adding further complexity, one extractor (Searles Valley Minerals Inc) has reported a yearly production since 2010 of as much as 2,743 af of Basin extractions (approximately thirty-six percent (36%) of the Basin's sustainable yield). Searles Valley Minerals Inc.'s production is primarily for an industrial use in a different basin, the Searles Valley Groundwater Basin, which is located approximately 24 miles northeast of the City of Ridgecrest and the water used provides no known return flow to the IWVGB.

Collectively, the above noted production above alone is nearly three and a half (3.5) times the estimated inflows to the Basin. Without changes to the Basin's severe overdraft condition, the Baseline Model run projects that the Basin's groundwater infrastructure will not be able to produce the needed water by 2065.

## VIII. FEDERAL PUMPING DATA

Roughly seventy-nine percent (79%) of the land overlying the Basin are federal lands owned by the Bureau of Land Management (BLM) and/or the Naval Air Weapon Station China Lake (NAWS

[7] Mojave Pistachios did not timely submit historical pumping data in response to Groundwater Extraction Reporting for Pumping Verification Questionnaire 1. Estimated future pumping demands were reported to the IWVGA by Mojave Pistachio on their Well Registration forms.

China Lake). In accordance with long standing principles of federalism, these federal lands cannot be regulated by the State of California, and by extension IWVGA, in any way. As a result, the IWVGA is unable to charge these federal lands with any of the costs associated with any importation or mitigation projects regardless of whether or not these lands are benefited.

SGMA recognizes that the IWVGA has no legal authority to require that the federal government provide any pumping information under existing law in Water Code section 10720.3(c), which expressly provides that any participation by the federal government shall be voluntary. SGMA further recognizes the Navy's Federal Reserve Water Right (FRWR) as distinct from water rights that are based in state law and directs that the FRWR be respected in full. Moreover, SGMA expressly provides that federal law shall prevail in the case of any conflict between federal and state law (Water Code Section 10720.3(d)). SGMA also directs that the IWVGA consider the interests of all beneficial uses and users of groundwater, listing the federal government, including, but not limited to, the military and managers of federal lands among those interests (Water Code Section 10723.2).

On June 17, 2019, the Navy provided a report titled Navy Demographics and Water Requirements at Naval Air Weapons Station (NAWS), China Lake, CA. In that report, the Navy provided fairly detailed data on its pumping history; however, the Navy expressly declined to provide its FRWR, thus, leaving it to IWVGA to estimate the Navy's FRWR from the provided data for the purpose of related fee determinations. To assist the GSA in making that determination, the Navy provided the following information:

1) The FRWR IS NOT limited to the current on base demand of 2,041 af.

2) The FRWR dates back to the establishment of the base in 1943.

3) The FRWR would likely be established, if ever, through litigation.

4) The water requirements of the Navy cannot be determined solely by the Navy's recent direct production amounts.

5) Since the Navy mission at NAWS China Lake requires its workforce, the full Navy water requirements are the combination of the on-Station requirements and those of the Navy workforce and their dependents off-Station.

Each of these assertions by the Navy have significant legal effect, and to one degree or another, each have been challenged by other extractors in the Basin. It should also be noted that while these assertions have been challenged, they have only been challenged in a very generic sense. To date, the IWVGA is unaware of, and has not been provided, any colorable legal argument that would even suggest that the IWVGA has any ability to regulate the Navy and/or consider, let alone determine, these disputes between the Navy and the other pumpers.

The Navy has asserted that its FRWR dates back World War II when it began the development of the Naval Ordnance Test Station in 1943. The development included the construction of hundreds of industrial and residential buildings, roads, runways, and other necessary infrastructure. As development by the Navy continued, more groundwater wells were drilled to supply the increased water demands. Most of the Indian Wells Valley's new permanent residents were associated with the naval operations and lived on Navy property during the 1940s and into the 1970s. The growth of the naval operations led to the incorporation of the City of Ridgecrest in 1963.

While other basins in California may also face this dilemma of an undefined FRWR that "must be respected in full," this Basin is uniquely burdened because a more than convincing argument can be made that the entire sustainable yield is assumed by the FRWR. In fact, at its high point in 1970, a more than rational point for determining the FRWR, reported Navy on-Station production alone exceeded the Basin' sustainable yield by approximately five percent (5%).

The reported high point of Navy production in 1970 is not an anomalous instance either. In fact, reported Navy production exceeded the Basin sustainable yield for each of the four years between 1969 and 1972. Moreover, for nine years within the 11-year time period between 1964 and 1974, annual Navy production exceeded 7,000 af. In addition, for nearly two decades (1959 to 1976) annual Navy production exceeded 6,000 af, or nearly eighty percent 80% of the Basin's sustainable yield.

1970 is also very significant because, in that same year, the Navy reports that it made a "strategic divesture" to spur Ridgecrest development and rapid Navy population shifts off-Station. Since then, the Navy has reported a reduction of nearly ninety-five percent (95%) of its on-Station family dwelling units from 2,916 units in 1972 to 192 units in 2019. This drastic and purposeful population shift off-Station transferred Navy water demands from personnel living quarters on-Station to the off-Station water providers in the Ridgecrest community and those individuals that invested in their own wells to meet their own domestic needs off-Station.

Figure 1 below provides the historical groundwater production for NAWS China Lake and the IWVWD. IWVWD is the predominant water supplier for the Ridgecrest community that began receiving those off-Station housing shifts in 1972. The increase in IWVWD production as NAWS China Lake production decreases graphically corresponds in part with the shift in Navy population off-Station into the Ridgecrest community. In the mid-2000s, decreases in IWVWD production represent increased conservation within its service area, including even further drastic reductions in the last decade in response to the historic drought conditions experienced statewide.

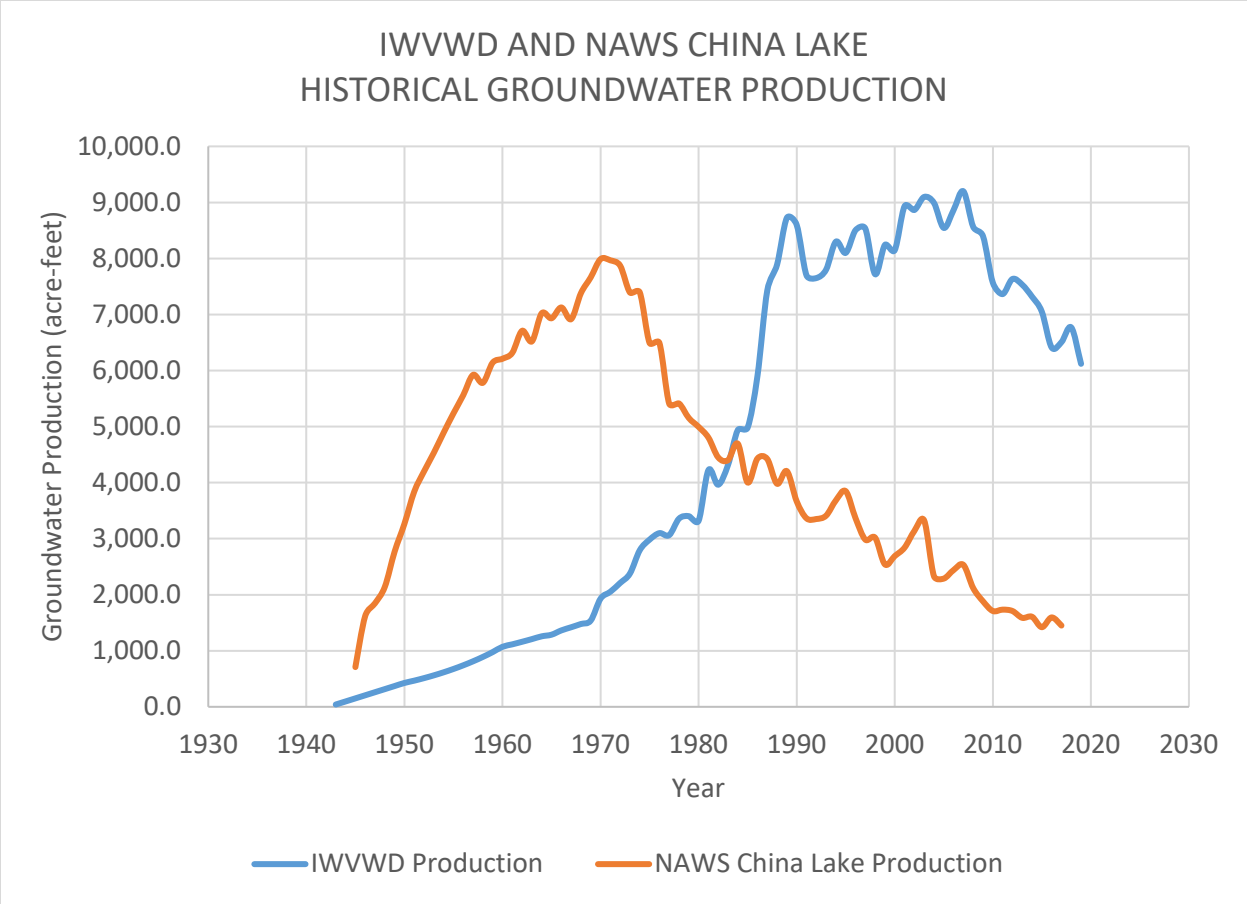


*Figure 1: IWVWD and NAWS China Lake Historical Groundwater Production*

Historical groundwater production by IWVWD and NAWS China Lake can also be graphically compared to the Basin sustainable yield, as shown in Figure 2.

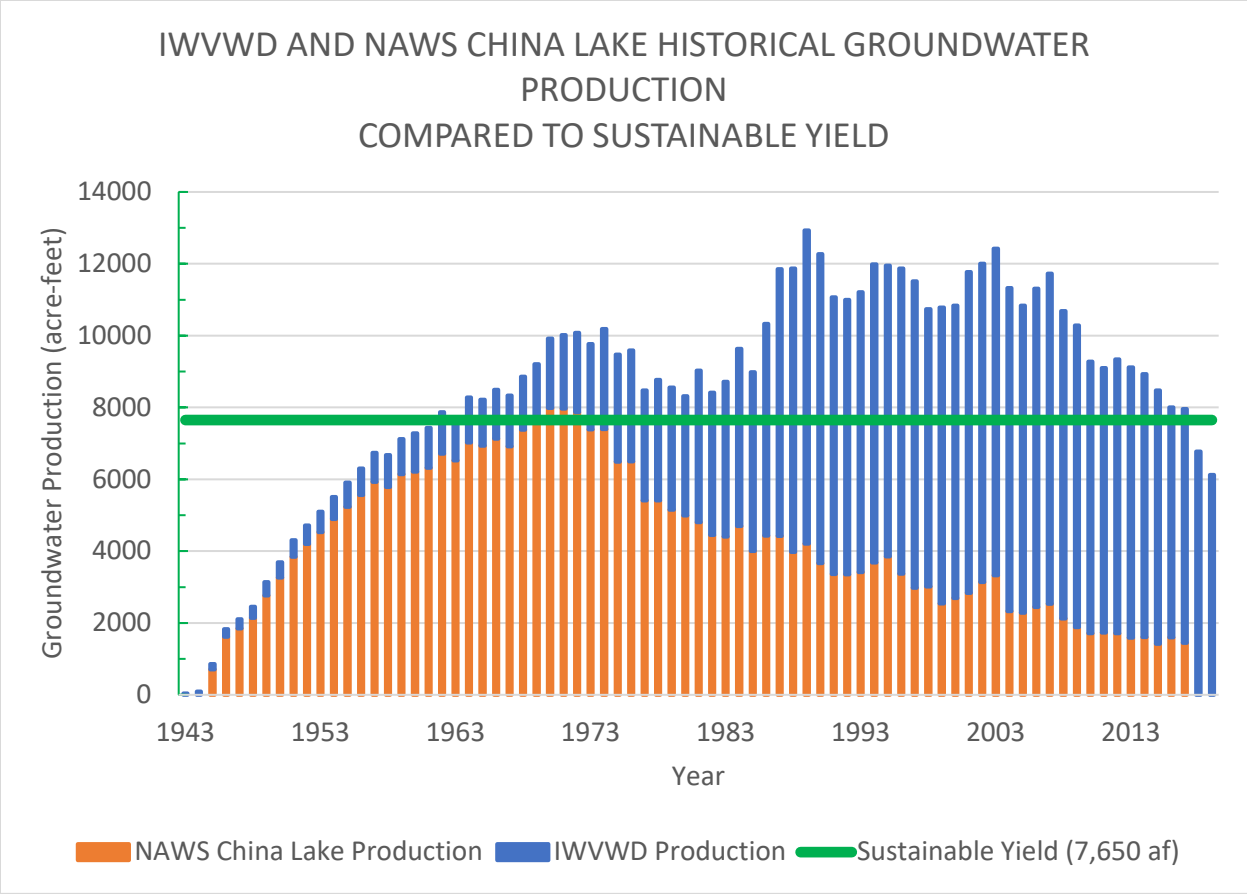


*Figure 2: IWVWD and NAWS China Lake Historical Production Compared to Basin Sustainable Yield.*

As graphically shown in Figure 1 and Figure 2, were this issue to be litigated, the Navy could, and very probably would, assert that its FRWR extends to entire sustainable yield of the Basin. Additionally, given the historical circumstances and the timing of the base's establishment, which corresponds with the height of the Navy's participation in World War II, a more than convincing argument can be made that any reviewing court will agree with the Navy's express assertion that the FRWR began in 1943.

## IX. SGMA POWERS AND LIMITATIONS

Setting aside the very significant water production issues already mentioned, the IWVGA is also faced with an insurmountable legal dilemma because it has no legal authority to coerce or regulate the Navy in anyway. As previously explained, the Navy's participation is completely voluntary and IWVGA cannot require that the Navy present it with extraction data. In point of fact, IWVGA's express and repeated requests for the Navy's estimation of its FRWR were repeatedly rebuffed by the Navy's legal team.

SGMA is groundbreaking legislation that provides IWVGA with numerous powers and authorities for the purpose of locally managing the Basin. However, for all of the powers and authorities granted to IWVGA, the State did not, and could not, provide the IWVGA with the power to regulate the Navy in any way. SGMA acknowledges this fact and expressly provides that the participation of a FRWR holder "shall not subject that holder to state law regarding other proceedings or matter not authorized by federal law" and this "is declaratory of existing law".

The Constitutional basis for this limitation is found in long standing principles of American federalism which are expressly provided for the Supremacy Clause of the U.S Constitution (Article VI, Clause 2). The Supremacy Clause generally prohibits State regulation of the Federal Government unless Congress clearly and unambiguously waives this sovereign immunity by statute. These legal doctrines are long standing and fundamental to American governance and jurisprudence. The federal sovereign immunity doctrine can be summarized as follows:

> The United States and all of its departments and agencies cannot be sued without the United States express consent through a statutory waiver.

Accordingly, this doctrine prohibits any State regulation or lawsuit that does not follow within specific statutory exemptions. Even if there is such a statute allowing the regulation and/or suit, the regulation and/or suit is only permitted to the extent and degree that Congress chooses to allow and Courts are to interpret that allowance narrowly.[8]

There is no such statutory waiver for State regulation of groundwater through SGMA, and as such, the IWVGA has no ability to make any determinations in regards to FRWR disputes. If a groundwater extractor believes that the reported Navy data is in error, or if it disputes any of the five cited assertions by the Navy in regards to the FRWR, that extractor needs to make those assertions directly to the Navy and, if need be, adjudicate the issue with the Navy in Federal Court. The IWVGA simply does not have the legal authority to properly investigate the issue, let alone award any relief against the Navy. Moreover, since the IWVGA does not hold any water rights in the Basin, the IWVGA most likely lacks the legal standing to challenge the Navy's assertions in court as such actions would most likely be limited to those that have conflicting water claims against the Navy.

As example, the Navy has asserted that its FRWR dates back to World War II. As part of the war effort, the Navy began the development of the Naval Ordnance Test Station in 1943. The development included the construction of hundreds of industrial and residential buildings, roads, runways, and other necessary infrastructure. Searles Valley Minerals on the other hand has asserted to the IWVGA that the FRWR does not begin until some years later. The express purpose

[8] Notably, in 1952, Congress enacted the McCarran Amendment which waived federal sovereign immunity for the joinder of the United States as a defendant in court for general stream adjudications. Later in 1971, the United States Supreme Court ruled, in *United States v. District Court in and for Eagle County*, 401 U.S. 520 (1971), that the waiver of sovereign immunity under the McCarran Amendment (43 U.S.C § 666) also includes a waiver for the adjudication of FRWR provided that the rights of all competing claimants are adjudicated.

of this assertion is to claim a portion of the Basin's sustainable yield for Searles Valley Minerals instead of the Navy. As previously mentioned, the IWVGA has no ability to require that the Navy respond to this dispute in any degree. In fact, the IWVGA has made the Navy aware of Searles Valley Minerals' claims, but the Navy has not responded to any degree. Clearly, if the IWVGA cannot properly investigate the issue, it cannot make any determination of the issue and the proper and only venue for the determination of Searles Valley Minerals is in a court of law.

Likewise, Searles Valley Minerals claims that its production rates prior to 1943 are superior to the Navy's FRWR are not properly venued with the IWGVA. Those claims have been presented to the Navy but they have not been addressed by the Navy to date. It is presumed that when, and if, the Navy ever has to address these claims in a court of law, the Navy will vehemently argue that is an unreasonable, and thus an unconstitutional, use of groundwater to take roughly thirty-six percent (36%) of an arid high desert basin's sustainable yield for a predominantly industrial use in a completely different basin with no return flows to this Basin. This argument is more than colorable, and may very well find a more than receptive audience, in light of the California Supreme Court's express holdings *Gin S. Chow*[9] and *Joslin*[10] that:

> "[w]hat is a reasonable use or method of use of water is a question of fact to be determined according to the circumstances in each particular case."

Most notably, the Supreme Court's reasoning in *Joslin* that "such an inquiry cannot be resolved in vacuo isolated from statewide considerations of transcendent important" lead the Court to conclude that Joslin's use was unreasonable in light of the new municipal water supple demands. Whether these arguments are properly placed is not a question for the IWVGA because it simply does not have the legal authority to properly investigate the issue, let alone award any relief against the Navy, because SGMA prohibits the IWVGA from determining water rights.

Meadowbrook Dairy has repeatedly attacked the Navy's assertion that its water requirements cannot be determined solely by the Navy's recent direct production amounts and that the full Navy water requirements are the combination of the on-Station requirements and those of the Navy workforce and their dependents off-Station. Meadowbrook Dairy has actually argued that SGMA prohibits IWVGA from determining water rights and then demanded that the IWVGA determine that Meadowbrook's rights are superior to the Navy's to off-Stations requirements. Remarkably, Meadowbrook Dairy has been unable, or unwilling, to provide any legal authority which the IWVGA can rely upon to address this issue and/or give Meadowbrook the permanent water right it demands without quantification. Again, the merits of these issues simply cannot be properly investigated let alone adjudicated by the IWVGA because SGMA prohibits the IWVGA from determining water rights.

Likewise, if and when, the Navy ever has to address this claim in a court of law, it is presumed that the Navy will strongly argue that Meadowbrook Dairy's use of one-hundred and seventeen

[9] *Gin S. Chow v. City of Santa Barbara* (1933) 217 Cal. 673.
[10] *Joslin v. Marin Municipal Water District* (1967) 67 Cal.2d 132.

percent (117%) Basin's sustainable yield for growing alfalfa is an unreasonable, and thus an unconstitutional, use of groundwater. Although late, Meadowbrook Dairy now seems to acknowledge that its prior use was unreasonable and wasteful as it now claims that it has begun to shift its operations to less water intensive crops. Whether this shift to a less intensive use allows Meadowbrook to insulate itself from the presumed Navy claims is a matter of law for the courts and not the IWVGA.

SGMA did not provide the IWVGA with the ability to adjudicate water rights. In 2015 California adopted SB 266 and AB 1390 to streamline adjudications and harmonize the process with SGMA. These provisions set forth a process for rights holders to determine groundwater rights in manner that does not interfere with the GSA's jurisdiction. Any groundwater producer may invoke this judicial process if they believe that the Federal Interest is less than the entire sustainable yield or they believe they have a superior claim to the sustainable yield. However, until a judicial determination of the scope of Federal Interests is made, the IWVGA must use its best judgment to determine the amount of water that is outside of its jurisdiction.

## X. DE MINIMIS EXTRACTOR EXCLUSION

SGMA has excluded De minimis extractors from extraction fees by excluding them from reporting and metering requirements. This exclusion is in accordance with several principles of California Water Law, including Water Code section 106 which expressly provides that:

> "It is hereby declared to be the established policy of this State that **the use of water for domestic purposes is the highest use of water** and that the next highest use is for irrigation." (emphasis added)

## XI. CONCLUSION

For all the reasons previously stated, all groundwater extractors in the Basin, with the exclusion of De Minimis Extractors and Federal Extractors, are beneficially impacted by IWVGA's overdraft mitigation and augmentation projects. Primary supporting factors are:

1) Reported Navy production rates showing more than convincing evidence that the Basin's entire sustainable yield is assumed by the Navy's Federal Reserve Water Right interest;

2) The Supremacy Clause of the U.S Constitution which prohibits the IWVGA from limiting, regulating, and/or charging Navy production in anyway;

3) The IWVGA's legal inability to enquire into any challenges to the Navy's reported production rates even if it had a sufficient basis to do so; and,

4) The IWVGA's legal inability to adjudicate water rights.

Accordingly, all groundwater extractors in the Basin, with the exclusion of De Minimis Extractors and Federal Extractors, will be subject to the costs for overdraft mitigation and augmentation projects.

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# IWVGA ADMINISTRATIVE OFFICE

***STAFF REPORT***

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**TO:** IWVGA Board Members **DATE:** June 18, 2020

**FROM:** IWVGA Staff

**SUBJECT: Agenda Item No. 11 – Board Consideration and Adoption of Engineer's Report for the Adoption of a Basin Replenishment Fee, Authorize The Mailing of Notices on the Same and Setting Hearing For August Board Meeting**

## DISCUSSION

As the Board is aware, the Basin's Sustainable Yield is insufficient to meet the water needs of the Basin that could/should be classified as permanent needs and as such the IWVGA must rely on imported supplies. Additionally, it has been determined that the decades of severe overdraft and inaction have already damaged the Basin significantly and recent Basin model runs have demonstrated the need for urgent and significant actions to preserve the community and bring the Basin into Sustainability as required by SGMA. In fact, the Baseline Model run projects that without action to cure the severe overdraft, the Basin's infrastructure will not be able to produce the needed groundwater in less than 45 years (2065).

The attached Engineer's Report provides for, and recommends, the adoption of a $2,130 per acre foot Basin Replenishment Fee (Replenishment Fee). The proposed Replenishment Fee is a composite volumetric charge that will fund the first phase for the IWVGA's Groundwater Augmentation Project, which is the purchase costs estimated at $2,112 per acre foot over five years and the associated Shallow Well Mitigation Project costs which are estimated to be $17.50 per acre foot until import supplies are brought on line.

As also provided for in the Report, De Minimis extractors and Federal extractors are exempt from the Replenishment Fee, as well as those that have permission to extract unused portions of the Navy's estimated Federal Reserve Water Right interest (carryover extractions discussed below).

The purchase costs are a one-time cost and they are correlative per acre foot so increases, or decreases, in the final project size do not affect the per acre foot cost analysis. Accordingly, the actual amount of needed import supply could be less if those holding what are believed to be a permanent needs obtain water from a source other the Basin's groundwater. As example, if Searles Valley Mineral is able to lower its presumed demand and/or use water from a source other than this Basin, then Searles Valley Mineral's total costs would be reduced and the IWVGA will not need, and will not purchase as much import water.

Accordingly, the only true estimate for the potential import demands is to set the fee at the actual costs and then adjust the ultimate import needs based on actual pumping that occurs. The IWVGA has already experienced a situation with the GSP Fee which was originally based on reported pumping needs that never actually materialized. If fact, one pumper (Meadowbrook Dairy) has expressly stated that it lowered

their demands because of the GSP Fee. As a result, it would be prudent to set the fee at the amount needed and then adjust the importation purchase as dictated by the rate payers' willingness to rely on import water or reductions in their needs.

If an entity needing import supplies would like the benefit of a ramp up or extended payment period that entity could, and probably should, immediately seek outside financing to achieve that goal. Importantly, such an action will not only lower the initial impacts of fees, it will most likely lower the initial purchase costs which are likely to only increase in the coming months and years as basins throughout the State adjust to SGMA.

Also, because the cost per acre foot for imported water is correlative, the size of the project is irrelevant to the per acre foot charge and any increase, or decrease, in the amount of water needed will be adjusted without any need to change the estimated analysis in the report. To illustrate the point, let's presume an import supply of only 100 acre feet per year is needed. In that case, the cost calculation would be as follows: 100/.62 (needed 100 af divided by the State reliability factor of .62) x $6,500 (estimated purchase cost based on actual recent sales) = $1,048,387 (total purchase cost). The total purchase cost of $1,048,387 is then divided by the 100 acre foot need and the five year payment period for a total of $2,097 per acre foot ($1,048,387/100/5= $2,097.). The additional $15 in the Report to achieve $2,112 per acre foot is reflected in five years' worth of administration costs.

As noted in the Report, the Navy has asserted that its water needs include the off-Station demands for its workforce and their dependents, so it is presumed that the Navy will supply water to its workforce through those off-Station water providers in accordance with the following chart.

| Pumping Group | Current Est Pumping | Navy Use/Carryover | Augment Supply Need |
|---|---|---|---|
| Navy | 1,450 | 1,450 | 0 |
| De Minimis Wells | 800 | 800 | 0 |
| City of Ridgecrest | 373 | 373 | 0 |
| Kern County | 18 | 18 | 0 |
| IWVWD | 6,507 | 4,390 | 2,117 |
| Inyokern CSD | 102 | 102 | 0 |
| Small Mutuals | 300 | 300 | 0 |
| Trona DM | 217 | 217 | 0 |
| SVM | 2,413 | 0 | 2,413 |
| Total | 12,180 | 7,650 | 4,530 |

If the Navy's on-Station needs increase the carryover will decrease accordingly and additional augmentation supplies will be needed. As example, the Navy has reported a near term future growth plan which will bring the on-Station need to 2,041 af. If, and when, that growth comes about the carryover will decrease by 591 af and the needed augment supply will increase to 5,121 af. The carryover has not been adjusted on a proportional basis because the Basin's "commercial" demands are almost exclusively found within the IWVWD.

Qualified groundwater extractors not listed on the chart will have the opportunity to either take part in the

Transient Pool Program, the Fallowing Program or continue their use through the payment of the Replenishment Fee. New groundwater extractors and/or those that have not qualified for the Transient Pool Program and the Fallowing Program may continue to extract groundwater from the Basin subject to the payment of the Replenishment Fee.

## RECOMMENDED BOARD ACTION(S)

Therefore, it is recommend that the Board set the Replenishment Fee $2,130 per acre foot for notice purposes, direct staff to prepare and mail notice, and set a public hearing on the same for the August 20th Board meeting.

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**DRAFT**

# Indian Wells Valley Groundwater Authority

# Engineer's Report For the

# Adoption of a

# Basin Replenishment Fee

**June 18, 2020**

IWVGA

INDIAN WELLS VALLEY GROUNDWATER AUTHORITY

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## Definitions

**Augmentation Project** = Project described in Section 6.0

**Authority** = Indian Wells Valley Groundwater Authority

**Basin** = Indian Wells Valley Groundwater Basin

**De Minimis Extractors** = A person who extracts, for domestic purposes, two acre-feet or less of groundwater per year (California Water Code Section 10721(e))

**GSA** = Groundwater Sustainability Agency

**GSP** = Groundwater Sustainability Plan

**IWVGA** = Indian Wells Valley Groundwater Authority

**IWVGB** = Indian Wells Valley Groundwater Basin

**Mitigation Project** = Project described in Section 7.0

**Replenishment Fee** = Fee described in Section 8.0

**SGMA** = Sustainable Groundwater Management Act

**Sustainable Yield Report** = Report on the Indian Wells Valley Groundwater Basin's Sustainable Yield of 7,650" (draft of which is included and incorporated as Exhibit A)

**Water Marketing Memo** = Indian Wells Valley Groundwater Authority Water Marketing Strategy Technical Memo of August 2019

## 1.0 Purpose

This Engineer's Report (Report) is prepared in accordance with California and Federal law. Its purpose is to provide for, and describe, the estimated costs to be funded by the Indian Wells Valley Groundwater Authority's (IWVGA or Authority) Basin Replenishment Fee (Replenishment Fee). The proposed Replenishment Fee is a composite volumetric charge that will fund the IWVGA's Groundwater Augmentation Project (Augmentation Project) and Shallow Well Mitigation Project (Mitigation Project).

The Augmentation Project will bring imported surface water into the Indian Wells Valley Groundwater Basin (IWVGB or Basin), while the Mitigation Project will mitigate the impacts to shallow wells from the continued overdraft of the Basin during the purchase, design and construction phase of the Augmentation Project. For simplicity and efficiency, it is recommended that these two separate costs centers, which are properly charged to the same individuals on the same per acre foot basis, be combined into the one composite charge named the Basin Replenishment Fee.

California law requires that the costs of these Projects be identified and equitably distributed in accordance with, and proportionate to, the special benefits derived from the projects and, as such, the costs and funds for each Project will be accounted for and analyzed separately.

As more thoroughly provided for in the IWVGA's "Report on the Indian Wells Valley Groundwater Basin's Sustainable Yield of 7,650" (Sustainable Yield Report)(a draft of which is included and incorporated as Exhibit A), De Minimis extractors, as defined by the Sustainable Groundwater Management Act (SGMA), and Federal extractors will not be charged the Replenishment Fee. Federal law prohibits the IWVGA from regulating and/or charging the Federal extractors, regardless of the special benefits provided to those lands. De Minimis extractors are exempted because SGMA has excluded them from extraction fees by excluding them the metering and reporting requirements of SGMA.

## 1.1 General Summary

The IWVGA is the exclusive Groundwater Sustainability Agency (GSA) for the Basin. As such, the Sustainable Groundwater Management Act (SGMA) requires IWVGA to adopt, monitor, and implement a Groundwater Sustainability Plan (GSP) that achieves Basin sustainability by no later than 2040.

After considerable public examination of the technical data by the IWVGA Board and two separate committees, it has been determined that the Basin's sustainability cannot be achieved through pumping reductions alone because the annual sustainable yield of 7,650 acre-feet (af) is insufficient to meet the Basin's most minimal needs; let alone the possible and/or probable needs of the Basin, which require an anticipated minimum importation of at least 5,000 af annually.

The Augmentation Project costs reflect the anticipated costs to provide imported water supplies to those lands that must rely in part, or in whole, on imported water supplies. In general, the Augmentation Project costs can be naturally broken down into two phases; the first phase is the water purchase component and the second phase is the transportation infrastructure component. This Report focuses on the water purchase component. The transportation infrastructure component is presently uncertain and not addressed because there are two possible construction alternatives and it's anticipated that grant funding, and/or possibly voluntary federal funding, will help mitigate the ultimate construction costs. Accordingly, this Report estimates a total purchase cost of $52,422,500 million dollars for the needed 5,000 af import supply. Given the urgency and the current and anticipated water markets, it is highly recommend that the IWVGA obtain this water purchase before no later than the end 2025 and even sooner if at all possible as it is highly likely that the costs of water will only increase in coming years as Basin's adjust to SGMA. The related costs for Project administration/negotiation/legal is estimated to be at least $377,500 over the five year period, bringing the total estimated costs to $52,800,000; which, when split over a five year period, equates to a per acre foot extraction charge of $2,112.

The Mitigation Project costs reflect the anticipated costs to provide the necessary funds to mitigate the impacts on shallow wells as a result of the continued over drafting of the Basin. While this is a separate fee with a separate cost analysis, this Fee is paid by the same group as the Augmentation Fee and the anticipated costs are rather linear and generally increase in direct correlation to the amount of overdraft pumping. This report estimates that the costs of the described Mitigation Project equates to a per acre foot extraction charge of $17.50.[1]

While these two cost centers represent separate fees that must be tracked and accounted for separately, for charging simplicity and efficiency, this Report recommends that these two separate costs centers be combined into one composite charge named the Basin Replenishment Fee, which should be set at $2,130 per acre foot of groundwater extracted from the Basin.

De Minimis extractors and Federal extractors are exempt from the Replenishment Fee. Likewise, those that have permission to extract unused portions of the Navy's estimated Federal Reserve Water Right interest (carry over extractions) shall not be subject to this Replenishment Fee for those carry over extractions.

