AGENDA
WATER ISSUES COMMITTEE MEETING
WITH BOARD OF DIRECTORS *
ORANGE COUNTY WATER DISTRICT
18700 Ward Street, Fountain Valley, CA 92708
Wednesday, May 12, 2021 8:00 a.m.

* The OCWD Water Issues Committee meeting is noticed as a joint meeting with the Board of Directors for the purpose of strict compliance with the Brown Act and it provides an opportunity for all Directors to hear presentations and participate in discussions. Directors receive no additional compensation or stipend as a result of simultaneously convening this meeting. Items recommended for approval at this meeting will be placed on the **May 19, 2021** Board meeting Agenda for approval.

Due to the spread of COVID-19 and as authorized by the Governor's Executive Order, OCWD will hold its May 12 Water Issues Committee meeting by Zoom Webinar and will be available by either computer or telephone audio as follows:

Computer Audio: Join the Zoom Webinar by clicking on the following link:
https://ocwd.zoom.us/j/91309035453

Webinar ID: 913 0903 5453

Telephone Audio: (669) 900 9128

PLEDGE OF ALLEGIANCE

ROLL CALL

ITEMS RECEIVED TOO LATE TO BE AGENDIZED

RECOMMENDATION: Adopt resolution determining need to take immediate action on item(s) and that the need for action came to the attention of the District subsequent to the posting of the Agenda (requires two-thirds vote of the Board members present, or, if less than two-thirds of the members are present, a unanimous vote of those members present.)

VISITOR PARTICIPATION

Time has been reserved at this point in the agenda for persons wishing to comment for up to three minutes to the Board of Directors on any item that is not listed on the agenda, but within the subject matter jurisdiction of the District. By law, the Board of Directors is prohibited from taking action on such public comments. As appropriate, matters raised in these public comments will be referred to District staff or placed on the agenda of an upcoming Board meeting.

At this time, members of the public may also offer public comment for up to three minutes on any item on the Consent Calendar. While members of the public may not remove an item from the Consent Calendar for separate discussion, a Director may do so at the request of a member of the public.

CONSENT CALENDAR (ITEMS NO. 1 – 8)

All matters on the Consent Calendar are to be approved by one motion, without separate discussion on these items, unless a Board member or District staff request that specific items be removed from the Consent Calendar for separate consideration.

1. MINUTES OF WATER ISSUES COMMITTEE MEETING HELD APRIL 14, 2021

   RECOMMENDATION: Approve minutes as presented

2. PRADO BASIN MONITORING WELLS: PHASE 2

   RECOMMENDATION: Agendize for May 19 Board meeting:

   1) Establish project budget for Phase 2 Prado Basin Monitoring wells of $115,000; and,

   2) Authorize issuance of a Notice Inviting Bids

3. RENEWAL OF LIMITED TERM EMPLOYMENT AGREEMENT WITH WILLIAM DUNIVIN FOR TECHNICAL SUPPORT SERVICES

   RECOMMENDATION: Agendize for May 19 Board meeting: Authorize execution of a Limited Term Employment Agreement with William Dunivin for an amount not to exceed $150,000 per year for technical consulting services for the period of two years from June 1, 2021 to June 1, 2023

4. CONSTRUCTION OF FM-35 MONITORING WELL CLUSTER: AMENDMENT TO AGREEMENT WITH HARGIS + ASSOCIATES FOR CONSTRUCTION INSPECTION SERVICES

   RECOMMENDATION: Agendize for May 19 Board meeting: Authorize issuance of Amendment No. 1 to Agreement No. 1437 with Hargis + Associates in the amount of $3,950 for additional construction inspection services

5. AUTHORIZE ISSUANCE OF AGREEMENT WITH MULTIVISTA FOR PHOTOGRAPHIC CONSTRUCTION DOCUMENTATION SERVICES FOR THE GROUNDWATER REPLENISHMENT SYSTEM FINAL EXPANSION PROJECT

   RECOMMENDATION: Agendize for May 19 Board meeting: Authorize issuance of an agreement with Multivista for photographic construction documentation for the Groundwater Replenishment System Final Expansion Project in an amount not to exceed $58,250

6. FIFTH AMENDMENT TO SETTLEMENT AGREEMENT WITH US DEPARTMENT OF JUSTICE AND NAVY AND IRVINE RANCH WATER DISTRICT TO ALLOW TEMPORARY SHUTDOWN FOR TREATMENT SYSTEM MODIFICATIONS

   RECOMMENDATION: Agendize for May 19 Board meeting: Authorize the General Manager to finalize and execute the Fifth Amendment to the Settlement Agreement among the Settling Federal Agencies, Orange County Water District, and Irvine Ranch Water District in regard to the former Marine Corps Air Station El Toro Groundwater Remediation to allow for temporary shutdown for treatment system modifications

7. BUDGET AUGMENTATION TO COMPLETE R&D WORK DELAYED FROM FY19-20 DUE TO COVID-19 PANDEMIC

   RECOMMENDATION: Agendize for May 19 Board meeting: Authorize issuance of additional funds in the amount of $128,000 to R&D Department budget account

51560 for Lab Sample Analysis and $19,000 to R&D budget account 53001 for Professional Services – General for fiscal year 2020-21

8. AMENDMENTS TO AGREEMENTS WITH AQUEOUS VETS AND EVOQUA FOR PFAS TREATMENT PRESSURE VESSEL SYSTEMS PURCHASE

RECOMMENDATION: Agendize for May 19 Board meeting:

1) Authorize issuance of Amendment No. 3 to Agreement No. 1422 with Aqueous Vets, for an amount not to exceed $208,313; and

2) Authorize issuance of Amendment No. 4 to Agreement No. 1423 with Evoqua, for an amount not to exceed $131,854

MATTER FOR CONSIDERATION

9. APPROVAL OF PRADO BASIN FEASIBILITY STUDY

RECOMMENDATION: Agendize for May 19 Board meeting: Approve the attached resolution, which includes the following actions:

1) Certify the Environmental Impact Report, adopt Findings of Fact, and adopt Mitigation, Monitoring and Reporting Plan

2) Approve the Water Conservation Plan and Ecosystem Restoration Plan

3) Authorize staff to complete the permitting process and execute permits

CHAIR DIRECTION AS TO ITEMS IF ANY TO BE AGENDIZED AS MATTERS FOR CONSIDERATION AT THE MAY 19 BOARD MEETING

DIRECTORS' ANNOUNCEMENTS/REPORTS

GENERAL MANAGER'S ANNOUNCEMENTS/REPORTS

ADJOURNMENT

WATER ISSUES COMMITTEE MEMBERS

Committee Members
Cathy Green - Chair
Dina Nguyen - Vice Chair
Roger Yoh
Jordan Brandman
Kelly Rowe

Alternates
Bruce Whitaker
Nelida Mendoza
Tri Ta
Denis Bilodeau
Steve Sheldon

In accordance with the requirements of California Government Code Section 54954.2, this agenda has been posted at the guard shack entrance and in the main lobby of the Orange County Water District, 18700 Ward Street, Fountain Valley, CA and on the OCWD website not less than 72 hours prior to the meeting date and time above. All written materials relating to each agenda item are available for public inspection in the office of the District Secretary. Backup material for the Agenda is available at the District offices for public review and can be viewed online at the District's website: www.ocwd.com

Pursuant to the Americans with Disabilities Act, persons with a disability who require a disability-related modification or accommodation in order to participate in a meeting, including auxiliary aids or services, may request such modification or accommodation from the District Secretary at (714) 378-3233, by email at jdurant@ocwd.com by fax at (714) 378-3373. Notification 24 hours prior to the meeting will enable District staff to make reasonable arrangements to assure accessibility to the meeting.

As a general rule, agenda reports or other written documentation has been prepared or organized with respect to each item of business listed on the agenda, and can be reviewed at www.ocwd.com. Copies of these materials and other disclosable public records distributed to all or a majority of the members of the Board of Directors in connection with an open session agenda item are also on file with and available for inspection at the Office of the District Secretary, 18700 Ward Street, Fountain Valley, California, during regular business hours, 8:00 am to 5:00 pm, Monday through Friday. If such writings are distributed to members of the Board of Directors on the day of a Board meeting, the writings will be available at the entrance to the Board of Directors meeting room at the Orange County Water District office.

MINUTES OF BOARD OF DIRECTORS MEETING
WATER ISSUES COMMITTEE
ORANGE COUNTY WATER DISTRICT
April 14, 2021 @ 8:00 a.m.

Due to the Governor's Executive Order N-25-20, Director Green called the Water Issues Committee meeting to order via Zoom webinar. The Secretary called the roll and reported a quorum as follows:

Committee Members	OCWD
Cathy Green	Mike Markus – General Manager
Dina Nguyen	John Kennedy – Executive Director
Roger Yoh	Chris Olsen – Director of Engineering
Jordan Brandman	Christina Fuller – Assistant District Secretary
Kelly Rowe	Jeremy Jungreis – General Counsel

Alternates
Bruce Whitaker
Nelida Mendoza
Tri Ta
Denis Bilodeau (absent)
Steve Sheldon (absent)

CONSENT CALENDAR

The Consent Calendar was approved upon motion by Director Brandman, seconded by Director Rowe and carried [5-0], as follows.
Ayes: *Green, Nguyen, Yoh, Brandman, Rowe*

1. Minutes of Water Issues Committee Meeting

The Minutes of the Water Issues Committee meeting held March 10, 2021 were approved as presented.

2. Contract No. PB-2020-1, Prado Basin SMDP Excavation and Dredging – Ratify Change Order No. 1

Recommended for approval at April 21 Board meeting: Ratify Change Order No. 1 to Contract No. PB-2020-1, Prado Basin Sediment Management Demonstration Project Excavation and Dredging, in the amount of $79,000.

3. Amendment to Agreement with Evoqua for PFAS Treatment Pressure Vessel Systems Purchase

Recommended for approval at April 21 Board meeting: Authorize issuance of Amendment No. 3 to Agreement No. 1423 with Evoqua, for an additional amount not to exceed $282,571.

4. Professional Services Agreement Amendment with Westwater Research Inc. to Review Existing Water Storage Programs

Recommended for approval at April 21 Board meeting: Authorize issuance of a Professional Services Agreement Amendment to WestWater for an amount of $10,000.

5. Santa Ana River Conservation and Conjunctive Use Program (SARCCUP) Producer Contract: East Orange County Water District

Recommended for approval at April 21 Board meeting: 1) Consider Final Initial Study/Mitigated Negative Declaration prepared by East Orange County Water District; 2) Approve and authorize execution of contract with East Orange County Water District to Provide SARCCUP grant funding for the Vanderwerff Well; and,3) Authorize filing of a Notice of Determination for the East Orange County Water District Well.

MATTER FOR CONSIDERATION

6. Agreement to Econo Fence Inc. for Construction of OCWD Perimeter Security Fence

Director of Engineering Chris Olsen reported that the entire perimeter fence would be approximately 9.5 feet tall from existing grade along Ellis Avenue. He stated that segments of the fence would have footings in the ground and segments would connect to fencing mounted on the existing block wall where feasible. He advised that the City of Fountain Valley Planning Commission has granted OCWD a variance request to allow for construction of the perimeter fence within the required 20-foot setback and for exceeding the maximum 3-foot height limit within the front setback and the 8-foot height limit on the side yard. Mr. Olsen advised that a RFQ for construction services to construct the perimeter security fence was issued on March 26, 2021 with two quotes received by the due date. He reported that based on the quotes received, staff recommends awarding the Project to Econo Fence Inc. for the OCWD Perimeter Security Project for an amount not to exceed $187,275.

Upon motion by Director Rowe, seconded by Director Yoh and carried [5-0], the Committee recommended that the Board at its April 21 Board meeting: Authorize issuance of an Agreement to Econo Fence Inc. for construction of the OCWD perimeter security fence project for an amount not to exceed $187,275.
Ayes: *Green, Nguyen, Yoh, Brandman, Rowe*

INFORMATIONAL ITEM

7. Proposed Fiscal Year 2021-22 Capital Improvement Budget

Mr. Olsen provided an overview of the proposed fiscal year 2021-22 Capital Improvement Program (CIP) budget totaling $228.3 million for 19 projects. He presented the larger items that are included in the proposed CIP Budget.

CHAIR DIRECTION AS TO ITEMS IF ANY TO BE AGENDIZED AS MATTERS FOR CONSIDERATION AT THE APRIL 21 BOARD MEETING

It was agreed to place all items on the Consent calendar for the April 21 Board meeting.

ADJOURNMENT

There being no further business, the meeting was adjourned at 8:25 a.m.

_____
Cathy Green, Chair

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AGENDA ITEM SUBMITTAL

Meeting Date: May 12, 2021

To: Water Issues Committee
Board of Directors

From: Mike Markus

Staff Contact: A. Hutchinson/G. Yoshiba

Budgeted: Yes, FY21-22
Budgeted Amount: $115,000
Cost Estimate: $115,000
Funding Source: CIP
Program/ Line Item No.: C21001
General Counsel Approval: N/A
Engineers/Feasibility Report: N/A
CEQA Compliance: To be completed at contract award

Subject: PRADO BASIN MONITORING WELLS: PHASE 2

SUMMARY

Prado Basin contains the largest riparian forest in coastal southern California and allows for the temporary impoundment of storm water for water supply. Staff biologists have noticed changes in the health of the riparian forest in recent years that could be caused by changes in groundwater levels. As part of Phase 1, ten shallow monitoring wells were installed in fall 2020 on OCWD property. For Phase 2, staff is proposing to install an additional 9 wells at seven sites, of which seven wells (5 sites) will be located on property owned by the US Army Corps of Engineers (Corps).

RECOMMENDATIONS

Agendize for May 19 Board meeting:

1. Establish project budget for Phase 2 Prado Basin Monitoring wells of $115,000; and,
2. Authorize issuance of a Notice Inviting Bids.

BACKGROUND/ANALYSIS

Prado Basin, the area up to elevation 566 feet above sea level behind Prado Dam, is a large area of importance to the District. The District owns over 2,000 acres of land in the Basin. Prado Basin is used to temporarily impound storm water behind Prado Dam that is released to downstream recharge facilities to replenish the groundwater basin.

By managing the natural resources in the Basin, OCWD has been able to increase stormwater capture over the last 30 years. The District's efforts in natural resource management have increased the population of the endangered songbird, the Least Bell's vireo. The increased vireo population allows more flexibility in operating Prado Dam to capture more stormwater for the District to recharge. OCWD has increased habitat for the vireo by removing non-native vegetation and replacing them with native vegetation. Successful habitat management is important in allowing the District to continue stormwater capture, wetlands treatment and other District activities in Prado Basin.

Historically, the Prado Basin is an area where groundwater from the Chino Groundwater Basin rises up and discharges to the Santa Ana River. Due to the poor quality of rising groundwater, water agencies in Chino Basin constructed a hydraulic containment system to intercept poor quality groundwater before it reached the Santa Ana River. This containment system, called the Chino Desalters, and planned overdraft of the Chino Basin has the potential to lower groundwater levels in the vicinity of Prado Basin.

Shallow groundwater in the Basin supports riparian vegetation, such as willow trees and mulefat. Willow trees and mulefat require groundwater at relatively shallow depths So, it is important that groundwater levels remain near the surface to support existing riparian vegetation.

Staff biologist have noticed changes in the riparian habitat in the Prado Basin in recent years. To assess the potential impact of groundwater levels on habitat, OCWD staff installed several temporary shallow drive-points in 2015, which are essentially perforated 1-inch diameter pipes driven about 10 feet into the ground. While these drive points have provided valuable information, they need to be replaced with standard monitoring wells.

PHASE 1 AND 2 MONITORING WELLS

The proposed monitoring wells will be placed in locations to fill in data gaps and to assess the groundwater quality downgradient of the Temescal Wash. They would be constructed in the fall time period, after the end of bird nesting season (September 15). Each shallow monitoring well will be installed using the hollow stem auger drilling method to anticipated depths between 15 and 50 feet below ground surface (bgs). Because the routes to the well sites vary from narrow, sandy, or soft soil pathways to widen compacted soil roadways, the drill rig is anticipated to be a track-mounted rig capable of navigating these unpaved routes between well sites.

The monitoring wells will be constructed of 2-inch diameter casing with estimated 10-foot-long horizontal slotted screens. The well design also includes a 2-foot blank sump below the well screen with a bottom end cap. Annular backfill around the well screen is comprised of a sand filter pack and bentonite seal on top followed by a cement sanitary seal to ground surface.

After they are constructed, each well will be surveyed to accurately determine its location and elevation.

Phase 1

The Board authorized Phase 1 May 2020, which included construction of 10 shallow monitoring wells. All ten wells were completed in October 2020. The Phase 1 well locations are shown on Figure 1.

Phase 2

Staff proposes that the Phase 2 wells be constructed in September to October 2021. Phase 2 includes construction of 9 wells at seven sites shown in Figure 1. Seven of the wells are located on property owned by the Corps. As a result, staff will return to the

Board with an agreement to allow the wells to be constructed on Corp property and provide long-term access to the wells.

BUDGET

Funding for the proposed monitoring wells is included in the FY21-22 Capital Improvement Plan (CIP) budget. Because of the short time window to construct the wells in fall 2021, staff is requesting project approval and permission to obtain bids in order to award a contract in July 2021. Table 1 summarizes the proposed monitoring well budget.

Table 1. Proposed Budget for Phase 2 Prado Basin Monitoring Wells (1)

Task	Cost Estimate
Monitoring Well Construction (1)	$105,000
Surveying	$10,000
PROJECT TOTAL:	**$115,000**

(1) Inspection services to be performed by OCWD geologist.

PRIOR RELEVANT BOARD ACTION(S)

1/20/2021, R21-1-3 - Ratify issuance of Change Order No. 1 and accept completion of work and authorize filing a Notice of Completion for Contract PB-2020-2, Construction of Prado Basin Monitoring Wells.

8/19/2020, R20-8-103 - Receive and file Affidavit of Publication of Notice Inviting Bids for Contract No. PB-2020-2 and, accept bid and award Contract PB-2020-2 to ABC Liovin Drilling for an amount not to exceed $76,770.

5/13/2020, R20-5-57 – Authorize publication of Notice Inviting Bids for Prado Basin Monitoring Wells, Establishing Project Budget, and Authorizing Notice of Exemption.

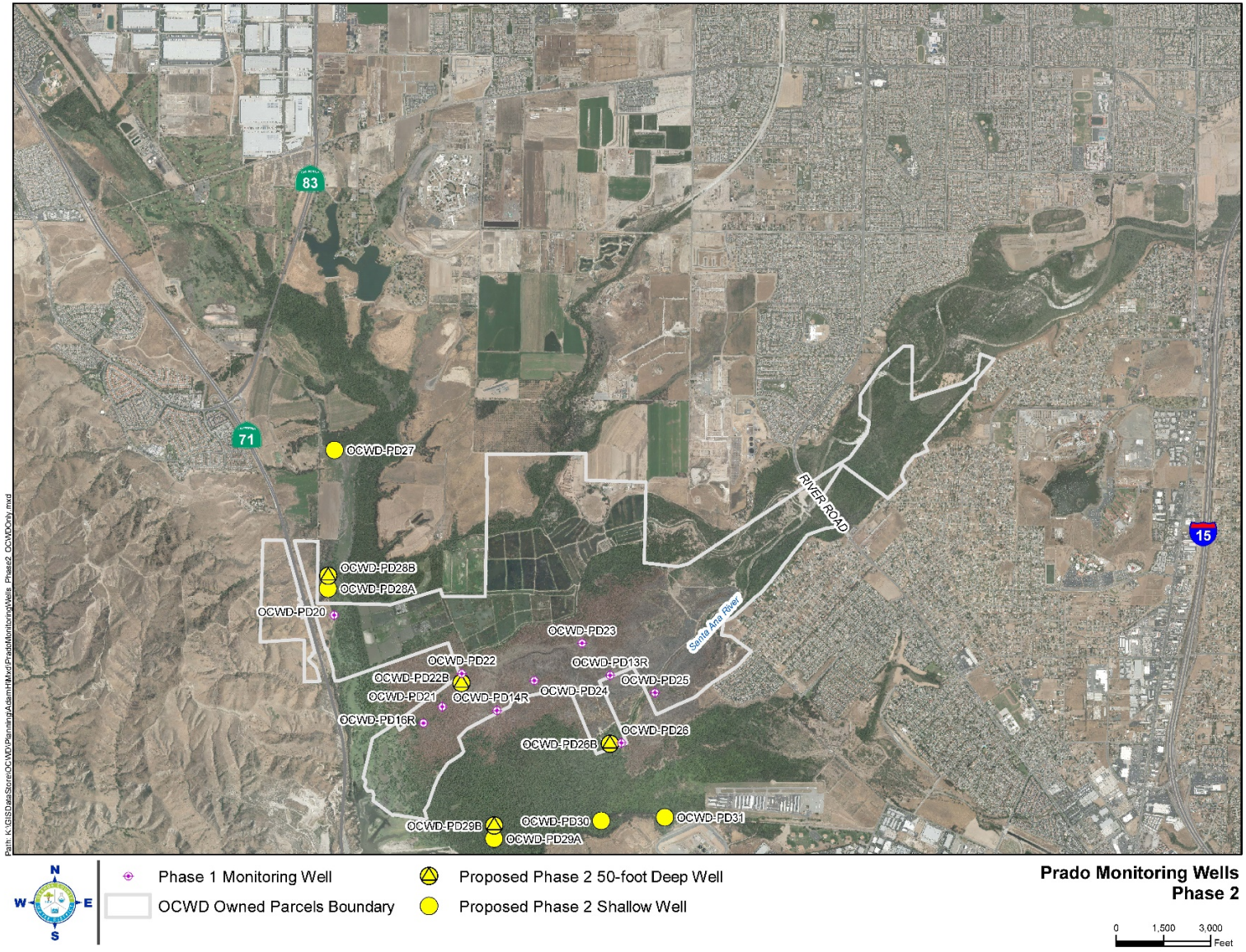


Figure 1 Location of Phase 1 Wells and Proposed Phase 2 Monitoring Wells in Prado Basin

AGENDA ITEM SUBMITTAL

Meeting Date: May 12, 2021

To: Water Issues Committee
Board of Directors

From: Mike Markus

Staff Contact: M. Markus/M. Patel

Budgeted: Yes
Budget Amount: $150,000 per year
Cost Estimate: $150,000 per year
Funding Source: General Fund
Program/Line Item No.: 1050.53001.9900
General Counsel Approval: N/A
Engineers/Feasibility Report: N/A
CEQA Compliance: N/A

Subject: RENEWAL OF LIMITED TERM EMPLOYMENT AGREEMENT WITH WILLIAM DUNIVIN FOR TECHNICAL SUPPORT SERVICES

SUMMARY

William Dunivin retired from the District as Executive Director of Operations effective June 1, 2018. An Agreement with Mr. Dunivin was approved in May 2018 so that he can provide technical support to the Water Production, Field Headquarters Recharge and Wetlands Departments. Mr. Dunivin possesses unique knowledge and experience from his 44 years of employment at the District.

