Borrego Water District Board of Directors
Special Meeting
May 16, 2017 @ 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
Lyle Brecht will call in
D. Approval of Agenda
E. Comments from Directors
F. Comments from the Public and Requests for Future Agenda Items (limited to 3 minutes)

II. ITEMS FOR BOARD CONSIDERATION AND POSSIBLE ACTION

A. Consideration of the Approval of the Borrego Water District Debt Management Policies (3-27)

B. Resolution 2017-05-11 of the Board of Directors of the Borrego Water District, acting in its capacity as the Legislative Body of Community Facilities District No. 2007-1 (Montesoro) of the Borrego Water District, authorizing the issuance of the Community Facilities District No. 2007-1 (Montesoro) of the Borrego Water District Special Tax Refunding Bonds, Series 2017A in an aggregate principal amount not to exceed $1,100,000 for the purpose of defeasance and refunding a portion of the Series 2007 Special Tax Bonds of such community facilities district; approving the form of a Fiscal Agent Agreement and authorizing the direct sale of the Bonds to Considine Family Foundation and approving other related documents and actions. (28-38)

C. Resolution 2017-05-12 of the Board of Directors of the Borrego Water District, acting in its capacity as the Legislative Body of Borrego Water District Community Facilities District No. 2017-1, authorizing the issuance of the Borrego Water District Community Facilities District No. 2017-1 Special Tax Bonds, Series 2017B in an aggregate principal amount not to exceed $10,500,000, and the payment and discharge of a portion of the Community Facilities District No. 2017-1 (Montesoro) of Borrego Springs Series 2007 Special Tax Bonds, approving the form of a Fiscal Agent Agreement and authorizing the direct sale of the Bonds to Considine Family Foundation and approving other related documents and actions. (39-44)

D. Presentation and Discussion of Draft FY 2017-18 Budget – K Pittman (45-74)

E. Acceptance of BWD Wastewater Plant Tertiary Assessment Proposal – G Poole (75-109)

F. Acceptance of Flood Control Engineering Assessment at CFD 2007 & 2017 – G Poole (110-115)

G. Replacement of BWD Ratepayer Representative on the Borrego Valley Groundwater Sustainability Plan Advisory Committee – G. Poole (116-117)

III. INFORMATIONAL ITEMS (118-126)

A. BWD Board Agenda Development Schedule – G Poole

B. Borrego Springs Library/Sheriff's Station and Park Update – Verbal J. Tatusko

C. Demand Reduction Project: Swimming Pool Treatment – J. Tatusko (119-123)

D. BWD Event/Planning Calendar – G Poole (124-126)

IV. CLOSING PROCEDURE

A. Suggested Items for Next/Future Agenda
   i. Borrego Basin Groundwater Sustainability Plan Update

B. The next Meeting of the Board of Directors is scheduled for May 24, 2017 at 9 am at the Borrego Water District Office 806 Palm Canyon Dr, Borrego Springs CA 92004

Teleconference site available at 421 Vista de la Playa Santa Barbara, CA 93109

BORREGO WATER DISTRICT

BOARD OF DIRECTORS MEETING – MAY 16, 2017

AGENDA BILL II.A thru C

May 12, 2017

TO: Board of Directors, Borrego Water District

FROM: Geoff Poole, General Manager

SUBJECT: Adoption of Various Documents Relating to CFD 2017-01

RECOMMENDED ACTION: SEE AGENDA, FOR SPECIFIC LANGUAGE Summary below:

A. Approval of the Borrego Water District Debt Management Policies

B. Resolution 2017-05-11authorizing the issuance of the Community Facilities District No. 2007-1 (Montesoro) of the Borrego Water District Special Tax Refunding Bonds, Series 2017A in an aggregate principal amount not to exceed $1,100,000

C. Resolution 2017-05-12 authorizing the issuance of the Borrego Water District Community Facilities District No. 2017-1 Special Tax Bonds, Series 2017B in an aggregate principal amount not to exceed $10,500,000

ITEM EXPLANATION
Bond Counsel Warren Diven has developed the attached staff report to describe the proposed actions.

FISCAL IMPACT
No direct fiscal impact from this action. All expenses are to be reimbursed by T2

ATTACHMENTS: Will be added to Final Draft of Packet. Documents currently under development by Bond Counsel and review by Bond Committee (Brecht/Ehrlich))

DEBT POLICY
1. Bond Counsel Diven Staff Report on Debt Policy
2. Draft Debt Management Policy

BOND RESOLUTIONS
3. Bond Counsel Diven Staff Report on proposed actions
4. Resolution 2017-05-11 authorizing the issuance of the Series 2017A in an aggregate principal amount not to exceed $1,100,000 and Fiscal Agent Agreements
5. Resolution 2017-05-12 authorizing the issuance Series 2017 B in an aggregate principal amount not to exceed $10,500,000, to Considine Family Foundation and approving other related documents and actions and Fiscal Agent Agreement.

NOTE: Copies of the Fiscal Agent Agreements for each of the above referenced bond issues will be available at the Reception Desk at the BWD Offices during normal business hours.

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(760) 568-2611
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(949) 263-2600
Los Angeles
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Partner
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Memorandum

To: President and Board of Directors, Borrego Water District

From: Warren B. Diven

Date: May 16, 2017

Re: Board of Directors Meeting May 16, 2017

Background.

Senate Bill 1029, enacted by the signature of Governor Brown on September 12, 2016, amends Government Code Section 8855 ("Section 8885") to place additional reporting obligations on issuers of public debt in California. Effective January 1, 2017, issuers must certify that they have adopted local debt policies concerning the use of debt and that the proposed debt issuance is consistent with those policies.

An issuer's local debt policies must include the following:

(a) The purposes for which the debt proceeds may be used.

(b) The types of debt that may be issued.

(c) The relationship of the debt to, and integration with, the issuer's capital improvement program or budget, if applicable.

(d) Policy goals related to the issuer's planning goals and objectives.

(e) The internal control procedures that the issuer has implements, or will implement, to ensure that the proceeds of the proposed debt issuance will be directed to the intended use.

Although the failure to certify the adoption of such debt policies will not invalidate the issuance of bonds for which such certification cannot be given, we recommend that the Board of Directors adopt such debt policies before taking action to authorize the issuance of the Community Facilities District No. 2007-1 (Montesoro) of the Borrego Water District Special Tax Refunding Bonds, 2017A and the Borrego Water District Community Facilities District No. 2017-1 Special Tax Bonds, Series 2017B.

The proposed Borrego Water District Debt Management Policy (the "BWD Policy") are substantially patterned after model debt management policies prepared by the California Special Districts Association (the "CSDA Model Policies"). These policies appear to fit the debt needs of the District quite well. The only change that we have recommended pertains to the language in the CSDA Model Policies that states the issuer will periodically review the requirements of and will remain in compliance with continuing disclosure requirements imposed by the Securities and Exchange Commission (the "SEC") and post issuance tax compliance requirements imposed by the Internal Revenue Service (the "IRS") with respect to tax-exempt debt. Both the SEC and the IRS are strongly encouraging issuers to adopt specific policies relating these subjects (The IRS requires that an issuer indicate whether or not it has adopted tax compliance policies when the issuer submit an informational filing at the close of any tax-exempt bond issue. The SEC has indicted that it will look to see if an issuer has adopted disclosure policies when investigating any disclosure issues.) As a result we have added specific post issuance tax compliance policies and post issuance disclosure policies at exhibits to the BWD Policy.

We would recommend that when the District engages a municipal advisor to assist in establishing a debt issuance plan for the District that the municipal advisor be asked to review the BWD Policy in conjunction with the establishment of the debt issuance plan to ensure that the plan and the BWD Policy are consistent.

I will be happy to address any questions that the Board may have regarding the BWD Policy at the Board meeting.

cc: Geoff Poole, General Manager

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BORREGO WATER DISTRICT DEBT MANAGEMENT POLICY

This Debt Management Policy (the "Debt Policy") of the BORREGO WATER DISTRICT (the "District") was approved by the Board of Directors of the District on May 16, 2017. The Debt Policy may be amended by the Board of Directors of the District from time to time as it deems appropriate in order to prudently manage the debt of the District.

This Debt Policy will also apply to any debt issued by any other public agency for which the Board of Directors of the District acts as its legislative body.

The Debt Policy has been developed to provide guidance in the issuance and management of debt by the District or its related entities and is intended to comply with section 8855(i) of the California Government Code effective on January 1, 2017. The main objectives are to establish conditions for the use of debt, to ensure that debt capacity and affordability are adequately considered, to minimize the District's interest and issuance costs, to maintain the highest possible credit profile, to provide complete financial disclosure and reporting, and to maintain financial flexibility for the District.

Debt, properly issued and managed, is a critical element in any financial management program. It assists in the District's effort to allocate limited resources and to provide the highest quality of service to the public. The District understands that a properly managed debt program promotes economic growth and enhances the vitality of the District for its residents and businesses. On the other hand, poor debt management can have ripple effects that hurt other areas of the District.

1. Findings

This Debt Policy shall govern all debt undertaken by the District. The District hereby recognizes that a fiscally prudent debt policy is required in order to:

- Maintain the District's sound financial position.
- Ensure the District has the flexibility to respond to changes in future service priorities, revenue levels, and operating expenses.
- Protect the District's credit-worthiness.
- Ensure that all debt is structured in order to protect both current and future taxpayers, ratepayers and constituents of the District.

- Ensure that the District's debt is consistent with the District's planning goals and objectives and capital improvement program or budget, as applicable.

- Encourage those that benefit from a facility/improvement to pay the cost of that facility/improvement without the need for the expenditure of limited general fund resources.

2. Policies

A. Purposes For Which Debt May Be Issued

The District will consider the use of debt financing primarily for capital improvement projects ("CIP") when the project's useful life will equal or exceed the term of the financing and when resources are identified sufficient to fund the debt service requirements. An exception to this CIP driven focus is the issuance of short-term instruments such as tax and revenue anticipation notes, which are to be used for prudent cash management purposes and conduit financing, as described below. Bonded debt should not be issued for projects with minimal public benefit or support, or to finance normal operating expenses.

If a department has any project which is expected to use debt financing, the department director is responsible for expeditiously providing the General Manager and the Finance Director with reasonable cost estimates, including specific revenue accounts that will provide payment for the debt service. This will allow an analysis of the project's potential impact on the District's debt capaDistrict and limitations. The department director shall also provide an estimate of any incremental operating and/or additional maintenance costs associated with the project and identify sources of revenue, if any, to pay for such incremental costs.

(i) Long-Term Debt. Long-term debt may be issued to finance or refinance the construction, acquisition, and rehabilitation of capital improvements and facilities, equipment and land to be owned and/or operated by the District.

(a) Long-term debt financings are appropriate when the following conditions exist:

- When the project to be financed is necessary to provide basic services.

- When the project to be financed will provide benefit to constituents over multiple years.

- When total debt does not constitute an unreasonable burden to the District and its taxpayers and ratepayers.

- When the debt is used to refinance outstanding debt in order to produce debt service savings or to realize the benefits of a debt restructuring.

(b) Long-term debt financings will not generally be considered appropriate for current operating expenses and routine maintenance expenses.

(c) The District may use long-term debt financing subject to the following conditions:

- The project to be financed has been or will be approved by the Board of Directors of the District.

- The weighted average maturity of the debt (or the portion of the debt allocated to the project) will not exceed the average useful life of the project to be financed by more than 20%, unless specific conditions exist that would mitigate the extension of time to repay the debt and it would not cause the District to violate any covenants to maintain the tax-exempt status of such debt, if applicable. • The District estimates that sufficient income or revenues will be available to service the debt through its maturity.

- The District determines that the issuance of the debt will comply with the applicable requirements of state and federal law.

- The District considers the improvement/facility to be of vital, time- sensitive need of the community.

(d) Periodic reviews of outstanding long-term debt will be undertaken to identify refunding opportunities. Refunding will be considered (within federal tax law constraints, if applicable) if and when there is a net economic benefit of the refunding. Refundings which are non-economic may be undertaken to achieve District objectives relating to changes in covenants, call provisions, operational flexibility, tax status of the issuer, or the debt service profile.

In general, refundings which produce a net present value savings of at least four (4) percent of the refunded debt will be considered economically viable. Refundings which produce a net present value savings of less than four (4) percent or negative savings will be considered on a case-by-case basis, and are subject to approval by the Board of Directors of the District.

(ii) Short-term debt. Short-term borrowing may be issued to generate funding for cash flow needs in the form of Tax and Revenue Anticipation Notes ("TRAN").

Short-term borrowing, such as commercial paper, and lines of credit, will be considered as an interim source of funding in anticipation of long-term borrowing. Short-term debt may be issued for any purpose for which long-term debt may be issued, including capitalized interest and other financing-related costs. Prior to issuance of the short-term debt, a reliable revenue source shall be identified to secure repayment of the debt. The final maturity of the debt issued to finance the project shall be consistent with the economic or useful life of the project and, unless the Board of Directors of the District determines that extraordinary circumstances exist, must not exceed seven (7) years.

Short-term debt may also be used to finance short-lived capital projects; for example, the District may undertake lease-purchase financing for equipment, and such equipment leases may be longer than 7 years.

(iii) Financings on Behalf of Other Entities. The District may also find it beneficial to issue debt on behalf of other governmental agencies or private third parties in order to further the public purposes of District. In such cases, the District shall take reasonable steps to confirm the financial feasibility of the project to be financed and the financial solvency of any borrower and that the issuance of such debt is consistent with the policies set forth herein. In no event will the District incur any liability or assume responsibility for payment of debt service on such debt.

B. Types of Debt

In order to maximize the financial options available to benefit the public, it is the policy of the District to allow for the consideration of issuing all generally accepted types of debt, including, but not exclusive to the following:

- General Obligation (GO) Bonds: General Obligation Bonds are suitable for use in the construction or acquisition of improvements to real property that benefit the public at large. Examples of projects include libraries, parks, and public safety facilities. All GO bonds shall be authorized by the requisite number of voters in order to pass.

- Revenue Bonds: Revenue Bonds are limited-liability obligations tied to a specific enterprise or special fund revenue stream where the projects financed clearly benefit or relate to the enterprise or are otherwise permissible uses of the special revenue. An example of projects that would be financed by a Revenue Bond would be improvements to a water system, which would be paid back with money raised from the rates and charges to water users.

Generally, no voter approval is required to issue this type of obligation but in some cases, the District must comply with proposition 218 regarding rate adjustments.

- Lease-Backed Debt/Certificates of Participation (COP/Lease Revenue Bonds): Issuance of Lease-backed debt is a commonly used form of debt that allows a District to finance projects where the debt service is secured via a lease agreement and where the payments are budgeted in the annual budget appropriation by the District from the general fund. Lease-Backed debt does not constitute indebtedness under the state or the District's constitutional debt limit and does not require voter approval.

- Special Assessment/Community Facilities District Debt: The District will consider requests from developers for the use of debt financing secured by property based assessments or special taxes in order to provide for necessary infrastructure for new development only under strict guidelines adopted by the Board of Directors of the District, which may include minimum value-to-lien ratios and maximum tax burdens. Examples of this type of debt are Assessment Districts (AD) and Community Facilities Districts (CFD) or more commonly known as Mello-Roos Districts. In order to protect bondholders as well as the District's credit rating, the District will also comply with all State guidelines regarding the issuance of special district or special assessment debt, as well as any policy required to be adopted under Government Code Section 53312.7.

The District may from time to time find that other forms of debt would be beneficial to further its public purposes and may approve such debt without an amendment of this Debt Policy.

To maintain a predictable debt service burden, the District will give preference to debt that carries a fixed interest rate. An alternative to the use of fixed rate debt is variable rate debt. The District may choose to issue securities that pay a rate of interest that varies according to a pre-determined formula or results from a periodic remarketing of securities. When making the determination to issue bonds in a variable rate mode, consideration will be given in regards to the useful life of the project or facility being financed or the term of the project requiring the funding, market conditions, credit risk and third party risk analysis, and the overall debt portfolio structure when issuing variable rate debt for any purpose.

C. Relationship of Debt to Capital Improvement Program and Budget

The District intends to issue debt for the purposes stated in this Debt Policy and to implement policy decisions incorporated in the District's capital budget and the capital improvement plan.

The District shall strive to fund the upkeep and maintenance of its infrastructure and facilities due to normal wear and tear through the expenditure of available operating revenues.

The District shall integrate its debt issuances with the goals of its capital improvement program by timing the issuance of debt to ensure that projects are available when needed in furtherance of the District's public purposes.

The District shall seek to issue debt in a timely manner to avoid having to make unplanned expenditures for capital improvements or equipment from its general fund.

D. Policy Goals Related to Planning Goals and Objectives

The District is committed to financial planning, maintaining appropriate reserves levels and employing prudent practices in governance, management and budget administration. The District intends to issue debt for the purposes stated in this Debt Policy and to implement policy decisions incorporated in the District's annual operating budget.

It is a policy goal of the District to protect taxpayers, ratepayers and constituents by utilizing conservative financing methods and techniques so as to obtain the highest practical credit ratings (if applicable) and the lowest practical borrowing costs.

The District will comply with applicable state and federal law as it pertains to the maximum term of debt and the procedures for levying and imposing any related taxes, assessments, rates and charges.

Except as described in Section 2.A., when refinancing debt, it shall be the policy goal of the District to realize, whenever possible, and subject to any overriding non-financial policy considerations minimum net present value debt service savings equal to or greater than 4% of the refunded principal amount.

E. Internal Control Procedures

When issuing debt, in addition to complying with the terms of this Debt Policy, the District shall comply with any other applicable policies regarding initial bond disclosure, continuing disclosure, post-issuance compliance, and investment of bond proceeds.

The District will adhere to the post issuance tax compliance and disclosure compliance policies attached hereto as Exhibits A and B, respectively.

Whenever reasonably possible, proceeds of debt will be held by a third-party trustee and the District will submit written requisitions for such proceeds. The District will submit a requisition only after obtaining the signature of the General Manager or the Finance Director.

F. Waivers of Debt Policy

There may be circumstances from time to time when strict adherence to a provision of this Debt Policy is not possible or in the best interests of the District and the failure of a debt financing to comply with one or more provisions of this Debt Policy shall in no way affect the validity of any debt issued by the District in accordance with applicable laws.

EXHIBIT A

POST ISSUANCE TAX COMPLIANCE POLICIES

DEFINITIONS

District shall mean the Borrego Water District and its successors and assigns.

Bond Compliance Officer shall mean the General Manager of the District.

Bond Committee shall mean the committee of the Board of Directors of the District responsible for overseeing the implementation of the Debt Management Policy including the Post Issuance Tax Compliance Policies.

Bond Counsel shall mean counsel with experience in matters relating to the issuance of obligations by or on behalf of states or local governmental units who shall be acceptable to the District.

Code shall mean the Internal Revenue Code of 1986, as amended, and regulations, rulings and notices issued thereunder or applicable thereto.

Investment Property shall have the meaning assigned in the Code.

Tax Certificate and Agreement shall mean the Tax Certificate and Agreement, or non-arbitrage certificate, delivered by the Board with respect to any Tax-Exempt Bonds.

Tax-Exempt Bonds shall mean all bonds issued by the District the interest on which is excludable from gross income for federal income tax purposes under Section 103 of the Code.

1. PURPOSE

The purpose of this Policy is to establish procedures for compliance of Tax-Exempt Bonds with the Code.

2. POLICY

The District understands that:

(a) Tax-Exempt Bonds must be issued in compliance with the Code on the date of issuance thereof;

(b) the District will deliver a Tax Certificate and Agreement on the date of issuance of any Tax-Exempt Bonds which shall set forth certain facts and expectations of the District, and certain covenants undertaken by the District, with respect to compliance of such bonds with the requirements of the Code;

(c) the opinion of Bond Counsel with respect to any Tax-Exempt Bonds shall be subject to the condition the District comply with all requirements of the Code that must be satisfied subsequent to the issuance of such bonds in order that interest on such bonds be, or continue to be, excludable from gross income for federal income tax purposes;

(d) the District shall covenant, with respect to any Tax-Exempt Bonds, in the Tax Certificate and Agreement with respect to such bonds, and in the documents and proceedings under which such bonds are issued, to comply with all such requirements;

(e) failure to comply with the requirements of the Code with respect to any Tax-Exempt Bonds may cause interest on such bonds to lose the tax-exempt status thereof, retroactive to the date of issuance of such bonds, with resulting higher interest costs to the District.

The District has adopted this Policy to provide for full and continuing compliance by the District with the requirements of the Code with respect to all Tax-Exempt Bonds.

3. DETERMINATION OF ISSUANCE AND PURPOSE OF TAX-EXEMPT BONDS

A. General

The Bond Committee and the Bond Compliance Officer shall determine and recommend to the Board of Directors of the District the purposes for which the District shall issue Tax-Exempt Bonds, which shall include:

(1) the refunding of existing bonds,

(2) the acquisition and construction of capital improvements to the facilities of the District,

(3) the payment of expenses of issuance, credit enhancement and professional fees in connection with such bonds, and

(4) such other purposes as may be permitted by law.

5. ENGAGEMENT OF PROFESSIONAL ADVISORS

The Bond Committee shall recommend to the Board of Directors of the District, for each issue of Tax-Exempt Bonds, the engagement of Bond Counsel, Municipal Advisor and Underwriter.

The Municipal Advisor and Underwriter may, but are not required to, be the same person or entity.

The final engagement of Bond Counsel, Municipal Advisor and Underwriter shall be approved and made by the Board of Directors of the District.

6. RESPONSIBILITIES OF PERSONS: GENERAL

The Bond Committee and the Bond Compliance Officer are responsible for, and will ensure, compliance of all Tax-Exempt Bonds with the Code.

7. RESPONSIBILITIES OF PERSONS: INITIAL ISSUANCE OF TAX-EXEMPT BONDS

A. Bond Committee and Bond Compliance Officer

The Bond Committee and the Bond Compliance Officer shall, upon advice of Bond Counsel and Municipal Advisor, determine and recommend to the Board of Directors of the District the amount, purpose, structure, and terms of each issue of Tax-Exempt Bonds.

For each issue of Tax-Exempt Bonds the Bond Compliance Officer will obtain and retain a Bond transcript containing the documents and proceedings that establish the validity and tax-exempt status of the bonds.

B. Bond Counsel

The District shall rely upon the opinion of Bond Counsel regarding compliance of Tax-Exempt Bonds with state and federal law.

C. District Counsel

The District shall rely upon the advice and opinion of counsel to the District regarding compliance by the District with internal documents and policies (including without limitation the certificate of incorporation, contracts, conduct and notice of meetings, qualifications of officers and directors), and the effect, if any, of pending litigation affecting the District, respecting the issuance of Tax-Exempt Bonds.

D. Municipal Advisor

The District shall rely upon the advice of the Municipal Advisor regarding the structure and credit enhancement of Tax-Exempt Bonds, including without limitation the following:

(1) terms of redemption,

(2) timing of sale,

(3) credit enhancement,

(4) determination of issue price of bonds,

(5) structure and investments for escrow of proceeds of Tax-Exempt Bonds allocable to advance refunding of outstanding bonds.

7. RESPONSIBILITIES OF PERSONS: POST-ISSUANCE COMPLIANCE OF TAX-EXEMPT BONDS

A. Bond Compliance Officer

The Bond Committee and the Bond Compliance Officer shall ensure the District complies with all requirements of the Code that must be satisfied subsequent to the issuance of any Tax-Exempt Bonds in order that interest thereon remain tax-exempt.

The Bond Compliance Officer is authorized and directed to consult with, and engage, Bond Counsel, and Municipal Advisors and accountants and rebate consultants, for such purposes.

B. Annual Review

The Bond Committee and the Bond Compliance Officer will meet annually, in conjunction with the preparation of the annual audit of the financial statements of the District, to review the Tax Certificate and Agreement for, and to determine and verify continuing compliance of, all Tax-Exempt Bonds with the Code.

C. Use of Bond Proceeds

The Bond Compliance Officer and the Finance Director and other appropriate District personnel shall:

- Monitor the use of debt proceeds and the use of debt-financed assets (e.g., facilities, furnishings or equipment) throughout the term of the debt (and in some cases beyond the term of the debt) to ensure compliance with covenants and restrictions set forth in applicable District resolutions, debt documents and Tax Certificate and Agreement;

- Maintain records identifying the assets or portion of assets that are financed or refinanced with proceeds of each bond issue;

- Employ appropriate internal controls and redundancy of review to ensure all approved contracts and expenditures are consistent with the terms of the debt documents by following the District's established work flow procedures;

- Consult with Bond Counsel and other professional expert advisers in the review of any contracts or arrangements involving use of debt-financed facilities to ensure compliance with all covenants and restrictions set forth in applicable District resolutions, debt documents and Tax Certificate and Agreement;

- Maintain records for any contracts or arrangements involving the use of debt-financed facilities as might be necessary or appropriate to document compliance

with all covenants and restrictions set forth in applicable District resolutions, debt documents and Tax Certificate and Agreement; and

Meet at least annually with personnel responsible for debt-financed assets to identify and discuss any existing or planned use of debt-financed assets to ensure that those uses are consistent with all covenants and restrictions set forth in applicable District resolutions, debt documents and Tax Certificate and Agreement.

C. Compliance Reports

The Bond Compliance Officer shall maintain the following records and reports with respect to each issue of Tax-Exempt Bonds:

(1) Allocation of Proceeds for Facilities, as provided on Exhibit A.

(2) Private Use Analysis, as provided on Exhibit B, for each fiscal year, with respect to agreements or arrangements made by the District with any nongovernmental or private person (meaning any person who is not a state or local governmental unit) with respect to use of any facilities financed by Tax-Exempt Bonds.

(3) Fund Reconciliation, as provided on Exhibit C, for each fiscal year, for each fund or account established for such bonds and containing the proceeds of such bonds or amounts reasonably expected to be used to pay principal of or interest on such bonds, setting forth the dates and amounts of deposits and expenditures therefor, which report may be maintained and provided by the trustee or paying agent for such bonds.

D. Rebate

The Bond Compliance Officer shall, with respect to each issue of Tax-Exempt Bonds, furnish to the trustee or fiscal agent for such bonds, within 60 days after the end of each fiscal year of the District:

(1) an opinion of Bond Counsel or a report by an independent accountant stating in effect the aggregate accrued, but unpaid, rebate liability under Section 148(f) of the Internal Revenue Code as of the end of such fiscal year with respect to such bonds, or

(2) evidence that as of such date, the District has made all rebate payments to the United States Treasury Department necessary to prevent such bonds from being "arbitrage bonds" under Section 148(f) of the Code (including a copy of all forms or other documents filed with the United States Treasury Department for such purpose and any report, opinion or other document that contains the supporting conclusions and calculations).

E. Reissuance; Change in Use

The Bond Compliance Officer shall identify, and consult with Bond Counsel as to the effect of, any of the following, with respect to each issue of Tax-Exempt Bonds, which occurs subsequent to the issuance of such bonds:

(1) any change to the terms of such bonds;

(2) any change in the use of any facilities financed or refinanced by such bonds.

8. RETENTION OF RECORDS

The Bond Compliance Officer shall maintain, with respect to each issue of Tax-Exempt Bonds, in paper or electronic format, until three (3) years after the term of such bonds, and all related refunding bonds of all series, shall have been paid and retired, the following:

(1) Bond transcript (including without limitation Tax Certificate and Agreement and Form 8038G),

(2) Rebate reports,

(3) Compliance Reports, prepared in accordance herewith,

(4) Trustee or fiscal agent reports,

(5) Bond Counsel advice,

(6) Agreements with any nongovernmental users of facilities financed or refinanced with the proceeds of such bonds,

(7) Escrow Verification Reports, and

(8) Documents relating to bidding procedures for any Investment Property.

X. CORRECTIVE AND REMEDIAL ACTION

The Bond Compliance Officer shall, upon the determination or identification of any noncompliance with, or violation of, the Code with respect to any issue of Tax-Exempt Bonds, upon consultation with Bond Counsel and counsel for the District, cause corrective or remedial action to be taken by the District, in accordance with:

(1) applicable regulations under the Code; and

(2) the Tax-Exempt Bonds Voluntary Closing Agreement Program of the Internal Revenue Service.

Exhibit A

Allocation of Proceeds to Facilities

Series of Bonds: Series _____

Date of Issue: _____

Amount of Proceeds	Allocation to Facilities Financed or Refinanced[1]	Date Placed in Service	Original Economic Life[2]

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[1] The Bond Compliance Officer shall take into account:

(a) a single facility may be financed by multiple bond issues;

(b) a single bond issue may finance multiple facilities;

(c) the proceeds of refunding bonds shall be allocated to the facilities originally financed by the refunded bonds on a pro-rata basis.

[2] That portion of an issue of Tax-Exempt Bonds (including a refunding issue) used to finance or refinance capital projects should not have a weighted average maturity greater than the remaining reasonably expected economic life of such capital projects.

Exhibit B

Private Use Analysis for Fiscal Year Ending _____

_____

Series of Bonds: Series _____

Date of Issue: _____

Asset or Facility	Allocable Proceeds of Tax-Exempt Bonds	Description of Private Use[1]	Proceeds Allocable to Private Use

_____

[1] Private Use is use of property by any person who is not a state or local government unit in the trade or business thereof, unless the property is intended to be, and is in fact, reasonably available for use on the same basis by natural persons not engaged in a trade or business.

Private Use may occur by reason of lease or license agreement, management agreement, take or pay contract, sale agreement, or other legal entitlement or special arrangement for use of facility or output or services of a facility.

Use as a member of the general public is not private use.

Exhibit C

Bond Proceeds Fund

_____

Series of Bonds: Series _____

Date of Issue: _____

Date	**Credit or Deposit**[1]	**Disbursement or Expenditure**	**Total after 6 Months**[2]	**Total after 18 Months**[3]	**Total after 24 Months**[4]	**Total after 36 Months**[5]
Totals	$_____	$_____	$_____[2]	$_____[3]	$_____[4]	$_____[5]

_____

[1] Deposits of funds and credit of investment earnings

[2] 6 Months Total ÷ Total Credits and Deposits: _____%

[3] 18 Months Total ÷ Total Credits and Deposits: _____%

[4] 24 Months Total ÷ Total Credits and Deposits: _____%

[5] 36 Months Total ÷ Total Credits and Deposits: _____%

Bond Fund or Account

_____

Series of Bonds: Series _____

Date of Issue: _____

Bond Year: _____

Date	Credit or Deposit[1]	Disbursement or Expenditure	Balance at Beginning of Bond Year	Balance at End of Bond Year[2]

_____

[1] Deposits of funds and credit of investment earnings.

[2] Not to exceed the greater of (1) earnings on such fund for immediately preceding bond year or (2) 1/12th of principal and interest payments on the Bonds for the immediately preceding bond year.