# 2.0 Basin Background

## 2.1 Basin Location

The Basin, as depicted in Figure 2-1, is remotely located in the northwestern part of the Mojave Desert in southern California. The Basin boundaries, which are determined by the State of California (State) in Bulletin 118, underlie approximately 382,000 acres or approximately 600 square miles of land area. The boundaries of the Basin are primarily within the County of Kern but they also extend into portions of Inyo and San Bernardino Counties.

The Basin is bordered on the west by the Sierra Nevada Mountain Range, on the north by the Coso Range, on the east by the Argus Range, and on the south by the El

[1] While those taking part in the Transient Pool program are subject to these costs, they will pay for them as part of their Transient Pool agreement and as such they will not be charged the Replenishment Fee.

Paso Mountains. Surface water flow from the surrounding mountain ranges drains to China Lake, a large dry lake, or playa, located in the central north-east part of the Basin. U.S. Route 395 and State Route 14 are the major vehicular arteries through the Indian Wells Valley area.

## 2.2 Basin Water Supplies

The Basin presently lacks the needed infrastructure to provide landowners with access to imported water supplies for either direct use and/or in lieu groundwater recharge. **As a result, Basin water users must rely upon groundwater as their sole water source.**

Residents of the Indian Wells Valley area are served groundwater through private domestic wells and/or by a connection to one of the two public agency water purveyors: the Indian Wells Valley Water District and the Inyokern Community Services District. Present estimates provide that this pumping equates to approximately twenty-three percent (23%) of the Basin's total current groundwater production, while the private domestic wells are estimated to account for roughly three percent (3%) of the total Basin groundwater production. The Indian Wells Valley Water District is the largest supplier of potable water in the Basin supplying roughly 14,000 service connections with potable water needs.

Searles Valley Minerals Inc. produces groundwater from the Basin for use in its minerals recovery and processing operations in the Searles Valley (located east of the Basin boundaries) and for ancillary potable use in the small communities of Trona, Westend, Argus, and Pioneer Point in the Searles Valley. In addition, a number of farms located in the Indian Wells Valley area rely on the Basin's water supplies for their agricultural operations, including Meadowbrook Dairy, Mojave Pistachios, Simmons Ranch, Quist Farms, and other smaller farms.

The United States Navy has produced water from the Basin since the development of the Naval Ordinance Test Station in 1943. The development included the construction of hundreds of industrial and residential buildings, roads, runways, and other necessary

infrastructure components. As development by the Navy continued, more groundwater wells were drilled to supply the increased water demands. Most of the Indian Wells Valley's new permanent residents were associated with the naval operations and lived on Navy property during the 1940s, and into the 1970s. The growth of the naval operations led to the incorporation of the City of Ridgecrest in 1963.

The Navy has reported to the IWVGA that it made a "strategic divesture" to spur Ridgecrest development and rapid Navy population shifts off-Station in 1970. Since then, the Navy has reported a reduction of nearly ninety-five percent (95%) of its on-Station family dwelling units from 2,916 units in 1972 to 192 units in 2019. This drastic and purposeful population shift off-Station transferred Navy water demands from personnel living quarters on-Station to the off-Station water providers in the Ridgecrest community and those individuals that invested in their own wells to meet their own domestic needs off-Station.

The following Figure 2-2 graphically illustrates the shift in water demands from the Navy to the Ridgecrest Community, through the depiction of water demands by the Indian Wells Valley Water District.

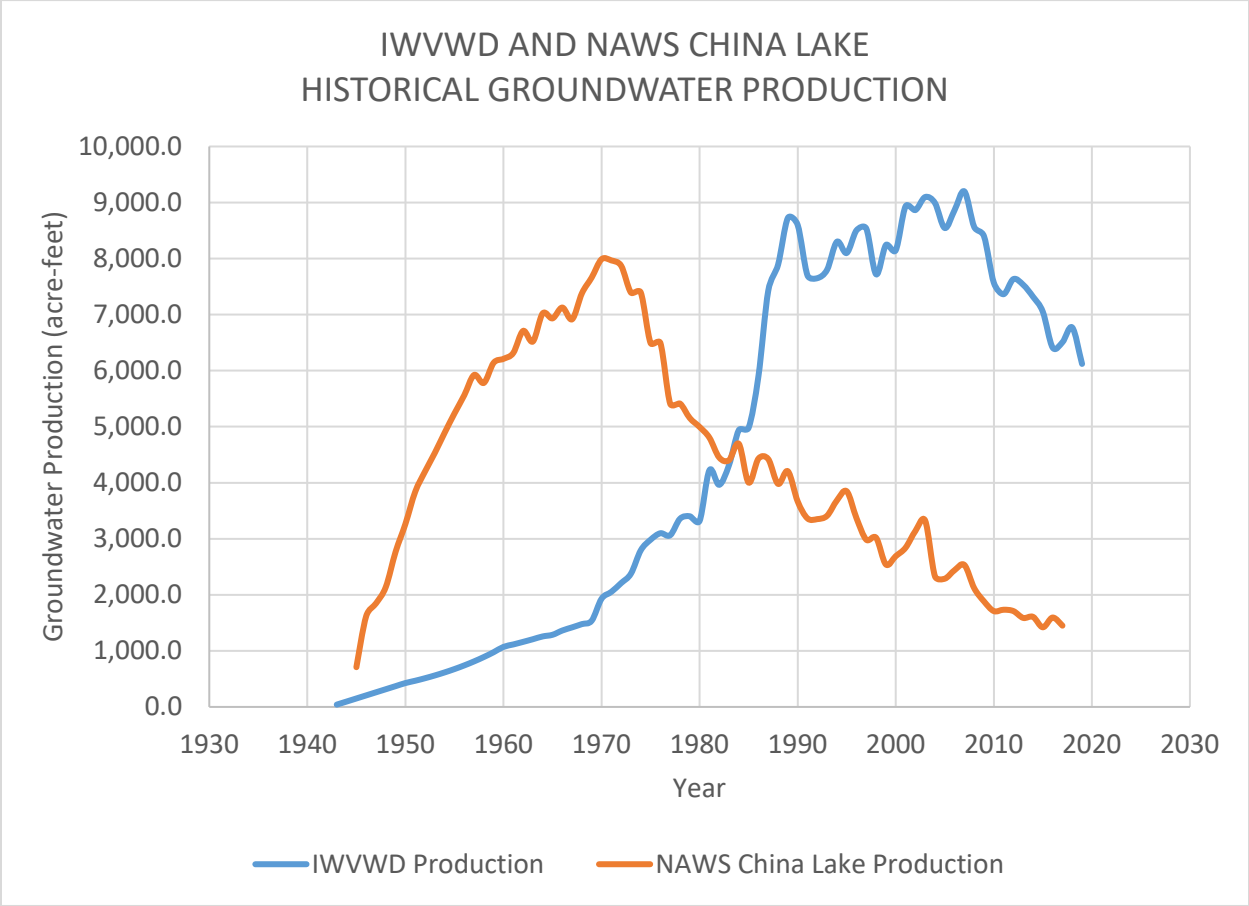


Figure 2-2: IWVWD and NAWS China Lake Historical Groundwater Production

## 2.3 Basin's Sustainable Yield of 7,650 af

Streams and other surface waters in the Basin are generally ephemeral due to low annual precipitation in the Indian Wells Valley area, and Basin recharge occurs as mountain block recharge. Consequently, surface water resources in the Basin are limited, if not nonexistent.

After considerable public examination of the technical data by the IWVGA Board and two separate committees, the IWVGA has determined that the Basin's sustainable yield is 7,650 acre-feet (af).

## 2.4 Basin's Current Condition

The Basin has been significantly studied and voluntary pumping documentation has occurred over the last 70 years. For roughly the 20 years preceding SGMA, the Basin was monitored by the Indian Wells Valley Cooperative Groundwater Management Group.

As graphically shown below in Figure 2-3, the sustainable yield of 7,650 af has been exceeded for nearly 60 years by the pumping demands of the Navy and the Indian Wells Valley Water District alone.

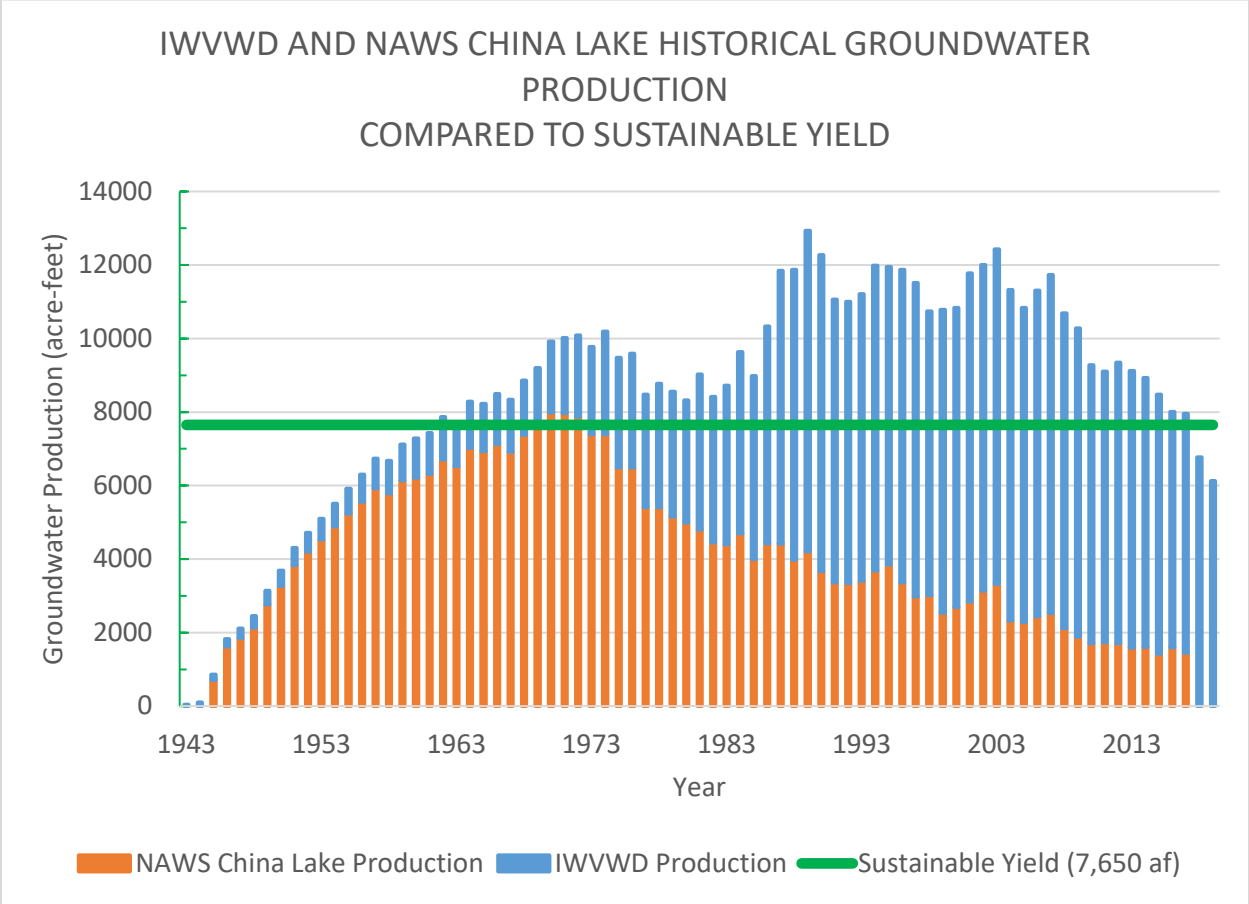


*Figure 2-3: IWVWD and NAWS China Lake Historical Production Compared to Basin Sustainable Yield.*

The results of the prolonged overdraft have already manifested themselves through various undesirable results, primarily the chronic lowering of groundwater levels, the degradation of water quality, and the reduction of groundwater in storage throughout the Basin. Undesirable results have manifested themselves throughout the Basin, including:

- Reduction of buffer from loss of production for deeper wells, both for municipal/domestic use, industrial use, and agriculture use
- Impacts to shallow wells due to lowering of groundwater levels and/or degraded water quality, which would require deepening, replacement, well abandonment, or treatment
- Encroachment on mission of NAWS China Lake
- Damage to infrastructure including high value sensitive facilities at NAWS China Lake (For example, the SNORT alignment)
- Jeopardy to beneficial uses due to lowering of groundwater levels and degraded water quality including environmental uses, domestic supplies, industrial supplies, and agriculture supplies which could result in fallowing of agricultural land
- Financial impacts to all groundwater users and well owners for mitigation costs and supplemental supplies (including De Minimis groundwater users and members of disadvantaged communities)
- Increase of impacts caused by dust and desertification caused by declining water tables.

These severe overdraft conditions have existed for several decades as a result of historical groundwater pumping that exceeds the Basin's natural replenishment. The unregulated overdraft has resulted in Basin groundwater levels dropping in some areas by approximately 0.5 to 2.5 feet annually. With these stark historical conditions widely

known and understood, the Basin's severe burdens were further heightened by the recent addition of a new groundwater user that listed pumping needs almost equaling the Basin's entire sustainable yield and asserting that its water rights were superior to the needs of the Ridgecrest community.

The adopted GSP Baseline model run projects that, without change, the Basin's groundwater infrastructure will not be able to produce the needed groundwater by 2065.

## 2.5 Navy Federal Reserve Water Right

As more thoroughly provided for in the IWVGA's Sustainable Yield Allocation Report, long-standing principles of American jurisprudence and federalism, prohibit the IWVGA from charging, regulating and/or even investigating Navy claims, and/or the claims of any other Federal extractor in the Basin. As a result, the IWVGA is unable to charge these federal lands with any of the costs associated with an importation or mitigation project regardless of whether or not these lands are benefited. Additionally, the IWVGA has no legal authority to challenge any assertions, or lack thereof, made by the Navy.

Additionally, SGMA expressly recognizes that the IWVGA has no legal authority to require that the Navy provide any pumping information under existing law in Water Code section 10720.3(c), which expressly provides that any participation by the Navy shall be voluntary. SGMA further recognizes the Navy's Federal Reserve Water Right (FRWR) as distinct from water rights that are based in state law and directs that the FRWR be respected in full. Moreover, SGMA expressly provides that federal law shall prevail in the case of any conflict between federal and state law (Water Code Section 10720.3(d)). SGMA also directs that the IWVGA consider the interests of all beneficial uses and users of groundwater, listing the federal government, including, but not limited to, the military and managers of federal lands among those interests (Water Code Section 10723.2).

Given these legal principals, the IWVGA has been limited to repeatedly asking that the Navy provide its FRWR to assist in the determinations related to fees. The Navy has repeatedly declined to provide the requested information asserting its complete immunity

from regulation by the IWVGA. On June 17, 2019, the Navy again expressly rejected the IWVGA request and instead provided a report titled Navy Demographics and Water Requirements at Naval Air Weapons Station (NAWS), China Lake, CA (Navy Water Requirements Report), which makes the following assertions related to its FRWR:

1) The FRWR *IS NOT* limited to the current on-Station demand of 2,041 af.

2) The FRWR dates back to the establishment of the base in 1943.

3) The FRWR would likely be established, if ever, through litigation.

4) The water requirements of the Navy cannot be determined solely by the Navy's recent direct production amounts.

5) Since the Navy mission at NAWS China Lake requires its workforce, the full Navy water requirements are the combination of the on-Station requirements and those of the Navy workforce and their dependents off-Station.

Additionally, the provided report listed detailed historical pumping records which show that the Navy's extractions alone exceeded the Basin's sustainable yield for each of the four years between 1969 and 1972. Moreover, the provided report detailed that for nine years within the 11-year time period between 1964 and 1974, annual Navy extractions exceeded 7,000 af and for nearly two decades the Navy's extractions exceeded 6,000 af annually. As further discussed in the Sustainable Yield Allocation Report, and as shown above in Figures 2-2 and 2-3, Navy extractions only began to diminish once the Navy deliberately moved its personnel and the corresponding water use off base.

Accordingly, the Sustainable Yield Report concluded that the IWVGA is required to find that all groundwater extractors in the Basin, with the exclusion of De Minimis extractors and Federal extractors, are specially benefited by IWVGA's overdraft mitigation and augmentation projects, and therefore they will be subject to the costs for those

projects, unless an extractor obtains a court order showing they have quantifiable production rights superior to the Navy's.

### 2.6 Navy Federal Reserve Water Right Transfer

The Navy has expressly asserted in the Navy Water Requirements Report that the NAWS China Lake mission requires its workforce and as a result the full Navy water requirements are the combination of the on-Station requirements and those of the Navy workforce and their dependents off-Station. Accordingly, it is presumed that the Navy will provide its unused FRWR to those that supply water to its workforce through agreements with those water providers.

## 3.0 Indian Wells Valley Groundwater Authority

### 3.1 Formation

Due to the Basin's designation in 2016 as a critically overdrafted groundwater basin of medium priority[2], the local agencies with jurisdiction in the Basin were required to establish a Groundwater Sustainability Agency (GSA) and publish an adopted GSP for the Basin by January 31, 2020. Accordingly, the Authority was formed on December 8, 2016, as a joint powers agency (JPA) among its General Members:

- City of Ridgecrest
- Indian Wells Valley Water District
- County of Kern
- County of Inyo
- County of San Bernardino

The formation of the JPA provided the IWVGA with all the authorities and powers provided to the three County General Members under California law and SGMA.

[2] The Basin has since been identified as a critically overdrafted basin of **high** priority, as documented in the *Sustainable Groundwater Management Act 2018 Basin Prioritization: Process and Results*, published by the California Department of Water Resources in January 2019.

The United States Department of the Interior Bureau of Land Management (BLM) and the United States Navy Naval Air Weapons Station China Lake (NAWS China Lake) serve as Associate Members (non-voting) to the JPA. These non-voting members have no authority within the operations of the JPA and are provided no voting powers.

## 3.2 Mission

The IWVGA is the exclusive GSA for the Basin, and as such, it has jurisdiction over the non-federal lands within the Basin (see Figure 2-4) and it is required to adopt, monitor, and implement a Groundwater Sustainability Plan (GSP) that achieves Basin sustainability by 2040.

## 3.3 Organizational Structure

The IWVGA is governed and administered by a five member Board of Directors (Board), which is composed of one voting seat per General Member. BLM and NAWS China Lake each hold a non-voting Associate Member position on the Board. Although they do not have the power to vote on any Board action or proposal, nor may they attend closed sessions of the Board, the Associate Members are entitled to full participation in public Board meetings and discussions.

The Board Chairperson, Vice-Chairperson and General Counsel duties annually rotate in January, between the Board members representing the County of Kern, the City of Ridgecrest, and, the Indian Wells Valley Water District. At the time of this Report, the Chairperson and General Counsel duties are held by the County of Kern, and the Vice-Chairperson duties are held by the City of Ridgecrest.

The Board established a Policy Advisory Committee (PAC) and a Technical Advisory Committee (TAC) for the purpose of making recommendations to the Board on the Authority's daily activities. The PAC advises the Board on policy-related matters while the TAC advises on technical matters. Both the PAC and the TAC are comprised of members from local constituent groups (both private and public) that have an interest in the operations and decisions of the Authority.

### 3.4 Jurisdiction

The IWVGA's boundaries extend across the entire Basin and thus they include all of the non-federal and federal lands that overly the Basin. With that said, as is more thoroughly explained in the Sustainable Yield Report, the Supremacy Clause of the United States Constitution prohibits the IWVGA, and the State, from regulating federal lands and federal extractions and therefore the BLM and NAWS China Lake are exempt from any Basin projects charges, regardless of the project benefits provide to the those projects.

## 4.0 Authority Costs and Revenues

### 4.1 Historic Costs and Revenues

To date, the operations and costs of the IWVGA have almost exclusively been attributable to the adoption of the GSP. These operations have been funded by:

1) Initial member dues;

2) In-kind services provided by the General Members and the Navy;

3) Loans from the County of Kern and the Indian Wells Valley Water District;

4) State Grant funding through Proposition 1 and Proposition 68; and,

5) A Groundwater Extraction Fee of $30 per acre foot.

### 4.2 Groundwater Extraction Fee

The IWVGA adopted the existing Groundwater Extraction Fee (GEF) under the authority of California Water Code Section 10730 on July 19, 2018. The GEF was specifically established to fund the costs of developing and adopting the Authority's GSP.

The GEF is presently charged at $30.00 per acre-foot extracted and it is imposed on all groundwater extractions in the Basin, with the exception of De Minimis groundwater

extractors, which SGMA expressly excludes, and Federal groundwater extractors, which are excluded by federal law.

In accordance with California law, the existing GEF may only be used to cover the costs it was adopted for; in this case, the development of the IWVGA's GSP and as such it is often referred to as the GSP Fee.

It is acknowledged that the IWVGA has already funded some efforts to import water into the Basin, including efforts to achieve Federal funding for the needed importation infrastructure costs. These efforts, while initially needed in part for development and adoption of the GSP, are more appropriately charged to the importation project itself. As such, the costs for these efforts, which have been relatively minor, are, and have been, tracked and monitored by the IWVGA's General Manager and they are being funded through funds provided to the IWVGA by the Indian Wells Valley Water District. Likewise, the costs to provide this Report are being funded with non-GEF fees and they will be recouped from revenues from the Replenishment Fee.

The GEF was purposely set at a rate that was not expected to provide for the full costs of the GSP by the date of the GSP's adoption. The initial projections aimed for a GSP funding completion date of roughly the end of the 2020 water year. For reasons yet to be fully determined, the GEF has not met expectations because the reported pumping by several pumpers has been less than their claimed water demands and/or historic pumping levels.

Additionally, there have been some pumpers that have failed to meet their reporting and payment obligations under Ordinance 02-18. For the most part, the IWVGA has determined that these are relatively small pumpers with the notable exception of one; Mojave Pistachio which reported and paid for considerable pumping over several months only upon notice that the Board was about to considering removing their representative from the PAC and TAC. The IWVGA efforts to cure this defect have been understandably slowed in recent months, but in a 4 to 1 vote, with the Water District's Board member being the sole dissenting vote, the IWVGA Board voted to remove Mojave Pistachio's representative from the PAC and TAC at the April 2020 Board meeting.

Additionally, three significant pumpers in the Basin have threatened suit against the IWVGA's GSP and tolling agreements have been executed to delay such filings. In accordance with California Law, the costs for defending those claims and possible lawsuits will be funded with the GEF. As a result, the Board will be addressing needed increases in the GEF fee in a separate item to provide for both original assumption shortfalls, such as the reported/anticipated pumping shortfall, and the need to fund the anticipated litigation.

## 4.3 Post GSP Revenue Authority

SGMA provides for the collection of extraction fees to fund Authority projects. In particular, Water Code section 10730.2 expressly provides that:

1) A groundwater sustainability agency may impose fees on the extraction of groundwater from the basin to fund the costs of groundwater management, including, but not limited to, the following costs:
    a. Administration, operation, and maintenance, including a prudent reserve.
    b. Acquisition of lands or other property, facilities, and services.
    c. Supply, production, treatment, or distribution of water.
    d. Other activities necessary or convenient to implement the plan.
2) Fees imposed pursuant to this section shall be adopted in accordance with subdivisions (a) and (b) of Section 6 of Article XIII D of the California Constitution.
3) Fees imposed pursuant to this section may include fixed fees and fees charged on a volumetric basis, including, but not limited to, fees that increase based on the quantity of groundwater produced annually, the year in which the production of groundwater commenced from a groundwater extraction facility, and impacts to the basin.

4) The power granted by this section is in addition to any powers a groundwater sustainability agency has under any other law.

The relevant provisions of Section 6 of Article XIII D of the California Constitution provide both procedural and substantive requirements for the imposition of charges and fees. The procedural requirements are generally summarized as follows:

1) The parcels to be charged shall be identified.
2) The amount of the fee shall be calculated.
3) Notice shall be mailed to the record owners at least 45 days prior to the hearing.
4) The mailed notice shall provide:
    a. The reason for the fee
    b. Amount of the fee
    c. The basis for the fee's cost calculations
    d. The date, time and location of the public hearing
5) At the public hearing, the agency shall consider all protests against the proposed fee.
6) If written protests against the proposed fee are presented by a majority of landowners, the agency shall not impose the fee.

The substantive requirements of Section 6 of Article XIII D are generally summarized as follows:

1) Revenues derived from the fee may not exceed the funds required for the project.
2) Revenues derived from the fee may not be used for any purpose other than that for which the fee or charge was imposed.
3) The fee may not exceed the proportional for the project.
4) The fee may not be imposed for a service unless that service is actually used by, or immediately available to, the owner of the property. Fees based on potential or future use of a service are not permitted.

Accordingly, the Authority must identify the specific projects it desires to fund, estimate their costs, and, apply the charge to only those landowners that are conferred a "special benefit" by the specific project.

California law generally provides that a "special benefit" is defined per Article XIII, Section 2(i) of the California Constitution as "a particular and distinct benefit over and above general benefits conferred on real property located [within the Authority's boundaries] or to the public at large." Accordingly, general benefits, such as an increase in property value because an importation project allows further community development, are not chargeable under California law. In order to be subject to the costs of an importation project, the payer must directly benefit from the project.

Although there are many ancillary benefits to the Augmentation and Mitigation Projects, the primary benefits for parcels in the Authority's jurisdiction is the ability to use water over and above the sustainable yield of the Basin. As previously mentioned, the IWVGA has determined that the Navy, an entity that the IWVGA cannot regulate or charge in anyway, has historical pumping demands that have exceeded the Basin's sustainable yield. As a result, a volumetric pumping fee on all non-Federal extractors will meet both the proportionality and availability prongs of the California law.

# 5.0 Groundwater Supplies and Sustainability

## 5.1 Existing Water Supply Facilities

As previously mentioned, the Basin has been significantly studied and voluntary pumping documentation has occurred over the last 70 years. Additionally, for the roughly 20 years preceding SGMA, the Basin was monitored by the Indian Wells Valley Cooperative Groundwater Management Group.

As discussed in Section 2.4, it is undeniable that the Basin's groundwater resources have not been sustainably managed and the results of the severe overdraft have already manifested themselves through various undesirable results such as the chronic lowering of groundwater levels, which have shown a decline of 0.5 to 2.5 feet annually in areas. Additionally, the severe overdraft has and will lead to the degradation

of water quality and the reduction of groundwater in storage throughout the Basin. Most importantly, the severe overdraft has lead the GSP Baseline model run to project that the groundwater infrastructure will be unable to produce the needed groundwater by 2065.

These severe overdraft conditions have existed for several decades as a result of historical groundwater pumping that exceeds the Basin's natural replenishment. With the exception of the Baseline model run, these stark historical conditions have been widely known and understood. And yet, the Basin's severe burdens were further heightened by the recent addition of a new groundwater user that listed pumping needs almost equaling the Basin's entire sustainable yield and asserting that its water rights were superior to the needs of the Ridgecrest community.

While the Indian Wells Valley Water District has in the past studied various options for augmenting the District's water supplies, to date there have been no sustained efforts to bring import supplies to the Basin. Notably, while the analysis was not the focus of this Report, the *IWVWD Board of Directors Alternative Water Supply Workshop of September 2012* provided an estimate for imported supplies that is in line the analysis and cost estimates in this Report.[3]

In sum, the Basin's supplies cannot meet the Basin's most minimal needs and there is presently no Basin infrastructure for importation. Adding additional complexity, the required infrastructure for importation could cost a hundred million dollars, or more, to build depending on the ultimate project and it's currently estimated to take 15 years to complete the needed infrastructure, or roughly one third of the forty-five (45) year period documented in the Baseline model run.

## 5.2 Augmentation Management Action

To mitigate the historical and existing conditions of Basin overdraft, the Authority has adopted a GSP (in accordance with SGMA) with a defined sustainability goal of: preserving the character of the communities relying on the Basin; preserving the quality

[3] It should be noted that the water market and the urgency in obtaining supplies has only worsened since 2010 and therefore the cost increases are not just increase from 2010 to 2020 dollars

of life of those that rely on the Basin; and, sustaining the mission at Naval Air Weapons Station (NAWS) China Lake. Accordingly, the Authority's GSP was developed with the intent to mitigate local reliance on the Basin for all water supplies through the procurement of imported water supplies for either direct use and/or for in direct use through groundwater recharge. After considerable public examination of the technical data and careful consideration by the IWVGA, it has been determined that the Basin needs an importation infrastructure capable of bringing at least 5,000, and potentially as much as 20,000 af, of water to the Basin annually.

This level of importation reflects what is believed to be the minimum amount of water needed to achieve sustainability and sustain the community. As more thoroughly discussed in the Sustainable Yield Report, this level of water importation presumes the cessation of large-scale agricultural uses in the Basin but it does not prohibit or hinder such a use. In fact, future agricultural users are treated the same as all other, non-Federal users in the Basin.

The Authority currently does not own or operate any existing water supply facilities; therefore, the procurement of imported water supplies will require the acquisition of physical water supplies (with all required contractual and/or appurtenant water rights), as well as obtaining access to existing potable water conveyance facilities that are operated by agencies outside the Authority's jurisdiction. The Authority must then oversee the construction of new water supply infrastructure to provide the Authority's acquired water supplies to the Basin and it is estimated that such construction will take 15 years with import supplies not becoming available for use in the Basin until 2035.

It is anticipated that during the construction phase (roughly 2025 to 2035), the Authority will optimize the use of its purchased supplies through short-term transfers to willing purchasers with the monetary gains being used to assist in the construction funding. Alternatively, those purchased supplies could be held in storage for future use in the Basin once the importation project comes online.

Procuring an imported water supply will also require access to existing water conveyance facilities and the construction of additional infrastructure to bring imported

water to the Basin. The Los Angeles Department of Water and Power (LADWP) operates the Los Angeles Aqueduct (LA Aqueduct), which extends through the western portion of the Basin near the Freeman-Dixie Wash and the El Paso subarea. The LA Aqueduct conveys surface water runoff from the Eastern Sierra Nevada Mountains in Inyo County, as well as groundwater from the Mono Basin, to LADWP's service area in the City of Los Angeles. In addition, Antelope Valley East Kern Water Agency (AVEK) operates a potable water transmission pipeline (California City Pipeline) that terminates near California City, located approximately 15 miles south of the Basin boundaries and 50 miles south of the City of Ridgecrest.

## 5.3 Alternatives to Augmentation Project

### 5.3.1 Basin Mining

Some have asserted that groundwater storage is the sole factor of importance and deepening impacted wells is the sole solution. The underlying premise in the assertion is that the Basin can be sensibly mined and damaged for a prolonged period of time. Assuming that sensible standard can be met, it is undeniable that deepening cannot go on forever and at some point imported infrastructure will be required. Additionally, such an unwarranted and indefinite mining of the Basin would jeopardize the approval of the GSP because SGMA expressly provides that the chronic lowering of groundwater levels is an undesirable result. In short, this assertion will gain some time for the direct benefit of a few (presumably a few that will then leave the Basin) but it will add millions in costs to the ultimate solution.

With that said, it is undeniable that the importation project mines the Basin for an estimated period of 15 years, albeit at a much reduced rate of overdraft, with the damages being mitigated through funded projects. Likewise, as set forth in the Transient Pool report, it is undeniable that the transient pool will mine the Basin in amount roughly equally to the amount of mining that will occur through the importation project and damages will be mitigated through funded projects. Importantly, without the reductions provided for in these programs, when the importation project begins water deliveries in 2035, the GSP

Baseline model would project that the Basin's groundwater infrastructure could only produce the needed water for 30 more years.

### 5.3.2 Wastewater Recycling

The Authority does not have any regulatory control over waste water treatment facilities in the Basin. As a result, the Authority cannot, and does not, include any cost analysis for recycled water projects in this Report. If and to the extent, the owners of a wastewater treatment facility are able to make use of the water treated in those plants to decrease their extractions from the Basin, they will naturally receive the benefit of that endeavor through lower extractions from the Basin and by extension lower fees. Moreover, the owners of the wastewater treatment facility can sell that treated water to others in the Basin who would in turn receive the same benefit.

## 6.0 Augmentation Project Costs

### 6.1 Purpose

The Augmentation Project has been developed to address the Basin's urgent need for augmented supplies to address the severe overdraft conditions and the Basin's inability to cure the overdraft through voluntary pumping reductions alone. After careful consideration and public examination by both the PAC and TAC, it has been determined that the Basin will need *at least* 5,000 af of imported water per year. Additionally, it has been determined that a permanent supply entitlement is needed because the types of uses reflected in the 5000 af need cannot rely on temporary and/or one time purchases.

As explained in the Indian Wells Valley Groundwater Authority Water Marketing Strategy Technical Memo of August 2019 (Water Marketing Memo), which is attached hereto and incorporated herein as Exhibit B, and the 2017 Department of Water Resources State Water Project Delivery Capability Report, the long term reliability of State Water Project deliveries is sixty-two percent (62%). Therefore, in order to achieve actual deliveries of 5000 af, the Augmentation Project would need to obtain permanent allocation of 8,065 af of water.

