

# SOLANO COUNTY WATER AGENCY



## BOARD OF DIRECTORS MEETING

### BOARD OF DIRECTORS:

#### Chair:

Mayor Pete Sanchez  
City of Suisun City

#### Vice Chair:

Director John D. Kluge  
Solano Irrigation District

Mayor Elizabeth Patterson  
City of Benicia

Mayor Thom Bogue  
City of Dixon

Mayor Harry Price  
City of Fairfield

Director Ryan Mahoney  
Maine Prairie Water  
District

Director Dale Crossley  
Reclamation District No.  
2068

Mayor Norman Richardson  
City of Rio Vista

Supervisor Erin Hannigan  
Solano County District 1

Supervisor Monica Brown  
Solano County District 2

Supervisor Jim Spering  
Solano County District 3

Supervisor Skip Thomson  
Solano County District 5

Supervisor John Vasquez  
Solano County District 4

Mayor Len Augustine  
City of Vacaville

Mayor Bob Sampayan  
City of Vallejo

### GENERAL MANAGER:

Roland Sanford  
Solano County Water  
Agency

**DATE:** Thursday, September 14, 2017

**TIME:** 6:30 P.M.

**PLACE:** Berryessa Room  
Solano County Water Agency Office  
810 Vaca Valley Parkway, Suite 203  
Vacaville

1. CALL TO ORDER

2. PLEDGE OF ALLEGIANCE

3. APPROVAL OF AGENDA

4. PUBLIC COMMENT

Limited to 5 minutes for any one item not scheduled on the Agenda.

5. CONSENT ITEMS (estimated time: 5 minutes)

(A) Minutes: Approval of the Minutes of the Board of Directors meeting of August 10, 2017 is recommended.

(B) Expenditure Approvals: Approval of the August 2017 checking account register is recommended.

(C) Vehicle Purchases: Authorize General Manager to purchase three replacement vehicles and one additional vehicle for a combined total cost of up to \$110,000.

(D) Contract with Global Diving & Salvage Inc.: Authorize General Manager to execute \$62,350 contract with Global Diving & Salvage, Inc. for dive support for the Putah Diversion Dam Screen Replacement Project and Solano Project inspections.

(E) Authorize Purchase of Water Quality Equipment for North Bay Aqueduct and Solano Project Water Quality Monitoring: Authorize General Manager to purchase water quality equipment for North Bay Aqueduct and Solano Project operations (total cost not to exceed \$50,000).



- (F) Contract with Wood Rodgers Inc. for Rio Vista Flood Control Feasibility Study: Authorize General Manager to execute \$499,904 contract with Wood Rodgers Inc. for grant funded Rio Vista Flood Control Feasibility Study.
- (G) Contract with Solano Resource Conservation District for administration of the Welcome to the Watershed Education Program: Authorize General Manager to execute \$48,000 contract with Solano Resource Conservation District (Solano RCD) to administer the Welcome to the Watershed Education Program through fiscal year 2019-2020.

**6. BOARD MEMBER REPORTS (estimated time: 5 minutes)**

RECOMMENDATION: For information only

**7. GENERAL MANAGER'S REPORT (estimated time: 5 minutes)**

RECOMMENDATION: For information only.

**8. SOLANO WATER ADVISORY COMMISSION (estimated time: 5 minutes)**

RECOMMENDATION: Hear report from Commission Chair on activities of the Solano Water Advisory Commission.

**9. SOLANO SUBBASIN GROUNDWATER SUSTAINABILITY AGENCY GRANT FUNDING REQUEST FOR DEVELOPMENT OF GROUNDWATER SUSTAINABILITY PLAN FOR SOLANO SUBBASIN (estimated time: 10 minutes)**

RECOMMENDATION: Provide grant funding match of up to \$350,000 to Solano Subbasin Groundwater Sustainability Agency for development of Groundwater Sustainability Plan for the Solano Subbasin.