Reserve Fund or Account

_____

Series of Bonds: Series _____

Date of Issue: _____

Fiscal Year: _____

Date	Credit or Deposit[1]	Disbursement or Expenditure	Balance at Beginning of Fiscal Year	Balance at End of Fiscal Year	Permitted Maximum Amount for Reserve Fund[2]

EXHIBIT B

POST ISSUANCE DISCLOSURE COMPLIANCE

These disclosure policies and procedures are intended to (a) ensure that the District complies with federal securities laws as they relate to initial disclosure, (b) ensure that the District's Continuing Disclosure Documents (as defined below) are accurate and comply with all applicable federal and state securities laws, and (c) promote best practices regarding the preparation of the District's initial disclosure documents and Continuing Disclosure Documents.

Definitions

1. "Continuing Disclosure Documents" means (a) annual continuing disclosure reports filed with the MSRB and (b) event notices and any other filings with the MSRB.

2. "EMMA" means the MSRB's Electronic Municipal Market Access website.

3. "MSRB" means the Municipal Securities Rulemaking Board.

4. "Official Statements" means preliminary and final official statements, private placement memoranda and remarketing memoranda relating to the District's securities, together with any supplements, for which a continuing disclosure obligation is required.

Disclosure Working Group

Composition. The Disclosure Working Group consists of the General Manager, who is designated as the Chief Disclosure Officer, the Finance Director, who is the Disclosure Coordinator and other internal District staff that are pertinent to the disclosures. The General Manager has general oversight over the entire continuing disclosure process. Membership in the Disclosure Working Group shall be augmented by the Finance Director and consist of persons relevant to the disclosure process.

The Disclosure Working Group shall consult with external professionals (such as those with expertise as bond counsel, tax counsel, disclosure counsel and municipal advisor) or other interested parties as the Disclosure Working Group determine is advisable related to continuing disclosure issues and practices. Meetings of the Disclosure Working Group may be held in person or via conference call.

The Disclosure Working Group is an internal working group of District staff.

Responsibilities. The Disclosure Working Group is responsible for:

a. Reviewing and approving all Preliminary and Final Official Statements before such documents are posted;

b. Reviewing and approving all continuing disclosure undertakings as contained in the District's Preliminary and Final Official Statements before such documents are posted;

c. Reviewing annually the District's status and compliance with continuing disclosure undertakings including filings of Annual Reports and Notices of Listed Events;

d. Reviewing any items referred to the Disclosure Working Group; and

e. Evaluating the effectiveness of this Disclosure Policy.

Official Statements.

The Disclosure Coordinator of the District shall review any Official Statement prepared in connection with any debt issuance by the District in order to ensure there are no misstatements or omissions of material information in any sections that contain descriptions of information prepared by the District.

In connection with its review of the Official Statement, the Disclosure Coordinator shall consult with third parties, including outside professionals assisting the District, and all members of District staff, to the extent that the Disclosure Coordinator concludes they should be consulted so that the Official Statement will include all "material" information (as defined for purposes of federal securities law).

As part of the review process, the Disclosure Coordinator shall submit all Official Statements to the Disclosure Working Group. The Disclosure Working Group, after determining that it meets the requirements of federal tax law, shall instruct the Disclosure Coordinator to send the Official Statement to the Board of Directors for approval.

The approval of an Official Statement by the Board of Directors shall be docketed as a new business matter and shall not be approved as a consent item. The Board of Directors shall undertake such review as deemed necessary by the Board of Directors, following consultation with the Disclosure Coordinator, to fulfill the Board of Directors's responsibilities under applicable federal and state securities laws. In this regard, the Disclosure Coordinator shall consult with the District's disclosure counsel to the extent the Disclosure Coordinator considers appropriate.

Continuing Disclosure Filings

Overview of Continuing Disclosure Filings

1. Under its continuing disclosure undertakings the District has entered into in connection with its debt offerings, the District is required to file annual reports ("Annual Reports") with the MSRB's EMMA system. Such Annual Reports are required to include the District's audited financial statements and certain updated financial and operating information (or may incorporate by reference publicly-available documents that contain such information).

2. In accordance with each continuing disclosure undertaking, if audited financial statements are not available by the date the Annual Report is required to be filed, unaudited financial statements are to be included in such Annual Report and audited financial statements shall be filed when such statements become available. If unaudited financial statements are filed, the cover page may include a disclaimer stating that such financial statements are unaudited and are subject to adjustments and modifications, the result of which will be presented in the audited financial statements. In addition, in accordance with the applicable continuing disclosure undertaking, the District shall file or cause to be filed a notice of any failure to provide its Annual Report on or before the date specified in a Continuing Disclosure Document.

3. The District is also required under its continuing disclosure undertakings to file notices of certain events on EMMA ("Notices of Listed Events").

The CAFR will serve as the repository for statements of indebtedness. The fiscal year debt statements in each CAFR certify the amount of (i) new debt issued, (ii) debt outstanding, (iii) debt authorized but not issued, (iv) assessed valuation, and (v) outstanding debt expressed as a percentage of assessed valuation, each as of the end of the fiscal year to which the CAFR relates.

The District shall prepare or cause to be prepared appropriate disclosures as required by Securities and Exchange Commission Rule 15c2-12, the federal government, the State of California, rating agencies, bond insurers, underwriters, bond counsel, investors, taxpayers, and other persons or entities entitled to disclosure to ensure compliance with applicable laws and regulations and agreements to provide ongoing disclosure.

Public Statements Intended to Reach Financial Markets

Whenever the District makes statements or releases information relating to its finances to the public that are reasonably expected to reach investors and the trading markets, the District is obligated to ensure that such statements and information are complete, true, and accurate in all material respects.

Training

The Disclosure Coordinator shall ensure that the members of the District staff involved in the initial or continuing disclosure process and the Board of Directors are properly trained to understand and perform their responsibilities.

The Disclosure Coordinator shall arrange for disclosure training sessions conducted by the District's disclosure counsel. Such training sessions shall include education on these Disclosure Procedures, the District's disclosure obligations under applicable federal and state securities laws and the disclosure responsibilities and potential liabilities of members of the District's staff and members of the Board of Directors. Such training sessions may be conducted using a recorded presentation.

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Memorandum

To: President and Board of Directors, Borrego Water District

From: Warren B. Diven

Date: May 16, 2017

Re: Board of Directors Meeting May 16, 2017
Agenda Bill II. B and C

Background.

The Borrego Water District ("BWD") has entered into a Settlement Agreement by and among T2 Borrego LLC, T2 Holding LLC, and Considine Family Foundation on the one hand, and Borrego Water District, for itself and on behalf of Community Facilities District No. 2007-1 (Montesoro) of the Borrego Water District, on the other hand (the "Settlement Agreement") for the purpose restructuring the outstanding Community Facilities District No. 2007-1 (Montesoro) of the Borrego Water District 2007 Special Tax Bonds (the "CFD No. 2007-1 Bonds") and settling certain litigation related to the delinquency in the payment of special taxes levied within Community Facilities District No. 2007-1 (Montesoro) of the Borrego Water District ("CFD No. 2007-1").

The Community Facilities District No. 2007-1 of the Borrego Water District Special Tax Refunding Bonds, Series 2017A (the "CFD No. 2007-1 Refunding Bonds")

Pursuant to the terms of the Settlement Agreement CFD No. 2007-1 will issue the CFD No. 2007-1 Refunding Bonds to refund a portion of the $9,530,000 Community Facilities District No. 2007-1 of Borrego Water District 2007 Special Tax Bonds (the "Prior CFD No. 2007-1 Bonds"). The CFD No. 2007-1 Refunding Bonds will be secured solely by a pledge of the special taxes authorized to be levied pursuant to the existing CFD No. 2007-1 rate and method of apportionment of special taxes

against each of the 66 residential parcels owned by homeowners and 21 residential parcels owned by T2 Borrego LLC (collectively, the "Identified CFD No. 2007-1 Parcels"). The special taxes to be levied on such residential parcels shall not exceed the special taxes currently authorized to be levied against such residential parcels. No revenues of BWD shall be pledged to the payment of debt service on the CFD No. 2007-1 Refunding Bonds.

Subject to the limitations described above, the principal amount of the CFD No. 2007-1 Refunding Bonds shall be equal to the maximum principal amount that may be payable from the aggregate of the special taxes authorized to be levied against the Identified CFD No. 2007-1 Parcels. This principal amount has been calculated to be $1,100,000.

The CFD No. 2007-1 Refunding Bonds will be issued as refunding bonds pursuant to the Mello-Roos Community Facilities Act of 1982 (the "Mello-Roos Act"). The Mello-Roos Act places the following limitations on the issuance of the CFD No. 2007-1 Refunding Bonds:

- The total interest cost to maturity on the CFD No. 2007-1 Refunding Bonds plus the principal amount of the CFD No. 2007-1 Refunding Bonds may not exceed the total interest cost to maturity on CFD No. 2007-1 Bonds to be refunded plus the principal amount of the CFD No. 2007-1 Bonds to be refunded.

- The maturity date of the CFD No. 2007-1 Refunding Bonds shall not exceed the maturity date of the CFD No. 2007-1 Bonds, i.e., August 1, 2032.

The CFD No. 2007-1 Refunding Bonds will be sold by CFD No. 2007-1 to the Considine Family Foundation. CFD No. 2007-1 shall cause the CFD No. 2007-1 Refunding Bonds to be delivered to the Considine Family Foundation in exchange for the CFD No. 2007-1 Bonds to be refunded and such CFD No. 2007-1 Bonds will be discharged and cancelled.

Upon the payment of the CFD No. 2007-1 Refunding Bonds the obligations of the Identified CFD No. 2007-1 Parcels to pay special taxes for CFD No. 2007-1 shall cease to exist.

The Borrego Water District Community Facilities District No. 2017-1 Special Tax Bonds, Series 2017B (the "CFD No. 17 Special Tax Bonds")

The Board of Directors has undertaken proceedings pursuant to the Mello-Roos Act to establish the Borrego Springs Water District Community Facilities District No. 2017-1 ("CFD No. 2017-1"), to authorize the levy of special taxes within CFD No. 2017-1 and to incur a bonded indebtedness of CFD No. 2017-1 for the purpose of financing the payment and discharge of the remainder of the Prior CFD No. 2007-1 Bonds that will not be refunded from the proceeds of the Series 2017A Bonds. The boundaries of CFD No. 2017-1 include all of the parcels located within the boundaries of CFD No. 2007-1 with the exception of the Identified CFD No. 2007-1 Parcels. **The Identified CFD No. 2007-1 Parcels, i.e., the 66 residential parcels owned by homeowners and the 21 parcels owned by T2 Borrego LLC, will not be subject to the levy of special taxes by CFD No. 2017-1.**

It is proposed that CFD No. 2017-1 issue the CFD No. 2017-1 Special Tax Bonds to secured solely by the levy of special taxes within CFD No. 2017-1 for the purpose of discharging the remaining CFD No. 2007-1 Bonds. No revenues of BWD shall be pledged to the payment of debt service on the Series 2017B Bonds.

The Resolutions of Issuance

It is recommended that the Board adopt the resolutions identified in the Agenda Item B (the "CFD No. 2007-1 Refunding Bonds Resolution of Issuance") and Agenda Item C (the "CFD No. 2017-1 Special Tax Bonds Resolution of Issuance" and, together with the CFD No. 2007-1 Refunding Bonds Resolution of Issuance, the "Resolutions of Issuance").

By adopting the CFD No. 2007-1 Refunding Bonds Resolution of Issuance, the Board will be taking the following actions with respect to the CFD No. 2007-1 Refunding Bonds:

- Making certain findings set forth in Section 1 of such;
- :Authorizing the issuance and sale of such bonds in the principal amount of $1,100,000;
- Approving the Fiscal Agent Agreement applicable to such bonds which established the terms and conditions pursuant to which such bonds will be issued and administered;
- Authorizing the sale of such bonds to the Considine Family Foundation;
- Setting the interest rate on such bonds at 3.70%; and
- Fixing the term of such bonds to be August 1, 2032.

By adopting the CFD No. 2017-1 Special Tax Bonds Resolution of Issuance, the Board will be taking the following actions with respect to the CFD No. 2017-1 Special Tax Bonds:

- Making certain findings set forth in Section 1;
- :Authorizing the issuance and sale of such bonds in the principal amount of $10,500,000;
- Approving the Fiscal Agent Agreement applicable to such bonds which established the terms and conditions pursuant to which such bonds will be issued and administered;
- Authorizing the sale of such bonds to the Considine Family Foundation;
- Setting the interest rate on such bonds at 4.00%; and
- Fixing the term of such bonds to be August 1, 2042.

Summary of the Next Steps.

Following the adoption of the foregoing resolutions, the major steps remaining to complete the restructuring of the CFD No. 2007-1 Bonds and the requirements of the Settlement Agreement are as follows:

- On or about May 24, 2017 but in any event no later than May 30, 2017
    - Pre-closing of the CFD No. 2007-1 Refunding Bonds and Series 2017B Bonds
- On or about May 25, 2017 but in any event no later than May 31, 2017
    - Closing of the CFD No. 2007-1 Refunding Bonds and Series 2017B Bonds
    - Discharge of the CFD No. 2007-1 Bonds
- As soon as practicable thereafter, dismissal of the foreclosure litigation.

We would welcome any questions from the Board regarding the resolutions presented to the Board or the summary of the next steps.

cc: Geoff Poole, General Manager

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RESOLUTION NO. 2017-05-11

RESOLUTION OF THE BOARD OF DIRECTORS OF THE BORREGO WATER DISTRICT, ACTING IN ITS CAPACITY AS THE LEGISLATIVE BODY OF COMMUNITY FACILITIES DISTRICT NO. 2007-1 (MONTESORO) OF THE BORREGO WATER DISTRICT, AUTHORIZING THE ISSUANCE OF THE COMMUNITY FACILITIES DISTRICT NO. 2007-1 (MONTESORO) OF BORREGO WATER DISTRICT SPECIAL TAX REFUNDING BONDS, SERIES 2017A IN AN AGGREGATE PRINCIPAL AMOUNT NOT TO EXCEED $1,100,000 FOR THE PURPOSE OF DEFEASING AND REFUNDING A PORTION OF THE SERIES 2007 SPECIAL TAX BONDS OF SUCH COMMUNITY FACILITIES DISTRICT; APPROVING THE FORM OF A FISCAL AGENT AGREEMENT AND AUTHORIZING THE DIRECT SALE OF THE BONDS TO CONSIDINE FAMILY FOUNDATION AND APPROVING OTHER RELATED DOCUMENTS AND ACTIONS

WHEREAS, Community Facilities District No. 2007-1 (Montesoro) of the Borrego Water District ("CFD No. 2007-1") was established on April 25, 2007 pursuant to the provisions of the Mello-Roos Community Facilities Act of 1982, as amended (Section 53311 et seq. of the California Government Code) (the "Act"), by adoption by the Board of Directors (the "Board") of the Borrego Water District (the "District") of Resolution No. 2007-4-1; and

WHEREAS, under the provisions of the Act, on April 25, 2007, the Board also adopted Resolution No. 2007-4-2 which resolution, among other matters, expressed the determination of the Board of the necessity to issue special tax bonds in the maximum aggregate principal amount of $11,000,000 for CFD No. 2007-1; and

WHEREAS, on April 25, 2007, consolidated special elections were held within CFD No. 2007-1 and there was submitted to the qualified voters of CFD No. 2007-1, among other propositions, the proposition of whether a bonded indebtedness in an aggregate principal amount not to exceed $11,000,000 should be incurred by and for CFD No. 2007-1 for the purpose of refunding outstanding bonds of Community Facilities District No. 95-1 of the Borrego Water District, and more than two-thirds of the votes cast in such consolidated special elections were cast in favor of incurring such bonded indebtedness, and CFD No. 2007-1 was therefore authorized to issue bonds in an aggregate principal amount not to exceed $11,000,000 for the purposes set forth in said proposition; and

WHEREAS, on May 23, 2007, the Board adopted Resolution No. 2007-5-1 authorizing the issuance and sale of bonds of CFD No. 2007-1 pursuant to the Bond Indenture, dated as of June 1, 2007 (the "Original Bond Indenture"), as amended by Amendment No. 1 to Bond Indenture, dated as of October 1, 2010 ("Amendment No. 1"), Amendment No. 2 to Bond Indenture, dated as of November 1, 2010 ("Amendment No. 2") and Amendment No. 3 to Bond Indenture, dated as of May 1, 2017 ("Amendment No. 3" and collectively with the Original Bond Indenture, Amendment No. 1 and Amendment No. 2, the "Prior Bond Indenture"), by and between CFD No. 2007-1 and U.S. Bank National Association, as trustee (the "Prior Trustee"), designated the "Borrego Water District Community Facilities District No. 2007-1 (Montesoro) Series 2007

Special Tax Bonds (the "Prior Special Tax Bonds"), for the purpose refunding outstanding bonds of Community Facilities District No. 95-1 of the Borrego Water District; and

WHEREAS, on June 27, 2007, the Prior Special Tax Bonds were issued in the aggregate principal amount of $9,530,000; and

WHEREAS, the Prior Special Tax Bonds are currently outstanding in the aggregate principal amount of $9,320,000; and

WHEREAS, the Prior Bond Indenture provides that the Prior Special Tax Bonds are limited obligations of CFD No. 2007-1 payable solely from Net Taxes (as defined in the Prior Bond Indenture) which principally consist of Special Taxes (as defined in the Prior Bond Indenture) levied and received by CFD No. 2007-1, together with certain proceeds collected from the sale of property pursuant to the foreclosure provisions of the Prior Bond Indenture for the delinquency of such Special Taxes;

WHEREAS, the Prior Special Tax Bonds are in default (the "Bond Default") as the result of the continuing delinquency in the payment of Special Taxes (the "Delinquent Special Taxes") levied on certain properties within CFD No. 2007-1 (the "Delinquent Properties");

WHEREAS, the District and CFD No. 2007-1 have, pursuant to the foreclosure provisions of the Prior Bond Indenture, initiated judicial foreclosure proceedings against the properties within CFD No 2007-1 that are subject of such Delinquent Special Taxes (the "Foreclosure Litigation");

WHEREAS, the District, for and on behalf of itself and CFD No. 2007-1, the owners of the Delinquent Properties (collectively, the Property Owner as defined in the Settlement Agreement) and the Considine Family Foundation, a Colorado nonprofit corporation, as the owner of the Prior Special Tax Bonds (the "Bond Owner"), entered into a Settlement Agreement made and entered into as of March 14, 2017 (the "Settlement Agreement") to resolve the Bond Default, to settle the Foreclosure Litigation and remedy the Delinquent Special Taxes; and

WHEREAS, the Settlement Agreement provides for the issuance of special tax refunding bonds of CFD No. 2007-1 for the purpose of defeasing and refunding a portion of the Prior Special Tax Bonds;

WHEREAS, the Board has therefore determined that it is necessary that bonds of CFD No. 2007-1 to be designated "Community Facilities District No. 2007-1 (Montesoro) of the Borrego Water District Special Tax Refunding Bonds, Series 2017A" be issued in an aggregate principal amount that will not exceed $1,100,000 (the "Bonds") for the purpose of defeasing and refunding a portion of the Prior Special Tax Bonds in furtherance of the provisions of the Settlement Agreement; and

WHEREAS, upon the issuance of the Bonds by CFD No. 2007-1 and delivery of such Bonds to the Bond Owner and assignment of and delivery by the Bond Owner to the Prior Trustee of that portion of the outstanding Prior Special Tax Bonds equal to the principal amount of the Bonds to CFD No. 2007-1 and the subsequent delivery by CFD No. 2007-1 of such Prior

Bonds to the Prior Trustee or the extinguishment of such Prior Special Tax Bonds at the direction of the Prior Trustee, such Prior Special Tax Bonds will be discharged; and

WHEREAS, the Bonds shall be issued pursuant to the terms and provisions of the Act, the statement of goals and policies of the Board regarding the establishment of community facilities districts, as amended to date (the "Goals and Policies") and the Borrego Water District Debt Management Policy (the "Debt Management Policy"), and the Fiscal Agent Agreement (defined hereinbelow); and

WHEREAS, payment of the principal of and interest on the Bonds will be secured solely by the Special Taxes to be levied on each of the 87 assessor's parcels designated as Residential Property as defined in the RMA (as defined in the Fiscal Agent Agreement defined herein below) within CFD No. 2007-1 (the "Identified CFD 2007-1 Parcels") and identified in Exhibit D to the Settlement Agreement; and

WHEREAS, pursuant to Section 53345.8 of the California Government Code, the Board, as the legislative body of CFD No. 2007-1, may sell bonds of CFD No. 2007-1 only if it determines prior to the award of the sale of such bonds that the value of the real property that would be subject to the Special Taxes to pay debt service on such bonds will be at least three (3) times the principal amount of such bonds to be sold and the principal amount of all other bonds outstanding that are secured by a special tax levied pursuant to the Act or a special assessment levied on property within CFD No. 2007-1; and

WHEREAS, David Taussig & Associates, the special tax consultant to the District, has determined, based on a review of the San Diego County Assessor's Assessment Roll for fiscal year 2016-2017, that the total assessed value of the Identified CFD 2007-1 Parcels is $5,288,547; and

WHEREAS, if the Bonds are issued and sold in an aggregate principal amount that does not exceed $1,100,000, the value of the Identified CFD 2007-1 Parcels that will be subject to the levy of the Special Taxes will be more than three (3) times the principal amount of the Bonds and the principal amount of all other bonds outstanding, if any, that are secured by a special tax levied pursuant to the Act or a special assessment levied on property within CFD No. 2007-1; and

WHEREAS, there will be no other bonds outstanding, other than the Bonds, that are secured by a special tax or a special assessment levied on the Identified CFD 2007-1 Parcels; and

WHEREAS, as a result of the existence of the Bond Default, the Delinquent Properties and the Foreclosure Litigation, it is recommended that the direct sale of the Bonds to the Bond Owner subject to the terms and conditions set forth in this Resolution and such sale will result in a lower cost to CFD No. 2017-1; and

WHEREAS, there has also been presented to the Board a form of Fiscal Agent Agreement with respect to the Bonds (the "Fiscal Agent Agreement") to be executed and delivered by the District, acting for and on behalf of CFD No. 2007-1, and U.S. Bank National Association, as fiscal agent (the "Fiscal Agent"), whereby the Fiscal Agent will authenticate and deliver the Bonds and perform certain other duties; and

WHEREAS, the Board has considered the form of the Fiscal Agent Agreement and has determined that it is in the best interest of the owners of property in and the residents of CFD No. 2007-1 that the Board authorize the issuance and sale of the Bonds and the execution and delivery of said agreement, subject to the conditions hereinafter contained.

NOW, THEREFORE, BE IT RESOLVED AS FOLLOWS:

Section 1. Findings. The Board finds (a) that the preceding recitals are true and correct, (b) that the sale of the Bonds at private sale, without advertising for bids, will result in a lower overall cost to CFD No. 2007-1, (c) that if the Bonds are issued and sold in an aggregate principal amount that does not exceed $1,100,000, the value of the Identified CFD 2007-1 Parcels that will be subject to the levy of the Special Taxes to pay the principal of and interest on the Bonds will be more than three (3) times the aggregate principal amount of the Bonds, and (d) that upon the issuance of the Bonds there will be no other bonds, other than the Bonds, that will be secured by a special tax or a special assessment levied on the Identified CFD 2007-1 Parcels.

In furtherance of the issuance of the Bonds, the Board hereby makes the following further findings and determinations: (i) that it is prudent in the management of the fiscal affairs of the District, the Board and CFD No. 2007-1 to issue the Bonds for the purpose, *inter alia*, of refunding and discharging a portion of the Prior Special Tax Bonds on an current basis, (ii) that the total net interest cost to maturity on the Bonds being issued to refund the portion of Prior Special Tax Bonds plus the principal amount of the Bonds being issued to refund and discharge the portion of the Prior Special Tax Bonds will not exceed the total net interest cost to maturity on the portion of Prior Special Tax Bonds plus the principal amount of the portion of Prior Special Tax Bonds, and (iii) that the issuance of the Bonds is in compliance with the District's Goals and Policies and the Debt Management Policy.

For purposes of Section 53363.2 of the Act, the Board hereby further finds and determines: (i) that it is expected that the purchase of the Bonds will occur on or before June 30, 2017, (ii) that the date, denomination, maturity dates, places of payment, terms of redemption and form of the Bonds shall be as set forth in the Fiscal Agent Agreement, as executed, (iii) that the interest rate to be paid on the Bonds shall be three and seventy hundredths percent (3.70%); (iv) the place of payment for the Prior Special Tax Bonds shall be as set forth in the Prior Fiscal Agent Agreement; and (v) the designated costs of issuing the Bonds shall be as described in Sections 53363.8(a) and 53363.8(b) of the Act and shall, pursuant to the Settlement Agreement, be payable by the Property Owner.

Section 2. Authorization of the Issuance of the Bonds. The Board authorizes the issuance and sale of the Bonds in an aggregate principal amount that shall not exceed $1,100,000, and the General Manager is authorized and directed to take all steps and actions which are necessary to accomplish the issuance, sale and delivery of the Bonds pursuant to the authorization given by and the conditions specified in this resolution. The President and the Board Secretary of the District are authorized to execute the Bonds for and on behalf of the District and the CFD No. 2007-1 by their manual or facsimile signatures. The Bonds shall be dated as of their date of delivery pursuant to the Fiscal Agent Agreement. The last maturity date of the Bonds shall not be later than August 1, 2032, the last maturity date of any of the Prior Special Tax Bonds (the "Final Maturity Date").

Each of the President (and in the absence of the President, the Vice President) and the General Manager (each, an "Authorized Representative"), acting singly and on behalf of the District or CFD No. 2007-1, as applicable, is hereby authorized and directed to execute and deliver the final form of the Fiscal Agent Agreement and the various closing documents required for the closing of the Bonds, with such additions thereto or changes therein as such Authorized Representative may deem necessary and advisable; provided, however, that no additions or changes shall authorize an aggregate principal amount of the Bonds in excess of the amount specified in the preceding paragraph, an interest rate higher than the rate set forth hereinabove or a term longer than the Final Maturity Date. The approval of such additions or changes shall be conclusively evidenced by the execution and delivery of such agreements by an Authorized Representative, following consultation with and review by Best Best & Krieger LLP, as bond counsel to CFD No. 2017-1 ("Bond Counsel").

Section 3. Approval of Fiscal Agent Agreement. The Fiscal Agent Agreement which provides generally for (i) the authentication and delivery by the Fiscal Agent of the Bonds, (ii) the establishment and administration by the Fiscal Agent of certain funds and accounts for the benefit of CFD No. 2007-1 and the owners of the Bonds, (iii) the payment by the Fiscal Agent of the principal of and interest on the Bonds from the Net Special Taxes (as defined therein), (iv) the performance of other duties by the Fiscal Agent and (v) the documents to be delivered upon the delivery of the Bonds to the Bond Owner, is approved in substantially the form submitted to the Board at the meeting at which this resolution is adopted, subject only to such changes as are authorized pursuant to Section 2 of this resolution.

Section 4. Consideration for the Sale of the Bonds. As consideration for the sale of the Bonds by CFD No. 2007-1 to the Bond Owner, the Bond Owner shall assign and transfer to CFD No. 2007-1 the ownership of that principal amount of the Prior Special Tax Bonds equal to the principal amount of the Bonds and shall waive and forever discharge the right to receive any scheduled debt service payments, including interest that had accrued on the Prior Special Tax Bonds through the date of the closing except as provided for in the Fiscal Agent Agreement.

Section 5. Issuance of Bonds. The Board approves and authorizes the issuance and direct sale of the Bonds to the Bond Owner pursuant to the Fiscal Agent Agreement, together with any changes therein or additions thereto which are deemed advisable by the General Manager, upon consultation with Bond Counsel. An Authorized Representative is authorized and directed to execute and deliver the final form of the Fiscal Agent Agreement on behalf of the District and CFD No. 2007-1 that is consistent with the requirements of this resolution and the Prior Bond Indenture; provided that the interest rate on any maturity of the Bonds shall not exceed three and seventy hundredths percent (3.70%); and the last maturity of date of the Bonds shall not be later than the Final Maturity Date of the Prior Special Tax Bonds.

No Authorized Representative shall approve the purchase of the Bonds, however, unless the total net interest cost to maturity of the Bonds plus the principal amount of the Bonds will be less than the total net interest cost to maturity with respect to the portion of the Prior Special Tax Bonds being refunded by the Bonds, plus the principal amounts of the portion of the Prior Special Tax Bonds being refunded by the Prior Bonds, and before approving such purchase, the Authorized Representative shall receive verbal verification from David Tausig & Associates, as

the special tax consultant to the District, that such a total net interest cost and principal amount with respect to the Bonds will be achieved.

Section 6. Funds Related to the Prior Special Tax Bonds. The General Manager is authorized to direct the Prior Trustee, and said trustee is authorized, to pay the amount on deposit in the funds and accounts that are held by the Prior Trustee pursuant to the Prior Bond Indenture, to the Bond Owner as accrued interest on the Prior Special Tax Bonds.

Section 7. Notice of Redemption. The General Manager is authorized and directed to cause to be provided for mailing, and the Prior Trustee, is authorized to mail notice, of the redemption of Prior Special Tax Bonds to the registered owners thereof as required by Section 53365 of the California Government Code and the Prior Bond Indenture. Pursuant to said Section 53365, the General Manager shall also provide for the mailing of, and the Prior Trustee shall mail notice of the redemption of the Prior Special Tax Bonds to the investment banking firm which was the original purchaser and underwriter of the Prior Special Tax Bonds.

Section 8. Action. All actions heretofore taken by the General Manager and the other officers and agents of the District, acting for and on behalf of the District or CFD No. 2007-1, with respect to the establishment of CFD No. 2007-1, and the sale and issuance of the Bonds are hereby approved, confirmed, and ratified, and the proper officers of the District, acting for and on behalf of the District or CFD No. 2007-1, as applicable, are hereby authorized and directed to do any and all things and take any and all actions and execute any and all certificates and other documents, which they, or any of them, may deem necessary or advisable in order to consummate the lawful issuance and delivery of the Bonds in accordance with the Act, this Resolution, the Fiscal Agent Agreement, and any certificate, agreement, contract, and other document described in the documents herein approved.

Section 9. Conditions of Approval. The approvals, authorization and direction given by this resolution are conditioned upon the satisfaction of the requirements of Section 5 hereof with respect to the issuance and sale of the Bonds. The officers of the District designated above shall not take any action for and on behalf of CFD No. 2007-1 with respect to the execution and delivery of the Fiscal Agent Agreement or the issuance, sale and delivery of the Bonds unless and until such conditions are satisfied; provided, however, that upon satisfaction of such conditions, this resolution shall be fully effective and shall be carried out by such officers without further approval or action of the Board. The approvals, authorization and direction provided by this resolution shall continue, subject to the satisfaction of such conditions, until December 31, 2017, and the Bonds may be sold, the Fiscal Agent Agreement, may be dated, entered into, executed and delivered or distributed, as appropriate, on any date selected by the General Manager and the Bond Owner prior to said date.

