Borrego Water District Board of Directors
Regular Meeting
September 10, 2019 @ 9:00 a.m.
806 Palm Canyon Drive
Borrego Springs, CA 92004

I. OPENING PROCEDURES

- **A.** Call to Order:
- **B.** Pledge of Allegiance
- **C.** Roll Call
- **D.** Approval of Agenda
- **E.** Comments from the Public & Requests for Future Agenda Items (may be limited to 3 min)
- **F.** Comments from Directors\
  1. Introduction of Meet Panchal, Local Government Commission Fellow assisting with development of Integrated Resource Plan Proposal for Borrego Springs – K. Dice
- **G.** Correspondence Received from the Public:
  1. None

II. ITEMS FOR BOARD CONSIDERATION AND POSSIBLE ACTION

A. Borrego Water District
1. Request for Construction Water by Jim Whelan for Ocotillo Wells Solar – G Poole
2. Interpretive Host Training at Borrego Springs High School – D Duncan
3. Formation of Ad Hoc Grant Committee (Dice/Johnson) – K Dice
4. BWD Signatory on Stewardship Council Grant from the Bureau of Reclamation for "Cooperative Watershed Management" planning – D Johnson

B. Borrego Springs Sub Basin
1. Final GroundWater Sustainability Plan Release and Availability - G Poole

C. Status Update and Verbal Discussion of:
1. Critical Overdraft Plan Development
2. BWD Bond Financed Projects
3. Proposition 218 Study Progress
   a. Discussion of Rates (Attached) – L Brecht
4. Water Quality Monitoring Plan Progress
5. RH agreement for Spare capacity
6. BS Basin Ground Water Monitoring Program (including well abandonment)
7. Status of Independent Cyber Security Evaluation

All Documents for public review on file with the District's secretary located at 806 Palm Canyon Drive, Borrego Springs CA 92004
Any public record provided to a majority of the Board of Directors less than 72 hours prior to the meeting, regarding any item on the open session portion of this agenda, is available for public inspection during normal business hours at the Office of the Board Secretary, located at 806 Palm Canyon Drive, Borrego Springs CA 92004.

The Borrego Springs Water District complies with the Americans with Disabilities Act. Persons with special needs should call Geoff Poole – Board Secretary at (760) 767 – 5806 at least 48 hours in advance of the start of this meeting, in order to enable the District to make reasonable arrangements to ensure accessibility.

If you challenge any action of the Board of Directors in court, you may be limited to raising only those issues you or someone else raised at the public hearing, or in written correspondence delivered to the Board of Directors (c/o the Board Secretary) at, or prior to, the public hearing.

8. Status of RH flood control facilities
9. Evaluating impacts of possible Negotiated Settlement on current and future State Grant funding, including current CIP Applications.
10. Status of GSP Development Costs Reimbursement
11. Return on invested capital for WWTP solar project
12. BWD Board Strategy FY 2020 (Attached) – L Brecht
13. September 2019 To Do List

III. CLOSED SESSION:

A. Conference with Legal Counsel - Significant exposure to litigation pursuant to paragraph (3) of subdivision (d) of Section 54956.9: (Three (3) potential cases)

IV. CLOSING PROCEDURE

A. Suggested Items for Next/Future Meeting Agenda
B. The next Regular Meeting of the Board of Directors is scheduled for Tuesday, September 24th @ 9:00

All Documents for public review on file with the District's secretary located at 806 Palm Canyon Drive, Borrego Springs CA 92004
Any public record provided to a majority of the Board of Directors less than 72 hours prior to the meeting, regarding any item on the open session portion of this agenda, is available for public inspection during normal business hours at the Office of the Board Secretary, located at 806 Palm Canyon Drive, Borrego Springs CA 92004.

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BORREGO WATER DISTRICT
BOARD OF DIRECTORS MEETING
SEPTMBER 10, 2019
AGENDA ITEM II.A.1

September 6, 2019

TO: Board of Directors

FROM: Geoffrey Poole, General Manager

SUBJECT: Request for Construction Water by Jim Whelan for Ocotillo Wells Solar – G Poole

RECOMMENDED ACTION:
Receive verbal update from Gildred Co and direct staff as deemed appropriate

ITEM EXPLANATION:
Starting approximately 4 years ago, BWD and The Gildred Company began discussion about providing construction water to a planned Solar Project in Ocotillo Wells. The arrangement agreed upon was for GIldred to pay BWD for 4 water credits ($28,000 value) and pay the current price for Construction water on all deliveries. The current value on construction water is $9.25/hcf and approximately 40 acre feet will be needed. The total value to BWD is approx. $161,172. Gildred is also responsible for all of the infrastructure needed to physically deliver the water.

Since this is a proposal from quite some time ago, and have 3 new Directors and a new GM since then, staff has requested an update on the Project from Gildred and a representative will be present at the meeting on 9-10. Overall, Staff feels the extra revenue generated is significant for such a relatively small amount of water, however prior to committing, a presentation and full Board discussion would be beneficial.

FISCAL IMPACT
The total value of water credits and deliveries is $161,172 for 40 af.

ATTACHMENT
1. Historic correspondence on the topic

DATE: June 1, 2015

TO: Board of Directors

FROM: Jerry Rolwing

RE: Ocotillo Wells Solar Project

At the April 14th Board of Directors Workshop, a presentation was featured by Jim Whalen and Gregg Haggart, representing the Gildred Family on their permitted solar project in Ocotillo Wells. The project will require 40 acre feet of construction water from the District. The on-going operational water will be provided by an on-site well on the project property.

At the April 22nd Regular Monthly Board of Directors meeting, the Board expressed the need for a requirement of 8 water credits, in addition to the County's requirement.

As part of the groundwater mitigation process, Gildred will be required to provide 8 additional water credits, beyond the County of San Diego requirements, to mitigate the construction water being purchased from the District. This will cover the estimated 40 acre feet requested at this time. Any additional water above the 40 acre feet will require an additional two water credits, not to exceed 80 acre feet total.

Water will be billed at the construction meter rate that is in effect at the time the water will be taken. Presently, this rate is $5.50/hcf (100 cubic feet), or $2,395.96/acre foot. As of July 2015, this rate will increase to $6.54/hcf, or $2,851.20/acre foot, as part of the 2011 Proposition 218 process outlining a five-year water and sewer rate increase program. The District's operations manager will work with the solar project manager on the details of delivery.

BORREGO WATER DISTRICT

January 14, 2016

Nicholas Doenges
J. Whales Associates
Via email: nick@jwhalen.net

Mr. Doenges,

In response to your request to purchase eight (8) AG-1 water credits from the Borrego Water District, please find attached Form 104, Request for issuance of Water Credit Certificate. AG-1 Water credits are priced at $3,600. Please complete the form and forward to the District with a check in the amount of $28,800. Once received, the certificate will be completed and mailed to you.

If you have any questions, please feel free to contact the District.