Attachment: Limited Term Employment Agreement

RECOMMENDATION

Agendize for May 19 Board meeting: Authorize execution of a Limited Term Employment Agreement with William Dunivin for an amount not to exceed $150,000 per year for technical consulting services for the period of two years from June 1, 2021 to June 1, 2023.

DISCUSSION/ANALYSIS

William Dunivin was previously employed by OCWD for 44 years in various roles involving the management of the operations and maintenance of Water Factory 21, Green Acres Project and GWRS. His most recent assignment had been as the Executive Director of Operations overseeing the GWRS and GAP, Field Headquarters Recharge and Prado Wetlands Departments. During his 44 years at the District, Mr. Dunivin has acquired unique knowledge that will be valuable to assist these departments and help with development of staff and provide support on process and mentoring of staff. In addition to managing these operations, Mr. Dunivin has been involved with supporting with the review of construction related submittals and other documents associated with the GWRS Final Expansion (GWRSFE). Staff recommends renewal of Mr. Dunivin's agreement for an additional two years.

Mr. Dunivin's scope of work for his current agreement includes the following activities:

- Provide support and guidance to the new Executive Director of Operations and the Director of Recharge and Wetlands and other managers

- Review GWRS water quality and plant performance data

- Review and comment on the design specifications and drawings for the GWRSFE

- Assist staff with the ongoing development of the Computer Maintenance Management System and the development of maintenance practices including asset management development at Field Headquarters and Prado facilities

- Assist staff as needed in the ongoing development of standard operations procedures

- Review and compile unit cost data for GWRS and recharge operations

- Review, comment and provide edits on the draft GWRS Annual Report and other reports as needed

- Assist with development of required facility operational permits from the Regional Water Quality Control Board, Division of Drinking Water and other regulatory agencies

- Provide general technical consulting on an as-needed basis

Continued assistance from Mr. Dunivin is required and in addition to current duties listed above will be technical support for the GWRS Final Expansion construction project. Mr. Dunivin will continue to support the GWRS Program Manager assisting with contractor request for information, submittals and field construction issues as well as plant start up support. Mr. Dunivin possesses specialized knowledge of OCWD facilities which continue to provide a unique resource. Mr. Dunivin has agreed to work limited hours (capped at 25 hours per week maximum) for the District as a consultant to assist with the activities listed above at an hourly rate of $130 per hour.

PRIOR RELEVANT BOARD ACTION(S) N/A

LIMITED TERM EMPLOYMENT AGREEMENT

(William Dunivin)

THIS LIMITED TERM EMPLOYMENT AGREEMENT is entered into as of June 1, 2021 by and between the ORANGE COUNTY WATER DISTRICT, a political subdivision of the State of California (hereinafter, "OCWD"), William Dunivin (hereinafter, "EMPLOYEE"), for the employment of EMPLOYEE by OCWD for the period commencing June 1, 2021 through the termination date as established in Section Three herein below, in accordance with the following terms and conditions:

SECTION ONE: EMPLOYMENT AND DUTIES OF EMPLOYEE

1.1 OCWD hereby employs EMPLOYEE, and EMPLOYEE hereby accepts employment from OCWD, in the capacity of Operations Advisor, commencing as of June 1, 2021.

1.2 During EMPLOYEE's employment with OCWD, EMPLOYEE shall do and perform all services, acts or things necessary or advisable to fulfill the duties and responsibilities as directed by the District Geologist.

1.3 EMPLOYEE shall work not more than twenty-five (25) hours in any work week.

1.4 Unless otherwise, the employment services of EMPLOYEE shall be performed at the offices of OCWD, located at 18700 Ward Street, Fountain Valley, CA; provided, however, that OCWD may require EMPLOYEE to travel temporarily to other locations to perform services for or on behalf of OCWD.

1.5 EMPLOYEE shall, to the best of EMPLOYEE's ability and experience, loyally and conscientiously perform all of the duties and obligations required of EMPLOYEE, either expressly or implicitly by the terms of this Agreement or the provisions of the OCWD Personnel Manual (hereinafter, the "Personnel Manual"), as adopted by the Board of Directors of OCWD and as may be amended by the Board of Directors in its legislative discretion from time to time (copy of which has been provided to EMPLYEE); provided, however, that in the event of a conflict between this Agreement

and the Personnel Manual, this Agreement shall supersede and prevail of the Personnel Manual.

SECTION TWO: COMPENSATION AND BENEFITS

2.1 As of the date of commencement of employment as set forth in Paragraph 1.1, EMPLOYEE shall receive wages based on an hourly rate of $130, with a do not exceed of $150,000 per year for the term of the contract.

2.2 For and during the term of employment, EMPLOYEE shall NOT be entitled to all of the benefits provided within the contract period and enjoyed by full-time or part-time employees of OCWD, as set forth in the Personnel Manual.

SECTION THREE: TERM OF EMPLOYMENT

3.1 OCWD and EMPLOYEE hereby expressly understand and acknowledge that EMPLOYEE is employed by OCWD, for a period not to exceed two-years duration.

3.2 While OCWD and EMPLOYEE anticipate that the term of employment under this Agreement shall be approximately 2 years from the date of commencement of EMPLOYEE's employment pursuant to Paragraph 1.1 hereinabove, the actual date of termination of employment shall be determined by the completion of duties as determined by the District. In this regard, OCWD shall provide EMPLOYEE at least 14 days' written notice of the termination of employment due to the completion of duties.

3.3 Notwithstanding the provisions of Paragraphs 3.1 and 3.2 hereinabove, OCWD and, EMPLOYEE each reserve the right to terminate this Agreement and the EMPLOYEE's employment with OCWD, at any time, with or without cause.

SECTION FOUR: MISCELLANEOUS

4.1 Effect of Personnel Manual: To the extent not inconsistent with the provisions of this

Agreement, the Personnel Manual is incorporated herein by this reference and shall govern the terms and conditions of EMPLOYEE's employment with OCWD, and the employment relationship of EMPLOYEE and OCWD, in all matters not expressly set forth herein.

4.3 Integration: This Agreement, together with all of the provisions of the Personnel Manual not inconsistent with any of the terms and conditions herein, represents the entire understanding of OCWD and EMPLOYEE as to the employment of EMPLOYEE by OCWD; and this Agreement, as complemented by the provisions of the Personnel Manual not inconsistent with the terms and conditions contained herein, supersedes any and all other agreements and understandings, either oral or in writing, between OCWD and EMPLOYEE with respect to the employment of EMPLOYEE by OCWD. Each party to this Agreement expressly acknowledges that no representations, inducements, promises or agreements, orally or otherwise, have been made by any party, or any person acting on behalf of any party, which are not embodied herein, and that no other agreement, statement, representation or promise not contained in this Agreement or in the Personnel Manual shall be of any force or effect.

4.4 Construction and Amendment: This Agreement shall be governed by the laws of the State of California. This Agreement may not be modified, altered or amended except in writing signed by OCWD and EMPLOYEE.

4.5 Effective Date: This Agreement shall be deemed executed by the parties as of the date first above written.

APPROVED AS TO FORM: **ORANGE COUNTY WATER DISTRICT**

By_____

By_____
General Counsel, OCWD

President

By_____

General Manager

By_____

Employee

AGENDA ITEM SUBMITTAL

Meeting Date: May 12, 2021

To: Water Issues Committee
Board of Directors

From: Mike Markus

Staff Contact: R. Herndon, D. Mark

Budgeted: Yes
Budgeted Amount: $69,500
Cost Estimate: $3,950
Funding Source: Reserves 50%
Prop 1 Grant 50%
Program/Line Item No.: C20002
General Counsel Approval: Yes
Engineers/Feasibility Report: N/A
CEQA Compliance: Yes

Subject: CONSTRUCTION OF FM-35 MONITORING WELL CLUSTER: AMENDMENT TO AGREEMENT WITH HARGIS + ASSOCIATES FOR CONSTRUCTION INSPECTION SERVICES

SUMMARY

Construction of the FM-35 monitoring well cluster was completed in February 2021. Staff requests approval to issue Amendment No. 1 to Agreement No. 1437 with Hargis + Associates (Hargis), the District's construction manager, in the amount of $3,950 for construction inspection time that took longer than anticipated and some out-of-scope work requested by District staff.

Attachments

- Figure 1 Location Map
- Hargis + Associates April 23, 2021 Letter

RECOMMENDATION

Agendize for May 19 Board meeting: Authorize issuance of Amendment No. 1 to Agreement No. 1437 with Hargis + Associates in the amount of $3,950 for additional construction inspection services.

BACKGROUND/ANALYSIS

In June 2020, the Board approved construction of the FM-35 monitoring well cluster to provide data to assist staff in evaluating the performance of extraction well EW-1 in containing groundwater impacted by volatile organic compounds in the eastern North Basin area. In October 2020, the Board awarded Contract GBM-2020-1 to ABC Liovin Drilling (ABC) and authorized issuance of a services agreement with Hargis for construction inspection services. Between January and February 2021, ABC completed construction of the FM-35 monitoring well cluster. The required hours for construction inspection services were more than anticipated due to ABC equipment breakdowns during drilling and well development, and staff requested out-of-scope inspection services during utility clearance and well video surveys. Hargis is requesting an additional $3,950 to complete the project (see attached letter from Hargis).

Table 1 below summarizes the approved budget and expenditures including proposed Amendment No. 1 to the Hargis Agreement. Costs in the original Agreement awarded to Hargis were less than what was estimated by staff and included in the Board-approved budget. Consequently, the anticipated final costs will be within the Board-approved project budget.

Table 1
Construction of FM-35 Monitoring Well Project Budget

Task	Approved Budget	Actual and Anticipated Expenditures
Pre-Construction Activities		
License Agreement & Expenses	$ 35,000	$ 35,000
Legal Description Survey for License Agreement	4,600	4,600
CEQA (County filing fee for Categorical Exemption)	500	500
Monitoring Well Construction (3 depth-specific wells)		
Well Construction Contract GBM-2020-1 Award	$ 230,000	$ 223,940
Change Order No. 1	--	(19,934)
Subtotal Contract GBM-2020-1:	$ 230,000	$ 204,006
Well Construction Inspection & Reporting, Utility Clearance (Hargis + Associates)	**69,500**	**47,065**
Amendment No. 1	**--**	**3,950**
Subtotal Inspection Services:	**69,500**	**51,015**
Dedicated Sampling Pumps & Data Loggers	14,700	10,739
Survey Wellhead Locations & Elevations	4,700	4,700
PROJECT TOTAL:	**$ 359,000**	**$ 310,560**

Half the cost to construct FM-35 is reimbursable to the District by the SWRCB under the Prop 1 grant awarded to OCWD for the EW-1 project.

PRIOR RELEVANT BOARD ACTIONS

3/17/21, R21-3-39 Ratify issuance of Change Order No. 1 and filing of Notice of Completion for Contract GBM-2020-1, Construction of FM-35 Monitoring Well Cluster.

10/14/20, R20-10-134, Award Contract No. GBM-2020-1, Construction of FM-35 Monitoring Well Cluster, to ABC Liovin, and authorizing agreement with Hargis + Associates, Inc. for inspection services.

6/17/20, R20-6-70, Approve construction of FM-35 monitoring well cluster down-gradient of extraction well EW-1.

4/18/18, R18-4-42, Contract EW1-2016-1, North Basin Extraction Well EW-1 connection to sanitary sewer project: Notice of Completion and ratify Change Orders 1-4.
5/3/17, R17-5-64, Approve Amendment to Agreement No. 1130 with AECOM for an amount not to exceed $18,020 for design and construction support services.

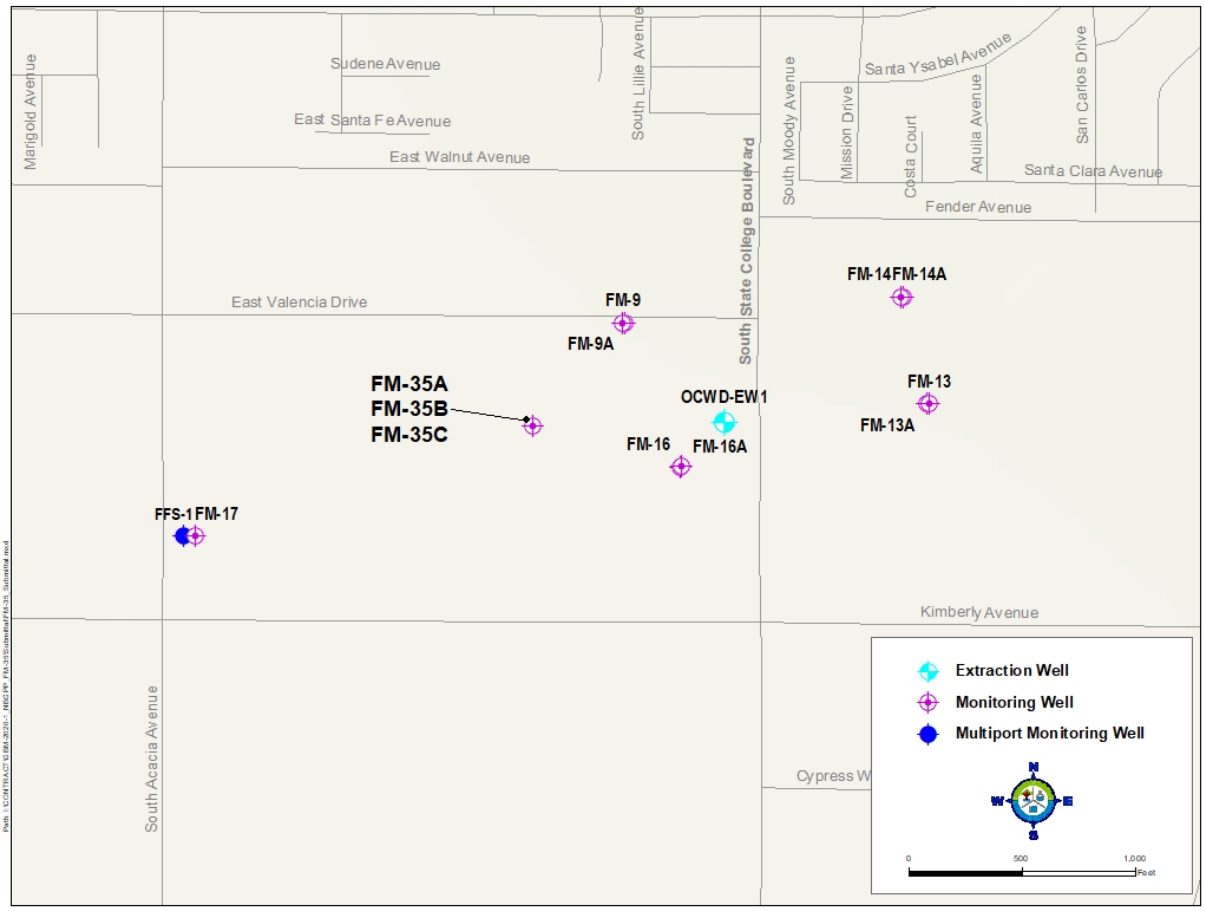
5/24/17, R17-5-72, Authorize entering into Funding Agreement with the State Water Resources Control Board and authorizing and designating a representative for the North Basin Remedial Investigation and Feasibility Study Project.

11/16/16, R16-11-156, Approve Encroachment Agreement with the City of Fullerton and provide a deposit to City in the amount of $10,000.

10/5/16, Receive and file Affidavit of Publication of Notice Inviting Bids for Contract No. EW1 2016 1; waive informality in Pacific Hydrotech's bid; accept bid and award contract to the lowest responsive bidder, Pacific Hydrotech, in the amount of $1,306,740; and authorize issuance of Agreement to Butier Engineering for an amount not to exceed $129,540 for construction management services.

3/16/16, R16-3-27, Adopt Resolution approving the following actions; Find and determine that the Project is not subject to CEQA, approve the Geologist's/Engineer's Report for the North Basin Well EW-1 Project with discharge to the sewer, Establish a capital project budget of $1,795,000, authorize issuance of an RFP for inspection services during construction, Authorize issuance of a Notice Inviting Bids for construction of the EW-1 wellhead, pipeline and sewer connection, and authorize filing of a Notice of Exemption.

Figure 1 Location Map



HARGIS + ASSOCIATES, INC.
HYDROGEOLOGY • ENGINEERING

La Jolla Gateway
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122
Phone: 858.455.6500
Fax: 858.455.6533

April 23, 2021

VIA EMAIL

Mr. David Field
ORANGE COUNTY WATER DISTRICT
18700 Ward Street
Fountain Valley, CA 92708

Re: Orange County Water District, FM-35 Monitoring Well Cluster Project,
Request for Budget Increase for Inspection Services for Construction of FM-35 Monitoring Well Cluster

Dear Mr. Field:

As discussed, Hargis + Associates (H+A) is requesting an increase in the budget for inspection services relating to the FM-35 Monitoring Well Cluster project due to additional scope; and increased level of effort associated with driller equipment issues and schedule changes. Overall there was an increase in time required to complete inspection of construction of the FM-35 well cluster, of which a portion of the additional hours have been off-set by lower than anticipated level of effort for well development. H+A is requesting an increase of $3,950 (33 hours total including 25 Inspector hours and 8 Tech advisor/Project Manager hours) bringing the total budget for the project to $51,015. The following outlines the changes in the FM-35 Monitoring Well Cluster project that increased the level of effort:

- Additional scope added for inspection services during air knife clearance and video logging. This comprised about 35 percent of the requested change.
- Contractor coordination and planning increases due to multiple rescheduling events and equipment issues. This comprised about 29 percent of the requested change.
- Contractor drilling equipment failure on January 12, 2021 and January 15, 2021 increased time on task. This comprised about 22 percent of the requested change.
- Contractor equipment issues during development increased time on task; this comprised about 14 percent of the requested change.
    a. Contractor mobilized with incorrect swab tool;
    b. Contractor mobilized without air compressor;
    c. Contractor mobilized without Imhoff cones.

We appreciate the opportunity to work with Orange County Water District on this project and look forward to successful completion in the near term. If you have any questions or would like additional information, please contact me at (858) 922-4228 or sprazen@hargis.com.

Sincerely,

HARGIS + ASSOCIATES, INC.

Stacia Prazen
Senior Hydrogeologist

SLP/mlm
1292_2021_A01_01_RqstBdgtIncrse_Ltr

AGENDA ITEM SUBMITTAL

Meeting Date: May 12, 2021

To: Water Issues Committee
Board of Directors

From: Mike Markus

Staff Contact: S. Scott-Roberts

Budgeted: Yes
Budgeted Amount: $58,250
Cost Estimate: $58,250
Funding Source: CIP, SRF, WIFIA
Program/Line Item No.: GWRSFE
General Counsel Approval: Yes
Engineers/Feasibility Report: Yes
CEQA Compliance: Yes

Subject: AUTHORIZE ISSUANCE OF AGREEMENT WITH MULTIVISTA FOR PHOTOGRAPHIC CONSTRUCTION DOCUMENTATION SERVICES FOR THE GROUNDWATER REPLENISHMENT SYSTEM FINAL EXPANSION PROJECT

SUMMARY

The Groundwater Replenishment System Final Expansion (GWRSFE) Project is currently in construction. As part of the GWRSFE construction inspection scope, photographic construction documentation services was included. However due to recent issues with the current provider, staff is recommending transferring these services to Multivista for the remainder of the GWRSFE Project. Staff is therefore recommending issuing an agreement to Multivista in the amount of $58,250 to perform this construction documentation.