Section 10. Effective Date. This resolution shall take effect upon adoption and shall remain in effect until December 31, 2017, or if the Bonds are issued prior to said date, until all of the Bonds are redeemed prior to maturity.

ADOPTED, SIGNED AND APPROVED this 16th day of May, 2017

President of the Board of Directors of
Borrego Water District

ATTEST:

Secretary of the Board of Directors of
Borrego Water District

61170.00001\29712892.4

RESOLUTION NO. 2017-05-12

RESOLUTION OF THE BOARD OF DIRECTORS OF THE BORREGO WATER DISTRICT, ACTING IN ITS CAPACITY AS THE LEGISLATIVE BODY OF BORREGO WATER DISTRICT COMMUNITY FACILITIES DISTRICT NO. 2017-1, AUTHORIZING THE ISSUANCE OF THE BORREGO WATER DISTRICT COMMUNITY FACILITIES DISTRICT NO. 2017-1 SPECIAL TAX BONDS, SERIES 2017B IN AN AGGREGATE PRINCIPAL AMOUNT NOT TO EXCEED $10,500,000, AND THE PAYMENT AND DISCHARGE OF A PORTION OF THE COMMUNITY FACILITIES DISTRICT NO. 2007-1 (MONTESORO) OF BORREGO SPRINGS SERIES 2007 SPECIAL TAX BONDS, APPROVING THE FORM OF A FISCAL AGENT AGREEMENT AND AUTHORIZING THE DIRECT SALE OF THE BONDS TO CONSIDINE FAMILY FOUNDATION AND APPROVING OTHER RELATED DOCUMENTS AND ACTIONS

WHEREAS, Community Facilities District No. 2007-1 (Montesoro) of the Borrego Water District ("CFD No. 2007-1") was established on April 25, 2007 pursuant to the provisions of the Mello-Roos Community Facilities Act of 1982, as amended (Section 53311 et seq. of the California Government Code) (the "Act"), by adoption by the Board of Directors (the "Board") of the Borrego Water District (the "District") of Resolution No. 2007-4-1; and

WHEREAS, under the provisions of the Act, on April 25, 2007, the Board also adopted Resolution No. 2007-4-2 which resolution, among other matters, expressed the determination of the Board of the necessity to issue special tax bonds in the maximum aggregate principal amount of $11,000,000 for CFD No. 2007-1; and

WHEREAS, on April 25, 2007, consolidated special elections were held within CFD No. 2007-1 and there was submitted to the qualified voters of CFD No. 2007-1, among other propositions, the proposition of whether a bonded indebtedness in an aggregate principal amount not to exceed $11,000,000 should be incurred by and for CFD No. 2007-1 for the purpose of refunding outstanding bonds of Community Facilities District No. 95-1 of the Borrego Water District, and more than two-thirds of the votes cast in such consolidated special elections were cast in favor of incurring such bonded indebtedness, and CFD No. 2007-1 was therefore authorized to issue bonds in an aggregate principal amount not to exceed $11,000,000 for the purposes set forth in said proposition; and

WHEREAS, on May 23, 2007, the Board adopted Resolution No. 2007-5-1 authorizing the issuance and sale of bonds of CFD No. 2007-1, pursuant to a Bond Indenture, dated as of June 1, 2007 (the "Original Bond Indenture"), as amended by Amendment No. 1 to Bond Indenture, dated as of October 1, 2010 ("Amendment No. 1"), Amendment No. 2 to Bond Indenture, dated as of November 1, 2010 ("Amendment No. 2") and Amendment No. 3 to Bond Indenture, dated as of May 1, 2017 ("Amendment No. 3" and collectively with the Original Bond Indenture, Amendment No. 1 and Amendment No. 2, the "Prior Bond Indenture"), by and between CFD No. 2007-1 and U.S. Bank National Association, as trustee (the "Prior Trustee"), designated the "Borrego Water District Community Facilities District No. 2007-1 (Montesoro) Series 2007

Special Tax Bonds (the "Prior Special Tax Bonds"), for the purpose refunding outstanding bonds of Community Facilities District No. 95-1 of the Borrego Water District; and

WHEREAS, pursuant to the Prior Bond Indenture, CFD No. 2007-1 previously issued the Prior Special Tax Bonds in the original aggregate principal amount of $9,520,000; and

WHEREAS, the Prior Bond Indenture provides that the Prior Special Tax Bonds are limited obligations of CFD No. 2007-1 payable solely from Net Taxes which principally consist of Special Taxes received by CFD No. 2007-1, together with certain proceeds collected from the sale of property pursuant to the foreclosure provisions of the Prior Bond Indenture for the delinquency of such Special Taxes;

WHEREAS, the Prior Special Tax Bonds are in default (the "Bond Default") as the result of the continuing delinquency in the payment of Special Taxes (the "Delinquent Special Taxes") levied on certain properties within CFD No. 2007-1 (the "Delinquent Properties");

WHEREAS, the District and CFD No. 2007-1 have, pursuant to the foreclosure provisions of the Prior Bond Indenture, initiated judicial foreclosure proceedings against the properties within CFD No 2007-1 that are subject of such Delinquent Special Taxes (the "Foreclosure Litigation");

WHEREAS, the District, for and on behalf of itself and CFD No. 2007-1, the owners of the Delinquent Properties (collectively, the Property Owner as defined in the Settlement Agreement") and the Considine Family Foundation, a Colorado nonprofit corporation, as the owner of the Prior Special Tax Bonds (the "Bond Owner"), entered into a Settlement Agreement made and entered into as of March 14, 2017 (the "Settlement Agreement") to resolve the Bond Default, to settle the Foreclosure Litigation and remedy the Delinquent Special Taxes; and

WHEREAS, the Settlement Agreement provided that the District would take the action necessary and appropriate under the Act to establish and form the Borrego Water District Community Facilities District No. 2017-1 ("CFD No. 2017-1") for the purpose of discharging the obligation to pay that portion of the principal amount of the Prior Special Tax Bonds that will not otherwise be defeased and refunded from the proceeds of the Community Facilities District No. 2007-1 of the Borrego Water District Special Tax Refunding Bonds, Series 2017A (the "Remainder Prior Special Tax Bonds"), the issuance of which bonds has been authorized contemporaneous with the adoption of this resolution (the "Payment and Discharge"); and

WHEREAS, the Board did previously initiate proceedings to establish and form CFD No. 2017-1 pursuant to the provisions of the Mello-Roos Community Facilities Act of 1982, as amended (Section 53311 et seq. of the California Government Code) (the "Act") for the purpose of financing the Payment and Discharge; and

WHEREAS, pursuant to Resolution Nos. 2017-04-08 and 2017-04-09 adopted by the Board on April 18, 2017, CFD No. 2017-1 was formed and there was submitted to the qualified electors within CFD No. 2017-1 propositions at an election held on April 18, 2017, pursuant to which the qualified electors authorized special taxes to be levied within CFD No. 2017-1 pursuant to a rate and method of apportionment (the "RMA") attached as Exhibit A to Resolution No. 2017-

04-08 and to issue up to $10,5000,000 in bonded indebtedness to be repaid by the special taxes for the purpose of financing the Payment and Discharge; and

WHEREAS, on April 18, 2017, consolidated special elections were held within CFD No. 2017-1 and there was submitted to the qualified voters of CFD No. 2017-1, among other propositions, the proposition of whether a bonded indebtedness in an aggregate principal amount not to exceed $10,500,000 should be incurred by and for CFD No. 2017-1 for the purpose of financing the Payment and Discharge, and more than two-thirds of the votes cast in such consolidated special elections were cast in favor of incurring such bonded indebtedness, and CFD No. 2017-1 was therefore authorized to issue bonds in an aggregate principal amount not to exceed $10,500,000 for the purposes set forth in said proposition; and

WHEREAS, the Board has determined that it is necessary that bonds of CFD No. 2017-1 to be designated "Borrego Water District Community Facilities District No. 2017-1 Special Tax Bonds, Series 2017B" be issued in an aggregate principal amount that will not exceed $10,500,000 (the "Bonds") for the purpose of financing the Payment and Discharge; and

WHEREAS, the Bonds shall be issued pursuant to the terms and provisions of the Act, the statement of goals and policies of the Board regarding the establishment of community facilities districts, as amended to date (the "Goals and Policies"), the Borrego Water District Debt Management Policy (the "Debt Management Policy") and the Fiscal Agent Agreement (defined herein below); and

WHEREAS, payment of the principal of and interest on the Bonds will be secured by special taxes (the "Special Taxes") to be levied pursuant to the RMA against the assessor's parcel's designated under the RMA and identified in the CFD No. 2017-1 boundary map; and

WHEREAS, the Board pursuant to Section 53345.8(a) of the California Government Code, the Board, as the legislative body of CFD No. 2017-1, may sell bonds of CFD No. 2017-1 only if it determines prior to the award of the sale of such bonds that the value of the real property that would be subject to the Special Taxes to pay debt service on such bonds will be at least three (3) times the principal amount of such bonds to be sold and the principal amount of all other bonds outstanding that are secured by a special tax levied pursuant to the Act or a special assessment levied on property within CFD No. 2017-1; and

WHEREAS, David Taussig & Associates, the special tax consultant to the District and CFD No. 2017-1, has determined that the value of the real property that would be subject to the Special Taxes to pay debt service on the Bonds will be at less three (3) times the principal amount of the Bonds to be sold; and

WHEREAS, notwithstanding the provisions of Section 53345.8(a), Section 53345.8(c) provides that if the Board finds and determines by a vote of not less than four-fifths of all of its Directors that the proposed bond issue should proceed for specified public policy reasons, the provisions of Section 53345.8(a) may be disregarded; and

WHEREAS, the Board has, by the adoption of this resolution, found and determined the issuance of the Bonds should proceed for public policy reasons, including the

achievement of the resolution of the CFD No. 2007-1 Bond Default, the settlement of the Foreclosure Litigation and the remedy of the Delinquent Special Taxes; and

WHEREAS, upon the issuance of the Bonds and assignment by and the delivery by the Bond Owner of the Remainder Prior Special Tax Bonds or the extinguishment of the Remainder Prior Special Tax Bonds at the direction of the Prior Trustee following receipt of an order of CFD No. 2007-1 ordering the Trustee to direct such extinguishment, the Remainder Prior Special Tax Bonds will be discharged and extinguished and the property in CFD No. 2007-1 will no longer be subject to the levy of special taxes to pay debt service on that portion of the Prior Special Tax Bonds; and

WHEREAS, as a result of the existence of the Bond Default, the Delinquent Properties, the Foreclosure Litigation, the current lack of development of the property within CFD No. 2017-1 and the relative overall lack of diversity of ownership of property within CFD No. 2017-1, it is recommended that the direct sale of the Bonds to the Bond Owner subject to the terms and conditions set forth in this Resolution and such sale will result in a lower cost to CFD No. 2017-1; and

WHEREAS, there has also been presented to the Board a form of Fiscal Agent Agreement with respect to the Bonds (the "Fiscal Agent Agreement") to be executed and delivered by the District, acting for and on behalf of CFD No. 2017-1, and U.S. Bank National Association, as fiscal agent (the "Fiscal Agent"), whereby the Fiscal Agent will authenticate and deliver the Bonds and perform certain other duties; and

WHEREAS, the Board has considered the form of the Fiscal Agent Agreement and has determined that it is in the best interest of the owners of property in and the residents of CFD No. 2017-1 that the Board authorize the issuance and sale of the Bonds and the execution and delivery of said agreement, subject to the conditions hereinafter contained.

NOW, THEREFORE, BE IT RESOLVED AS FOLLOWS:

Section 1. Findings. The Board finds (a) that the preceding recitals are true and correct, (b) that the sale of the Bonds at private sale, without advertising for bids, will result in a lower overall cost to CFD No. 2017-1, (c) that the Bonds should be issued for the public policy reasons specified in the recitals hereinabove, (d) that upon the issuance of the Bonds there will be no other bonds, other than the Bonds, that will be secured by a special tax or a special assessment levied on the property within CFD No. 2017-1 and (e) the issuance of the Bonds will conform with the Goals and Policies and the Debt Management Policy.

Section 2. Authorization of the Issuance of the Bonds. The Board authorizes the issuance and sale of the Bonds in an aggregate principal amount that shall not exceed $10,500,000, and the General Manager is authorized and directed to take all steps and actions which are necessary to accomplish the issuance, sale and delivery of the Bonds pursuant to the authorization given by and the conditions specified in this resolution. The President and the Board Secretary of the District are authorized to execute the Bonds for and on behalf of the District and CFD No. 2017-1 by their manual or facsimile signatures. The Bonds shall be dated as of their date

of delivery pursuant to the Fiscal Agent Agreement. The maximum terms of the Bonds shall not exceed the maximum term permitted by the Act.

Each of the President (and in the absence of the President, the Vice President) and the General Manager (each, an "Authorized Representative"), acting singly and on behalf of the District or CFD No. 2017-1, as applicable, is hereby authorized and directed to execute and deliver the final form of the various agreements described in this Resolution, with such additions thereto or changes therein as such Authorized Representative may deem necessary and advisable; provided, however, that no additions or changes shall authorize an aggregate principal amount of the Bonds in excess of the amount specified in the preceding paragraph. The approval of such additions or changes shall be conclusively evidenced by the execution and delivery of such agreements by an Authorized Representative, following consultation with and review by Best Best & Krieger LLP, as bond counsel ("Bond Counsel").

Section 3. Approval of Fiscal Agent Agreement. The Fiscal Agent Agreement which provides generally for (i) the authentication and delivery by the Fiscal Agent of the Bonds, (ii) the establishment and administration by the Fiscal Agent of certain funds and accounts for the benefit of CFD No. 2017-1 and the Bond Owner, (iii) the payment by the Fiscal Agent of the principal of and interest on the Bonds from the Net Special Taxes (as defined therein), (iv) the performance of other duties by the Fiscal Agent and (v) the documents to be delivered upon the delivery of the Bonds to the Bond Owner, is approved in substantially the form submitted to the Board at the meeting at which this resolution is adopted, subject only to such changes as are authorized pursuant to Section 2 of this resolution.

Section 4. Issuance of Bonds. The Board approves and authorizes the issuance and direct sale of the Bonds to the Bond Owner pursuant to the Fiscal Agent Agreement, together with any changes therein or additions thereto which are deemed advisable by the General Manager, upon consultation with Bond Counsel. An Authorized Representative is authorized and directed to execute and deliver the final form of the Fiscal Agent Agreement on behalf of the District and CFD No. 2017-1; provided that the interest rate on the Bonds shall not exceed four percent (4.00%); and the last maturity of date of the Bonds shall not exceed twenty five (25) years.

Section 5. Action. All actions heretofore taken by the General Manager and the other officers and agents of the District, acting for and on behalf of the District or CFD No. 2017-1, with respect to the establishment of CFD No. 2017-1, and the sale and issuance of the Bonds are hereby approved, confirmed, and ratified, and the proper officers of the District, acting for and on behalf of the District or CFD No. 2017-1, as applicable, are hereby authorized and directed to do any and all things and take any and all actions and execute any and all certificates and other documents, which they, or any of them, may deem necessary or advisable in order to consummate the lawful issuance and delivery of the Bonds in accordance with the Act, this Resolution, the Fiscal Agent Agreement, and any certificate, agreement, contract, and other document described in the documents herein approved.

Section 6. Conditions of Approval. The approvals, authorization and direction given by this resolution are conditioned upon the satisfaction of the requirements of Section 4 hereof with respect to the issuance and sale of the Bonds. The officers of the District designated above shall not take any action with respect to the execution and delivery of the Fiscal Agent

Agreement or the issuance, sale and delivery of the Bonds unless and until such conditions are satisfied; provided, however, that upon satisfaction of such conditions, this resolution shall be fully effective and shall be carried out by such officers without further approval or action of the Board. The approvals, authorization and direction provided by this resolution shall continue, subject to the satisfaction of such conditions, until December 31, 2017, and the Bonds may be sold, the Fiscal Agent Agreement, may be dated, entered into, executed and delivered or distributed, as appropriate, on any date selected by the General Manager and the Bond Owner prior to said date.

Section 7. Effective Date. This resolution shall take effect upon adoption and shall remain in effect until December 31, 2017, or if the Bonds are issued prior to said date, until all of the Bonds are paid at or redeemed prior to maturity.

ADOPTED, SIGNED AND APPROVED this 16th day of May, 2017

_____
President of the Board of Directors of
Borrego Water District

ATTEST:

_____
Secretary of the Board of Directors of
Borrego Water District

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BORREGO WATER DISTRICT

BOARD OF DIRECTORS MEETING – MAY 16, 2017

AGENDA BILL II.D

May 10, 2017

TO: Board of Directors, Borrego Water District

FROM: Geoff Poole, General Manager

SUBJECT: Presentation and Discussion of Draft FY 2017-18 Budget – K Pittman

RECOMMENDED ACTION:

Receive presentation on Draft Budget and CIP for FY 2017-18

ITEM EXPLANATION

Kim will present the latest draft of the Proposed Budget for FY 2017-18 and David Dale will also be available to discuss the CIP.

ATTACHMENTS

Proposed Draft Budget

BORREGO WATER DISTRICT

May 16, 2017

To: Board of Directors

From: Kim Pitman, Administration Manager

RE: O & M and CIP Budget Analysis Explanation

Below is an explanation of the significant changes from the FY 2017 budget to the proposed Budget for FY 2018.

WATER REVENUE

Water Revenue Scenarios for FY 2018:

- Even with the maximum increase of 6% ($80,000) in water commodity rates our Total Water Commodity Revenue Budget for FY 2018 is estimated to be approximately $15,000 less than FY 2017 budget.
- An increase of 6% on the Readiness water charge (meter fee) would increase the Total Water Revenue approximately $110,000 from FY 2017 budget.

PROPERTY ASSESSMENTS/AVAILABILITY CHARGES

We should be receiving total charges assessed.

SEWER SERVICE CHARGES

Sewer Service Charge Scenarios for FY 2018:

- With the maximum sewer rate increase of 4% across the board, sewer revenue would increase by $22,336.

OTHER INCOME:

Interest income should increase by approximately $6,000, due to the Money Market Sweep account.

MAINTENANCE EXPENSE

Proposed budget increase in:

- R&M WWTP - $35,000
    - Due to ongoing repairs of aging infrastructure/equipment and reclassifying misc. CIP sewer items to O & M

Total Maintenance Expense Budget increase for FY 2018 - $31,200

PROFESSIONAL SERVICES EXPENSE

Proposed budget increase in:

- Financial/Technical Consulting (Raftelis) - $4,800
    - Reallocate Raftelis charges from engineering
- Engineering services (Dale/Dudek)- $15,000

Decrease in:

- Legal Services - $10,000
- Regulatory Permit Fees - $18,840
    - Reallocate ACWA/SDRMA memberships to Dues and Subscriptions

Total Professional Services Expense Budget decrease for FY 2018 – $10,640

INSURANCE EXPENSE

Proposed budget Insurance decrease in:

- ACWA Insurance & Workers Comp - $3,800

DEBT EXPENSE

Proposed budget Debt Expense decrease in:

- COP 2008 Installment – $1,638
    - Due to change in debt payment

PERSONNEL EXPENSE

Proposed budget increase in:

- Board Meeting Expense - $3,500
    - Budget for ACWA conference
- Salaries & Wages/Taxes- $35,700
    - Possible increase in staffing
- CalPERS - $8,200
    - Due to increased salaries/CalPERS rate increase
- Medical Insurance Benefits - $9,700
    - Estimated 5% increase
- Salary Wages Contra Account – ($36,500)
    - Due to projected increased projects to be performed by staff

Total Personnel Expense Budget increase for FY 2018 - $45,600

OFFICE EXPENSE

Proposed increase in:

- Telephone/Answering Service/Cell - $10,400
    - Added cell phone from utilities expense
- Dues & Subscriptions - $17,926
    - Transferred ACWA from regulatory permits added CSDA

Proposed decrease in:

- Office Equipment - $5,000

Total Office Expense Budget increase for FY 2018 - $23,257

UTILITIES EXPENSE

Decrease in:

- Pumping-Electricity - $50,000
    - Primarily due to Solar Projects
- Office/Shop utilities - $5,000
    - Transferred Cell phone charges to Office Expense

Total Utilities Expense Budget decrease FY 2018 - $62,500

Overall Expense Budget Increase from FY 2017 to FY 2018 = $33,163

NON O & M EXPENSES

- **WATER PROJECTS**
  - T Anchor Dr., Frying Pan Rd. to Double O Rd. - $34,000
  - Weathervane Dr., Frying Pan Rd. to Double O Rd. - $34,000
  - Crew Truck - $50,000
  - Emergency Pipeline repairs - $25,000
  - ID 5-5, 200 HP - $80,000
  - Well 12 Pump/casing cleaning - $50,000
  - 10" Bypass at ID 1 Booster Station 2 - $15,000
  - New 900 reservoir- $525,000
  - Transmission line to convey Well 5 water to Club Circle Reservoir - $83,000
  - Emergency Generator Mobile Trailer - $12,000
  - Replace Twin Tanks – $579,000 (Prop 1 Grant)
  - Replace Wilcox Diesel Motor – $59,000 (Prop 1 Grant)
  - Replace Indianhead Reservoir – $294,000 (Prop 1 Grant)
  - Rams Hill #2, 1980 balv. 0.44 MG recoating – $161,000 (Prop 1 Grant)

    Total Non O&M Water Projects FY 2018– $2,001,000

- **SEWER PROJECTS**
  - Plant-Grit removal at the headworks - $100,000 (Prop 1 Grant)
  - WTF-Rehab Clarifier - $118,500 (Prop 1 Grant)

    Total Non O&M Sewer Projects FY 2018 – $218,500

Total Non O & M Expenses FY 2018 - $2,219,500

BORREGO WATER DISTRICT

FISCAL YEAR 2017-2018

ANNUAL BUDGET

ADOPTED

May 24, 2017

SUBMITTED BY:

GEOFF POOLE
GENERAL MANAGER

TO:

BOARD OF DIRECTORS

BETH HART
PRESIDENT

LYLE BRECHT
VICE-PRESIDENT

JOE TATUSKO
SECRETARY/TREASURER

RAYMOND DELAHAY
DIRECTOR

HARRY EHRLICH
DIRECTOR

FISCAL YEAR 2017-2018
ANNUAL BUDGET
ADOPTED
MAY 24, 2017

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BORREGO WATER DISTRICT

May 24, 2017

Board of Directors:

This Fiscal Year 2017-2018 consolidated budget was prepared in compliance with the laws of the State of California and reflects the Board of Directors' (Board) goals and priorities and the District's strategic plans by which to achieve these goals and priorities.

The Operations and Management (O&M) and Capital Improvements Projects (CIP) and non-O&M expenses budgets contained in this FY 2018 consolidated budget package represent management's best assessment of a budget to successfully accomplish the District's goals and priorities for FY 2018. This budget document will be used as a guideline to address the dynamics of the District's operations and the economic challenges of maintaining the District's financial stability and enabling the District to supply dependable potable water and sewer and wastewater treatment to its customers.

The budget shows total revenues for FY 2018 projected to be approximately $4,114,335. This represents a slight decrease from FY 2017 projected revenues.

The FY 2018 projected revenues assumes that monthly base service rates will increase approximately 6% (all meter sizes); residential water rates for Tier 1 (< 7 units/mo) will increase from $3.16 to $3.35/unit in FY 2018; Tier 2 (> 7 units/mo) = $3.69/unit in FY 2018; Non-Residential water rates will increase from $3.35 to $3.55/unit in FY 2018; and revenue from sewer rates will increase 4,4,4,4% between FY 2018-FY 2021

Included in this budget package are the proposed Board Resolution to adopt and approve the FY 2018 budget; a detailed revenue and operations and maintenance expenses budget; CIP budget with associated justification from the District's consulting engineer, non-CIP budget items; an updated District's reserves policy; and a projected cash flow analysis for the next eight fiscal years that includes the proposed rate increases.

Thank you for your consideration.

Sincerely,

Geoff Poole
General Manager

RESOLUTION NO. 2017-05-13

RESOLUTION OF THE BOARD OF DIRECTORS OF THE BORREGO WATER DISTRICT AUTHORIZING INVESTMENT OF MONIES IN THE LOCAL AGENCY INVESTMENT FUND

WHEREAS, Pursuant to Chapter 730 of the statues of 1976 Section 16429.1 was added to the California Government Code to create a Local Agency Investment Fund in the State Treasury for deposit of money of a local agency for purposes of investment by the State Treasurer; and

WHEREAS, the Board of Directors does hereby find that the deposit and withdrawal of money in the Local Agency Investment Fund in accordance with the provisions of Section 16429.1 of the Government Code for the purpose of investment as stated therein as in the best interests of the Borrego Water District;

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of the Borrego Water District does hereby authorize the deposit and withdrawal of Borrego Water District monies in the Local Agency Investment Fund in the State Treasury in accordance with the provisions of Section 16429.1 of the Government Code for the purpose of investment as stated therein, and verification by the State Treasurer's Office of all banking information provided in that regard:

BE IT FURTHER RESOLVED, that the following Borrego Water District officers or their successors in office shall be authorized to order the deposit or withdrawal of monies in the Local Agency Investment Fund:

Geoffrey Poole General Manager	Kim Pitman Administration Manager	Joseph Tatusko Secretary/Treasurer Board of Directors
_____ (Signature)	_____ (Signature)	_____ (Signature)

ADOPTED, SIGNED AND APPROVED this 24th day of May, 2017.

Beth Hart, President of the Board of Directors of
Borrego Water District

ATTEST:

Joseph Tatusko, Secretary of the Board of Directors of
Borrego Water District

{Seal}

STATE OF CALIFORNIA)
) ss.
COUNTY OF SAN DIEGO)

I, Joseph Tatusko, Secretary of the Board of Directors of the Borrego Water District, do hereby certify that the foregoing resolution was duly adopted by the Board of Directors of said District at a regular meeting held on the 24th day of May, 2017, and that it was so adopted by the following vote:

AYES: DIRECTORS:

NOES: DIRECTORS:

ABSENT: DIRECTORS:

ABSTAIN: DIRECTORS:

Joseph Tatusko, Secretary of the Board of Directors of Borrego Water District

STATE OF CALIFORNIA)
) ss.
COUNTY OF SAN DIEGO)

I, Joseph Tatusko, Secretary of the Board of Directors of the Borrego Water District, do hereby certify that the above and foregoing is a full, true and correct copy of RESOLUTION NO. 2017-05-13, of said Board, and that the same has not been amended or repealed.