**10. LEGISLATIVE UPDATES (estimated time: 10 minutes)**

RECOMMENDATION:

1. Hear report from Committee Chair on activities of the SCWA Legislative Committee.
2. Authorize SCWA Legislative Committee Chair or General Manager to sign letter of support for AB 1420 (Aguiar-Curry and Dodd) – Water Rights: Small Irrigation Use: Lake or Streambed Alteration Agreements
3. Authorize SCWA Legislative Committee Chair or General Manager to sign letter of support for HR 3275 (McNerney) – Water and Energy Sustainability Through Technology Act

**11. WATER POLICY UPDATES (estimated time: 10 minutes)**

RECOMMENDATION:

1. Hear report from staff on current and emerging Delta and Water Policy issues and provide direction.

2. Hear status report from Committee Chair on activities of the SCWA Water Policy Committee.
3. Hear report from Supervisor Thomson on activities of the Delta Counties Coalition, Delta Protection Commission, and Delta Stewardship Council.
4. Hear report from Mayor Patterson on activities of the Delta Conservancy.

**12. CLOSED SESSION (estimated time: 15 minutes)**

Conference with Legal Counsel – Existing Litigation (§ 54956.9)

Name of Case: Friends of Putah Creek v. Solano County Water Agency. Solano County Case No. FCS049217.

**13. TIME AND PLACE OF NEXT MEETING**

Thursday, October 12, 2017 at 6:30 p.m. at the SCWA offices.

***The Full Board of Directors packet with background materials for each agenda item can be viewed on the Agency's website at [www.scwa2.com](http://www.scwa2.com).***

Any materials related to items on this agenda distributed to the Board of Directors of Solano County Water Agency less than 72 hours before the public meeting are available for public inspection at the Agency's offices located at the following address: 810 Vaca Valley Parkway, Suite 203, Vacaville, CA 95688. Upon request, these materials may be made available in an alternative format to persons with disabilities.

# CONSENT ITEMS

**SOLANO COUNTY WATER AGENCY  
BOARD OF DIRECTORS MEETING MINUTES**

**MEETING DATE: June 8, 2017**

The Solano County Water Agency Board of Directors met this evening at the Solano County Water Agency. Present were:

Supervisor Erin Hannigan, Solano County District 1  
Supervisor Monica Brown, Solano County District 2  
Supervisor James Spring, Solano County District 3  
Supervisor John Vasquez, Solano County District 4  
Supervisor Skip Thomson, Solano County District 5  
Mayor Thom Bogue, City of Dixon  
Mayor Elizabeth Patterson, City of Benicia  
Mayor Harry Price, City of Fairfield  
Mayor Len Augustine, City of Vacaville  
Mayor Pete Sanchez, City of Suisun City  
Mayor Norman Richardson, City of Rio Vista  
Councilmember Robert McConnell, City of Vallejo  
Director Ryan Mahoney, Maine Prairie Water District  
Director John Kluge, Solano Irrigation District  
Director Dale Crossley, Reclamation District Number 2068

**CALL TO ORDER**

The meeting was called to order at 6:30 P.M. by Chair Sanchez.

**APPROVAL OF AGENDA**

On a motion by Supervisor Vasquez and a second by Mayor Bogue the Board unanimously approved the agenda.

**PUBLIC COMMENT**

There were no public comments.

**CONSENT ITEMS**

Supervisor Brown requested that item 5D be pulled from the Consent Items for further discussion. She inquired who was responsible for maintaining the flood conveyance function of Suisun Creek. General Manager Roland Sanford explained that in this instance – the claim of John and Dorothy Ann Parkinson – no government entity was legally responsible for maintenance. Supervisor Brown requested the minutes reflect her “no” vote on Consent Item 5D. On a motion by Mayor Augustine and a second by Supervisor Hannigan, the Board approved all of the Consent Items:

- (A) Minutes
- (B) Expenditure Approvals
- (C) Purchase of Dodge Ram 5500 for Field Operations.
- (D) Action to Reject Claim of John and Dorothy Ann Parkinson.

**BOARD MEMBER REPORTS**

There were no Board Member reports.

**GENERAL MANAGER’S REPORT**

There were no additions to the General Manager’s written report.

**SOLANO SUBBASIN GROUNDWATER SUSTAINABILITY AGENCY  
GENERAL STAFFING AGREEMENT AND COORDINATION OF GROUNDWATER  
SUSTAINABILITY AGENCIES IN SOLANO SUBBASIN**

On a motion by Supervisor Vasquez and a second by Mayor Bogue the Board unanimously approved the General Staffing Agreement between the Water Agency and the Solano Subbasin Groundwater Sustainability Agency; and for Water Agency staff to facilitate coordination among the Groundwater Sustainability Agencies (GSA's) in the Solano Subbasin, with the intent of developing a single Groundwater Sustainability Plan.