## 6.2 Revenue Requirements

The revenue requirements for the Augmentation Project can be naturally broken down into two separate phases. The first phase, which is the focus of this Report, is the actual purchase of the need water supplies. As previously mentioned, in order to obtain the needed delivery of 5,000 af, the IWVGA will need to purchase 8,065 af of permeant State Water Project allocation.

As set forth the Water Market Memo, given the recent transactions and trends it is assumed for the purposes of this Report that a permanent allocation will costs $6,500 per acre foot. Therefore, the required revenue to purchase a permanent supply is assumed to be $52,422,500. Given the urgency and the current and anticipated water markets in coming years due to SGMA implementation, it is highly recommend that the IWVGA obtain this water purchase before no later than the end 2025, and even sooner if at all possible as it is highly likely that the costs of water will only increase in coming years as Basin's adjust to SGMA.

In addition to the purchase costs, the administration/negotiation/legal costs for the Project will need to be funded. It is assumed that said costs will be at least $377,500 over the five year period for an annual estimate of $75,500 per year.

In sum, it is assumed for the purposes of this Report that the Augmentation Project revenue needs will total $52,800,000, which, when split over a five year period, equates to a per acre foot extraction charge of $2,112.[4]

## 6.3 Imposition and Exclusions

For the reasons more thoroughly described in the Sustainable Yield Report, the Augmentation Project costs shall be imposed on all groundwater extractors in the Basin with the exception De Minimis and Federal Extractors. Likewise, those that have permission to extract unused portions of the Navy's estimated FRWR (carry over extractions) shall not be subject to the Augmentation Project costs for those carry over

[4] The funds collected for the Augmentation Project may also be used to fund the IWVGA Fallowing Program which will preserve Basin supplies and in effect equate to a purchase of water supplies.

extractions. Transient Pool extractors by definition will not be subject to these costs as they will not need or use augmented supplies.

# 7.0 Shallow Well Mitigation Project

## 7.1 Purpose

As stated in SGMA, the IWVGA is required to mitigate locally defined undesirable results that are due to unsustainable groundwater management that has occurred in the Basin since 2015, and/or will occur in the future. The purpose of the Mitigation Fee is to fund shallow well mitigation efforts in order to mitigate the undesirable results occurring from the basin-wide chronic lowering of groundwater levels, reduction of useable groundwater in storage, and degradation of water quality.

Historically, groundwater levels near the primary Basin pumping area have been in decline. Groundwater levels in other locations such as those near recharge and discharge zones, as well as in the El Paso area (which is separated from the primary Basin aquifer by a fault) remain more stable. In areas where groundwater levels have been steadily declining, shallow wells have been impacted to the extent that well deepening and/or redrilling is required, or the shallow well must be abandoned as a water source. Additionally, shallow wells have been historically impacted due to the migration of poor-quality groundwater in areas with previously high-quality groundwater.

An analysis was conducted for approximately 872 shallow wells in the Basin (832 domestic/private wells, 40 mutual water company wells, and community service district wells) for potential impacts during the implementation of the GSP. The shallow well impact analysis results indicated that most shallow wells would experience minimal drawdown, but that approximately 22 shallow wells would require mitigation due to the chronic lowering of groundwater levels and reduction of groundwater in storage in the Basin within the GSP planning horizon. These 22 shallow wells are anticipated to be impacted within the next few years. Additionally, shallow wells may require mitigation due to the migration of poor-quality groundwater to areas with previously high-quality groundwater.

The IWVGA will prepare a Shallow Well Mitigation Plan to address the approximately 872 shallow wells in the Basin that have been or may later be impacted by the lowering of regional and local groundwater elevations, the reduction of useable groundwater in storage, the migration of poor-quality groundwater to areas with previously high-quality groundwater, or a combination of these factors. The Shallow Well Mitigation Plan will develop criteria to characterize the degree of shallow well impacts and develop an evaluation process to assess the viability of the impacted shallow wells. The Shallow Well Mitigation Plan will also outline the process by which individual well owners can apply and submit their wells for evaluation and consideration for mitigation by the Authority, including the evaluation and review process that the Authority's Water Resources Manager will follow to process the applications and make recommendations on mitigation options to the Authority Board.

Following adoption of the Shallow Well Mitigation Plan, shallow wells will be evaluated based on the adopted criteria and categorized into specific areas/zones for development of effective mitigation options. Some shallow wells may be proposed to be abandoned (not mitigated) based on an evaluation of impacts. The wells recommended for mitigation will be placed on an Impacted Shallow Well Priority List and will be scheduled for mitigation. Specific improvements will be identified for each impacted shallow well, such as deepening the well, replacing the well, connecting the well owner to other existing water systems, or other mitigation measures. The estimated cost for the mitigation measures proposed for each impacted shallow well will also be identified.

## 7.2 Revenue Requirements

The revenue requirements for the Mitigation Project reflect the anticipated costs to mitigate shallow wells impacts that will occur due to ongoing overdraft while the Augmentation Project is being brought online. It is anticipated that the Augmentation project will be brought online by 2035, at the latest, and during that time those that will ultimately receive augmented water will overdraft the Basin by 64,000 af, while the

Transient Pool is estimated to overdraft the Basin by a maximum of 51,000 af, leading to a total overdraft of 116,000 af.

As provided for in the GSP, it is anticipated that the mitigation costs will total $2,020,000. This reflects anticipated costs of $70,000 in development/engineering work and $1,650,000 in implementation/capital costs for the rehab and/or replacement of 22 impacted wells. Per year costs of $20,000 for 15 years, for a total of $300,000 is assumed for reviewing shallow well applications and reporting to the IWVGA Board.

Dividing estimated total costs of $2,020,000 by the anticipated overdraft of 116,000 af leads to a per acre foot extraction charge of $17.50. Because the anticipated damages are rather linear, any reduction in the amount of the overdraft should correlate to an equal reduction in the total estimated costs; therefore the $17.50 charge should not need modification if there is less overdraft than anticipated. With that said, these costs and revenues will be monitored and if need be adjusted downward if need be.

### 7.3 Imposition and Exclusions

The costs for the Shallow Well Mitigation Project shall be imposed all groundwater extractors in the Basin, with the exclusion of De Minimis and Federal Extractors, for the reasons more thoroughly describe in the Sustainable Yield Report, which is incorporated by this reference. While those taking part in the Transient Pool program are subject to these costs, they will pay for them as part of their Transient Pool agreement and as such they will not be charged the Replenishment Fee.

## 8.0 Basin Replenishment Fee

### 8.1 Purpose

The Basin Replenishment Fee is imposed to provide the necessary funds to bring imported water into the Basin and mitigate the damages caused by the continued overdraft as those supplies are being obtained. As such, the Replenishment Fee is a composite of two separate project costs: the "Groundwater Augmentation Project" and, the "Shallow Well Mitigation Project".

The Augmentation Project will bring imported surface water into the Basin, while the Mitigation Project will mitigate the impacts to shallow wells from the continued overdraft of the Basin during the purchase, design and construction phase of the Augmentation Project. For simplicity and efficiency, it is recommended that these two separate costs centers, which are properly charged to the same individuals on the same per acre foot basis, be combined into the one composite charge named the Basin Replenishment Fee.

## 8.2 Imposition and Exclusions

The Replenishment Fee shall be imposed all groundwater extractors in the Basin, with the exclusion of De Minimis and Federal Extractors, for the reasons more thoroughly describe in the Sustainable Yield Allocation Report, which is incorporated by this reference.

## 8.3 Fee Structure

Initially, the Replenishment Fee will be charged monthly based on the volumetric extraction data but the Authority reserves the right to modify the collection term in the future if need be and such a change will not impact the findings and recommendations in this Report. The total Replenishment Fee reflects the needed Augmentation Project costs of $2,112 per acre foot extraction and the Mitigation Project costs per acre foot extraction charge of $17.50 for a total per acre foot extraction fee of $2,130.

# 9.0 Parcel Identification

As all parcels within the Basin could become subject to the Replenishment Fee if they choose to extract groundwater outside of the express exception provided to De Minimis extractors, notice and the opportunity to protest these fees will be provide to all parcels as determined by the last equalized tax rolls.

# FIGURES

# TABLES

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# Indian Wells Valley Groundwater Authority


## Indian Wells Valley Groundwater Authority
## Water Marketing Strategy Technical Memo

**August 2019**

**Technical Memo Prepared by:**


Educate • Advocate • Win

# Table of Contents

## Section 1: Introduction

The Indian Wells Valley Groundwater Authority is a Groundwater Sustainability Agency covering parts of Kern, San Bernardino and Inyo Counties in southeastern California. The region currently relies entirely on groundwater supplies and has no access to imported water supply or infrastructure necessary to deliver imported water. However, the Indian Wells Valley Basin which the Authority regulates is in a condition of critical overdraft and must take steps to address this as a result of the implementation of the California Sustainable Groundwater Management Act. The Authority estimates that it will need approximately 3-5,000 acre-feet of imported water annually to bring the basin into sustainability.

The Authority retained the Capitol Core Group in March 2019 to assist them in three main goals:

1. Finding potential imported water supply opportunities that the Authority could use to provide supplemental water to the basin and alleviate some of the groundwater pumping
2. Assisting the Authority and its retained engineer, Stetson, to assess the viability and pros and cons of the two potential transfer partners that the Authority could work with including the Antelope Valley East Kern Water Agency (AVEK) and the Los Angeles Department of Water and Power (LA DWP)
3. Determining and securing potential funding resources that the Authority could use to pay for the infrastructure needed for importing water

The initial research and review of the first two goals resulted in the completion of this Technical Memo (Task 1B in the Capitol Core Scope of Work). Capitol Core has also conducted its initial due diligence in Washington, D.C. to determine funding potential funding sources, and will complete its due diligence for potential state funding resources in Sacramento in September. Capitol Core will provide a Funding Sources Strategic Plan (Task 3B) that outlines both state and federal potential funding sources for the Authority's review in October.

After the Board has had an opportunity to review the contents of this Technical Memo, we would respectfully request that the Board provide Capitol Core with direction on whether the Authority would like to pursue any of the water supply options that we have presented in this memo, as well as the Board's direction on which transfer partner it would like to begin discussions with.

## Section 2: Executive Summary

In the first 4 months of the project assignment, the Capitol Core Group conducted research and a series of meetings with water suppliers across the state to determine potential water supplies that the Authority could consider for providing imported water supplies to the Basin. The water resources we have identified come from different sources, and are generally in three categories:

1) **Single Year Transfers:** These water transfers, as the name implies would occur over a single year. The buyer would have to either use that water in the year that the water is transferred or bank/store it in a facility to which it has access. In 2019, the wet hydrologic conditions presented multiple opportunities to purchase water from sellers including:
    a. Napa County Flood Control and Water Conservation District
    b. Mojave Water Agency
    c. State Water Project "Article 21 Water"

2) **Multi-Year Transfers:** Multi-year transfers can vary in length from a few years to as many as 30, depending on the willingness of the seller to enter into an agreement. These agreements vary in price depending on the seniority of the underlying water rights, the ease of transfer, and the reliability of the water supply. Depending on the type of transaction and whether they qualify as "State Project Water," their transferability in a given year may depend on conveyance capacity and hydrologic conditions. Some potential multi-year water supplies that may be available include:
    a. "Nickel Water"
    b. Plumas County
    c. Antelope Valley East Kern Water Agency
    d. Butte Water District

3) **Permanent Transfers:** Permanent transfers, in the case of water supplies that we have identified, usually pertain to the transfer of State Water Project "Table A" entitlement that would transfer from one State Water Contractor to another. These transactions usually involve purchasing land within a district that has underlying water rights but under-utilized land and transferring the water right from the property to another State Water Contractor. These transactions are subject to the approval of the Department of Water Resources and the State Water Contractor where the seller's land is. Some potential areas that may have available water rights include:
    a. State Water Project entitlement from landowners within the Tulare Lake Basin Water Storage District
    b. Potential "fallow transfer" programs in other districts

In addition to these water supplies, we discuss other potential water resources that may become available in the future as well as banking opportunities that the Authority may consider storing water in wet years such as this when excess water is available on the open market. We also

provide select historical prices for each of these water supply categories, as well as potential future areas where water may become available.

Next, we provide a series of ten water supply scenarios to supply the Authority with 3,000 acre-feet of water annually with estimated costs for each scenario**. For these scenarios, the average price for the first ten years range between approximately $3.4 million and $5.2 million annually depending on the water supply sources.** We discuss the background data and the assumptions that we used to arrive at these costs. Finally, we provide the Authority with a series of considerations and recommendations for the Board to consider as it implements the imported water program.

## Section 3: How Water Works in California

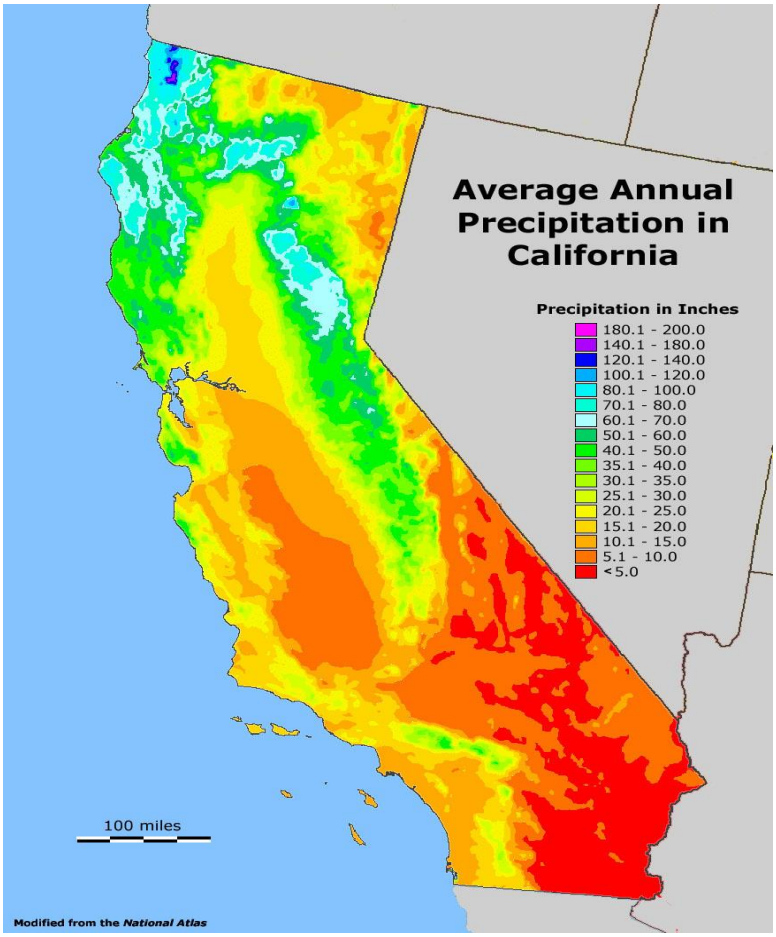
### Introduction

Water in California is an incredibly complex subject and describing the nuances of all types of rights would take up much more volume than the length of this Technical Memo will allow. For the purposes of this document, we will generally describe surface rights, how the citizens and agricultural districts in California get water, and how these rights and conveyance systems may pertain to the Groundwater Authority's goals.

### The Challenge of Delivering Water in California

Since the formation of the state, California faced the primary challenge of moving water from where it is abundant to the population centers. About 60% of California's population lives in Southern California, and the primary agricultural areas are within the Central Valley. However, the majority of the precipitation in the state falls in the northern and mountainous parts of the state, which are generally away from the population and agricultural centers. The state must move vast amounts of water from the northern half of the state, where most of the water resources are, to the population centers in the south. To accomplish this, the state relies on a series of water conveyance systems including the State Water Project and Central Valley Project.

**Average Annual Precipitation in California**




## Surface Water Supplies

Water as we mentioned is most abundant in the northern part of the state. Most of the water the state harvests comes from runoff that originates from melting snow in the mountains in the northern part of the state. While many areas have groundwater resources, very few areas have enough groundwater resources to supply its customers without adverse effects to the water table. This fact has been a particular focus as basins across the state look to implement the regulations mandated under SGMA. As such, most areas in California and the western United States rely at least to some extent from water that accumulates in rivers when snow melts. Aqueducts and river diversions capture this water and store it in large reservoirs and lakes. As the population centers need water, the state has a series of aqueducts that sends water from these reservoirs in the northern half of the state to the south. There are three major storage and conveyance systems where California gets the vast majority of its water resources, and where the IWVGA may be able to get water resources from. We will describe these in further detail in the next section.


**State Water Project (SWP):** The State Water Project is a system of reservoirs and aqueducts that delivers water from northern California to customers in central and southern California. There are 29 state water contractors (please see the section on wholesalers below) that have access to this water. The maximum amount of water that the SWP can deliver is approximately 4.2 million acre feet. About 70% of the SWP supply goes to urban uses, and the remaining 30% goes to agricultural uses.

**Central Valley Project (CVP):** The Central Valley Project is similar to the State Water project, though it differs in its size and its end users. Its 22 reservoirs have a combined storage of 11 million acre-feet, of which 7 million acre-feet is delivered in an average year. In comparison, the SWP's 20 major reservoirs can hold 5.8 million acre-feet, with annual deliveries averaging up to 3 million acre-feet. CVP water irrigates more than 3 million acres of farmland and provides drinking water to nearly 2 million consumers. In comparison to the SWP, farms and agriculture use about 70% of the water the project delivers, with the remaining 30% going towards urban uses.

**Other Surface Water Rights:** In addition to the state and federally owned water projects, there are a plethora of water districts across the state that have access to surface water rights off of the rivers in California. California's water laws generally follow the "First in time, first in right" rule, which means that the oldest established water rights have a higher "seniority" over more junior rights, and have the first claim to diversions on a particular river. These "senior" rights usually command higher prices, due to their more reliable water rights. For example, the "Nickel Water" that we discuss in the multi-year transfers section (Section 5) has pre-1914 rights on the Kern River that represent a senior right and are therefore considered a reliable supply. As such, because of the firmness of these rights and the lower probability of variable deliveries (versus water from the State Water Project for example, which is a more junior water right), these rights can command a higher price. For a further discussion of water rights in California and how they are administered, please see the State Water Resources Control Board's page here.

### The Three Levels of Governance with Relation to Water Conveyance in California

Individual households, businesses and farms do not make purchases directly from the three water projects we discussed above. Rather, there is a series of government agencies that provide the infrastructure to get the water from these projects to the people and businesses that use it. We will next discuss the roles these government agencies play in this process:

**Importers:** Importers purchase water directly from the State Water Project or other major water delivery systems in California. For example, the Metropolitan Water District is the importer for much of Southern California, including the most populous City of Los Angeles. The importers own and maintain major infrastructure pipelines that move water regionally, and large-scale reservoirs. These reservoirs in some instances (like Diamond Valley Lake for example which Metropolitan Water District owns) can hold enough water to supply water to close to a million homes for six months. The importers sell water directly to wholesalers.

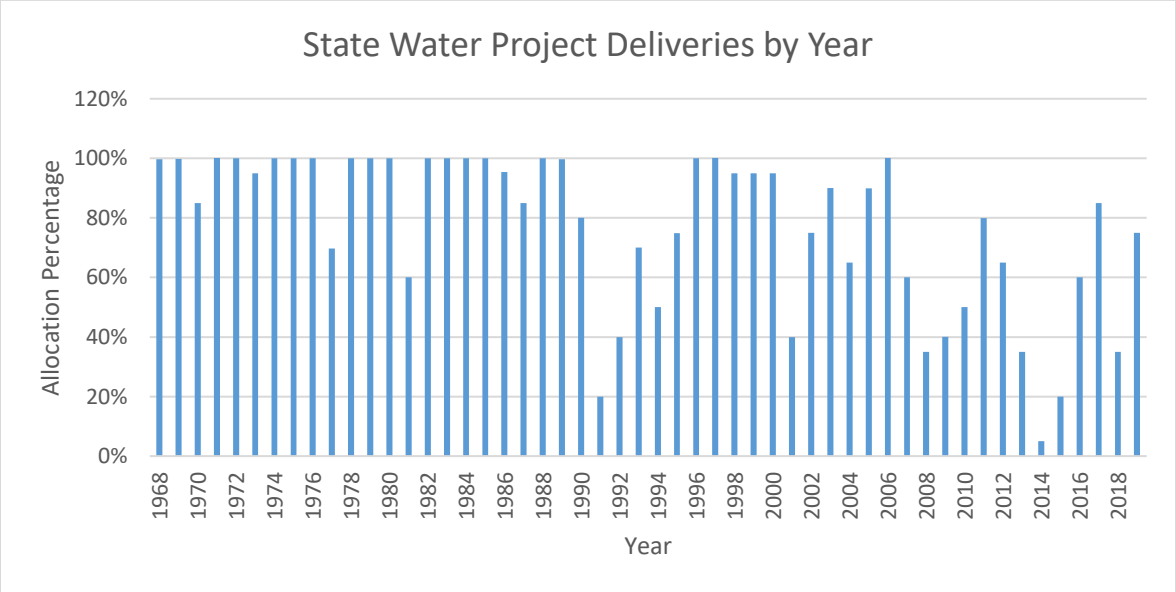
**Wholesalers:** The water wholesalers in the state act as an intermediary between the importers and the retailers. They purchase water directly from the importers, and in some instances have contracts to purchase water directly from the various water projects. They also maintain regional infrastructure. This regional infrastructure may include regional pipelines and reservoirs that move and store water from the main state aqueducts to the regional facilities. An example of a wholesaler in California is the Inland Empire Utilities Agency, which provides service to parts of western San Bernardino County. The wholesalers sell water directly to the retailers.

**Retailers:** The water retailers are the final segment in the system of water conveyance in California. The retailers are usually a water company or a municipality, and they are the level of government with which citizens have the most direct interaction. The retailers purchase water directly from the wholesalers. They maintain the local infrastructure of reservoirs and water lines to provide service directly to individual homeowners and businesses. The retailers also collect payments directly from the consumers.

### Challenges to the Long-Term Supply of these Projects

Between the three public water projects we discussed above, the State of California has theoretical access to about 15 million acre feet of water per year. Rarely, if ever, do the major water projects deliver this amount of water to its end users in a given year. For example, in 2019, despite one of the wettest winters on record in the state, the State Water Project is providing a 75% allocation to its contractors this year. There are serious impediments to the state ever delivering nearly the amount of water that it theoretically could through its major public water projects. There are a few reasons why this is the case:

1) **Each water project relies on snowfall for its supply, and snowfall is unreliable and varies significantly from year to year:** All the water resources in California rely on a sizeable snowpack. However, the amount of snowfall that the western United States varies widely from year to year, and the amount of water that water districts can receive from the public projects varies accordingly. Each year, the California Department of Water Resources will survey the snowpack. The department will compare the year's snowpack to historical averages and make a determination of how much water it will grant to the state water contractors. Please see the table below for the historical yields that the State Water Project actually delivers.




The last year that the State Water Project provided a 100% allocation year was in 2006. In 2014, at the height of the drought, the State Water Project only delivered a 5% allocation. For example, the Kern County Water Agency in a 100% allocation year has 982,730 acre-feet of entitlement. In 2014, it received only 49,137 AF of supply. However, each State Water Contractor has to pay certain annual operations and maintenance charges associated with the facilities operations regardless of whether the Project delivers 100% or 0% in a given year.

2) **Environmental challenges currently slow the pace of water transfers:** Regardless of how one may feel about environmental issues, the fact is that environmental regulations decrease the amount of water that California can send through some of the most crucial parts of its conveyance system. Almost all of the imported water coming from northern California must pass through the Bay Delta, a series of canals and pipelines in an environmentally sensitive area east of San Francisco Bay. In the past few years, the courts have ruled on a series of cases to limit the amount of water pumped through the delta in order to protect the Delta Smelt, an endangered fish and other species in the estuary. These fish migrate and spawn during the same times when water is prevalent in the system and project operators would like to maximize water diversions. For example, the *Sacramento Bee* reported in 2016 that the state received sizeable amounts of rainfall in the winter which could have helped to reverse the water losses in reservoirs during the 2012-15 drought. However, due to pumping restrictions in the Delta, 1.1 million acre-feet of water was diverted between January 1st and March 31st, but 3.6 million acre-feet of water flowed to the ocean in the Delta during the same time period. These factors will likely continue to limit the water availability from the state's various projects in the future.

## Section 4 – Single Year Transfers

As the name implies, single year transfers allow contractors within the State Water Project to transfer water between different contractors in a given year. Many of these transactions happen between two agricultural districts where a landowner has land within both districts, and the farmer may need more water in a given year in a district than his contract may allow. However, there has also been a higher prevalence of agricultural/rural to urban district transfers as population centers look for new water resources.

There has been a steady rise in the cost per acre-foot in the one year transfers over the past 2 decades. The biggest jump was during the State of California's recent 3-year drought conditions. In 2014 and 2015, farming interests paid up to $1,100 per acre foot for one year transfers when the CVP and SWP allocation where at or near 0%. In 2016 the drought restrictions remained in place, albeit not as extreme, and prices for one year transfers dropped more than 40% from the prior year level. Please see Appendix A for select single year historical transfer costs.

On the other side of the coin, 'Wet year' water can come at a significantly lower price. These supplies typically are declared by the State Water Project under their contract 'Article 21'. The State Water Project contract Article 21 provides for sale of "surplus water" available in the State Water Project system during periods of heavy flow and could be at a price that is lower than other single year water supplies.

Capitol Core Group presented these options below at the Board at the June Board meeting. At the direction of the Board, they decided not to pursue these options in 2019. However, as the Authority continues to consider water supplies for the future, Capitol Core recommends that the

Authority consider taking advantage of these potential supplies. While wet hydrologic years do not happen often, they present water districts with opportunities to purchase water at prices that are generally much lower than prices in a drier hydrologic year.

### 2019 Single Year Water Supplies

### State Water Project Contractors Single Year Transfers

The current hydrologic year is providing for plentiful water supplies. The large snowpack as well as significant rain into May have provided the state with ample water supplies. The state's two largest reservoirs Lake Shasta and Lake Oroville are both at 88% capacity as of July 31st (for an up-to-date map of the state's reservoirs and status, click here) and the State Water Project increased allocations to 75% this year. As such, a few State Water Contractors have water available for sale in 2019 on a single year purchase agreement. These water supplies are subject to both the allocations on the State Water Project and the will of their respective Boards to sell water in any given year. These water resources are available this year, but there are no guarantees that water from these sources will be available in future years.

**Napa County Flood Control and Water Conservation District**: The Napa County Flood Control and Water Conservation District is a State Water Contractor that provides surface water deliveries to the cities of Napa, American Canyon and Calistoga. Their State Water Project allocation provides them with 29,025 acre-feet of Table A entitlement. Table A entitlement is the amount of water given to a contractor in a 100% allocation year. Any sale of water from the District requires approval from the three member agency cities. **In 2019, our initial discussions with the District indicate that they have approximately 10,000 acre-feet of water available for sale this year, subject to an exchange agreement detailed in the notes below.** The district seems willing to structure a deal similar to the exchange agreement that they completed with the Kern Westside Districts in June 2018. For the water that was delivered (see the note below with details of the exchange agreement), the Kern Westside Districts paid $267 per AF. Wheeling charges and the other costs enumerated in the note below are in addition to the cost cited here.

**Mojave Water Agency**: Mojave Water Agency is a State Water Contractor that provides water to the northwestern portion of San Bernardino County. The Agency holds Table A rights of 85,800 acre-feet in a 100% delivery year. **This year, the Agency expects to have approximately 5,000 AF of water available, subject to an exchange agreement detailed in the notes below.** In our initial discussions with the Agency, they seem willing to structure a deal similar to the exchange agreement that they completed with the Central Coast Water Authority in 2019. For the water that was delivered (see the note below with details of the exchange agreement), the Central Coast Water Authority paid $320 per AF. Please see the attached term sheet for further details of the agreement. Wheeling charges and the other costs enumerated in the note below are in addition to the cost cited here.

**Notes:** There are a few important notes associated with all State Water Project water available this year. First, since the Authority and Indian Wells Valley Water District currently have no direct access to surface water, this water would have to be stored in a water bank for future use, and there are costs associated with banking supplies. We discuss potential water banking options in a later section. Second, the State Water Project Members' contracts currently only allow for "water exchanges" of Table A water whereby the buyer returns some water to the seller at a given ratio at some point in the future. For example, Napa County completed the exchange agreement with the Westside Kern buyers on a 3:1 deal in 2018. For every 3 AF of water that the Westside Districts purchased, they will have to return 1 AF of water to Napa Valley in a future year and time acceptable to both parties. Mojave Water Agency completed a deal at 4:1 with the Central Coast Water Authority in 2019. **The cost of returning that water to the seller is an additional cost that the buyer pays for**. While the State Water Contractors are currently working out contract amendments that may allow outright water transfers, these amendments are subject to the final approval of the State Water Contractors and will not be finalized in time for water purchases this year. Finally, while the IWVGA is within the jurisdiction of the Kern County Water Agency (KCWA), it is not yet a member agency. The Authority (or the ultimate entity that would retain the water supplies) would need to become or have an agreement with KCWA to become a member agency.

Of note, the Mojave Water Agency also provided us with some ideas as to how we may be able to work together in getting the State Department of Water Resources to allow an outright transfer rather than an exchange. The Mojave Water Agency's service area extends far up into the northwest portion of San Bernardino County, and their service area partially overlaps with the Indian Wells Basin's boundaries. Mojave Water Agency said that we could potentially make an argument that a water transfer between Mojave Water Agency and IWVGA could be considered an intra-basin transfer, potentially allowing an outright sale. We want to stress that this argument is only a possibility, not a hard and fast rule with the Department of Water Resources, and is subject to DWR's ultimate interpretation and approval.

**Other Anticipated Single Year Water Available in 2019 - Article 21 Water**: In hydrologically wet years such as this, there is an ample amount of water in the system, and the State Water Project may be able to deliver more water than anticipated. If the State Water Project meets these criteria, the Project's administrators may declare Article 21 water conditions and provide more water available for sale beyond the Contractors' amounts granted in that year. Any State Water Contractor can request Article 21 water when it is available. If there is more water available than orders, than the orders are fulfilled as they are received. If there are more orders than Article 21 water available, then the orders are filled on a pro-rata basis by entitlement amounts. For a full discussion of how Article 21 water is administered, click here.

Article 21 water has some important benefits but also limitations. This water usually has a lower cost associated with it, sometimes only costing the associated wheeling, O&M and administrative fees to deliver it. However, there are some important limitations. First, only State Water

Contractors have access to this water. Second, the water must be delivered immediately when water becomes available, and there is usually little warning when the Department of Water Resources will declare Article 21 conditions. As such, the end user will need either the ability to use that water right away or have access to storage facilities where it can be used later.

## Section 5 – Multi-Year Transfers

Multi-year transfers, like single year transfers, can occur between a variety of districts and usually range in duration from between 2 and 30 years. In the early 2000s, longer multi-year contracts were more prevalent because there were less demand on the water system than there currently is, and the pumping system had less environmental restrictions on it (and therefore generally more capacity). However, multi-year transfers still occur and can be considered as part of the Authority's potential water portfolio.

In reviewing a proposed long-term transfer, the State Water Resources Control Board must provide public notice and an opportunity for a hearing on the proposed transfer. In California, long-term transfers are also subject to the requirements of the California Environmental Quality Act ("CEQA"), which means environmental documentation must be completed. Such documentation, depending on the circumstances, can be a simple declaration of no significant environmental impacts or as complicated as a full Environmental Impact Report.

There are also a few important considerations and distinctions between potential transfers. First, transfers are subject to water availability in a given hydrologic year. In a year such as 2014 where the State Water Project only delivered 5% of contracted supplies, there may not have been enough water in the system to complete some transfers. Second, there is a distinction between water transfers of State Water Project entitlement and non-Project entitlement. Transfers of State Water Project water are conveyed first through the system. Non-Project water will be conveyed only if there is sufficient transfer capacity within the system. Therefore, non-project water transfers usually occur in dryer years where this excess capacity available in the system to move water.

Capitol Core Group has identified the following areas where the Board might consider multi-year transfers:

### Currently Available Multi-Year Water Supplies

**Antelope Valley East Kern Water Agency (AVEK):** The Antelope Valley East Kern Water Agency covers parts of northern Los Angeles County and southeastern Kern County. The Agency has the 3rd largest State Water Project entitlement of 144,844 acre-feet, only behind Metropolitan Water District and Kern County Water Agency in terms of size. Its geographic area covers parts of the Indian Wells basin, particularly in the southwest corner. We have had initial discussions with the Agency, and they have expressed support in potentially delivering water to the Authority. There are a few important considerations to their proposal. First, if AVEK is going to deliver water directly to the Authority, AVEK can only deliver treated water. The water pipeline that serves its

northeastern customers including California City and Edwards Air Force Base only delivers treated water, and there are no plans at this time to construct untreated distribution to that area. **As such, with treatment costs factored in, water delivered to the Phillips Lab Edwards Air Force Base turnout currently costs $1,375 per acre-foot.** Any further infrastructure costs including the pipeline that would need to be constructed to tie into the Groundwater Authority's system and any further wheeling costs would be in addition to these charges. Second, if this is an option that the Authority wants to consider, engineering would have to verify whether there is currently enough treatment capacity in AVEK's existing infrastructure to provide the Authority with the final amount of water deemed necessary for the Basin's needs. A full breakdown of AVEK's 2019 water charges can be viewed here.