Dated: May 24, 2017

Joseph Tatusko, Secretary of the Board of Directors of Borrego Water District

	C	CG	CK	CQ	CS	CT
1	**BWD**	06/09/16				
2	**PROPOSED BUDGET**	ADOPTED	Actual YTD	Rate Adjustment	PROJECTED BUDGET	PROJECTED
3	**2017-2018**	BUDGET	and Projected	FY 2018	W/rate increase	BUDGET
4		2016-2017	2016-2017		2017-2018	2017-2018
5	**REVENUE**					
6	WATER REVENUE			(6% increase 4% revenue)		
7	Residential Water Sales	1,149,431	923,206	36,656	949,885	916,400
8	Commercial Water Sales	160,956	291,570	11,663	302,856	291,570
9	Irrigation Water Sales	176,219	203,021	8,121	210,597	203,021
10	GWM Surcharge	145,959	154,503	6,180	160,274	154,503
11	Water Sales Power Portion	463,059	441,575	17,636	457,206	440,894
12	**TOTAL WATER COMMODITY REVENUE:**	2,095,624	2,013,876	80,256	2,080,818	2,006,389
13				(6% increase)		
14	Readiness Water Charge	997,818	1,054,146	63,249	1,110,954	1,054,146
15	RH Golf Course surplus capacity lease	0	-		0	0
17	Meter Install/Reconnect Fees	2,380	1,020		1,360	1,360
18	Backflow Testing/installation	6,500	6,500		7,000	7,000
19	Bulk Water Sales	0	566		600	600
20	Penalty & Interest Water Collection	10,000	27,232		19,000	19,000
21	**TOTAL WATER REVENUE:**	3,112,323	3,103,340	143,504	3,223,018	3,091,781
22						
23	PROPERTY ASSESSMENTS/AVAILABILITY CHARGES					
24	641500 1% Property Assessments	65,000	65,100		62,303	62,303
25	641502 Property Assess wtr/swr/fld	106,212	104,814		106,212	106,212
27	641501 Water avail Standby	82,467	79,309		82,445	82,445
29	641504 ID 3 Water Standby (La Casa)	33,722	33,304		33,722	33,722
30	641503 Pest standby	17,885	17,378		17,882	17,882
31	**TOTAL PROPERTY ASSES/AVAIL CHARGES:**	305,286	299,906		302,563	302,563
32						
33	SEWER SERVICE CHARGES			(4% increase)		
34	Town Center Sewer Holder fees	393,398	214,521	8,735	226,391	218,384
35	Town Center Sewer User Fees	103,158	86,325	3,280	85,015	82,008
36	Sewer user Fees	256,294	260,455	10,320	267,460	258,000
38	Penalty Interest-Sewer		2,985		3,000	3,000
40	**TOTAL SEWER SERVICE CHARGES:**	752,850	564,286	22,336	581,866	561,392
41						
42	OTHER INCOME					
47	Water Credits income/Gain on Asset Sold		1,000		0	0
51	Interest Income	49	64		6,600	6,600
52	**TOTAL OTHER INCOME:**	49	6,448		6,600	6,600
53						
54	**TOTAL INCOME:**	4,170,507	3,973,980	165,841	4,114,047	3,962,336

	C	CG	CK	CQ	CS	CT
1	**BWD**	06/09/16				
2	**PROPOSED BUDGET**	ADOPTED	Actual YTD	Rate Adjustment	PROJECTED BUDGET	PROJECTED
3	**2017-2018**	BUDGET	and Projected	FY 2018	W/rate increase	BUDGET
4		2016-2017	2016-2017		2017-2018	2017-2018
64	**EXPENSES**					
65						
66	MAINTENANCE EXPENSE					
67	R & M Buildings & Equipment	185,000	147,934			185,000
68	R & M - WWTP	150,000	71,366			185,000
69	Telemetry	10,000	10,928			8,000
70	Trash Removal	4,000	4,239			4,200
71	Vehicle Expense	18,000	17,340			18,000
72	Fuel & Oil	25,000	20,359			23,000
73	**TOTAL MAINTENANCE EXPENSE:**	392,000	272,167			423,200
74						
75	PROFESSIONAL SERVICES EXPENSE					
76	Tax Accounting (Taussig)	3,000	3,596			3,000
77	Administrative Services (ADP/Bank Fees)	3,500	2,865			3,000
78	Audit Fees (Squarmilner)	14,995	14,439			15,995
79	Computer billing (Accela/Parker)	12,000	14,259			13,500
80	Financial/Technical Consulting (Raftelis)	1,200	8,650			6,000
81	Engineering (Dale/Dudek)	35,000	56,920			50,000
82	District Legal Services (Downey Brand/McDougal)	30,000	14,667			20,000
83	Testing/lab work (Babcock Lab)	12,000	12,443			8,400
84	Regulatory Permit Fees (SWRB/DEH/Dig alerts/APCD)	46,000	36,470			27,160
85	**TOTAL PROFESSIONAL SERVICES EXPENSE:**	157,695	164,308			147,055
86						
87	INSURANCE EXPENSE					
88	ACWA/JPIA Program Insurance	60,000	55,478			57,000
89	ACWA/JPIA Workers Comp	16,800	15,708			16,000
90	**TOTAL INSURANCE EXPENSE:**	76,800	71,186			73,000
91						
92	DEBT EXPENSE					
93	Citizens Bank-COP 2008 Debt Payment	253,113	253,113			251,475
94	BBVA-Viking Ranch Debt Payment	143,312	152,710			143,312
95	**TOTAL DEBT EXPENSE:**	396,425	405,823			394,787
96						
97	PERSONNEL EXPENSE					
98	Board Meeting Expense (board stipend/board secretary)	18,500	17,083			22,000
99	Salaries & Wages (gross)	791,000	807,912			826,000
100	Salaries & Wages offset account (board stipends/staff project salaries)	(18,500)	(14,190)			(55,000)
101	Cosulting services/Contract Labor					24,000
102	Taxes on Payroll	21,300	21,325			22,000
103	Medical Insurance Benefits	210,400	205,771			220,100
104	Calpers Retirement Benefits	171,000	155,852			179,200
105	Conference/Conventions/Training/Seminars	7,000	5,377			8,000
106	**TOTAL PERSONNEL EXPENSE:**	1,200,700	1,199,130			1,246,300
107						
108	OFFICE EXPENSE					
109	Office Supplies	18,000	19,851			18,000
110	Office Equipment/ Rental/Maintenance Agreements	40,000	38,653			35,000
111	Postage & Freight	15,000	12,739			15,000
112	Taxes on Property	2,400	2,331			2,331
113	Telephone/Answering Service/Cell	8,600	15,742			19,000
114	Dues & Subscriptions (ACWA/CSDA)	3,600	3,758			21,526
115	Printing, Publications & Notices	3,000	1,511			3,000
116	Uniforms	5,400	4,799			5,400
117	OSHA Requirements/Emergency preparedness	4,000	2,690			4,000
118	**TOTAL OFFICE EXPENSE:**	100,000	102,073			123,257
119						
120	UTILITIES EXPENSE					
121	Pumping-Electricity	350,000	301,600			300,000
122	Office/Shop Utilities	25,000	19,966			20,000
124	**TOTAL UTILITIES EXPENSE:**	382,500	321,566			320,000
125						
126	GROUNDWATER MANAGEMENT EXPENSE					
127	GWM -legal/Misc.-prop 1 grant/USGS					120,000
128	Conservation incentive program					30,000
129	District portion of GSP					120,000
130	**TOTAL GWM EXPENSE:**					270,000
131						
132	**TOTAL EXPENSES:**	2,706,119	2,536,254		2,997,600	2,997,600
141						57
142	**NET CASH FLOW (O&M)**	1,464,388	1,437,726		1,116,447	964,736

	C	CG	CK	CQ	CS	CT
1	**BWD**	06/09/16				
2	**PROPOSED BUDGET**	ADOPTED	Actual YTD	Rate Adjustment	PROJECTED BUDGET	PROJECTED
3	**2017-2018**	BUDGET	and Projected	FY 2018	W/rate increase	BUDGET
4		2016-2017	2016-2017		2017-2018	2017-2018
143	**CIP PROJECTS**					
144	**Water**					
145	Pickup	35,000	42,607			50,000
149	New 900 Reservoir	500,000	501,688			525,000
153	Replace Twin Tanks-(prop 1 grant)	125,000	-			579,000
154	Replace Wilcox Diesel Motor-(Prop 1 grant)					59,000
155	Replace Indianhead Reservoir-(Prop 1 grant)		-			294,000
156	Rams Hill#2, 1980 balv. 0.44 MG recoating-(Prop 1 grant)					161,000
157	Emergency water pipeline repairs					25,000
158	10" Bypass at ID 1 Booster Station 2					15,000
159	Transmission line to convey Well 5 water to C.C. Reservoir (pipeline 2)					83,000
160	T Anchor Dr., Frying Pan Rd. to Double O Rd. (Pipeline 6)					34,000
161	Weathervane Dr., Frying Pan Road to Double O Road (Pipeline7)	30,000	17,500			34,000
166	ID 5-5, 200 HP		-			80,000
167	Well 12 pump and casing cleaning	0	-			50,000
169	Emergency Generator Mobile Trailer		-			12,000
171			-			
172	TOTAL WATER CIP:	1,105,000	946,677			2,001,000
173	**Sewer**					
181	Plant-Grit removal at the headworks-(Prop 1 grant)					100,000
189	WTF-Rehab Clarifier (Prop 1 grant)		-			118,500
195	TOTAL SEWER CIP:	69,500	64,447			218,500
212	**OTHER**		-			
226		10,000	-			0
227	**TOTAL CIP EXPENSES:**	1,448,500	1,134,852		2,219,500	2,219,500
228						
229	**CASH RECAP**					
230	Cash beginning of period	3,257,872	3,786,790		4,089,663	4,089,663
231	Net Cash Flow (O&M)	1,464,388	1,437,726		1,116,447	964,736
232	Total Non O&M Expenses	(1,448,500)	(1,134,852)		(2,219,500)	(2,219,500)
233	**CASH AT END OF PERIOD**	3,273,759	4,089,663		2,986,610	2,834,899
234						
235	**RESERVES**					
237	Working Capital-Water (4 months)	(600,000)	(600,000)		(1,000,000)	(1,000,000)
241	R & R Reserves				(532,000)	(532,000)
242	Contingency Reserves (8 % O&M)	(270,000)	(270,000)		(240,000)	(240,000)
243	Rate Stabilization Reserves	(480,000)	(480,000)		(800,000)	(800,000)
244	Available for Emergency Reserves	928,759	1,744,663		946,610	794,899
245	**Target Emergency Reserves**	2,000,000	2,000,000		2,000,000	2,000,000
246	Emergency Reserves Deficit	(1,071,241)	(255,337)		(1,053,390)	(1,205,101)

	B	C	D	E	F
5					
6	**BWD**				
7	**INCOME/EXPENSE**				
8	**CONDENSED BUDGET**				
9	**2017-2018**				
10					
11					
12					
13					
14		**TOTAL**			
15		**BUDGET**	**WATER**	**ID4-WATER**	**SEWER**
16	**REVENUE**				
17					
18	Water Sales	3,062,744.23	1,225,098	1,837,647	
19	GWM Surcharge	160,274	64,109	96,164	
21	1% Property Assessment	62,303	24,921	37,382	
22	Water Availability Standby	240,260.00	96,104	144,156	
23	Sewer Revenue	581,866			581,866
26	Interest Income	6,600	2,244	3,300	1,056
31	**TOTAL PROPOSED INCOME FY 2017:**	4,114,047	1,412,476	2,118,649	582,922
33					
34					
35	**EXPENSE**				
36					
37	Repairs & Maintenance	423,200	93,152	139,728	190,320
38	Professional Services	147,057	50,489	75,731	20,837
39	Insurance	73,000	25,063	37,593	10,343
40	Personnel Expense	839,000	288,054	432,067	118,878
41	Employee Benefits	407,300	139,838	209,751	57,711
42	Office expense	123,257	42,318	63,475	17,464
43	Utilities	320,000	109,866	164,794	45,341
44	Debt Expense-Citizens Bank COP 2008	251,475	-	251,475	-
45	Debt Expense-BBVA Compass Bank	143,312	57,324.90	85,987.36	
46	GWM	270,000	92,699.13	139,044.37	38,256.50
47	**TOTAL PROPOSED EXPENSE FY 2017:**	2,997,600	898,804	1,599,646	499,151
48					
49	**NET INCOME (EXPENSE):**	1,116,447	513,673	519,003	83,771
50					
51	**TOTAL NON O & M EXPENSE:**	2,219,500	$ 800,400	$ 1,200,600	$ 218,500
52					
53	**TOTAL NET CASH FLOW FY 2017:**	(1,103,053)	(286,727)	(681,597)	(134,729)

	A	L	M	N	O	P	Q	R	S	T	U
1	**CAPITAL IMPROVEMENT PROJECTS**	**FY 2017-18**	**FY 2018-19**	**FY 2019-20**	**FY 2020-21**	**FY 2021-22**	**FY 2022-23**	**FY 2023-24**	**FY 2024-25**	**FY 2025-26**	**FY 2026-27**
2											
3											
4	**WELLS, BOOSTER STATIONS, RESERVOIRS & ASSOCIATED TRANSMISSION MAINS**										
5	Water Treatment Facility (phase 1)						$ 635,000		$ 250,000		
6	Water Treatment Facility (phase 2)							$ 650,000		$ 250,000	
7	New well assessments (Exploration Phase for 3 sites), and acquire land		$ 50,000	$ 500,000							
8	3 New wells drilled over 5 years					$ 1,000,000		$ 1,000,000		$ 1,000,000	
9	Country Club Tank Recoating, 1999 1.0 MG								$ 250,000		
10	New 900 Reservoir	$ 525,000									
11	Transmission line to convey well 16 water directly to ID1 900 Reservoir (Pipeline 1)		$ 112,000								
12	Transmission line to convey Well 5 water directly to C.C. Reservoir (Pipeline 2)	$ 83,000		$ 120,000	$ 151,000	$ 120,000	$ 151,000				
13	Transmission line to convey Well 12 water directly to Tilting T-Di Giorgio (Pipeline 3)						$ 688,000				
14	Transmission pipeline Stash M Rd. west to Country Club Tank (Pipeline 4)			$ 175,700							
15	Replace Twin Tanks-(Prop 1 grant)	$ 579,000									
16	Replace Wilcox Diesel Motor-(Prop 1 grant)	$ 59,000									
17	Replace Indianhead Reservoir-(Prop 1 grant)	$ 294,000									
18	Rams Hill #2, 1980 galv. 0.44 MG recoating -(Prop 1 grant)	$ 161,000									
19											
20	**WASTEWATER TREATMENT FACILITIES**										
21	Force main replacement at La Casa del Zorro; Cleanouts on existing force main		$ 150,000								
22	Sewer main replacement Club Circle			$ 200,000		$ 100,000			$ 100,000		
24	Conversion to Tertiary Treatment - Study needed to determine cost										
25	Lift station-Aeration and odor removal system		$ 500,000								
26	Plant-Grit removal at the headworks-(Prop 1 grant)	$ 100,000									
27											
28	**PIPELINE REPLACEMENT /IMPROVEMENT PROGRAM**										
29	Emergency water pipeline repairs	$ 25,000	$ 25,000	$ 25,000	$ 25,000	$ 30,000	$ 30,000	$ 30,000	$ 35,000	$ 35,000	$ 35,000
30	10" Bypass at ID1 Booster Station 2	$ 15,000									
31	Borrego Springs Road, Walking H Drive to Country Club Road Phase 1 (Pipeline 5)				$ 205,000						
32	Borrego Springs Road, Walking H Drive to Country Club Road Phase 2 (Pipeline 5)					$ 205,000					
33	T Anchor Drive, Frying Pan Road to Double O Road (Pipeline 6)	$ 34,000									
34	Weather Vane Drive, Frying Pan Road to Double O Road (Pipeline 7)	$ 34,000									
35	Frying Pan Road, north and south from T Anchor Drive (Pipeline 8)		$ 165,000	$ 83,000							
36	Double O Road, north and south from T Anchor Drive (Pipeline 9)				$ 313,600						
37	Borrego Springs Road, Weather Vane Drive to Barrel Drive (Pipeline 10)				$ 105,000						
38	Pipeline for Santiago and ID5 (Pipeline 11)		$ 110,000	$ 104,000							
39	De Anza Dr. 1600 block west from Yaqui Road (Pipeline 12)				$ 252,000						
40	Club Circle Pipeline Evaluation			$ 50,000							
41											
42											
43	TOTAL - CAPITAL IMPROVEMENTS PROGRAM	$ 1,909,000	$ 1,112,000	$ 1,257,700	$ 1,051,600	$ 1,455,000	$ 1,504,000	$ 1,680,000	$ 1,135,000	$ 1,285,000	$ 35,000
44	POSSIBLE PROP 1 GRANT FUNDS	$ 1,193,000									
45	TOTAL - SHORT LIVED ASSETS (FROM SHEET 2)	$ 310,500	$ 260,000	$ 177,000	$ 189,400	$ 230,000	$ 48,000	$ 35,000	$ 175,000	$ 60,000	$ 40,000
46											
47	TOTAL CIP AND SHORT LIVED ASSETS ANNUAL BUDGET	$ 2,219,500	$ 1,372,000	$ 1,434,700	$ 1,241,000	$ 1,685,000	$ 1,552,000	$ 1,715,000	$ 1,310,000	$ 1,345,000	$ 75,000
48											
49											
56											
57											
58											
59											
60											

	A	E	F	G	H	I	J	K	L	M	N
2	**CIP-SHORT LIVED ASSETS**	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27
3											
4											
5	**WELLS**										
6	ID1-8, 125 Hp		$ 40,000		$ 15,000				$ 50,000		
7	ID1-10, 150 Hp			$ 20,000							
8	ID-1 Well 12 pump and casing/cleaning	$ 50,000			$ 74,400		$ 23,000			$ 40,000	
9	ID-1 16			$ 80,000							
10	ID4-11, 200 Hp		$ 20,000	$ -	$ 80,000			$ 20,000			
11	ID4-18		$ -			$ 40,000	$ -			$ 20,000	
12	ID5-5, 200 Hp	$ 80,000		$ -	$ 20,000		$ -		$ 80,000		
13											
14	**TANKS**										
15	Rams Hill #1-cleaning			$ 15,000				$ 15,000			$ 15,000
16	Country Club, 1999 1.0 MG					$ 150,000					
17											
18	**BOOSTER/PRESSURE REDUCING STATIONS**										
19											
20	**WASTEWATER TREATMENT FACILITY**										
21	Clarifyer Rehab-Prop 1 Grant	$ 118,500					$ 25,000				$ 25,000
22											
23	**EQUIPMENT**										
24	Emergency Generator Mobile Trailer	$ 12,000		$ 25,000	$ -						
25	Backhoe	$ -	$ 200,000								
26	Pickup	$ 50,000		$ 37,000		$ 40,000			$ 45,000		
27											
28	**TOTAL SHORT LIVED ASSETS REPLACEMENT PROGRAM**	$ 310,500	$ 260,000	$ 177,000	$ 189,400	$ 230,000	$ 48,000	$ 35,000	$ 175,000	$ 60,000	$ 40,000

MEMORANDUM

DATE: June 9, 2016
TO: Borrego Water District Board of Directors
FROM: Jerry Rolwing, General Manager and David Dale, Dynamic Consulting Engineers, Inc.
Re: Borrego Water District, 5-10 Year Capital Improvement Program (CIP) Justification

This memorandum is to provide detailed information and justification for the proposed CIP for the next ten years. Through a regular maintenance schedule, the infrastructure of the Borrego Water District is in overall good condition. The District is proactive in planning for replacement of known short lived assets and necessary capital improvement projects to increase the useful life and reliability of the system, and reduce the District's risk and overall maintenance costs. This is done through the dedication and experience of the system operators and staff. The District's consulting engineer participated in the preparation of this CIP and Short Lived Assets replacement program.

A CIP will provide many benefits to the District. The CIP will:

- Allow for a systematic evaluation of all potential projects at the same time.
- Provide the ability to stabilize debt and consolidate projects to reduce borrowing costs.
- Serve as a public relations and economic development tool.
- Preserve the District's infrastructure while ensuring the efficient use of public funds.
- Be a tool used for applications for Federal and State grant and loan programs.

Projects included in the CIP were prioritized based on many years of experience and firsthand knowledge of the system and its deficiencies. The anticipated costs for each project were developed based on trends in the market and historical costs to the District. Normal operating expenses (such as office equipment and minor repairs) are not included in the short lived assets program. The CIP includes projects with a value of $5,000.00 or more.

Justification for the expected expenses in the CIP and Short Lived Assets are as follows:

Short Lived Assets

Wells

This data was compiled from historical repairs to the pumps over a 10 year period. The trends for repairs and replacements of motors and well casing have also been reviewed over the period. The wells are the essential component of the water production operation. When a well fails, the entire distribution system is disrupted. The goal is to properly maintain the equipment on a proactive basis and work for timely, cost effective repairs before failure. Based on historical trends, the numbers provided in the Short Lived Assets are realistic. Staff strives to keep the equipment adequately maintained; however some unexpected failures will undoubtedly arise.

Tanks

The California Department of Health Services requires the District to physically inspect the inside of the domestic water reservoirs every three years. This service is performed by a consultant that utilizes divers and provides a written report as well as a video. There is one steel reservoir that is equipped with cathodic protection that was resurfaced last year. One of our five bolted steel (galvanized) tanks will need inside coating in this year. We have applied for Proposition 1 grant funding to recoat the three galvanized tanks in Improvement District #4, but in case the grant request is unsuccessful, we included the coating for one tank in this year's budget. As internal inspections warrant, tanks will be coated in future years. The bladder in the 800 Reservoir has failed and steps are presently underway to construct a new tank in its place. This has also been added to the budget. The remaining reservoirs were constructed with galvanized metal which historically has proven to be compatible with the constituents in our local groundwater. We will be investigating methods of rehabilitation for these tanks over the next year.

Booster Stations

This data was compiled from historical repairs and anticipated replacement costs.

Wastewater Plant

The costs associated with the wastewater operations are based on historical records and anticipated repairs by the wastewater treatment plant operator and District engineering consultants. In order to maintain infrastructure integrity, a ten year program is included to re-build the concrete facilities that are showing sign of deterioration from the harsh desert climate over the past 25 years. We have also included a project to video the sewer collection mains in years three and five. Proposition 1 grant applications have also been submitted to rebuild the deteriorating concrete at the plant, video inspect the sewer mains at Club Circle and perform a feasibility for plant conversion to from secondary to tertiary treatment.

Equipment

These costs are based on normal wear and tear on District vehicles and equipment. Other considerations include State engine emissions requirements as they become more stringent.

Capital Improvement Program (CIP)

Capital Improvement Projects include Wells, Booster Stations, Reservoirs and Associated Transmission Mains

These are expected major capital improvement items that are anticipated to be required in the next ten year period. These costs do not account for unanticipated population growth or decline.

Wastewater Plant

These costs are associated with the upgrading of existing infrastructure while following the provisions of the Regional Water Quality Control Board Order.

Pressure Reducing Stations

These are estimated expenditures based on past and future studies regarding the distribution system.

Pipelines

The distribution system requires continual upgrades to avoid pipeline breaks and associated damages from negligence. The list of future projects was compiled with staff and engineering assistance and represents the anticipated pipeline improvements to alleviate any future problems with high pressures currently experienced within the distribution system.

Other Infrastructure

Over time, fire hydrants fail and require replacement. Some of the older hydrants in the system are constructed with inferior material as compared to today's standards and a regular replacement program is needed.

Groundwater Management

In September 2014, the State enacted the Sustainable Groundwater Management Act (SGMA). This requires all groundwater basins that are deemed "medium or high" level of overdraft to create a Groundwater Sustainability Plan (GSP) by January 2020. The GSP must bring the groundwater basin into balance (natural recharge equals extractions) in 20 years from Plan adoption. The Borrego Water District is working on the planning process and developing costs associated with creating the GSP. It is the intention of the District to spread these costs over all groundwater pumpers in the valley, with ratepayers responsible for their share.

6/09/16

Jerry Rolwing
General Manager
Borrego Water District
806 Palm Canyon Drive
Borrego Springs, CA 92004

Mr. Rolwing:

I have reviewed the proposed Capital Improvement Program for the next ten years and concur that the projects identified in the schedule are the most pressing physical infrastructure needs of the District at this time. The estimated costs (in 2016 dollars) of these improvements are reasonable for planning purposes.

If you have any questions please contact me.

Regards,

David Dale, PE, PLS
Contract Engineer

203 Countryside Drive, El Centro CA 92243 Tel. (760) 960-8500

BORREGO WATER DISTRICT
POLICY STATEMENT

SUBJECT: CASH RESERVES POLICY

NO: 2011-05-01

ADOPTED: 2011-05-25
AMENDED: 2015-05-27
AMENDED: 2016-05-25
AMENDED: 2017-05-24 Edits by HE 4/18/2017

I. BACKGROUND AND INTRODUCTION

Reserves are needed because of risk. Water and sewer operations are inherently risky, given the potential liability associated with repairing and replacing infrastructure necessary for maintaining 24x7 operations for supplying potable water and sewer and wastewater treatment services to the homes and businesses of Borrego. In addition, water operations have risk associated with the volatility of revenue due to weather conditions. Reserves also assist in reducing rate shocks. Without them a water utility is exposed to rate instability. Rate instability increases the cost of borrowing, which drives up rates. In addition, reserves help the District improve its credit rating, which translates into lower interest rates on debt and thus lower rates for the District's customers. Also, sometimes bond or loan covenants require a debt reserve or recommend a rate stabilization reserve.

Many utilities operate in a state of revenue deficiency, which means they either rely on existing reserves, skimp on funding reserves, or defer economically prudent repair and replacement of capital infrastructure to the future where higher costs will be borne by ratepayers to repair or replace infrastructure that has failed catastrophically. Becoming revenue sufficient means that a utility can count on receiving adequate revenues to fully fund utility operations, including debt service obligations, and some portion of capital improvements from rate revenues and reserves. Reserve accounts are a vital part of water and sewer and wastewater treatment system's financial health.

This Board believes that operating with revenue sufficiency is required, not only to remain creditworthy for future capital borrowing, but also to replace depleted reserves necessary to operate most economically. For these reasons, the District will maintain reserve funds so as to provide working capital for operations; funds required by law, ordinance and bond covenants; and necessary cash for the scheduled and unscheduled repair and replacement of capital infrastructure; as well as funds set aside for groundwater management purposes.

Reserves are also necessary for the District to stabilize rates due to normal revenue and cost uncertainties, and to provide a prudent amount of insurance against economic downturns and emergencies. The efficient and discrete management of these cash reserves, when combined with their appropriate replacement as they are drawn down from time-to-time add additional assurance that the current levels of service reliability and quality that the District's ratepayers have grown to expect will continue into the future.

This reserve policy is based upon prudent financial management practices and those amounts required by legal, legislative, and contractual obligations that are critical to the financial health of the District. This policy defines required fund types for segregation purposes and their funding levels that are based upon this District's unique

operating, capital investment and financial plans. Both restricted reserves and Board discretionary reserves for the water enterprise and the sewer and wastewater enterprise will be funded by rates specific to those enterprises so as to meet California Proposition 218 requirements. That is, reserves specific to the needs of the District's water enterprise will be accumulated from water rates. Reserves specific to the needs of the District's sewer and wastewater enterprise will be funded from sewer and wastewater treatment rates.

II. RESTRICTED RESERVES. Restricted Reserves are established and utilized for narrowly defined purposes and are protected by law or covenant. The District's Restricted Reserves for its water and sewer and wastewater treatment enterprises are the following:

Debt Reserves. Reserves equal to the annual principle and interest (P&I) for debt obligations of the District shall be formally transferred and restricted in accordance with all legal requirements.

System Growth Reserves. These reserves generated from development charges for new meters as specified by the District's New Development policy in effect are used to offset capital projects or debt service related to new development in the District so that new development pays for itself rather than requiring a subsidy from existing ratepayers.

III. BOARD DISCRETIONARY RESERVES

Operating or Working Capital Reserves. The purpose of an operating reserve is to have liquid cash on hand for the continued day-to-day operations of the utility. The Operating Reserve may be used for cash flow purposes to fund necessary expenses without the need to wait for billed revenue to come in as well as any unexpected increases in operating expenses. The amount of the Operating Reserve is commonly pegged to a certain percentage of the utility's total operating expenses. The set percentage is usually dictated by the utility's bill frequency; if customers are billed on a monthly basis, then revenue continuously comes in and the need to have a significant amount of funds within the Operating Reserve is not necessary. Based on industry standards, The Operating Reserve, in the case of monthly billing, should equal around 90 days of expenses (3 months). As the bill frequency is less frequent, the Operating Minimum Reserve should be increased to account for the time delay of receiving cash on hand. The operating or working capital reserve shall be a minimum reserve of no less than 90 days of Operating and Maintenance annual expenses (O&M), with an ideal operating reserve target of 120-days of annual O&M expenses.

Rate Stabilization Reserves. These reserves are used to stabilize water and sewer and wastewater treatment rates to the extent possible. This reserve, when filly funded, shall be maintained at level of thirty (30%) percent of the revenue generated from the commodity rate for water services and thirty (30%) percent of the total revenues from sewer services. This reserve is to defray any temporary unforeseen and extraordinary increases in the operating costs of the District.

Contingency Reserves. The purpose of this reserve is to accommodate unexpected operational changes, legislative impacts or other economic events that may affect the District's enterprise operations, which could not

have been reasonably anticipated at the time the budget was prepared. The target level for this reserve is a minimum of ~~one percent (1%)~~ five percent (5%) and a maximum of ten percent (10%) of the District's total enterprise-wide operating expenses. Generally, the level will be increased as the level of economic uncertainty increases.

Capital Repair and Replacement Reserve (Capital Reserve). A Capital Repair and Replacement Reserve is used primarily to meet and ensure the timely construction of necessary capital improvements without any delays due to cash flow concerns. Capital expenses can fluctuate quite a bit from year-to-year and the Capital Reserve may be leveraged to smooth out significant changes in expenses and; thereby, avoiding any unduly rate shock to District customers. It may also serve as collateral and reassurance when awarding a construction contract. A sound target for a ~~the~~ Capital Reserve is to have an average years' worth of capital expenses based on the District's adopted Capital Improvement Plan (CIP). At a minimum, the Capital Reserve should be funded to at least an amount equivalent to the total annual depreciation value of the system and these funds can be used as a reasonable reinvestment amount into the system. The Capital Reserve target is a reserve equal to the inflated value of a rolling average of the subsequent 5 years of the District's Capital Improvements Plan for water infrastructure repair and replacement (R&R) and sewer and wastewater R&R.

Emergency Reserves. The purpose of the emergency reserve is to protect the District and its customers against the impacts from unanticipated emergencies that would severely impact the District's ability to deliver the water and/or sewer and wastewater treatment services to its customers. This reserve provides funding for emergency repairs or failure of essential equipment that must be immediately replaced and are unanticipated by the Capital Improvements Plan (CIP). The emergency reserve target is $2,000,000, that should be sufficient to finance the required cash flow and liquidity until such time that adequate emergency financing can be secured from conventional outside resources.

IV. OTHER RESERVE FUNDS. The District's Board may establish other cash reserve funds for specific needs that are over and above the reserves noted above as may be necessary from time to time.