Attachments:

Multivista Proposal for photographic construction documentation as part of the GWRSFE Project

RECOMMENDATION

Agendize for May 19 Board Meeting: Authorize issuance of an agreement with Multivista for photographic construction documentation for the Groundwater Replenishment System Final Expansion Project in an amount not to exceed $58,250

DISCUSSION

The current GWRS facility has capacity to produce 100 MGD of purified water. The GWRS facility was originally designed to accommodate a final expansion that would increase the treatment capacity to 130 MGD of purified water. This expansion is referred to as the GWRS Final Expansion (GWRSFE) Project.

The following components are all part of the GWRSFE Project:

Advanced Water Treatment Facility (AWTF) Expansion (Contract 1)
Plant 2 Effluent Pump Station (Contract 1)

Plant 2 Flow Equalization Tanks (Contract 1)
Pipeline Rehabilitation (Contract 2)
Plant 2 OCSD Headworks Modification (Managed by OCSD)

For each of the past GWRS projects, staff has hired some type of firm to provide photographic construction documentation. This documentation helps during the construction phase to show dated construction progress, uncovered underground utilities, as well as provide documentation for reference once construction is complete. Recently, this documentation is also used to show the Board of Directors and the public construction status of the various GWRSFE project components. Staff budgeted for these services during design of the project. Staff issued a Request for Proposals for this work and received two proposals. Staff recommended contracting with the firm with the lowest fee, Building Facts, for these services. The amount budgeted for Building Facts was $82,920. The second proposal was from Multivista. Unfortunately, Building Facts has not been performing satisfactorily. There have been numerous staff that have come to the site untrained and communication to remedy this issue with the project manager has not resulted in any solutions. In the meantime, we are in the heaviest phase of construction for the GWRSFE project and staff does not want to miss important documentation of this construction project. Therefore, staff is recommending to end services with Building Facts and use the remaining budget to set up a new agreement with Multivista to perform photographic documentation for the remainder of the GWRSFE project. Staff hired Multivista to document some recent construction activity (for under $10,000) and their work product and communication with staff was a considerable improvement from the original provider. With this information, staff is recommending authorizing issuance of an agreement with Multivista for construction monitoring services for the Groundwater Replenishment System Final Expansion Project in an amount not to exceed $58,250. Staff reviewed the proposal and fees provided within Multivista's proposal and found them to be reasonable and acceptable.

This work is budgeted in the GWRSFE Project budget shown in Table 1 below in the Specialty/Materials Construction Inspection line item.

Table 1 – GWRS Final Expansion Project Budget

Description	Approved Project Budget	Expected Project Budget
Pre-Design		
Studies/CEQA for GWRSFE Projects	$1,000,000.00	$890,000
Design Engineering Services		
B&V Design Phase Services (Incl. Amend. Nos. 1, 2, 4, 5)	$7,356,450	$7,356,450
B&V Design Services During Construction (Amend. No. 3)	$6,345,300	$6,345,300
Construction Management/Inspection		
Butier/Carollo CM Agreement	$8,500,000	$8,500,000
Specialty/Materials Construction Inspection	$1,500,000	$1,900,000
Total CM and Inspection	***$10,000,000***	***$10,400,000***
Construction		

Contract 1 - AWTF Expansion Construction	$123,776,159	$116,776,159
Contract 1 - P2 Effluent Pump Station Construction	$54,611,819	$54,611,819
Contract 1 - P2 Flow Equalization Tank Construction	$21,554,022	$21,554,022
Contract 2 - P2 Pipeline Rehabilitation Construction	$18,000,000	$11,600,000
Total Construction Phase	***$217,942,000***	***$204,542,000***
Engineering Support, Legal & Administration		
SPI Agreement (Process Support)	$792,817	$792,817
Legal/Admin/Survey/Public Outreach Support	$2,584,183	$2,800,000
Total ELA	***$3,377,000***	***$3,592,817***
Construction Contingency	$14,283,250	$12,073,433
OC San Agreement (Headworks Mod/Plant PS)	$50,000,000	$48,000,000
TOTAL	**$310,304,000**	**$293,200,000**

PRIOR RELEVANT BOARD ACTIONS:

09/21/2016, R16-09-128 - Adopt resolution establishing the GWRS Final Expansion Project which includes the following actions: Adopt findings with respect to the California Environmental Quality Act; Determine project feasible and necessary and of general benefit to the lands in the District and deem project duly instituted; Approve the GWRS Final Expansion Engineer's Report and project budget; and Authorize filing of Notice of Determination

07/19/17, R17-7-106 - Authorize issuance of agreement with Black & Veatch for an amount not to exceed $5,663,000 for the design of the GWRS Final Expansion Project

11/07/18, R18-11-161 - Authorize issuance of agreement with Butier Engineering, Inc. for an amount not to exceed $8.5 million for construction management services for the GWRS Final Expansion Project; Authorize issuance of amendment no. 3 with Black & Veatch for design services during construction for the GWRSFE Project in the amount not to exceed $6,394,000; Authorize issuance of amendment no. 2 with Separation Processes Inc. for treatment process commissioning services during construction of the GWRSFE Project in the amount not to exceed $677,817

09/04/2019, R19-9-131 - Receive and file Affidavit of Publication of the Request of Prequalification of Bidders for Contract No. GWRS-2019-01, Groundwater Replenishment System Final Expansion Project, ratify issuance of Addendum Nos. 1, 2, 3, 4, and 5; and accept bid of Shimmick Construction Company; reject bid protest of WM Lyles; and approve award of Contract No. GWRS-2019-01 to Shimmick Construction Company, Inc. for an amount not to exceed $199,942,000; Authorize issuance of Agreement to Converse Consultants in the amount of $1,277,820 for special inspection and materials testing services during construction of the GWRS Final Expansion Project; and Approve revised Project Budget of $ 310,304,000

MULTIVISTA
CONSTRUCTION DOCUMENTATION

Multivista LA
4132 Del Rey Avenue, Marina del Rey, CA 90292
T: (310) 306-6578 **F:** (310) 306-7480
E: losangeles-info@multivista.com, www.multivista.com
CHANGING THE WAY THE CONSTRUCTION INDUSTRY DOCUMENTS PROJECTS

OCVIEW LLC dba Multivista
4132 Del Rey Ave., Marina Del Rey, CA 90292
(310) 306-6578
www.multivista.com

PROJECT QUOTE & AGREEMENT

CLIENT

Name: Orange County Water District

Address: 18700 Ward St.
Fountain Valley, CA 92708

PROJECT

Name: GWRS Extension

Description: UAV

Location: 18700 Ward St.& 22212 Brookhurst
Fountain Valley and Huntington Beach, CA

Size (SQFT): -

OCVIEW LLC ("MULTIVISTA") is pleased to provide Orange County Water District ("CLIENT") with Multivista documentation services for the GWRS Extension Project in accordance with the Scope and Terms listed in this document and in the accompanying RIDER: Multivista Project Quote Terms and Conditions.

CLIENT - BILLING / INVOICING CONTACT

Name: _____.

Company: _____.

Address: _____.

_____.

T: _____. F: _____.

E: _____.

CLIENT - SITE / FIELD CONTACT

Name: _____.

Company: _____.

Address: _____.

_____.

T: _____. F: _____.

E: _____.

PHOTOGRAPHIC DOCUMENTATION

For complete definitions of all shoot types and scope, please see attached Rider.

PROGRESSIONS

Progression shoots occur at regular intervals, following the same shoot path each time, to capture the progress of your project over time.

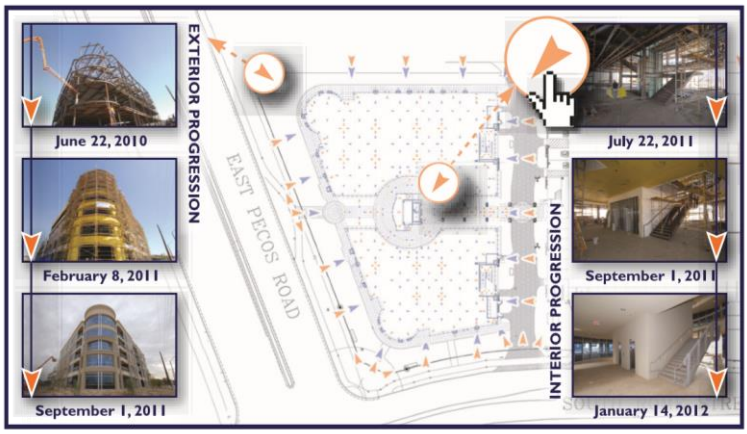
☐ **Exterior**

Exterior Progressions capture the exterior progress of your building.

Max # of Shoots:

Frequency:

☐ *See Exhibit A for Notes*



☐ **Interior**

Interior Progressions capture the interior progress of your project. Shoots begin at substantial interior framing for each floor, section or area.

Max # of Shoots:

Frequency:

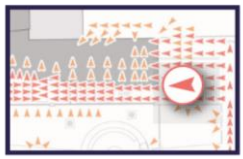
☐ *See Exhibit A for Notes*

EXACT-BUILT SHOOTS

Exact-Built shoots are designed to capture specific milestones of your projects in great detail.

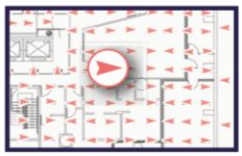
☐ **Site-Survey** ☐ *See Exhibit A for Notes*

Comprehensive documentation of surrounding streets, curbs, sidewalks, landscaping, parking areas, existing structures and neighboring facilities.



☐ **Pre-Slab** ☐ *See Exhibit A for Notes*

Capture post tension cables, rough-ins and re-bar prior to pouring.



☐ **Existing Condition** ☐ *See Exhibit A for Notes*

Takes place at any point in time that you specify to capture the project, or a component thereof, in its exact current condition.

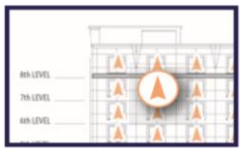
☐ **MEP** ☐ *See Exhibit A for Notes*

Mechanical, electrical, plumbing (MEP) and all other systems in walls and ceilings are documented post-inspection and pre-insulation, sheet rock or dry wall installation.

☐ **MEP 3D Immersive**

☐ **Elevation** ☐ *See Exhibit A for Notes*

Exterior skin, flashing, waterproofing captured in detail from grade level.



☐ **Finished Interior** ☐ *See Exhibit A for Notes*

At Certificate of Occupancy or other "finished" milestone, all walls, ceilings and floors in their post-inspection, completed condition are documented.

☐ **FINISHED INTERIOR+** ***Multivista® PLUS upgrade with Site-Walk 360°™***

MULTIVISTA VIDEO

Hours scheduled on-site:

1. _____.
2. _____.
3. _____.
4. _____.

Number of videographers:

@ $/Hour/Videographer:

Applications & Examples:

- **Facility Management:** Operations & Maintenance
- **Training:** Safety
- **Construction:** Wall Tilt-Up
- **Inspections:** HVAC / MEP / Inspection
- **Events:** Groundbreaking

MULTIVISTA WEBCAM

CAMERA 1. ☑ Fixed ☐ DSL / Cable ☐ Wired (Within 300') ☐ Connections/Mounting Multivista

Duration: **20 Months** ☐ or Pan Tilt Zoom ☑ or Cellular ☐ or Wireless (2500' line of sight) ☐ Connections/Mounting Client

CAMERA 2. ☐ Fixed ☐ DSL / Cable ☐ Wired (Within 300') ☐ Connections/Mounting Multivista

Duration: **Months** ☐ or Pan Tilt Zoom ☐ or Cellular ☐ or Wireless (2500' line of sight) ☐ Connections/Mounting Client

MULTIVISTA'S COMPLETE WEBCAM SOLUTION INCLUDES:

- **Access 24/7/365**
- **Mobile Access**
- **Live Streaming**
- **HI-DEF Imagery**
- **Time Lapse Photo & Video Generator**
- **Hosting for Unlimited Users**

- 2 Types of Web Cameras.
- Slideshow & Video of Jobsite Progress*.
- Automated Static Image Archive.
- On-Demand Snapshot Tool.
- View Project Feed Via Your Own Website.
- Easy Access.
- Intuitive Control.
- Onsite Camera Setup & Integration.
- Camera System Monitoring.
- Secure Hosting of Webcam Footage.

*Live stream not archived, only static captures.

Fixed Dome Cameras:

PTZ Dome Cameras:

PRICING

Pricing below applies to quantity and descriptions above in Photographic Documentation section as well as in Exhibit A.

INDIVIDUAL SCOPE ITEMS

INITIALS

Option A - UAV Exterior – Two Sites Included – OCWD and OCSD Plant 2 Price - $ 42,000 . .
20 monthly visits - UAV Video and UAV Progressions

Option B – **Fixed** Webcam Equipment and Cellular Hosting **– Rental*** Price - $16,250 . .
20 months of rental and cellular hosting

Invoicing will be 35% as a setup fee and the remainder evenly divided and billed monthly over the duration of the documentation.

* Note - Installation fee due in advance. Multivista basic Installation required for all webcam rentals. Client to ensure continuous electrical power and access to the camera location for the duration of the project. Installations over 8' in height will require client provided aerial man lift. Client responsible for loss, theft or damage of the rental equipment.

ACCEPTANCE

Multivista will perform all work per the agreed upon scope of services and their Terms and Conditions, contained herein and in the accompanying RIDER to this Project Quote and Agreement. Upon acceptance of this Project Quote and the accompanying RIDER, Multivista will diligently pursue its work until the completion of this project, consistent with the above-referenced scope of services. Your acceptance of this Project Quote constitutes your authorization and direction to Multivista to proceed with this project. Multivista reserves the right to revoke or modify this Project Quote at any time before acceptance of the Project Quote and all terms and conditions contained herein and in the accompanying RIDER or if work has not commenced within ninety (90) days of acceptance.

The foregoing Project Quote is accepted by:

OCVIEW LLC, a MULTIVISTA FRANCHISE

Sign:

Michael Walmsley .

Print:

4/23/2021 .

Date:

Orange County Water District

.

Sign:

.

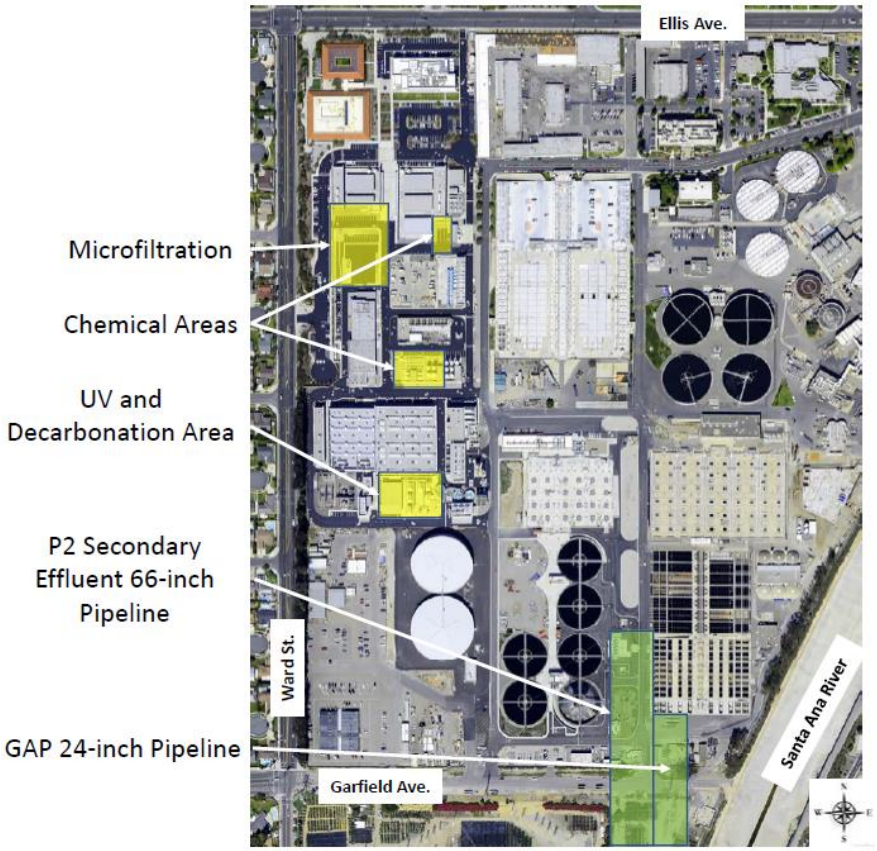
Print:

.

Date:

EXHIBIT A

UAV Areas to be Documented



RIDER TO MULTIVISTA PROJECT QUOTE AND AGREEMENT

MULTIVISTA PROJECT QUOTE TERMS AND CONDITIONS

APPLICATION

As used herein, "Multivista" refers to the authorized provider of the Multivista brand services and products identified in the accompanying Agreement.

DEFINITIONS AND SERVICE DESCRIPTIONS

This Section defines the *full range* of documentation services available from Multivista.

Any services described below that are not expressly included in the Scope of Services denoted in the accompanying Project Quote and Agreement, which together with this rider shall be collectively referred to herein as the "Agreement", are NOT included in the Agreement. The following definitions and descriptions are provided only as a reference for the Client, and in no way expand or limit the agreed upon Scope of Services expressly set forth in the Agreement. Additional services may be added by written agreement by and between the parties.

1.0 PHOTOGRAPHIC DOCUMENTATION

All Multivista Photographic Documentation described below includes photography services to be performed by Multivista Certified Photographer(s). The digital images produced for the contracted photo sets will be linked to the Project's actual construction drawings and indexed by time and location, creating interactive records via Multivista's proprietary software system, the Multivista Documentation Software ("MDS"). The MDS will be accessible to authorized Client users via a secure online interface.

1.1 PHOTOGRAPHIC DOCUMENTATION SERVICES: The following services are included at no additional charge with all Scopes that have a Photographic Documentation component:

- Pre-documentation consultation(s) with the Client identifying Project-specific needs, appropriate documentation intervals and common or custom elements requiring detailed photo sets. If, based on these consultations, it is determined that the Scope of Services should be increased or decreased, a revised quote (Agreement) or addendum will be executed, with a revised fee, prior to documentation commencement.
- Baseline schedule analysis in order to evaluate and estimate appropriate Multivista photo set intervals and durations.
- Determination of optimal photograph locations/ perspectives ("hotspots") based on the site plans and building floor plans provided by the Client or his agent(s) and designed to capture the total progress of construction at the agreed upon intervals and/or milestones.
- A highly representative number of digital photographs at such intervals and for such durations, and at the specified milestones, as requested by the Client and set forth in the accompanying Agreement.
- Linking each Multivista photo set to the appropriate location on the site plans and/or floor plans of the Client.
- On-line hosting of the documentation on the Multivista website for the construction period covered by the documentation, and **12 Months** thereafter.
  - While hosted by Multivista, access to the documentation will be available through the password-protected online interface of the MDS via any internet connection.
- Access to the documentation via the MDS through:
  - The full (desktop) Multivista website.
  - The mobile Multivista website, which automatically recognizes mobile web-browsers and displays content in a format optimized for mobile devices. Availability and operation of features and functionality may vary from the full Multivista website. The mobile website is supported by Apple iOS, Android OS and Blackberry OS mobile devices.
  - The Multivista App, a native mobile application with an interface customized to the mobile application environment. Availability and operation of features and functionality may vary from the full Multivista website. The Mobile App is supported by Apple iOS and Android OS mobile devices, and is available for download via the Apple App Store and Google Play Store.
- A Client Dashboard, which provides the following features to authorized users upon login:
  - A summary view of recent activity for all of the Client's projects; users can directly access the recent photos added for each project from this view
  - A map view of the physical locations of each of the Client's projects; users can directly access each project or photo set belonging to a project from this view
  - A "favorites" view containing photos that the user tagged using the Favorites feature (described below)
  - Access to a Webcam Dashboard, which displays an overview of all of the Client's Multivista Webcams; users can directly access each webcam project or specific webcam stream from this dashboard
- Access to the Comment feature within the MDS, which allows authorized users to perform the following actions:
  - Add private and public comments to the Project and documentation (entire shoots and individual photos) while hosted on the Multivista website.