Sincerely,

Diana Del Bono

Diana Del Bono
Administrative Assistant

the GILDRED companies

June 26, 2019

Borrego Water District
806 Palm Canyon Drive
Borrego Springs, CA 92004

RE: Request for Issuance of Water Credit Certificates
Ocotillo Solar LLC/ APN 253-390-57/58

To whom it may concern:

Please see our request for Water Credit Certificates. Please note that our address has changed and it is as follows:

701 B Street, Suite 1180
San Diego, CA 92101-8108

If you have any questions, please contact me.

Sincerely,

Rene M. LeBlanc

Rene M. LeBlanc
Chief Financial Officer

Enclosures

Corporate Headquarters
701 B Street, Suite 1180, San Diego, CA 92101
email: info@gildredco.com | tel: 619.232.6361 | fax: 619.696.0991
www.gildredco.com

(510) CHECK DATE: 06/26/19 CHECK NO.: 006823 BORR

Invoice No.	Inv. Date	Inv. Amount	Disc. Amt	Description	Vchr	Net Amount
06262019	06/26/19	28,800.00	0.00	BORR / 510 / AG-1 WATER CREDITS	152181	28,800.00
TOTAL		28,800.00	0.00			28,800.00

(510)

GILDRED BUILDING COMPANY (510)

701 B Street Suite 1180
San Diego, CA 92101

TORREY PINES BANK (900)
12220 EL CAMINO REAL SUITE 110
SAN DIEGO, CA 92130

90-4363
1222

DATE	CHECK NO.	AMOUNT
06/26/19	006823	$28,800.00*

TWENTY-EIGHT THOUSAND EIGHT HUNDRED AND NO/100 DOLLARS ***

PAY TO THE ORDER OF
BORREGO WATER DISTRICT
806 PALM CANYON DR
BORREGO SPRINGS, CA 92004

Rene M. LeBlanc

Void After 90 Days

⑈006823⑈ ⑆122243635⑆ 4110360153⑈

REQUEST FOR ISSUANCE OF WATER CREDIT CERTIFICATE

(Form 104)

Please issue a Water Credit Certificate(s) to the name(s) listed below.

Property location: EAST OF SPLIT MTN. ROAD, OCOTILLO WELLS, CA

APN: 253-390-57/58

# of credits 8

Name of person(s) in which the Water Credit Certificate should be issued and amount(s)

OCOTILLO SOLAR LLC — 8

Name — **# of credits**

550 WEST C STREET, STE 1820

Address SAN DIEGO, CA 92101

_____ — _____

Name — **# of credits**

_____

Address

I declare under penalty of perjury under the laws of the State of California that the foregoing statements are true and correct of my own personal knowledge.

[signature] GREGG HAGGARTY, MANAGING MEMBER — FEB 2, 2016

~~Name of applicant~~*/agent* — **Date**

_____ — _____

Name of applicant*/agent* — **Date**

_____ — _____

Name of applicant*/agent* — **Date**

_____ — _____

Name of applicant*/agent* — **Date**

***All legal owners of the property must sign**

Print | Close Window

Subject: [FWD: RE: Water Credits for construction water for Solar Farm]
From: geoff@borregowd.org
Date: Mon, Jul 08, 2019 3:27 pm
To: kim@borregowd.org

Geoff Poole,
General Manager
Borrego Water District
760/767-5806

For Board Members:
"Brown Act Precaution:
Pursuant to the provisions of the Brown Act the information contained herein is for the personal use and information of each Board Member. Nothing contained in this correspondence should be discussed with another Board Member unless it is at a properly noticed and held Board Meeting or Committee Meeting of the Borrego Water District. Thank you."

-------- Original Message --------
Subject: RE: Water Credits for construction water for Solar Farm
From: Steve Anderson <Steve.Anderson@bbklaw.com>
Date: Mon, July 08, 2019 2:02 pm
To: "'geoff@borregowd.org'" <geoff@borregowd.org>

Ok. One question I have is, if this solar farm purchased water credits, are they to own those credits permanently or what? This deal is confusing to me as to what happens after they get their construction water.

From: geoff@borregowd.org [mailto:geoff@borregowd.org]
Sent: Monday, July 08, 2019 2:00 PM
To: Steve Anderson
Subject: RE: FW: Water Credits for construction water for Solar Farm

CAUTION - EXTERNAL SENDER.

Sounds good

I have two items listed on the Agenda.

G

Geoff Poole,
General Manager
Borrego Water District
760/767-5806

-------- Original Message --------
Subject: FW: Water Credits for construction water for Solar Farm
From: Steve Anderson <Steve.Anderson@bbklaw.com>
Date: Mon, July 08, 2019 1:19 pm
To: "Geoff Poole (geoff@borregowd.org)" <geoff@borregowd.org>

Any need to discuss this with the board in closed session tomorrow? To my mind, since it is only construction water, probably not a big deal, but you never know given all the SGMA stuff, I suppose.

From: kim@borregowd.org [mailto:kim@borregowd.org]
Sent: Monday, July 08, 2019 11:16 AM
To: Steve Anderson
Cc: geoff@borregowd.org
Subject: Water Credits for construction water for Solar Farm

CAUTION - EXTERNAL SENDER.

Steve,

Geoff asked me to check with you in regards to a Solar project in Ocotillo Wells as they want us to supply water to them.

Jerry had sent a letter to them in June, 2015 outlining what was needed to be able to accomplish this, I just need to know if it is still appropriate.

They said they are ready to go and I have a check in the amount of $28,800 (cost to purchase 8 water credits), but have not cashed it.

I have attached all the correspondence I have for your review.

Thanks,

Kim

BORREGO WATER DISTRICT
BOARD OF DIRECTORS MEETING
SEPTMBER 10, 2019
AGENDA ITEM II.A.2

September 6, 2019

TO: Board of Directors

FROM: Geoffrey Poole, General Manager

SUBJECT: Interpretive Host Training at BS High School – D Duncan

RECOMMENDED ACTION:
Receive request from Director Duncan and direct staff as deemed appropriate

ITEM EXPLANATION:
Borrego Springs High School was recently presented with an idea to start a course on Interpretive Skills Training for Borrego Springs and they liked the idea so much, a new course has already been created. Director Duncan is requesting funding assistance from BWD for this effort and his specific request follows:

Thanks for taking time to speak with me about this and adding it to our September 10 meeting agenda. As I mentioned when we spoke, building on the success of the Interpretive Host training program, sponsored by the Borrego Village Association (BVA), the Borrego Springs Unified School District has offered to add an Interpretive Host and Interpretive Guide training program for junior and senior high school students this year. After completing the course work, the student will receive a certificate from the National Association for Interpretation (NAI). This credential from NAI will be a vital first step in securing meaningful employment in the field of interpretation. Real world career opportunities exist with National, state and municipal parks, nature reserves, zoos, private tour companies, historical sites, and museums. I have attached a course abstract and syllabus for the Board's review.