	A	H	I	J	K	L	M	N
1	**BORREGO WATER DISTRICT**							
2	**EIGHT YEAR NET INCOME/**	**Projected**	**Projected**	**Projected**	**Projected**	**Projected**	**Projected**	**Projected**
3	**WORKING CAPITAL PROJECTION**	**FY 2017-18**	**FY 2018-19**	**FY 2019-20**	**FY 2020-21**	**FY 2021-22**	**FY 2022-23**	**FY 2023-24**
4	**Prop 218 Approved Water/Sewer Revenue Increases**	**6%**	**6%**	**6%**	**6%**	**0**	**0**	**0**
5	**Projected Water Revenue Increase-commodity**	**6%**	**6%**	**6%**	**6%**	**0%**	**0%**	**0%**
6	**Expected Water Revenue Increase-commodity**	**4%**	**4%**	**4%**	**4%**	**0%**	**0%**	**0%**
7	**Prop 18 approved Water Revenue Increase-base**	**6%**	**6%**	**6%**	**6%**	**0%**	**0%**	**0%**
8	**Expected Water Revenue Increase - base**	**6%**	**6%**	**6%**	**6%**	**0%**	**0%**	**0%**
9	**Projected/Expected Sewer Revenue Increase**	**4%**	**4%**	**4%**	**4%**	**0%**	**0%**	**0%**
10	Existing Water Rate Revenue -commodity	$ 2,006,389	$ 2,086,645	$ 2,170,110	$ 2,256,915	$ 2,347,191	$ 2,347,191	$ 2,347,191
11	Existing Water Rate Revenue -base	$ 1,054,146	$ 1,117,395	$ 1,184,438	$ 1,255,505	$ 1,330,835	$ 1,330,835	$ 1,330,835
12	Additional Water Revenue-commodity	$ 80,256	$ 83,466	$ 86,804	$ 90,277	$ -	$ -	$ -
13	Additional Water Revenue-base	$ 63,249	$ 67,044	$ 71,066	$ 75,330	$ -	$ -	$ -
14	Existing Sewer Rate Revenue	$ 558,392	$ 580,728	$ 603,957	$ 628,115	$ 653,240	$ 653,240	$ 653,240
15	Additional Sewer Revenue	$ 22,336	$ 23,229	$ 24,158	$ 25,125	$ -	$ -	$ -
16	Other non variable Income	$ 329,280	$ 329,280	$ 329,280	$ 329,280	$ 329,280	$ 329,280	$ 329,280
17	**Total Revenue (/w Other Rev.)**	**$ 4,114,047**	**$ 4,287,786**	**$ 4,469,815**	**$ 4,660,546**	**$ 4,660,546**	**$ 4,660,546**	**$ 4,660,546**
18								
19	**O&M Expenses**	**$ 2,996,000**	**$ 2,996,000**	**$ 2,996,000**	**$ 2,996,000**	**$ 2,996,000**	**$ 2,996,000**	**$ 2,996,000**
20								
21	**Net Revenue**	**$ 1,118,047**	**$ 1,291,786**	**$ 1,473,815**	**$ 1,664,546**	**$ 1,664,546**	**$ 1,664,546**	**$ 1,664,546**
22								
27	**CIP Financing**							
28	Cash CIP	$ 2,219,500	$ 1,372,000	$ 1,434,700	$ 1,241,000	$ 1,685,000	$ 1,552,000	$ 1,715,000
29	Debt CIP	$ -	$ -	$ -	$ -	$ -	$ -	$ -
30	GSP Implementation Capital Costs (District Financed Shar	$ -	$ -		$ 1,500,000			
31								
32	**Existing Debt Service**							
33	ID 4 Bonds	$ 251,475	$ 254,500	$ 252,188	$ 254,538	$ 251,550	$ 248,338	$ 254,675
35	Viking Ranch Refinance	$ 143,312	$ 143,408	$ 143,408	$ 143,408	$ 143,408	$ 143,408	$ 143,408
36	**New Debt Service**	$ -	$ -	$ -	$ -	$ -	$ -	$ -
37								
38	**Total Debt Service**	**$ 394,787**	**$ 397,908**	**$ 395,596**	**$ 397,946**	**$ 394,958**	**$ 391,746**	**$ 398,083**
39								
40	**GSP Development Costs (District Cash Share)**	**$ 300,000**	**$ 300,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
41								
42	**Net Annual Cash Flow**	**$ (1,401,453)**	**$ (380,214)**	**$ 39,115**	**$ 423,546**	**$ (20,454)**	**$ 112,546**	**$ (50,454)**
43								
44	Beginning Reserves Level	$ 4,089,663	$ 2,688,210	$ 2,307,996	$ 2,347,110	$ 2,770,656	$ 2,750,202	$ 2,862,748
45	**Ending Reserves Level without any revenue adjustment**	**$ 2,688,210**	**$ 2,307,996**	**$ 2,347,110**	**$ 2,770,656**	**$ 2,750,202**	**$ 2,862,748**	**$ 2,812,294**
46	**Reserve Target Level by FY 2021 is ~$4,000,000**							
47	Desired Reserve Level by end of FY ??	$ 3,200,000.00	$ 3,500,000.00	$ 3,800,000.00	$ 4,000,000.00	$ 4,000,000.00	$ 4,000,000.00	$ 4,000,000.00
48								

BORREGO WATER DISTRICT
PROPOSED RATES FOR
FISCAL YEARS 2018-2021
Adopted May 24, 2017

Sewer Rates

The District provides sewer service to areas 1, 2 and 5. Changes are being proposed for all Areas. The District's monthly sewer charges are based on one equivalent dwelling unit (EDU) usage of 250 gallons per day, for a typical single family residence. Non-Residential projected EDU requirements are determined on a case-by-case basis. Sewer customers in area 2 (TCS) are charged a fixed monthly holder fee, and a monthly user fee based on number of EDU's

Sewer service charges are proposed to change as shown in the following table:

	Current Rates FY 2017	FY 2018 Projected	FY 2019 Projected	FY 2020 Projected	FY 2021 Projected
Sewer Area 1	$38.78	$40.33	$41.94	$43.62	$45.37
Sewer Area 5	$45.10	$46.90	$48.78	$50.73	$52.76
TCS User	$45.10	$46.90	$48.78	$50.73	$52.76
TCS Holder	$24.76	$25.75	$26.78	$27.85	$28.97
BSR	$24.76	$25.75	$26.78	$27.85	$28.97
BSR Usage	$1.82	$1.89	$1.97	$2.05	$2.13

Water Rates

The District's water rates have two components: 1) a **Fixed Meter Charge** based on the customer's meter size, to recover a portion of the District's fixed costs of operating, maintaining and delivering water, and 2) a **Commodity Charge**, determined by the amount of water used. It is proposed that the fixed charges, applicable to all customers account for 33% of the District's ongoing expenses, and 67% of such expenses should be funded on a consumption basis. It is further proposed that both charges increase at the rate of 6% per year for four years, in order to meet future increases in expenses, provide reserves, and provide sufficient reserves to meet any future debt obligations, and to allow for additional annual increases to pass through inflation. The proposed rates would consider two tiers, calculated to address the costs incurred by the District to deliver water, the difference based on basic domestic (i.e., indoor) water usage, and outdoor irrigation.

Fixed water meter charges are proposed to change as shown in the following table:

Meter size	Current Rates FY 2017	FY 2018 Projected	FY 2019 Projected	FY 2020 Projected	FY 2021 Projected
¾ "	$34.89	$36.99	$39.21	$41.57	$44.07
1"	$45.27	$47.99	$50.87	$53.93	$57.17
1 ½"	$71.20	$75.48	$80.01	$84.82	$89.91
2"	$102.32	$108.46	$114.97	$121.87	$129.19
3"	$185.31	$196.43	$208.22	$220.72	$233.97
4"	$278.68	$295.41	$313.14	$331.93	$351.85
6"	$538.03	$570.32	$604.54	$640.82	$679.27

Commodity Rates are proposed to change as shown in the following table:

Residential	Current Rates FY 2017	FY 2018 Projected	FY 2019 Projected	FY 2020 Projected	FY 2021 Projected
Tier 1 1-7	$3.16	$3.35	$3.56	$3.78	$4.01
Tier 2 >7	$3.48	$3.69	$3.92	$4.16	$4.41

Non-Residential	Current Rates	FY 2018 Projected	FY 2019 Projected	FY 2020 Projected	FY 2021 Projected
Tier1	$3.35	$3.55	$3.77	$4.00	$4.24

Other Rates and Fees

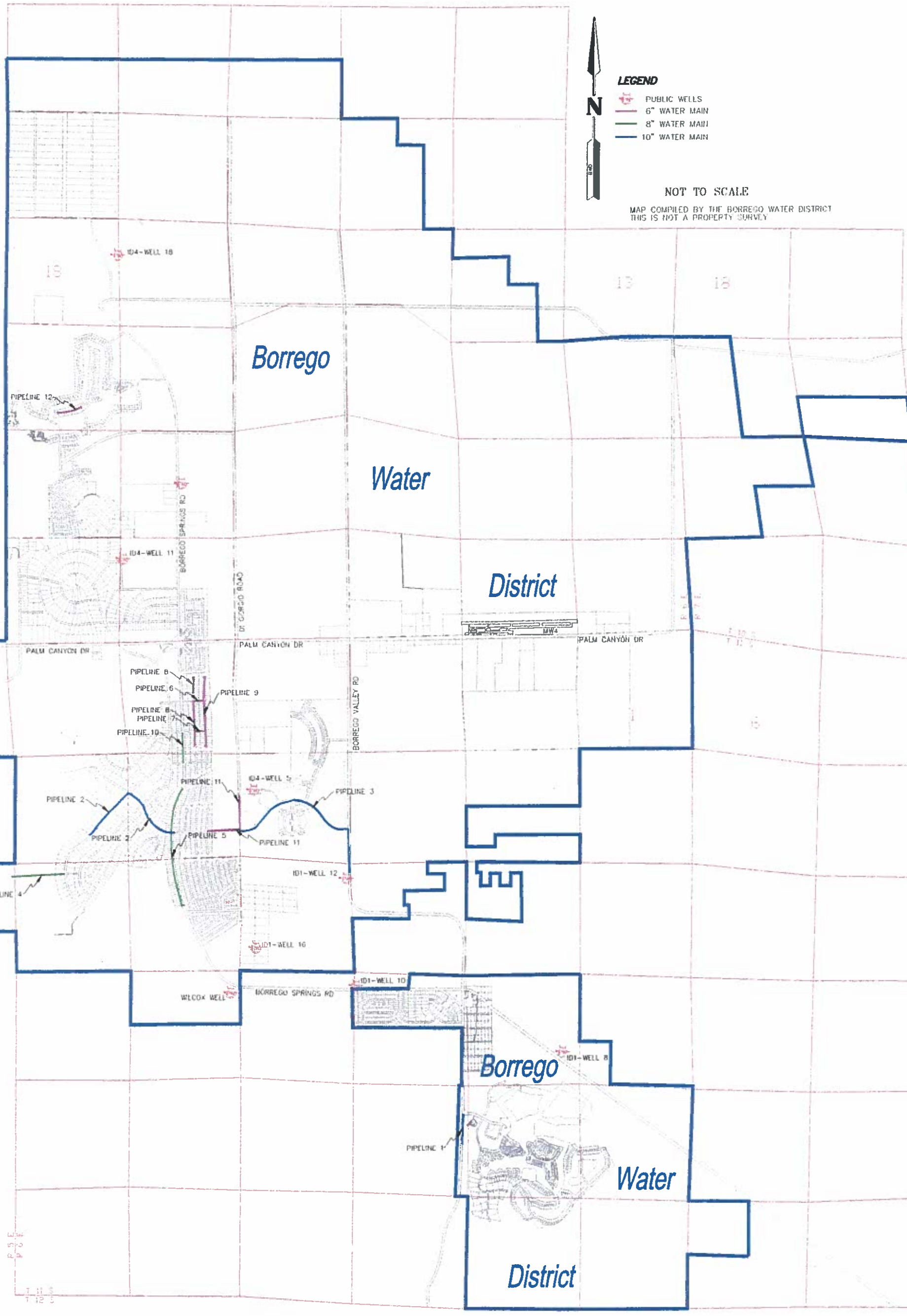
Any rates or fees associated with water or sewer service that are not addressed in this notice shall remain in full force and effect as previously adopted by the Board of Directors.

Pass Through Costs

Pursuant to AB 3030, the District Board will also authorize the pass-through of future rate and charge increases by San Diego Gas & Electric for electricity rates associated with storing, treating, pumping, and delivering water. This authorization will be in effect for five years, until June 30, 2021. The Board will hold a public hearing to review the proposed increases prior to enacting any such changes.

BORREGO WATER DISTRICT

NEW TRANSMISSION LINES/WATER MAINS AND PIPELINE REPLACEMENTS



New Pipeline Installations

Pipeline 1 CIP Line 11	10" Transmission Line on the east side of Yaqui Pass Road going south to existing 10" water main Total length 1400 feet feet at $80.00 per foot Estimated cost $112,000.00
Pipeline 2 CIP Line 12	10" Transmission Line from the intersection of Borrego Springs Road and the intersection of Tilting T Drive to the intersection of Tilting T Drive and Country Club Road. Total length 3200 feet feet at $75.00 per foot Estimated cost $240,000.00
Pipeline 2 CIP Line 12	8" Transmission Line and 6" Watermain starting at the intersection of Tilting T Drive and Country Club Road continuing southwest on Country Club Road for 2750 feet to an existing 8" Transmission Line and 6" Water Main. Total length 2750 feet at $70.00 per foot Total length 2750 feet at $70.00 per foot Estimated cost $385,000.00
Pipeline 3 CIP Line 13	10" Transmission line from well 12 to Tilting T Road to Digiorgio Road Total length 8600 feet at $80.00 per foot Estimated cost $688000
Pipeline 4 CIP Line 14	8" Transmission Line from existing Transmission Line at the intersection of Country Club Road and Slash M Road continuing west to the exting Country Club Tank. Total length 2510 feet at $70.00 per foot Estimated cost $175,700.00
Pipeline 5 CIP Line 32 CIP Line 33	8" Water Main from the intersection of Borrego Springs Road and Walking H Drive to the intersection of Borrego Springs Road and Country Club Road. Total length 5850 feet at $70.00 per foot Estimated cost $409,500.00
Pipeline 6 CIP Line 34	6" Water Main going west to east on T Anchor Drive from Frying Pan Road to Double O Road. Total length 525 feet at $65.00 per foot Estimated cost $34,125.00
Pipeline 7 CIP Line 35	6" Water Main going west to east on Weather Vane Drive from Frying Pan Road to Double O Road. Total length 525 feet at $65.00 per foot Estimated cost $34,125.00
Pipeline 8 CIP Line 36	6" Water Main going north and south on Frying Pan Road from T Anchor Drive. Total length 3110 feet at $80.00 per foot Estimated cost $248,000.00

Pipeline 9 CIP Line 37	6" Water Main going north and south on Double O Road from T Anchor Drive. Total length 3920 feet at $80.00 per foot Estimated cost $313,600.00
Pipeline 10 CIP Line 38	8" Water Main from intersection of Borrego Springs Road and Weather Vane Drive to the intersection of Borrego Springs Road and Barrel Drive. Total length 1500 feet at $70.00 per foot Estimated cost $105,000.00
Pipeline 11 CIP Line 39	6" Water Main going east from Double O Road to Di Giorgio Total length 1700 feet at $65.00 per foot Estimated cost $110,000
Pipeline 11 CIP Line 39	6" Water Main going north on Di Giorgio Road to Santiago Estates Total length 1600 feet at $65.00 per foot Estimated cost $104,000
Pipeline 12 CIP Line 40	6" Water Main 1600 Block of De Anza Drive Total length 1260 feet at $200.00 per foot Estimated cost $252,000
	Total Estimated Cost $3,210,450.00

BORREGO WATER DISTRICT

BOARD OF DIRECTORS MEETING – MAY 16, 2017

AGENDA BILL II.E

May 10, 2017

TO: Board of Directors, Borrego Water District

FROM: Geoff Poole, General Manager

SUBJECT: Acceptance of BWD Wastewater Plant Tertiary Assessment Proposal – G Poole

RECOMMENDED ACTION:

Accept Dudek Proposal and authorize staff to work with Operations and Infrastructure Committee and Legal Counsel to create the necessary contract documents.

ITEM EXPLANATION

BWD has received a $75,000 Proposition One Grant from the State of California to evaluate the feasibility of converting the existing wastewater treatment plant to tertiary treatment levels. Staff and District Engineer (DE) Dale developed a Request for Proposal that was approved by the BWD Board and pubished.

Two proposals were received, Dudek Engineering and Corollo Engineering. Each proposal was reviewed by DE Dale, BWD Staff and the O and I Committee. The group determined that both proposals were responsive. Staff, DE and the O and I Committee held a meeting meeting and discussed both proposals. During the meeting the possible advantage of obtaining a "fresh look" by selecting Corollo was discussed but based on Dudek's lower cost estimate (Corollo $77,000 and Dudek $71,000) and experience, staff, DE Dale and the O and I Committee all recommend award of the contract and authorization to proceed with the necessary contract documents.

FISCAL IMPACT

Approved State of California Proposition One funding of $75,000 exists for this project

ATTACHMENTS

1. Dudek Proposal

ORIGINAL

DUDEK

PROPOSAL TO PROVIDE A RECYCLED WATER FEASIBILITY ASSESSMENT

PREPARED FOR
BORREGO WATER DISTRICT

PREPARED BY

Dudek
605 Third Street
Encinitas, CA 92024
800.450.1818
www.dudek.com

March 10, 2017

A Proposal for a Recycled Water Feasibility Assessment for the Borrego Water District

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C Cover Letter

March 10, 2017

Geoff Poole, General Manager
Borrego Water District
806 Palm Canyon Drive
Borrego Springs, California 92004

Subject: **Proposal for a Recycled Water Feasibility Assessment for Borrego Water District**

Dear Mr. Poole:

Congratulations on receiving a grant to complete a recycled water assessment! Dudek is pleased to submit our proposal in response to your above-referenced project.

Dudek understands the need of the Borrego Water District (District) to reduce pumping in the Borrego Valley Groundwater Basin by 70 percent and that conversion of existing potable water demands to recycled water is a key factor for meeting this goal. The Recycled Water Feasibility Assessment will provide the District with a determination if recycled water production is an economically viable alternative and define a plan for implementation. Additionally, the assessment will provide the District with an understanding of potential regulatory, institutional, technical or financial opportunities and challenges that may influence the project.

The Dudek team has extensive recycled water feasibility experience. Our Treatment Engineer, Michael Hill, has recent experience with several treatment plant expansion and rehabilitation projects as well as package treatment plant design. Our Recycled Water Conversion Specialist, John Robinson, has completed over 300 recycled water customer conversions in Southern California, including dozens of golf courses. Supplemented by significant expertise in collection system design and hydraulic modeling, we have the expertise and experience to get your project done right.

We have assembled a highly experienced team eager to prepare your recycled water feasibility assessment and we look forward to continuing to support the District. Please feel free to contact me at 760.479.4114 or by email at ecaliva@dudek.com, if you have any questions or require any additional information.

Sincerely,

DUDEK

Elizabeth Caliva, PE
Project Manager

D Dudek Scope of Services

Dudek is a leader in recycled water projects from policy through operations. We combine in-depth technical expertise and extensive experience to plan, design, construct and manage recycled water facilities and infrastructure.

Dudek is proud of our long tradition of providing high-value consultative and professional engineering services to both public and private clients in Southern California. The District can be confident the Dudek Team is experienced in developing, implementing, and designing recycled water infrastructure. Dudek is at the forefront of recycled water engineering, completing dozens of projects throughout California that incorporate innovative technologies and techniques. This section presents a selection of projects that demonstrate our team's proven performance in assisting other agencies (see Figure 1, below) in defining, prioritizing and ultimately delivering cost effective, successful projects.

SPECIALIZED RECYCLED WATER TEAM EXPERIENCE

- Policy Development
- Master Planning
- Permitting
- Agency Coordination
- Design
- Treatment
- Construction
- Feasibility Studies
- Site Assessment

FIGURE 1. DUDEK SOUTHERN CALIFORNIA RECYCLED WATER EXPERIENCE

IMPERIAL COUNTY
1. Seeley County Water District

LOS ANGELES COUNTY
2. Las Virgenes Municipal Water District

ORANGE COUNTY
3. City of Anaheim
4. Irvine Ranch Water District
5. Municipal Water District of Orange
6. Santa Margarita Water District
7. South Coast Water District
8. El Toro Water District
9. City of San Juan Capistrano

RIVERSIDE COUNTY
10. Idyllwild Water District
11. City of Corona

RIVERSIDE COUNTY
12. Valley Sanitary District
13. Coachella Valley Water District
14. Lee Lake Water District
15. Eastern Municipal Water District
16. Elsinore Valley Municipal Water District
17. Western Municipal Water District

SAN BERNARDINO COUNTY
18. Yucaipa Valley Water District
19. Inland Empire Utility Agency

SAN DIEGO COUNTY
20. City of Carlsbad
21. Padre Dam Municipal Water District
22. Rincon Del Diablo Municipal Water District
23. City of San Diego
24. Leucadia Water District

SAN DIEGO COUNTY
25. Rancho Santa Fe Community Services District
26. Ramona Municipal Water District
27. San Elijo Joint Powers Authority
28. Encina Wastewater Authority
29. Santa Fe Irrigation Water District
30. Whispering Palms Community Services District
31. Valley Center Municipal Water District

SAN LUIS OBISPO COUNTY
32. City of Morro Bay
33. City of San Luis Obispo

SANTA BARBARA COUNTY
34. Goleta Sanitary District
35. City of Lompoc
36. City of Guadalupe

Background

The Borrego Water District (BWD or District) supplies water to the community of Borrego Springs from the Borrego Valley Groundwater Basin, which was been determined to be in "critical overdraft" status. In accordance with the Sustainable Groundwater Management Act of 2014, the basin will be required to reduce groundwater extractions by 70% to achieve sustainability. One conservation measure the District needs to consider is the expansion of the District's sewer collection system to support the production of recycled water for delivery to the Rams Hill Golf Course.

The BWD owns and operates the Rams Hill Wastewater Treatment Facility (WWTF) under Order No. R7-2007-0053, permitted through the California Regional Water Quality Control Board (RWQCB), Region 7 – Colorado River Basin. The WWTF is a 250,000 GPD extended aeration (oxidation ditch) plant with evaporation/percolation ponds for disposal. The WWTF serves approximately 20% of the community of Borrego Springs, specifically the Rams Hill residential community and the Town Center area, which includes hotels, a motel and small businesses along Palm Canyon Drive. The WWTF currently treats an annual average of flow rate of 68,000 GPD with low season (summer) flows down to approximately 20,000 GPD.

Dudek performed a study in 2014 that concluded the economic viability of upgrading the WWTF would require a minimum of 100 AFY (0.09 MGD) of recycled water production. Given current rates of development in the area, it was estimated that it would be 10-20 years before economic viability would be reached given the limited extent of the existing collection system. Only 20% of the residents in the BWD service area are sewered; therefore, expansion of the collection system to areas not currently served would allow for increased sewer flows to the plant and expedite the economic viability of tertiary upgrades and production of recycled water at the WWTF.

The District was recently awarded a Proposition 1 grant to assess the institutional, regulatory, technical and financial opportunities and challenges associated with a recycled water project at the Rams Hill WWTF.

Project Understanding and Approach

As stated above, the overarching goal of this project is to reduce pumping in a groundwater basin currently in critical overdraft status. The objectives to reach this goal include the following:

1. Identify the potential recycled water production capacity at one or more treatment plants
2. Identify potential recycled water users
3. Identify alternative projects and select the preferred projects within the current regulatory setting
4. Determine economic viability and cost for both infrastructure improvements, recycled water production and distribution.
5. Identify environmental, legal, and institutional issues
6. Develop an implementation and financial plan for moving forward with the project

Based on our understanding of the existing conditions, we foresee two potential alternatives for consideration in this assessment.

1. Expand the existing collection system with conveyance to one centralized WWTF (Rams Hill)

2. Collect wastewater from individual developed areas currently on septic systems and utilize satellite packaged treatment plants. .

Alternative 1 : The existing Rams Hill WWTP is only seeing an average of 25% of its design capacity.. A review performed by Dudek in 2014 determined economic viability was not met until an average plant flow rate of 90,000 gpd. Therefore, in order to make this alternative economically feasibility, additional wastewater would need to be collected and conveyed to the WWTF. Assuming a 20% sewerage rate, using a peak day flow of 93,000 gpd during the high season (population 8,000) a per capita sewer generation rate of 58 gpcd was estimated. At this per capita rate, the expanded collection system would need to reach an additional 430 permanent residents, or 215 homes (assuming two persons per home).

If plant capacity of 250,000 gpd was reached, the plant would produce approximately 280 AFY. It is estimated that the Rams Hill Golf Course uses 1,000 AFY of groundwater. Thus, the plant would be capable of supplying almost 30% of the course's needs. To reach plant capacity, approximately 3,100 residents, or 1,550 homes would need to be connected to the centralized sewer system.

Alternative 2: Dudek reviewed the District's service area to identify other potential supplies and demands for recycled water in addition to the Rams Hill Country Club and Golf Course. The following table includes potential developments that could supplement golf course irrigation demand with recycled water. The percent build-out estimates were based on a google earth inspection. Potential sewer flows were based on an estimated 58 gpd per capita. .

TABLE 1. POTENTIAL NEW SEWER FLOW AND TREATMENT PLANT LOCATION

Golf Course Community	No. Homes / Est. % Buildout	Sewer Status	Potential New High Season Wastewater Supply (gpd)[1]	Potential New Low Season Wastewater Supply (gpd)[2]
Rams Hill	280 / 30%	Sewered	N/A	N/A
Club Circle	35 / 5%	Septic	4,100	1,540
Road Runner	RV Park – Seasonal	Sewered	N/A	N/A
Mobile Home Park	425 / 100%	Sewered	N/A	N/A
De Anza	330 / 80%	Septic	38,300	14,400

Notes:
[1] Assumes 58 gpcd and two persons per home at full occupancy.
[2] Assumes 58 gpcd and two persons per home at low season occupancy (37.5%).

Based on Table 1, there is a near term potential benefit from use of a package treatment plant at is the De Anza Country Club and Golf Course. Further discussion with the District regarding the near and long term siting of one or more satellite treatment plants will be part of the project kickoff meeting.

Approach to the Scope of Work

Task 1 Market Assessment and Supply Availability

Dudek agrees to Task 1 as included within the project RFP with the following modifications: The Kickoff meeting would be held in workshop form with the District, Dudek, local agencies and stakeholders to review an initial supply analysis for the District. Input from the Kickoff Workshop would be used in the full market assessment and supply analysis with results presented in the Status Workshop, held approximately two months later. A Technical Memorandum would be developed with the results of the assessment.

Deliverables

- One (1) Kickoff Workshop
- Technical Memorandum with results of market assessment (PDF)

Task 2 Alternatives Analysis and Recommended Project(s)

Dudek agrees to the description in Task 2 with the following modifications. A maximum of three alternatives will be evaluated. The initial results of the alternative analysis will be presented at a Status Workshop with the District, Dudek, local agencies and stakeholders in attendance. Input from the meeting will be included in a Technical Memorandum.

Deliverables:

- One (1) Status Workshop
- Technical Memorandum presenting results of Alternative Analysis and Recommended Project

Task 3 Environmental Checklist

Dudek agrees to the description in Task 3.

Deliverables:

- Environmental checklist table in Word format for inclusion in the final report
- Summary of environmental checklist in Word format to be incorporated into the report

Task 4 Legal and Institutional Issues

The level of effort associated with this Task may be highly variable. We have included an estimate of work hours within the fee estimate table we feel is reasonable to support the District with Task 4. Work effort beyond this estimated number of hours may need to be negotiated dependent on the project budget status.

Task 5 Implementation/Financing Plan

The level of effort associated with this Task may be highly variable. We have included an estimate of work hours within the fee estimate table we feel is reasonable to support the District with Task 5. Work effort beyond this estimated number of hours may need to be negotiated, dependent on the project budget status.

Task 6 Report Preparation

Dudek agrees to the description of Task 6.

Deliverables

- Recycled Water Project Report (in accordance with Appendix B of the Water Recycling Funding Program Guidelines), including market assessment, alternatives analysis, cost estimates, recommended project and GIS based maps (PDF only)

Task 7 Project Coordination and Management

Dudek will perform typical project coordination and project management tasks, including budget and scheduling, for the project.

Deliverables

- Agendas and meeting minutes for Kickoff and Status Workshops

E Similar Project Experience

Dudek is a leader in recycled water projects from policy through operations. We combine in-depth technical expertise and extensive experience to plan, design, construct and manage recycled water facilities and infrastructure.

Dudek is proud of our long tradition of providing high-value consultative and professional engineering services to agencies such as the Borrego Water District. This section presents a select few similar projects that demonstrate our team's proven performance in assisting other agencies in defining, prioritizing and ultimately delivering cost effective, successful projects. In each of these projects, we have advocated for and collaborated with our clients to assess, permit, plan, and implement solutions that meet project-specific goals. Our approach to project focuses on early establishment of the client's needs and identifying alternative and "best fit" solutions that meet immediate and long-term objectives.

Specialized Team Experience in Recycled Water

- Feasibility Studies
- Site Assessment
- Policy Development
- Master Planning
- Permitting
- Agency Coordination
- Retrofit Design
- Construction

The Dudek team is experienced in developing, implementing, designing, and constructing recycled water retrofits. We are at the forefront of recycled water engineering, completing dozens of projects throughout California that incorporate innovative technologies and techniques. The Dudek team consists of individuals who have completed similar services for major Southern California recycled water agencies.

Planning and Preliminary Design of the Upper and Lower San Luis Rey Water Reclamation Facility Recycled Water Conveyance Systems

Client: City of Oceanside
Client Reference: Greg Keppler, Water Utilities Department, 760.435.3520
300 North Coast Highway, Oceanside, CA 92054
Project Completion Date: Ongoing

After completion of their 2015 Recycled Water Master plan, the City of Oceanside implemented the preliminary and final design of their system-wide recycled water distribution system. As partner prime consultants, Dudek/ NV5 completed the validation of the planned system hydraulics, finalization of anticipated recycled water demands, and evaluation of both pipeline alignment and facility siting alternatives as part of the preliminary design.

Using a combination of data sources and close coordination with City staff, Dudek developed an operationally superior combination of storage reservoirs and pump stations allowing servicing of over 80% of the proposed meters off gravity water storage reservoirs. This combination allowed the successful delivery of often substantial and highly variable irrigation demands, a primary factor for recycled water users. In addition, Dudek identified City owned property for facility siting that aided in both permitting and coordination, reducing the complexity and cost of property acquisition.

Together, the Dudek and NV5 team is successfully integrating a growing combination of future recycled water demand customers with model validation and opportunistic facility siting. This method develops distribution system pressure zones, allowing operational flexibility and reliability.

The final design, which will include approximately 30 miles of pipeline, five water storage reservoirs, and seven booster pump stations, will increase recycled water service from 0.2 MGD to 4.5 MGD, representing a monumental leap in water service sustainability for the City Oceanside.

Recycled Water Conversion Projects

Client: City of San Juan Capistrano, Utilities Department
Client Reference: Eric Bauman, Engineering Utilities Manager, 949.487.4312
32400 Paseo Adelanto, San Juan Capistrano, CA 92675,
Project Completion Date: March 2014

The City of San Juan Capistrano's Utilities Department hired Dudek and John Robinson Consulting, Inc. to provide professional engineering services for the City's Recycled Water Conversion projects. The City had identified maximizing the use of available recycled water resources as a cornerstone of its water resources program. Completing its Recycled Water Conversion Projects will increase recycled water use by approximately 1,100 acre-feet (af) per year, and meet the requirements of its grant funding obligations, under the Orange County Integrated Regional Water Management Implementation Program.

The Projects consisted of the design, permitting and construction of several recycled water system conversions to the irrigation systems located along Rancho Viejo Road, including San Juan Creek Road, the Marbella Golf Course, and other sites. The City provided existing GIS information of current irrigation users that were receiving both domestic water and non-domestic water, all to be replaced with recycled water.

Requiring a well-coordinated effort to achieve the conversions before the year-end deadline for grant funding, Dudek's engineers carefully prepared the projects schedule incorporating planning, design, permitting, and coordination with the State Water Resources Control Board Division of Drinking Water (DDW) and other regulatory agencies. To fast-track regulatory approvals, an early Master Engineering Report was prepared for approval by the DDW, including preparation of a SharePoint website to upload plans and engineering reports for sharing with City and regulatory staff.

Dudek also prioritized the recycled water customers using the City's GIS information and field investigation, identifying those with the longest and shortest lead times to schedule appropriately for completion. To expedite construction, Dudek obtained permission from the City to incorporate design and construction phases together where possible, initiating the easiest projects first while additional design and construction plan preparation continued on the more difficult conversions.

To facilitate the expeditious completion of the conversion construction, Dudek provided Construction Oversight services to avoid crucial delays to meet the tight deadline and the optimal use of the available grant funding.

Recycled Water Feasibility Study

Client: City of Guadalupe
Client Reference: Tom Evans, (now with the City of Santa Barbara, 805.564.5377
630 Garden Street, Santa Barbara, CA 93101
Current contact: Dennis Delzeit, 805.343.1340, 918 Obispo Street, Guadalupe, CA 93434
Project Completion Date: March 2014 - current ongoing additional services

Dudek provides engineering services for the City of Guadalupe, including the preparation of a Recycled Water Feasibility Study for the City. The City's wastewater treatment plant was discharging treated effluent overland to storage ponds and spray irrigating on pasturelands as their method of disposal, which offered no revenue to the city. The Recycled Water Feasibility Study will determine if an investment in tertiary treatment and construction of a recycled water distribution system is cost-effective as an alternative water supply to the city's residents, and applicable for state grant funding under Proposition 84.