  - Tag comments for keyword searches.
  - Generate visual lists of all Project activity and comments.
- Access to the Annotation Mode feature within the MDS, which allows authorized users to annotate ("mark-up") photos:
  - Users can add line, arrow, box, circle and text annotations to photos
  - Users can select the color, weight and style for each annotation
- Access to the Push Pin and Custom Hotspot features within the MDS, which allows authorized users to pinpoint and mark specific locations on the Project site plans/floor plans and upload images and files to those locations (see below). Users can specify which other users are able to view their Push Pins.
- Access to the Files upload feature within the MDS, which allows authorized users to do the following:
  - Upload photos and other files (i.e., PDF and Microsoft Office files) to a cloud-based repository within the Project
  - Upload and link photos and other files directly to the user's Push Pins or Custom Hotspots on the Project site plans/floor plans; these photos/files are also stored in the Project's cloud-based repository
  - Specify which other users are able to view their Files
- Access to the Albums feature within the MDS, which allows users to define and save custom photo sets from the Project photos or user-added photos. Users can specify which other users are able to view each of their Albums.
- Access to the Favorites feature in the MDS, which allows users to tag photos for inclusion in an exclusive display of the user's "favorite" photos.
- Two archive copies of the Project's Photographic Documentation upon completion in DVD, flash drive, hard drive, or other specified storage device format.
  - Comments present at the conclusion of the Project are preserved with the documentation in read-only format; the interactive Comment feature will not function on archive copies of the documentation provided by Multivista.
  - Push Pins and Custom Hotspots are not preserved on the site plans/floor plans Project documentation's archive copies
  - User-added Files are not preserved with the Project documentation's archive copies; Files are maintained as organized by the user(s) and delivered to the Client as a separate archive upon completion
  - Albums are not preserved separately in the Project documentation's archive copies; photos assigned to Albums are preserved and indexed according to time and location in their original photo sets.
  - Favorites are not preserved separately in the Project documentation's archive copies; photos tagged as Favorites are preserved and indexed according to time and location in their original photo sets.

1.2 SHOOT TYPES

Progression:

"Progression" photo sets are performed at pre-determined intervals throughout the duration of construction. Progression photos broadly track all aspects of construction through time.

- Exterior Progression: Exterior progression photographs are taken from key perspectives along site perimeters and 360 degrees around each building envelope during erection. Exterior Progressions track the construction of building elevations and all work within the immediate vicinity of the building, including some site work. Exterior Progressions are performed at predetermined, approximate intervals or phases. Exterior Progression documentation typically begins at substantial framing, and not at commencement of site work. Exterior Progressions can begin at commencement of site work for the purpose of broadly capturing site work, upon request.

- Interior Progression: Interior Progression photographs track interior improvements from logical perspectives during construction. Interior Progressions are designed to capture the various trades coming together to build the interior over time. Interior Progressions are performed at pre-determined, approximate intervals or phases. Interior Progression documentation typically begins at substantial interior framing or the commencement of stud-work.

Exact-Built®:

Exact-Built® shoots capture current conditions, creating "visual as-builts" of critical milestones during construction. They offer a higher concentration of photos and perspectives than the Progression shoots and focus on aspects of particular interest or importance to the Client.

- Site Survey Exact-Built® (Pre-Construction): The Site Survey Exact-Built provides complete photographic coverage of the pre-existing conditions of a project site and its adjoining and immediately surrounding areas such as streets, curbs, sidewalks, structures and neighboring facilities.

- Foundation and Footings Exact-Built®: The Foundation and Footings Exact-Built provides detailed coverage of the structural elements, such as rebar and column plates, and conditions of the foundation and footings for a building prior to cover-up. A specific focus for the shoot may be designated by the Client.

- Pre-Slab Exact-Built®: The Pre-Slab Exact-Built provides overlapping coverage of all roughed-in MEP, cabling

systems and other structural components which will be covered up once a slab is poured or placed over them. Pre-Slab Exact-Builts are captured post-inspection, if inspection is required, and just prior to the pour or placement of the slab.

- Underground Utilities Exact-Built®: The Underground Utilities Exact-Built typically captures the conditions and locations of major tie-ins for underground utilities where they directly connect to the project site, and their junctions at the building. This shoot is performed upon completion of the tie-in or junction, prior to cover-up. Where possible and as agreed upon by the Client and Multivista, additional coverage may be included.

- Subgrade Waterproofing Exact-Built®: The Subgrade Waterproofing Exact-Built captures in detail the conditions of waterproofing materials and their installation in exterior foundation walls prior to backfill.

- MEP Exact-Built®: The MEP Exact-Built documents the Mechanical, Electrical, Plumbing (MEP) systems and all other systems to be contained in walls and ceilings. The shoot is performed throughout the project, as required and as possible, to capture the systems in every wall and ceiling, post-inspection and pre-insulation, sheet rock or drywall installation. The process provides a high concentration of overlapping photographs, allowing all finished systems to be viewed in great detail even after they are covered up. Note that this will not capture pre-slab, site or in-slab-on-deck systems, or any other "horizontal" MEP work.

- Hydronic Heating Exact-Built®: The Hydronic Heating Exact-Built captures the installed hydronic heating system and surrounding conditions in a building prior to cover-up.

- Elevation Exact-Built®: Designed for specific needs to increase the concentration of photographs and allow greater zoom capability and resolution on aesthetic, EIFS or architectural detailing; the nature of these shoots can vary widely. Examples include window-flashing details or window-system details for glass-intensive buildings, radiused steel work (i.e., for a rotunda), EIFS system as-builts and cores or "lobbies" of exterior loaded buildings.

- Roof Exact-Built®: The Roof Exact-Built provides detailed photographic coverage of the installed materials and conditions of a building's roof at a specific construction milestone designated by the Client. Typically, this shoot occurs prior to the installation of the roof's outer layer.

- Finished Interior Exact-Built®: The Finished Interior Exact-Built comprehensively documents the post-inspection conditions of all finished interior walls, ceilings and floors at Certificate of Occupancy or other "finished" milestone, as the Client designates.

- Existing Condition Exact-Built®: The Existing Condition Exact-Built is an exhaustive sweep of a project designed to capture every detail in its current condition before any further work commences. This shoot is often performed prior to major renovations, repurposing or maintenance work to delineate "before" and "after" conditions. It is useful to distinguish the work of different GCs or trades, documenting the exact conditions when one party's work has ended and before another's begins. This shoot may also be known as a Bright Line Exact-Built.

Custom Shoots:

Custom shoots may be designed by the Client in collaboration with and subject to approval by Multivista to meet specific project documentation needs not covered by formal Progressions or Exact-Builts. These shoots may be specified to provide Progression-level overview coverage or Exact-Built detailed coverage.

Project Executive Summary:

A Project Executive Summary captures a broad overview of the project site limited to a maximum of 100 photographs. Project Executive Summary photographs are not linked to architectural plans in the same manner as formal Progressions and Exact-Builts; however, they will be dated, labeled and stored in the Project's Albums.

Slideshows:

Slideshows capture miscellaneous occurrences or conditions on the Project site. These conditions are often those which do not fit neatly into the building envelope interface (e.g., materials stored on-site). Slideshow photographs are not linked to architectural plans in the same manner as formal Progression and Exact-Built photographs; however, they will be dated, labeled and stored in the Project's Albums. Slideshows are captured whenever a Multivista photographer is on-site to perform an Exterior Progression shoot. If the Project's Scope does not include Exterior Progression shoots, Slideshows will be captured at Multivista's sole discretion when a photographer is on-site.

1.3 PHOTOGRAPHIC DOCUMENTATION SPECIFIC TERMS AND CONDITIONS

1. **CONTINGENCY FEES**: Multivista will accommodate, without charge, limited additional items that may be captured during our scheduled visits and included in the Slideshow section of our service. Additional items requested which are of significant scope, in Multivista's sole discretion, may require a change order for additional fees.
2. **SERVICES**: Multivista shall provide professional services in accordance with the above agreed upon Scope of Services as set forth in the accompanying Agreement. Multivista will begin a Project Set-Up only after receipt of (a) electronic plans from

the architect of the Project in an acceptable format, (b) a fully executed Agreement and (c) the Set-Up Fee. Thereafter, Multivista requires at least ten (10) business days for Project Set-Up *prior to the first shoot* contemplated by the aforementioned Scope of Services.

3. **EXACT-BUILT® PHOTO SETS**: Because of the volatile nature of construction schedules, IT IS THE SOLE RESPONSIBILITY OF THE CLIENT TO PROVIDE MULTIVISTA AT LEAST 24 HOURS NOTICE PRIOR TO THE TIME THAT AN EXACT-BUILT® SET MUST BE PERFORMED. To the extent look-ahead schedules are made available to Multivista, Multivista will endeavor to communicate with the Project owner's representative or superintendent regarding upcoming Exact-Built® shoots. However, Multivista will not be responsible if such Exact-Built® shoots are not performed due to lack of notice pursuant to this provision.
4. **CLIENT-GENERATED PHOTOGRAPHS**: Client-generated photographs may be submitted to Multivista for inclusion in the Photographic Documentation at a set interval, normally monthly or quarterly, agreed upon before the first set of client generated photographs is submitted. Acceptance by Multivista of any client generated photographs is subject to the following conditions and any submitted photographs which do not conform to these conditions will not be incorporated into the documentation:

    a. Camera Requirements: Cameras used to take photographs must be:
        i. Set up with the correct date and time
        ii. Set up to shoot at 4 megapixels or smaller
    b. Delivery Requirements:
        i. Photographs are to be placed in sequentially ordered, dated folders. The dates recorded on the photographs must correspond to the dates on the folders which contain them.
        ii. Delivery Folder Requirements:
            1. Folders must be named according to the following convention: Folder I Name – (yyyy-mm-dd)
            2. Each photograph contained in a folder must reference the folder name in the file name.
        iii. All Folders and their contents must be delivered to Multivista in DVD or flash drive format.
        iv. The DVD(s)/flash drive(s) must be shipped to:
        Multivista
        4132 Del Rey Ave.,
        Marina Del Rey, CA 90292
    c. Additional Terms:
        i. If Client is submitting photographs at a monthly interval, submissions must not exceed one hundred (100) photographs per month.
        ii. Multivista will not and is not responsible for quality-checking of client-generated photographs.
        iii. Multivista does not assume any responsibly for content captured in the submitted photographs.

5. **EARLY COMPLETION AND ADDITIONAL BUILD TIME**: Exterior and Interior Progressions shoots in excess of the agreed to in the original Scope of Services (see the accompanying Agreement), if required, will be priced as needed. Additional Exact-Built® shoots will be priced individually.

2.0 MULTIVISTA BIM INTEGRATION

All services described below for integration of Multivista Photographic Documentation into Client BIM models include integration by Multivista BIM Specialists. Integration services are quoted in the accompanying Agreement in terms of the number of floorplans and Multivista shoot types to be integrated into a BIM model.

2.1 BIM INTEGRATION SERVICES: The following specifications and services are included at no additional charge for all Scopes that include Multivista BIM Integration:

- Pre-integration consultation with the Client and technical staff, including support documentation to describe the integration method and process. Integration is possible at the project or floorplan level.
- Technical support and training provided by Multivista for the Client and Multivista-integrated BIM model project users. Support and training is strictly limited to Multivista-integrated components within the BIM model.
- Hyperlink-based integration performed by Multivista BIM Specialists allows direct access to Multivista Photographic Documentation from within the Client's BIM model without affecting model performance.
    - Custom Multivista objects inserted into the BIM Model by Multivista BIM Specialists contain hyperlinks which lead to specific Multivista photographs. The Multivista objects are positioned within the BIM model to correspond to the location and orientation of their linked photographs in the Multivista Photographic Documentation.
    - Multivista objects' hyperlinks may be tied to live Photographic Documentation hosted by Multivista

through the MDS or to Photographic Documentation contained in a completed project's archived copy. Integration with live Photographic Documentation is recommended.
    - Multivista objects' hyperlinks open the linked photographs within their native environments, being the MDS online interface (for live Photographic Documentation) or the offline archive copy (for completed, archived Photographic Documentation). Authorized users can access all features and functionality available to them in the photographs' native environments.
    - Access to live Photographic Documentation via hyperlinks in a Multivista-integrated BIM model is controlled by the password-protected online interface for the MDS.

- Autodesk® Revit® BIM Models: Multivista BIM Integration is compatible with Revit® software-based BIM Models. Multivista-integrated Revit® BIM Models provide direct hyperlink (clickable) access to corresponding photographs contained in live or archived Multivista Photographic Documentation.
- Autodesk® Navisworks® BIM Models: Multivista BIM Integration is compatible with Navisworks® software-based BIM models. Multivista-integrated Navisworks® BIM Models provide direct hyperlink (clickable) access to corresponding photographs contained in live or archived Multivista Photographic Documentation. Multivista BIM Integration for Navisworks® BIM models is also compatible with the Autodesk® BIM 360™ Glue/Field environments.

2.2 BIM INTEGRATION TYPES

3.0 VIDEO DOCUMENTATION

All Video Documentation described below includes videography to be performed by Multivista Certified Videographer(s). Video services are quoted in the accompanying Agreement in terms of a rate per scheduled on-site hour for each videographer.

3.1 VIDEO DOCUMENTATION SERVICES: The following specifications and services are included at no additional charge for all Scopes that include a Video Documentation component:

- Pre-production scheduling and coordination with the Client and participants in the video project.
- Pre-production estimating.
- Editing and Post-Production Services:
    - Client Branding/Watermarking
    - Segment/Chapter Creation, including Chapter Headings, Title Pages and relevant information on title pages (ie., equipment or event specification, model numbers, dates, training module identification)
    - Video Rendering
    - Video and Audio Optimization
    - Resizing for Client-server streaming, if requested
- Travel time to and from site within metro area.
- 1920 x 1080p HD (16:9 Aspect Ratio) video format.
- A copy of each complete video in DVD, flash drive, thumb drive or hard drive format.
- If client has contracted for Digital Photographic Documentation services on the same Project, integration of video(s) into archived versions of the photographic documentation upon completion of all documentation.

3.2 VIDEO TYPES AND APPLICATIONS

The primary video types performed by Multivista include:

- Facilities Management Video: An example of a very beneficial Facilities Management video is one that captures Operations and Maintenance Training of key equipment and systems. Multivista videos will capture each trainer illustrating the operational details of your equipment and systems, including points of emphasis as well as questions, answers and dialogue that will allow you to fully recall the operational and maintenance details if and when a system problem arises in the future.

- Training Videos: At the client's option, training videos' subject matter can vary from safety to software training on remote monitoring systems. As with all Multivista productions, the high-tone video and audio will ensure that the material being taught and all Q&A, discussions and gestures do not lose their significance. Gain efficiencies by training once and adding these videos to your permanent learning library.

- Construction Videos: Some construction events require documenting because of their critical nature during performance and are too dynamic to capture with any media other than video. For example, tilt-up wall erections, assembly of pre-fabricated components into final structures and crane erections are all worthy subjects of a Multivista video production.

- Inspections: Inspections can sometimes benefit from the audio input and dynamic nature of video documentation. A video record may be a valuable addition to your digital photographic Exact-Builts® when it is important to hear the inspector's comments and have them well-documented in conjunction with the visual aspects of the subject of inspection, i.e., special inspections, life-safety inspections or MEP systems. Moreover, inspection videos can double as excellent additions to your training library for superintendents and project managers.

- Events: Sometimes you may just want to capture the moment. A topping off, a ground breaking ceremony or building turnover are examples of popular topics for videos that capture history in the making.

3.3 VIDEO SPECIFIC TERMS AND CONDITIONS

1. **ON-SITE HOURS**: Video services are quoted in the accompanying Agreement in terms of a rate per scheduled on-site hour for each videographer. Scheduled on-site hours are estimated with the Project team in advance of the videographer arriving on site and should be based on a coordinated and detailed schedule that includes all participants for each segment of the production. If actual on-site hours are less than scheduled on-site hours, the Client will receive a credit per hour difference at _____ % of the quoted rate, subject to the following conditions:

   a. If a videographer is on-site at a scheduled time, idle time will be considered actual on-site hours notwithstanding the readiness of the participants;
   b. Actual on-site hours will at all times include time related to the production and its participants, including, but not limited to, coordinating participants, preparing production areas, staging, providing participant instructions for production quality, answering participant questions and actual production (i.e., videotaping);
   c. Any scheduled on-site session shall be no less than _____ hours. If, after the videographer arrives on-site at a scheduled time or for a scheduled session, the scheduled session or any portion thereof is cancelled, the minimum on-site session time will be charged against the estimated scheduled on-site hours regardless of whether the actual on-site hours were less than the minimum. Cancellation of a scheduled on-site session must be given within 24 hours of that session or the minimum on-site session time may be charged against the estimated scheduled on-site hours in Multivista's sole discretion.

2. **NO DISCRETIONARY EDITING**: No discretionary content editing will be performed by Multivista. Multivista does not opine on the relevance of any content and, notwithstanding chapters and segmentation per the Client's direction, at all times will the full duration of the videotaped content be included in the deliverable. In the instance that explicitly superfluous downtime exists in a produced video, Client may approve omission of the downtime in writing to Multivista and Multivista will delete this content.
3. **ONLINE HOSTING, STREAMING OR STORAGE**: Multivista does not provide online hosting for, server or online storage of or streaming of video service content at this time. If this service becomes available after a production has been created, Multivista will provide the service to the Client upon request. Additional fees may apply. Video can be rendered, optimized and resized for the Client to stream from the Client's servers at no additional cost.

4.0 WEBCAM DOCUMENTATION

All Webcam Documentation described below includes webcam equipment and hosting services to be provided by Multivista as quoted per camera in the accompanying Agreement, and in accordance with all terms and conditions defined in the Agreement and contained herein.

4.1 WEBCAM DOCUMENTATION SERVICES:

The following specifications and services are included at no additional charge for all Scopes that include a Webcam Documentation component:

- Delivery of webcams as specified in the Agreement and related equipment; related equipment includes:
  - For all webcams:
    - Power Supply (Power Over Ethernet module)
    - Wall Bracket
    - Enclosure
  - For all Fixed webcams:
    - Pendant
  - For all Wireless Connection webcams:
    - Wireless component
  - For all Cellular Connection webcams:
    - Modem
    - Modem Bracket
    - Antenna
  - Additional/Optional equipment or components as expressly agreed upon by the Client and Multivista per the terms of the Agreement.
- Camera positioning and manual focus adjustment as required.
- Optimization of camera setup for available bandwidth and lighting at the internet connection source and camera location(s).
- Configuration of pre-sets and bounds for Pan-Tilt-Zoom (PTZ) webcams.
- Web hosting via integration into the MDS per the terms of the accompanying Agreement; including:
  - Integration into existing MDS projects as appropriate.
  - Live 24/7 image stream with 1200x800 resolution.
    - Streamed at fifteen (15) to six (6) frames per second via direct/wired or wireless DSL or cable connection, dependent on available on-site bandwidth.
    - Streamed at speeds of six (6) frames per second to four (4) frames per minute via cellular connection, dependent on available cellular bandwidth.

    Note: A higher frame-rate may be achieved as permitted by cellular bandwidth availability, but no warranty or guaranty is included.
  - Stream re-broadcasting capabilities for unlimited concurrent users, under most usage conditions.
  - While hosted by Multivista, access to the live stream and static images will be available through the

password-protected online interface of the MDS via any internet connection.

- A publicly viewable, restricted functionality display page for the live stream feed.
- Provisions for embedding the live stream feed into the Client's website.
- Access to the Client's Webcam Documentation via the MDS through:
  - The full (desktop) Multivista website.
  - The mobile Multivista website, which automatically recognizes mobile web-browsers and displays content and controls in a format optimized for mobile devices. Availability and operation of features and functionality may vary from the full Multivista website. The mobile website is supported by Apple iOS, Android OS and Blackberry OS mobile devices.
  - The Multivista Mobile App, a native mobile application with an interface customized to the mobile application environment. Availability and operation of features and functionality may vary from the full Multivista website. The Mobile App is supported by Apple iOS and Android OS mobile devices, and is available for download via the Apple App Store and Google Play Store.
- A Client Webcam Dashboard, which provides an overview of and centralized access each of the Client's live webcam streams, across all projects.
- A Project Webcam Dashboard within each project that includes a Webcam Documentation component, which provides quick, centralized access to all live webcam streams for projects with multiple cameras.
- Static images captured and archived at fifteen (15) minute intervals between 6:00am and 6:00pm local time (time zone in which the Project site is located).
- Time-lapse videos created once the Project has been online and actively hosted through the MDS for more than 60 days. Time-lapse videos are updated on a weekly basis and are available for viewing by all MDS users so authorized by the Client.
- Automated remote monitoring of camera functionality; notification of loss of connectivity or power via email and follow-up by network technicians in the event of camera downtime.
- Access to the Comment communication feature within the MDS which allows authorized users to perform the following actions:
  - Add private and public comments to the Project and static images while hosted on the Multivista website.
  - Tag comments for keyword searches.
  - Generate visual lists of all Project activity and comments.
- Authorized users can interact with static images captured from live webcam streams in the following ways; refer to section **1.1 Photographic Documentation** for further details of these features:
  - Mark-up images using Annotation Mode
  - Add images to specific locations marked with Push Pins or Custom Hotspots on the site plans/ floor plans
  - Add images to Albums (user-defined photo sets)
- Tag images as Favorites

4.2 WEBCAM AND CONNECTION TYPES

- Fixed Position Webcam: Fixed cameras, as the name implies, are stationary. They are manually aimed at the location of interest at the time of setup. There may be some limited zoom capability, but this is also typically set at the time of camera installation.

- Pan-Tilt-Zoom (PTZ) Webcam: Pan-Tilt-Zoom cameras have onboard servo-motors that allow the camera to pan the area of interest, tilt to different up/down orientations and zoom in/out on frames, all of which can be controlled remotely. This affords the camera a much larger field of view – typically 360° for horizontal panning and approximately 220° for vertical tilting. Optical zoom capabilities for the cameras are typically twenty (20) times magnification.