**Plumas County:** Plumas County Flood Control and Water Conservation District is a small State Water Contractor in northern California with an annual entitlement of 2,700 acre-feet. Capitol Core has had initial discussions with the District, and they anticipate that they will have in the range of 1,000 to 1,200 acre-feet of water available annually for sale. Prices and terms are negotiable. Further, the District is in a financially challenged position, and needs to consider revenue options in order to continue to fund operations. At the December 18, 2018 Plumas County Board of Supervisors meeting, the manager of the District had to request a $100,000 loan from the County General Fund to pay for obligations due to the Department of Water Resources for the State Water Project (see Item 2B in the link above). Without the loan, the District would not have the cash flow to be able to cover the obligations by the end of the year. A December 2018 article in the *Plumas News* reports that the District has requested a total of $493,000 in loans over the past few years because the District does not collect enough revenue in water sales to cover its fixed costs. As such, the District is in a financial position where they are looking for potential water buyers, and this could present an opportunity for the Authority to begin discussions with them on a water sale.

**"Nickel Water" (Purchased through the Tejon Ranch Company):** The Tejon Ranch Company is a large master plan developer of land primarily located in southern Kern County and northern Los Angeles County. As a result of the plans for significant development on the ranch, the company purchased and leased a series of water rights from a variety of sources to support the proposed development. In 2013, the Tejon Ranch Company purchased leasing rights to Kern River water known as the "Nickel Water," named after the holder of the water rights, the Nickel Family LLC. The Nickel Family has farming operations in Kern County and retains control of these rights. The Tejon Ranch contract with the Nickel Family allows them to lease 6,693 acre-feet of water annually through 2044 (please see a full discussion of the contact on page 86 of this link). The purchase cost for Tejon Ranch of this water was $717 per acre-foot in 2017 and $738 per acre-foot in 2018.

Tejon Ranch needed to purchase water prior to the certification of their Environmental Impact Report (EIR), so they needed water rights regardless of whether the project is built or not. While the developer intends to build out the project over the long-term, it is our understanding that

the prior downturn in real estate slowed the pace of their building plans. As such, Tejon Ranch has between 1,000-3,000 AF of water available for sale from 2019 to 2023. The water would be delivered to the Tupman Turnout in Kern County, and the purchaser would be responsible for the costs associated with wheeling it from this point, banking (if necessary) and other associated costs. Payment for purchased water is due in February of each year. The asking price for the available water is as follows:

| Nickel Water, From Tejon Ranch Asking Prices Per AF | |
|---|---|
| Years | Price per AF |
| 2019-2020 | $1,000 |
| 2021-2022 | $1,225 |
| 2022-2023 | $1,325 |

This water has some pros and cons. This water is more expensive than other potential options we have found. However, it is available over a multi-year period. Also, the Nickel Family have "senior water rights" on the Kern River, and therefore the rights have a higher priority than junior water rights. As such, they are less likely to get curtailed in a year of drought. For this reason, other urban water agencies such as the San Gorgonio Pass Water Agency (SGPWA) in the Beaumont area have considered Water Supply Agreements with this seller.

### Other Potential Multi-Year Transfers in the Future

**Mojave Water Agency:** In addition to the single year water supplies that the Agency has available, we have also had initial discussions with the Agency about providing the Authority with a long-term water supply. Initial discussions with them have been positive regarding this topic. The Agency covers parts of the Indian Wells Basin, and as discussed in Section 4, there may be a way for the Agency to sell water to the Authority outright rather than though the return agreements that are currently normal for water transfers. Prices and terms for this water will be negotiable. However, as a reference point, the Mojave Water Agency provides supplemental water to pumpers within its boundaries that pump more water than their allocation allows in a given year. **The current 2019 Supplemental Water rate is $636 per acre-foot.**

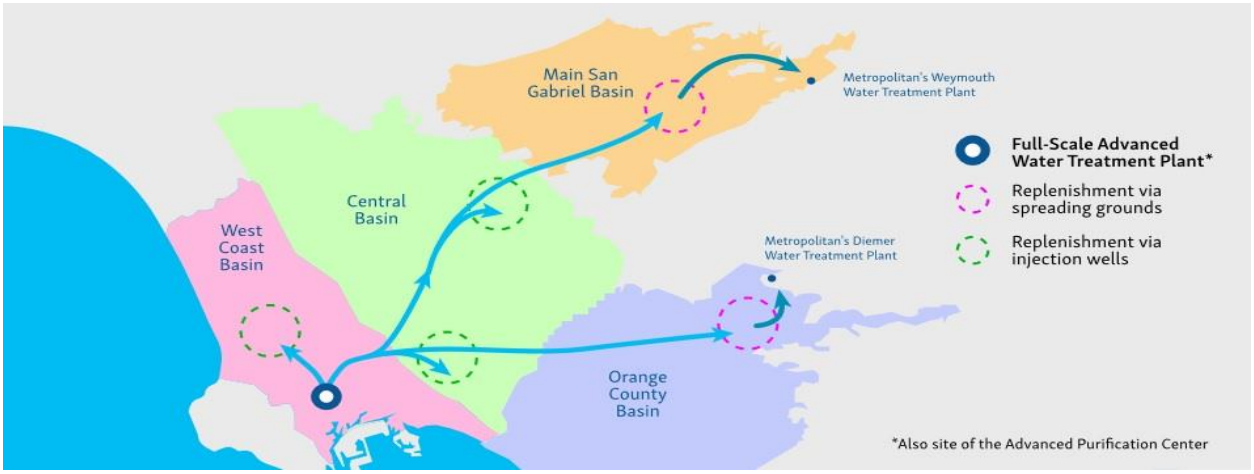
**Butte Water District**: The Butte Water District is an agricultural water district which covers parts of Butte and Sutter Counties in northern California. The District has access to groundwater wells and approximately 134,000 acre-feet of annual surface water entitlement off of the Feather River. The State Department of Water Resources supplies this water, but they are not a State Water Project member. As such, this water is transferrable, but the transfer water has a lower priority than State Project water. In extremely wet years such as this, the State Water Project system is operating at nearly full capacity, and the amount of Project water leaves no room for non-Project water transfers. However, in years where the allocation is lower, there may be room for non-Project Water transfers, and the District has the ability to sell between 5-10,000 AF of

water when it is available. They can complete these water transfers in one of two ways: either through a groundwater substitution program where they pump groundwater and send surface water, or through a land fallowing program. The District has sold water to a variety of customers in the last few years including the Kern County Water Agency. Sales prices have ranged generally between $350 and $700 per acre-foot, depending on the hydrologic conditions of the given year.

**Napa County Flood Control and Water Conservation District:** In our discussions with Napa County, the District is waiting to see the outcome of the proposed amendments currently before the State Water Contractors Association that would make water transfers easier. Under the newly proposed (but not yet agreed to) rules, State Water Contractors would be allowed to make outright sales of water to another district without a return obligation, which is currently the case. If these rules are amended, Napa would be willing to consider a longer-term contract in the future, as the District usually has excess State Water Project entitlement available in a given year.

**Metropolitan Water District/San Gabriel Valley Municipal Water District Carson Recycling Project:** The Metropolitan Water District of Southern California is planning to expand its water recycling capacity in order to use the treated water for basin recharge. The project is referred to as the Regional Recycled Water Advanced Purification Center. For this project at proposed buildout, Metropolitan Water District will build a regional wastewater treatment facility that is capable of treating up to 150 million gallons per day. This water will be treated to a high enough purity where it is able to be recharged back into the ground. The water will be pumped east and spread into multiple areas including the Main San Gabriel Basin, where the San Gabriel Valley Municipal Water District is located (see the map below). While the project is still in the conceptual phases, districts such as San Gabriel could conceivably purchase some of this recycled water, freeing up its imported water entitlement to send to outside districts. **The project estimates that full buildout will take approximately 16 years to design and build, and the water will be at an estimated cost of $1,830 per AF.**

**Carson Project Location**




**Note** – Stetson Engineers provided Capitol Core Group with the lead on this opportunity, and Stetson has provided engineering services for the San Gabriel Valley Municipal Water District.

## Section 6 - Permanent Transfers

In California the term 'Permanent Transfer' of water typically refers to the purchase of State Water Project 'Table A' entitlement, or Central Valley Project Water contracts. The State Water Project delivers water to one of 29 State Water Contractors across the state. Contracts are take-or-pay, meaning the Contractor pays the fixed costs regardless of delivery amount. The delivery amounts (Table A Entitlement) are regulated through the Department of Water Resources and are announced annually based on hydrological conditions. For example, the State Water Project this year will deliver 75% of the total contract amount. However, even though the Project is delivering only 75%, each Contractor has to pay for its full share of fixed costs associated with the Project.

Permanent transfers can theoretically be completed between any two State Water Contractors, but are subject to a series of approvals. The following is a general description of how permanent transfers take place. The specific steps to finalize an approval may vary depending on the districts involved in the transaction. The Board of Directors first has to sign off on the agreement. In agricultural districts, the Board is usually made up of the landowners, and Board membership is based on the percentage of land in the district that a Member holds. In some instances such as the Tulare Lake Basin Water Storage District, members of the District have a 30 day "first right of refusal" which allow in-District members to match the purchase price of the water should they choose. If no one exercises the first right of refusal, then the next steps in the transfer process can proceed.

Next, the Department of Water Resources has to review and approve the transfer proposal as well as the environmental documents associated with the transfer. This includes a public comment period on the transfer and environmental documents. There may be outstanding assessments that need to be paid either to the district or to the State prior to a transfer. Once their review is complete, the transfer can proceed.

There are also some political considerations related to permanent water exchanges to be aware of. In the past, agricultural districts have sometimes been opposed to permanent transfers because of the potential long-term economic impacts of reduced farming activity. These were especially highlighted when large urban agencies such as the Mojave Water Agency bought large blocks of permanent entitlement, as they did when they purchased 14,000 acre-feet of permanent SWP entitlement from the Dudley Ridge Water District in 2009. This risk may remain an impediment in the future to transferring water.

### Historical Costs and Current Examples

Permanent State Water Project supplies have varied in price dramatically over the last 20 years or so that we have transaction data, but prices have generally increased over time. The most recent data points that we have for large blocks of permanent SWP supply came from 2016, when Table A was purchased for between $5,000 and $6,000 per AF, assuming a 100% allocation year. Please see Appendix A for details on the historical costs for permanent SWP transactions. Further, the San Gorgonio Pass Water Agency created a capacity fee study (which can be accessed here) that included a broker's opinion of value (BOV) on the cost of State Water Project supplies in 2015. The BOV concluded that the cost of purchasing Permanent SWP supplies at that point would be in approximately $6,200 per AF.

### Current Transactions

In terms of current transactions, there is a property in the Tulare Lake Basin Water Storage District owned by the Priest Valley Cattle Company that is offering approximately 936 acres of farmland that has access to the State Water Project for $7,703,040. The Tulare Lake Basin Water Storage District allows permanent water transfers, if approved, to strip .64 acre-feet of water per acre that has entitlement in an out-of-district transfer. In this instance, the new owner, if approved would be able to transfer approximately 617 acre-feet of entitlement (936*.64=617). **If the property transacts at the asking price, the SWP entitlement would cost approximately $12,500 per acre-foot.** The asking price of this water is significantly higher than other comparable recent sales. For example, a 640 acre parcel in the Angiola area with approximately 410 acre-feet of SWP entitlement sold in late 2016 for $2,100,000 or about $5,100 per acre-foot. This 2016 example is more in-line with the historical trends seen to date, and we would expect that if the seller is realistic about price, the transaction would occur at a figure closer to these comparable sales. However, the price and status of this property for sale as well as the market is dynamic and subject to change.

## Section 7 – Water Banking Opportunities

As we have discussed in prior sections, water supplies may vary considerably depending on the hydrologic year. It may behoove a water district that needs a steady annual supply of water to explore water banking opportunities for a few reasons. First, banked water allows the district to deliver water regardless of hydrologic conditions, making it easier to deliver a reliable water supply. Having designated capacity in a water bank also allows the district to purchase water supplies during a wet year when they are generally cheaper than other years. As such, we recommend that the Board consider potential water banking options over the long-term as a way to diversify your water portfolio and potentially increase reliability. This section will discuss potential water banking partners as well as some future projects that the Authority may consider.

### Currently Banked Water Available for Sale and Water Banking Options

**Rosedale Rio Bravo Water Storage District**: The Rosedale Rio Bravo Water Storage District is a Kern County Water Agency member agency and water bank operator in the Bakersfield area. We met with their General Manager Eric Averett, and he provided us with two potential options that the Authority may wish to consider. First, the District has already-banked water from a variety of sources that they have received. The District has a storage account, and takes advantage of its banking operations to purchase water in wet years when it is available. **The District has water available this year, and the asking price is in the $800 per acre-foot range.**

In addition to already-banked water, the District is willing to entertain the potential of an outside entity such as the Authority purchasing water and storing it in the District's facilities, in exchange for monetary compensation, water, or some combination of both. As a Kern County member agency, this option may also provide less logistical challenges than other storage options. If the Authority wishes to bank water in Rosedale and wants to limit the amount of up-front cash it would have to provide, Rosedale offers a program where it will take water in-lieu of payment at a 2 for 1 rate. The user would send 2 acre-feet to the District and be eligible to extract 1 acre-foot at a future date.

**Semitropic Water Storage District**: The Semitropic Water Storage District is a water wholesaler and water bank based out of Wasco. The District stores both water for its agricultural operators as well as outside entities such as the Metropolitan Water District. Individual farming entities can also maintain accounts. Semitropic sells shares that allow the holder a certain amount of recharge, storage and recovery space within the system. We have identified a large farming operation that has both stored water and excess storage rights that they are willing to lease. In the scenario of a sale of water already stored, the rights to that water would transfer to IWVGA. In the scenario of leasing storage space, the owner of the shares would allow IWVGA to bring in its outside water supply and bank it within the share system that the farming operation currently owns. **The seller has approximately 2-3,000 AF of stored water for sale and approximately 5,000 to 7,500 AF of unused storage capacity available for lease.** Both the price of pre-banked water and leasing of storage space is negotiable, but subject to an agreement between the buyer and the farming operation, and the buyer and the Semitropic Board. The buyer would assume the maintenance costs associated with the ongoing operation of the Bank, which are enumerated below.

- Each Share allows 1 AF per year of recovery, 3 AF of storage and 1 AF per year of recharge
- Management fees are $6.17 per share per year
- Maintenance fees are $8 per share per year
- Recharge fees are $20.55 per AF when delivered to the District
- Recovery fees are $123.32 per AF plus actual energy costs when returned to the California Aqueduct

### Other Potential Water Banking Options

In addition to the water banks listed above, there are a few other projects that the Authority could consider in the future, including:

**Antelope Valley East Kern Water Agency:** The Antelope Valley East Kern Water Agency is currently building and will operate a groundwater recharge and recovery program referenced as the High Desert Water Bank (the Project). The Project will be implemented on an approximately 1,500-acre site in Los Angeles County within the AVEK District boundaries. The Project area consists of undeveloped and fallowed agricultural land surrounded by the Tehachapi and San Gabriel mountain ranges to the north, south, and west. The California Aqueduct will be the source of water for recharge operations and the point of delivery for return flow operations for the Project. The Project area is also situated south of an existing groundwater bank owned and operated by another Agency.

Based on outside consultant's assessments, AVEK projects the ability to store 280,000-acre feet within the groundwater bank. The source of water to be stored in the groundwater bank will consist of SWP water from various State Water Contractors and other partnering agencies throughout the State of California including AVEK. The Groundwater Bank is projected to store approximately 70,000-acre feet per year of SWP surface water conveyed to the site via the California Aqueduct. Recharge operations are planned during wet weather years when SWP allocations exceed demands. AVEK then proposes to recover 90% of the stored water with up to an estimated 70,000-acre feet per year returned during dry and critical weather years when SWP allocations are low or disrupted. The Groundwater Bank would allow the AVEK and its partners to rely primarily on the water stored in the groundwater bank as their primary source of water during dry weather years.

**Mojave Water Agency:** The Mojave Water Agency is also considering building a water bank within the Mojave Basin. MWA currently has an agreement with the Metropolitan Water District in which Metropolitan sends water to MWA and stores it in the Mojave Basin. The Mojave Basin currently has no extraction wells that are able to return water to the California Aqueduct or other conveyance facilities. To return water to Metropolitan, MWA sends like amounts of its SWP entitlement through an exchange. In the future, MWA is considering the construction of further banking facilities and extraction wells that would allow the Agency to return water to the California Aqueduct. The Agency expects to release an RFP for a feasibility study and initial design on this project in late 2019.

## Section 8 - Potential Cost Scenarios for Hypothetical Water Purchases for the Indian Wells Valley Groundwater Authority

In this section, Capitol Core Group will provide the Authority with a series of hypothetical scenarios whereby the Authority can receive the annual amount of water that it requires to bring the basin into sustainability. This chapter will outline the details of each scenario, the assumptions we made to reach these cost estimates, as well as the research and data we used to base our projections. Each scenario will show 10-year projections based on these initial estimates.

**Important Note Regarding these Estimates:** Please note that the projected financial data that we provide in this section are cost estimates based on the assumptions and research outlined in this chapter. Projections of costs for later years are based on long-term averages of key figures to determine cost inflation rates. Water markets in California are dynamic, particularly in this time period when many agencies are beginning to look for water to fulfill SGMA obligations. These figures represent estimates only and actual costs may vary at the point when the Authority is ready to purchase supplies. Further, these estimates include the costs delineated in each line item such as wheeling or storage costs. Unforeseen costs not included in these projections, other items negotiated during an actual purchase, or a change in hydrologic conditions may change these cost estimates. These costs also do not include the amortization of local infrastructure needed to supply water in the basin. As such, these figures should only be used a general guide for what water supplies may cost, recognizing that a host of factors could change the final costs.

**Assumptions:** Capitol Core Group used the following assumptions to determine the costs for each scenario –

1) **Amount of Water Delivered**: While the estimate for the amount of water needed for the basin has changed over the time of the project, we used an estimate of 3,000 acre-feet of imported water needed annually for the basin.
2) **Water Supplies**: The following cost assumptions were used to form the basis of the cost for service for each of the water supplies listed:
    a. **Antelope Valley East Kern Water Agency**: As mentioned in the multi-year transfers discussion in Section 5, the Antelope Valley East Kern Water Agency only delivers treated water to the service area that is closest to the Indian Wells Valley Basin (such as Edwards Air Force Base). As such, our cost assumption is based on the Agency's cost for services to Base area for 2019 (see item a-4 in the link here). The cost of treated water service to Phillips Lab at Edwards Air Force Base is $1,375/AF. **We assume that the cost to pump water to the Indian Wells Valley Basin would be another $100/AF, so the first year cost of water is estimated at $1,475/AF.** We assume a 4% increase in costs annually (justified in Section 3 below regarding wheeling).

b. **Plumas County Flood Control and Water Conservation District**: Plumas County could potentially provide the District with between 1,000 and 1,200 AF annually. Plumas is a North-of-Delta water provider, so we used comparative comps for other water providers in the area to get a range of pricing. As we discussed in the section regarding single year transfers, North-of-Delta State Water such as from Napa County is available this year for less than $300 per acre-foot. In drought years, water transfers can be significantly higher. According to a 2015 article in the *Sacramento Bee*, a consortium of water districts including Metropolitan Water District had the rights to purchase up to 115,000 acre-feet of water in 2014 and 2015, at the height of the drought from agricultural districts that receive water from the Feather River. Butte Water District, one of the districts that we cite in the single-year transfer section, was also a participant in the 2014-15 deal. Metropolitan paid $500/AF for water in 2014 and $700/AF in 2015. **We used the mid-point between the highs and lows of the North-of-Delta suppliers and used a figure of $500/AF in year 1.** We escalated the price by 4% annually over the 10-year projection.

c. **Permanent State Water Project (SWP) Supplies**: **We assume a cost of $6,500 per acre-foot to purchase permanent Table A supplies.** Permanent State Water Project supplies have varied in price dramatically over the last 20 years or so that we have transaction data, but prices have generally increased over time. The most recent data points that we have for large blocks of permanent SWP supply came from 2012, when Table A was purchased for between $5,000 and $6,000 per AF, assuming a 100% allocation year. Please see the discussion in Section 6 and the transaction tables laid out in Appendix A for more details. Further, the San Gorgonio Pass Water Agency created a capacity fee study (which can be accessed here) that included a broker's opinion of value (BOV) on the cost of State Water Project supplies in 2015. The BOV concluded that the cost of purchasing Permanent SWP supplies at that point would be in approximately $6,200 per AF.

   Also as discussed in Section 6, the allocations on the State Water Project can vary dramatically from year to year depending on hydrologic conditions. In the past 15 years, the State Water Project has provided 100% of supplies in 2006, to only 5% at the height of the drought in 2014. To determine the amount of water that the Authority would need to purchase to provide 1,000 acre-feet over the long-term we used the projections in the most recent 2017 Department of Water Resources *State Water Project Delivery Capability Report* (which can be viewed here). The study projects that the State Water Project can deliver water with 62% reliability over the long-term. The study determines this figure by dividing the long-term annual estimate of deliveries of 2,571,000 acre-feet (on Page 2) by the total potential deliveries for the State Water Project in a full allocation of 4,172,786 acre-feet. Using this 62% figure, if the Authority would like to deliver 1,000 acre-

feet of water average over the long-term, then it will have to purchase 1,613 acre-feet of SWP water (1,000/.62=1,613).

To arrive at the annual costs for the SWP supplies, we completed amortization tables for a 30-year loan to purchase this amount of water at assuming a 5% interest rate and quarterly interest payments. Please see Appendix D for the amortization tables.

d. **Nickel Water**: We provide a scenario where the Authority theoretically purchases the Nickel Water 5-year contract from the Tejon Ranch Company. The prices quoted are from the contract terms that Tejon Ranch proposed.
e. **Mojave Water Agency**: Mojave Water Agency's (MWA) service area as discussed covers part of the Basin. While the Agency has not finalized the cost of water delivery service that they would propose to the Authority, Mojave has a robust set of water data to show their costs for supplemental water delivered to their service area. Since the basin was adjudicated, the Mojave Water Agency has provided Supplemental Water, which is imported State Water Project supplies provided to groundwater rights holders that pump more water in a given year than their allocation allows. **The 2019 cost per acre-foot of Supplemental Water delivered to the Basin is $636/AF.** This figure is *inclusive* of the wheeling fees associated with brining the water to the MWA service area. As such, we did not add further wheeling fees associated with this water for two reasons. First, should this water be sent directly to one of our transfer partners rather than directly to MWA, the wheeling fees likely would not be significantly different. The largest component of wheeling fees to deliver water to any State Water Project Contractor south of the Tehachapi Mountains is usually the electricity costs associated with the Edmontson Pumping Plant, which lifts water almost 2,000 feet over the Tehachapi Mountains. The Water Education Foundation points out that this pumping plant alone uses on average 40% of the total electricity used in the State Water Project, and any State Water Contractor south of this point (AVEK, MWA and Metropolitan included) would be subject to these costs. Further, MWA and Metropolitan have a banking agreement in place whereby Metropolitan can send and bank water in the Mojave Basin in exchange for State Water Project supplies at a later time. While it is still to be determined whether the Authority could utilize a similar approach, there are mechanisms in place to allow such a transaction.
f. **Banking Costs**: As noted in Section 7, there are a variety of water banks that utilize a share system and associated expenses to run the bank operations. These options, such as the Semitropic Water Storage District, require significant up-front capital costs to purchase share participation in the bank. Considering the financial position of the Authority, we sought a banking option that would limit the amount of up-front costs associated with banking. We used the model of the Rosedale Rio-Bravo Water Storage District where the District would take water in lieu of shares

or an up-front payment to store water. Rosedale offered a 2:1 model (the Authority delivers 2 AF of water and Rosedale returns 1 at a later date with no up-front payment to Rosedale), and the scenarios with banking are modeled as such. The Authority would be required to pay for the electricity costs for recovering the water, which is assumed at $80/AF and escalated at 2.5% per year.

g. **Wheeling Costs**: To provide a reference point as to the cost associated with the operations and maintenance of the State Water Project and wheeling (conveying) water to Southern California, particularly an area south of the Tehachapis, we used Metropolitan Water District's wheeling fees. **The 2019 per-acre-foot wheeling fee is $522** and consists of the following:

| Metropolitan Water District 2019 Per-Acre-Foot Wheeling Charges | |
|---|---|
| System Access Rate | $326 |
| Water Stewardship Rate | $69 |
| System Power Rate | $127 |
| **Total Per-Acre-Foot Charge** | **$522** |

Each fee rate is used for the following (taken from *Water Rates and Charges*, a publication of the Municipal Water District of Orange County, Met member agency and accessible here):

**System Access Rate:** Recovers the costs to support MET's water conveyance and distribution system, including capital costs associated with average demand and operations and maintenance.

**System Power Rate:** Recover's MET's average cost of energy to pump water on the State Water Project

**Water Stewardship Rate:** Provides Revenue to support MET's Water Use Efficiency programs including conservation and local resource programs.

Metropolitan Water District provides data on these wheeling fees going back to 2003. The average annual increase in wheeling costs over this time is 4.27%, so we use this figure as an annual cost escalator for our future year wheeling estimates.

***Note:** In the scenarios where we describe wheeling costs for the State Water Project, we include the per-acre-foot cost for the entire projected allocation for each scenario (for example, we assume that the Authority would have to purchase 1,613 AF of SWP supplies to receive 1,000 AF over the long-term). The State Water Project follows a "take or pay" system whereby some annual charges are fixed regardless of whether the water rights holder takes delivery of the water or if the Project can deliver it in a given year.

**Description of Scenarios:** Capitol Core Group ran the following cost scenarios to provide the Authority with 3,000 acre-feet of water annually to the Basin. Each scenario provides the cost

estimates for the first ten years after purchase. Please see the table in each scenario for a full breakdown of estimated costs by year.

**Scenario 1:** The Authority purchases 3,000 AF of treated water annually from the Antelope Valley-East Kern Water Agency. The water is directly delivered from AVEK, and assumes that they will be the Authority's transfer partner. Water costs follow the assumptions described earlier.

| Scenario 1: Antelope Valley East Kern Water District Treated Water Supply (Direct Delivery to Ridgecrest) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year 10 |
| AF Supplied | 3000 | 3000 | 3000 | 3000 | 3000 | 3000 | 3000 | 3000 | 3000 | 3000 |
| Cost per AF | $1,475 | $1,534 | $1,572 | $1,612 | $1,652 | $1,693 | $1,736 | $1,779 | $1,823 | $1,869 |
| **Total Cost of Supplies** | **$4,425,000** | **$4,602,000** | **$4,717,050** | **$4,834,976** | **$4,955,851** | **$5,079,747** | **$5,206,741** | **$5,336,909** | **$5,470,332** | **$5,607,090** |
| **Average Annual Cost First 10 Years** | **$5,023,570** | | | | | | | | | |

**Scenario 2:** Scenario 2 describes a hypothetical purchase of enough State Water Project permanent supply to provide the Authority with a long-term average of 3,000 AF of water deliveries. To provide this amount of water over the long-term, we use the projected 62% reliability that the State Water Project assumes (as described in the assumptions) to calculate the amount of permanent supplies the Authority would have to purchase. Using this 62% figure, if the Authority would like to deliver 3,000 acre-feet of long term supplies, then it will have to purchase 4,839 acre-feet of permanent water entitlement (3,000/.62=4,839) at $6,500 per AF. The scenario has the following cost components:

**SWP Annual Note Repayment:** Assumes the cost of purchasing the permanent SWP supply will be repaid over 30 years at a 5% interest rate.

**SWP Wheeling Fee:** Assumed at a Year 1 rate of $522/AF, and escalated at 4.27% per the assumptions.

| Scenario 2: Purchase 4,839 AF of Permanent SWP Supplies for 3,000 AF Annual Long-Term Delivery | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year 10 |
| AF Supplied | 3000 | 3000 | 3000 | 3000 | 3000 | 3000 | 3000 | 3000 | 3000 | 3000 |
| SWP Annual Note Repayment | $2,029,698 | $2,029,698 | $2,029,698 | $2,029,698 | $2,029,698 | $2,029,698 | $2,029,698 | $2,029,698 | $2,029,698 | $2,029,698 |
| SWP Wheeling Fee | $2,525,958 | $2,633,816 | $2,746,280 | $2,863,547 | $2,985,820 | $3,113,314 | $3,246,253 | $3,384,868 | $3,529,402 | $3,680,107 |
| **Total Cost of Supplies** | **$4,555,656** | **$4,663,514** | **$4,775,978** | **$4,893,244** | **$5,015,518** | **$5,143,012** | **$5,275,951** | **$5,414,566** | **$5,559,100** | **$5,709,805** |
| **Average Annual Cost First 10 Years** | **$5,100,634** | | | | | | | | | |

**Scenario 3:** Scenario 3 assumes that the Authority will receive 1,000 AF annually from the each of the three following supplies: The purchase of permanent State Water Project supplies, a long-term contract with Plumas County and a long-term contract with Mojave Water Agency. The scenario has the following cost components:

**SWP Annual Note Repayment:** Using the 62% long-term reliability figure, if the Authority would like to deliver 1,000 acre-feet of long term supplies, then it will have to purchase 1,613 acre-feet of permanent water entitlement (1,000/.62=1,614) at $6,500 per AF. Assumes the cost of purchasing the permanent SWP supply will be repaid over 30 years at a 5% interest rate.

**SWP Wheeling Fee:** Assumed at a Year 1 rate of $522/AF, and escalated at 4.27% per the assumptions.

**Plumas Water:** First year cost is assumed at $500/AF, and escalated at 4% annually.

**Plumas Wheeling Fee:** Assumed at a Year 1 rate of $522/AF, and escalated at 4.27% per the assumptions.

**Mojave Water Agency Supplemental Water:** First year cost is $636/AF and escalated at 6.27% annually.

| Scenario 3: Purchase 1,613 AF Permanent SWP Supplies, 1,000 AF Annual from Plumas County, 1,000 AF Annual From Mojave Water Agency | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year 10 |
| AF Supplied | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 |
| SWP Annual Note Repayment | $676,566 | $676,566 | $676,566 | $676,566 | $676,566 | $676,566 | $676,566 | $676,566 | $676,566 | $676,566 |
| SWP Wheeling Fee | $841,986 | $877,939 | $915,427 | $954,516 | $995,273 | $1,037,771 | $1,082,084 | $1,128,289 | $1,176,467 | $1,226,702 |
| Plumas Water | $500,000 | $520,000 | $540,800 | $562,432 | $584,929 | $608,326 | $632,660 | $657,966 | $684,285 | $711,656 |
| Plumas Wheeling Fee | $522,000 | $542,880 | $564,595 | $587,179 | $610,666 | $635,093 | $660,497 | $686,916 | $714,393 | $742,969 |
| Mojave WA Supplemental Water | $636,000 | $675,877 | $718,255 | $763,289 | $811,148 | $862,006 | $916,054 | $973,491 | $1,034,529 | $1,099,394 |
| **Total Cost of Supplies** | **$3,176,552** | **$3,293,262** | **$3,415,643** | **$3,543,982** | **$3,678,582** | **$3,819,763** | **$3,967,861** | **$4,123,228** | **$4,286,240** | **$4,457,287** |
| **Average Annual Cost First 10 Years** | **$3,776,240** | | | | | | | | | |

**Scenario 4:** Scenario 4 assumes that the Authority will purchase 3,000 AF annually from the Nickel Water contract for the first five years when it is available, and then purchase already-banked water from a supplier at an assumed rate of $1,000 per acre-foot. The following cost assumptions are used:

**Nickel Water:** Costs follow the proposed contract terms which are:

| Nickel Water, From Tejon Ranch Asking Prices Per AF | |
|---|---|
| Years | Price per AF |
| 2019-2020 | $1,000 |
| 2021-2022 | $1,225 |
| 2022-2023 | $1,325 |

**Nickel Water Wheeling Fee:** Assumed at a Year 1 rate of $522/AF, and escalated at 4.27% per the assumptions.

**Banked Water Purchase:** As discussed in Section 7, there are already-banked water supplies currently available from banks such as Rosedale Rio-Bravo Water Storage District for $800/AF. Since this water supply in this scenario would not be purchased until Year 6, we assume a cost of $1,000 per AF, or a 25% escalation from current costs.