The initial tasks required for the feasibility study include the following:

Task 1	Data Collection and Review
Task 2	Review of Standards, Ordinances, and Regulations
Task 3	Recycled Water Market Assessment
Task 4	Recycled Water Supply and Demand Evaluation
Task 5	Feasibility Analysis and Alternatives Development
Task 6	Alternatives Development
Task 7	Report Preparation and Presentation to City Council

Lee Lake Recycled Water Master Plan

Client: Temescal Valley Water District
Client Reference: Jeff Pape, General Manager, 951.277.1414
22646 Temescal Canyon Road, Corona, CA, 92883-5015
Project Completion Date: 2012-2014

The Temescal Valley Water Reclamation Facility (TVWRF) produces recycled water and discharges excess treated effluent to the adjacent Temescal Creek. Desiring more operational flexibility and reliability in its reuse and disposal strategies, the District retained Dudek to design aligned recycled water storage with geomembrane floating cover and onsite percolation basins. The new 2 million gallon water reservoir and 2.3 MGD pump station will relieve operational constraints on recycled water production and delivery. Excavation of approximately 70,000 CY for the new 2.5-acre percolation basin will allow land disposal of plant effluent not needed in the recycled water system. By incorporating a series of overflow structures and a simple feedback control loop for sodium bisulfite addition, the new effluent conveyance strategy will maximize availability of recycled water and automatically divert excess dechlorinated recycled water to Temescal Creek for disposal. This project provides multiple benefits for the District including significant on-site recycled water storage capabilities and increased flexibility for managing effluent disposal.

Marbella Country Club Golf Course Recycled Water Conversion Project

Client: City of San Juan Capistrano (Subconsultant to Dudek)
Client Reference: Michael Marquis, Associate Civil Engineer, 949.443.6326
32400 Paseo Adelanto, San Juan Capistrano CA 92675
Project Completion Date: December 2013

Marbella Country Club golf course was one of many projects identified by the City to maximize the use of available recycled water resources as a cornerstone of its water resources program. Completing its Recycled Water Conversion Projects will increase recycled water use by approximately 1,100 acre-feet (af) per year, and meet the requirements of its grant funding obligations, under the Orange County Integrated Regional Water Management Implementation Program. The projects consisted of the design, permitting and construction of several recycled water system conversions to the irrigation systems located along Rancho Viejo Road, including San Juan Creek Road, the Marbella Golf Course, and other sites. The City provided existing GIS information of current irrigation uses that were receiving both domestic water and non-domestic water, both to be replaced with recycled water.

In addition to the Marbella Country Club Golf Course, Mr. Robinson has provided services as a recycled water conversion specialist for the following projects:

Sunset Hills Country Club and Wood Ranch Golf Course

Completed investigations and recycled water conversion drawings for the following two (2) American Golf Corporation sites as a part of the City of Simi Valley Phase 1 Recycled Water Conversion Project.

Alondra Golf Course

Completed investigations and recycled water conversion drawings for the following County of Los Angeles Parks & Recreation – Golf Course Division site as a part of the West Basin Municipal Water District Recycled Water Conversion Project:

F Municipal References within Last 5 Years

Table 2 demonstrates our team's experience serving municipal clients throughout Southern California with planning, design, construction, and operation of recycled water projects.

TABLE 2. MUNICIPAL RECYCLED WATER / WATER RECLAMATION CLIENTS

Client, Years of Service, and Address	General Description of Services								
	Site Assessment	Construction Estimates	Advanced Treatment Analysis	Industrial Engineering Report	Regulatory Approvals	Construction Oversight/Support	As-Built or Other Drawings	Periodic Inspections and /or Supervisor Training	Marketing / design of Recycled Water Pipelines and Reservoirs
City of San Juan Capistrano, 2013-2014 32400 Paseo Adelanto, San Juan Capistrano, CA 92675	•	•		•	•	•	•	•	•
Leucadia Wastewater District, Ongoing for 22 years 1960 La Costa Avenue, Carlsbad, CA 92009	•				•		•		
Temescal Valley Water District, Ongoing for 22 years 22646 Temescal Canyon Road, Corona, CA, 92883	•	•	•	•	•	•	•	•	•
City of Oceanside, Ongoing 300 North Coast Highway, Oceanside, CA 92054	•	•	•	•	•	•	•	•	•
Rancho California Water District, 2010-2014 42135 Winchester Road, Temecula, 92590	•		•						
Yucaipa Valley Water District, Ongoing for 14 years 12770 Second Street, Yucaipa, CA 92399	•	•			•	•	•	•	•
San Elijo Joint Powers Authority, Ongoing 2695 Manchester Avenue, Cardiff by the Sea, CA 92007	•	•	•		•	•	•		•
West Basin Municipal Water District, Ongoing 17140 South Avalon Blvd., Carson, CA 90746	•	•	•	•	•	•	•	•	•
Orange County Water District & South Orange County Wastewater Authority, Ongoing 34156 Del Obispo Street, Dana Point, CA 92629	•	•		•	•	•	•	•	•
Inland Empire Utilities Agency, Ongoing 6075 Kimball Avenue, Chino, 91710	•	•		•	•	•	•	•	•
City of Anaheim, Ongoing 201 S. Anaheim Blvd, Suite 601, Anaheim, CA 92805	•	•			•				•
Eastern Municipal Water District, Ongoing 2270 Trumble Road, P.O. Box 8300, Perris, CA 92572	•	•	•	•	•	•	•	•	•

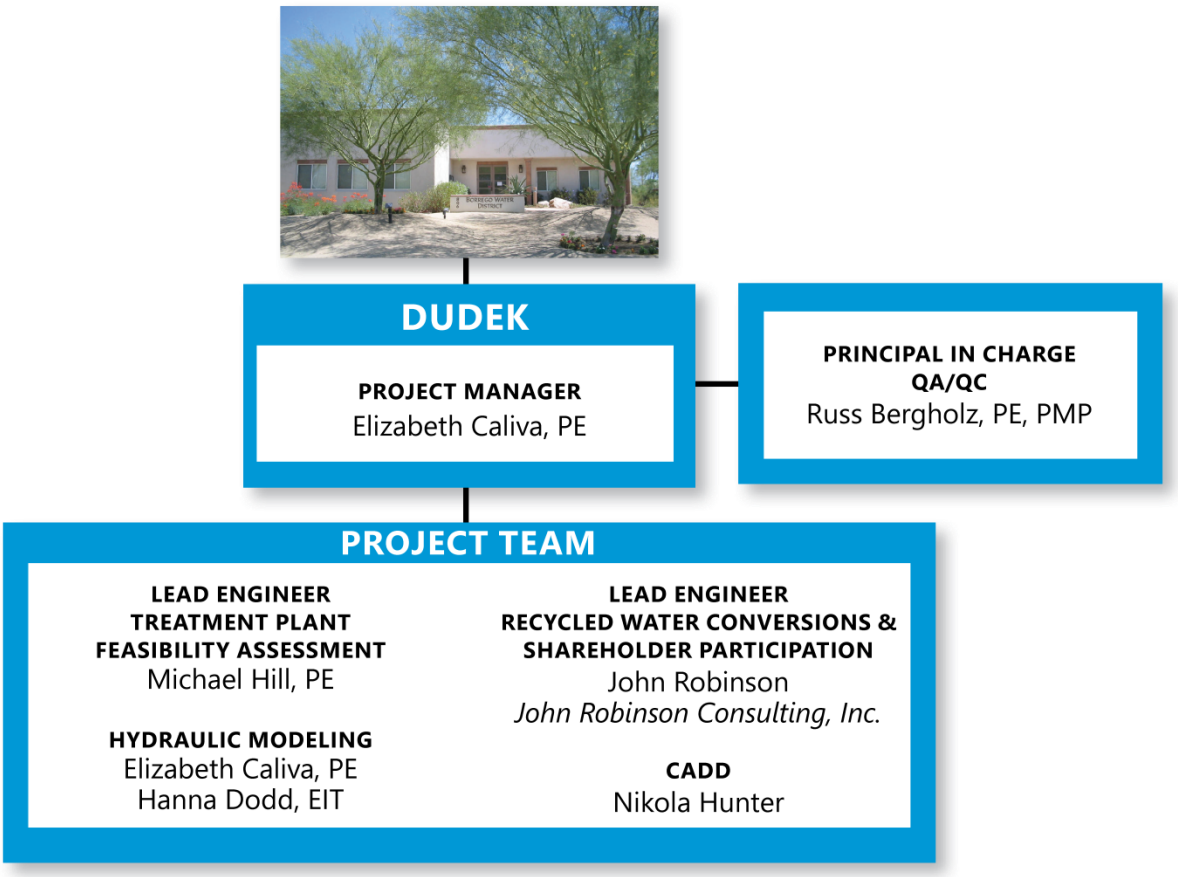
G Proposed Project Personnel

Dudek offers the District a highly experienced team to provide uncompromising technical expertise and a successful project. Led by Project Manager Elizabeth Caliva, PE, and Principal in Charge and QA/QC Russ Bergholz, PE, PMP, our team understands the importance of adhering to project schedules and budget limitations.

Assisting Ms. Caliva is Conversion Specialist John Robinson of JR Consulting, Inc. A trusted Dudek subconsultant, Mr. Robinson has completed over 400 recycled water customer conversions (i.e. water through the meter) as well as 1,500 recycled water customer conversion assessments. He specializes in assisting clients with identifying and assessing customers, evaluating potential non-potable reuse system components and managing the customer development for all customer conversions. Mr. Robinson works closely with the State Water Resources Control Board Division of Drinking Water (SWRCB DDW) and numerous county and municipal agencies for coordination of site issues and approvals and he understands how to make the regulatory approval process go smoothly.

Figure 2 presents the Dudek project team. Brief biographies follow this page and resumes for team personnel are located in Appendix A.

FIGURE 2. PROJECT ORGANIZATION CHART



Project Team

Project Manager / Hydraulic Modeling

Elizabeth Caliva, PE

Elizabeth Caliva specializes in the water/wastewater, recycled water and environmental engineering fields. She has performed a variety of tasks for projects pertaining to recycled water conversion, treatment plant design, pump station design, sewer pipe line design, hydraulic modeling for master planning efforts, urban storm water compliance and federal environmental clean-up.

As Project Manager, Ms. Caliva is responsible for the tracking, monitoring, team delegation, deliverable quality assurance, engineering guidance, accounting, and client and subconsultant coordination associated with each project, including final stamp and signature of project plans and specifications. Ms. Caliva's experience includes:

EDUCATION

University of California, Berkeley
MS, Water Resources and Water Quality Engineering, 2003

University of California, Berkeley
BS, Environmental Engineering, 1999

LICENSES AND CERTIFICATIONS

Professional Civil Engineer
CA No. 64331

PROFESSIONAL AFFILIATIONS

WateReuse Association

- Recycled Water Conversion Projects, City of San Juan Capistrano, Utilities Department
- Recycled Water Feasibility Study, City of Guadalupe
- City of Oceanside Planning & Preliminary Design of the Upper and Lower San Luis Rey Water Reclamation Facility Recycled Water Conveyance Systems

Principal in Charge and QA/QC

Russ Bergholz, PE, PMP

Russell Bergholz, PE, PMP, is a senior project manager with Dudek. Mr. Bergholz is responsible for the management and engineering of water/recycled water-related system master plans and design projects. His experience includes the development of numerous water, recycled water, and sewer master plans, pipeline design projects (including trenchless technology), and infrastructure rehabilitation projects for many southern California cities and special districts. Mr. Bergholz has 20 years' experience and a documented history of keeping projects within scope and budget while maintaining quality control and addressing the critical success factors of clients' projects. Mr. Bergholz' experience includes the Project Manager role for the following projects:

EDUCATION

University of California, Davis
BS, Civil Engineering, 1995

LICENSES AND CERTIFICATIONS

Professional Civil Engineer,
CA No. 59395

Project Management Institute PMP
No. 1472209

PROFESSIONAL AFFILIATIONS

American Public Works Association

California Water Environment Association

Water Environment Federation

- City of Oceanside Planning & Preliminary Design of the Upper and Lower San Luis Rey Water Reclamation Facility Recycled Water Conveyance Systems
- Recycled Water Conversion Projects, City of San Juan Capistrano, Utilities Department
- Oro Grande Pipeline, Victor Valley Water Reclamation Authority.
- Ossum Wash Interceptor Rehabilitation, Victor Valley Water Reclamation Authority.

Lead Engineer – Treatment Plant Feasibility Assessment

Michael Hill, PE

Michael Hill is a project engineer specialized in water/wastewater treatment and infastructure projects and is experienced in all phases of engineering from planning, design, and construction. Mr. Hill is a strong civil/mechanical systems designer and possesses expertise in treatment plant hydraulics, pumping systems, aeration systems, various process equipment systems. He is responsible for detailed design and layout, civil/mechanical calculations and analysis, equipment selection, cost estimation, and development of plans and specifications. Mr. Hill is also experienced in construction inspection and other engingeering services during the construction phase.

EDUCATION

San Diego State University
BS, Civil Engineering, 2009

Magna Cum Laude

LICESNSE

Professional Civil Engineer, CA No. 80727

PROFESSIONAL AFFILIATIONS

American Society of Civil Engineers

- San Elijo Water Reclamation Facility Emergency Power Project, San Elijo Joint Powers Authority
- Woods Valley Ranch Water Reclamation Facility, Water Reclamation Facility, Valley Center Municipal Water District
- Water Reclamation Facility 2 Tertiary Treatment Project, City of Corona

Lead Engineer – Market Assessment and Stakeholder Participation

John Robinson - *John Robinson Consulting, Inc.*

John Robinson has worked on recycled water projects throughout his 20-year career and has completed over 300 recycled water customer conversions (i.e. water through the meter) as well as completing an additional 1,500 recycled water customer conversion assessments. He specializes in assisting clients with identifying and assessing customers, evaluating potential non-potable reuse system components and managing customer development for all customer conversions; developing recycled water conversion plans and construction. Mr. Robinson's experience includes:

EDUCATION

California State University, Long Beach
BS, Civil Engineering, 1993

CERTIFICATIONS

Engineer-in-Training, CA

USC Cross Connection Certification

PROFESSIONAL AFFILIATIONS

CWEA LABS - Board of Directors

OCWA – Board of Directors

WateReuse LA Chapter – Past President

- Marbella Country Club Golf Course, Recycled Water Conversion Projects, City of San Juan Capistrano, Utilities Department
- Rose Hills Recycled Water Project Phase I Pipeline and Conversion
- Recycled Water Users Customer Development

Hydraulic Modeling

Hanna Dodd, EIT

Hanna Dodd is a project engineer focused on water resources and water and wastewater infrastructure. Her experience includes a large array of recycled water, water and wastewater treatment and facilities design analyses. Her expertise consists of novel water treatment techniques, with a particular emphasis in removal of pathogens, mechanical systems, and energy usage and reduction assessments. Ms. Dodd's experience includes:

- State Revolving Fund Application Assistance, San Elijo Joint Powers Authority
- City of Oceanside Planning & Preliminary Design of the Upper and Lower San Luis Rey Water Reclamation Facility Recycled Water Conveyance Systems
- South Anaheim Recycled Water Project, City of Anaheim

EDUCATION

Stanford University
MS, Civil & Environmental Engineering, 2015

California Institute of Technology
BS, Mechanical Engineering, 2013

LICENSE/CERTIFICATIONS

Engineer in Training
CA No. 157828

PROFESSIONAL AFFILIATIONS

WateReuse,

Society of Women Engineers,

Caltech Sustainability Council

H Staff Labor Hours Estimate

TABLE 3. STAFF LABOR HOURS ESTIMATE

Borrego Water District
Recycled Water Feasibility Assessment
DUDEK FEE ESTIMATE
3/10/2017

		Labor Hours and Rates							TOTAL DUDEK HOURS	DUDEK LABOR COSTS	Subconsultant	OTHER DIRECT COSTS	TOTAL FEE
	Project Team Role:	PIC/ QA/QC	Project Manager	Treatment Engineer	Project Engineer	Environ-mental	CAD	Admin			RW Conversion Specialist		
	Team Member:	R. Bergholz	E. Caliva	M. Hill	H. Dodd		N. Hunter	M. Kinney			John Robinson Consulting		
	Billable Rate :	$220	$190	$190	$135	$195	$150	$90			Fee		
Task 1	**Market Assessment and Supply Availability**												
1.1	Initial Analysis	2	4	4	8				18	$ 3,040			$ 3,040
1.2	Kickoff Workshop	8	8	8					24	$ 4,800	$1,400	$ 150	$ 6,350
1.3	Market Assessment	2	4		8				14	$ 2,280	$700		$ 2,980
1.4	Supply Analysis	4	8	4	16				32	$ 5,320			$ 5,320
1.5	Develop Cost/AF	2	4	8	8				22	$ 3,800			$ 3,800
1.6	TM Development	2	8	2			2	2	16	$ 2,820			$ 2,820
	Subtotal Task 1	**20**	**36**	**26**	**40**		**2**	**2**	**126**	**$ 22,060**	**$ 2,100**	**$ 150**	**$ 24,310**
Task 2	**Alternatives Analysis and Recommended Project(s)**												
2.1	Regulatory Setting Assessment			4					4	$ 760			$ 760
2.2	Alternatives Development	2	4	8	8				22	$ 3,800			$ 3,800
2.3	Alternatives Analysis	2	4	16	8				30	$ 5,320			$ 5,320
2.4	Hydraulic Modeling		4		8				12	$ 1,840			$ 1,840
2.5	Recommended Project	2	4	2					8	$ 1,580			$ 1,580
2.6	Status Workshop	8	8	8					24	$ 4,800	$1,400	$ 150	$ 6,350
2.7	TM Development	2	8	2			2	2	16	$ 2,820			$ 2,820
	Subtotal Task 2	**16**	**32**	**40**	**24**		**2**	**2**	**116**	**$ 20,920**	**$ 1,400**	**$ 150**	**$ 22,470**
Task 3	**Environmental Checklist**												
3.1	Environmental Checklist		4			8			12	$ 2,320			$ 2,320
3.2	Environmental Checklist Summary	2	2			4			8	$ 1,600			$ 1,600
	Subtotal Task 3	**2**	**6**			**12**			**20**	**$ 3,920**	**$ -**	**$ -**	**$ 3,920**
Task 4	**Legal and Institutional Issues**												
4.1	Legal and Institutional Consultation		8	8					16	$ 3,040	$700		$ 3,740
	Subtotal Task 4		**8**	**8**					**16**	**$ 3,040**	**$ 700**	**$ -**	**$ 3,740**
Task 5	**Implementation/Financing Plan**												
5.1	Investigate Grant Opportunities		8						8	$ 1,520			$ 1,520
5.2	Grant Opportunities Writeup		4						4	$ 760			$ 760
	Subtotal Task 5		**12**						**12**	**$ 2,280**	**$ -**	**$ -**	**$ 2,280**
Task 6	**Report Preparation**												
6.1	Draft Report	4	16	8	4		2	2	36	$ 6,460	$350	$ 50	$ 6,860
6.2	Final Report	2	8	4	4		2	2	22	$ 3,740		$ 50	$ 3,790
	Subtotal Task 6	**6**	**24**	**12**	**8**		**4**	**4**	**58**	**$ 10,200**	**$ 350**	**$ 100**	**$ 10,650**
Task 7	**Project Coordination and Management**												
7.1	Project Coordination		8						8	$ 1,520			$ 1,520
7.2	Project Management		12						12	$ 2,280			$ 2,280
	Subtotal Task 7		**20**						**20**	**$ 3,800**	**$ -**	**$ -**	**$ 3,800**
	Total Non-Optional Hours and Fee	**44**	**138**	**86**	**72**	**12**	**8**	**8**	**368**	**$ 66,220**	**$ 4,550**	**$ 400**	**$ 71,170**
	Percent of Hours:	*12%*	*38%*	*23%*	*20%*	*3%*	*2%*	*2%*	*100%*				

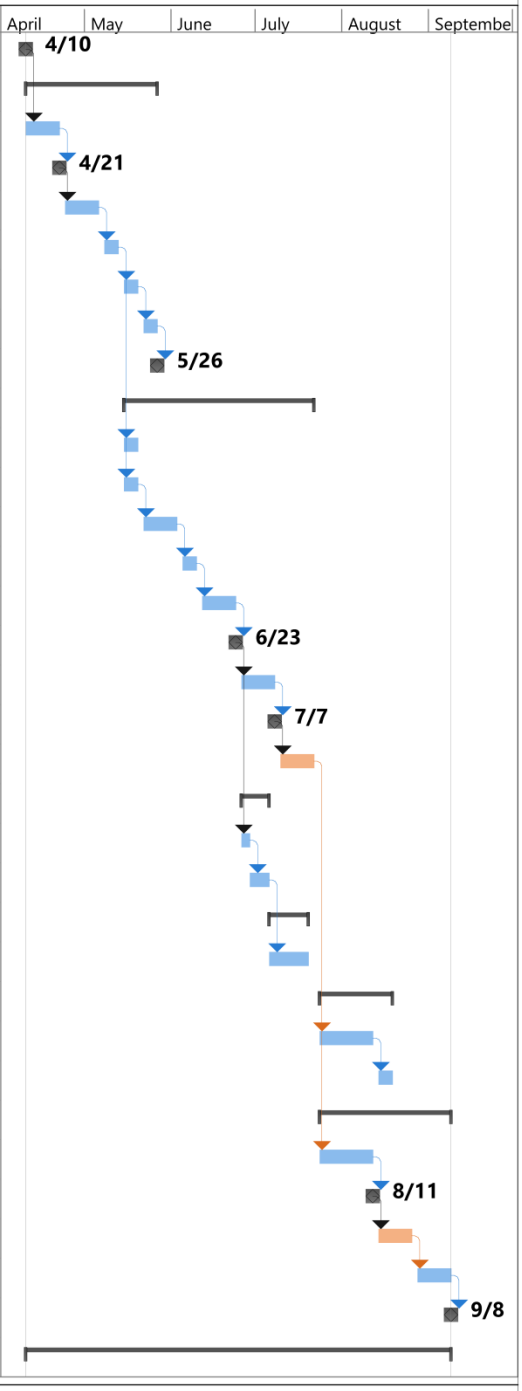
I Project Schedule

Figure 3 illustrates our proposed project schedule.

FIGURE 3. DUDEK PROPOSED PROJECT SCHEDULE

Borrego Water District
Recycled Water Feasibility Assessment
Project Schedule

ID	Task Name	Duration
1	Notice to Proceed	0 days
2	**1.0 Market Assmt and Supply Availability**	**35 days**
3	1.1 Initial Analysis	10 days
4	1.2 Kickoff Workshop	0 days
5	1.3 Market Assessment	10 days
6	1.4 Supply Analysis	5 days
7	1.5 Develop Cost/AF	5 days
8	1.6 TM Development	5 days
9	Submit Market and Supply TM	0 days
10	**2.0 Alt Analysis and Recommendations**	**50 days**
11	2.1 Regulatory Setting Assessment	5 days
12	2.2 Alternatives Development	5 days
13	2.3 Alternatives Analysis	10 days
14	2.4 Hydraulic Modeling	5 days
15	2.5 Recommended Project	10 days
16	2.6 Status Workshop	0 days
17	2.7 TM Development	10 days
18	Submit Annalysis TM	0 days
19	District Review	10 days
20	**3.0 Environmental Checklist**	**8 days**
21	3.1 Environmental Checklist	3 days
22	3.2 Environmental Checklist Summary	5 days
23	**4.0 Legal and Institutional Issues**	**10 days**
24	4.1 Legal and Institutional Consultation	10 days
25	5.0 Implementation/Financing Plan	20 days
26	5.1 Investigate Grant Opportunities	15 days
27	5.2 Grant Opportunities Writeup	5 days
28	**6.0 Report Preparation**	**35 days**
29	6.1 Draft Report	15 days
30	Submit Draft Report	0 days
31	District Review	10 days
32	6.2 Final Report	10 days
33	Submit Final Report	0 days
34	**7.0 Project Coordination and Management**	**110 days**



3/10/2017 DUDEK

APPENDIX A

Resumes

Elizabeth Caliva, PE

Project Manager / Hydraulic Modeling

Elizabeth Caliva specializes in the water/wastewater and environmental engineering fields. She has performed a variety of tasks for projects pertaining to treatment plant design, pump station design, sewer pipe line design, hydraulic modeling for master planning efforts, urban storm water compliance and federal environmental clean-up.

EDUCATION

University of California, Berkeley
MS, Water Resources and Water Quality Engineering, 2003

University of California, Berkeley
BS, Environmental Engineering, 1999

LICENSE

Professional Civil Engineer
CA No. 64331

PROFESSIONAL AFFILIATIONS

WateReuse Association

Project Experience

Planning and Preliminary Design of the City of Oceanside Upper and Lower San Luis Rey Water Reclamation Facility Recycled Water Conveyance Systems. Ms. Caliva is the lead modeler in the development and analysis of the hydraulic model for the preliminary City of Oceanside recycled water system. The hydraulic model development and analysis included facilities layout, pressure zone delineation, facilities sizing, demand assessment, and alternative evaluations. Used in conjunction with the site evaluation study, the hydraulic model was used as the basis for the system preliminary design.

Recycled Water Conversion Projects, City of San Juan Capistrano, Utilities Department, San Juan Capistrano, California. Ms. Caliva was the project engineer responsible for performing site evaluations, construction plan development, cross-connetion test coordination, and City coordination. The projects consisted of the design, permitting and construction of several recycled water system conversions to the City's irrigation systems to maximize the use of available recycled water resources and increase recycled water use by 600 acre-feet per year, and meet the requirements of its grand funding obligations under the Orange County Integrated Regional Water Management Implementation Program.

Recycled Water Feasibility Study, City of Guadalupe, Guadalupe, California. The City of Guadalupe received Proposition 84 grant funding to perform a recycled water feasibility study for their area. Ms. Caliva is currently serving as Project Engineer on this project, performing a recycled water market assessment, supply evaluation, alternatives development, feasibility analysis and cost estimation to support the City in determining if expansion of their existing WWTP to produce Title 22 recycled water is cost effective.

Indirect Potable Reuse and Reservoir Augmentation Demonstration Project, City of San Diego. Ms. Caliva served as Project Engineer performing project reporting and administrative tasks for large program management contract, including managing project reporting on budget, schedule, subs, invoicing and project status, as well as development of public outreach documents.

Acquisition of Additional Wastewater Capacity Study, City of Chula Vista. Ms. Caliva served as Project Engineer for the City of Chula Vista analyzing whether to build their own tertiary treatment plant or buy additional wastewater capacity with the City of San Diego. Tasks on this project included preliminary design of the preliminary and tertiary facilities of a 6 MGD recycled water scalping plant, costing, siting evaluation and feasibility analysis.

Recycled Water Master Plan, City of Rialto, California. Ms. Caliva worked as a Project Manager for recycled water master plan to determine the expansion of an existing system to serve potential demands in

an effort to lessen the demands on the City's groundwater resources over-drafted and impacted by perchlorate. Project required a market assessment, hydraulic modeling, preliminary design, cost estimating and coordination with City staff.

Wastewater and Water Master Plans, Yucaipa Valley Water District. Ms. Caliva served as Project Engineer for water and water master plan and modeling of systems with over 160 miles of water pipeline and 105 miles of sewer pipeline. Responsibilities included database development, model calibration, analysis, establishing phased projects and improvements, report preparation and coordination with District staff.

Master Plans/Hydraulic Modeling, Various Clients. Ms. Caliva served a Project Engineer developing and operating water, recycled water, wastewater and storm water hydraulic models for numerous master plan projects, including San Elijo Joint Powers Authority, Ramona MWD, Elsinore WD, Rainbow MWD, City of La Mesa, City of Bell Gardens, Lee Lake WD, City of Poway and Lake Arrowhead CSD. Tasks also included database and GIS development, model calibration, results analysis, report preparation and coordination with water district/city staff.

Water Master Plan Update, Lee Lake Water District, Corona, California. Ms. Caliva is the project engineer for this project to update the District's water master plan, which was last updated in 2004. Ms. Caliva was responsible for updating the existing demands and demand projections for 2025 and system build-out, creating the water model, confirming peaking factors and fire flow requirements, then modeling existing, future (2025) and ultimate build-out scenarios. Ms. Caliva also drafted the report and created all associated graphics. The District is in the process of planning for future water supplies. A big intention of this master plan was to confirm whether the District had sufficient supply from their source given the known and potential development anticipated for the area. Supply was confirmed, providing the District with confidence moving forward in their planning process. The master plan also confirmed proposed facilities sizes and provides the District with direction for developers anticipating development in the area.

Water Supply Reliability Projects, City of San Bernardino, San Bernardino Valley Municipal Water District, San Bernardino, California. Ms. Caliva served as project engineer for engineering services to develop and evaluate large-scale water supply reliability projects benefiting the entire Santa Ana River Watershed. The team developed a large-scale, region-wide water project to be funded and implemented in the near term. To develop the Project's Phase 1 concepts, Dudek coordinated and facilitated three workshops for team members. Phase 2 consisted of preparing the Detailed Feasibility and Final Reports, defining each project's key elements, implementation issues, sufficient detail to support Prop 84 application requirements, determine net water supply benefits, identify technical, environmental and finanacial issues, estimate costs and define elements to be addressed in resulting CEQA documents.

Preliminary Design of Influent Equalization Basin and Pumping Station, Lee Lake Water District, Corona, California. Ms. Caliva was the Project Engineer responsible for preparation of design-build solicitation documents. The project consisted of a 500,000 gallon lined earthen equalization basin at the Lee Lake Water Reclamation Facility. An equalization basin was selected as a cost-effect solution to dampen diurnal flow fluctuations to the sequencing batch reactors, thereby improving treatment performance. Work included preparing basis of design drawings and technical specifications, request for proposal documents, and evaluation of design-build proposals.

Secondary Effluent and Recycled Water Storage Project, City of Escondido. Ms. Caliva was a Project Engineer for the design of two 1.5 to 2.0 million gallon reservoirs for storage of secondary effluent and recycled water. Tasks included tank layout and design, pipeline and valve vault design and hydraulic analysis.

Russ Bergholz, PE, PMP

Principal in Charge, QA/QC

Russ Bergholz, PE, PMP, is a Principal Engineer with Dudek. Mr. Bergholz is responsible for the management and engineering of water/recycled water-related system master plans and design projects. His experience includes the development of numerous water, recycled water, and sewer master plans, pipeline design projects (including trenchless technology), and infrastructure rehabilitation project for many southern California cities and special districts. Mr. Bergholz has 20 years' experience and a documented history of keeping projects within scope and budget while maintaining quality control and addressing the critical success factors of his clients' projects. He manages the Dudek Water Infrastructure Group.