- Wired Connection (DSL/Cable): This is a direct Ethernet connection between a webcam and a DSL or Cable internet connection. Wired Ethernet provides the best performance in terms of reliability and bandwidth. If there is already internet connectivity at the Project site, it is typically a simple process for the Client to procure a second dedicated connection with a Static, Public IP Address through which to stream the live feed from a webcam.

- Wireless Connection: Wireless connections involve the addition of a 5.8GHZ wireless router to the wired connection setup. This setup is appropriate when the desired camera location is farther than one hundred (100) meters or three hundred twenty-eight (328) feet (the maximum run for wired Ethernet) from a dedicated internet connection. In this case, it is possible to use a system of wireless antennas to relay the signal from the remote camera to the base station where the internet connection resides. This system is reliable; however, it is more complex to set up as it requires power and antenna installations at multiple locations.

- Cellular Connection: In the event that the camera location may be provisioned with power, but no internet connectivity is available at a particular location, a standalone cellular modem may be used to transmit the images and stream the live feed from the webcam. The

availability, quality and pricing of cellular coverage changes rapidly with market conditions and network improvements, but most installations utilize a 3G data plan with between 10GB and 20GB of monthly bandwidth. This affords some level of limited video streaming, although the quality, frame-rate and size may need to be reduced based on network speeds and bandwidth availability.

4.3 WEBCAM SPECIFIC TERMS AND CONDITIONS

1. **WEBCAM INSTALLATION AND SETUP**:
   a. Multivista Responsibilities: Multivista will deliver to the Client all webcams and related equipment included with the webcam and connection type(s) specified in the accompanying Agreement and as listed in Section 3.1, above. Multivista may assist with and provide support for webcam and connection setup at its discretion, but is not itself responsible for installation or setup of any webcam equipment unless otherwise stated in the Scope of Services of the accompanying Agreement. Multivista will provide the Client and any third party installer(s) contracted by the Client with the systems' settings and configurations required for optimal connectivity between the webcam, its internet connection source and the MDS.
   b. Client Responsibilities: The Client is responsible for providing all of the following, which are necessary to installation and setup of Multivista webcams:
      i. The Client will provide and prepare a suitable camera mounting location with appropriate lines of sight to the location of interest for each webcam and in accordance with all local codes and requirements. For Wired Connection webcams, the mounting location must be within three hundred twenty-eight (328) feet of the internet connection source.
      ii. The Client will supply all equipment, components and/or materials required for webcam installation not included in Section 3.1 above, in the terms of the Agreement or by prior, express agreement by Multivista.
      iii. Unless otherwise stated in the Scope of Services of the Agreement, the Client is responsible for the actual installation of all webcams and related equipment including, but not limited to:
         1. Mounting cameras and supporting components
         2. Provisioning and connecting power to the equipment
         3. Provisioning an internet connection to the equipment
   c. If Multivista, per the Scope of Services and terms of the accompanying Agreement, assumes the responsibility of installation set forth in Section 1.b.iii, above, it shall not relieve the Client of any other obligations set forth in these terms and conditions. Further, it is acknowledged and agreed that Multivista may, in its sole and absolute discretion, subcontract the installation and setup work to a licensed subcontractor and that a customary mark-up of said contractor shall apply.
2. **EQUIPMENT MAINTENANCE**: The Client is solely responsible for the maintenance and operation of all webcams and related equipment, except as expressly otherwise stated in this document. The Client will provide an onsite contact who is able to perform basic services as necessary for the maintenance and operation of the webcam including, but not limited to:
   a. Testing
   b. Power-cycling
   c. Checking/confirmation of indicatory status lights
3. **EQUIPMENT REPLACEMENT**: Multivista will assist the Client with manufacturer warrantee claims/exchanges to the extent of returning defective equipment (as defined by the manufacturer) to the manufacturer and delivering any replacement parts/equipment from the manufacturer to the Client. Multivista is not responsible for any replacement costs or equipment repairs except where Multivista is explicitly responsible for the damage, defect or malfunction of the webcam equipment. Costs of damaged equipment caused by the Client, Force Majeure (see Section 13. of the General Terms and conditions below) or any other party other than Multivista shall be the responsibility of the Client; including all costs associated with repair, replacement, re-setup and reinstallation.
4. **AVAILABILITY OF SERVICE**: Given the nature of wireless radio engineering it is impossible to predict with absolute certainty that a site will have wireless internet accessibility and coverage. Actual coverage and signal levels may differ from coverage maps provided by a wireless internet provider, and may be affected by things such as terrain, weather and buildings. Multivista does not guarantee wireless coverage.
5. **INCIDENTAL/INADVERTANT FOOTAGE**: Multivista disclaims any responsibility for conditions, persons or events captured incidentally or in the periphery of the subject the webcam is intended to capture. The Client shall be solely responsible for any claims that arise out of such incidental, inadvertent or peripheral footage captured via the Multivista Webcam service.
6. **LAWFUL PURPOSE**: The Client may only use the Multivista Webcam service for lawful purpose(s). Transmission of any material in violation of any federal, state or local law is prohibited. This includes, but is not limited to copyrighted material, material legally judged to be threatening or obscene, pornographic, profane or material that is protected by trade secrets.
7. **END USER WIRELESS SERVICE AGREEMENT**: If the Client elects to access or use a wireless service facilitated by a service agreement between Multivista and a wireless service provider, the Client expressly understands and agrees that it has no contractual relationship whatsoever with the underlying wireless service provider or its affiliates or contractors and that the Client is not a third party beneficiary of any agreement

between Multivista and the underlying carrier. In addition, the Client acknowledges and agrees that the underlying carrier and its affiliates and contractors shall have no legal, equitable, or other liability of any kind to the Client and the Client hereby waives any and all claims or demands therefor.

5.0 UPGRADE PACKAGES

Upgrade packages consist of advanced services and/or software features which can be applied to Multivista's standard service offerings.

5.1 MULTIVISTA PLUS UPGRADES: The Multivista® PLUS upgrade package provides a menu of premium services and software features which enhance and expand upon Multivista documentation. Where a Multivista PLUS offering corresponds directly to a standard service offering, the PLUS version of the offering is inclusive of all standard services, software, and deliverables provided per sections 1.1, 3.1, and 4.1, except as otherwise expressly stated in the Agreement.

- Site-Walk 360°™: Site-Walk 360° is a Multivista PLUS offering available for interior Photographic Documentation shoot types, currently MEP and Finished Interior Exact-Built only. Site-Walk 360° includes:
  - Immersive 360° panoramic photography services captured with 3-D cameras.
  - While the documentation is hosted by Multivista, immersive, 3-D viewing and navigation functionality via the full (desktop) Multivista website or Multivista App.
  - Immersive 360° panoramic content captured by 3-D cameras is not preserved in archive copies of the documentation.

GENERAL TERMS AND CONDITIONS

The Terms and Conditions set forth in this section apply to all Multivista service offerings and documentation.

1. **AGENT/OWNER'S REPRESENTATIVE**: Client must designate a specific person or persons authorized and responsible for scheduling site visits, Exact-Built® shoots and Video sessions.
2. **EXECUTION**: The Agreement becomes effective upon signature by the authorized representatives of the Client and Multivista, and upon receipt by Multivista of a signed original or facsimile transmittal. Multivista is authorized to proceed with services upon receipt of an executed Agreement or written Notice to Proceed. If facsimile transmittal is initially sent to Multivista, Client will provide Multivista with a signed original for its record as soon as is practical.
3. **COMPLETION/TERMINATION:** The Agreement shall remain in full force until terminated. The Agreement may be terminated by the Client and/or Multivista upon fourteen (14) days written notice. In the event of such termination Multivista will be paid the portion of the compensation (and fixed fee, if applicable) earned for services properly performed through the termination date. Continuing service Agreements shall be reviewed annually for rates and shall remain in force until terminated in writing by either party.
4. **STANDARD OF CARE**: Services provided by Multivista under the Agreement will be performed in a manner consistent with the degree of care and skill ordinarily exercised by members of the same profession currently practicing under similar circumstances. Multivista makes no warranties or guarantees, either expressed or implied including, without limitation, the fitness of its documentation for any particular use.
5. **INDEPENDENT CONSULTANT**: Multivista is and shall be at all times during the term of the Agreement an independent consultant and not an agent of the Client. Client acknowledges and agrees that, notwithstanding the Agreement or any provision contained herein, Multivista may provide its services, including, but not limited to, those services contained in the Scope of Services of the accompanying Agreement, to any other party authorized to contract for services relating to, in connection with or on behalf of the Project, including, but not limited to, the Contractor(s), Owner(s), Developer(s), Architect(s) or Owner's Representatives. Client hereby waives any claim of conflict of interest, estoppel or business interference arising out of any such third party agreement(s) to provide services relating to, in connection with or on behalf of the Project.
6. **COMPLIANCE WITH LAWS**: Multivista will comply with Federal, State, and local laws applicable to the services to be provided under the Agreement.
7. **PAYMENT & COLLECTION**: An initial Set-Up Fee equal to 35% of the total contract amount is due upon execution of the Agreement, and no later than 10 days prior to the commencement of documentation. Remaining balance to be invoiced pro rata on a monthly basis. Multivista's services shall not be subject to retention. Payments are due in full within thirty (30) days from date of invoice, or according to other terms as agreed to expressly in writing. The Client will be invoiced for work completed. A finance charge of 1-1/2% per month, equivalent to 18% per annum, will be assessed on any amounts outstanding beyond 30-day payment terms. In the event legal action is necessary to enforce the payment provisions of the Agreement, Multivista shall be entitled to collect from the Client any judgment or settlement sums due,

reasonable attorney's fees, court costs and expenses incurred by Multivista in connection therewith.

8. **EARLY COMPLETION AND ADDITIONAL BUILD TIME**: Invoicing is based on the Durations of work set forth in the accompanying Agreement, beginning as applicable throughout construction. If the scope of work is completed prior to the expiration of that timeframe, the balance of the Price unpaid at the completion of the scope of work shall be due and payable within thirty (30) days of the completion of scope, unless otherwise agreed in writing.
9. **CONFIDENTIALITY; OWNERSHIP OF DOCUMENTS; INTELLECTUAL PROPERTY**: Specifications, drawings, personal information, or other information given to Multivista by the Client is disclosed in confidence. They shall not be reproduced, copied, disclosed, or used except in connection with the services that are the subject of the Agreement. All documents, digital and electronic media prepared under the Agreement are instruments of service and are, and shall remain, the property of Multivista or Multivista Systems LLC ("Multivista Systems"), including all intellectual property rights to said documents and media, until such time as they are paid for in full by the Client at which time their ownership, excepting Confidential, Trade Secret and Proprietary Information of Multivista Systems, shall pass to the Client. Multivista and Multivista Systems make no warranties as to the professional nature of the media other than to capture construction conditions or events. Notwithstanding the foregoing, the underlying proprietary software, indexing, navigation and viewing systems, processes, procedures, databases, information and any other content of Multivista Systems that is housed in the software, and all other proprietary information used to create these instruments of service, including all intellectual property rights associated therewith (collectively "Confidential, Trade Secret and Proprietary Information"), shall at all times remain the sole property of Multivista Systems. Client agrees not to disclose the Confidential, Trade Secret and Proprietary Information. Client also agrees not to reproduce, copy or use the Confidential, Trade Secret and Proprietary Information except as expressly permitted in the Agreement and only in connection with the services which are the subject matter of the Agreement. Notwithstanding the foregoing, Multivista Systems reserves the right to use and Client hereby consents to the use of limited samples of the media and system service prepared for Client (not to exceed 1% of total project media) for Multivista Systems marketing and promotional purposes. Multivista Systems may also utilize Client statements, cost savings and ROI examples derived from Client's use of Multivista Systems' services. Anonymity will be observed if requested.
10. **NO PUBLIC ACCESS**: Online access to Client's documentation shall be restricted to Client approved personnel only, each of whom will be provided with a unique username and password. Making access credentials publicly available shall be prohibited and Client shall make its approved personnel aware of this and that Client's confidentiality and restricted access obligations under the Agreement extend to all approved personnel.
11. **SITE VISITS/OBSERVATION**: Multivista shall visit the Project and/or construction site as appropriate to complete its Scope of Services under the Agreement. Visits to the Project site and observations made by Multivista as part of services provided during construction under the Agreement shall not make Multivista responsible for monitoring of the work or create any duty on the part of Multivista or any person or entity involved in providing the services to give notice of observed conditions. Multivista employees will report to the site office prior to working on site. The site superintendent shall be the designated person granting permission onto the site in order to ensure safe access for Multivista employees.

12. **CHANGES IN WORK SCOPE**: From time to time, the Client may wish to increase the scope of the documentation, or enroll further projects. Any changes in scope of work shall be bound by the Agreement, subject to any further agreements made in writing and signed by all parties to the Agreement. Such increases in scope or further enrollments will be considered addendums to the Agreement and will be billed as set forth herein or as set forth in an Additional Service Agreement.

13. **DELAYS**: Multivista shall not be liable for delays in performing or failure to perform its obligations under the Agreement resulting directly or indirectly from, or contributed to by acts of God; acts or failures to act by the Client; acts or failures to act by civil or military authority; governmental priorities; fires; strikes; or labor disputes; accidents; floods; epidemics; failure of the worldwide web, or any other circumstances beyond Multivista's reasonable control, whether similar or dissimilar to the foregoing. The Client or Multivista shall notify the other promptly of any potential delay.

14. **EQUAL OPPORTUNITY EMPLOYMENT**: Multivista will comply with federal regulations pertaining to Equal Opportunity Employment. Multivista will comply with applicable local, state, and federal regulations concerning minority hiring. Multivista's equal opportunity employment policy applies to all phases of employment.

15. **INSURANCE**: Multivista will maintain $2,000,000 business liability insurance. Multivista will add the Client and the Clients agents as additionally insured on Multivista's policy upon request. Multivista will maintain workers compensation insurance coverage. If the coverage required by the Client, or to comply with Project requirements generally, exceeds the above-listed amounts, Multivista will obtain such coverages and expense the additional premium amount resulting from the excess coverages to the Client as a reimbursable Expense per Section 20. EXPENSES.

20. EXPENSES.
16. **INDEMNIFICATION/HOLD-HARMLESS**: Multivista shall indemnify and defend the Client and their principals and members, Client's Inspectors, General Contractor, Architect, Architect's consultants, and agents and employees of any of them from claims based on intentional misconduct or gross negligence by Multivista, its employees and agents. Client shall indemnify and defend Multivista for any claims related directly or indirectly to the Project that do not result from the sole and direct intentional misconduct or gross negligence of Multivista, its employees and agents.

17. **LIMITATION OF LIABILITY**: Client agrees to limit the liability of Multivista for any and all claims, losses, costs and damages of any nature whatsoever or claims expenses from any cause or causes so that the total aggregate liability of Multivista to the Client shall not exceed Multivista's total fee for services rendered under the Agreement.

18. **DISPUTES**: Any action for claims arising out of or relating to the Agreement or the project that is the subject of the Agreement shall be governed by the laws of the

    State of _____ . Mediation is an express condition precedent to the filing of any legal action. Unless the parties agree otherwise, the mediation shall be conducted pursuant to the Construction Mediation rules of the American Arbitration Association.

19. **ATTORNEY FEES**: Should there be any suit or action instituted to enforce any right granted in the Agreement, the substantially prevailing party shall be entitled to recover its costs, disbursement and reasonable attorney fees from the other party. The party who is awarded a net recovery against the other shall be deemed the substantially prevailing party unless such other party has previously made a bona fide offer of payment in settlement and the amount of recovery is the same or less than the amount offered in settlement. Reasonable attorney fees may be recovered regardless of the forum in which the dispute is heard, including an appeal.

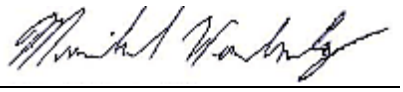
20. **EXPENSES**: Multivista shall be punctually reimbursed for any out of contract costs incurred at the Client's written request. Multivista will invoice for actual expenses incurred plus 15% for those expenses that are directly related to the Project. Back-up for all such expenses will be provided with invoicing. Expenses that are reimbursable include, but are not limited to, mileage outside of the metropolitan area, out-of-town travel (including airfare, ground transportation, gas, lodging and incidentals), reproductions, printing costs, deliveries/parcels and project-specific insurance where insurance needs exceed Multivista's liability policy limits (see Section 15).
21. **SEVERABILITY.** The invalidity of any provision of the Agreement will not render invalid any other provision, it being the intention of the parties that the terms hereof will be construed in such fashion as to make all of such provisions valid and enforceable to the full extent permitted by applicable law.
22. **SERVICE FEATURES**: See the **Multivista Service Features - Inclusions and Exclusions** table on the final page of this RIDER. Multivista will provide the service features marked as "**YES**" at no additional charge for the corresponding Scope Components in each indicated format, and will not provide service features marked as "**NO**" or "**N/A**." Additional terms and details may be included or referenced in the table itself, as well as elsewhere in this document and/or accompanying Agreement.

ACCEPTANCE

Accepted by:

OCVIEW LLC (MULTIVISTA)

Title: Senior Regional Partner,

Sign: 

Print: Michael Walmsley

Date: 4/23/2021

Orange County Water District

Title: _____

Sign: _____

Print: _____

Date: _____

MULTIVISTA SERVICE FEATURES - INCLUSIONS AND EXCLUSIONS

SCOPE COMPONENTS	SERVICE FEATURES	FORMATS			
		ONLINE Full Website (Desktop)	ONLINE Mobile Website	MOBILE APP Native application	ARCHIVE COPY[2] (Offline)
PHOTOGRAPHIC DOCUMENTATION	Interactive Architectural Floor Plans	YES	YES	YES	YES
	Interactive High-Resolution Photos	YES	YES	YES	YES
	Location Indexing	YES	YES	YES	YES
	Chronological (Date) Indexing	YES	YES	YES	YES
	Zoom Capability on Floor Plans and Photos	YES[1]	YES[1]	YES[1]	YES[3]
	Photo Preview from Floor Plan (Hover and Thumbnail Views)	YES	N/A	YES	YES
	Show / Hide Comments and Photo Numbers	YES	NO	NO	YES
	Floorplan Navigator Within Photo Viewer	YES[1]	N/A	N/A	YES
	Automatic Slideshow Controls	YES	NO	NO	YES
	Comment on Photos	YES[1]	NO	YES[1]	YES READ ONLY
	Tag Keywords, Search and Generate Reports from Comments	YES[1]	NO	NO	NO
	Generate 4-View Printable Photos	YES[1]	N/A	N/A	NO
	Email Export Photos	YES[1]	NO	NO	NO
	Annotation Mode – Add Annotations to Photos	YES[1]	NO	YES[1]	NO
	Push Pins – Add Push Pins ("Custom Hotspots") to Floor Plans	YES[1]	NO	YES[1]	NO
	Files – Upload Photos and Files to Project and Push Pins	YES[1]	NO	YES[1] Photos Only	NO[4]
	Albums – Define and View Custom Photo Sets	YES[1]	NO	YES[1] On Photo Upload	NO
	Favorites – Tag and View "Favorite" Photos as a Custom Photo Set	YES	NO	NO	NO
VIDEO	High-Definition Video Segments	YES	NO	NO	YES
WEBCAM	Live Stream	YES	YES	YES	N/A
	Pan-Tilt Zoom Controls	YES	NO	NO	N/A
	Archived Photos	YES	NO	YES	YES
	Automatic Slideshow Controls	YES	NO	NO	YES
	Comment on Photos	YES	NO	YES	YES READ ONLY
	Tag Keywords, Search and Generate Reports from Comments	YES	NO	NO	NO
	Generate 4-View Printable Photos	YES	N/A	N/A	NO
	Email Export Photos	YES	NO	NO	NO
	Time Lapse Video	YES	NO	YES	YES
	Public Feed	YES	N/A	N/A	N/A
	Embed Live Stream or Images into Client Website	YES	N/A	N/A	N/A

[1] This feature is not currently supported for immersive 360° panoramic photo content (Site-Walk 360°™).
[2] Immersive 360° panoramic photo content (Site-Walk 360°™) is not included in the Archive Copy.
[3] Archive Copy (Offline) does not support mouse-wheel zoom of floorplans. Zoom is achieved via clicking on control buttons
[4] User-added Files are returned to Client as a separate archive.

AGENDA ITEM SUBMITTAL

Meeting Date: May 12, 2021

To: Water Issues Committee
Board of Directors

From: Mike Markus

Staff Contact: R.Herndon

Budgeted: N/A
Budgeted Amount: N/A
Cost Estimate: $0
Funding Source: N/A
Program/Line Item No.: N/A
General Counsel Approval: N/A
Engineers/Feasibility Report: N/A
CEQA Compliance: to be filed

Subject: FIFTH AMENDMENT TO SETTLEMENT AGREEMENT WITH US DEPARTMENT OF JUSTICE AND NAVY AND IRVINE RANCH WATER DISTRICT TO ALLOW TEMPORARY SHUTDOWN FOR TREATMENT SYSTEM MODIFICATIONS

SUMMARY

The purpose of the Fifth Amendment to the 2001 Settlement Agreement with the U.S. Departments of Justice and Navy and Irvine Ranch Water District (IRWD) is to allow portions of the Irvine Desalter Project (IDP) to be temporarily shut down for modifications of treatment facilities that address groundwater contamination from the former Marine Corps Air Station (MCAS) El Toro.