**RESOLUTION IN APPRECIATION OF THOMAS MICHAEL “MIKE” HARDESTY**

On a motion by Supervisor Spring and a second by Supervisor Vasquez, the Board unanimously approved Resolution 2017-06 honoring Mike Hardesty upon his retirement from Reclamation District 2068.

**LEGISLATIVE UPDATES**

General Manager Roland Sanford reported that the SCWA Legislative Committee met on August 3, 2017 and discussed pending and potential water bond legislation, including the proposed “Meral Initiative”, more formally known as the “State Water Supply Infrastructure, Water Storage and Conveyance, Ecosystem and Watershed Protection and Restoration, and Drinking Water Protection Act of 2018” Mr. Sanford discussed the SCWA Legislative Committee’s recommendation that the SCWA Board formally support the Meral Initiative. On a motion by Mayor Augustine and a second by Mayor Price the Board unanimously approved Resolution 2017-07 supporting the State Water Supply Infrastructure, Water Storage and Conveyance, Ecosystem and Watershed Protection and Restoration, and Drinking Water Protection Act of 2018.

**WATER POLICY UPDATES**

There were no updates from staff on emerging Delta and Water Policy issues, and no Water Policy Committee updates.

Supervisor Thomson summarized the recent activities of the Delta Counties Coalition and noted that September will be an eventful month for the Dual Conveyance Project (CalWater Fix; Twin Tunnels) as Governor Brown has requested that the State Water Contractors who are participating in the Dual Conveyance Project (SCWA is not a participant) make a “go, no-go” decision with regard to their continued participation in the project.

Mayor Patterson summarized the recent activities of the Delta Conservancy, including potential grant opportunities pertaining to the Delta-Agricultural Economic Enhancement goal articulated in the Delta Conservancy Strategic Plan.

On a motion by Mayor Bogue and a second by Mayor Augustine the Board unanimously approved submitting a letter urging the State Supreme Court to hear Case # 243500 (San Diego County v. Metropolitan Water District).

**SOLANO WATER ADVISORY COMMISSION**

Mr. Felix Risenberg, Chair of the Solano Water Advisory Commission (SWAC), briefed the Board on the purpose and history of the Solano Water Advisory Commission.

**CLOSED SESSION**

The Board went into Closed Session at 7:08 p.m. to discuss existing litigation: Friends of Putah Creek vs. Solano County Water Agency, Solano County Case No. FCS049217. The Board took no reportable actions in closed session and returned to open session at 7:15 p.m.

**TIME AND PLACE OF NEXT MEETING**

Thursday, September 14, 2017 at 6:30 p.m., at the SCWA offices in Vacaville

**ADJOURNMENT**

This meeting of the Solano County Water Agency Board of Directors was adjourned at 7:20 p.m.

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Roland Sanford  
General Manager & Secretary to the  
Solano County Water Agency

**ACTION OF  
SOLANO COUNTY WATER AGENCY**

**DATE:** September 14, 2017

**SUBJECT:** Expenditures Approval

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RECOMMENDATIONS:

Approve expenditures from the Water Agency checking accounts for the month of August, 2017.

FINANCIAL IMPACT:

All expenditures are within previously approved budget amounts.

BACKGROUND:

The Water Agency auditor has recommended that the Board of Directors approve all expenditures (in arrears). Attached is a summary of expenditures from the Water Agency's checking accounts for the month of August, 2017. Additional backup information is available upon request.

Recommended: \_\_\_\_\_  
Roland Sanford, General Manager

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Approved as  
recommended

Other  
(see below)

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next page

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Modification to Recommendation and/or other actions:

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I, Roland Sanford, General Manager and Secretary to the Solano County Water Agency, do hereby certify that the foregoing action was regularly introduced, passed, and adopted by said Board of Directors at a regular meeting thereof held on September 14, 2017 by the following vote.

Ayes:

Noes:

Abstain:

Absent:

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Roland Sanford  
General Manager & Secretary to the  
Solano County Water Agency

**SOLANO COUNTY WATER AGENCY**  
**Cash Disbursements Journal**  
**For the Period From Aug 1, 2017 to Aug 31, 2017**

Filter Criteria includes: Report order is by Check Number. Report is printed in Detail Format.