My request is for BWD to support this program through a grant of $10k. The BWD nexus for this support is the recognition of the impacts SGMA will have on our SDAC community and the need to provide pathways for transitioning from jobs impacted by the reduction of available groundwater. The curriculum will also provide direct and indirect SDAC outreach on water issues and the relationship of water to the local economy. These students are most likely from families who will bear the brunt of the social and economic consequences imposed on our community by the requirements of SGMA. Providing real job skills to facilitate transition is a responsibility I believe we all bear. I have included the budget to fund this program for the 2019/2020 school year. The

budget total is $32,600. The BVA has committed to $10k. An additional request has been made to the Borrego Valley Endowment Fund as well as the local Rotary Club and other interested private parties. I hope the Board will view this request as a meaningful endeavor to help reposition our SDAC community as we seek groundwater sustainability. I am happy to answer any questions the Board may have. Thank you for your consideration.

Dave Duncan

If the Board concurs with the request Staff will locate a funding source including Ad Valorem taxes and possibly others.

FISCAL IMPACT
The total proposed expense is $10,000.

ATTACHMENT
1. Related Information

Course Abstract: Certified Interpretive Guide / Certified Interpretive Host Course for Borrego Springs High School

National Association for Interpretation (NAI) requires the following items for certification when teaching the Certified Interpretive Guide (CIG) and the Certified Interpretive Host (CIH) course.

1. Required for the CIG and the CIH:

- History of the interpretive profession
- Principles of interpretation
- Current Literature in the interpretive field

2. Requirements for the CIG:

- The participant must demonstrate the ability to outline a thematic interpretive presentation with the following elements:
  - A specific audience
  - Goals
  - Measurable objectives
  - Theme
  - Introduction
  - Subthemes
  - Conclusion
- Deliver a 10-minute thematic interpretive presentation.
- Complete an outline for their 10-minute presentation
- Complete a 50-question open book multiple choice literature review
- Attend a minimum of 32 hours instruction

3. Requirements for the CIH:

- The participant must demonstrate the following skills and abilities:
  - Use of informal interpretation in communication

    - Excellence in customer service
    - Writing measureable objectives
- Must attend a minimum of 16 hours instruction.
- Must complete a 50-question literature review and video exam (multiple choice)

Teaching modules

- Who are interpreters?
- Interpretation as a profession or employment opportunity • History of interpretation to include NAI past, present, and future
- What does certification mean?
- Introduction to terms and definitions (every professional has a vocabulary) i.e. formal and informal interpretation, personal vs. non-personal interpretation, etc.
- Tilden's Principles
- Audience --- Who is your audience? --- identify and relate to
- Audience motivation (Falk Study)
- Maslow's Hierarchy
- POETRY (the interpretive approach) each component taught as a separate unit. (see below)
- How we learn and retain things (learning styles and the senses)
- Knowing your resource, creditability, referencing, building trust
- The Interactive threesome and program orientation. The difference between market, resource, or management driven programs or goals.
- P is for purpose --- mission, goals, and objectives.
- O is for organized --- presentation structure (intro, body, conclusion, transitions) the interpretive outline
- E is for enjoyable
- T is for Thematic (tangibles, intangibles, and universals, themes and subthemes)
- R is for Relevant, How we make it meaningful to our audiences.
- Y is for you. What is your role in making it meaningful, enjoyable, and relevant?
- Social Marketing, the Experience Economy, and the Visitor Experience Model.

- Illustrative techniques
- Working with children
- Informal interpretation to include SHINE
- Station interpretation (also a form of informal interp.)
- Nonverbal communication, to include personal appearance, body language (projecting and reading)
- Question/response strategies
- Overcoming fear
- Telephone etiquette
- People love stories (include the power of a personal story)
- Guidelines for handling visitors (include Red Rules/Blue Rules and Authority of the Resource)
- An introduction into other areas of interpretation, i.e. writing, leading a hike, caravan, or tour, signage, exhibit build or planning, etc.

Course Extensions

- Field trips
- Guest speakers from a variety of interpretive organizations and backgrounds (Federal, State, non-profits, and for profit organizations, mixed activities, both formal and informal.
- Two guest speakers to demonstrate the 10-minute CIG interpretive to model for students. These folks should be certified as CIGS and would be helpful they could share how becoming a CIG has enhanced their programs, skills, or opened opportunities.
- Make each module as interactive as possible while modeling good interpretive technique as we teach.

Local sources for field trips, guest speakers, or internship possibilities.

- Anza-Borrego Desert State Park
- Anza-Borrego Foundation
- Anza-Borrego Desert Natural History Association
- California Overland Tours
- Bike Borrego
- Other local private and public sector hospitality business and organizations

Borrego Springs High School Interpretation Course

Summary

For credit course elective for high school students 16 years and older leading to accreditation from the National Association for Interpretation as Certified Interpretive Hosts and Certified Interpretive Guides. Course participants will follow on after the course participating in an internship program in co-operation with Anza-Borrego Desert State Park, Anza-Borrego Foundation, Anza-Borrego Desert Natural History Association including opportunities with private sector outfitters and hospitality businesses.

The National Association for Interpretation (NAI) is a 501(c)(3) not-for-profit professional organization dedicated to advancing the profession of heritage interpretation, currently serving about 7,000 members in the United States, Canada, and over thirty other nations. Individual members include those who work at parks, museums, nature centers, zoos, botanical gardens, aquariums, historical and cultural sites, commercial tour companies, and theme parks. Commercial and institutional members include those who provide services to the heritage interpretation industry.

For more information about NAI visit: https://www.interpnet.com/

Course Goals

This course is designed for and offered to as an elective course to:

1. Any Borrego Springs High School student 16 years old or older.
2. Any BSHS student interested obtaining skills in public communication, customer service,
3. Any BSHS student interested in obtaining professional certifications in the field of interpretation.

Upon completion of this course each student should be able to:

1. Explain a working definition of interpretation.
2. Discuss the history, principles, and philosophy of interpretation as it is practiced in natural resource settings (forests and parks), cultural settings (museums and historical sites), or a variety of other settings (e.g. grasslands, nature centers, zoos, arboretums, aquariums, classrooms, for profit and nonprofit organizations, etc.).
3. Describe the basics of visitor evaluation and visitor motivation.
4. Illustrate skills in oral presentation development and customer service.
5. Demonstrate ability to develop interpretive themes, goals, and objectives.
6. Demonstrate competency in delivering a thematic oral presentation.
7. Relate knowledgably the issues of, opportunities in, and challenges facing the interpretive profession.

Course Materials

Text: *Personal Interpretation,* Lisa Brochu and Tim Merriman, 2002, Fort Collins, CO, InterPress.

Borrego Village Association BorregoVillage@gmail.com

Course Format

This course will employ a variety of educational techniques including lecture, group discussion, Power Point presentations, small group activities, demonstrations, homework, individual presentation, extemporaneous presentation, field trips, and guest speakers. Class participation is a large part of the course grade.

Certified Interpretive Guide (CIG) and Certified Interpretive Host (CIH) Option: Students have the option to obtain the CIG and the CIH professional certifications from the National Association for Interpretation (NAI). Certification fees will be donated by the Borrego Springs Village Association. This option will be explained in the first class meeting. The option must be selected by week four of class. If this option is selected the student must complete the following for each certification:

The GIG:

1. Must earn 80% or better on each of the required components (exam, outline and oral presentation) or will not receive the credential and will not be refunded fees.
2. Will receive a take home exam to complete by the mid-term. This exam is open book, however requires research in four different texts. The instructor will have at least one copy of these books available.
3. The student will have up to 90 days to resubmit any component if a grade of 80% is not obtained on the first attempt. Resubmitted items do not count in the course, only toward the credential.