Attachment: Fifth Amendment to the Settlement Agreement Among the Settling Federal Agencies (SFA), Orange County Water District (OCWD), and Irvine Ranch Water District (IRWD) in Regard to the Former Marine Corps Air Station (MCAS) El Toro Groundwater Remediation

RECOMMENDATION

Agendize for May 19 Board meeting: Authorize the General Manager to finalize and execute the Fifth Amendment to the Settlement Agreement among the Settling Federal Agencies, Orange County Water District, and Irvine Ranch Water District in regard to the former Marine Corps Air Station El Toro Groundwater Remediation to allow for temporary shutdown for treatment system modifications.

BACKGROUND/ANALYSIS

The IDP is a groundwater quality improvement project developed jointly by OCWD and IRWD in cooperation with the Navy to extract and contain groundwater with volatile organic compound (VOC) contamination emanating from the former MCAS El Toro, as well as groundwater with high total dissolved solids (TDS) that resulted from past farming activities. The former MCAS El Toro was listed on the federal National Priorities ("Superfund") List in 1990. The IDP, which began operating in 2006, has a potable supply component and a non-potable supply component, the latter consisting of wells and treatment systems that pump and treat groundwater contaminants emanating from former MCAS El Toro. IRWD owns and operates both components of the IDP and receives a basin equity assessment exemption from OCWD for groundwater produced

above the basin production percentage. Under the 2001 Settlement Agreement, the Navy reimburses IRWD for a portion of the costs to operate and maintain the non-potable (or “CERCLA”) component of the IDP.

In recent years, IRWD, OCWD, and the Navy have been discussing the potential replacement of the VOC treatment process (consisting of air strippers with vapor-phase carbon adsorption) with liquid-phase carbon adsorption. This modification will allow for treatment of VOCs and per- and poly-fluorinated alkyl substances (PFAS), which have been found in groundwater beneath and west of former MCAS El Toro, and also potentially facilitate additional federal funding for PFAS removal.

The proposed Fifth Amendment to the 2001 Settlement Agreement is necessary to allow IRWD to temporarily shut down the existing treatment system to accommodate anticipated treatment process modifications.

PRIOR RELEVANT BOARD ACTIONS

4/19/17 R17-4-51 Authorize filing of a Categorical Exemption for the destruction of wells IDP-1 and IDP-3 in compliance with CEQA guidelines; authorize destruction of wells IDP-1 and IDP-3; establish a project budget of $170,500; and authorize General Manager to finalize and execute Fourth Amendment to the Settlement Agreement Among the Settling Federal Agencies, OCWD, and IRWD regarding former Marine Corps Air Station El Toro to formalize the decommissioning of wells IDP-1 and IDP-3.

6/20/12 R12-6-64 Approve and authorize execution of the Third Amendment to the Settlement Agreement Among the Settling Federal Agencies, OCWD, and IRWD regarding former MCAS El Toro to formalize the decommissioning of Well IDP-4.

11/3/04 R04-11-137 Authorize the General Manager to execute second amendment to the Settlement Agreement with Settling Federal Agencies and IRWD.

9/15/04 R04-9-124 Approve proposed project modifications and environmental assessment findings, as described in Addendum No. 3 to the Final Environmental Impact Report for the Irvine Desalter Project.

6/6/01 R01-6-85 Approve and authorize execution of Second Amended and Restated Agreement with IRWD regarding the Irvine Desalter Project, addressing responsibilities for design, construction, financing, operations and maintenance, cost of water, liabilities of both parties, and exemption from water produced by IDP from payment of BEA to cover IRWD's water treatment costs.

6/6/01 R01-6-84 Approve Settlement Agreement with Settling Federal Agencies and IRWD regarding MCAS El Toro groundwater remediation.

6/6/01 R01-6-83 Approve Addendum No. 2 to the EIR on the Irvine Desalter Project providing for separate potable and reclaimed groundwater production and treatment facilities.

6/6/01 R01-6-82 Determine groundwater produced from Irvine Desalter Project Water Producing Facility Nos. (to be determined) to be unsuitable for domestic or agricultural purposes, and exempting water produced from said facilities from the levy of the basin equity assessment.

5/19/93 R93-5-85 Approve Addendum No. 1 to the EIR on the Irvine Desalter Project providing for relocation of the treatment facilities site.

9/2/92 R92-9-167 Award Irvine Desalter Production Well Contract IDP-92-1 to McCalla Water Well Services Company.

5/16/90 R90-5-120 Certify Final Environmental Impact Report for Irvine Desalter Project and adopt findings and statement of overriding considerations.

Fifth Amendment to the
Settlement Agreement Among the Settling Federal Agencies (SFA),
Orange County Water District (OCWD), and Irvine Ranch Water District (IRWD)
in Regard to the Former Marine Corps Air Station (MCAS) El Toro
Groundwater Remediation

This Fifth Amendment to the Settlement Agreement Among the Settling Federal Agencies (SFA), Orange County Water District (OCWD), and Irvine Ranch Water District (IRWD) in Regard to the Former Marine Corps Air Station (MCAS) El Toro Groundwater Remediation ("**Fifth Amendment**") among the Settling Federal Agencies[1] ("**SFA**"), Orange County Water District ("**OCWD**"), and Irvine Ranch Water District ("**IRWD**") (collectively the "**Parties**"), is effective upon execution by all Parties.

WHEREAS the Parties entered into the Settlement Agreement Among the SFA, OCWD, and IRWD in Regard to the Former MCAS El Toro Groundwater Remediation on September 7, 2001 ("Settlement Agreement");

WHEREAS, the Settlement Agreement was amended as follows: the First Amendment dated January 28, 2003: the Second Amendment dated June 24, 2005; the Third Amendment dated May 22, 2012; and the Fourth Amendment dated November 28, 2017;

WHEREAS, capitalized terms used herein and not otherwise defined shall have the meanings given such terms in the Settlement Agreement;

WHEREAS, the Settlement Agreement, as amended, requires OCWD and IRWD to design, construct, operate, and maintain certain OCWD/IRWD groundwater treatment assets.

WHEREAS, OCWD and IRWD are required to operate and maintain the OCWD/IRWD Comprehensive Environmental Response, Compensation, and Liability Act ("**CERCLA**") Component of the Modified Irvine Desalter Project ("**IDP**") (hereinafter, the "**CCMI**"). Settlement Agreement § III.A. "OCWD and IRWD are jointly and severally responsible for and will design, construct, operate and maintain the OCWD/IRWD Assets of the CCMI in accordance with this Agreement, the ROD[2] and the requirements set forth in the Former MCAS El Toro Federal Facilities Agreement (**"FFA"**)[3] and FFA deliverables set forth in Section 8.2 of

[1] "'Settling Federal Agencies' or 'SFA' means the United States, including its agencies, departments, and instrumentalities and hence including [Department of the Navy], but excluding [U.S. Environmental Protection Agency] in its regulatory capacity." Settlement Agreement § II.
[2] The "Record of Decision" or "ROD" is defined in Section II of the Settlement Agreement. *Id*.

[3] The "Federal Facilities Agreement" or "FFA" is defined in Section II of the Settlement Agreement and attached as Appendix 1 to the Settlement Agreement. "FFA Deliverables" means the documents that the Department of the Navy is obligated to prepare pursuant to the FFA, as identified in Sections 7.3 and 7.4 of the FFA. Settlement Agreement § II.

the FFA that receive concurrence from USEPA and CALEPA[4] or otherwise become finalized pursuant to the FFA including, but not limited to, the schedules set forth therein." *Id.* ¶ III.A.1;

WHEREAS, the Settlement Agreement provides that "[e]xcept as otherwise provided in this Agreement or in connection with short term routine maintenance, the parties agree that payments made to OCWD/IRWD by the United States under this Agreement are made with the express assumption and understanding that OCWD/IRWD will provide uninterrupted operation of the OCWD/IRWD Assets of the CCMI. OCWD/IRWD will not temporarily shut down or permanently terminate operations of the OCWD/IRWD Assets of the CCMI except in accordance with the procedures set forth below," *id*. ¶ III.A.4.a;

WHEREAS, "**Temporary Shutdown**" means the temporary cessation of operation of the OCWD/IRWD Assets of the CCMI by OCWD and/or IRWD, *id*. § II;

WHEREAS, Paragraph III.A.4.a sets forth a procedure for Temporary Shutdown of the CCMI upon notice by any Party only under certain circumstances and provides that "[a]ny temporary shutdown or permanent termination that does not satisfy the terms of Paragraph III.A.4 will constitute a breach of this Agreement," *id*. ¶ III.A.4.d;

WHEREAS, the Parties intend by this Fifth Amendment to provide for a Temporary Shutdown to make modifications to OCWD/IRWD Assets of the CCMI to optimize treatment of volatile organic compounds in accordance with regulatory approvals, if required, by the USEPA and/or CALEPA;

WHEREAS, the modifications are also intended to treat various per- and polyfluoroalkyl substances in the groundwater, which are contaminants of emerging concern.

WHEREAS, a Temporary Shutdown for the purpose of making such modifications to the OCWD/IRWD Assets of the CCMI is not otherwise provided for under the Settlement Agreement;

WHEREAS, this Fifth Amendment does not modify the Shallow Groundwater Unit (**"SGU"**) Contract.[5]

WHEREAS, this Fifth Amendment does not modify the obligation of the SFA to reimburse OCWD/IRWD for future response costs relating to the design, construction, operation,

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[4] "USEPA" is the United States Environmental Protection Agency and "CALEPA" is the California Environmental Protection Agency and its departments, agencies, boards, bureaus, and other components. Settlement Agreement § II.

[5] Appendix 8 to Settlement Agreement is an offer by OCWD to enter into a contact with the Navy for SGU treatment. *See* Settlement Agreement ¶ III.B.1. Subsequently, pursuant to Paragraph III.B.2.a of the Settlement Agreement, when funds became available, the Navy issued Naval Facilities Engineering Command Contract No. N62473-06-C-2010 to OCWD on September 27, 2006 (the "SGU Contract").

and maintenance of the OCWD/IRWD Assets of the CCMI as set forth in Section IV of the Settlement Agreement.

WHEREAS, Paragraph VII.N of the Settlement Agreement provides that the "Agreement may be modified only upon the mutual agreement of the Parties reflected in a written document signed by duly authorized representatives of the Parties, which document expressly makes reference to this Agreement and the intent to modify the terms of this Agreement."

THEREFORE, the SFA, OCWD, and IRWD hereby modify the Settlement Agreement as follows:

1. Add Paragraph III.A.4.f as follows:

> f. Temporary Shutdown of the CCMI for Treatment System Modifications.
>
> i. After giving notice to and receiving approval from the SFA, OCWD and/or IRWD may temporarily shut down the OCWD/IRWD Assets of the CCMI for a period not to exceed 18 months ("**Shutdown Period**") to modify the OCWD/IRWD Assets to optimize treatment of volatile organic compounds.
>
> ii. If OCWD and IRWD believe that the Shutdown Period must be extended due to circumstances beyond the control of OCWD and IRWD (including but not limited to an epidemic, riot, insurrection, war, or act of God), then OCWD and IRWD will provide written notice to the SFA explaining the need to extend the Shutdown Period.
>
> iii. Any extension of the Shutdown Period must be approved in writing by the SFA.
>
> iv. Modification must be done in accordance with any regulatory approvals required by the USEPA and CALEPA.

2. This Fifth Amendment does not alter or modify any other provision of the Agreement, including Paragraph IV or change any other contractual obligations as may exist between the Parties to this Agreement, except as expressly stated herein.

FOR THE UNITED STATES

Date: _____

JEAN A. WILLIAMS
Acting Assistant Attorney General

LESLIE M. HILL
United States Department of Justice
Environmental Defense Section
Four Constitution Square
150 M St. N.E.
Suite 4.149
Washington, DC 20002
Tel: (202) 514-0375
Fax: (202) 514-8865
Email: leslie.hill@usdoj.gov

FOR THE ORANGE COUNTY WATER DISTRICT

Date: _____

Michael R. Markus, P.E.
General Manager

Stephen R. Sheldon
President, Board of Directors

Approved as to Form:

By: _____
Jeremy N. Jungreis,
General Counsel

FOR THE IRVINE RANCH WATER DISTRICT

Date: _____

_____

Paul A. Cook
General Manager

Approved as to Form:

By: _____

Claire Hervey Collins,
General Counsel

AGENDA ITEM SUBMITTAL

Meeting Date: May 12, 2021

To: Water Issues Committee
Board of Directors

From: Mike Markus

Staff Contact: M. Plumlee

Budgeted: FY19-20 (Yes); FY20-21 (No)
Budgeted Amount: $291,264 (FY19-20)
Cost Estimate: $147,000
Funding Source: Reserves
Program/Line Item No. 1040.53001 & 51560
General Counsel Approval: N/A
Engineers/Feasibility Report: N/A
CEQA Compliance: N/A

Subject: BUDGET AUGMENTATION TO COMPLETE R&D WORK DELAYED FROM FY19-20 DUE TO COVID-19 PANDEMIC

SUMMARY

A budget augmentation of $147,000 for FY20-21 is required for the Research and Development (R&D) Department for laboratory sample analysis and professional services (university) costs due to project delays from the COVID-19 pandemic. These funds were originally budgeted in FY19-20, but not able to be utilized nor foreseen to be needed during FY20-21 budget planning. These funds are required to allow these projects to be completed during the current FY20-21 and a significant portion of these funds will be reimbursed to the District via research grants.

RECOMMENDATION

Agendize for May 19 Board meeting: Authorize issuance of additional funds in the amount of $128,000 to R&D Department budget account 51560 for Lab Sample Analysis and $19,000 to R&D budget account 53001 for Professional Services – General for fiscal year 2020-21.

BACKGROUND/ANALYSIS

The COVID-19 pandemic resulted in a delay of certain research projects being completed by the Research and Development (R&D) Department due to impacts to key partners. This affected the R&D Department budget such that funds originally budgeted in FY19-20 were not utilized nor anticipated (i.e., not budgeted) as needed for FY20-21. These funds are now required to be added to the R&D FY20-21 budget to pay invoices from project partners who resumed work this past year for projects now nearing completion.

One such impacted project is the ongoing evaluation of enteric virus log removal in wastewater treatment at the Orange County Sanitation District (OC San) two wastewater treatment facilities. Laboratory sample analysis for this project is supported by OC San, Michigan State University (MSU), and Biological Consulting Services of North Florida (BCS). The majority of the study expenses and a portion of District staff labor costs are being reimbursed from two project research grants awarded to the District from the Water Research Foundation (WRF) Subscriber Priority Research Program and the Metropolitan Water District (MWD) Future Supply Actions (FSA) Program. The project began in 2019

and sampling was completed April 2021. Due to the COVID-19 pandemic, sample collection from OC San's sampling sites was suspended during the period of March 2020 through mid-October 2020 due to the closure of the MSU Water Quality and Environmental Microbiology Laboratory, mandated by the state of Michigan. Sample collection resumed in late October 2020 through April 2021. Based on 2020 and 2021 sampling and late billing by MSU and BCS, invoices totaling approximately $157,000 are anticipated before close of the current FY20-21 fiscal year. Approximately $147,000 will be reimbursed by WRF and MWD based on remaining available grant funds. The District will bill WRF/MWD for reimbursement after paying MSU and BCS, as is typically done with research grants. Thus, given approximately $37,000 currently available in R&D Department 'Lab Sample Analysis' budget (51560) and allowing some funds to remain for miscellaneous department work, staff recommends augmenting the R&D 51560 budget with $128,000 to complete this project. Note, OC San provided its laboratory testing services in the project at no charge to the District.

Additionally, the COVID-19 pandemic resulted in a delay two other collaborator-led research projects that the District budgeted research collaboration support funding for in FY19-20. These budgeted funds were not utilized and are now required in FY20-21. The specific projects are as follows:

- Research underway by University of Southern California (USC) to develop an analytical method for measurement of total organic halogens (TOX) for assessing formation of chlorinated disinfection byproducts during water purification for potable reuse. The District's $30,000 contribution to the project was approved by the Board on June 19, 2019.

- Research underway by University of California, Riverside (UCR) to investigate the feasibility of a UV-based catalytic method to degrade PFAS compounds in source waters via benchtop experimentation. A budget of $19,990 was planned in FY19-20 to be drawn from R&D's budgeted $30,000 'Research Collaboration Support' fund (53001) set during budget planning for FY19-20. No board action was required in this case, as the budgeted funds did not exceed $20,000. No funds were ultimately spent in FY19-20 due to project delays; then, a portion of the UCR budget was spent in FY20-21 ($9,900). The remainder is anticipated to be spent in FY21-22.

Based on unallocated discretionary research collaboration funds available in the R&D FY20-21 budget and other planned expenses this fiscal year, a budget augmentation of $19,000 is required for 53001 for FY20-21 to address the above two projects.

In summary, due to the COVID-19 pandemic, staff recommends augmenting the R&D Department FY20-21 budget with $128,000 for the OC San enteric virus removal project (which will be reimbursed via WRF and MWD grant funds) and $19,000 for the USC and UCR research projects such that rescheduled milestones can be met by the June 30, 2021 close of the current fiscal year.

PRIOR RELEVANT BOARD ACTION(S)

8/15/18, R18-8-103, Authorizing Staff to Submit Proposals: Metropolitan Water District's Future Supply Actions Funding Program.

6/19/2019, R19-6-87, Authorizing Agreement with Water Research Foundation for Study of Virus Log Removal

6/19/2019, R19-6-84, Authorizing agreement with USC for Research Project On New Method For Measuring TOX To Assess Water Quality Of UV/AOP Process

AGENDA ITEM SUBMITTAL

Meeting Date: May 12, 2021

To: Water Issues Committee
Board of Directors

From: Mike Markus

Staff Contact: R. Bouley / C. Olsen

Budgeted: No
Budgeted Amount: N/A
Cost Estimate: $340,167
Funding Source: Paygo
Program/ Line Item No. C19007, C19009, C19015
General Counsel Approval: N/A
Engineers/Feasibility Report: N/A
CEQA Compliance: N/A

Subject: AMENDMENTS TO AGREEMENTS WITH AQUEOUS VETS AND EVOQUA FOR PFAS TREATMENT PRESSURE VESSEL SYSTEMS

SUMMARY

OCWD has agreements with Aqueous Vets and Evoqua to manufacture PFAS Treatment Vessel Systems to remove perfluoroalkyl substances (PFAS) from water produced by Producers' affected wells. Amendments to the agreements with Evoqua and Aqueous Vets are necessary to modify five treatment vessel systems (ten vessels) to meet site-specific design requirements and cover significant steel cost increases for 14 treatment vessel systems (28 vessels) due to market volatility caused by the COVID-19 Pandemic.

RECOMMENDATION

Agendize for May 19 Board Meeting:

1. Authorize issuance of Amendment No. 3 to Agreement No. 1422 with Aqueous Vets, for an amount not to exceed $208,313; and

2. Authorize issuance of Amendment No. 4 to Agreement No. 1423 with Evoqua, for an amount not to exceed $131,854.

BACKGROUND/ANALYSIS

In May of 2020, OCWD issued an Agreements to Aqueous Vets (AV) and Evoqua to purchase 55 PFAS Treatment Vessel Systems (a total of 110 treatment vessels). AV and Evoqua have both endeavored to produce these systems for OCWD to meet the various Producer's specific project schedules and design requirements. However, in the last year, the cost of the steel plate used to produce the vessel shells has risen significantly. According to www.steelbenchmarker.com, the index price for steel plate has increased from $679/ton to $1,202/ton (77%) in the period since the agreements were executed with AV and Evoqua. Both manufacturers included some allowances for price increases, but this degree of increase is unprecedented and unforeseen. Both manufacturers have asked for amendments to their agreements to cover their direct costs for increased price of steel.

AV has requested an adjustment of $110,075 for the additional cost of producing nine systems. Santa Ana requires higher flow rates from 3 systems at Wells 27 and 28. AV has proposed to replace the standard flow systems with high flowrate systems for an

additional $78,660, a unit price of $26,220 per system ($13,110 per vessel). This is done in lieu of adding an entire additional system. In addition, AV will provide cast in place templates for vessel installation at Orange (four systems at $11,187) and Santa Ana (3 systems at $8,391) for a total price of $19,578.

Evoqua has requested an additional $93,150 for the additional steel costs to produce the five larger vessel systems for Fullerton and two higher pressure rated (150 psi instead of the typical 125 psi) systems for the East Orange County Water District PFAS Water Treatment Plant to meet designed operating conditions. Evoqua has proposed to provide two systems with the higher-pressure rating for an additional $38,704, a unit price of $19,352 per system ($9,676 per vessel).