**Banked Water Wheeling Fee:** Assumed at a Year 1 rate of $522/AF, and escalated at 4.27% per the assumptions.

| Scenario 4: Nickel Water First 5 Years, Buy Banked Banked Water at $1,000/AF | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year 10 |
| AF Supplied | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 |
| Nickel Water Purchase | $3,000,000 | $3,000,000 | $3,675,000 | $3,675,000 | $3,975,000 | $0 | $0 | $0 | $0 | $0 |
| Nickel Water Wheeling | $1,566,000 | $1,632,868 | $1,702,592 | $1,775,292 | $1,851,097 | $0 | $0 | $0 | $0 | $0 |
| Banked Water Purchase | $0 | $0 | $0 | $0 | $0 | $3,000,000 | $3,120,000 | $3,244,800 | $3,374,592 | $3,509,576 |
| Banked Water Wheeling | $0 | $0 | $0 | $0 | $0 | $1,930,139 | $2,012,556 | $2,098,492 | $2,188,098 | $2,281,530 |
| **Total Cost of Supplies** | **$4,566,000** | **$4,632,868** | **$5,377,592** | **$5,450,292** | **$5,826,097** | **$4,930,139** | **$5,132,556** | **$5,343,292** | **$5,562,690** | **$5,791,105** |
| **Average Annual Cost First 10 Years** | **$5,261,263** | | | | | | | | | |

**Scenario 5:** Scenario 5 assumes that the Authority will purchase 1,000 AF annually each from Plumas County and Mojave Water Agency, and then bank enough water every 5 years to provide 1,000 AF annually to the Authority. To do this, the Authority would have to purchase 10,000 AF every five years to complete the 2-for-1 deal that we describe in the assumptions. This amount of water purchased would leave the Authority with 5,000 AF, enough to deliver 1,000 AF annually and round out the 3,000 AF total annual delivery. The following cost assumptions are used:

**Plumas Water:** First year cost is assumed at $500/AF, and escalated at 4% annually.

**Plumas Wheeling Fee:** Assumed at a Year 1 rate of $522/AF, and escalated at 4.27% per the assumptions.

**Mojave Water Agency Supplemental Water:** First year cost is $636/AF and escalated at 6.27% annually.

**Banked Water:** 10,000 of banked water would be purchased every 5 years at $300 per acre-foot.

**Recovery Charge:** The electricity cost to recover the banked water is estimated at $80/AF.

**Banked Water Wheeling Fee:** Assumed at a Year 1 rate of $522/AF, and escalated at 4.27% per the assumptions.

| Scenario 5: 1000 Annual Plumas, 1000 Annual Mojave, bank 10,000 AF Every 5 Years at $300/AF, Deliver 1,000 AF Banked Water Per Year | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year 10 |
| AF Supplied | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 |
| Plumas Water | $500,000 | $520,000 | $540,800 | $562,432 | $584,929 | $608,326 | $632,660 | $657,966 | $684,285 | $711,656 |
| Plumas Wheeling Fee | $522,000 | $542,880 | $564,595 | $587,179 | $610,666 | $635,093 | $660,497 | $686,916 | $714,393 | $742,969 |
| Mojave WA Supplemental Water | $636,000 | $675,877 | $718,255 | $763,289 | $811,148 | $862,006 | $916,054 | $973,491 | $1,034,529 | $1,099,394 |
| Bank 10,000 AF (2 for 1 with partner | $3,000,000 | $0 | $0 | $0 | $0 | $3,000,000 | $0 | $0 | $0 | $0 |
| Recovery Charge | $80,000 | $82,000 | $84,050 | $86,151 | $88,305 | $90,513 | $92,775 | $95,095 | $97,472 | $99,909 |
| Wheel Banked Water | $522,000 | $544,289 | $567,531 | $591,764 | $617,032 | $643,380 | $670,852 | $699,497 | $729,366 | $760,510 |
| **Total Cost of Supplies** | **$5,260,000** | **$2,365,047** | **$2,475,230** | **$2,590,816** | **$2,712,080** | **$5,839,318** | **$2,972,838** | **$3,112,965** | **$3,260,045** | **$3,414,437** |
| **Average Annual Cost First 10 Years** | **$3,400,278** | | | | | | | | | |

**Scenario 6:** Scenario 6 has all the same assumptions as Scenario 5, but the banked water is purchased at $500 per acre-foot.

| Scenario 6: 1000 Annual Plumas, 1000 Annual Mojave, bank 10,000 AF Every 5 Years at $500/AF, Deliver 1,000 AF Banked Water Per Year | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year 10 |
| AF Supplied | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 |
| Plumas Water | $500,000 | $520,000 | $540,800 | $562,432 | $584,929 | $608,326 | $632,660 | $657,966 | $684,285 | $711,656 |
| Plumas Wheeling Fee | $522,000 | $542,880 | $564,595 | $587,179 | $610,666 | $635,093 | $660,497 | $686,916 | $714,393 | $742,969 |
| Mojave WA Supplemental Water | $636,000 | $675,877 | $718,255 | $763,289 | $811,148 | $862,006 | $916,054 | $973,491 | $1,034,529 | $1,099,394 |
| Bank 10,000 AF (2 for 1 with partner | $5,000,000 | $0 | $0 | $0 | $0 | $5,000,000 | $0 | $0 | $0 | $0 |
| Recovery Charge | $80,000 | $82,000 | $84,050 | $86,151 | $88,305 | $90,513 | $92,775 | $95,095 | $97,472 | $99,909 |
| Wheel Banked Water | $522,000 | $544,289 | $567,531 | $591,764 | $617,032 | $643,380 | $670,852 | $699,497 | $729,366 | $760,510 |
| **Total Cost of Supplies** | **$7,260,000** | **$2,365,047** | **$2,475,230** | **$2,590,816** | **$2,712,080** | **$7,839,318** | **$2,972,838** | **$3,112,965** | **$3,260,045** | **$3,414,437** |
| **Average Annual Cost First 10 Years** | **$3,800,278** | | | | | | | | | |

**Scenario 7:** Scenario 7 has all the same assumptions as Scenarios 5 and 6, but the banked water is purchased at $700 per acre-foot.

| Scenario 7: 1000 Annual Plumas, 1000 Annual Mojave, bank 10,000 AF Every 5 Years at $700/AF, Deliver 1,000 AF Banked Water Per Year | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year 10 |
| AF Supplied | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 |
| Plumas Water | $500,000 | $520,000 | $540,800 | $562,432 | $584,929 | $608,326 | $632,660 | $657,966 | $684,285 | $711,656 |
| Plumas Wheeling Fee | $522,000 | $542,880 | $564,595 | $587,179 | $610,666 | $635,093 | $660,497 | $686,916 | $714,393 | $742,969 |
| Mojave WA Supplemental Water | $636,000 | $675,877 | $718,255 | $763,289 | $811,148 | $862,006 | $916,054 | $973,491 | $1,034,529 | $1,099,394 |
| Bank 10,000 AF (2 for 1 with partner | $7,000,000 | $0 | $0 | $0 | $0 | $7,000,000 | $0 | $0 | $0 | $0 |
| Recovery Charge | $80,000 | $82,000 | $84,050 | $86,151 | $88,305 | $90,513 | $92,775 | $95,095 | $97,472 | $99,909 |
| Wheel Banked Water | $522,000 | $544,289 | $567,531 | $591,764 | $617,032 | $643,380 | $670,852 | $699,497 | $729,366 | $760,510 |
| **Total Cost of Supplies** | **$9,260,000** | **$2,365,047** | **$2,475,230** | **$2,590,816** | **$2,712,080** | **$9,839,318** | **$2,972,838** | **$3,112,965** | **$3,260,045** | **$3,414,437** |
| **Average Annual Cost First 10 Years** | **$4,200,278** | | | | | | | | | |

**Scenario 8:** In this scenario, the Authority would purchase 1,000 AF annually from Plumas County, bank 10,000 AF of water every five years (same as in scenarios 5-7) and purchase enough State Water Project entitlement to deliver 1,000 AF of water over the long-term (as in scenarios 2 and 3). The following cost assumptions are used:

**Plumas Water:** First year cost is assumed at $500/AF, and escalated at 4% annually.

**Plumas Wheeling Fee:** Assumed at a Year 1 rate of $522/AF, and escalated at 4.27% per the assumptions.

**Banked Water:** 10,000 of banked water would be purchased every 5 years at $300 per acre-foot.

**Recovery Charge:** The electricity cost to recover the banked water is estimated at $80/AF.

**Banked Water Wheeling Fee:** Assumed at a Year 1 rate of $522/AF, and escalated at 4.27% per the assumptions.

**SWP Annual Note Repayment:** Using the 62% long-term reliability figure, if the Authority would like to deliver 1,000 acre-feet of long term supplies, then it will have to purchase 1,613 acre-feet of permanent water entitlement (1,000/.62=1,614) at $6,500 per AF. Assumes the cost of purchasing the permanent SWP supply will be repaid over 30 years at a 5% interest rate.

**SWP Wheeling Fee:** Assumed at a Year 1 rate of $522/AF, and escalated at 4.27% per the assumptions.

| Scenario 8: 1000 Annual Plumas, bank 10,000 AF Every 5 Years at $300/AF, Deliver 1,000 AF Banked Water Per Year, Purchase 1,613 AF Permanent SWP | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year 10 |
| AF Supplied | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 |
| Plumas Water | $500,000 | $520,000 | $540,800 | $562,432 | $584,929 | $608,326 | $632,660 | $657,966 | $684,285 | $711,656 |
| Plumas Wheeling Fee | $522,000 | $544,289 | $567,531 | $591,764 | $617,032 | $643,380 | $670,852 | $699,497 | $729,366 | $760,510 |
| Bank 10,000 AF (2 for 1 with partner | $3,000,000 | $0 | $0 | $0 | $0 | $3,000,000 | $0 | $0 | $0 | $0 |
| Recovery Charge | $80,000 | $82,000 | $84,050 | $86,151 | $88,305 | $90,513 | $92,775 | $95,095 | $97,472 | $99,909 |
| Wheel Banked Water | $522,000 | $544,289 | $567,531 | $591,764 | $617,032 | $643,380 | $670,852 | $699,497 | $729,366 | $760,510 |
| SWP Annual Note Repayment | $676,566 | $676,566 | $676,566 | $676,566 | $676,566 | $676,566 | $676,566 | $676,566 | $676,566 | $676,566 |
| SWP Wheeling Fee | $841,986 | $875,665 | $910,692 | $947,120 | $985,005 | $1,024,405 | $1,065,381 | $1,107,996 | $1,152,316 | $1,198,409 |
| **Total Cost of Supplies** | **$6,142,552** | **$3,242,810** | **$3,347,169** | **$3,455,797** | **$3,568,870** | **$6,686,569** | **$3,809,086** | **$3,936,618** | **$4,069,371** | **$4,207,559** |
| **Average Annual Cost First 10 Years** | **$4,246,640** | | | | | | | | | |

**Scenario 9:** Scenario 9 has all the same assumptions as Scenario 8, but the banked water is purchased at $500 per acre-foot.

| Scenario 9: 1000 Annual Plumas, bank 10,000 AF Every 5 Years at $500/AF, Deliver 1,000 AF Banked Water Per Year, Purchase 1,613 AF Permanent SWP | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year 10 |
| AF Supplied | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 |
| Plumas Water | $500,000 | $520,000 | $540,800 | $562,432 | $584,929 | $608,326 | $632,660 | $657,966 | $684,285 | $711,656 |
| Plumas Wheeling Fee | $522,000 | $544,289 | $567,531 | $591,764 | $617,032 | $643,380 | $670,852 | $699,497 | $729,366 | $760,510 |
| Bank 10,000 AF (2 for 1 with partner | $5,000,000 | $0 | $0 | $0 | $0 | $5,000,000 | $0 | $0 | $0 | $0 |
| Recovery Charge | $80,000 | $82,000 | $84,050 | $86,151 | $88,305 | $90,513 | $92,775 | $95,095 | $97,472 | $99,909 |
| Wheel Banked Water | $522,000 | $544,289 | $567,531 | $591,764 | $617,032 | $643,380 | $670,852 | $699,497 | $729,366 | $760,510 |
| SWP Annual Note Repayment | $676,566 | $676,566 | $676,566 | $676,566 | $676,566 | $676,566 | $676,566 | $676,566 | $676,566 | $676,566 |
| SWP Wheeling Fee | $841,986 | $875,665 | $910,692 | $947,120 | $985,005 | $1,024,405 | $1,065,381 | $1,107,996 | $1,152,316 | $1,198,409 |
| **Total Cost of Supplies** | **$8,142,552** | **$3,242,810** | **$3,347,169** | **$3,455,797** | **$3,568,870** | **$8,686,569** | **$3,809,086** | **$3,936,618** | **$4,069,371** | **$4,207,559** |
| **Average Annual Cost First 10 Years** | **$4,646,640** | | | | | | | | | |

**Scenario 10:** Scenario 10 has all the same assumptions as Scenarios 8 and 9, but the banked water is purchased at $700 per acre-foot.

| Scenario 10: 1000 Annual Plumas, bank 10,000 AF Every 5 Years at $700/AF, Deliver 1,000 AF Banked Water Per Year, Purchase 1,613 AF Permanent SWP | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year 10 |
| AF Supplied | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 |
| Plumas Water | $500,000 | $520,000 | $540,800 | $562,432 | $584,929 | $608,326 | $632,660 | $657,966 | $684,285 | $711,656 |
| Plumas Wheeling Fee | $522,000 | $544,289 | $567,531 | $591,764 | $617,032 | $643,380 | $670,852 | $699,497 | $729,366 | $760,510 |
| Bank 10,000 AF (2 for 1 with partner | $7,000,000 | $0 | $0 | $0 | $0 | $7,000,000 | $0 | $0 | $0 | $0 |
| Recovery Charge | $80,000 | $82,000 | $84,050 | $86,151 | $88,305 | $90,513 | $92,775 | $95,095 | $97,472 | $99,909 |
| Wheel Banked Water | $522,000 | $544,289 | $567,531 | $591,764 | $617,032 | $643,380 | $670,852 | $699,497 | $729,366 | $760,510 |
| SWP Annual Note Repayment | $676,566 | $676,566 | $676,566 | $676,566 | $676,566 | $676,566 | $676,566 | $676,566 | $676,566 | $676,566 |
| SWP Wheeling Fee | $841,986 | $875,665 | $910,692 | $947,120 | $985,005 | $1,024,405 | $1,065,381 | $1,107,996 | $1,152,316 | $1,198,409 |
| **Total Cost of Supplies** | **$10,142,552** | **$3,242,810** | **$3,347,169** | **$3,455,797** | **$3,568,870** | **$10,686,569** | **$3,809,086** | **$3,936,618** | **$4,069,371** | **$4,207,559** |
| **Average Annual Cost First 10 Years** | **$5,046,640** | | | | | | | | | |

## Section 9 -Potential Transfer Partners

The Indian Wells Valley basin currently relies entirely on groundwater as the source for its water needs and has no direct access to imported water supplies. Although the basin has three California State Water Contractors that cover parts of it (Kern County Water Agency and Antelope Valley East Kern Water Agency cover the areas of the basin in Kern County and the Mojave Water Agency covers parts of the basin that is in San Bernardino County), the Indian Wells Valley Water District is not currently a member of any of these agencies. As such, the basin will need to build infrastructure to access imported water supplies and reach agreements with potential transfer partners to provide them with imported water conveyance. The Authority has identified two potential transfer partners who could theoretically deliver water resources to the basin: The Antelope Valley East Kern Water Agency (AVEK) and the Los Angeles Department of Water and Power (LA DWP).

Imported water supplies for the Indian Wells Valley will likely come from sources in Northern California or the Central Valley. The State Water Project's California Aqueduct has a turnout that connects it directly to both potential transfer partners, and could provide the selected transfer partner with this water through an exchange agreement. This section will address the background for each potential water partner, and items for the Board to consider as they provide direction on their preferred partner.

### Antelope Valley-East Kern Water Agency

**Background:** The Antelope Valley-East Kern Water (AVEK) is the third largest State Water Project (SWP) Contractor in the State of California. It encompasses 2,300 square miles in the Mojave Desert area of California, northeast of Los Angeles, and includes over twenty municipal users as well as Edwards AFB, Palmdale Air Force (Plant 42) and U. S. Borax.

Because groundwater resources were severely overdrafted, AVEK contracted for a supplemental supply of municipal and industrial water (141,400 acre-feet) from the California State Water

Project. Of the 141,400-acre-foot annual entitlement, the municipal and industrial, and agricultural water customers are currently using about 75,000-acre feet per year.

**Retail Water Deliveries:** The bulk of the water imported by AVEK is treated and delivered to customers throughout its service area through Domestic-Agricultural Water Network (DAWN) Project facilities. AVEK's entitlement also provides for delivery of untreated irrigation water from the Aqueduct and AVEK turnouts to Antelope Valley farmers.

The DAWN Project consists of more than 100 miles of water distribution pipeline; Four Water Treatment Plants; Four 8-million-gallon water storage reservoirs near Mojave, and one 3-million-gallon capacity reservoir at Vincent Hill Summit. AVEK currently sends water to the Edwards Air Force Base in the far north east region of its district boundaries. AVEK also delivers water to California City, a delivery point further north that the Edwards Air Force Base. Of note, the pipeline that delivers water to the eastern sections of the District where the IWVGA could conceivably tie into delivers only treated water.

**Facilities Needed for delivery to Indian Wells Valley:** The Indian Wells Valley lies roughly 60 miles to the North/Northeast of AVEK's current pipeline infrastructure in California City. The water delivered to California City (as well as Edwards Air Force Base) is 'treated' water and ready to serve customers. This means any pipeline connection to AVEK for the purpose of delivering water to the Indian Wells Valley will carry treated water.

Engineer's estimates for the facilities needed include the 60 +-miles of 28-inch steel pipeline as well as 2 pump stations and a 1-million-gallon steel tank. The new facilities could connect directly into the IWVWD facilities and thereby alleviate some of the current groundwater pumping by the IWVWD. **The total estimated cost of the infrastructure to tie into AVEK's system (per Stetson Engineers) is approximately $177 million.**

### Los Angeles Department of Water and Power

**Background:** In an average year, the LADWP Water System draws 18 percent of its water from the Eastern Sierra and purchases 71 percent from the Metropolitan Water District of Southern California (MWD). Water pumped from groundwater wells provides an additional 10 percent. To supplement these sources, Los Angeles uses recycled water for industrial and irrigation purposes—representing about 1 percent of the total supply.

The LA Department of Water and Power has two imported water facilities that are pertinent to the Groundwater Authority. The Los Angeles Aqueduct provides water supplies from the Eastern Sierras and runs through eastern Kern County, on its way to Los Angeles. The closest point of potential tie-in to the Los Angeles Aqueduct for the Groundwater Authority is in the western section of the Basin near Inyokern. Second, the Metropolitan Water District has access to the State Water Project through deliveries from the California Aqueduct. This aqueduct brings water supplies from Northern California, and could conceivably deliver water that the Authority purchases from the sources addressed in the scenarios in Section 8. There is an intertie where

the two aqueducts meet and allows more delivery flexibility for water supplies, depending on hydrologic conditions.

**Facilities Need for delivery to Indian Wells Valley:** The Los Angeles Aqueduct currently runs through the Indian Wells Valley Basin on its way to Los Angeles. The aqueduct follows the base of the Sierra Nevada Mountains on the western portion of the Indian Wells Valley Basin. As this scenario would tie into a different water system than AKEK, the amount and type of facilities needed differ between the two. Also, unlike the AVEK scenario, the LA Aqueduct would provide untreated water to the Authority.

For the LA DWP transfer partnership scenario, the Authority would have to build the following infrastructure to deliver water: A turnout from the LA Aqueduct, approximately 53,300 linear feet of 28" pipeline, a spreading grounds facility to recharge the water estimated at 400 acres, 5 recovery wells, chlorination facilities and a 1 million gallon steel tank. **The total estimated cost of the infrastructure to tie into LA DWP's system (per Stetson Engineers) is approximately $55 million.**

### Considerations for Each Potential Transfer Partner

In order to determine which potential Transfer Partner best fits the Indian Wells Valley, several factors should be considered including financial, political and overall feasibility of each transfer partner. Once the Board provides feedback and direction on the preferred proposed transfer partner, the process of negotiation will begin to establish the framework and development for the agreements necessary to connect to the facilities of the potential partner as well as the delivery of water from the potential partner.

The concept of an agreement for the IWVGWA, regardless of which transfer partner is chosen, is to provide the transfer partner with imported water supplies from other areas of the state in exchange for like amounts of water from the transfer partner. The transfer partner would deliver the new, imported supply through infrastructure that the IWVGA builds. As such, the IWVGA would not increase water deliveries from the transfer partner's own sources to offset IWVGA's water use.

In drafting this agreement, the Authority should address the following issues and questions:

1. How much water will be transferred to the transfer partner?
2. What will the transfer partner want in compensation for this agreement?
3. Where will this water be delivered? How?
4. When will the transfer partner give water to Indian Wells?

These issues will be virtually the same for both potential transfer partners. The IWVGWA will have to weigh the factors listed below to determine the best fit for the potential transfer partner.

### Financial

**AVEK:** The engineer's estimates for the infrastructure needed for the transfer partnership with AVEK is roughly $177,975,000. This number does not include the purchase of any water supply.

**LADWP:** The engineer's estimates for the infrastructure needed for the transfer partnership with LADWP is roughly $55,046,000. This number does not include the purchase of any water supply.

### Political

**AVEK:** The politics surrounding the potential partnership with AVEK should be limited to two areas: the local AVEK sphere of influence and other State Water Contractors.

Within the AVEK District, management has expressed interest in working with the Groundwater Authority on a transfer partnership, provided that the District is willing to pay for the water, infrastructure and maintenance costs associated with tying into their system. One challenge that AVEK expressed is ensuring that the other State Water Contractors that cover parts of the Indian Wells Basin are supportive of AVEK providing the Authority water service. As discussed, AVEK, Kern County Water Agency and the Mojave Water Agency all cover parts of the basin. As a general rule, one State Water Contractor is not allowed to provide water to another State Water Contractor without the consent of the other party. The main population center of the Indian Wells Basin (Ridgecrest) is within the geographic sphere of the Kern County Water Agency. As such, the Authority would need to coordinate with both Kern County Water Agency and Mojave Water Agency to ensure that they are supportive of AVEK providing the Basin's water supplies.

**LADWP:** The politics of a potential partnership with LADWP are more complex than those with a transfer partnership with AVEK. Capitol Core Group met members of the Inyo County delegation including Supervisor Matt Kingsley and Jon Vallejo in late June to discuss their concerns about the project. Inyo County has expressed concerns that the Indian Wells Valley Basin will take water from the LA Aqueduct, and cause an increased reliance and burden on imported water supplies from the Eastern Sierras. These concerns should be considered as the Board determines its preferred transfer partner. It is our intention that any water that the Authority would receive from the LA Aqueduct, should the Board choose LA DWP as their transfer partner, would not increase the overall amount of water that LA DWP transfers from Inyo County and the Eastern Sierras. For example, if the Authority needs 3,000 acre-feet and gets that water delivered from the LA Aqueduct, the Authority would replace that amount of water with 3,000 acre-feet of water from another Northern California source, leading to no increase in the aggregate amount of water that LA DWP exports from the Owens Valley.

At the State level, any new supply of water to be procured on behalf on Indian Wells Valley Basin will have to pass through State Water Project Aqueduct and transferred to LA DWP via the intertie connection in the Antelope Valley. Because LA DWP is not an SWP contractor, the prosed exchange agreements could include IWVGWA, Metropolitan Water District (for LA DWP) and the local SWP contractor (AVEK, Mojave or Kern County Water Agency, depending on who eventually

holds the water rights). Multi-Agency agreements run the risk of greater scrutiny for the communities of each of the agencies that are a party to the agreement.

### Overall Feasibility

**AVEK:** The proposed transfer partnership with AVEK presents complications on the financial feasibility as well as the physical feasibility of the proposed infrastructure. The estimated infrastructure costs to tie into AVEK's system are approximately 3 times the amount of the cost estimates for LA DWP. Any time a pipeline of any substantial size and distance will be constructed in the State of California, the environmental requirements of such a large construction project would not only add to the financial impacts but could face substantial resistance from the environmental community.

**LADWP:** The proposed partnership with the LA DWP is more viable on the financial and physical infrastructure side. However, the political complexities discussed could affect the overall feasibility of the partnership. The IWVGWA will have to take all of these factors into consideration as it determines that transfer partner the Board wishes to pursue.

## Section 10: Considerations and Recommendations

As the Groundwater Authority continues to complete its Groundwater Sustainability Plan (GSP) for submittal to the Department of Water Resources at the end of January 2020, it is in our opinion vital for the Board to continue to consider and act on potential water supplies that Capitol Core has identified. The Authority will likely face competition for limited water supplies available in the State of California, as more basins try to address the water shortfalls that SGMA is forcing them to address. The Indian Wells Basin is one of 21 basins that the Department of Water Resources identified as in critical overdraft. All of these basins will have to submit plans at the same time as Indian Wells Valley and will also likely look to imported water supplies to alleviate some of the groundwater resources that will no longer be available to them.

Some of the initial draft plans that water districts have released for public comment show that other critically overdrafted basins are facing significantly higher pumping deficits than Indian Wells. For example, the Merced Groundwater Sub-basin GSP draft released in July estimates that the basin has an average groundwater overdraft of 192,000 acre-feet *per year*. The McMullin Area GSP, which covers a portion of the Kings Basin, estimates an annual average overdraft of 91,000 acre-feet per year. In Kern County, according to the *Bakersfield Californian*, officials estimate that up to 185,000 acres of currently-active farmland could have to become fallow as a result of SGMA implementation. As such, water districts across California will continue to face competition to secure water resources and mitigate the impact of reduced groundwater pumping for the farms, citizens and businesses that they serve.

Capitol Core understands that the Authority faces financial challenges as it creates its GSP and looks to build infrastructure to support imported water supplies. The following considerations include options that the Authority could explore that may allow it to purchase water now and

either reduce the cost burden until it is ready for water deliveries, or mitigate those costs by leasing its potential purchased water resources in the short-term. We will address each recommendation in further detail below.

### Consideration 1: Determine What Entity Will be the "Holder" of IWVGA's Water Rights and Contracts

The Indian Wells Valley Basin is in a unique position in the fact that three State Water Contractors cover parts of the basin. Please see Appendix B for a detailed map of the areas that each contractor covers. The main population center of Ridgecrest and the immediate surrounding areas is under the geographic area of the Kern County Water Agency. Southwestern portions of the basin that lie within Kern County are under the geographic area of the Antelope Valley East Kern Water Agency. Finally, portions of the basin that are in northern San Bernardino County are in the geographic area of the Mojave Water Agency.

Neither the Indian Wells Valley Water District nor the Groundwater Authority is currently a member agency of any of these State Water Contractors. However, the Authority must become a member agency of one of these organizations in order to receive imported water and convey it to the Authority or to a transfer partner by means of an exchange. As such, we encourage the Authority to consider which entity would make the most sense to work with in order to "house" the Authority's water rights and assist the Authority in contracting with other agencies to deliver water.

Each one of the potential options presents both opportunities and challenges. In terms of challenges, as addressed in Section 9 (Transfer Partners), usually there are provisions within the State Water Contractors' operating procedures that prohibit one contractor from selling water to another contractor's member agency without the consent of the second contractor. In this instance, the Authority is not a member agency of any of the three contractors, but their geographic spheres overlap parts of the basin. The Authority will have to coordinate with the contractors that cover their area to ensure that there is communication between them as to the water resource plans.

There may also be opportunities to make transfers easier between the contractors that cover the area. For example, the Mojave Water Agency has the potential to provide water over a single year and possibly over a longer-term contract with the Authority. As discussed in Section 4 (Single Year Transfers), the current rules governing transfers between two State Water Contractors requires them to complete an exchange (whereby the buyer returns a negotiated amount of water back to the seller within a determined period of time) rather than an outright sale. However, the Agency said that since their district covers parts of the Indian Wells Valley Basin, it may be able to send water to the Authority through an outright transfer rather than through an exchange, even if it is not the holder of the Authority's water rights or contracts. The interpretation is subject to legal review and the ultimate approval of the State Department of Water Resources, but it could present a way to streamline the process of transfers.

**Note:** For Consideration 1, Capitol Core Group is not an attorney and cannot provide legal advice as to the appropriateness or legal implications of selecting a particular entity to be the legal holder of the Authority's water rights. The Consideration is for discussion purposes only. Capitol Core Group can assist the Authority's legal team in making this determination, but it will be the purview of the legal team to make a final determination on the appropriateness of the choice that the Board decides on.

### Consideration 2: Multiple Sources May Provide the Basin with a More Reliable Supply

In Section 8, Capitol Core outlined a series of 10 potential scenarios whereby the Authority could provide the water resources necessary to deliver an estimated 3,000 AF of water annually to the Basin. While some potential scenarios such as contracting with AVEK or purchasing State Water Project entitlement could potentially provide the District with enough water for its needs, we recommend that the District consider multiple sources to supply the district over the long-term. Relying on one single source for water supplies opens the Authority to the risk that the water supply might be curtailed on a given year, which happened to even more senior water rights during the drought in 2013-2015. In 2014, the State Water Project initially provided a zero percent allocation to all contractors, though it was eventually moved up to 5%. In June 2015, the State Water Resources Control Board took the unprecedented step of issuing curtailment notices to some "senior water rights" holders (those with water rights established prior to 1914) in the Sacramento-San Joaquin Delta Watershed. The entities that were forced to curtail surface water diversions either relied on banked water supplies of their own, purchasing expensive outside banked water supplies, or relying solely on groundwater pumping which will be curtailed in future years because of SGMA. In a few extreme cases, farming operations paid up to $2,200 per acre-foot for 3,200 acre-feet of water that the Madera Irrigation District made available for sale.

The point in citing these instances is that drought planning remains a factor for communities across California. If the Groundwater Authority needs to have water delivered each year, then it might consider some of the banking options that are laid out in the Section 8 scenarios. Banked water is available to the user regardless of hydrologic conditions, and could assist the Authority in providing water through drought conditions. But regardless, a more diversified portfolio of water assets could mitigate some of the hydrologic risks that a single source of water supply poses.

### Consideration 3: Putting an Option on Water in the Short-Term

Capitol Core recognizes that the Authority faces financial challenges as it begins the process of building infrastructure and finding water resources to satisfy the needs of the GSP. Further, we recognize that there may be a period of years initially where the Authority would not be ready to deliver water due to the planning and construction of infrastructure necessary to deliver imported water. However, as discussed in the introduction of this section, other water districts and groundwater agencies will likely be looking for water resources at the same time as the IWVGA. Waiting to buy water supplies may limit the available water options once the Authority

has completed infrastructure construction. With that in mind, considerations 2 and 3 address potential ways that would allow the Authority to purchase/control water rights while limiting the amount of up-front capital it would have to outlay before it is ready to deliver water.

Consideration 2 explores putting an option on purchasing water supplies in the short term. The purchase of State Water Project entitlement usually involves property that is either already fallowed or will be fallowed to transfer water from the current property to the new owner. In a few instances, the seller has allowed the buyer to place an option payment on the land and water rights to secure the needed water for a future date. While the allowance of an option payment is subject to the agreement of the selling property owner, the Authority could explore this possibility should it be interested in securing SWP water. Please see the case study below for how the option was structured.

### Case Study: Castaic Lake Developer Option Payment for SWP Entitlement

In 2014 the planning process began for a large housing project in Castaic, California. The developer, DACA-Castaic, LLC proposed a single-family housing project with roughly 450 units. As part of the entitlement process, the property needed to be annexed into the service are of the existing water district that bordered the property of the project. During the annexation process through the Local Formation Commission (LAFCO), the proposed water service provider—Castaic Lake Water Agency (now Santa Clarita Valley Water Agency, an SWP Contractor) included in the 'conditions of approval' to serve water to the project that the development had to provide a permanent supply of water. The Agency specifically conditioned that the developer purchase State Water Project (SWP) Table A entitlement and grant that water to the District in exchange for the will serve letter.

The developer (through its water resources consultant) was able to secure a 548-acre foot Table A entitlement located within the Tulare Lake Basin Water Storage District (a SWP Contractor). The transaction was structured so that the developer could contract with the seller for the purchase of the Table A Entitlement (as well as roughly 640 acres of fallowed farmland) but delay the close of escrow and provide the seller an annual option payment. The proposed purchase price of the water was roughly $3 million dollars (roughly $5,500 per acre-foot of water) and the annual option payment was $100,000, or 3% of the purchase price. The seller agreed to a two-year option with an available annual extension that increased the option amount by $50,000 for each year the option was extended.