The CIH:

1. Must score 80% on a multiple-choice open book literature review. Two books are required and will be provided by the instructor.
2. Must score 80% or better on a multiple-choice video review.
3. The student will have up to 90 days to resubmit any component if a grade of 80% is not obtained on the first attempt. Resubmitted items do not count in the course, only toward the credential.

Why the CIG/CIH option?

The NAI certifications are a valuable asset for student future resume. These certifications, while no guarantee, may help the student toward employment or internship with several agencies which utilize interpreters (e.g. the Forest Service, NPS, BLM, state parks and rec., museums, nature centers, zoos, etc.) Many employers in the private sector also recognize the CIG/CIH as a desirable qualification in hiring. As a NAI member, the association's website contains employment opportunities throughout the U.S. for internships, part-time, seasonal, and full time jobs in the interpretive field.

The skills obtained in this course will serve the student in future pursuits and unrelated areas. Most professionals believe these are life skills for successful communication.

An added benefit to certification is a one-year student membership to NAI and assess to more information, employment opportunities, and activities.

Grading: A points system for work completed, participation, and attendance

Borrego Village Association BorregoVillage@gmail.com

BORREGO WATER DISTRICT
BOARD OF DIRECTORS MEETING
SEPTMBER 10, 2019
AGENDA ITEM II.A.3

September 6, 2019

TO: Board of Directors

FROM: Geoffrey Poole, General Manager

SUBJECT: Formation of Ad Hoc Grant Committee (Dice/Johnson)

RECOMMENDED ACTION:
Form Ad Hoc Grant Committee of President Dice and Director Johnson

ITEM EXPLANATION:
Upon her arrival at BWD, President Dice formed a Committee of One to work on possible Prop 69 Grants and placed herself on it. Before her arrival, Director Johnson had been spending considerable amount of time monitoring grant BWD opportunities and sharing information often on this topic. Now that Director Johnson is with the BWD Board, President Dice and Director Johnson desire to expand the Committee composition and focus.

With all of this in mind, President Dice will be re-naming the Prop 68 Grant Committee the BWD Grant Committee, expanding its area of focus to all Grant opportunities and adding Director Johnson.

FISCAL IMPACT
TBD

ATTACHMENT
1. None

BORREGO WATER DISTRICT
BOARD OF DIRECTORS MEETING
SEPTMBER 10, 2019
AGENDA ITEM II.A.4

September 6, 2019

TO: Board of Directors

FROM: Geoffrey Poole, General Manager

SUBJECT: BWD Signatory on Stewardship Council Grant from the Bureau of Reclamation for "Cooperative Watershed Management" planning – Johnson

RECOMMENDED ACTION:
Receive request from Director Johnson and direct staff as deemed appropriate

ITEM EXPLANATION:
Director Johnson would like to discuss the level of interest amongst BWD Board members on the concept of BWD acting as signatory on a possible Stewardship Council Grant from the Bureau of Reclamation for "Cooperative Watershed Management" planning as shown below.

https://www.usbr.gov/watersmart/cwmp/index.html

The Cooperative Watershed Management Program (CWMP) contributes to the WaterSMART strategy by providing funding to watershed groups to encourage diverse stakeholders to form local solutions to address their water management needs. Funding is provided on a competitive basis for:

Watershed Group Development and Watershed Restoration Planning THIS IS THE PART OF THE CWMP GRANT PROGRAM THAT THE STEWARDSHIP COUNCIL WOULD APPLY FOR. THE ANNOUNCEMENT OF THE FUNDING OPPORTUNITY IS DUE OUT FROM GRANTS.GOV IN ABOUT TWO WEEKS. In 2012, Reclamation began providing funding for watershed group development, watershed restoration planning, and watershed management project design (Phase I). A watershed group is a self-sustaining, non-regulatory, consensus-based group that is composed of a diverse array of stakeholders, which may include, but is not limited to, private property owners, non-profit organizations, Federal, state, or local agencies, and tribes. As part of Phase I activities, applicants may use funding to develop bylaws, a mission statement, complete stakeholder outreach, develop a watershed restoration plan,

and watershed management project design. For Phase I projects, Reclamation will award a successful applicant up to $50,000 per year for a period of up to two years with no non-Federal cost-share required.

Implementation of Watershed Management Projects THIS MIGHT BE FUNDING THAT COULD BE APPLIED FOR IN 2 YEARS, possibly for putting recharge ponds on allowed farmland in the north of the Valley. In 2017, Reclamation started to provide cost-shared financial assistance to watershed groups to implement watershed management projects (Phase II). These on-the-ground projects, collaboratively developed by members of a watershed group, address critical water supply needs and water quality concerns, helping water users meet competing demands and avoid conflicts over water. Reclamation will award up to $100,000 per project over a two-year period. For Phase II projects, applicants must contribute at least 50% of the total project costs.

FISCAL IMPACT
TBD

ATTACHMENT
1. None

BORREGO WATER DISTRICT
BOARD OF DIRECTORS MEETING
SEPTMBER 10, 2019
AGENDA ITEM II.B.1

September 6, 2019

TO: Board of Directors

FROM: Geoffrey Poole, General Manager

SUBJECT: Final GroundWater Sustainability Plan Availability - G Poole

RECOMMENDED ACTION:
Receive Staff report updating status of Final GSP, its availability and next step for Advisory Committee

ITEM EXPLANATION:
On the week of September 2, the County released the Final GroundWater Sustainability Plan (GSP) and it is available on the County website and soon on the BWDs. The last GSP Advisory Committee meeting is scheduled for October 4th at 10 AM at the Library in which a consensus vote will be held.

FISCAL IMPACT
TBD

ATTACHMENT
1. None

Why Rates Are What They Are

A Public Health & Economic Development View

DRAFT - for discussion purposes only

August 24, 2019

Some History

- service of providing public water supply is ~3,000 years old
- potentially, best ancient public water system was Rome's water system
- Rome operated, and maintained an elaborate 24x7 *always on* public water system. Built by slave labor
- when ancient Rome's power declined, its water system fell apart. The system was too expensive to operate and maintain (O&M costs)

HISTORICALLY, ADEQUATE *POTABLE SUPPLY* (FIT FOR HUMAN CONSUMPTION) HAS BEEN NECESSARY TO SUSTAIN PUBLIC HEALTH AND ECONOMIES ON WHICH HUMAN CIVILIZATION DEPENDS

Problems

Up until the modern era, public water systems were plagued by severe public health issues

Health Issues

until the later part of the 19th century, epidemics of typhoid fever, cholera, and other water borne diseases might kill as many as 10% of a community's population. Every few years a new pandemic could occur.

What Changed?