Table 1, below summarizes the changes and the related projects:

Change Description	Project Number	Groundwater Supplier	Manufacturer	Cost
Steel Increase	C19009	Santa Ana	Aqueous Vets	$110,075
Increase System Flowrate	C19009	Santa Ana	Aqueous Vets	$ 78,660
Cast in Place Template	C19009	Santa Ana	Aqueous Vets	$ 8,391
Cast in Place Template	C19012	Orange	Aqueous Vets	$ 11,187
			Aqueous Vets Total:	**$208,313**
Steel Increase	C19007	Fullerton	Evoqua	$ 93,150
Increase Pressure Rating	C19015	EOCWD	Evoqua	$ 38,704
			Evoqua Total:	**$131,854**

Staff recommends authorizing issuance of Amendment No. 3 to Agreement No. 1422 with Aqueous Vets for PFAS Vessel System Design Modifications and Steel Price Increases for an amount not to exceed $208,313. Staff also recommends issuance of Amendment No. 4 to Agreement No. 1423 with Evoqua for PFAS Vessel System Pressure Rating Increase and Steel Price Increases for an amount not to exceed $131,854.

Prior Relevant Board Actions

04/21/21 R21-4-xxx: Authorize issuance of Amendment No. 3 to Agreement No. 1423 with Evoqua to increase the size of five PFAS Treatment Vessel Systems from 1220 to 1240 Systems, for an amount not to exceed $282,571.

12/16/20 R20-12-166: Authorize issuance of Amendment No. 2 to Agreement No. 1422 with Aqueous Vets to modify PFAS Treatment Vessel Systems to increase flowrate, for an amount not to exceed $49,905.

10/21/20 R20-10-135: Authorize issuance of Amendment No. 1 to Agreement No. 1422 with Aqueous Vets, for an amount not to exceed $306,338 to substitute Cla-Val Pressure Reducing Valves for the originally proposed rupture disks and authorize issuance of Amendment No. 2 to Agreement No. 1423 with Evoqua, for an amount not to exceed $533,593 to substitute Cla-Val Pressure Reducing Valves for the originally proposed rupture disks and NSF-61 certified expansion joints for the originally proposed expansion joints.

09/16/20 R20-9-121: Authorize issuance of Amendment No. 1 to Agreement No. 1423 with Evoqua to increase the PFAS Treatment Vessel System pressure rating of four vessel systems to 150 psi, for an amount not to exceed $71,840.

05/06/20 R20-5-56: Authorize Agreement to Aqueous Vets for the purchase of 25 systems for a price not to exceed $8,159,052 and Agreement to Evoqua and for the purchase of 30 systems for a price not to exceed $11,020,220

1/22/20 R20-1-13: Authorizing Request for Quotes to pre-purchase 150 PFAS treatment vessels; Authorizing RFP for on-call consultants to prepare PFAS Treatment System Designs; Authorizing Agreements for PFAS Treatment System; and establishing design budget

AGENDA ITEM SUBMITTAL

Meeting Date: May 12, 2021

To: Water Issues Committee
Board of Directors

From: Mike Markus

Staff Contact: G. Woodside

Budgeted: NA
Budgeted Amount: NA
Cost Estimate: $17.8M
Funding Source: CIP, grants
Program/Line Item No. NA
General Counsel Approval: Yes
Engineers/Feasibility Report: This submittal
CEQA Compliance: This submittal

Subject: APPROVAL OF PRADO BASIN FEASIBILITY STUDY

SUMMARY

The District has been working with the Army Corps of Engineers on the Prado Basin Feasibility Study (Study), which evaluates increased water conservation and ecosystem restoration. In June 2019, the Board selected Plan 9 as the Locally Preferred Plan for the Study. The final report for the Study is complete and the Corps has approved the Water Conservation Plan and Ecosystem Restoration Plan identified in the Study.

Attachment(s):

- Resolution
- Presentation
- Final Report, which includes the Final Environmental Impact Report (available at https://www.ocwd.com/working-with-us/public-notices

RECOMMENDATION

Agendize for May 19 Board meeting: Approve the attached resolution, which includes the following actions:

- Certify the Final Environmental Impact Report, adopt Findings of Fact, and adopt Mitigation, Monitoring and Reporting Plan
- Approve the Water Conservation Plan and Ecosystem Restoration Plan
- Authorize staff to complete the permitting process and execute permits

BACKGROUND/ANALYSIS

The Prado Basin Feasibility Study (Study) is a joint effort of the Army Corps of Engineers and the District. The Study evaluates ecosystem restoration opportunities in Prado Basin and increasing the flood season buffer pool to elevation 505 feet.

The Study began in 2012, when the District executed a cost-share agreement with the Corps to conduct the Study. Circa 2010-2012, the District was seeking to begin a new study of increased water conservation but had difficulty starting a new study due to the Congressional earmark ban in place. In 2012, the Corps identified an existing authority

for a dual-purpose study of ecosystem restoration and water conservation in Prado Basin. This provided the mechanism to conduct the current Study with the Corps.

In June 2019, the Board selected Plan 9 as the Locally Preferred Plan for the Prado Basin Feasibility Study. Plan 9 is the smallest of the alternatives in the draft report for the Study that was circulated for public comment in February 2019. Since June 2019, the Corps and District staff compiled the final report with Plan 9 as the Recommended Plan. The ecosystem restoration measures are collectively referred to as the 'Ecosystem Restoration Plan', and include non-native plant removal, planting of native plants, restoration of Chino Creek, and increased cowbird trapping. The Ecosystem Restoration is designed to enhance the environment and is not mitigation for potential impacts of the Water Conservation Plan.

The increase in the maximum elevation of the buffer pool in the flood season from 498 feet to 505 feet is referred to as the 'Water Conservation Plan'.

The final report for the Study is complete. The Corps has completed their approval of the Study.

Project Description

Based on the Corps completion of the Feasibility Study, the Water Conservation Plan was incorporated into the Interim Water Control Plan for Prado Dam. This provides for the maximum elevation of the buffer pool to be 505 feet, which is the same elevation as allowed in the temporary deviation in place since 2018. The approval of the change to the Interim Water Control Plan was approved in April 2021 by the Corps' South Pacific Division Commander, Brigadier General Paul Owen. The project includes removal of sediment to offset incidental increased sedimentation that is estimated to occur with holding stormwater for a longer period of time behind the dam. A total of 250,000 cubic yards of sediment would be removed over a 50-year period.

The Ecosystem Restoration Plan includes the measures listed in Table 1. The measures are arranged by 'focal area', which is a specific geographic area targeted for restoration. These areas are shown in Figure 1.

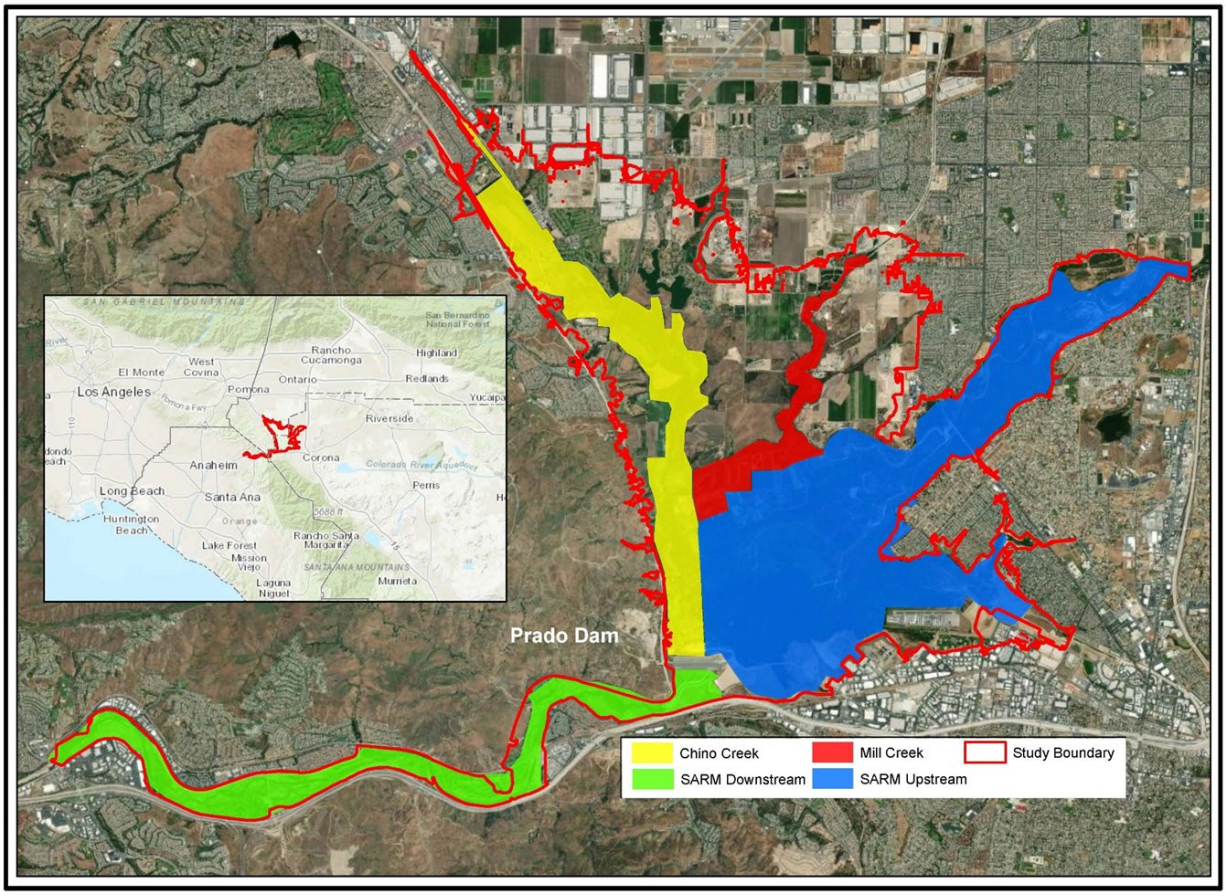
Table 1
Summary of Measures in Ecosystem Restoration Plan

SAR Mainstem (SARM) Upstream of Dam Focal Area	**SAR Mainstem (SARM) Downstream of Prado Dam Focal Area**	**Chino Creek Focal Area**	**Mill Creek Focal Area**	**Total Acres Restored**
Invasive Plant Management	Invasive Plant Management	Invasive Plant Management	Invasive Plant Management	390
Native Plantings		Native Plantings	Native Plantings	104
		Chino Creek Channel Restoration		112

SAR Mainstem (SARM) Upstream of Dam Focal Area	SAR Mainstem (SARM) Downstream of Prado Dam Focal Area	Chino Creek Focal Area	Mill Creek Focal Area	Total Acres Restored
Cowbird Trapping		Cowbird Trapping	Cowbird Trapping	Distributed across 1000's of acres

Invasive plant management is removal of non-native plants such as Arundo Donax, palm trees and eucalyptus that crowd out native vegetation. These areas include Corps property and District property. Removal of invasive plants allows for regrowth of native vegetation that provides habitat for endangered birds and other native species. In areas targeted for invasive plant management, native vegetation is anticipated to naturally return.

Figure 1
Prado Basin Study Focal Area Map



Native plantings is a separate measure that will plant riparian vegetation such as mulefat and willows in areas with minimal invasive vegetation. These areas include Corps property and District property.

The Chino Creek Channel Restoration would be located along Chino Creek, upstream (northwest) of Euclid Avenue. The area of the channel restoration is owned by the Corps.

Benefits

The Water Conservation Plan provides approximately 10,000 acre-feet of additional storage space at Prado Dam during the flood season. During the time when the deviation was in place and we had good rainfall years (Jan-February 2017 and January-February 2019), we captured 19,000 acre-feet of additional stormwater with the increased storage capacity in the flood season. Approval of the Water Conservation Plan makes this a permanent part of the Corps' operating plan for Prado Dam. Modeling by the Corps that accounts for the greater volume of stormwater capture at Prado Dam estimates that an additional 6,000 acre-feet per year of stormwater will be captured under year 2020 conditions. In year 2070 conditions, the modeling estimates that the increased recharge will be 11,600 acre-feet per year. The benefit of the higher storage volume becomes greater through time as sedimentation occurs and the lower elevations of Prado Reservoir store less water. In general terms, as the volume that can be stored at elevation 498 feet becomes less through time due to sedimentation, the benefit of being able to store water to elevation 505 feet becomes greater (since a given inflow volume rises to a higher elevation as sedimentation occurs).

For a particular year, if we capture 6,000 acre-feet of additional river water, using the current MWD replenishment water cost of $857 per acre-foot, there is an annual benefit of $5,142,000 savings from avoided MWD water purchases. This financial benefit would vary through time as the cost of MWD water changes and the project costs change.

The ecosystem restoration benefits relate to restoring riparian and associated habitats in Prado Basin and along the SAR downstream of Prado Dam. Removal on invasive plants, primarily Arundo Donax, also saves water. Because Arundo Donax consumes much more water than native riparian plants, removal of Arundo Donax and regrowth of native plants reduces vegetation water use by at least 4 acre-foot per acre.

The habitats that are restored by ecosystem restoration provide nesting and foraging habitats for endangered species such as the least Bell's vireo and southwestern willow flycatcher. The Ecosystem Restoration Plan will restore 606 acres. The draft Study, released in 2019, included a range of alternatives to achieve ecosystem restoration. The alternative selected and carried forward in the Final Plan was identified as the least costly Ecosystem Restoration Plan, demonstrating that it would be the most effective and efficient of the alternatives considered for restoring habitat. Economic benefits of the Ecosystem Restoration Plan are not quantified.

Costs

The Water Conservation Plan and Ecosystem Restoration have a combined capital cost of $48.6M. OCWD's would be responsible for 100% of the Water Conservation Plan cost and 35% of the capital cost for the Ecosystem Restoration Plan. The Corps' cost estimate for the Ecosystem Restoration Plan assigned a land value to OCWD land used for ecosystem restoration (such as invasive plant removal on District land). Since the

use of this land is not a direct cost to OCWD, this amount was subtracted from the OCWD capital cost estimate for the purpose of calculating OCWD's direct costs. Accordingly, OCWD's estimated capital cost for both plans is $17.8M. The project features would likely be constructed over a five- to eight-year period, so the capital cost would be incurred incrementally over a multi-year period.

Staff will submit the ecosystem restoration measures for grant funding. Since the ecosystem restoration measures are designed to enhance the environment and are not mitigation for water conservation impacts, they are eligible for grant funding.

In accordance with federal legislation, the District would be responsible for 100% of the Operations and Maintenance costs. The O&M costs include the cost associated with the Water Conservation Plan and the Ecosystem Restoration Plan. The project duration is 50 years. The O&M cost in the Feasibility Study is a fixed amount per year, adjusted for inflation. In year 2021 dollars, the cost is estimated to be $733,000 per year. This amount would be lower in years 1 through 9, since the O&M costs are mostly related to the ecosystem restoration measures and these measures would not require significant O&M for the first seven to eight years.

During the environmental review of the Water Conservation Plan, it was determined that no mitigation is needed prior to implementing the Water Conservation Plan. The environmental commitments in the Study would require the District to continue monitoring of riparian habitat and bird nesting in Prado Basin. In the unlikely event that the increased inundation exceeded a 30% impact threshold on riparian vegetation, then mitigation on District property would be required.

Benefit-Cost Comparison

The Benefit-Cost comparison for the combined Water Conservation Plan and Ecosystem Restoration Plan is calculated using the following steps:

- The capital cost is assumed to be financed over 30 years with a loan at 5% interest
- The annual O&M cost starts at $163,000 in year 1, increases to the full amount incrementally over the first 10 years, and then continues to year 50 with 3% per year increases to account for inflation
- The Net Present Value of the costs over 50 years are calculated using a discount rate of 4%

The results of the Net Present Value (NPV) calculation are:

NPV Total expenses	$38,780,000
NPV total avoided costs	$281,420,000
NPV return	$242,640,000

Based on the Net Present Value calculation, the benefit to cost ratio is 7.

The cost per acre-foot of new water is $200. This compares favorably with the current $877/af cost of untreated MWD replenishment water.

Environmental Documentation

In compliance with the requirements of the California Environmental Quality Act (CEQA) Public Resources Code Section 21000 et seq. and the CEQA Guidelines, the Orange County Water District (District) and the United States Army Corps of Engineers (USACE) has conducted an environmental review of the proposed Prado Basin Ecosystem Restoration and Water Conservation Feasibility Study (Project) through the preparation of Draft Environmental Impact Statement (EIS)/Environmental Impact Report (EIR). A Notice of Preparation (NOP) was released for public review on April 1, 2016 to May 2, 2016. On February 8, 2019, the Draft EIS/EIR was released for a 45-day public review period, which concluded on March 25, 2019.

After receiving public comment on the Draft EIR, the District and the USACE prepared a document titled the Final Integrated Feasibility Report (IFR), which incorporated applicable revisions made pursuant to public comments. The Final IFR was circulated again for review on February 21, 2021 to March 29, 2021, resulting in additional comments.

Following the completion of the required public review periods, the District and USACE has prepared the Final EIR. The Final EIR includes the Draft EIS/EIR, a formal Response to Comments document that includes verbatim comments received on the Draft EIR along with the District and/or USACE's response to each comment, and the Mitigation, Monitoring, and Reporting Program (MMRP). The District also prepared the mandatory CEQA Findings document, which identifies each of the potentially significant environmental impacts and specifies the mitigation measures that would reduce these impacts below a level of significance. There are no significant adverse environmental impacts after incorporation of mitigation. A statement of overriding considerations is not needed.

Following the adoption of the Final EIR, District staff would prepare and file a Notice of Determination and proceed with any applicable regulatory permit approvals, as appropriate.

Staff recommends that the Board:

- Certify the Final Environmental Impact Report, which includes the CEQA Findings of Fact
- Adopt the Mitigation, Monitoring and Reporting Plan to comply with CEQA
- Approve the Water Conservation Plan and Ecosystem Restoration Plan in the Study
- Authorize staff to complete the permitting process and execute any necessary permits

Permits which may be needed to implement the projects include a Lake and Streambed Alteration Agreement (LSAA) with the CA Department of Fish and Wildlife for the

sediment removal associated with the Water Conservation Plan and an LSAA for maintenance of the ecosystem restoration features.

Next Steps

If the Board approves the recommended action, the next steps on the project include:

- Working with the Corps as the Study is reviewed by the President's Office of Management and Budget and the Assistant Secretary of the Army for Civil Works
- Seeking authorization for the Ecosystem Restoration Plan through Congress, likely in the 2022 Water Resources Development Act
- Amending our existing agreement with the Corps for water conservation; this agreement outlines how the Corps operates Prado Dam for water conservation and specifies our current annual payment to cover the Corps' cost to operate Prado Dam for water conservation; the proposed amendment would be brought to the Board for review and consideration of approval
- Develop a proposed agreement with the Corps for the cost share of capital costs with the Corps for the Ecosystem Restoration Plan and OCWD's commitment to fund the O&M cost

PRIOR RELEVANT BOARD ACTION(S)

06/17/2020 M20-64: Authorize Board President to sign the letter of support for the Prado Basin Feasibility Study

06/05/2019 R19-6-77: Direct staff to notify the United States Army Corps of Engineers that the District has identified Plan 9 as the Locally Preferred Plan for the Prado Basin Feasibility Study; Approve Amendment No. 3 to Agreement No. 1170 with Ruth Villalobos and Associates for a cost not to exceed $50,000 to support preparation of the final Feasibility Study report.

3/6/2019 M19-34: Authorize payment of $350,000 to the Army Corps of Engineers for the Prado Basin Feasibility Study and authorize District staff to transfer said funding to the Army Corps of Engineers

5/23/2018 M16-63: Approve the revised cost to complete the Prado Basin Feasibility Study of $4,860,000 and the District's cost share of $4,392,950; authorize the General Manager to sign the April 23, 2018 letter from the Corps indicating the District's concurrence with the cost increase for the Prado Basin Feasibility Study; authorize payment of $350,000 to the federal government for the Prado Basin Feasibility Study, and authorize District staff to transfer said funding to the federal government

4/18/2018 R18-4-45: Authorize Amendment to Agreement with Ruth Villalobos and Associates to support the Prado Basin Feasibility Study

4/19/2017 M17-55: Authorize the General Manager to sign the April 4, 2017 letter from the Corps indicating the District's concurrence with the cost increase for the Prado Basin Feasibility Study; Authorize payment of $731,393 to the federal government for the Prado Basin Feasibility Study,

and authorize District staff to transfer said funding to the federal government; Authorize execution of Amendment No. 1 to Agreement No. 1222 with Scheevel Engineering for technical support for an amount not to exceed $90,818 to support the Prado Basin Feasibility Study; Authorize Work Order to Psomas under existing on-call environmental services Agreement No. 0675 for an amount not to exceed $21,690 for traffic analyses.

3/15/2017 R17-3-35: Authorize execution of Amendment No. 1 to Agreement No. 1170 with Ruth Villalobos and Associates for an amount not to exceed $60,000 to support the Prado Basin Feasibility Study.

6/15/2016 R16-6-79: Authorize execution of Agreement with Ruth Villalobos and Associates for an amount not to exceed $45,000 to support the Prado Basin Feasibility Study.

4/20/2016 R16-4-45: Authorize issuance of Amendment No. 3 to Agreement No. 0911 with Northwest Habitat Institute for an amount not to exceed $45,232 to conduct additional tasks for habitat assessment and modeling for the Prado Basin CA Feasibility Study bringing the total Agreement to $288,194.