### Consideration 4: Leasing out Purchased Water While Infrastructure Construction is Finalized

In addition to the possibility of finding permanent water resources where the Authority could place an option on the water, Capitol Core recommends that the Authority explore the possibility of leasing out water that the Authority purchases while infrastructure construction is finalized. In the introduction of this section, we discussed why it would be in the best interest of the Authority to consider securing water soon to mitigate the likely competition for water resources from other GSAs across the state. However, we also recognize the financial challenges the Authority faces as

it forms the mechanisms to pay for the water and infrastructure needed to support the basin. We also recognize that the infrastructure construction will likely take an estimated 5-7 years, and the Authority will not be able to deliver water to the Basin during that time.

Considering these factors, one strategy that the Authority could pursue is to purchase water contracts/rights in the near future, and lease the water out to another agency/entity while the construction takes place. If for example, the Authority is able to secure a long-term agreement with one of the suppliers that we discuss in Section 8, the Authority could look to another entity that also needs water in the short term to lease the water while the district completes its construction projects. There are two potential candidates that might be interested in a short-term water deal like this. First, there are agricultural groups that are often looking for water supplies, particularly permanent tree crop growers. Almond trees for example have a 20-25 year life cycle, and farmers try to tailor their water resources to the life cycle of the trees. There may be farmers who have trees nearing the end of their life cycle, and want to get a short-term supplemental water supply to maximize the crops from the trees while they still bear fruit. Farming operations like this may be interested in a short-term lease that may fit into the timeframe that the Authority would need to finish construction.

Second, there are other urban water districts who need supplemental supplies to either support new development, or provide replenishment water to bring their basin back into sustainability. Large areas of population centers in Southern California, for example, overlay adjudicated basins where court orders define the amount of water that can be pumped out of the basin annually. In many cases if the aggregate amount of pumping exceeds the court-ordered amount in a given year, the water master or governing authority must go onto the open market and purchase "makeup water" to account for the over-pumping. Districts like this may also be candidates for a short-term lease of water that the Authority may have.

### Consideration 5: Potentially Collaborate with the US Navy and Department of Defense on Water Supplies

As we discussed in our June Technical Memo and in Section 7 of this document, there are military installations in the state including Vandenberg Air Force and Lemoore Naval Air Station that have quantified State Water Project entitlements. Lemoore Naval Air Station is a member agency of the County of Kings State Water Contractor, and has an allocation of 5,000 acre-feet. Vandenberg Air Force Base is a member of the Central Coast Water Authority, which receives their State Water Project allocation through the Santa Barbara County Flood Control and Water Conservation District, the area's State Water Contractor. Vandenberg Air Force Base has a State Water Project allocation of 6,050 acre-feet. The Base also has access to a banking/exchange program completed with the Palmdale Water District. (For details of the Base's water entitlement click here.)

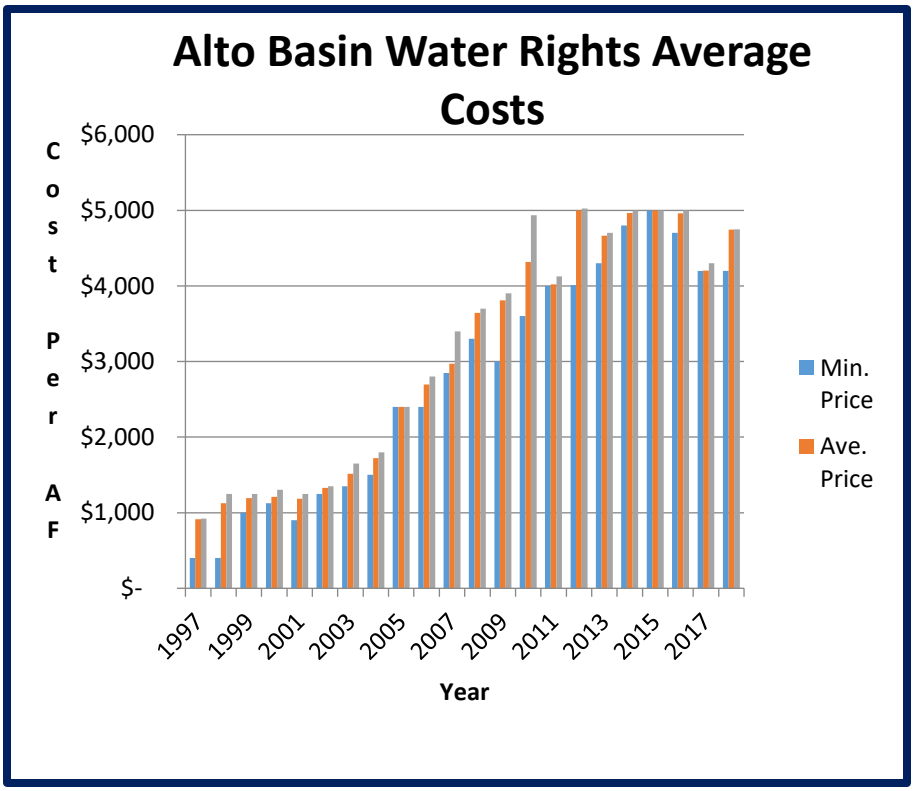
There is a precedent for other military bases across the state to have surface water rights. China Lake Naval Air Warfare Center will continue to need water resources to support the mission on

the base. While we are certainly not suggesting that China Lake ask to take water resources that other military installations have, we would like to explore whether there is a possibility of the Department of Defense setting up a pool of water resources for the bases in California to collectively use and manage. Three Naval bases in the state, including China Lake, Lemoore NAS and NAS Point Mugu in Ventura County all are in basins that the state has designated in critical overdraft. Having a collective pool of water resources may allow the bases to bank or store water in years where water resources are plentiful, and then manage it in dry years to fulfill their mission requirements. Establishing a pool such as this and building water resources for China Lake may also help to alleviate some of the pumping demands that the Base puts on the Indian Wells Basin.

### Consideration 6: Establishing a Groundwater Market within the Basin

Finally, the basin may wish to consider establishing a groundwater market that allows parties that have a determined allocation to sell or lease their rights to other parties. In a particular basin, a pumper's water usage may vary from year to year depending on their particular needs, hydrologic conditions, etc. There may be years where a particular pumper needs more water than they have a right, and vice versa. A groundwater trading market would allow a pumper who needs water in a given year to purchase water from a pumper that has not used their full allotment. This mechanism can provide an efficient and effective approach to getting water to the pumpers that need water without going over the maximum aggregate amount of allocation allowed in the basin.

There are established water trading markets across the state, and other basins are establishing programs to use as a way to address groundwater pumping under the new SGMA requirements. The Mojave Water Agency (MWA) in San Bernardino County, for example, has managed water rights through a groundwater market within the five sub-basins that cover a majority of its service area since 1999. The groundwater market allows for both the leasing and permanent transfer of water rights within the basin. Please see the chart below for a chart of permanent water rights transactions by year within Mojave's main Alto Basin (the area that covers parts of Hesperia, Adelanto, Victorville and Apple Valley) since 1999. Both the leasing and permanent transactions market within the Agency's service area have seen robust activity since the formation of the market.




The Fox Canyon Groundwater Management Agency implemented a groundwater trading platform in July 2018 to allow pumping rights to be transferred between parties in the basin that have excess, and those that need it. The Rosedale-Rio Bravo Water Storage District in Kern County began a similar program in July 2019. All of these programs facilitate the movement of water between parties that have extra water in a given year and those that need it, all within the parameters of a maximum amount of aggregate pumping within the basin. Implementing a similar program in the Indian Wells Basin may be beneficial to the basin and its water rights users.

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**DEPARTMENT OF THE NAVY**
NAVAL AIR WEAPONS STATION CHINA LAKE
1 ADMINISTRATION CIRCLE
CHINA LAKE, CA 93555-6100

IN REPLY REFER TO:
5800
June 17, 2019

Board of Directors
Indian Wells Valley Groundwater Authority (IWVGA)
Ridgecrest, CA 93555

Dear Members of the Board:

This letter serves to formally respond to requests from you, your Policy Advisory Committee, and your Technical Advisory Committee for data regarding the Navy's personnel and historic water use in the Indian Wells Valley. This data is provided to assist you in developing a Groundwater Sustainability Plan (GSP), as required by the Sustainable Groundwater Management Act (SGMA). Requests include the amount of water needed to sustain the Navy's current and future mission on Naval Air Weapons Station China Lake (NAWSCL), the Navy workforce (military, civilians, contractors, and dependents) at the installation, and data regarding the Navy's historic water consumption.

In November 2018, the Navy provided a figure of 2,041 acre-feet per year as the amount of water the installation could agree to use under a GSP. Be advised, however, that the Navy's Federal Reserve Water Right (FRWR) is not limited to 2,041 acre-feet per year. The Navy's FRWR dates back to the establishment of the base in 1943, and as you are well aware, SGMA does not impact FRWRs. The Navy's actual FRWR would likely be established through litigation, which the Navy hopes to avoid by having all pumpers in the Basin agree to an allocated amount.

Enclosure (1) contains data that should assist you as you formulate the GSP, including the Navy's workforce trends and Navy water production. The information contained in enclosure (1) is provided for planning purposes only and, again, does not constitute the Navy's FRWR.

The Navy appreciates the IWVGA's effort in implementing SGMA. Our ability to recruit and retain talented personnel at NAWSCL is tied to our workforce's ability to access economically viable potable water. Water sustainability is critical to NAWSCL's mission accomplishment.

P. M. DALE
Captain, U.S. Navy
Commanding Officer

Enclosures: 1. Navy Demographics and Water Requirements at Naval Air Weapons Station (NAWS), China Lake, CA

NAWCWD TP 8842

# Navy Demographics and Water Requirements at Naval Air Weapons Station (NAWS), China Lake, CA

by
Matthew L. Boggs
*NAVAIR Ranges*

**MAY 2019**

**NAVAL AIR WARFARE CENTER WEAPONS DIVISION**
**CHINA LAKE, CA 93555-6100**

# Naval Air Warfare Center Weapons Division

## FOREWORD

This report analyzes the historic workforce demographics trends of the Navy mission at China Lake, CA for the period 1945 through 2017, and relates these trends to corresponding requirements for water. This analysis quantifies the effects of maturization of the Navy affiliated workforce through the rapid development of the China Lake community and technical mission, as well as the divestment of community from Navy ownership to private ownership in the adjoining City of Ridgecrest and unincorporated areas. Through this analysis, clear trends were seen—a persistent mission and workforce, punctuated by the mission affiliated surges and reductions associated with the conflicts, and peacetime of the period.

The work of this report was conducted as part of the Naval Air Warfare Center Weapons Division (NAWCWD) Range Sustainment Office's continuing efforts to define and mitigate potential mission encroachment impacts to the NAWCWD China Lake Research, Development, Test, and Evaluation (RDT&E) mission.

This report was reviewed by J. E. Walters, M. G. Finnell, and S. A. Bork.

Approved by
T. DOWD, *Director*
*NAVAIR Ranges*
23 May 2019

Under authority of
W. S. DILLON
RDML, U.S. Navy
*Commander*

Released for publication by
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(U) This report analyzes the historic workforce demographics trends of the Navy mission at China Lake, CA, for the period 1945 through 2017, and relates these trends to corresponding requirements for water. This analysis quantifies the effects of maturization of the Navy affiliated workforce through the rapid development of the China Lake community and technical mission, as well as the divestment of community from Navy ownership to private ownership in the adjoining City of Ridgecrest and unincorporated areas. Through this analysis, clear trends are seen—a persistent mission and workforce, punctuated by the mission affiliated surges and reductions associated with the conflicts, and peacetime of the period.

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# CONTENTS

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# 1.0 BACKGROUND

In 1943, the U.S. Navy developed the largest consolidated facility for weapons and armament research, development, test, and evaluation (RDT&E), located in the sparsely populated upper Mojave Desert at China Lake, CA. At the time of the Station's founding in 1943, it was estimated that the Indian Wells Valley had a population smaller than 200 (Reference 1). This facility combines the Navy's largest RDT&E laboratory complex with the Navy's largest RDT&E range to allow for rapid development and test of weapon systems used by the Navy as well as all services and allied nations. Due to its remote location, the Navy was required to develop facilities capable of attracting national-class scientists and engineers to fulfill its mission, resulting effectively in a defense-oriented "company town" similar to specialized, peer facilities and communities such as Los Alamos, NM. Unlike many of these other World War II (WWII) defense "company boom towns," the Navy planned China Lake from the start for permanence, developing its facilities with master plans developed by the architecture and engineering firm of Stafford, Davies, and Gogerty, one of the leading firms of the Los Angeles area known for their mid-century modern designs. Today, the personnel and dependents of the Navy mission no longer live on board the base as they did for the first three decades following establishment, although the tie between mission and staff and community remains as tightly coupled as ever.

## 1.1 MISSION AND COMMUNITY GROUNDWATER RELIANCE

As expected in this desert locale, no surface water is locally available as a water supply for the Navy and surrounding community. At the time that the area opened under the Homestead Act in the early 20th Century, plans were proposed to divert surface water from the Owens River located to the north in Inyo County. The proposition put forth by the Bureau of Reclamation aimed to develop desert lands for agricultural use primarily in the Owens Valley, but also in the Indian Wells Valley. These proposals were not realized, with the water of the Owens River instead diverted to Los Angeles in the 1910s via the Los Angeles Aqueduct built between 1908 and 1913 (References 2 and 3). Upon the Navy's arrival at China Lake in 1943, it was clear that the Navy would need a reliable source of water to supply its newly formed research facilities and corresponding community. To address this need, the Navy developed a water system supplied by wells tapping into the Indian Wells Valley aquifer, though an emergency connection to the Los Angeles Aqueduct was also developed (but abandoned in the 1970s) (Reference 4). As the population shifted from on board the Navy base to the adjoining Ridgecrest area, groundwater sources on the civil side were developed and offset the gradual reduction of Navy water pumping.

## 2.0 NAVY WORKFORCE TRENDS

The Navy affiliated population demonstrates a largely stable trend since 1943, though it has experienced periodic growth and downsizing, typically associated with major military conflicts. The most extreme of these downsizings followed the end of the Cold War, which resulted in a large shedding of personnel and the start of a nearly decade-long hiring freeze. The general trend of China Lake has demonstrated a net growth and consolidation in mission to China Lake, rather than a trend of divestment, as seen in Figure 1.

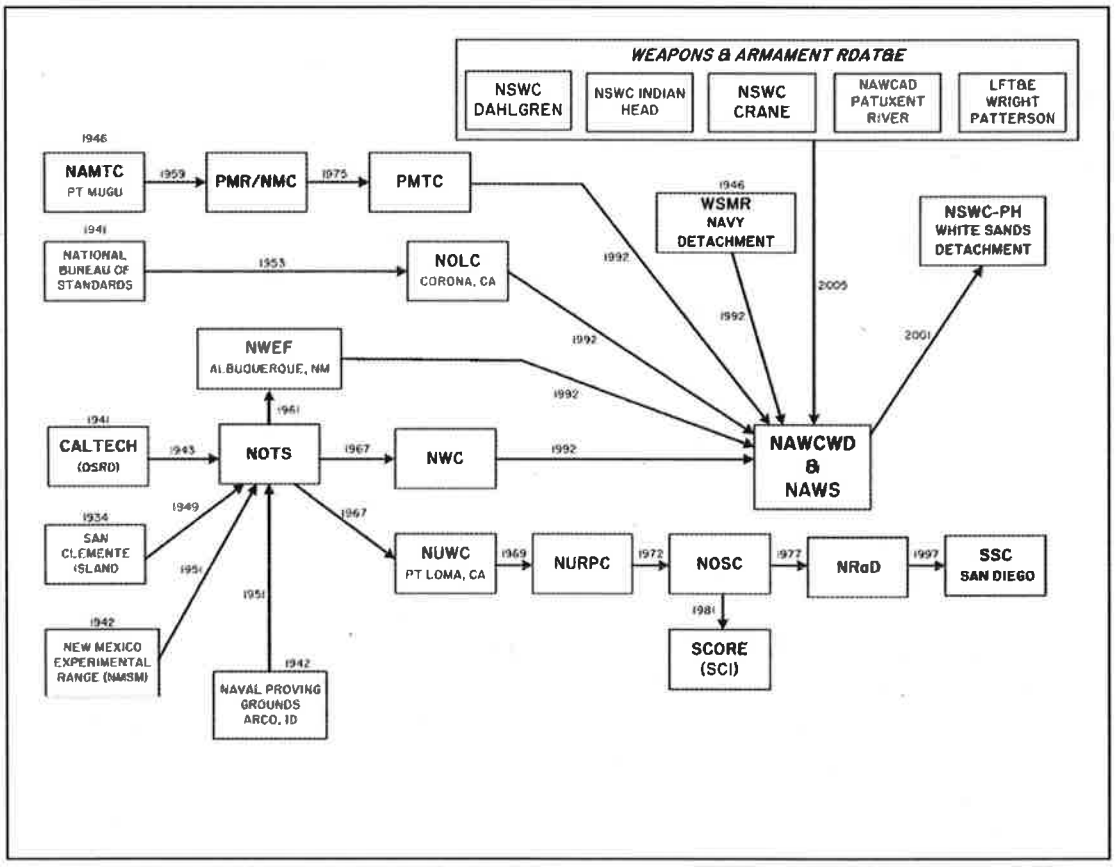


FIGURE 1. China Lake Organization, Consolidation, and Divestures.

The generally stable and permanent nature of the Navy workforce at China Lake is depicted in Figure 2. The role of dependents in Navy demographics represents the unique nature of the Navy mission at China Lake where a community is maintained to attract and retain scientific and engineering staff that would not otherwise be found at such a remote location. The stable nature of the scientific and engineering staff results in a corresponding trend in its dependents, often reflecting the mass hiring of staff, followed by the establishment and maturization of family units. A change in trend is seen associated with the staff divestment and hiring freeze of the 1990s, whereupon the level of dependents reduces as families mature and dependent children leave home, and are not offset by incoming younger families associated with the long hiring freeze of this period.

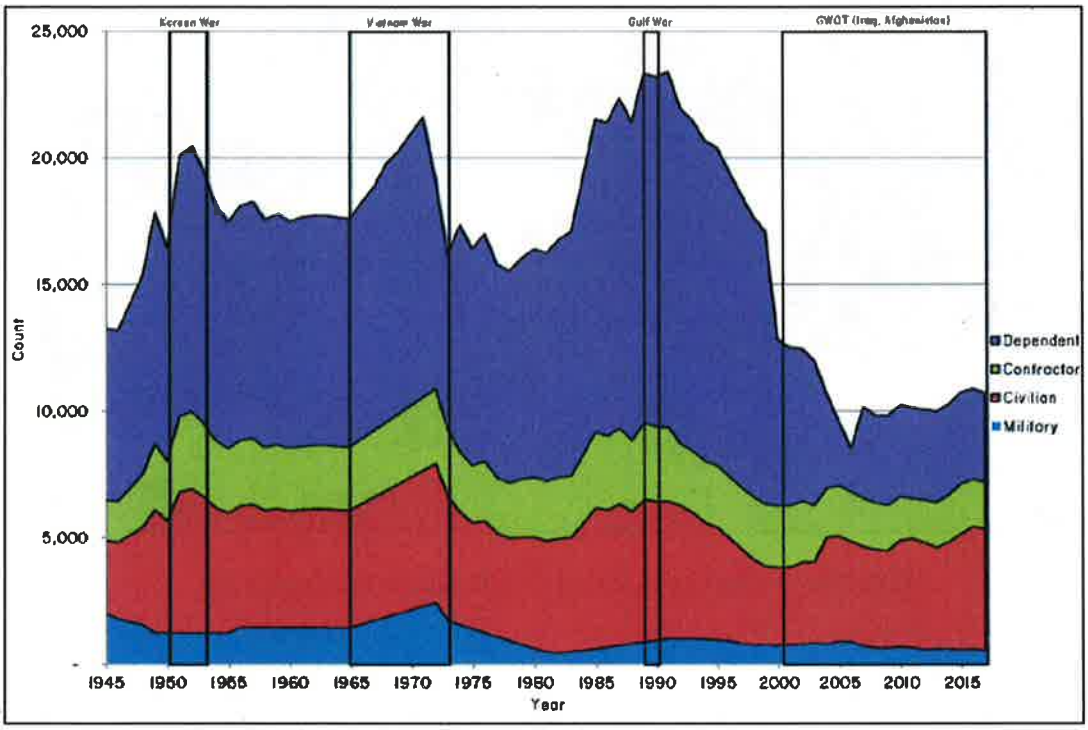


FIGURE 2. Navy Workforce and Dependents 1945 Through 2017.

## 3.0 CHANGE IN NAVY COMMUNITY

The first three decades of the Navy at China Lake were characterized by a Navy owned and built community infrastructure for both the military and civilian staff and dependents. This is consistent with the wartime experience that built new government boomtowns where nothing had been before. The Navy formally defined China Lake as a permanent facility in 1968 (Reference 5), enabling the underwriting of home loans by the Federal Housing Administration. This formal definition acted as a major event in the Navy's long

term plans dating to 1963 to divest itself of managing a community in support of China Lake. Unlike Department of Energy (DOE) laboratories at venues such as Los Alamos, NM, in the case of China Lake, this resulted in an exodus from the base and a surge in private ownership within Ridgecrest and the surrounding unincorporated areas. Subsequently, Navy housing was demolished, as seen in Figure 3. In contrast, the DOE at Los Alamos chose not to divest its community via exodus, but instead simply redefined its boundaries and privatized its existing community infrastructure (Reference 6).

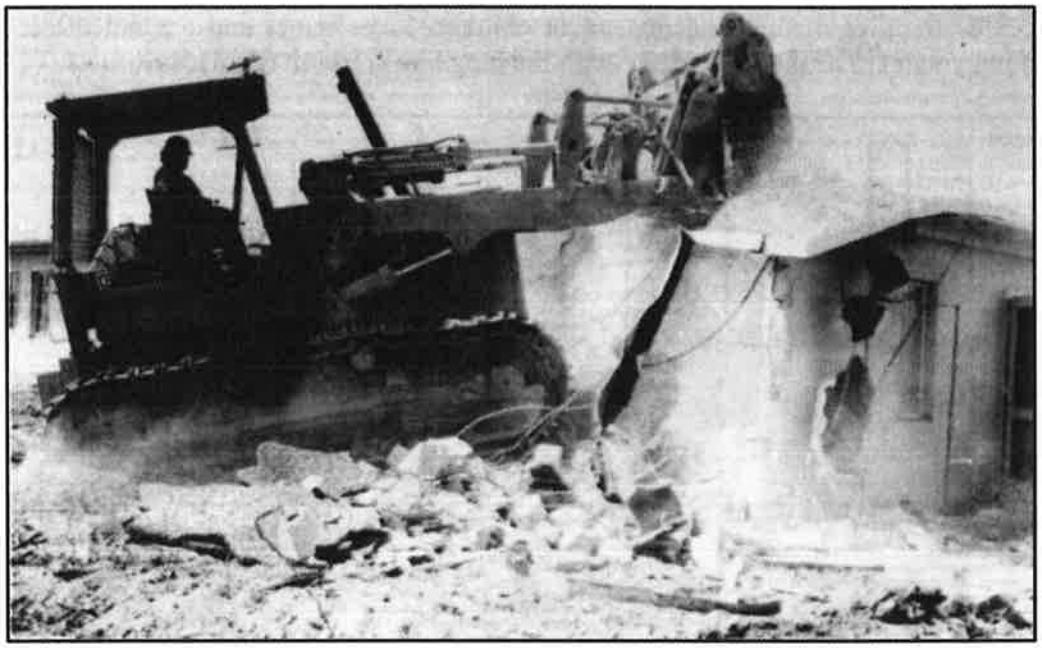

FIGURE 3. 1982 Demolition of 500 Navy Housing Units.

The result of this divesture is clear. Following the 1968 Navy "statement of permanence," coupled with strategic divestures of 116.77 acres of Navy property in 1970 to spur the development of Ridgecrest, the population shift occurs rapidly. In contrast to a community that included 2,916 family dwelling units in 1972 (Reference 1), the China Lake on-base community consists of only 192 family units at the present time. This exodus of staff housing represents a simple shift from government owned housing to private ownership. This shift also represents a change where the Navy staff and dependents receive their water supply. Whereas the Navy population previously relied on the Navy water infrastructure, upon moving to Ridgecrest or the unincorporated areas of the Indian Wells Valley, the population now began to rely upon civil or private water sources. This led to increased diversity of water sources to include the Indian Wells Valley Water District (IWVWD), small mutual water companies, and private wells. In all cases, these non-Navy water supply sources still rely on groundwater from the Indian Wells Valley aquifer.

## 4.0 NAVY WATER PRODUCTION TRENDS

The Navy developed water system acted as the dominant water supply system for the Indian Wells Valley's population in the post-WWII period, driven by the Navy's development at China Lake. This Navy water system increased production from inception until 1970, with a maximum annual production volume of 7,988 acre-feet. Following the 1970 peak, the Navy water production reduces as the Navy staff moves off-Station to Ridgecrest and the unincorporated areas of Indian Wells Valley. Additional water use reductions are currently taking place on the Naval Air Weapons Station (NAWS) through conservation measures to include removal of irrigated landscapes in favor of xeriscaping and the removal of some artificial landscaping entirely. These production trends are presented in Figure 4.


FIGURE 4. Navy Water Production: 1945 Through 2016.

## 5.0 NAVY AFFILIATED WATER REQUIREMENTS

Given the move of the Navy staff and dependents off-Station, water requirements of the Navy cannot be determined solely by the Navy's recent direct production amounts. Modern Navy production amounts only reflect the water volume required by the industrial aspect of the mission and the requirements of the remaining military residences on Station. Since the Navy mission at China Lake requires its workforce, the full Navy water requirements are the combination of the on-Station requirements and those of the Navy workforce and their dependents off-Station. Historic staffing trends of the Navy workforce can inform these requirements with a long trend baseline.

As a proxy for direct measurement of the total Navy staff and dependent water usage, total usage may be calculated as a product of the Navy demographics and the California Department of Water Resources (DWR) values for per capita water use for the Indian Wells Valley Water District (Reference 7), the largest civil supplier of domestic water for Navy staff and dependents. The resulting plot of calculated Navy staff and the dependent water requirement is shown in Figure 5. This calculation does apply modern consumption values (including the effects of modern water conservation efforts) to the historic staffing trend, resulting in a lower value of staff and dependent water consumption than probably realized at the time. As shown in Figure 5, the peak water use by Navy staff and dependents was 4,562 acre-feet in 1990, and the average use by Navy staff and dependents from 1945 to the present is 3,228 acre-feet per year.

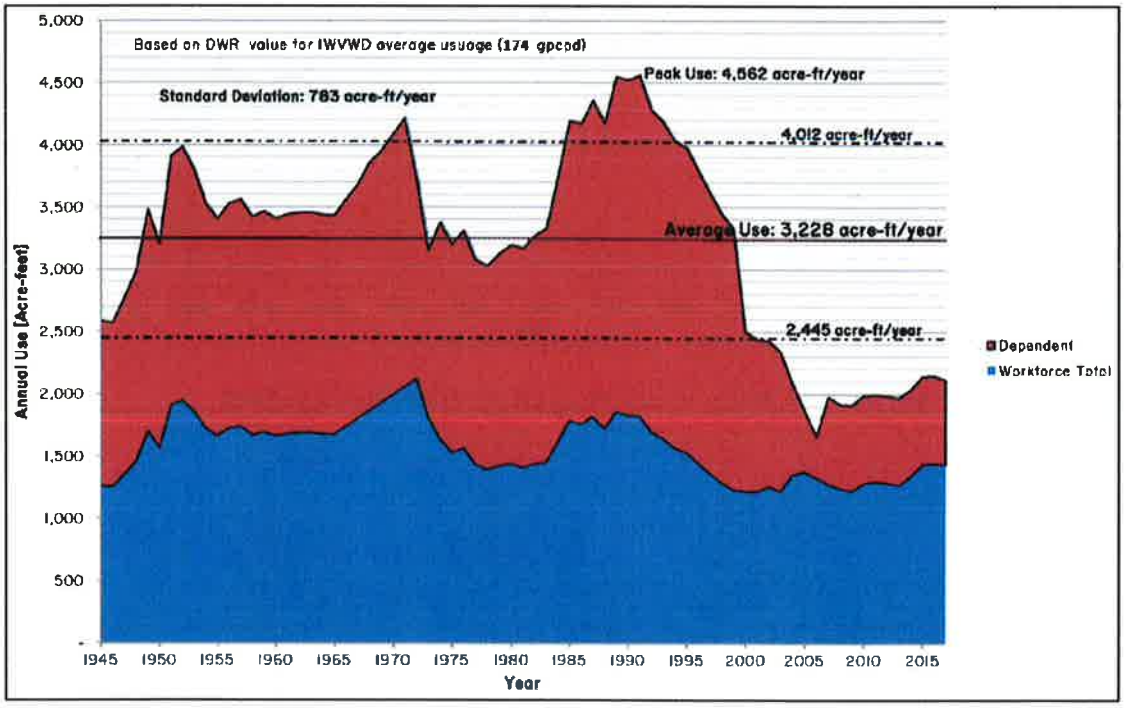


FIGURE 5. Workforce and Dependent Water Consumption.

As a major component of the Navy water requirements for China Lake, workforce and dependent consumption must be added to the water requirements associated with the industrial aspects of NAWS. The industrial component can be calculated by subtracting the on-center housing consumption from the total production values; using fiscal year (FY) 2017 values, this indicates an annual Navy industrial water requirement of 1,213 acre-ft. This value must be added to the Navy staff and dependent requirements to yield a total Navy requirement value. This yields a peak water use by Navy of 5,775 acre-feet in 1990, and an average use from 1945 to the present of 4,441 acre-feet per year. Since fluctuations in requirements are expected in response to changes in military demand in war and peace as seen in the historic data, Navy requirements can be determined by applying the standard staffing data's standard deviation (783 acre feet per year) to the average values, yielding a baseline requirement of 5,224 acre-feet per year.

## 6.0 SUMMARY OF NAVY WATER REQUIREMENTS

Based on the analysis described in Section 5.0, Navy annual water requirements are presented in Table 1, noted as "Baseline" values. Referencing the China Lake 2016 Legislative Environmental Impact Statement (Reference 8), a 25% growth in the Navy mission should be analyzed as well. This results in a baseline annual Navy water requirement at China Lake of 5,224 acre-feet, with a potential growth requirement of 6,530 acre-feet.

TABLE 1. NAWS Total Annual Water Requirements.

| | Baseline, acre-ft | 25% Growth Over Baseline, acre-ft |
|---|---|---|
| Navy Requirements | 5,224 | 6,530 |

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8. Environmental Impact Statement/Legislative Environmental Impact Statement for Renewal of Naval Air Weapons Station China Lake Public Land Withdrawal, California. 2016. U.S. Navy.