- separate sewer systems for waste disposal
- filtration of water supply
- addition of chlorine to public water supply
- treatment of wastewater before discharge into waterways

Changes Only for Some

- globally, water borne diseases are still the #1 annual cause of disease and death for humans
- more than famine; war; drug abuse, accidents; all other causes
- from 1900 to 1947, the lifespan of an average American increased from 47 to 63 years. 50% of this increase is attributed solely to the treatment of drinking water

Globally

- few countries in the world are able to afford a *24x7 positive pressure potable* water supply system
- many countries only supply public water for a few hours each day or a few days out of every week
- about 1/5th of the world's population still lacks ready access to *potable* water supply
- less people have access to a *public* wastewater system today than own or use mobile phones

Public Water Systems

- roughly 87% of the US population receives water for household use from *public water systems* – defined as those serving on average at least 25 people for at least 60 days per year.

- more than 150,000 of these *public water systems* exist in the United States in a range of sizes.

Drinking Water

- nationally, drinking water is delivered via one million miles of pipes. Many of those pipes were laid in the early to mid–20th century with a lifespan of 75 to 100 years. There are an estimated 240,000 water main breaks per year in the US, wasting over two trillion gallons of treated drinking water

- locally, BWD maintains over 100 miles of pipes and 9 production wells that supply drinking water to our homes and businesses

Borrego Water District

- BWD's pipes and wells are part of a *24 x7 positive pressure system* that supplies *potable* water to the District's customers

- by delivering *potable* water on demand to its customers, the District supports the public health and economic well-being of the community

Proposition 218

- both rates and rate structure must meet Proposition 218 *cost of service* requirements
- rates must produce *revenue sufficiency* that enables BWD to produce and deliver *potable* water to its customers
- *rate structure* determines who pays what amount for the amount of potable water they use
- the USEPA has set 4.5% of monthly household income as the US *affordability criteria* for combined water and wastewater services

State Law: Rates Must be "Revenue Sufficient"

- the replacement cost of the District's water, sewer & wastewater treatment systems is ~$62.5M
  - deferring replacement and repair (R&R) of this infrastructure too long or waiting until it is *broken* to fix can be 2x-3x more expensive than replacing at its economically useful life expectancy
  - from past boards deferring necessary R&R into the future (allowing assets to operate past their economically useful lives), today, the District is facing ~$15M-$20M in catch-up infrastructure R&R expenditures to keep its system in top (least economic cost) operating shape

State Law: Rates Must Support Public Health Requirements for Drinking Water

- 24x7 positive pressure *potable* water systems are expensive. If they are not maintained adequately and operated properly, people get sick
  - In April 1993, inadequate R&R budgeting caused 400,000 customers to became ill, 4,000 were hospitalized, and 100 people died from exposure to *cryptosporidium oocysts* in Milwaukee, WI's drinking water
  - In May 2000, inadequate O&M budgeting for an improperly abandoned well in Walkerton, Ontario, a town of 5,000, introduced *E coli 0157:H7* into the public water supply sickening 2,300. Hundreds were hospitalized and seven people died
  - In April 2014, a decision to cut Flint, Michigan's O&M budget caused widespread lead poisoning of children in Flint. Lead poisoning is an irreversible neurotoxin that interferes with the development of the nervous system in children, causing permanent learning and behavioral disorders. Additionally 10 people died from Legionnaires' disease amidst a surge in infections caused by the water-borne bacteria

Rates are Governed by Proposition 218 *Cost of Service* Requirements

- what rates presently cover are the *system service* costs that assure *potability* (fit for human consumption) of the water *delivered* directly to your home or business. These *system service* costs are covered by the *base rate*
- presently, the *delivery* costs for *potable* water delivered directly to your tap 24x7 are about $0.003/gallon. The highest tiered rates increase this cost to about $0.004/gallon. This cost is the *commodity charge rate*
- the *base rate* also pays for the District's fire protection system that enables homeowners and businesses to be insured for a reasonable cost. Without this fire protection system in place, fire insurance costs would go sky high
- until now, neither the base nor commodity rates have covered the *economic* cost of the water withdrawn from the groundwater basin. The water itself has been treated as a *free common pool resource*. SGMA changes this for all basin pumpers.