EDUCATION

University of California, Davis
BS, Civil Engineering, 1995

LICENSES AND CERTIFICATIONS

Professional Civil Engineer,
CA No. 59395

Project Management Institute PMP
No. 1472209

PROFESSIONAL AFFILIATIONS

American Public Works Association

California Water Environment Association

Water Environment Federation

Project Experience

Planning and Preliminary Design of the Upper and Lower San Luis Rey Water Reclamation Facility Recycled Water Conveyance Systems, City of Oceanside, California. Project Manager. After completion of their 2015 Recycled Water Master plan, the City of Oceanside implemented the preliminary and final design of their system-wide recycled water distribution system. Dudek/NV5 completed the validation of the planned system hydraulics, finalization of anticipated recycled water demands, and evaluation of both pipeline alignment and facility siting alternatives as part of the preliminary design. Dudek developed an operationally superior combination of storage reservoirs and pump stations allowing servicing of over 80% of the proposed meters off gravity water storage reservoirs. This combination allowed the successful delivery of often substantial and highly variable irrigation demands, a primary factor for recycled water users. In addition, Dudek identified City owned property for facility siting that aided in both permitting and coordination, reducing the complexity and cost of property acquisition.

The team is successfully integrating a growing combination of future recycled water demand customers with model validation and opportunistic facility siting. This method develops distribution system pressure zones, allowing operational flexibility and reliability.

Anaheim South Recycled Water Project, City of Anaheim, California. Role: Pipeline Engineer. The Project PDR will form the basis of the final design documents leading to the construction of new City recycled water infrastructure, including a new GWRS pipeline connection structure, recycled water pump station, and ultimately 10.5 miles of recycled water conveyance pipelines. The Anaheim South RW System will be operated as a closed-loop distribution system, as no elevated reservoir locations existing in the vicinity of the project.

Dana Point Town Center Infrastructure Improvements, South Coast Water District, Dana Point, California. Role: Project Engineer. Hydraulic modeling, preliminary design and design for multiple 8-inch and 10-inch domestic water and gravity sewer pipelines throughout the Dana Point Town Center redevelopment area (primarily in and around Pacific Coast Hwy and Paseo Del Prado). In total, there was 11,600-LF of domestic water piping and appurtenances, 3,800-LF of sewer and manholes, and 3,200-LF of recycled water piping. This project required multiple coordination meetings with the City of Dana Point and SCWD so that

the City's drainage and street improvement plans could be incorporated into the first phase of the project. This was done to minimize the construction duration and impacts to downtown Dana Point.

24" Recycled Water Pipeline, Las Virgenes Water District, Calabasas, California. Role: Trenchless Engineer. Mr. Bergholz prepared desing plans for the instllation of 1,200 feet of 24-inch diameter recycled water pipeline using jack-and-bore trenchless construction techniques to avoid protected surface features along Mulholland Highway.

Goetz Reservoir and Pipeline Preliminary Design, Eastern Municipal Water District, Murrieta, California. Role: Pipeline Design Lead. The project included the preliminary assessment of alignments for the feeder pipeline to the proposed 10MG Goetz Road tank. The preliminary assessment included hydraulic modeling of the water distribution system network to assess connection points, construction costs, environmental impacts, public impacts, and other related factors to identify the preferred alignment for the 5,000 ft long 30-inch diameter pipeline.

Southwest Costa Mesa Trunk Sewer Planning and Alternatives Study, Orange County Sanitation District, Fountain Valley, California. Role: Project Manager. The project was an alternative alignment evaluation of trunk sewer pipelines between the Costa Mesa service area and OCSD Plant 2. The project allows the decommissionoing of eight (8) existing sewer lift stations and conveys consolidated flows through a new trunk pipeline under the Santa Ana River by inverted siphon installed by horizontal directional driling. The study evaluated 12 alternatives prior to selection. The project included completion CEQA and initiation of coastal and wetlands permitting.

Yucaipa Valley Non Potable Water Distribution System, Yucaipa Valley Water District, Yucaipa, California. Role: Trenchless Engineer. Project included the trenchless design included preparing of a preliminary design report, completing final design documents, and subsequent construction services. Mr. Bergholz was in charge of the design of the four trenchless installations of the 20" pipeline using horizontal directional drilling methods. The four projects included a 1,600 lf drill, 800 lf drill, and two 150 lf jack-and-bore crossings.

Lee Lake Water District, Water System Master Plan, Corona, California. Role: Project Manager and Lead Engineer. Project included the hydraulic modeling of the distribution system, including modeling past improvements and developer projects, applying demands based on billing data, and writing the master plan analysis. Modeling was prepared in WaterCAD. Model preparation included identifying existing facilities and preparing a future land planning map to develop ultimate flows. Evaluation of several build-out alternatives were done to accommodate district goals and satisfy operational needs.

Yucaipa Valley Water District Water, Wastewater, and Reclaimed Water Master Plan Updates, Yucaipa, California. Role: Project Engineer. The project included the development of the system mapping and modeling analyses for existing and projected water, wastewater, and reclaimed water infrastructure. GIS-based mapping and modeling techniques were used to identify the existing parcel base and facilities. This information was then used for hydraulic models to prepare simulations of each system.

Michael Hill, PE

Lead Engineer, Treatment Plant Feasibility Assessment

Michael Hill is a project engineer specialized in water/wastewater treatment and infastructure projects and is experienced in all phases of engineering from planning, design, and construction. Mr. Hill is a strong civil/mechanical systems designer and possesses expertise in treatment plant hydraulics, pumping systems, aeration systems, various process equipment systems. He is responsible for detailed design and layout, civil/mechanical calculations and analysis, equipment selection, cost estimation, and development of plans and specifications. Mr. Hill is also experienced in construction inspection and other engingeering services during the construction phase.

EDUCATION

San Diego State University
BS, Civil Engineering, 2009

Magna Cum Laude

LICESNSE

Professional Civil Engineer, CA No. 80727

PROFESSIONAL AFFILIATIONS

American Society of Civil Engineers

Project Experience

Planning and Preliminary Design of the City of Oceanside Upper and Lower San Luis Rey Water Reclamation Facility Recycled Water Conveyance Systems. Mr. Hill is in the development and analysis of the hydraulic model for the preliminary City of Oceanside recycled water system. The hydraulic model development and analysis included facilities layout, pressure zone delineation, facilities sizing, demand assessment, and alternative evaluations. Used in conjunction with the site evaluation study, the hydraulic model was used as the basis for the system preliminary design.

North Trumble Recycled Water Ponds, Eastern Municipal Water District, California. Dudek was contracted the District to design two new recycled water ponds that will provide the District with approximately 1,500 acre-feet (489 million gallons) of additional seasonal storage capacity. Each new pond will be constructed to a depth of approximately 50 feet. Mr. Hill performed the hydraulic system curve calculations for the new North Trumble ponds' three 2,000 gpm floating pump stations and existing floating pump stations for the two existing recycled water ponds, the 117 MG Case Road Pond and the 50 MG Watson Road Pond. The new floating pump stations include approximately 2,500 linear feet of 16-inch to 36-inch inlet and discharge piping, and 36-inch diameter steel pipelines and isolation valves to interconnect the new ponds to each other.

Woods Valley Ranch WRF Phase 2, Valley Center Municipal Water District, Valley Center, California. Mr. Hill is the Project Engineer for the Phase 2 Expansion of the Woods Valley Ranch Water Reclamation Facility (WRF) Project to support the phased development of the South Village Wastewater Service Area. The WRF expansion will triple the capacity of the existing facilities to 0.275 million gallons per day (MGD) and will be an integral part of its ultimate expansion to 0.475 MGD. The expansion phases are integrated into existing 0.75 MGD membrane bioreactor plant and chlorine disinfection process.

The Phase 2 Expansion will construct new influent pump station, raw screenings facilities, influent equalization, biological nutrient removal wastewater treatment process (pre-selected, negotiated Aero-Mod process) and tertiary filtration (cloth disk filters), 24-hour off-spec water storage, and upgrade to the disinfection systems. The Project, funded by a Clean Water State Revolving Fund (SRF) loan, was fast-tracked to meet schedule milestones dictated by funding and capacity requirements. .Careful planning and construction staging and sequencing were considered to fit the facilities on the 1 acre site. Process selection and civil/mechanical systems were carefully arranged to fit within constraints of the existing hydraulic profile and height limitations for process tanks.

The exterior of the process tanks were designed with block veneer and faux mansard roof architectural treatments to disguise the industrial structures. The site, underlain with loose alluvial soils required extensive overexcavation to provide stable foundations under structures. The extensive soil remediation requirements and site constraints required the use of vertical shoring.

Charlan Road Seasonal Storage, Valley Center Municipal Water District, Valley Center, California. Mr. Falk is the Project Engineer for design of the Charlan Road Seasonal Storage Facility, constructed in conjunction with the Phase 2 Expansion of the Woods Valley Ranch Water Reclamation Facility (WRF) Project to support the phased development of the South Village Wastewater Service Area. The Charlan Road SS facility includes a 48 acre-foot recycled water storage reservoir. The lined, earthen berm reservoir will be constructed on a five acre parcel with berm heights up to 22-ft above surrounding grade. The project will require extensive soil remediation to mitigate underlying loose alluvial soils and will import over 50,000 cubic yards of material. An onsite vertical turbine pump station, metering facility, and post-storage strainer will be constructed to integrate the offline storage facility into the District's existing recycled water distribution system, serving primarily the neighboring Woods Valley Golf Course.

San Elijo Water Reclamation Facility Emergency Power Project, San Elijo Joint Powers Authority, Cardiff, California. Mr. Hill is the Project Engineer for the Emergency Power Project at San Elijo Water Reclamation Facility (SEWRF). Following failure of one of the units, the Authority contracted with Dudek and subconsultant Moraes Pham and Associates to evaluate the emergency power systems. Dudek prepared a preliminary design report that recommended replacement of the two generators with a single larger unit sized to accommodate anticipated critical future loads. Dudek is now at 75% design level (final design scheduled for December 2013) for demolition of the old generators and installation of a new 800 kW generator. To maintain compliance with current Fire Code and AQMD requirements, Dudek selected an outdoor-rated, sound-attenuated generator with integral base-mounted diesel fuel tank sized for 12-hours of run time. The abandoned generator rooms will be repaired and repurposed as maintenance and storage spaces.

Sampson Flow Control Station, City of Corona, California. The City of Corona Department of Water and Power is in need of replacing an existing below grade 24" flow control valve and underground pressure reducing station vault with an above grade combination flow control and pressure reducing station (station). The site is located on the northerly side of Sampson Avenue and incorporates a parking turnout to facilitate access to the valves for the City staff. Mr. Hill is the project engineer for the station design which includes hydraulic design, valve sizing, mechanical and site layout.

San Elijo Hills Sewer Pump Station, City of Solana Beach (contract via San Elijo JPA), Solana Beach, California. In conjunction with the San Elijo Water Reclamation Facility (SEWRF) electrical upgrades project, member agency, City of Solana Beach, requested that Dudek upgrade the emergency power system at the San Elijo Hills Sewer Pump Station (a remote collection system pumping station). The existing emergency generator is located in an old block and wood construction building that doesn't meet current building codes and is exhibiting signs of structural deficiencies. Mr. Hill served as the Project Engineer for a new generator at the San Elijo Hills Sewer Pump Station. To maintain compliance with current Fire Code and AQMD requirements, Dudek selected an outdoor-rated, sound-attenuated generator with integral base-mounted diesel fuel tank sized for 12-hours of run time. To facilitate project phasing, a new electrical service, switchboard and automatic transfer switch will be constructed in conjunction with the new generator prior to demolition of the existing building and electrical gear. The new switchboard will include an unbussed section for a new remote telemetry unit.

John Robinson, *Lead Engineer, Recycled Water Conversions and Shareholder Participation*

John Robinson Consulting, Inc.

EDUCATION

BS, Civil Engineering, California State University, Long Beach, CA

CERTIFICATIONS

Engineering-in-Training, CA
2016 Recycled Water Advocate of the Year - WateReuse
USC Cross Connection Certified

ASSOCIATIONS

WateReuse Inland Empire Chapter – Chapter Trustee
CWEA Los Angeles Basin Section – Vice President
Orange County Water Association - Treasurer

SUMMARY

John has worked on recycled water projects over his 20-year career and has completed over 400 recycled water customer conversions (i.e. water through the meter) as well as completed and additional 1,500 recycled water customer conversion assessments. He specializes in assisting clients with identifying and assessing customers, evaluating potential non-potable reuse system components as well as managed the customer development for all customer conversions; developed recycled water conversion plans worked with customers and developed conversion construction costs. John has developed and conducted training seminars for both client staff as well as end use customers. He is particularly adept at working closely with State Water Resources Control Board Division of Drinking Water (SWRCB DDW), Los Angeles County Department of Public Health (LACDPH) and County of San Diego Department of Environmental Health (DEH) for coordination of site issues and approvals and he understands how to make the regulatory approval process go smoothly.

RELEVANT PROJECT EXPERIENCE

Recycled Water Customer Development (Subconsultant), West Basin Municipal Water District (2013 – Present) – Subconsultant to a prime consultant, JRC assisted with the preparation and approval of recycled water customer conversion for El Segundo Fire Station No. 2, Carson Street medians, Rainbow Trucking, LLC, Hollywood Park, Caltrans – Wiseburn Path, Digital Realty, Carson Park and Century Blvd. medians on the behalf of both West Basin Municipal Water District. Prepared necessary documentation to obtain approval from the LACDPH, as well as biddable plans and specification, and construction cost estimates. Preliminary cross connection testing was performed at all sites. The remaining work, in progress, involves construction oversight, final cross connection testing, and preparation of "as-built" drawings.

Recycled Water Conversion Contract for City of Simi Valley (2013-2016) – Project Manager. JRC managed over 20 recycled water site investigations at both private and public facilities to utilized recycled water for the use for irrigation in the City of Simi Valley. Total irrigation demand to be converted to recycled water is estimated to be approximately 550 AFY for three golf courses, multiple parks, landfill, and wastewater treatment plant landscaping. John is managing the Project, meeting with the Customer, developing the design drawings, developing recycled water use training materials and conducting construction inspection.

Recycled Water Customer Development, Royalty Carpet Mills (2015-2016) – JRC prepared and obtained approval of the Industrial Engineering Report for the recycled water conversion of 280 acre-feet per year carpet mills within the Irvine Ranch Water District service area. The conversion included obtaining regulatory approval from SWRCB DDW and Orange County Health Care Agency (OCHCA), coordination with the City of Irvine and Irvine Ranch Water District, both preliminary and final cross connection testing and the preparation of record drawings. The project was completed in 6 month from to take advantage of the Metropolitan Water District recycled water retrofit rebate program.

Recycled Water Customer Development, Rose Hills Memorial Park and Cemetery (2015-2016) – JRC prepared and obtained approval of the recycled water conversion of the remaining 250 acres of the Rose Hills Memorial Park and Cemetery which is estimated at 500 acre-feet per year within the Upper San Gabriel Valley Municipal Water District service area. The conversion included obtaining regulatory approval from SWRCB DDW and LACDPH and Los Angeles County Fire Department design of approximately 2.5 miles of 4-inch and 8-inch potable water pipeline systems, both a preliminary and final cross connection testing and the preparation of record drawings. The project was completed in 8 month from to take advantage of the Metropolitan Water District recycled water retrofit rebate program.

Recycled Water Customer Development and Program Development, Fontana Water Company (2014-Present) – JRC is preparing and obtaining approval of the recycled water conversions for approximately 21 customers including six (6) schools, seven (7) parks and sight medians which is estimated at 400 acre-feet per year within the Inland Empire Utilities Agency service area. The conversion included obtaining regulatory approval from SWRCB DDW, conducting site inspections, conducting both preliminary and final cross connection testing and the preparation of record drawings. JRC has developed the rules, regulations and standard details, recycled water irrigation user manual, recycled water industrial user manual and a training program for Fontana Water District staff, Fontana Unified School District staff and the City of Fontana staff. The project is ongoing and is looking to expand to industrial/commercial customers in the future.

La Mirada Recycled Water Customer Conversions, Central Basin Municipal Water District (2015 - Present) - JRC is conducting site investigations to potential recycled water irrigation customers with in the City of La Mirada in conjunction with Suburban Water Systems. JRC is conducting field site investigations, determining the potential recycled water conversion, proving a recycled water conversion cost, researching five (5) years of water usage, and obtaining Letters of Intent. The approximately 20 customers include schools, parks, cemetery, golf course and City of La Mirada facilities all estimated at approximately 600 acre-feet per year.

Recycled Water Retrofits and Program Development (Subconsultant), City of San Juan Capistrano (2013-Present) - JRC is currently a subconsultant assisting to manage the conversion of 55 public and private sites to recycled water use for irrigation in the City of San Juan Capistrano. The initial irrigation demand to be converted to recycled water was 660 AFY for a golf course, parks, medians, schools, HOAs, and commercial irrigation and the second phase is adding an additional 250 AFY with a similar recycled water customers. John is meeting with customers, developing the design drawings, providing QA/QC on the regulatory and bid packages, and developed a new set of recycled water rules and regulations.

Recycled Water Customer Development, Lantern Bay Estates (2015-2016) – JRC prepared and obtained approval of the recycled water conversion the common landscaping for Lantern Bay Estates HOA which was approximately 12 acre-feet per year within the South Coast Water District service area. The conversion included obtaining regulatory approval from SWRCB DDW and OCHCA for the conversion of the landscaping system, both a preliminary and final cross connection testing and the preparation of record drawings. The project was completed in 6 month from to take advantage of the Metropolitan Water District recycled water retrofit rebate program.

Hanna Dodd, EIT

Hydraulic Modeling

Hanna Dodd is a project engineer focused on water resources and water and wastewater infrastructure. Her experience includes a large array of water and wastewater treatment and facilities design analyses. Her expertise consists of novel water treatment techniques, with a particular emphasis in removal of pathogens, mechanical systems, and energy usage and reduction assessments.

EDUCATION

Stanford University
MS, Civil & Environmental Engineering, 2015

California Institute of Technology
BS, Mechanical Engineering, 2013

LICENSE/CERTIFICATIONS

Engineer in Training
CA No. 157828

PROFESSIONAL AFFILIATIONS

WateReuse,

Society of Women Engineers,

Caltech Sustainability Council,

Reinventing the Nation's Urban Water Infrastructure Center (ReNUWIt)

AWARDS

CWEA Engineering Achievement Award 2015 – City of South Pasadena Sewer Rehabilitation

Project Experience

Planning and Preliminary Design of the City of Oceanside Upper and Lower San Luis Rey Water Reclamation Facility Recycled Water Conveyance Systems. Ms. Dodd is a modeler in the development and analysis of the hydraulic model for the preliminary City of Oceanside recycled water system. The hydraulic model development and analysis included facilities layout, pressure zone delineation, facilities sizing, demand assessment, and alternative evaluations. Used in conjunction with the site evaluation study, the hydraulic model was used as the basis for the system preliminary design.

State Revolving Fund Application Assistance, SEJPA, Encinitas, California. Ms. Dodd assisted the San Elijo Joint Powers Authority with a California State Revolving Fund (SRF) loan application for the expansion of their recycled water pipeline system as well as purchase of more advanced water treatment equipment for more reliable recycled water production at their wastewater treatment facility.

Sewer Pipeline Assessment, City of South Pasadena, California. Ms. Dodd worked with a team of Dudek employees to prioritize where a State Revolving Fund Loan should be used to rehabilitate and replace the City of South Pasadena's aging sewer collection system. She assisted with pipeline condition assessment review, coordinated the collection of utility location information, and she identified the construction areas that would require specific planning prior to construction (traffic control, historic site preservation, etc.)

Goetz Road Reservoir Design, Eastern Municipal Water District, Perris, California. Ms. Dodd assisted with the design of a new storage tank for Eastern Municipal Water District. She served as a project engineer for the pump selection for the chemical feed building as well as the drain vault. She also assisted in collecting design and cost estimate information from manufacturers of chemical feed equipment.

NPDES Industrial Permit Assessment, Redondo Beach, California. Ms. Dodd assisted the City of Redondo Beach in finding information applicable to an NPDES Industrial Permit for the City's transit facility. She conducted a site reconnaissance to gather site specific information. After this information was gathered, she advise the City how to best comply with the permit.

NPDES Drinking Water Discharge Permit, Ramona, California. Ms. Dodd coordinated creating a GIS map and Notice of Intent form for the Ramona Municipal Water District's (MWD) NPDES Drinking Water Discharge permit. The map included information on the drinking water system as well as surrounding receiving water bodies.

Sanitary Sewer Overflow (SSO) Remediation Protocol, Carlsbad, California. Ms. Dodd helped devise an SSO remediation protocol for Leucadia Wastewater District (LWD). In the background section of the protocol document, she explained the potential biological and environmental impacts of an SSO from LWD's sanitary sewer collection system. She also developed the strategies that LWD could use to remediate SSO's that reach surface waters.

Denitrification Upgrade Feasibility and Energy Reduction Assessment, Fountain Valley, California. Ms. Dodd worked with The Energy Network to assess whether denitrification upgrades to the Orange County Sanitation District's (OCSD) Fountain Valley wastewater treatment plant (Plant 1) would result in significant energy usage reduction. She collected information on OCSD's current operations of their secondary treatment system of Plant 1. Through BioWin™ modeling, she assessed how different denitrification upgrades would affect OCSD's Plant 1's effluent water quality and energy usage.

Past Experience

Research Assistant, Stanford University, Stanford, California. Ms. Dodd coordinated with the City of San Francisco on how to best conduct research in Mountain Lake. She diagnosed whether mussels survived and removed contaminants from Mountain Lake. She co-authored paper entitled "Improvement of Urban Lake Water Quality by Removal of *E. Coli* through the Action of the Bivalve *Anodonta californiensis*" in Environmental Science and Technology.

Manufacturing Intern, Niagara Bottling LLC (Niagara), Ontario, California. Ms. Dodd analyzed and assessed microbial levels in Niagara's water quality lab. She advised the plant engineer on improvements to Niagara's reverse osmosis system. She also developed quality tests to conduct on raw packaging material. She proposed improvements to the filling mechanism on the filler machine. She consulted with vendors about installing air conditioning units in the plant.

Stanford Undergraduate Researcher, Stanford University, Stanford, California. Ms. Dodd designed and conducted column experiments to study how bacteria in stormwater attach to different sands. She co-authored paper entitled "Engineering solutions to improve the removal of fecal indicator bacteria by bioinfiltration systems during intermittent flow of stormwater" in Environmental Science and Technology.

Sustainability Integration Intern, Caltech Facilities Department, Pasadena, California. Ms. Dodd implemented and publicized the Caltech Energy Assessment for Laboratories (CEAL) program. She evaluated the equipment energy usage and sustainable practices in several campus laboratories. She also composed a summary report of her work on the CEAL program: http://sustainability.caltech.edu/documents/76-ceal_report.pdf

Sustainability SURF Fellow Researcher, Caltech, Pasadena, California. Ms. Dodd investigated the feasibility of reusing cooling tower waste water for irrigation on the Caltech campus. She wrote a report summarizing her research: http://www.sustainability.caltech.edu/documents/46-dodd_surf_report.pdf.

Nikki Hunter

Senior Designer/CADD Specialist

EDUCATION

California State University, Long Beach
BA, Fine Arts

Nikki Hunter has over 25 years experience scheduling cad department work load, design and drafting of water, wastewater, and water reclamation and reuse facilities utilizing Microstation V7 and V8, InRoads, AutoCAD 2014 and Civil 3D. Ms. Hunter has served as principle designer/drafter on many pipelines, pumping facilities, sewers and wastewater treatment facilities in Southern California.

Project Experience

Dana Point Town Center Infrastructure Improvements, South Coast Water District, Dana Point, California. Ms. Hunter provided detailed design for multiple 8-inch and 10-inch domestic water, sewer and recycled water pipelines throughout the Dana Point Town Center redevelopment area (primarily in and around Pacific Coast Hwy and Paseo Del Prado). In total, there was 11,600-LF of domestic water piping and appurtenances, 3,800-LF of sewer and manholes, and 3,200-LF of recycled water piping.

6-19 Costa Mesa Trunk Sewer, Orange County Sanitation District, Fountain Valley, California. Ms. Hunter was responsible for the design, drafting and utility input of the alternative analysis study for the 4 final pipeline alternatives. These designs were based on input from all stakeholders and preferred alternatives based on the CEQA process.

Woods Valley Ranch Water Reclamation Facility (WRF), Phase 2 Expansion and Charlan Road Seasonal Storage Facility Project(s), Valley Center Municipal Water District, Valley Center, California. Ms. Hunter is providing design and drafting of the Phase 2 expansion of the WRF. The Projects support the phased development of the South Village Wastewater Service Area within the District and are funded by Clean Water State Revolving Fund (SRF) loans. The WRF upgrades include design of an extended aeration, activated sludge process design for biological nitrogen removal and tertiary disk filters followed by chlorine disinfection.

2013 Major Plant Rehabilitations, Encina Wastewater Authority, Carlsbad, California. Ms. Hunter provided design and drafting for FY 2013 projects that include replacement of the high pressure natural gas line serving plant Cogeneration, biogas blending, biosolids heat drying, modifications to the 3WHP pump controls, replacement of the 3WLC strainer, various plant safety improvements, design of chemical containment and feed systems for the odor control (ORF III) system, and improvements to the secondary polymer feed system. Served as the senior designer for the Influent Junction Structure Rehabilitation Project. Developed rehabilitation alternatives and construction sequencing.

WRF#2 Tertiary Filtration Project, City of Corona, Corona, California. Ms. Hunter was a Senior Designer for the design of 4.0 mgd tertiary facilities for the City of Corona's Water Reclamation Facility No. 2. Design includes flocculation, granular media filtration, flow equalization, chemical facilities, pumping facilities and associating piping and instrumentation. Her responsibilities included detailed design layout of facility and development and coordination of contract documents.

2012 Major Plant Rehabilitations, Encina Wastewater Authority, Carlsbad, California. Ms. Hunter provided design and drafting for various upgrades to the Encina Water Pollution Control Facility under the

Comprehensive Asset Management Program (E-CAMP). Projects included rehabilitation of four secondary clarifiers with new sludge collection equipment, rehabilitation of deteriorated components, and addition of sodium hypochlorite tanks.

Chino II Desalter- Riverside/Hamner Drive, Chino Desalter Authority, Chino, California. Ms. Hunter was responsible for the design, utility input and preparation of plans and profiles for the 30-in CML&C steel Chino Desalter pipeline. It will complete connection from Hamner Avenue, along Riverside, to the Chino II Desalter Facility.

Newport Boulevard Domestic Water Main Relocation, Irvine Ranch Water District, California. Ms. Hunter prepared design drawings for the relocation of approximately 4,500-feet of 12-inch domestic water main piping. The existing 12-inch pipeline is inaccessible and located along the rear property lines of adjoining homes and business between Newport Boulevard and Elden Avenue. The more complex portion of this project involves designing the reconnections for the existing on-site fire services/hydrants and domestic water services

Water and Sewer Replacement Groups Jobs, City of San Diego Water and Wastewater Facilities Division, California. Ms. Hunter was responsible for the design and preparation of design plans, using Microstation and in Roads, of over three miles of PVC sewer and water pipelines, ranging in size from 6- to 15-inch diameter, in downtown San Diego, Pacific Beach and La Jolla. The neighborhoods have many challenges including traffic, environmental, noise and existing utility conflicts.

NCWRP/MBC Pipeline Cathodic Protection, City of San Diego, Metropolitan Wastewater Department, California. Ms. Hunter provided design and drafting for an upgrade to the cathodic protection system for raw sludge, reclaimed water, and centrate pipelines between North City Water Reclamation Plant and the Metro Biosolids Center plant.

Design/Build Rancho Peñasquitos Pump Station, City of San Diego Water Department, California. Ms. Hunter was a member of design team responsible for a new 32-mgd domestic water pump station (expandable to ultimate 50-mgd). Design features for the $10.7 million project include a 3,300-square foot architecturally treated pump building on the one-acre site, with dedicated pump, MCC, and generator rooms; installation of six 250-hp vertical turbine pumps; Del Mar Heights PRS (located in a belowground concrete vault); pump station surge relief, flow measuring, and emergency back feed system; and, yard piping associated with pumping, pressure reducing, and emergency backflow elements.

Lakeshore Regional Pump Station Design, Elsinore Valley Municipal Water District, California. Ms. Hunter was responsible for the detailed design and preparations of design plans of a 22.5-mgd regional wastewater pump station that included the following: variable speed vertical column pumps, self-cleaning wetwell, activated carbon odor control system, odor control chemical feed system, seal water system, recycled water washdown system, emergency generator, central power delivery system, motor control center, pigging station, and 5,000-foot long, 24-inch diameter parallel force mains.

Washington Avenue Lift Station Design, Elsinore Valley Municipal Water District, Lake Elsinore, California. Ms. Hunter was responsible for the detailed design of a new 2.1 mgd capacity lift station including approximately 4000 linear feet of 10- inch force main and approximately 1300 linear feet of 15-inch gravity sewer.

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SOUTHERN CALIFORNIA

Encinitas (Main)

Palm Desert

Pasadena

Riverside

Santa Clarita

San Juan Capistrano

CENTRAL COAST

Santa Barbara

Santa Cruz

NORTHERN CALIFORNIA

Auburn

Larkspur

Sacramento

San Francisco

HAWAII

Honolulu

OREGON

Portland

HABITAT RESTORATION SCIENCES

A Dudek Subsidiary

BORREGO WATER DISTRICT

BOARD OF DIRECTORS MEETING – MAY 16, 2017

AGENDA BILL II.F

May 10, 2017

TO: Board of Directors, Borrego Water District

FROM: Geoff Poole, General Manager

SUBJECT: Acceptance of Flood Control Engineering Assessment at CFD 2007-01 – G Poole

RECOMMENDED ACTION:

Accept Dudek Proposal and authorize staff to work with Operations and Infrastructure Committee and Legal Counsel to create the necessary contract documents.

ITEM EXPLANATION

A portion of the assets dedicated to BWD for what is now Rams Hill included water, sewer and a significant flood control system. A series of flood control structures were designed to protect the perimeter of the development, as well as provide internal drainage and utilize the golf course lakes when possible. The original value of the flood control facility is in excess of $4 million.

BWD has responsibility for the operations and maintenance of the flood control system. Staff is recommending an engineering evaluation of the current flood control system at an estimated cost of $8,300. The specific tasks to be undertaken are attached. An annual assessment is charged to property owners for water, sewer and flood control within the CFD service area that currently totals approximately $100,000/year.