## 8.0 ACRONYMS

| | |
|---|---|
| CALTECH | California Institute of Technology |
| DOE | Department of Energy |
| DWR | California Department of Water Resources |
| FY | fiscal year |
| gpcpd | gallons per capita per day |
| IWVCGMG | Indian Wells Valley Cooperative Groundwater Management Group |
| NAMTC | Naval Air Missile Test Center |
| NAWS | Naval Air Weapons Station |
| NCCOSC | Naval Command, Control and Ocean Surveillance Center |
| NM | New Mexico |
| NMSM | New Mexico School of Mines |
| NOLC | Naval Ordnance Laboratory, Corona |
| NOSC | Naval Ocean Systems Center |
| NOTS | Naval Ordnance Test Station |
| NRaD | RDT&E Division |
| NSWC | Naval Surface Warfare Center |
| NSWC-PH | Naval Surface Warfare Center Port Hueneme Detachment |
| NUWC | Naval Underwater Weapons Center |
| NWC | Naval Weapons Center |
| NWEF | Naval Weapons Evaluation Facility |
| OSRD | Office of Scientific Research & Development |
| PMR/NMC | Pacific Missile Range/Naval Missile Center |
| PMTC | Pacific Missile Test Center |
| RDT&E | Research, Development, Test, and Evaluation |
| WSMR | White Sands Missile Range |
| WWII | World War II |

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# Appendix A

# CHINA LAKE NAVY STAFFING DATA

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| | 1945 | 1946 | 1947 | 1948 | 1949 | 1950 | 1951 | 1952 | 1953 |
|---|---|---|---|---|---|---|---|---|---|
| **Military** | 1,987[18] | 1,798[3] | 1,657[3] | 1,551[3] | 1,232[4] | 1,232[4] | 1,232[4] | 1,232[4] | 1,232[4] |
| **Civilian** | 2,915[17] | 3,018[17] | 3,442[17] | 3,857[17] | 4,864[17] | 4,417[17] | 5,568[17] | 5,687[17] | 5,384[17] |
| **Contractor** | 1,573[1] | 1,628[1] | 1,857[1] | 2,081[1] | 2,624[1] | 2,283[1] | 3,004[1] | 3,068[1] | 2,905[1] |
| **Dependent** | 6,784[2] | 6,753[2] | 7,288[2] | 7,847[2] | 9,137[2] | 8,416[2] | 10,273[2] | 10,465[2] | 9,976[2] |
| **Total** | 13,259 | 13,197 | 14,244 | 15,335 | 17,858 | 16,448 | 20,077 | 20,452 | 19,497 |

| | 1954 | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 |
|---|---|---|---|---|---|---|---|---|---|
| **Military** | 1,232[4] | 1,232[4] | 1,447[5] | 1,447[5] | 1,447[5] | 1,447[5] | 1,447[5] | 1,447[5] | 1,447[5] |
| **Civilian** | 4,938[17] | 4,745[17] | 4,805[17] | 4,857[17] | 4,630[17] | 4,700[16] | 4,608[16] | 4,660[16] | 4,681[16] |
| **Contractor** | 2,664[1] | 2,560[1] | 2,592[1] | 2,620[1] | 2,498[1] | 2,536[1] | 2,486[1] | 2,514[1] | 2,525[1] |
| **Dependent** | 9,257[2] | 8,945[2] | 9,267[2] | 9,351[2] | 8,985[2] | 9,9098[2] | 8,950[2] | 9,034[2] | 9,067[2] |
| **Total** | 18,091 | 17,482 | 18,112 | 18,276 | 17,560 | 17,781 | 17,491 | 17,655 | 17,721 |

| | 1963 | 1964 | 1965 | 1966 | 1967 | 1968 | 1969 | 1970 | 1971 |
|---|---|---|---|---|---|---|---|---|---|
| **Military** | 1,447[5] | 1,417[19] | 1,440[19] | 1,502[6] | 1,563[6] | 1,625[6] | 1,686[6] | 1,933[6] | 2,179[6] |
| **Civilian** | 4,687[16] | 4,675[16] | 4,650[16] | 4,732[6] | 4,814[6] | 4,896[6] | 4,978[6] | 4,428 | 4,962[7] |
| **Contractor** | 2,529[1] | 2,522[1] | 2,509[1] | 2,553[1] | 2,597[1] | 2,641[1] | 2,686[1] | 2,389[1] | 2,677[1] |
| **Dependent** | 9,077[2] | 9,010[2] | 9,010[2] | 9,207[2] | 9,343[2] | 9,771[2] | 9,797[2] | 9,168[2] | 10,288[2] |
| **Total** | 17,740 | 17,641 | 17,609 | 17,993 | 18,317 | 18,933 | 19,147 | 17,917 | 20,105 |

| | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 |
|---|---|---|---|---|---|---|---|---|---|
| **Military** | 2,425[20] | 1,704[21] | 1,547[8] | 1,389[8] | 1,232[8] | 1,075[8] | 918[8] | 760[8] | 603[16] |
| **Civilian** | 5,496[20] | 4,924[21] | 4,446[16] | 4,196[16] | 4,415[16] | 4,089[16] | 4,057[16] | 4,257[16] | 4,408[16] |
| **Contractor** | 2,965[1] | 2,657[1] | 2,399[1] | 2,264[1] | 2,382[1] | 2,206[1] | 2,189[1] | 2,297[1] | 2,378[1] |
| **Dependent** | 8,300[20] | 6,900[21] | 8,949[2] | 8,570[2] | 8,971[2] | 8,422[2] | 8,368[2] | 8,730[2] | 9,007[2] |
| **Total** | 19,186 | 16,185 | 17,340 | 16,420 | 17,000 | 15,792 | 15,531 | 16,044 | 16,397 |

| | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 |
|---|---|---|---|---|---|---|---|---|---|
| **Military** | 487[16] | 444[16] | 499[16] | 537[16] | 604[9] | 672[9] | 739[9] | 806[9] | 873[9] |
| **Civilian** | 4,386[16] | 4,512[16] | 4,511[16] | 5,038[16] | 5,566[1616] | 5,426[11] | 5,582[11] | 5,222[11] | 5,627[11] |
| **Contractor** | 2,366[1] | 2,434[1] | 2,434[1] | 2,718[1] | 3,003[1] | 2,927[1] | 3,012[1] | 2,817[1] | 3,036[1] |
| **Dependent** | 9,009[2] | 9,385[2] | 9,642[2] | 10,953[2] | 12,348[2] | 12,927[2] | 13,037[2] | 12,582[2] | 13,807[2] |
| **Total** | 16,248 | 16,775 | 17,085 | 19,246 | 21,521 | 21,403 | 22,369 | 21,427 | 23,343 |

| | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
|---|---|---|---|---|---|---|---|---|---|
| **Military** | 941[9] | 1,008[10] | 1,001[10] | 1,006[10] | 982[10] | 954[10] | 917[10] | 807[10] | 770[10] |
| **Civilian** | 5,486[11] | 5,430[11] | 5,250[11] | 4,969[11] | 4,602[11] | 4,448[11] | 4,049[11] | 3,741[11] | 3,348[11] |
| **Contractor** | 2,960[1] | 2,929[1] | 2,448[11] | 2,448[11] | 2,448[11] | 2,448[11] | 2,448[11] | 2,448[11] | 2,448[11] |
| **Dependent** | 13,829[2] | 14,039[2] | 13,258[2] | 13,052[2] | 12,650[2] | 12,563[2] | 12,054[2] | 11,552[2] | 11,076[2] |
| **Total** | 23,215 | 23,406 | 21,957 | 21,475 | 20,413 | 20,413 | 19,468 | 18,548 | 17,682 |

| | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|---|---|---|---|---|---|---|---|---|---|
| **Military** | 756[10] | 750[10] | 768[10] | 784[10] | 830[10] | 787[10] | 898[10] | 880[10] | 708[10] |
| **Civilian** | 3,106[11] | 3,061[11] | 3,051[11] | 3,238[11] | 3,209[11] | 4,221[11] | 4,152[11] | 3,961[11] | 3,926[13] |
| **Contractor** | 2,464[11] | 2,443[11] | 2,438[11] | 2,430[11] | 2,224[11] | 1,935[11] | 2,009[11] | 1,976[11] | 1,916[14] |
| **Dependent** | 10,767[2] | 6,583[12] | 6,262[12] | 6,011[12] | 5,735[12] | 3,750[12] | 2,533[12] | 1,709[12] | 3,605[12] |
| **Total** | 17,093 | 12,837 | 12,519 | 12,463 | 11,998 | 10,693 | 9,592 | 8,526 | 10,154 |

| | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Military** | 637[10] | 627[10] | 678[10] | 636[10] | 567[10] | 591[10] | 597[10] | 565[10] | 587[10] | 538[10] |
| **Civilian** | 3,890[13] | 3,855 | 4,204[15] | 4,324[15] | 4,226[15] | 4,008[15] | 4,221[15] | 4,571[15] | 4,850[15] | 4,785[15] |
| **Contractor** | 1,855[14] | 1,795 | 1,734[15] | 1,580[15] | 1,687[15] | 1,792[15] | 1,871[15] | 1,987[15] | 1,860[15] | 1,879[15] |
| **Dependent** | 3,457[12] | 3,537[12] | 3,618[12] | 3,584[12] | 3,574[12] | 3,596[12] | 3,579[12] | 3,610[12] | 3,592[12] | 3,500[12] |
| **Total** | 9,840 | 9,814 | 10,205 | 10,247 | 10,184 | 10,117 | 10,445 | 10,984 | 11,009 | 10,859 |

**Notes:**

1) Based on average contractor to civilian ratio, 1992-2017.
2) Based on 1972 dependent to military/civilian ratio.
3) Linear interpolation between 1945 and 1949 values.
4) Based on 1956 numbers minus VX-5 count.
5) Plus-up from arrival of VX-5; based on 1964 count.
6) Linear interpolation between 1965 and 1972 values.
7) Linear interpolation between 1970 and 1972 values.
8) Linear interpolation between 1973 and 1980 values.
9) Linear interpolation between 1984 and 1991 values.
10) Defense Manpower Data Center Reporting System (DMDCRS), "Active Duty Family Sponsors & Eligible Dependents Report by Base."
11) Naval Air Warfare Center (NAWC) Human Resources (HR) Data.
12) Department of Defense (DoD) Dependent Data: DoD Population in Zip Codes 93527 and 93555 By Year, Person Type Code, and Personnel Category Code, Source: *DEERS Point in Time Extract.*
13) Linear interpolation between 2006 and 2009 values.
14) Linear interpolation between 2006 and 2010 values.
15) Naval Air Weapons Station (NAWS) demographic data.
16) Naval Ordnance Test Station (NOTS)/Naval Weapons Center (NWC) annual command histories.
17) Figure 1-4, *NOTS Technical Program Review 1958.*
18) "NOTS 20 Years," *Rocketeer*, 8 Nov 1963.
19) "Capt. Hardy Tells NOTS' Impact on Kern Economy," *Rocketeer*, 15 Jan 1965.
20) *1972 Installation Survey Report*, Naval Weapons Center, China Lake, California. Naval Inspector General, Office of the Chief of Naval Operations. 6 October 1972.
21) *1973 Installation Survey Report*, Naval Weapons Center, China Lake, California. Naval Inspector General, Office of the Chief of Naval Operations. 1 November 1973.

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# Appendix B

# CHINA LAKE STAFF AND DEPENDENT WATER REQUIREMENT DATA

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China Lake Staff and Dependent Water Requirement Data, based on 2018 Department of Water Resources (DWR) value of 176 gallons per capita per day (gpcpd) for the Indian Wells Valley Water District (IWVWD).

**China Lake Staff and Dependent Water Requirements (acre-ft).**

| | 1945 | 1946 | 1947 | 1948 | 1949 | 1950 | 1951 | 1952 | 1953 |
|---|---|---|---|---|---|---|---|---|---|
| **Military** | 387 | 350 | 323 | 302 | 240 | 240 | 240 | 240 | 240 |
| **Civilian** | 568 | 588 | 671 | 752 | 948 | 861 | 1,085 | 1,108 | 1,049 |
| **Contractor** | 307 | 317 | 362 | 406 | 511 | 464 | 585 | 598 | 566 |
| **Dependent** | 1,322 | 1,316 | 1,421 | 1,529 | 1,781 | 1,640 | 2,002 | 2,040 | 1,944 |
| **Total** | 2,584 | 2,572 | 2,776 | 2,989 | 3,481 | 3,206 | 3,913 | 3,986 | 3,800 |

| | 1954 | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 |
|---|---|---|---|---|---|---|---|---|---|
| **Military** | 240 | 240 | 282 | 282 | 282 | 282 | 282 | 282 | 282 |
| **Civilian** | 962 | 925 | 937 | 947 | 902 | 916 | 898 | 908 | 912 |
| **Contractor** | 519 | 499 | 505 | 511 | 487 | 494 | 485 | 490 | 492 |
| **Dependent** | 1,804 | 1,744 | 1,806 | 1,823 | 1,751 | 1,773 | 1,744 | 1,761 | 1,767 |
| **Total** | 3,526 | 3,407 | 3,530 | 3,562 | 3,423 | 3,466 | 3,409 | 3,441 | 3,454 |

| | 1963 | 1964 | 1965 | 1966 | 1967 | 1968 | 1969 | 1970 | 1971 |
|---|---|---|---|---|---|---|---|---|---|
| **Military** | 282 | 276 | 281 | 308 | 336 | 363 | 390 | 418 | 445 |
| **Civilian** | 914 | 911 | 906 | 930 | 953 | 977 | 1,001 | 1,024 | 1,048 |
| **Contractor** | 493 | 492 | 489 | 502 | 514 | 527 | 540 | 552 | 565 |
| **Dependent** | 1,769 | 1,759 | 1,756 | 1,823 | 1,877 | 1,991 | 2,023 | 2,090 | 2,157 |
| **Total** | 3,458 | 3,438 | 3,432 | 3,562 | 3,681 | 3,858 | 3,954 | 4,084 | 4,215 |

| | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 |
|---|---|---|---|---|---|---|---|---|---|
| **Military** | 473 | 332 | 301 | 271 | 240 | 209 | 179 | 148 | 118 |
| **Civilian** | 1,071 | 960 | 867 | 818 | 861 | 797 | 791 | 830 | 859 |
| **Contractor** | 578 | 518 | 468 | 441 | 464 | 430 | 427 | 448 | 464 |
| **Dependent** | 1,618 | 1,345 | 1,744 | 1,670 | 1,748 | 1,641 | 1,631 | 1,701 | 1,756 |
| **Total** | 3,739 | 3,154 | 3,380 | 3,200 | 3,313 | 3,078 | 3,027 | 3,127 | 3,196 |

| | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 |
|---|---|---|---|---|---|---|---|---|---|
| **Military** | 95 | 87 | 97 | 105 | 118 | 131 | 144 | 157 | 170 |
| **Civilian** | 855 | 879 | 879 | 982 | 1,085 | 1,058 | 1,088 | 1,018 | 1,097 |
| **Contractor** | 461 | 474 | 474 | 530 | 585 | 571 | 587 | 549 | 592 |
| **Dependent** | 1,756 | 1,829 | 1,879 | 2,135 | 2,407 | 2,413 | 2,541 | 2,452 | 2,691 |
| **Total** | 3,167 | 3,269 | 3,330 | 3,751 | 4,195 | 4,172 | 4,360 | 4,176 | 4,550 |

| | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
|---|---|---|---|---|---|---|---|---|---|
| **Military** | 183 | 196 | 195 | 196 | 191 | 186 | 179 | 157 | 150 |
| **Civilian** | 1,069 | 1,058 | 1,023 | 968 | 897 | 867 | 789 | 729 | 653 |
| **Contractor** | 577 | 571 | 477 | 477 | 477 | 477 | 477 | 477 | 485 |
| **Dependent** | 2,695 | 2,736 | 2,584 | 2,544 | 2,466 | 2,449 | 2,349 | 2,252 | 2,159 |
| **Total** | 4,525 | 4,562 | 4,280 | 4,186 | 4,031 | 3,979 | 3,794 | 3,615 | 3,446 |

| | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|---|---|---|---|---|---|---|---|---|---|
| **Military** | 147 | 146 | 150 | 153 | 162 | 153 | 175 | 172 | 138 |
| **Civilian** | 605 | 597 | 595 | 631 | 625 | 823 | 809 | 772 | 765 |
| **Contractor** | 480 | 476 | 475 | 474 | 433 | 377 | 392 | 385 | 373 |
| **Dependent** | 2,099 | 1,283 | 1,220 | 1,172 | 1,118 | 731 | 494 | 333 | 703 |
| **Total** | 3,332 | 2,502 | 2,440 | 2,429 | 2,338 | 2,084 | 1,869 | 1,662 | 1,979 |

| | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Military** | 124 | 122 | 132 | 124 | 111 | 115 | 116 | 110 | 114 | 105 |
| **Civilian** | 758 | 751 | 819 | 843 | 824 | 781 | 823 | 891 | 945 | 933 |
| **Contractor** | 362 | 350 | 338 | 308 | 329 | 349 | 365 | 387 | 363 | 366 |
| **Dependent** | 674 | 689 | 705 | 699 | 697 | 701 | 698 | 704 | 700 | 682 |
| **Total** | 1,918 | 1,913 | 1,989 | 1,997 | 1,985 | 1,972 | 2,036 | 2,141 | 2,146 | 2,116 |

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# Appendix C

# NAVY WATER PRODUCTION DATA

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**Navy Water Production (acre-ft).**

| | 1945 | 1946 | 1947 | 1948 | 1949 | 1950 | 1951 | 1952 | 1953 | 1954 | 1955 | 1956 | 1957 | 1958 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Volume | 709[1] | 1,620[1] | 1,847[1] | 2,139[1] | 2,768[1] | 3,265[1] | 3,839[1] | 4,201[1] | 4,533[1] | 4,892[1] | 5,236[1] | 5,561[1] | 5,923[1] | 5,782[1] |

| | 1959 | 1960 | 1961 | 1962 | 1963 | 1964 | 1965 | 1966 | 1967 | 1968 | 1969 | 1970 | 1971 | 1972 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Volume | 6,141[1] | 6,211 | 6,316[1] | 6,709[1] | 6,521[1] | 7,022[1] | 6,933[1] | 7,126[1] | 6,917[1] | 7,381[1] | 7,663[1] | 7,988[1] | 7,967[1] | 7,872[1] |

| | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Volume | 7,392[2] | 7,395[2] | 6,492[2] | 6,494[2] | 5,410[2] | 5,413[2] | 5,154[3] | 4,995[3] | 4,804[3] | 4,450[3] | 4,402[3] | 4,694[3] | 4,002[3] | 4,430[3] |

| | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Volume | 4,422[3] | 3,980[3] | 4,205[3] | 3,667[3] | 3,364[3] | 3,351[3] | 3,411[3] | 3,684[3] | 3,848[3] | 3,367[3] | 2,983[3] | 3,018[3] | 2,541[3] | 2,690[3] |

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Volume | 2,840[3] | 3,138[3] | 3,325[3] | 2,331[3] | 2,288[3] | 2,440[3] | 2,533[3] | 2,119[3] | 1,883[3] | 1,710[3] | 1,734[3] | 1,710[3] | 1,588[4] | 1,607[4] |

| | 2015 | 2016 | 2017 |
|---|---|---|---|
| Volume | 1,421[4] | 1,595[4] | 1,450[4] |

**Notes:**
1) Naval Ordnance Test Station (NOTS)/Naval Weapons Center (NWC) data.
2) From Figure 6 Berenbrock & Martin.* Digitized from plot.
3) As reported to the Indian Wells Valley Cooperative Groundwater Management Group (IWVCGMG).
4) Naval Air Weapons Station (NAWS) data.

*C. Berenbrock and P. Martin. 1991. *The Ground Water Flow System in the Indian Wells Valley, Kern, Inyo, and San Bernardino Counties, California.* USGS Water Resources Investigations Report 89-4191.

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DEPARTMENT OF THE NAVY
NAVAL AIR WEAPONS STATION
1 ADMINISTRATION CIRCLE
CHINA LAKE CA 93555-6100

IN REPLY REFER TO
1000
Ser N00/034
20 Feb 19

Board of Directors
Indian Wells Valley Ground Water Authority (IWVGWA)
Ridgecrest, California 93555

Dear Members of the Board:

Subj: GROUNDWATER RESOURCES

1. This letter serves to formally communicate that Commander Navy Region Southwest (CNRSW), in consultation with U.S. Navy commands located within the Indian Wells Valley, deems groundwater resources as the number one encroachment concern/issue which has the potential to impact missions enabled on and around Naval Air Weapons Station China Lake (NAWSCL). Water sustainability is critical to NAWSCL's mission accomplishment.

2. The Navy's human capital and its ability to recruit and retain talented personnel is integral to these critical national defense missions. We must emphasize the importance of Navy civilian and military personnel's continued access to economically viable potable water as critical to the IWVGWA's implementation of the Sustainable Groundwater Management Act (SGMA).

3. The Navy has leaned forward for decades, reducing water consumption on the installation by 54 percent since 2007, funding the Desert Research Institute modeling effort that the IWVGWA is now utilizing, and voluntarily providing reports of its groundwater extractions to assist the basin in understanding the Navy's current water use. NAWSCL engages in these initiatives as a matter of comity and as a good neighbor, rather than state law and local ordinance mandates. The purpose of this cooperative posture is to help the IWVGWA with comprehensive planning efforts to achieve groundwater sustainability as directed by the SGMA.

4. NAWSCL relies entirely upon groundwater as its sole source of potable water. In implementing SGMA, the Department of Water Resources (DWR) classified the Indian Wells Valley (IWV) groundwater basin as "Critically Over Drafted" in January 2016. Therefore, an imbalance between pumping and recharge associated with the basin creates growing concern, despite the efforts and cooperation of community stakeholders.

5. NAWSCL has engaged in consistent, proactive, and cooperative advocacy since the standup of the IWVGWA via a Joints Powers Agreement, with formal recognition as Ex-Officio non-voting Liaison on the IWVGA Board, active participation on the Technical Advisory Committee, Public Advisory Committee, SKYTEM, and other data gathering efforts to supplement the modeling effort. In addition, NAWSCL has committed, per my letter to you dated February 12, 2019, to submitting proposed projects for higher headquarters' consideration as applicable under FY19 NDAA. NAWSCL has a vested interest in participating in the SGMA effort with

IWVGWA as lead and responsible for developing a plan for the groundwater basin to achieve a sustainable yield in 20 years.

6. The Navy appreciates that IWVGWA recognizes the unique position of NAWSCL's Federal Reserve Water Rights (FRWR) dating back in time to when the base was established in 1943. The SGMA statute itself recognizes that FRWRs shall be respected in full, and in the case of any conflict, federal law will prevail. CA Water Code Section 10720.3(d). IWVGWA has also recognized the fact that there is no waiver of sovereign immunity subjecting the Navy to GW regulation, pumping limitations, or fee assessment. Despite these unique federal legal limitations, NAWSCL intends to continue to be a good neighbor and work cooperatively with the IWVGWA.

7. In summary, we appreciate the magnitude of the task ahead for the IWVGWA.

P. M. DALE
Captain, USN
Commanding Officer

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# IWVGA ADMINISTRATIVE OFFICE

***STAFF REPORT***

---

**TO:** IWVGA Board Members **DATE:** June 18, 2020

**FROM:** IWVGA Staff

**SUBJECT:** **Agenda Item No. 12 – Consideration and Preliminary Adoption of Report on Transient Pool and Fallowing Program and Setting Hearing on Same for July Board Meeting**

## DISCUSSION

As the Board is aware, the adopted GSP has shown that decades of severe overdraft and inaction have already damaged the Basin significantly and recent Basin model runs have demonstrated the need for urgent and significant actions to preserve the community and bring the Basin into Sustainability. In fact, the Baseline Model run projects that without action to cure the severe overdraft, the Basin's infrastructure will not be able to produce the needed groundwater in less than 45 years (2065).

The attached Draft Report on the Transient Pool and Fallowing Program is one significant step in the process of bring the Basin into sustainability. As set forth in the Report, modeling has determined that the Transient Pool should be capped at a total 51,000 af, which is also the rough equivalent of the presumed overdraft pumping by those that will eventually obtain augmented supplies. With that said, it presumed that augmented supplies will be obtained prior to 2035, and in such case, the actual split of overdraft will likely be a 50/50 split, or better for agricultural users.

As both Transient Pool pumpers and Augmentation pumpers will further overdraft further thus creating shallow well damages both are subject to the Shallow Well Mitigation costs which are presumed to be set at $17.50 per acre foot of extraction.

Those that receive a Transient Pool allotment may voluntarily elect to negotiate a sell of their allotment to the IWVGA. Said negotiations shall be completely voluntary for both the allotment holder and the IWVGA.

## RECOMMENDED BOARD ACTION(S)

Preliminarily Adopt Report on Transient Pool and Fallowing Program Setting Hearing on Same for July Board Meeting

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**DRAFT**

# REPORT ON
# TRANSIENT POOL
# AND
# FALLOWING PROGRAM

**JUNE 18, 2020**

**Prepared By:**

**Staff and Consultants for**

**The Indian Wells Valley Groundwater Authority**

# TABLE OF CONTENTS

# I. BACKGROUND

The Indian Wells Valley Groundwater Basin (IWVGB) is located in the northwestern part of the Mojave Desert in southern California, and it underlies approximately 382,000 acres, or approximately 600 square miles, of land area in portions of the Counties of Kern, Inyo, and San Bernardino. The IWVGB is bordered on the west by the Sierra Nevada Mountain Range, on the north by the Coso Range, on the east by the Argus Range, and on the south by the El Paso Mountains. Surface water flow from the surrounding mountain ranges drains to China Lake, a large normally dry lake, or playa, located in the central north-east part of the Basin. U.S. Route 395 and State Route 14 are the major vehicular arteries through the Indian Wells Valley.

The IWVGB, which has been in an overdraft condition for nearly 6 decades, serves as the sole supply of potable water for the Indian Wells Valley community and NAWS China Lake. Residents are served groundwater through private domestic wells, small cooperative groups sharing wells, small mutual water companies, the Inyokern Community Services District (Inyokern CSD), and the Indian Wells Valley Water District. The U.S. Navy produces and distributes groundwater for the on-station water uses at the NAWS China Lake, which is the Navy's largest single landholding. The installation represents 85 percent of the Navy's land for research, development, acquisition, testing and evaluation (RDAT&E) of cutting-edge weapons systems and 38 percent of the Navy's land holdings worldwide. In total, its two ranges and main site cover more than 1.1 million acres, which is an area larger than the state of Rhode Island.

Searles Valley Minerals Inc. produces groundwater from the IWVGB for use in its mineral's recovery and processing operations in the Searles Valley (located east of the IWVGB) and for potable use in the small communities of Trona, Westend, Argus, and Pioneer Point in the Searles Valley. Additionally, a number of farms use the IWVGB to supply their agricultural operations and the crops grown are primarily alfalfa and pistachios.

The current average estimated water budget for Indian Wells Valley and is shown below.

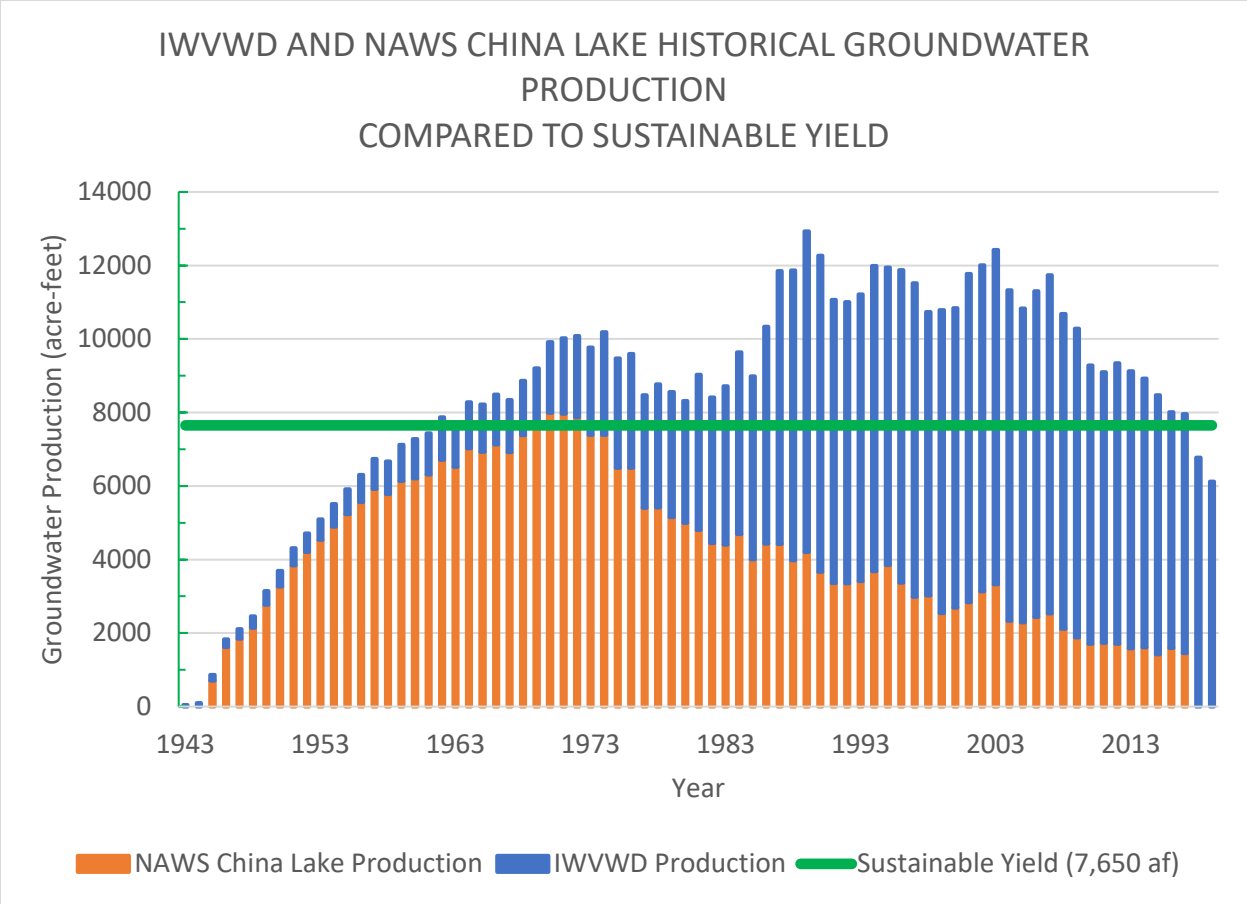
| Water Budget Element | Estimated Volume (AFY) [1] |
|---|---|
| ***Inflows*** | |
| Mountain Front Recharge | 7,650 |
| **Total Inflow** | **7,650** |
| ***Outflows*** | |
| ET | 4,850 |
| Interbasin Subsurface Flow | 50 |
| Groundwater Extractions | 27,740 |
| **Total Outflow** | **32,640** |
| **Change of Groundwater in Storage** | **-24,990** |

The IWVGB water budget is defined by the difference between inflows and outflows (see GSP Section 3.3.4). Overdraft occurs when outflows exceed inflows, and there is a loss of groundwater from storage. In the case of the IWVGB, long-term pumping has exceeded local inflow for nearly 6 decades. Currently (2011 to 2015), outflows are approximately four times the estimated inflows. The magnitude of the overdraft results in an average annual loss of storage from the groundwater basin of approximately 25,000 AFY.

The State of California, Department of Water Resources (DWR) states that "SGMA requires local agencies to develop and implement GSPs that achieve sustainable groundwater management by implementing projects and management actions intended to ensure the Basin is operated within its sustainable yield by avoiding undesirable results." Consequently, sustainable yield is a crucial and fundamental element for the development of implementation measures of the GSP. After careful public consideration it has been estimated the long-term average natural recharge, and the Sustainable Yield, of the IWVGB is about 7,650 AFY.

The IWVGB has been significantly studied and voluntary pumping documentation has occurred over the last 70 years. For roughly the 20 years preceding SGMA, the Basin was monitored by the IWV Cooperative Group.

As graphically shown below, the IWVGB's sustainable yield of 7,650 af has been exceeded for nearly 60 years by the pumping demands of the Navy and the Indian Wells Valley Water District alone.




While there have been prior preliminary efforts to study these problematic conditions, to date there have been no basin augmentation programs developed and the groundwater extractions have actually increased in recent years. Most notably, in the fairly recent past, the Basin's burdens were further enhanced by the addition of a new groundwater extractor that listed yearly pumping needs almost equaling the Basin's entire sustainable yield of 7,650.

The results of the overdraft, and the lack of augmentation projects, have already manifested themselves through various undesirable results; primarily the chronic lowering of groundwater levels, the degradation of water quality, and the reduction of groundwater in storage throughout the Basin. The unregulated overdraft has resulted in Basin groundwater levels dropping in some areas by approximately 0.5 to 2.5 feet annually. Most importantly, the severe over draft has lead the GSP Baseline model run to project that without changes the groundwater infrastructure will not be able to produce the needed groundwater by 2065.

Given these historic overdraft conditions and the lack of any infrastructure to augment supplies, it would be prudent and beneficial to immediately reduce all pumping to the current sustainable yield of 7,650 AFY. Such a drastic change, however, is simply not feasible without extreme changes to the community. As example, when SGMA was enacted in the 2015, the water demands for NAWS China Lake and municipal/domestic use alone were greater than the sustainable yield, and this was after years of voluntary and mandatory use reduction measures because of the drought. Complicating matters further, the Navy's provided production rates lead to a more than convincing argument that the Navy's Federal Reserve Water Right interest consumes the entire sustainable yield.

Given the undeniable complications, demand reductions alone cannot meet the IWVGB supply needs and as a result the GSP's primary strategy is to achieve sustainability through augmentation of Basin supplies. Unfortunately, the economic reality associated with the anticipated costs to important additional supplies seems to preclude continued agricultural uses in the IWVGB. As a result the GSP assumes that long term IWVGB production will drop to approximately 12,000 AFY.

## II. TRANSIENT POOL AND FALLOWING PROGRAM

Given the GSP Baseline model run and the economic realities facing the Basin because of the lack augmentation infrastructure, the GSP provides for a Transient Pool Program to help mitigate the shift from overdraft reliance.