3/21/2012 R12-3-28: Approve and authorize revised Agreement with the Department of the Army for the Prado Basin, California Study for the evaluation of water conservation and ecosystem restoration opportunities in Prado Basin

RESOLUTION OF THE BOARD OF DIRECTORS OF THE ORANGE COUNTY WATER DISTRICT CERTIFYING THE FINAL ENVIRONMENTAL IMPACT REPORT (STATE CLEARINGHOUSE # 2016041002) FOR THE PRADO BASIN ECOSYSTEM RESTORATION AND WATER CONSERVATION PROJECT AND APPROVING THE PROJECT AND ASSOCIATED ACTIONS

WHEREAS, Prado Dam in Riverside County California is owned and operated by the United States Army Corps of Engineers (USACE); and

WHEREAS, the USACE and the District have an existing water conservation program at Prado Dam that temporarily captures stormwater in the Prado Reservoir formed by Prado Dam, and the water conservation program is defined in the USACE Prado Dam Water Control Plan based on the maximum water surface elevation of the buffer pool and related parameters defined in the Water Control Plan; and

WHEREAS, Prado Dam's existing flood season buffer pool maximum water surface elevation is 498 feet above mean sea level (amsl) and the flood season extends from October 1 through February 28/29; and

WHEREAS, the District had requested in 2015 and 2017 that the USACE temporarily modify the operations of Prado Dam in Riverside County such that the flood season maximum water surface elevation of the buffer pool be increased from 498 feet above mean sea level (amsl) to 505 feet amsl to increase water conservation behind Prado Dam; and

WHEREAS, District staff has requested that the USACE permanently modify the operations of Prado Dam such that the maximum water surface elevation of the buffer pool be increased from 498 feet above mean sea level (amsl) to 505 feet amsl throughout the year to increase water conservation behind Prado Dam; and

WHEREAS, District and USACE staff have determined that a loss and/or degradation of aquatic, riparian woodland and floodplain habitats has historically occurred through the alteration of the hydrology of the Santa Ana River and tributaries (including Chino Creek and Mill Creek) in the upper and mid Santa Ana River basin caused by the operation of Prado Dam; and

WHEREAS, Arundo donax and other invasive plant species have displaced native riparian vegetation in Prado Basin that provides habitat for riparian dependent wildlife, acts as a physical barrier to wildlife in the riparian zone due to its dense growth patterns and alters hydrology of the floodplain by excessive water consumption through root uptake and transpiration; and

WHEREAS, cowbirds have parasitically nested in least Bell's vireo nests along with other migratory and resident native songbird nests, eliminating the habitat function to provide nesting that supports native species' reproduction and causes population declines; and

WHEREAS, additional water conservation within the buffer pool behind Prado Dam is expected to result in an incremental increase in sedimentation in Prado Basin which will require periodic removal; and

WHEREAS, District and USACE staff prepared a Draft Environmental Impact Report /Environmental Impact Statement (herein referenced as the "Draft EIR") to evaluate short-term construction related impacts, long-term operational impacts, cumulative impacts and indirect impacts that could result from the permanent operation of the buffer pool behind Prado Dam at 505 feet amsl for increased water conservation and the construction and construction and operation and maintenance of separate ecosystem restoration measures within Prado Basin (collectively, the "Project"); and

WHEREAS, the Notice of Preparation (NOP) for the Draft EIR was circulated to the public, responsible agencies and other interested persons for review and comments from April 1, 2016 to May 2, 2016; and

WHEREAS, the Draft EIR was circulated to the public, responsible agencies and other interested persons for review and comments from February 8, 2019 to March 25, 2019; and

WHEREAS, District staff reviewed and considered the comments on the Draft EIR and responded to and has forwarded responses to comments to all responding agencies; and

WHEREAS, the USACE approved the Project in compliance with all applicable National Environmental Protection Act (NEPA) regulations in April 2021; and

NOW, THEREFORE, the Board of Directors of the Orange County Water District DOES HEREBY RESOLVE as follows:

SECTION 1. The Board of Directors of the Orange County Water District finds that the Final EIR (State Clearinghouse # 2016041002) has been completed in compliance with CEQA and the State CEQA Guidelines. The Board of Directors, having final approval authority over the Prado Basin Ecosystem Restoration and Water Conservation Project, certifies as complete and adequate the Final EIR for the Prado Basin Ecosystem Restoration and Water Conservation Feasibility Study.

SECTION 2. The Final EIR shall consist of the following:

A. The Prado Basin Ecosystem Restoration and Water Conservation Feasibility Study Draft EIR
B. The Technical Appendices to the Draft EIR
C. Comments and Responses to comments to the Draft EIR
D. Findings of Fact
E. Mitigation Monitoring Reporting Program

SECTION 3. The Board of Directors finds that the Final EIR reflects the independent judgment and analysis of the District as the lead agency under CEQA for the Project, that the Final EIR was presented to the Board of Directors, as the decision-making body for the lead agency, and that the Board of Directors has reviewed and considered the information contained in the Final EIR, and the comments received during the public review process, as well as the responses to the comments, prior to taking any action on the Final EIR or the Project.

SECTION 4. As documented in the Findings of Fact included in the Final EIR and incorporated herein by this reference, the Final EIR identifies certain significant effects that would potentially result from the operation of the Prado Basin Ecosystem Restoration and Water Conservation Project. However, all of the potentially significant environmental impacts have been mitigated to a less than significant level.

SECTION 5. The Prado Basin Ecosystem Restoration and Water Conservation Project as described in the Final EIR is hereby approved.

SECTION 6. The Mitigation Monitoring and Reporting Program for the Project incorporated herein by this reference is hereby adopted.

SECTION 7. For the Project, staff is hereby authorized to complete the permitting process and execute permits with applicable resources agencies as necessary and appropriate.

SECTION 8. The Board of Directors hereby authorizes and directs District staff to file a Notice of Determination with respect to the approval of the Project.

ADOPTED at a regular meeting held May 19, 2021.

_____
President

_____
General Manager

ATTEST:

_____
Board Secretary

Prado Basin Feasibility Study

Water Issues Committee

May 12, 2021

Prado Basin Feasibility Study

- Agreement with Army Corps established District as non-federal (local) sponsor in 2012
  - No new starts available at that time
  - Utilized authorized ecosystem study that was available to begin study
- Feasibility Study has 2 ‘purposes’
  - Ecosystem restoration
  - Enhanced water conservation (storing water up to elevation 505’ all year at Prado Dam)

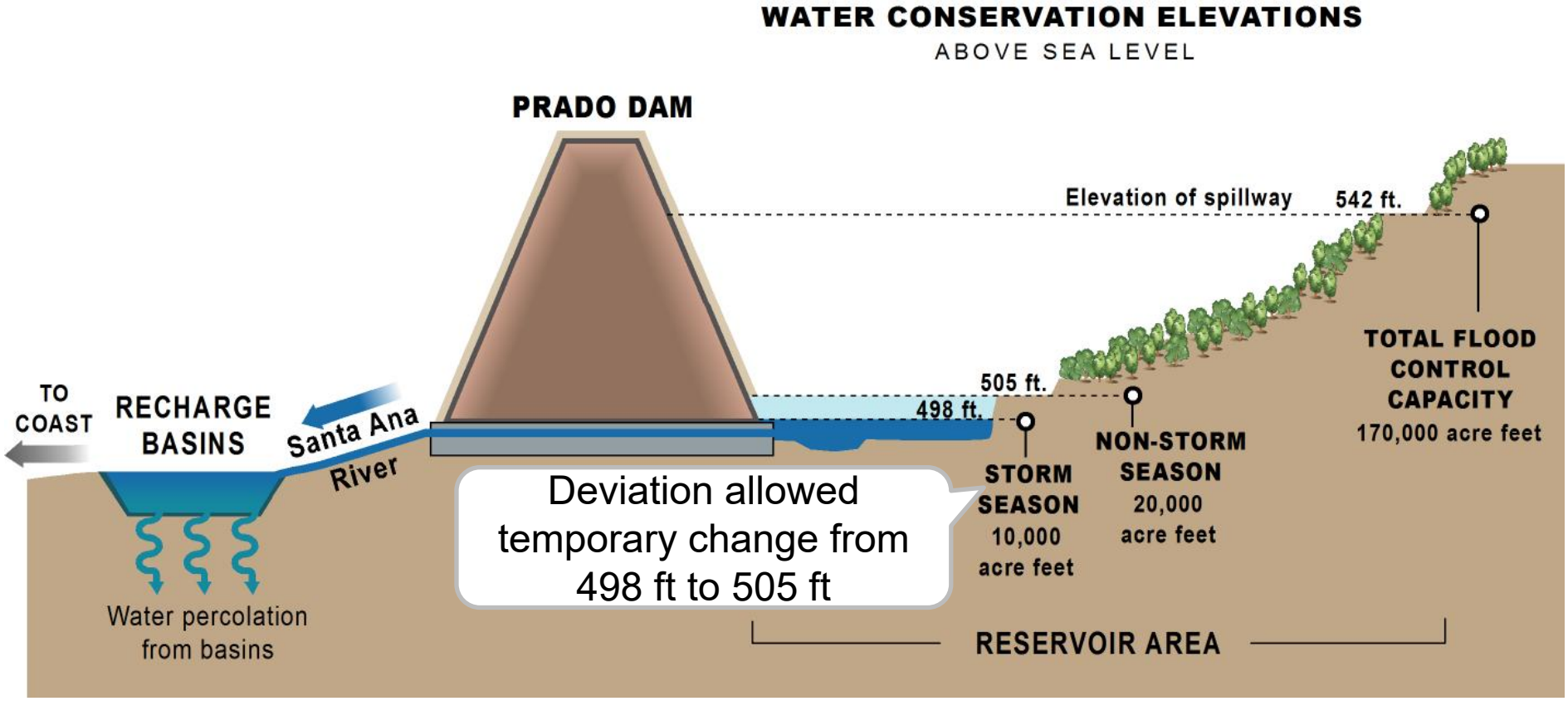
Two Recommended Plans

- Water Conservation Plan: capture additional stormwater
- Ecosystem Restoration Plan: enhance environmental values (not mitigation for Water Conservation)

Summary of Recent Milestones

Milestone	Date
Release Draft Feasibility Report for public comment	February 2019
Board identify Plan 9 as preferred Alternative	June 2019
Board approve Letter of Support for Study	June 2020
Final Report issued for State & Agency Review	March 2021
Division Commander (General Owen) approves Water Conservation Plan	April 2021
Chief approves Ecosystem Restoration Plan	April 2021

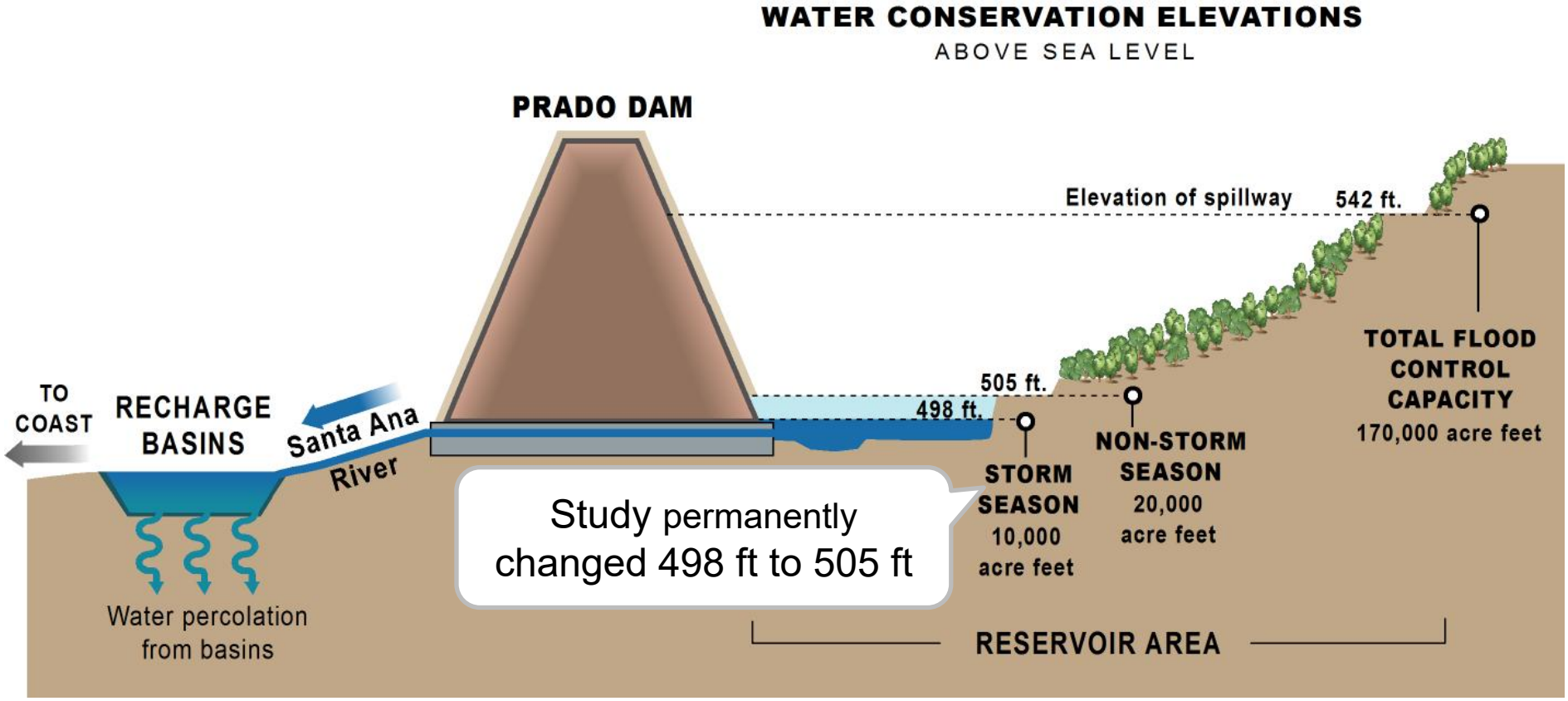
Prior to Study Completion

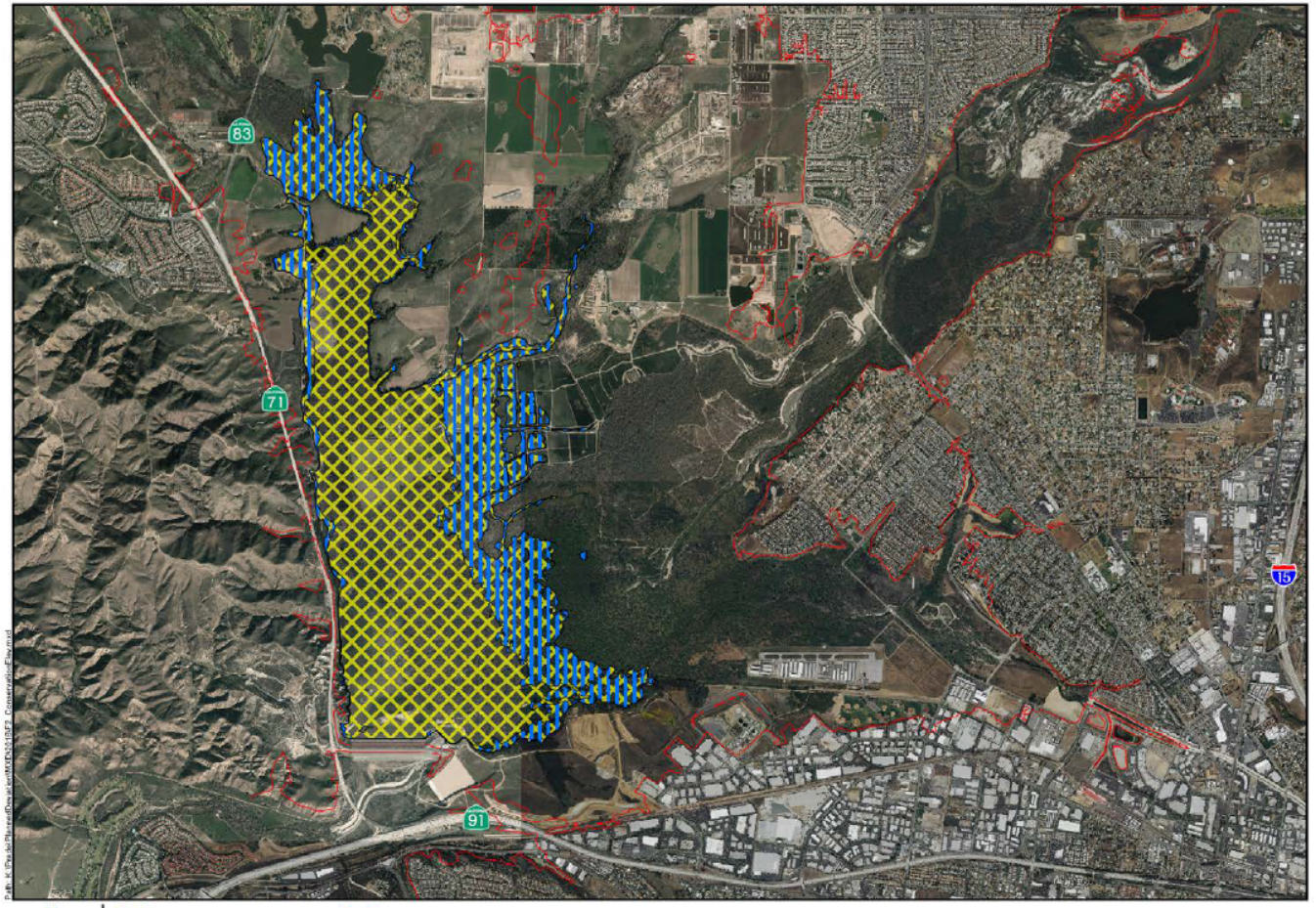


Summary of Deviation

- Deviation only possible because we started Feasibility Study in 2012
- Deviation in place in flood season of 2016-17 and following years captured 19,000 acre-feet of water with value of $17M

Water Conservation Plan approved by Corps in April 2021





Prado Basin Feasbility Report
498' & 505' Prado Basin Water Conservation Elevations

Summary of Ecosystem Restoration Measures

SAR Mainstem Upstream of Dam Focal Area	SAR Mainstem Downstream of Prado Dam Focal Area	Chino Creek Focal Area	Mill Creek Focal Area	Total Acres Restored
Invasive Plant Management	Invasive Plant Management	Invasive Plant Management	Invasive Plant Management	390
Native Plantings		Native Plantings	Native Plantings	104
		Channel Restoration		112
Cowbird Trapping		Cowbird Trapping	Cowbird Trapping	Distributed across 1000's of acres

Water Savings from Arundo Removal

- Arundo Donax uses more water than native vegetation
- Arundo Donax removal on 390 acres reduces water transpired by vegetation by at least 1,560 acre-feet per year, leaving additional water in river to flow to Orange County
- Benefit of $1.4M per year

Cost Share

- Water Conservation: 100% OCWD cost
  - Sediment removal – 5,000 yd^3 per year ($60,000 per year)
  - Additional O&M approx. $163,000/year
- Ecosystem measures cost share for design, construction, monitoring and adaptive management: 65% Corps-35% OCWD
- O&M 100% OCWD

Cost Summary

- Total OCWD capital cost: $17.8M
  - Project features likely constructed over a 5 to 8-year period
  - Grant funding opportunities
- O&M cost: $733,000 per year over 50 years (2021 costs)
  - Lower in years 1 through 9, since O&M costs are mostly related to the ecosystem restoration measures and these measures would not require significant O&M for the first seven to eight years

Cost-Benefit Comparison

- Benefit is reduction in need for MWD imported water
- Project provides 6,000 af/yr of additional water initially, growing to 11,600 af/yr in 50 years
- $6M per year in water savings
- Unit cost for new water: $200/acre-foot
- Benefit cost ratio of 7

Next Steps

- Study reviewed by Office of Management and Budget & Assistant Secretary of Army for Civil Works
- Authorization and funding for Ecosystem Restoration Plan through Congress, likely in the 2022 Water Resources Development Act
- Amend existing agreement with Corps for water conservation
  - Signing event being planned
- Agreement with Corps for cost share of capital costs with Corps for Ecosystem Restoration Plan and OCWD's commitment to fund O&M cost

Recommendation

Agendize for May 19 Board meeting

- Approve resolution, which includes the following actions:
  - Certify the Final Environmental Impact Report, adopt Findings of Fact, and adopt Mitigation, Monitoring and Reporting Plan
  - Approve the Water Conservation Plan and Ecosystem Restoration Plan
  - Authorize staff to complete the permitting process and execute permits

Extra Slides

Summary of Alternatives

Features	Plan 9	Plan 11	Plan 14
Invasive, non-native plant management; native plantings; Chino Creek restoration	Yes	Yes	Yes
Non-native aquatics management	No	Yes	Yes
Riparian Edge Management & Instream habitat features	No	Yes	Yes
Feral pig management, additional non-native aquatics management	No	No	Yes
Sediment removal	Yes - approx. 4,000 yd^3 per year to offset water conservation	Yes – remove approx. 500,000 yd^3 per year	Yes – remove approx. 500,000 yd^3 per year
Significant Unavoidable Env. Impact (air quality/GHG)	No	Yes	Yes
Sediment re-entrainment in SAR below Dam	No	Yes	Yes
Water Con to elevation 505 ft in flood season	Yes	Yes	Yes