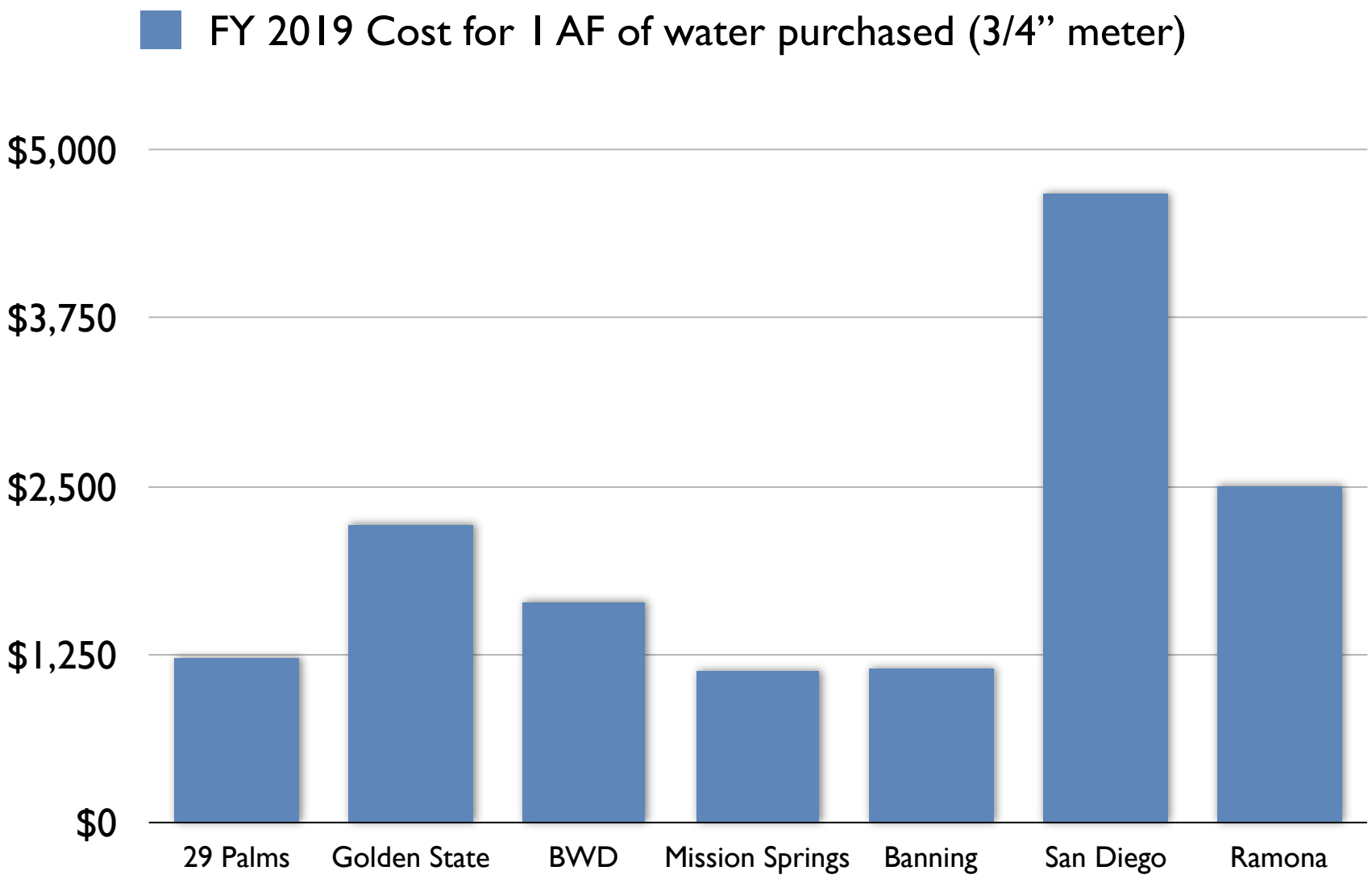
SGMA Changes the Cost of Groundwater

- today the cost of the groundwater itself is $0.00
- under the GSP, pumping fees will start out at ~$40/AF and increase to ~$140/AF (2019 $)
- the penalty for exceeding an annual pumping allocation under the GSP/Physical Solution will likely be ~$500/AF
- according to Dudek, based on US Bureau of Reclamation data, the *replacement cost* of an overdrafted AF is ~$1,600
- this *replacement cost* might be considered the *opportunity cost* of GW overdraft. That is the economic value of an AF lost forever by over pumping the subbasin

District *Cost of Service*

- from a *public health* perspective, the District's *costs of service* are largely non-discretionary. Costs are primarily driven by safe drinking water regulations and *potable* water supply economics

- from an *economic development* perspective, the District's *costs of service* are largely non-discretionary. Water quality and supply uncertainty harms *sustainable* economic development


FY 2019 Cost for 1 AF of water purchased (3/4" meter)
$5,000
$3,750
$2,500
$1,250
$0
29 Palms
Golden State
BWD
Mission Springs
Banning
San Diego
Ramona

2018 Average Monthly Municipal Water Cost

- the residential **cost of water** for a family of four using 150 gallons per person per day came to about $112 per month
- this **cost of water** is based on the average monthly water rates of 30 major U.S. cities between 2010 to 2018
- Atlanta, Georgia and Seattle, Washington have some of the highest water rates in the country at $325.52 and $309.72 average per month for a family of four, respectively
- largest 2018 monthly rate increases over 2017 in CA were: San Jose (17.8%); Fresno (15.4%); Los Angeles (13%)

Your Choice

- many, if not all, States require municipal water rates that meet *cost of service* criteria
- California may be the only State that allows ratepayers to vote on whether they want to pay for *potable* drinking water, which is a public health and economic development issue
- in CA today, there are ~1,000 communities who jeopardize public health by failing to support water rates required for *potable* drinking water (State Water Resources Control Board data published by NYT 7/24/19)

Affordability

- affordability is a growing Colorado River Basin regional, US national, and global issue
- in the US, the federal government used to pick up a large portion of water and wastewater capital costs through grants programs. This is no longer the case
- presently, no state has been willing to afford to replace the needed capital lost from cancelled federal programs
- in US, if water rates rise at projected amounts over the next five years, conservative projections estimate that the percentage of US households who will find water bills unaffordable could triple from around 11.9% to 35.6% of households
- a solution is NOT to spend less on water rates. Flint, MI is the poster child for this strategy. An attempt to save a few million $$ in annual O&M expenses caused ~$200M in additional CIP costs and ~$800M in additional public health expenses

BWD Rates Affordability Criteria

Table 3-3: Annual Water Bill as Percent of Household Income (FY 2025)

Income Range	Essential	Efficient	Target Average
	7 hcf	11 hcf	15 hcf
Less than $10,000	7.4%	9.2%	11.1%
$10,000 to $14,999	5.9%	7.4%	8.8%
$15,000 to $24,999	3.7%	4.6%	5.5%
$25,000 to $34,999	2.5%	3.1%	3.7%
$35,000 to $49,999	1.7%	2.2%	2.6%
$50,000 to $74,999	1.2%	1.5%	1.8%
$75,000 to $99,999	0.8%	1.1%	1.3%
$100,000 to $149,999	0.6%	0.7%	0.9%
$150,000 to $199,999	0.4%	0.5%	0.6%
$200,000 or more	0.4%	0.5%	0.6%
Median income (dollars)	2.4%	2.9%	3.5%
20th Percentile	4.3%	5.4%	6.5%
Poverty Level (3 person household)	3.6%	4.5%	5.4%

Private Wells

- disconnecting from municipal water service is not an answer
- USEPA estimates ~40% of private domestic water wells do not meet Minimum Contaminant Levels (MCLs) for *potable* drinking water standards
- re-drilling or moving private domestic wells is expensive
- the final GSP for the Borrego Springs Subbasin assumes some private wells may no longer be productive over the next 20-years and the residences may need to connect to municipal service

Bottled Water

- bottled water costs ~$0.85 to over $2.00/ gallon vs. pennies for municipal water
- bottled water is not regulated as to water quality. Some bottled water is as good as the best municipal water; some not as good. Some popular brands of bottled water are just re-filtered municipal water. Some brands of bottled water have been found with high levels of arsenic and other toxins
- bottled water does not substitute completely for *potable* municipal water. Polluted water should not be used for cooking, showers, or for landscape irrigation

Water Rates & Property Values

- water rate levels have little effect on property values compared to natural disasters, changes in mortgage interest rates, amount of foreclosures and crime; all which can have a material impact on property values

- however, water rates insufficient to assure reliable service or adequate supply are likely to produce material impacts on property values, as well as on economic development

- potentially one of the largest human-caused loss of property values may be due to the *public health impacts* of failing to reliably deliver *potable* water for municipal use (e.g. Flint, MI example)

Imported Water

- imported water is a two edged sword, not a panacea. Unless someone else pays for the pipeline, this is a nonstarter for Borrego
- imported water is expensive. Colorado River water is running $1,200-$3,000/AF delivered cost in CA today. This would be in addition to today's $1,400/AF BWD cost
- proponents of pipelines that would be paid for by others claim that *conjunctive use* (injecting and storing imported water in the basin) would fully subsidize imported water costs
- storing someone else's imported water in the basin would not alter SGMA's mandate for sustainable use of the basin. In fact, it is unlikely anyone wishing to store imported water in the basin would do so if the basin was being overdrafted

Imported Water

- depending on the quality of the imported water, injecting imported water into the basin could destroy the present water quality of the groundwater. This would result in additional BWD costs for advanced treatment to meet drinking water standards

- depending on the amount and frequency of imported water stored and withdrawn from the basin, the resulting rapid changes in water levels could ruin the structural integrity of the basin. This could result in compaction and subsidence. If this occurs, this would add millions of dollars in costs for the Borrego community

- during a drought, the availability of imported water may be curtailed. Climate change is increasing the frequency of droughts and lessening the dependability of access to imported water

Primary Water

- primary water is the deep water (if it exists in useful quantities) that results from *fracking* (hydraulic fracturing)
- fracked water is expensive; as much as $8,000 / AF
- fracking is highly polluting, using vast qualities of water that is turned into toxic waste
- fracking in a tectonically active area like Borrego's basin is not the smartest move. Fracking causes earthquakes

Politics of Water Quality - Lead as Example

- among the known health effects from low levels of exposure in children are lower IQ, slowed growth, behavior and learning problems, anemia, and hearing problems. Adults exposed to lead can suffer from: cardiovascular and reproductive problems (in both men and women), hypertension, decreased kidney function, etc.
- there is no safe level of lead, but the USEPA set a threshold back in 1990 of 15 parts per billion (ppb) -- the level at which regulators are supposed to step in and force *public water systems* to correct a contamination problem
- while Flint, Michigan's astronomically high lead levels -- some homes had more than 10,000 ppb in their water-- appear to be the worst case scenario, the city is not alone
- USEPA data collected by the NRDC reveals that a Utah water system serving 1,675 people had test results at 6,000 ppb. There are eight water systems in seven different states and territories with lead levels above 1,000 ppb. And 25 water systems with lead levels above 200 ppb
- currently, due to non-enforcement, there are over 5,000 *public water systems* in US not meeting lead MCL standards for drinking water. Newark, NJ's water system is one of the latest in the news.