FISCAL IMPACT: $8,300

ATTACHMENTS: Dudek Proposal

DUDEK

MAIN OFFICE
605 THIRD STREET
ENCINITAS, CALIFORNIA 92024
T 760.942.5147 T 800.450.1818 F 760.632.0164

April 7, 2017

Geoff Poole, General Manger
Borrego Water District
806 Palm Canyon Drive
Borrego Springs, CA 92004
Submitted via e-mail: geoff@borregowd.org

Subject: ***Proposal for Engineering Evaluation of the Rams Hill Specific Plan Flood Control Facilities***

Dear Mr. Poole:

As your request, Dudek has prepared this proposal to provide engineering evaluation of the Rams Hill Specific Plan flood control facilities located in Borrego Springs, California. This includes an assessment of the flood control system to make sure that the original design is adequate as well as an evaluation of the current condition of the structures to determine the need for any immediate maintenance/repairs.

PROJECT UNDERSTANDING

In the late 1980's, the Borrego Water District (BWD) received a series of capital improvements associated with the Rams Hill development. The improvements received included water pipelines and reservoirs, sewer pipelines, a wastewater treatment plant, and an extensive flood control system. T2 Borrego, the developer and property owner of Rams Hill, is correcting a long standing bank default by issuing new debt to be owned by the property owner. The life expectancy of the improvements has been evaluated and the flood control system was originally designed with a 100 year useful life.

Task 1 Research Hydrology, Design Report and As-built Construction Drawings

Dudek will research the existing hydrology, and review available design reports and as-built construction drawings.

Cost for Task 1 .....$2,540.00

Task 2 Site Visit

A licensed Dudek engineer will perform a site evaluation of the flood control system to document existing conditions.

Cost for Task 2 .....$2,397.00

Task 3 Data Evaluation and Report Preparation

Dudek will evaluate the data collected and prepare draft and final letter reports documenting findings and provide recommendations for maintenance/repairs, if necessary. Dudek will also use the data collected to inform scoping of the proposed optional geotechnical evaluation described below.

Cost for Task 3 .....$3,500.00

TOTAL NON-OPTIONAL COST $8,437.00

OPTIONAL SERVICES

Task 4 Geotechnical Evaluation

Dudek obtained a preliminary cost estimate from Geocon, Inc. of San Diego, California to perform two days of small diameter borings in accessible locations on the levees to observe and sample the existing geologic conditions using a 4-wheeldrive truck-mounted drill rig. Ten borings up to about 25 feet deep would be advanced to help evaluate the existing fill thicknesses and compaction. Drill cuttings would be spread on the levee surface and would not be required to be disposed off-site. Laboratory tests on selected soil samples would be performed to evaluate in-situ dry density, moisture content, maximum dry density/optimum moisture content, shear strength and grain size characteristics of the soil conditions encountered. A geotechnical evaluation letter report would be completed summarizing testing and observations of the existing levees. The report would include a map showing the boring locations, boring logs and the results of the laboratory tests. Based on the results of tasks 1 – 3, the scope and fee of the geotechnical evaluation may require revisions.

Cost for Task 4 Geotechnical Evaluation (Optional) $25,605.00

Dudek appreciates this opportunity to assist the District. If you have any further questions or require further discussion, please contact me at 760.415.1425

Sincerely,

Trey Driscoll. PG No. 8511, CHG No. 936
Principal Hydrogeologist

Att.: *Table 1, Cost Estimate*
Figure 1, 2017 Standard Schedule of Charges

cc: *Paul Wisheropp, Dudek*

Table 1. Cost Estiamte

	Project Team Role:	PM/Hydro	Principal Engineer	TOTAL HOURS	LABOR COST	OTHER DIRECT COSTS (ODC)[1]	TOTAL FEE
	Team Member:	Driscoll	Wisheropp				
	Billable Rate :	$240	$230				
Task 1 – Research Hydrology, Design Report and As-built Construction Drawings							
1.1	Research Hydrology, Design Report and As-built Construction Drawings	1	10	11	$2,540		$2,540
	Subtotal Task	**1**	**10**	**11**	**$2,540**	**$0**	**$2,540**
Task 2 – Site Visit							
2.1	Site Visit	0	10	10	$2,300	$97	$2,397
	Subtotal Task	**0**	**10**	**10**	**$2,300**	**$97**	**$2,397**
Task 3 – Data Evaluation and Report Preparation							
3.1	Data Evaluation and Report Preparation	5	10	15	$3,500		$3,500
	Subtotal Task	**5**	**10**	**15**	**$3,500**	**$0**	**$3,500**
	Total Non-Optional Hours and Fee	**6**	**30**	**36**	**$8,340**	**$97**	**$8,437**
	Percent of Hours:	***17%***	***83%***	***100%***			
	Optional Services (Requires Cost Update After Tasks 1-3 based on findings)						
Task 4 – Geotechnical Evaluation							
4.1	Geotechnical Evaluation (estimated)	2	4	6	$1,400	$24,205	$25,605
	Subtotal Task	**2**	**4**	**6**	**$1,400**	**$24,205**	**$25,605**
	Total Optional and No-Optional Hours and Fee	**8**	**34**	**42**	**$9,740**	**$24,302**	**$34,042**
	Percent of Hours:	***19%***	***81%***	***100%***			

1. Includes mileage and sub-contractor costs.

DUDEK

2017 STANDARD SCHEDULE OF CHARGES

Engineering Services

Project Director	$270.00/hr
Principal Engineer lll	$240.00/hr
Principal Engineer II	$230.00/hr
Principal Engineer I	$220.00/hr
Program Manager	$210.00/hr
Senior Project Manager	$210.00/hr
Project Manager	$205.00/hr
Senior Engineer III	$200.00/hr
Senior Engineer II	$190.00/hr
Senior Engineer I	$180.00/hr
Project Engineer IV/Technician IV	$170.00/hr
Project Engineer lll/Technician III	$160.00/hr
Project Engineer II/Technician II	$145.00/hr
Project Engineer I/Technician I	$130.00/hr
Project Coordinator	$100.00/hr
Engineering Assistant	$95.00/hr

Environmental Services

Principal	$240.00/hr
Senior Project Manager/Specialist II	$225.00/hr
Senior Project Manager/Specialist I	$215.00/hr
Environmental Specialist/Planner VI	$195.00/hr
Environmental Specialist/Planner V	$175.00/hr
Environmental Specialist/Planner IV	$165.00/hr
Environmental Specialist/Planner III	$155.00/hr
Environmental Specialist/Planner II	$140.00/hr
Environmental Specialist/Planner I	$125.00/hr
Analyst III	$115.00/hr
Analyst II	$105.00/hr
Analyst I	$95.00/hr
Planning Assistant II	$85.00/hr
Planning Assistant I	$75.00/hr

Coastal Planning/Policy Services

Senior Project Manager/Coastal Planner II	$220.00/hr
Senior Project Manager/Coastal Planner I	$210.00/hr
Environmental Specialist/Coastal Planner VI	$200.00/hr
Environmental Specialist/Coastal Planner V	$180.00/hr
Environmental Specialist/Coastal Planner IV	$170.00/hr
Environmental Specialist/Coastal Planner III	$160.00/hr
Environmental Specialist/Coastal Planner II	$150.00/hr
Environmental Specialist/Coastal Planner I	$140.00/hr

Cultural and Paleontological Services

Senior Project Manager/Archaeologist II	$215.00/hr
Senior Project Manager/Archaeologist I	$205.00/hr
Environmental Specialist/Archaeologist V	$185.00/hr
Environmental Specialist/Archaeologist IV	$165.00/hr
Environmental Specialist/Archaeologist III	$145.00/hr
Environmental Specialist/Archaeologist II	$135.00/hr
Environmental Specialist/Archaeologist I	$125.00/hr
Environmental Specialist/Architectural Historian II	$150.00/hr
Environmental Specialist/Architectural Historian I	$125.00/hr
Environmental Specialist/Paleontologist II	$165.00/hr
Environmental Specialist/Paleontologist I	$125.00/hr
Paleontological Technician III	$85.00/hr
Paleontological Technician II	$75.00/hr
Paleontological Technician I	$55.00/hr
Cultural Resources Technician II	$75.00/hr
Cultural Resources Technician I	$55.00/hr

Construction Management Services

Principal/Manager	$195.00/hr
Senior Construction Manager	$180.00/hr
Senior Project Manager	$160.00/hr
Construction Manager	$150.00/hr
Project Manager	$140.00/hr
Resident Engineer	$140.00/hr
Construction Engineer	$135.00/hr
On-site Owner's Representative	$130.00/hr
Construction Inspector III	$125.00/hr
Construction Inspector II	$115.00/hr
Construction Inspector I	$105.00/hr
Prevailing Wage Inspector	$135.00/hr

Compliance Services

Compliance Director	$205.00/hr
Compliance Manager	$145.00/hr
Compliance Project Coordinator	$105.00/hr
Compliance Monitor	$95.00/hr

Hydrogeological Services

Principal	$260.00/hr
Principal Hydrogeologist/Engineer	$240.00/hr
Sr. Hydrogeologist IV/Engineer IV	$225.00/hr
Sr. Hydrogeologist III/Engineer III	$210.00/hr
Sr. Hydrogeologist II/Engineer II	$195.00/hr
Sr. Hydrogeologist I/Engineer I	$180.00/hr
Hydrogeologist VI/Engineer VI	$160.00/hr
Hydrogeologist V/Engineer V	$150.00/hr
Hydrogeologist IV/Engineer IV	$140.00/hr
Hydrogeologist III/Engineer III	$130.00/hr
Hydrogeologist II/Engineer II	$120.00/hr
Hydrogeologist I/Engineer I	$110.00/hr
Technician	$100.00/hr

District Management & Operations

District General Manager	$185.00/hr
District Engineer	$175.00/hr
Operations Manager	$150.00/hr
District Secretary/Accountant	$100.00/hr
Collections System Manager	$100.00/hr
Grade V Operator	$100.00/hr
Grade IV Operator	$90.00/hr
Grade III Operator	$85.00/hr
Grade II Operator	$63.00/hr
Grade I Operator	$55.00/hr
Operator in Training	$40.00/hr
Collection Maintenance Worker II	$60.00/hr
Collection Maintenance Worker I	$45.00/hr

Office Services

Technical/Drafting/CADD Services

3D Graphic Artist	$160.00/hr
Senior Designer	$150.00/hr
Designer	$140.00/hr
Assistant Designer	$135.00/hr
GIS Programmer I	$180.00/hr
GIS Specialist IV	$155.00/hr
GIS Specialist III	$145.00/hr
GIS Specialist II	$135.00/hr
GIS Specialist I	$125.00/hr
CADD Operator III	$130.00/hr
CADD Operator II	$125.00/hr
CADD Operator I	$110.00/hr
CADD Drafter	$100.00/hr
CADD Technician	$95.00/hr

Support Services

Technical Editor lll	$145.00/hr
Technical Editor ll	$130.00/hr
Technical Editor l	$115.00/hr
Publications Specialist lll	$105.00/hr
Publications Specialist ll	$95.00/hr
Publications Specialist l	$85.00/hr
Clerical Administration II	$90.00/hr
Clerical Administration I	$85.00/hr

Forensic Engineering – Court appearances, depositions, and interrogatories as expert witness will be billed at 2.00 times normal rates.

Emergency and Holidays – Minimum charge of two hours will be billed at 1.75 times the normal rate.

Material and Outside Services – Subcontractors, rental of special equipment, special reproductions and blueprinting, outside data processing and computer services, etc., are charged at 1.15 times the direct cost.

Travel Expenses – Mileage at current IRS allowable rates. Per diem where overnight stay is involved is charged at cost

Invoices, Late Charges – All fees will be billed to Client monthly and shall be due and payable upon receipt. Invoices are delinquent if not paid within 30 days from the date of the invoice. Client agrees to pay a monthly late charge equal to 1% per month of the outstanding balance until paid in full.

Annual Increases – Unless identified otherwise, these standard rates will increase 3% annually.

BORREGO WATER DISTRICT

BOARD OF DIRECTORS MEETING – MAY 16, 2017

AGENDA BILL II.G

May 10, 2017

TO: Board of Directors, Borrego Water District

FROM: Geoff Poole, General Manager

SUBJECT: Replacement of BWD Ratepayer Representative on the Borrego Valley Groundwater Sustainability Plan Advisory Committee – G. Poole

RECOMMENDED ACTION:

Discuss process to replace Richard Dopp and direct staff accordingly.

ITEM EXPLANATION

Richard Dopp recently submitted his resignation letter for the BWD Ratepayer Representative on the GSP Advisory Committee. Staff is requesting direction from the Board on the process for determining a replacement.

FISCAL IMPACT

N/A

ATTACHMENTS

1. Letter of Resignation from Richard Dopp

RICHARD AND MARLENE DOPP

Thursday, May 11, 2017

Borrego Water District
Board of Directors
806 Palm Canyon Drive
Borrego Springs, CA 92004

RE: Borrego Basin Groundwater Sustainability Plan Advisory Committee

When I received your appointment to Advisory Committee, I anticipated contributing my 30 years of Professional Engineering, Public Works Administration experience along with my 10 years of winter residency in Borrego Springs to bring a fresh, objective view to our ground water sustainability problem.

Shortly after accepting the appointment, my wife was diagnosed with cancer, stage 4 lymphoma. We returned to Oregon to begin chemo therapy treatments.

I have made every effort to continue to serve on the advisory committee, but it is clear to me now that assisting in my wife's recovery must take priority. I am sorry to inform you that I hereby resign my position as Rate Payer Representative on the committee.

Sincerely,

Richard L. Dopp

383 Verbena Dr. P.O. Box 1533 Borrego Springs, CA 92004 · 503-866-6028
Richard email skylane2@canby.com
Marlene email skylane@canby.com

BORREGO WATER DISTRICT

BOARD OF DIRECTORS MEETING – MAY 16, 2017

AGENDA BILL III

May 10, 2017

TO: Board of Directors, Borrego Water District

FROM: Geoff Poole, General Manager

SUBJECT: Informational Items and Items to be Added to the Next Agenda

A. BWD Board Agenda Development Schedule

At the last Board Meeting, a discussion occurred about the development of the BWD Board agendas. In the past, I've had challenges to get the materials to Esmeralda in time for her to make the copies and assemble the packet with attachments for both the Draft and Final Agendas. To provide adequate time, staff recommends the following schedule for future Agenda development.

Wednesday afternoon before the meeting – Distribute DRAFT Agenda with non- recurring attachments and receive Board Comments by Thursday. Staff will ensure that adequate time is given to the appropriate Board Committees to receive information and make recommendations when appropriate prior to the Agenda development process.

Friday before the meeting – Post/Distribute Final Agenda

B. **Update on Borrego Springs Library/Sheriffs Station/Park – Verbal: J Tatusko**

Director Tatusko has requested that this item be placed on the Agenda

C. Demand Reduction Project: Swimming Pool Treatment – J. Tatusko

Director Tatusko has requested that this item be placed on the Agenda. Attached is some information on this concept.

D. BWD Event/Planning Calendar – G Poole

Attached

A. **Items for Next Agenda:** The Borrego Basin GSP Monthly Update:

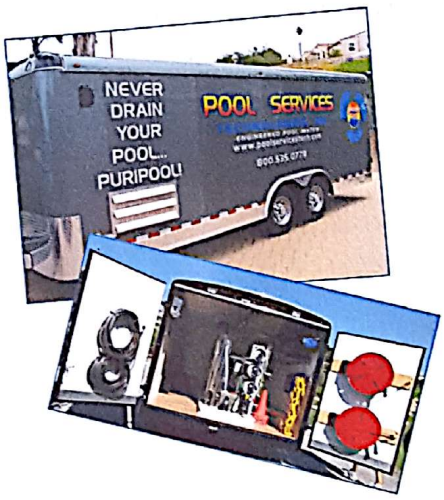
The monthly update will take place at the Regular Board Meeting each month (next update May 24th).

POOL SERVICES TECHNOLOGIES, INC.
ENGINEERED POOL WATER

RO
INFO BOARD PACKAGE
JAT

Puripool™ Service Providers

Pool Services Technologies, Inc. is excited to expand our reach out of Southern California to help conserve water and provide a safer swimming experience in all parts of the United States. We offer custom-built trailers and training to those who also want to be a part of this technology and own their own business, all while being responsible to our planet.



Getting Started

Get started on the road to opening your own business. With your entrepreneurial spirit and our help, you can succeed easier and faster than you ever thought possible. Add this service to your existing pool company / service work, or run it as a stand-alone business; the choice is yours!

5/6/2017 Service Providers - Pool Services Technologies - Never Drain Your Pool Again !

An Outstanding Opportunity

Pool Services Technologies presents an

An Outstanding Opportunity

Pool Services Technologies presents an outstanding business opportunity in the burgeoning swimming pool care industry. If you share our dedication to exceptional customer service, have a commitment to providing the best for your customers and understand the value of providing hands-on ownership in the operation of your own business, let's talk!

Find a Puripool™ Mobile Filtration Service Provider in your area.

Below is a list of our current service providers. Call them to schedule your Puripool Pool Water Purification today!

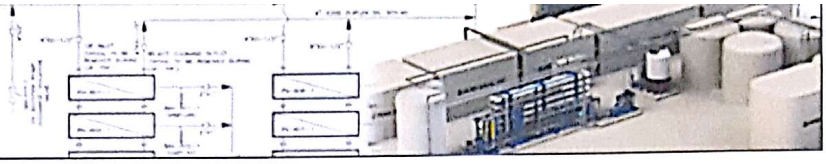
Arizona - Scottsdale - Dwight Barber/Monarch Pool Service LLC (480) 266-5704
Arizona - Scottsdale - Russ Kravchuk/No Drainer Water Purification Services (602) 791-3230 - COMING SPRING 2017
Arizona - Lake Havasu City - Nick Weiss/Splash Pool Purification (928) 230-3459

Arizona - Gilbert - Steve Ward/Ward's Pool Service (480) 213-0481 - COMING SPRING 2017
California - Fresno - Tom Verduzco/Backyard Spa & Leisure - (559) 276-0494
California - La Canada/Flintridge - Fritz Brown/Reverse Technologies (818) 400-8232
California - La Mesa - Ray Johnson/Ray's H2O Purification (619) 772-7220
California - Lake Elsinore - Rick Grefe - PoolSmart (951) 440-5715
California - Orange County - Rick Acaba/Blue

Drainer Water Purification Services (602) 791-3230 - COMING SPRING 2017
Arizona - Lake Havasu City - Nick Weiss/Splash Pool Purification (928) 230-3459

Arizona - Gilbert - Steve Ward/Ward's Pool Service (480) 213-0481 - COMING SPRING 2017
California - Fresno - Tom Verduzco/Backyard Spa & Leisure - (559) 276-0494
California - La Canada/Flintridge - Fritz Brown/Reverse Technologies (818) 400-8232
California - La Mesa - Ray Johnson/Ray's H2O Purification (619) 772-7220
California - Lake Elsinore - Rick Grefe - PoolSmart (951) 440-5715
California - Orange County - Rick Acaba/Blue Canyon Pool and Spa (714) 343-3835
California - Palm Desert - Cindy Clark/Roadrunner Pools (760) 360-9347
California - Ventura County - Michael Thorne/Water Renew (805) 551-6828
California - Sacramento - Jerry Wallace/Swim Chem (916) 332-6111
California - Santa Ana - Peter Summa/Pool Water Recycling (714) 694-3116
California - Torrance - Stephen Boykins/AquaPoolCo Pure (310) 376-8241
California - Vista - Bruce Wettstein/Pool Services Technologies (800) 535-0778
California - Walnut Creek- Tom Rossoni/East Bay Water Solutions (844) 787-9287
Nevada - Las Vegas - Aaron Sanchez/Pure Pool Purification (702) 362-8295
Nevada - Las Vegas - Brandon Lorentz/Clarity Pools (702) 839-9265
Texas - Austin - Jeff Brown/Perfect Pool Water (512) 466-2740
Texas - Dallas - Jim Calkins/Weber Pools (817) 481-7665

For more information about becoming a Service Provider click HERE or go to www.purewaterindustries.com



INFO BOARD PACKAGE

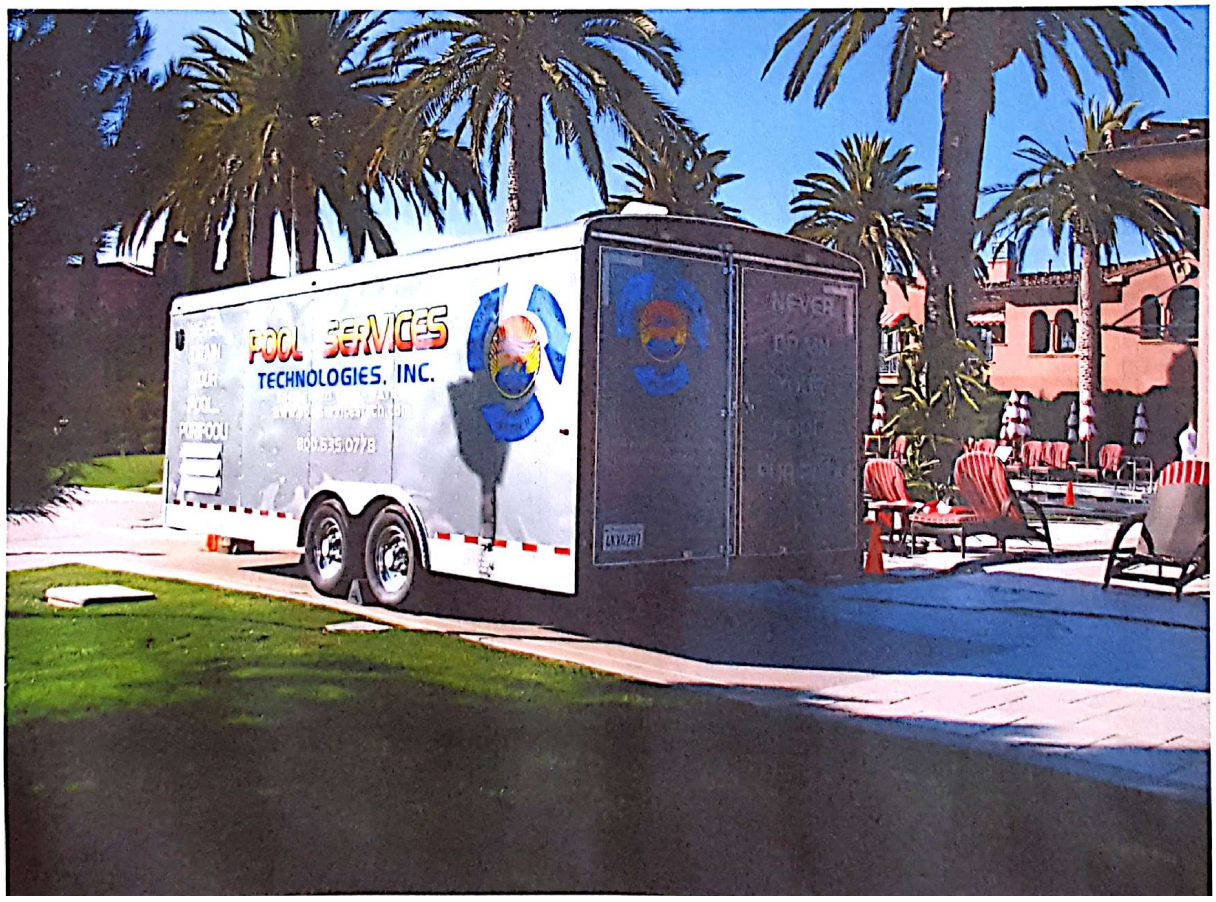
JAT

BRUCE WETTSTEIN | OCT 09, 2014

RO FOR CLEANER POOLS

Share:

RO technology helps treat & conserve swimming pool water



Reverse osmosis (RO) is becoming a common method for treating residential drinking water. While many consumers know RO best for its use in desalination, it is also effective for treating water quality problems in the home.

RO reduces the amounts of organics, inorganics, bacteria and particulates found in water, as well as other solids and salts. The process has been refined to address the hard water concerns and sanitary needs of swimming pools, with technologies designed specifically for use with residential and commercial pools.

System Basics

RO is based on the process of osmosis and involves the selective movement of water from one side of a membrane (a tightly wound composite) to the other. To make the process work, high pressure is applied to the feedwater, forcing it through the membrane. Because contaminants do not move with the water across the membrane, purer water collects and is captured on the other side of the membrane. The purified water that accumulates is drinking water quality and is sent back into the swimming pool. High pressure is necessary to separate purified water and contaminants and to ensure efficiency and minimal water waste.

The pressure required is based on the type and concentration of contaminants in the water. Supplying more pressure than required to the contaminated water provides better separation and a higher production rate, but can result in fouled membranes. Care is needed to find the optimal balance between recovery and failure of the membranes (fouling). This is one of the largest hurdles to overcome when building this type of system.

Removal efficiency often is described using the term "rejection percentage," which is the percentage of a particular contaminant that does not cross the membrane. While this information is critical, rejection percentages do not tell the whole story. For example, the rejection percentage for nitrates can be as high as 90% with some systems, indicating that the membrane is highly efficient in rejecting them. It is important to know not only rejection percentages, but also incoming pollutant concentrations, to effectively reduce contaminant concentrations in the water to safe levels.

Ensuring Success

Basic components of an RO system include a prefilter to remove fouling agents such as rust and lime; an RO module containing the membranes; an injection system capable of neutralizing scale and chlorine; and various valves, including a shutoff valve that stops the water flow when the system shuts down after processing. The system also must provide for waste flow to carry away the brine solution (roughly 15% of the pool water) to an approved drain location.

Properly sourced components are critical to handling the unique characteristics of swimming pool water, and the different water conditions and needs of each pool, and to maximize efficiency and minimize water waste in the brine stream. While not required, a remote monitoring system and on-board power are helpful when utilizing RO in the swimming pool industry.

5/6/2017 RO for Cleaner Pools | Water Quality Products

To ensure peak performance, RO systems require regular maintenance and replacement of various components. Prefilters and injection chemicals need to be installed to protect membranes; the length of time between changing prefilters will depend on water quality, especially the concentration of solids. The contaminant concentration, membrane rejection percentages and efficiency all determine when prefilters should be replaced. RO membranes typically last three to five years, depending on operating conditions, membrane type, and prefilter and injection chemical performance.

One example of this type of system is the Puripool Process, created by Pool Services Technologies Inc. The company has built and operated RO trailers for the swimming pool industry since 2009, and has conserved nearly 24 million gal of water in the San Diego area alone. The process is also currently in use in the Dallas/Fort Worth area (through Weber Pools) and Lake Havasu City, Ariz. New operators will soon be offering this service in Las Vegas and the greater San Diego area.

As drought conditions continue, RO technology for pools is poised to gain acceptance and be available in many more locales, proving that safe and healthy water for the swimming pool industry is critical, especially in times of limited water availability.

BORREGO WATER DISTRICT 2017 CALENDAR OF EVENTS

JANUARY

- Design Agenda for 2017 Town Hall Meeting

FEBRUARY

- **CLUB CIRCLE** - Option to renew lease by 2/28/2017
- **GREEN DESERT LANDSCAPING** - Discuss w/ Bob the option of continuing with contract 2/28/2017

MARCH

- **P & I PAYMENT FOR ID4 COP'S** - 1st half of payments due
- **ANNUAL EAR REPORT (CDHS)** – Due 3/31 for previous year
- **BUDGET** – Pump Check
- **BVG GSP CONSULTANT SELECTION PROCESS AND GSP DEVELOPMENT SCHEDUAL:**
  2017- CONSULTANT NOTICE TO PROCEED
  2017-2019 – GSP Development
- **GSP** – 3/6/2017 GSP Advisory Committee Meeting
- **TOWN HALL MEETING**

APRIL

- **T2** – Raftelis spare capacity cost analysis
- **PITNEY BOWES** – 4/1 Send letter of cancellation if desired
- **CASGEM** – Submit CASGEM water level data
- **SURPLUS WATER ACTIVITY** – 4/1 Calculate Surplus Water Activity
- **BUDGET** – CIP meeting, draft budget document
- **BORREGO WATER ADVISORY COMMITTEE** – BWD/County approval nominations

MAY

- **SURPLUS WATER ACTIVITY** – 5/1 Notify Rams Hill of Surplus availability
  - Rans Hill does not want any surplus water for 2017-18
- **LEAD TESTING IN BORREGO SCHOOLS**
- **BUDGET** – Final Budget document/ Rate resolution
- **BUSINESS PLAN** – FY Budget and New Rates Approved
- **BORREGO WATER ADVISORY COMMITTEE**
  DATE: MAY 15, 2017
  TIME: 10AM
  WHERE: BORREGO WATER DISTRICT
  BWD/County approval of Nominations
  Prepare By-Laws and Orientation

BORREGO WATER DISTRICT 2017 CALENDAR OF EVENTS

JUNE

- **GREEN DESERT LANSCAPE** – Agreement expires 6/30/2017
- **SANTIAGO ESTATE** – Occupancy Report Due
- **BUDGET** – 6/9/2017 Approval of Budget
- **INVESTMENT POLICY** – Investments policies restated
- **SPECIAL ASSESMENTS** / TAX BILL RESOLUTIONS TAUSSIG:
  Special Assessments resolutions due

JULY

- **T2 BORREGO** – 7/1/17 Establish water budget
- **COMPASS BANK** – 1st Payment due September 1st
- **GREEN DESERT LANDSCAPE** – Cost of water adjustment each July 1st with Cameron
- **XEROX** – Lease contract expires 7/2020
- **PITNEY BOWES POSTAGE MACHINE** – Lease expires 7/2017
- **CCR** – CCR to be distributed July 1st
- **BUSINESS PLAN** – New Rates go in to effect

AUGUST

- **RAMONA DISPOSAL**
  CLUB CIRCLE - Contact RDS RE: Contract Renewal
  BWD Dumpsters – Contact RDS RE: Contract Renewal
- **AUDIT** – Begin Audit

SEPTEMBER

- **P & I PAYMENT FOR ID4 COP'S -** 2nd half of payments due
- **CHECK FALLOWED PROPERTY FOR WATER USAGE** – Annual fallow property check
- **AUDIT** – Review Audit draft report

OCTOBER

- **COMPASS BANK -** Payment due December 1st
- **CCR** – Mail CCR Certification Form
- **CAMERON BORS. WATER USAGE REPORT (GOLF COURSE) TO COUNTY**
  Send to County DPLU by 10/31

BORREGO WATER DISTRICT 2017 CALENDAR OF EVENTS

NOVEMBER

- **CASGEM** – Submit CASGEM water level data
- **REPORT CONSERVATION LEVELS TO STATE** – Report Due

DECEMBER

- **T2 BORREGO**
  12/31/18 lease expires
  Send invoice for Spare Capacity