During preparation of the GSP, the Authority's DRI/Navy 3D Model was used to evaluate the IWV groundwater basin reaction to several different pumping scenarios to 2040 (required "sustainability" and to 2070 (50 years). For this basin modeling work, the ramping-down of agricultural pumping was modeled to help determine the Authority's acceptable level of controlled, but reduced, basin over-pumping for a specific period of time, and to help facilitate transitional reduced agricultural pumping, to an interim acceptable level. Additionally, because it's not feasible to lower the municipal/domestic demands further than they already have been and because those needs will ultimately become augmented with additional supplies, the

modeling considered the impacts of this over-pumping until 2035, which is the projected latest date by which augmented supplies will become available.

The total assumed over pumping, which also assumes that a small amount of recycled water will become available in 2025, is 116,000af. The breakdown of the 116,000af reflects 51,000af for agricultural users and the remaining 65,000af being used by those that will be obtaining augmented supplies. It is presumed that augmented supplies will be obtained and implemented prior to 2035 and as such it is presumed that the additional 14,000af provided to those that will ultimately use the augmented supplies will not actually be pumped and the actual split is likely a 50/50 split, or better for agricultural users. In the event, that the additional 14,000af is actually used because of delays in implementing the augmentation program, the additional pumping provided to the augmented supply users is more than offset by the advantageous to the Basin those users will be providing through the water purchases and infrastructure improvements that will allow for Basin replenishments in wet years.

The process of quantitatively reducing agricultural pumping on an annual basis was briefly looked at and rejected because of the prevalence of permanent crops in the IWVGB. As such, the Transient Pool, which is totalized at 51,000 af, is individually allotted to each qualified agricultural user to manage independently as their operations permit. The allotment is non-transferable and once exhausted, these qualified agricultural users will be required to cease their extractions with the exception that they may continue to extract water for De Minimis uses.

In accordance with SGMA and California Water law, the Transient Pool allotments are determined pursuant to a five-year base period defined as January 1, 2010 through December 31, 2014 ("Base Period"). To facilitate and document "qualified" Base Period agricultural pumping, the Authority distributed a Pumping Verification Questionnaire" to all known IWV basin pumpers (except NAWS and De minimis). To be eligible for the Transient Pool allocation, agricultural pumpers must meet the Base Period criteria and, must submit complete responses to the Questionnaire.

During the Base Period, agricultural water uses in the IWVGB has been on average roughly 4 af per irrigated acre with the outliers being alfalfa operations which have used up to 8 to 9 af per

irrigated acre. Given IWVGB's extremely arid climate and its severe overdraft condition, serious concerns have been raised regarding the significant disparity and alfalfa's extremely high water-use per irrigated acre. Since a more than convincing argument can be made that alfalfa production rates under these conditions are an unreasonable use in violation of State law and Article X, section 2, of the California Constitution, the Transient Pool allotments are based on "irrigated acreage" during the Base Period, as reported in the Pumping Verification Reports.

In sum, all qualified agricultural pumpers will receive a Transient Pool allotment based on their agricultural uses reported in the Questionnaire during the Base Period. They may:

1) Reject the allotment and continue pumping in accordance with the Basin Replenishment Fee; or,
2) Accept the allotment and the associated mitigation fee; or,
3) Accept the allotment and negotiate a sell of their allotment to the Groundwater Authority through the Fallowing Program.

## III. MITIGATION FEES CHARGED TO TRANSIENT POOL

The IWVGA board recognizes that while this additional overdraft will assist agricultural operations adjust, the continued overdraft will also lead to additional impacts that need to be mitigated through fees to cover those costs.

The procedural requirements of California fee law is met because the use of the Transient Pool is completely voluntary. The substantive requirements are met by taking the assumed total costs of the Shallow Well Mitigation Project and then dividing those costs by the total amount of overdraft that will occur while the Augmentation Project is being implemented and the amount of overdraft that will occur through the use of the Transient Pool.

As further provided for in the Engineer's Report on the Basin Replenishment Fee, the Shallow Well Mitigation Program assumes a cost of $2,020,000. Those total costs reflect $70,000 in development/engineering costs, $300,000 in total administration costs over the life of the

program and $1,650,000 in implementation/capital costs for the mitigation of 22 shallow wells. This leads to an extraction fee of $17.50 per acre foot pumped from the transient pool.

## IV. QUALIFIED BASE PERIOD PUMPERS – FOR TRANSIENT POOL

Based upon the records held by the Authority and the WRM, the current known "potentially" qualified Base Period agricultural pumpers for the Transient Pool are listed below:

- Meadowbrook Dairy
- Mohave Pistachios
- Quist Farms
- Sierra Shadow
- Amberglow
- Terese Farm
- Hickle
- Blubaugh
- McGee

However, the following potentially qualified Base Period agricultural pumpers did not submit the required Pumping Verification Questionnaire. As such, the Authority is unable to properly verify the needed data and it would be legally inappropriate to include and/or consider them for the Transient Pool. These agricultural pumpers will not receive an allotment and are therefore required to pay all appropriate Authority Fees for their continued pumping.

- Mohave Pistachio
- Blubaugh
- McGee

The following agricultural pumpers have submitted their Pumping Verification Questionnaire data package, and have been verified by the WRM as "qualified" Base Period agricultural pumpers.

- Meadowbrook Farms
- Quist Farms
- Sierra Shadows
- Amberglow
- Terese
- Hickle

Accordingly, the 51,000 acre-feet of the Transient Pool is allotted as follows:

| Qualified Base Period Agricultural Pumper | Reported Irrigated Acres | Percent of Total | Total Transient Pool Allocation |
|---|---|---|---|
| Meadowbrook Farms | 1,277 | 73.4 | 37,440 |
| Quist Farms | 150 | 8.6 | 4,398 |
| Sierra Shadows | 200 | 11.5 | 5,864 |
| Amberglow | 12 | .07 | 352 |
| Terese Farms | 80 | 4.6 | 2,346 |
| Hickle | 20.5 | 1.2 | 612 |
| **Totals** | **1,739.5** | **100.0** | **51,000** |

## V. GUIDELINES FOR NEGOTIATING VALUE FOR FALLOWING PROGRAM

The intent and goal of the Transient Pool and Fallowing Program is to significantly reduce the overdraft conditions currently occurring in the IWVGB. As such, holders of Transient Pool allotments may elect to voluntarily negotiate a sell of their Pool allotment to the IWVGA, and thereby reduce their consumptive use. Said negotiations shall be completely voluntary and for both the allotment holder and the IWVGA.

While subject to the parameters and appropriate individual variances, it is presumed that payments shall be made in multiple annual installments. Additionally, it is presumed that IWVGA payment will not include the purchase of any other real property (land, equipment, supplies, etc.)

and if appropriate the Authority, in conjunction with groundwater pumpers electing to participate in the Fallowing Program, may also explore alternative land uses for the fallowed land, which may include use as enhanced habitat or grazing lands.

Qualified allotment holders may, voluntarily, present their "offer" on/or before August 1, 2020. The IWVGA will review the offer at which time it may:

1) accept the "offer to sell" and provide the seller with a purchase agreement,

2) provide the seller with a counter-offer,

3) schedule a meet and confer negotiation, or

4) reject the Qualified Pumpers "offer to sell".

The last date to complete a Transient Pool Fallowing Agreement is December 1, 2020.

The value of Transient Pool Allocation, as determined by the Authority, will be generally based upon the estimated net profit generated by the actual exercise of the Transient Pool allocation pumping for its intended agricultural purposes. Any unused Transient Pool allocation will cease to exist on January 1, 2040.

**Schedule for Transient Pool and Fallowing Program**

| | | |
|---|---|---|
| 1. | Draft Provided to Board for Comment | June 18, 2020 |
| 2. | PAC Review Period Begins | June 18, 2020 |
| 3. | PAC Comments Due to WRM | July 2, 2020 |
| 4. | Board Adopts Report | July 16, 2020 |
| 5. | Allotment Holder Opens Fallow Program Negotiations | August 1, 2020 |
| 6. | Initial Offer Due | September 1, 2020 |

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# IWVGA Board Meeting
# June 18, 2020

- Prop 1 Status/Schedule
  - Invoice #3:
    - Covers April 2019 through June 2019
    - Total payment after retention: $186,185.71
    - Status: Paid
  - Invoice #4:
    - Covers July 2019 through September 2019
    - Total payment after retention: $90,978.92
    - Status: Paid
  - Invoice #5:
    - Covers October 2019 through December 2019
    - Total payment after retention: $61,603.54
    - Status: Paid
  - Invoice #6:
    - Covers January 2020 through March 2020
    - Total Payment after retention: $40,218.79
    - Status: Submitted May 25, 2020
  - Grant Agreement Revisions:
    - Grant Agreement fully executed with deadlines extended as requested.



**AGENDA ITEM 13a**

# IWVGA Board Meeting
# June 18, 2020

- SDAC Update
  - Authority approved proceeding May 21st Board meeting.
  - Agreements fully executed.
  - Completion by May 2020. DWR date June 30, 2021



**AGENDA ITEM 13b**

# IWVGA Board Meeting
# June 18, 2020

- Prop 68 Status
  - IWVGA awarded $330,000 of the maximum eligible of $330,827 (with $300,000 currently available).
  - Grant agreement fully executed on May 4.
  - Starting 1st Invoice for "past costs".
  - 1st Invoice due by September 4, 2020 (4 months after execution).



# IWVGA Board Meeting
# June 18, 2020

- **Groundwater Pumping Verification**
  - Questionnaire Released on January 31, 2020
    - Sent to all known and suspected non-de minimis pumpers
  - Response were due to GA/WRM by March 1, 2020
  - As of May 18, 2020: **32 responses received** out of 55 registered non-de minimis pumpers
  - GA Staff/Legal Reviewing Enforcement and Consequences
  - All Reports reviewed by Staff Team including Legal.
  - All Reports released to Pumpers on June 3rd, comments to WRM by June 16th.
  - Adoption of Pumping Verification Reports at July GA Board Meeting

IWVGA Board Meeting
June 18, 2020

## COSO Royalty Funding

Project 1A: Rose Valley Exploratory Well Installation

- Project Cost: $300,000
- Project Description:
- Installation of three shallow monitoring wells to collect data on subsurface flow into the basin. (Preliminary BLM sites already selected.)



IWVGA Board Meeting
June 18, 2020

Project 1B: Controlled Source Audio Magnetic Telluric Geophysical Investigation (CSAMT)

- Project Cost: $340,000
- Project Description:
- Survey up to 60 linear miles (5 lines x 12 miles/line) from west to east.
- Survey to map faults and structure in areas where there are unknowns.
- Identification of areas of low resistivity (silts/clays).
- Compliments the recent installation of land subsidence extensometers and would be a follow up to some of the active fault traces identified from the last earthquake.

## Coordination

- John Kersey, David Janiec, Scott O'Neil, Don Zdeba, WRM, Commander Benson.
- Application Status: Commander Benson

# IWVGA Board Meeting
# June 18, 2020

**DRAFT SCHEDULE**

| **KEY DATES FOR GROUNDWATER AUTHORITY AND GSP** | **KEY DATES** |
|---|---|
| **1. GA June Board Meeting.** | **June 18th** |

- Allocation of Sustainable Yield Report released for review
- Replenishment Fee Notices and Report released for review
- Transient Pool and Fallowing Program released for review
- All Reports provided to PAC/TAC members for review.
- GSP Pump Fee Adjustment Report Data released for review
- Transient Pool and Fallowing Program released for review
- New Extractor Policy and Reporting Adoption
- Pumping Verification Report Status



# IWVGA Board Meeting
# June 18, 2020

**DRAFT SCHEDULE**

| **KEY DATES FOR GROUNDWATER AUTHORITY AND GSP** | **KEY DATES** |
|---|---|
| **2. GA July Board Meeting.** | **July 16th** |

- GSP Pump Fee Adjustment Adopted
- Transient Pool and Fallowing Program Adopted
- Pumping Verification Reports Adopted

| | |
|---|---|
| **3. Ag Fallow Program Final Decision Date** | **August 1st** |
| **4. GA August Board Meeting** | **August 20th** |

- Allocation of Sustainable Yield and Prop 218 Report Adoption
- Replenishment Fee Public Hearing Adoption (effective September 20th)

**DRAFT SCHEDULE**

| **KEY DATES FOR GROUNDWATER AUTHORITY AND GSP** | **KEY DATES** |
|---|---|
| **5. GSP Pump Fee Adjustment Reporting Begins** | **Sept. 1st** |
| **6. Replenishment Fee Effective – Reporting Begins** | **Sept 20th** |
| **7. Full Month GSP Pump Fee Adjustment – Partial Replenishment Fee** | **Oct 1st** |



**AGENDA ITEM 13f**

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**Indian Wells Valley Groundwater Authority**
**May 2020 Financial Report**

| | FY 2019 Actuals | 2020 Budget | FYTD through May (GSP) | FYTD through May (Admin) |
|---|---|---|---|---|
| **Beginning Balance** | **476,713** | | **83,900** | **-** |
| County of Kern Advance | - | - | - | - |
| IWVWD Advance | - | - | - | - |
| Navy in-Kind | - | - | - | - |
| IWVWD In-kind | - | - | - | - |
| Initial Member Contribution | - | - | - | - |
| **Beginning Balance** | **476,713** | **-** | **83,900** | **-** |
| | | | | |
| **Revenues** | | | | |
| DWR | - | - | - | - |
| Prop 1 Grant | 851,406 | - | 174,984 | - |
| -GSP Preparation @ $1,500,000 | - | - | - | - |
| -SDAC @ $646,000 | - | 686,800 | - | - |
| SDAC Reimbursement | - | 244,165 | - | - |
| Assessment Pumping Fee | 567,846 | 506,000 | 154,998 | - |
| **Total Revenue** | **1,419,253** | **1,436,965** | **329,982** | **-** |
| | | | | |
| **Expenses** | | | | |
| Task 1- Initial GSP Support Studies | 31,762 | | | |
| Task 2- Proposition 1 SGMA GSP Development Grant | 43,389 | | | |
| Task 3- Data Management System | 96,332 | | | |
| Task 4- GSP Development and Submittal | 764,106 | | | |
| Task 5- SDAC Projects | 25,065 | | | |
| Task 6- IWVGA Project Management and Administrative Tasks | 123,178 | | | |
| - City of Ridgecrest Reimbursement | - | | | |
| Task 7- Legal Services | 112,305 | | | |
| Task 8- Stakeholder/Authority Coordination | 206,295 | | | |
| - Additional PAC/TAC/Board Meeting Support | | | | |
| - Additional Pump Fee Support | | | | |
| Task 9- Groundwater Pumping Fee Support | 103,023 | | | |
| Stetson- TSS Support | 7,333 | | | |
| Stetson- Brackish Water Support | 6,025 | | | |
| Stetson- Imported Water Coordination | 30,774 | | | |
| Stetson- Allocation Process Support | 97,073 | | | |
| Stetson- Navy-Coso Funding Support | 5,698 | | | |
| Auditing Services & IWVWD Reimbursement for Website fees | 6,276 | | | |
| Banking Fees | | | | |
| Addtl Insurance Cost | 9,967 | | | |
| PAC & TAC Meeting Costs | 6,142 | | | |
| Water Marketing | 118,683 | | | |
| Well Monitoring | 15,590 | | | |
| Water Smart Grant | 3,050 | | | |
| Undocumented Expenditures (pre-FY2018) | - | | | |
| **Total Expenses** | **1,812,065** | | | |

NO LONGER USED FOR FY 2020

| | GSP Budget | Admin Budget | FYTD through May (GSP) | FYTD through May (Admin) |
|---|---|---|---|---|
| City of Ridgcrest Reimbursement | 210,466 | - | - | - |
| County of Kern Advance Reimbursement | 500,000 | - | | - |
| IWV Water District Advance Reimbursement | 500,000 | - | - | - |
| Legal Services | 68,228 | 350,000 | 15,976 | 7,602 |
| Stetson | 310,000 | 996,000 | 266,043 | - |
| DRI | - | - | 3,591 | - |
| SDAC | 537,163 | - | - | - |
| Auditing Services | - | 7,000 | 1,800 | 2,000 |
| IWVWD Reimbursement for Website fees | - | - | - | 276 |
| Banking Fees | - | - | - | - |
| Additional Insurance Cost | - | 10,000 | - | 9,993 |
| PAC & TAC Meeting Costs | 1,000 | 11,000 | - | - |
| Water Marketing | - | - | - | 18,423 |
| Well Monitoring | - | - | - | 1,260 |
| Other (Mailer, etc.) | - | 5,000 | 1,888 | 1,034 |
| **Total Expenses** | **2,126,857** | **1,379,000** | **289,297** | **40,588** |
| | | | | |
| **Ending Balance** | | **(2,068,892)** | | **83,997** |

**Unpaid Invoices**

| | |
|---|---|
| Capitol Core Group INV# 2020-033, 06/05/20 | 9,412.50 |
| RWG Law INV# 227113, 06/09/20 | 3,542.50 |
| Stetson INV# 2652-27, 12/13/19 (approved, deferred) | 183,634.49 |
| Stetson INV# 2652-32, 04/16/20 (approved, deferred) | 105,748.23 |
| Stetson INV# 2652-33, 05/13/20 (approved, deferred) | 118,814.82 |
| Stetson INV# 2652-34, 06/10/20 | 113,815.49 |
| | **534,968.03** |

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Client Memorandum

TO: Don Zdeba, General Manager Indian Wells Valley Groundwater Authority

FROM: Jeff Simonetti, SVP Capitol Core Group

CC: Michael W. McKinney, Partner
Todd Tatum, Senior Advisor Capitol Core Group

DATE: June 18, 2020

SUBJECT: Project Update Memorandum – May 2020 Activities

Capitol Core had a busy month with a particular focus on funding resources for the infrastructure projects as well as outreach with the US Navy regarding their potential participation in the imported water project. This memorandum will outline the specific tasks completed in May, and the next steps we will conduct during the month of June.

**Navy Outreach**

Capitol Core met with Navy Energy, Installations and Environment (EIE) staff via conference call in May to continue the discussion regarding the Navy's potential participation in the imported water project. We met with Director of Resiliency Sandy Kline and her staff within EIE. The conference call continued the discussions that we began in February with Acting Assistant Secretary Niemeyer. We delivered the "Groundwater Basin Resiliency and Request for Funding Consideration" as the Board directed at the May 21st Board meeting. EIE staff expressed interest in continuing the discussion with them about the project and their participation. They further requested that we brief China Lake staff and Southwest Command, which we completed in early June. We will continue discussions with the Navy as directed with a follow-up call which we will likely schedule in late June or early July.

**Federal Legislation**

As part of our Scope of Work, Task 3 instructs us to determine potential funding sources that the Groundwater Authority may avail themselves so assist financially with the water infrastructure project. We continue to monitor two bills that may be able to provide the project with such funding – S.3590 (Drinking Water Infrastructure Act, Barasso, R-WY) and S.3591 (America's Water Infrastructure Act, Barasso, R-WY). Both bills potentially provide funding opportunities for a variety of the Authority's needs to address the imported water project. We briefed Senators Harris and Feinstein on these bills in May, and they recognize the importance to water infrastructure projects such as ours. Both bills held initial committee hearings in May (S.3590 and S.3591 both on May 11) and we expect both bills to continue committee hearings this summer. It remains to be seen whether these bills will proceed to the floor prior to the summer recess or will wait for consideration after.

We will continue to monitor the progress of both of these bills and brief our delegation regarding our support for these in June.

**State Legislation**

As part of our funding strategic plan, Capitol Core is looking at potential state funding sources for the imported water infrastructure project. At the beginning of the year, the initial budget included a $40 million proposal for a SGMA-related general fund authorization. The fund would have been used for projects that address groundwater overdraft and would have been awarded through the State Department of Water Resources.

Unfortunately, the effects of COVID-19 have significantly impacted both state and local budgets, and there is significant uncertainty about the revenues that the State will be able to capture in the upcoming fiscal year. The State of California is currently projecting a $54 billion budget deficit and is planning to make broad cuts across a variety of budget areas. As such, the Assembly has reported AB 808, the State Budget Bill and the trailer bills to the Assembly Floor despite no complete agreement with the Governor on the budget and the timing of budget cuts. The $40 million SGMA general-fund authorization has been cut. However, the state will maintain the $26 million in existing Proposition 68 bond funds specifically for agencies in critically overdrafted basins. The State is creating an 'interagency team' to work with agencies. The Governor has made it clear that he will not entertain specific project authorizations in this year's budget but does leave the door open for future years.

The budget plan states the following:

"The state is not in a fiscal position to expand programs given the drastic budget impacts of the COVID-19 Recession. The following proposals are withdrawn from the Governor's Budget:

- **Sustainable Groundwater Management Act Implementation**—$40 million General Fund. The state remains committed to supporting local communities' transition to sustainable groundwater use, and the Department of Water Resources will allocate $26 million of existing Proposition 68 bond funds to local agencies in critically overdrafted basins to help defray the cost of implementation projects. In addition, a state interagency team will be created to work with stakeholders to identify tools and strategies to address the economic, environmental, and social effects of changing land use and agricultural production. Additional funding for SGMA-related projects may be considered for inclusion in future infrastructure investments."

We will continue to monitor the state budget and work with IWVGA staff to determine if any work that the Groundwater Authority is currently conducting may be further eligible for this Proposition 68 money.

**Next Steps**

As mentioned, at the May 21st Board meeting, the Board directed Capitol Core staff to submit the edited version of the "Groundwater Basin Resiliency and Request for Funding Consideration" to the US Navy. We delivered this report to the Navy representatives at China Lake, Southwest Command, NAVFAC and staff at Energy, Installations and Environment (EIE). We also had a productive discussion with China Lake command, and members of the NAVFAC and Southwest Command staff in early June. We appreciate their time and consideration of our proposal. The Navy has asked us to keep them apprised of the project, and we will continue discussions with staff throughout the month of June.

At the federal level, we will continue to brief our delegation of legislators regarding our support for the water bills addressed in the "Federal Legislation" section and look for funding opportunities within them to provide potential financial resources to the Authority. At the state level, we will brief the Governor's Military Council on our funding and participation request of the Navy and continue to monitor the budget as it pertains to water-related items.

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# Indian Wells Valley Groundwater Authority

# General Manager

ABOUT THE AGENCY

The Indian Wells Valley Groundwater Authority (IWVGA) was formed in 2017 through a Joint Powers Authority Agreement. The IWVGA Board of Directors is comprised of five (5) voting members; Kern County, San Bernardino County, and Inyo County, the City of Ridgecrest, Indian Wells Valley Water District, and two (2) non-voting Federal, associate members; the United States Navy (Naval Air Weapons Station – China Lake) and the Bureau of Land Management. The GSA encompasses over 380,000 acres. The IWVGA serves as a Groundwater Sustainability Agency (GSA) in compliance with the Sustainable Groundwater Management Act (SGMA) of 2014 to protect existing surface water and groundwater rights. The GSA employs Stetson Engineers as the Water Resource Manager tasked with drafting and submitting the Groundwater Sustainability Plan (GSP) for the Indian Wells Valley Groundwater Basin (IWVGB). The GSP was submitted to the Department of Water Resources for review and approval January 31, 2020.

THE POSITION

This is a new executive management position reporting to the IWVGA Board of Directors. The incumbent's focus will be implementation of the GSP by providing leadership and direction to member agencies, ensuring efficient and effective legislative and regulatory compliance in accordance with Board directives; collaborating with State and local agencies; facilitating outreach efforts with stakeholders to strategically comply with legal requirements; and accomplishing IWVGA goals and objectives. Examples of key responsibilities include:

- Direct the operations and general administration of the GSA including budget development and oversight, short and long range planning, and policy development and implementation.
- Ensure the timely and effective accomplishment of goals and objectives as determined by the board.
- Implement and manage the GSP; update and/or revise plan as needed.
- Implement all aspects of fees adopted by the IWVGA Board.

- Oversee the consultant/contract selection process including determining scope of work, preparing RFP, negotiation of terms and contract development and review; monitor and evaluate consultant/contract performance.
- Administer contracts and agreements to ensure compliance.

- Prepare and present a variety of complex administrative and technical reports, recommending appropriate alternatives; follow up on action items as required.
- Actively participate in, review and interpret analytical work completed by the Water Resources Manager; present results to the Board and member agencies.
- Identify additional future funding sources and develop and implement funding strategies.
- Conduct outreach to appropriate stakeholders and other appropriate agencies.
- Develop, plan and implement compliance measures.
- Coordinate the activities and meetings of the IWVGA Board, Technical Advisory Committee and Policy Advisory Committee.
- Makes presentations to the Board of Directors, governing bodies, and a variety of boards and commissions; attends and participates in professional group meetings; stays abreast of new trends and innovations in the field.
- Monitors changes in laws, regulations, and technology that may affect GSA member agencies; implements policy and procedural changes as required.
- Remain current on, review, analyze, and determine impact of legislative developments, state legislation, state and federal regulations, local ordinances, trends, practices and procedures in the field. Advise and make recommendations to decision makers on appropriate position or action to take in response to changes.
- Advocate for effective sustainability solutions.
- Work cooperatively with member agencies, other GSAs, and other County, State and Federal agencies to identify and develop programs/projects that will advance sustainability of the local groundwater resource.
- Identify stakeholders within the community and conduct public outreach relating to groundwater sustainability; develop and implement educational programs, including printed materials, web site information, school programs, ads, speaker programs and other activities.

- Working in conjunction with other consultants under contract with the IWVGA and stakeholders as necessary, explore opportunities to import water to supplement supplies in the Indian Wells Valley Groundwater Basin.

IDEAL CANDIDATE PROFILE

The GSA is seeking a candidate with previous administrative management experience related to water resource management and conservation programs. A bachelor's degree in a related field (geology, hydrology, engineering, environmental studies, business) is highly desirable, but any combination of experience and education that could likely provide the required knowledge, skill and ability is qualifying. The ideal candidate will have extensive knowledge of state and local laws, regulations related to water conservation programs, water resource management, and SGMA.

In working with the IWVGA Board of Directors, the General Manager will take an active and involved leadership role in the implementation of its goals and objectives. Regular and ongoing communications and interaction with the Board and stakeholders is an essential aspect to this role. As a leader, the successful candidate will be a creative thinker, politically astute, and will have the capability to evaluate and assess the big picture/long range aspects of the role. The ideal candidate will be a proven leader with the ability to be an influential advocate for issues and concerns relating to groundwater sustainability. A strong collaborator, he/she will have a history of success with building and maintaining cohesive working relationships that best serve the short and long-term interests of organizations and communities.

The ideal candidate for the IWVGA's next General Manager will be a well-rounded leader – a leader of people and resources well-versed in California water issues. This experienced individual will be both big picture visionary and able to establish credibility as a decisive, results-oriented professional committed to excellence, independence, and fiscal accountability. Additionally, this top candidate will know how to effectively and efficiently run a business that is also a municipal organization. The successful candidate will also have strong financial acumen including general knowledge of debt financing, bond issuance, debt management, and other funding strategies. Being comfortable in advising the Board about the full range of fiscal matters including rate structure and cost recovery efforts is of critical importance. This professional will be an exceptional listener, communicator, and an accomplished presenter with the ability to build strong relationships and engender trust among the Board of Directors, staff and the public.

The IWVGA is currently seeking all qualified candidates, both individuals and organizations. This is a contract position with salary commensurate with experience and final determination of status; full- time or part-time.

June 3, 2020

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REGIONAL GOVERNMENT SERVICES

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# Establishing a Groundwater Sustainability Agency? All you need is RGS!

California's Sustainable Groundwater Management Act has resulted in the recent formation of numerous Groundwater Sustainability Agencies (GSAs). These agencies are tasked with time-critical sustainability plan development and funding objectives. To accomplish these essential objectives, new GSAs are currently either competing for staff in the labor market or being staffed by already-busy JPA member agency personnel. Regional Government Services offers a full range of administrative services to get your GSA up and running using a cost-effective contract model.

## What We Offer

RGS can partner with your GSA to provide all the staff work needed to administer your GSA, and deliver services through a combination of on and offsite work and support. These services may include:

- **Chief Executive**
  Provides governance and public meeting support, manages planning and achievement of GSA strategic goals, oversees delivery of special projects and general administrative activity as needed
- **Clerk of the Board**
  Maintains proper meeting noticing and records, oversees Public Records Act request process.
- **Risk Manager**
  Evaluates and advises on insurance, contracting and legal review processes.
- **Finance and Accounting Team**
  Comprehensive accounting service team PLUS funding and fiscal sustainability strategies, budgeting and financial planning support.

In addition to the core services described above, RGS is also able to offer additional resources and support in the areas of financial analysis, public policy analysis and development, community education and engagement, strategic planning, organizational communications and marketing, talent acquisition, contract management, and more.

### Key GSA Partner Benefits:

- **Easy and fast acquisition of a service-ready team with focused roles and skills, who work in parallel to accomplish your GSA's administration and project objectives.**
- **Access to our experienced talent pool. We can provide staff for special projects, and easily adjust to fluctuating workload demands.**
- **Ethical, reliable and expert administration allows partner GSA Board to focus on timely delivery of a Groundwater Sustainability Plan.**

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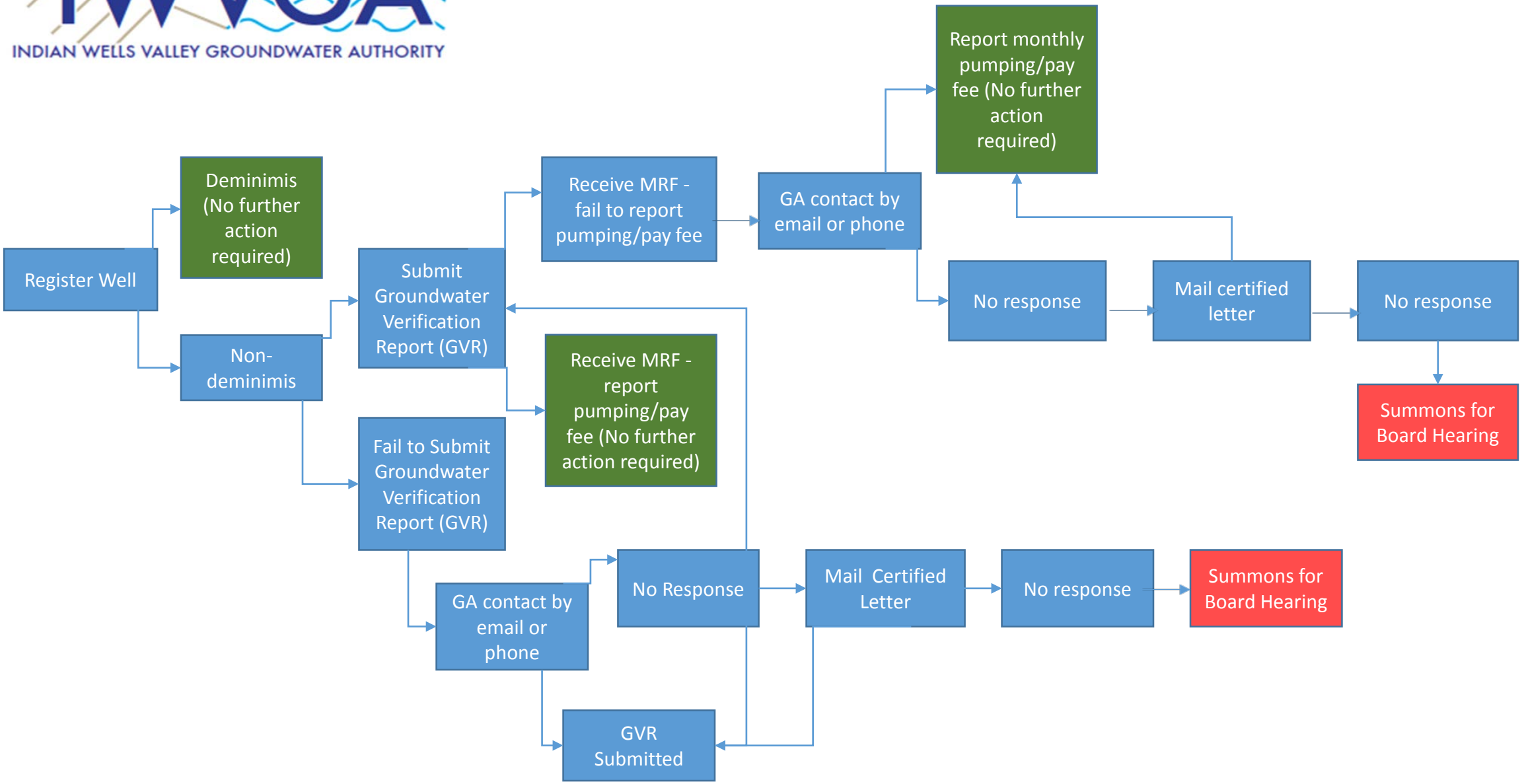
IWVGA
INDIAN WELLS VALLEY GROUNDWATER AUTHORITY



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