Politics of Water Quality - Arsenic as Example

- arsenic in drinking water increases the risk of various types of cancer as well as vascular disease, cardiovascular disease, diabetes, and reproductive and developmental abnormalities
- an estimated 250 million - 1 billion people worldwide are exposed to unsafe arsenic concentrations in their public water
- the levels of arsenic in India & South America drinking water can contain as much as 1,800 ppb (>500 ppb continuous exposure produces an expected cancer mortality risk for about 1 in 10 people)
- China's arsenic standard for drinking water is 50 ppb (cancer mortality risk is as high as 1 in 100 for people regularly drinking water containing 50 ppb of arsenic)
- California MCL standard for drinking water is 10 ppb — the present USEPA standard; WHO present health guideline (US minimum detection limit for mandatory reporting is 2 ppb)
- Denmark and New Jersey have adopted 5 ppb MCL standard
- National Resources Defense Council (NRDC) recommends 3 ppb MCL standard for US drinking water
- recent European Union research suggests that 1 ppb standard is required for lower health risk - adopted by Netherlands
- best science today suggests future USEPA MCL standard should be 3 ppb — 5 ppb range

- current administration has weakened the Clean Water Act (the primary federal law in the United States governing water pollution), in force since 1972 by:
    - firing scientists,
    - cutting the USEPA's drinking water budget,
    - non-enforcement of current national MCL standards,
    - and failing to implement updated MCL standards based on today's best science already implemented in other countries
- states' drinking water enforcement agencies have not picked up the slack
- the chemical industry is annually spending hundreds of millions of dollars to lobby for less stringent regulations, less enforcement of current drinking water standards, and fighting against new regulations

BWD Response

- BWD has implemented a new Water Quality monitoring program as part of SGMA GSP implementation
- instead of monitoring WQ once every 3-years, WQ will now be monitored 2x every year
- instead of monitoring WQ only in BWD production wells, WQ will be monitored in a network of wells spread over the Borrego Springs Subbasin (where we get all municipal water supply)

Why WQ is potentially the #1 Cost Concern

- once GW is polluted, it is both extremely difficult and expensive to address
- current GW has no industrial chemicals; no pharmaceuticals. Current GW from BWD production wells is very high quality
- worst case for ratepayers is the need for BWD to apply advanced treatment to meet MCL standards
- worst case if advanced treatment is required for all BWD production wells is potentially $40M (capital and O&M costs during economically useful life of treatment plant)

Agricultural, Recreation & Septic Return Flows

- agricultural, recreation, and septic return flows are not recharge. They are viewed legally as consumptive use
- these return flows are not clean water. They are very likely highly polluted (non-potable) water
- some portion of today's return flows may reach the water table ~40-50 years from now
- that is, GW pollution from return flows occurring in recent years may not yet be detectable by traditional WQ testing methods

Water Stress

- *water stress* refers to the ability, or lack thereof, to meet human and ecological demand for water. *Water stress* means deterioration in both the quantity of available water and the quality

- due to Anthropogenic Climate Change and gross mismanagement of the resource, today about one quarter of the world's population (2 billion people) live in water stressed areas of the world

- "Water stress is the biggest crisis no one is talking about. Its consequences are in plain sight in the form of food insecurity, conflict and migration, and financial instability."
  Andrew Steer, president and CEO of the World Resources Institute

Land Use, Water Stress & Climate Disruption

- land provides the principal basis for human livelihoods and well-being including the supply of food, freshwater and multiple other ecosystem services, as well as biodiversity. Human use directly affects more than 70% of the global, ice-free land surface

- land is both a source and a sink of greenhouse gases (GHGs) and plays a key role in the exchange of energy, water and aerosols between the land surface and atmosphere. Land ecosystems and biodiversity are vulnerable to ongoing climate change and weather and climate extremes

- climate change can exacerbate land degradation processes including through increases in rainfall intensity, flooding, drought frequency and severity, heat stress, dry spells, wind, sea-level rise and wave action, and permafrost thaw

- climate change creates additional stresses on land productivity and water supply, exacerbating existing risks to livelihoods, biodiversity, human and ecosystem health, infrastructure, and food systems. Increasing impacts on land are projected under all future GHG emission scenarios. Some regions will face higher risks, while some regions will face risks previously not anticipated. Cascading risks with impacts on multiple systems and sectors will also vary across regions

Governance - Who Gets to Make What Decisions?

- the effectiveness of decision-making and governance is enhanced by the involvement of local stakeholders (particularly those most vulnerable to climate change) in the selection, evaluation, implementation and monitoring of policy instruments for land-based climate change adaptation and mitigation (*high confidence*)

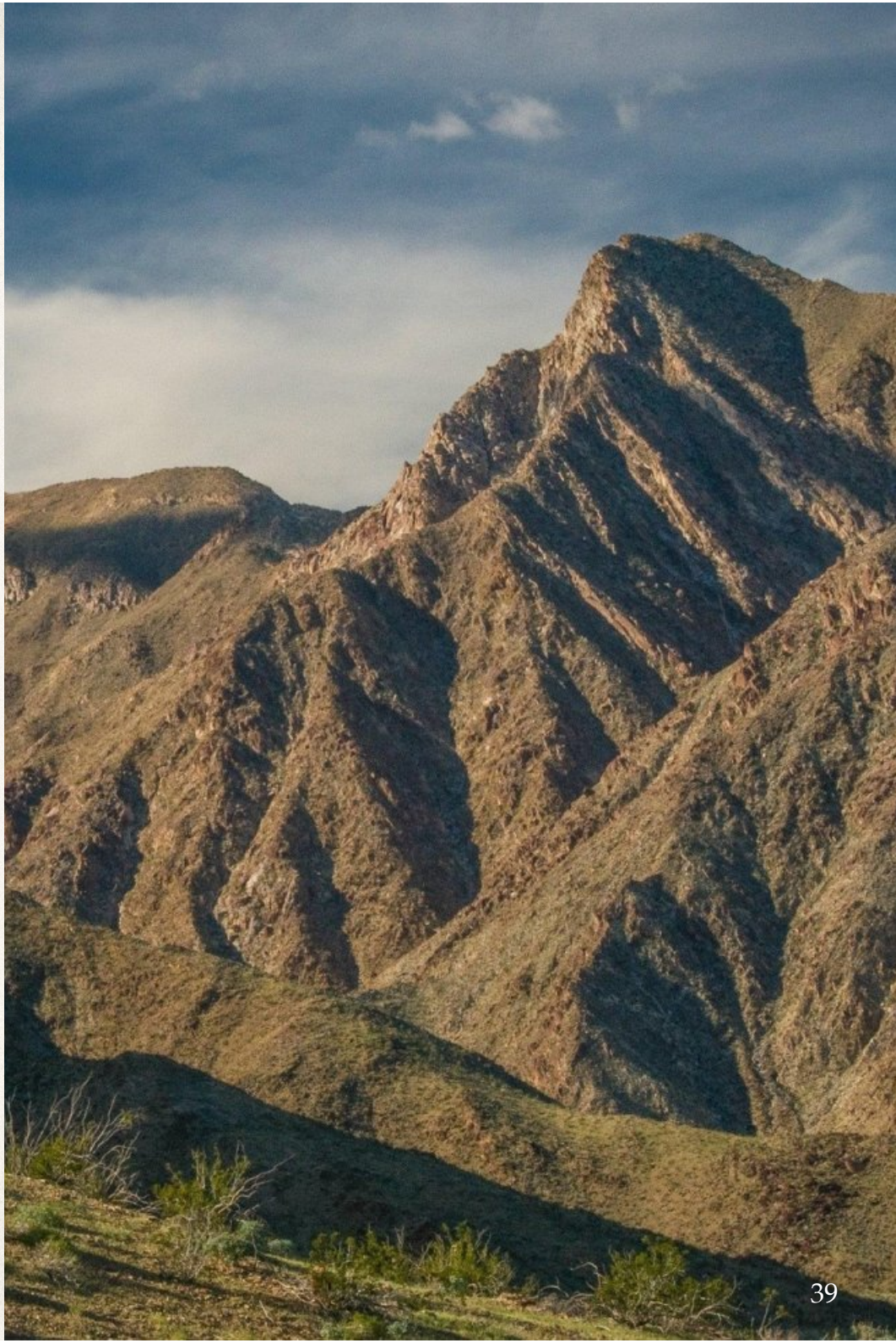
- actions can be taken in the near-term, based on existing knowledge, to address desertification, land degradation and food security while supporting longer-term responses that enable adaptation and mitigation to climate change. These include actions to build individual and institutional capacity, accelerate knowledge transfer, enhance technology transfer and deployment, enable financial mechanisms, implement early warning systems, undertake *risk management* and address gaps in implementation (*high confidence*)

Critical Overdraft

- in 1982, the USGS study for San Diego County, unequivocally found the Borrego Springs Subbasin was in *serious* overdraft
- between 1982 and 2015, little was done to physically reduce the overdraft other than more studies to determine if there actually was an overdraft. According to the USGS' 2015 study, overdraft more than doubled in this timeframe. By 2015, the overdraft had become *critical*
- SGMA defines *critical* overdraft as "when continuation of present water management practices would probably result in significant adverse overdraft-related environmental, social, or economic impacts"
- what that definition means in less hydrologic and diplomatic language is that system disruption or collapse is highly likely if not addressed in a timely fashion (*high confidence*). This disruption will most likely include a combination of deleterious environmental, social, and economic impacts

Managing the GW Basin

- sound basin management begins with a managed watershed
- most fortunately, the primary watersheds for the Borrego Springs Subbasin are in the Anza-Borrego Desert State Park
- what that means is that due to the Park's oversight, the water recharging the basin is of the highest quality; no industrial chemicals, pharmaceuticals, etc., the bane of many groundwater basins
- however, what is discharged by humans on the land (used crankcase oil, chemicals, toxins, etc.) will likely end up in the groundwater at some time
- thus, managing the basin must include proactive measures to prevent humans from contaminating the GW basin by what they put on the land



BORREGO WATER DISTRICT

May 28, 2019

TO: Ratepayers and Investors of the Borrego Water District

FROM: Geoff Poole, General Manager – BWD

SUBJECT: Strategic Objectives for FY 2019-2020

The Borrego Water District Board of Directors has identified the following Strategic Objectives for the Agency to be pursued during Fiscal Year 2019-2020 and beyond.

- Goal – Operate BWD finances to enhance the Financial Position/Creditworthiness of the Agency to allow for possible future BWD debt issuance: During the last decade the BWD Board/Staff have reversed the financial position of the Agency from one on the brink of possible bankruptcy to one that is now credit worthy. The impacts of this effort was recently realized with the issuance of $5.6 million in a private bond placement with Pacific Western Bank.

  Objective – Maintain water and sewer rates and reserve fund balances at levels that provide the required debt service coverages and other related economic factors. Monitor BWD Operations and Capital Planning to ensure all BWD expenditures are prudent and necessary.

- Goal – Implement the Groundwater Sustainability Plan (GSP) for the Borrego Springs Subbasin (Basin) with the best interest of BWD Ratepayers, the community and environment in mind: Status: The Draft GSP for the Basin has recently concluded the 60 day review process and approval is expected during FY 2019-2020.

  Objective – Numerous sections of the current GSP have impacts upon BWD Ratepayers, the community and the environment. As the Final Draft of the GSP is prepared and presented to the BWD Board for future action, the specific language of these sections will be closely evaluated to minimize the potential adverse impact to BWD ratepayers, the community and environment. Specific sections of the GSP include the Baseline Pumping Allocation which is the starting point from which future reductions are based. A BPA that reflects past water conservation is essential for BWD ratepayers. In addition, past investment made by BWD into farmland fallowing thru the purchase of farmland and issuance of water credits must be added to the BPA for BWD and all water credit holders. In

any future transaction, BWD will pay particular attention to the cost of future farmland pricing. To benefit the environment/Basin, reducing pumping as soon as possible in terms of timing/start date and quantity is an important component of the GSP. Last and definitely not least, consider all legal alternatives and make decisions based on the long term best interest of BWD that reduce the potential for prolonged adversarial adjudication.

BWD will seek partial or full reimbursement from local pumpers and State grant programs for its past GSP development expenses that to date include:

Legal	$ 300,716
Engineering/Finance	$ 147,000
BWD/AC	$ 115,000
AIR	$ 30,000
BOND	$ 28,000

- Goal – Commit the necessary resources to fund replacement of aging water and sewer infrastructure before catarstrophic failure. Status; The Board has provided the financial resources to fund the replacement of infrastructure thru the issuance of $5.6 million in BWD bonds. The Projects to be funded include replacement of aging water lines serving residential developments, fire hydrants and well related piping/electrical/pumping.

  Objective – Maintaining BWD's financial position for creditworthiness is also impacted by how the recent Bond financed Projects are constructed, in particular 85% of bond proceeds must be spent within 3 years of issuance, which in BWD's case is July 2021. Current projections for expenditures during FY 2018-19 is $935,000, FY 2019-20, $3,033,750 and FY 2020-21, $1,550,587.