Date	Check #	Account ID	Line Description	Debit Amount	Credit Amount
8/2/17	30487V	2020SC 1020SC	Invoice: 9790003614 VERIZON WIRELESS	2,497.85	2,497.85
8/3/17	30493	2020SC 1020SC	Invoice: 04.01.17 - 06.30.17 ACWA JOINT POWERS INSURANCE AUTHORIT	3,107.72	3,107.72
8/3/17	30494	2020SC 1020SC	Invoice: 2478136 AMERICAN TOWER CORPORATION	578.26	578.26
8/3/17	30495	2020SC 1020SC	Invoice: 2017-1 BAY AREA FLOOD PROTECTION AGENCIES ASSO	3,100.00	3,100.00
8/3/17	30496	2020SC 1020SC	Invoice: 9015733500 CINTAS CORPORATION	1,392.00	1,392.00
8/3/17	30497	2020N 1020SC	Invoice: AUG 2017 CLEAN TECH ADVOCATES	8,600.00	8,600.00
8/3/17	30498	2020SC 2020SC 1020SC	Invoice: 800020559222 Invoice: 800020559232 EAN SERVICES, LLC	926.61 618.44	1,545.05
8/3/17	30499	2020SC 2020SC 1020SC	Invoice: 85014 Invoice: 85025 GHD, INC.	3,638.75 7,329.00	10,967.75
8/3/17	30500	2020SC 1020SC	Invoice: 9510899736 GRAINGER	93.54	93.54
8/3/17	30501	2020SC 1020SC	Invoice: AUG 2017 EXEC MTG JOHN D. KLUGE	100.00	100.00
8/3/17	30502	2020SC 1020SC	Invoice: AUG 2017 EXEC MTG RYAN MAHONEY	100.00	100.00
8/3/17	30503	2020SC 1020SC	Invoice: 57226 PLUMBING MD, INC.	201.50	201.50
8/3/17	30504	2020SC 2020SC 2020SC 1020SC	Invoice: 002418 Invoice: 000158 Invoice: 005087 SAM'S CLUB	53.21 87.43 51.67	192.31
8/3/17	30505	2020SC 1020SC	Invoice: 073117229 SHANDAM CONSULTING	2,970.00	2,970.00
8/3/17	30506	2020U 1020SC	Invoice: JUL 2017 SOLANO COUNTY FLEET MANAGEMENT	408.34	408.34
8/3/17	30507	2020SC 1020SC	Invoice: 34843 SOUTHWEST ENVIRONMENTAL	25,070.00	25,070.00
8/3/17	30508	2020SC 2020SC 2020SC 2020SC 2020SC 2020SC 1020SC	Invoice: 84777 Invoice: 84778 Invoice: 85305 Invoice: 85306 Invoice: 86232 Invoice: 86347 STERLING MAY CO.	1,576.78 47.30 38.94 142.13 77.89 0.23	1,883.27
8/3/17	30509	2020SC 2020SC 1020SC	Invoice: BAWMRP #005 Invoice: 5 THINKING GREEN CONSULTANTS	15,695.00 1,049.48	16,744.48
8/3/17	30510	2020SC 1020SC	Invoice: 9790003614 VERIZON WIRELESS	2,497.85	2,497.85
8/7/17	30511	2020N 1020SC	Invoice: CANOES CLAVEY PADDLESPORTS	2,741.98	2,741.98
8/8/17	30512	2020SC 1020SC	Invoice: 189675 A & L WESTERN AGRICULTURAL LABS	142.00	142.00
8/8/17	30513	2020SC 1020SC	Invoice: 0499788 ACWA JOINT POWERS INSURANCE AUTHORITY	1,522.56	1,522.56

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8/8/17	30514	2020SC 1020SC	Invoice: IN-1170786232 ALPHA MEDIA II LLC	2,905.00	2,905.00
8/8/17	30515	2020SC 2020SC 1020SC	Invoice: A718822 Invoice: A718966 BSK ASSOCIATES	60.00 420.00	480.00
8/8/17	30516	2020SC 1020SC	Invoice: 51059917 CHEVRON AND TEXACO	1,644.84	1,644.84
8/8/17	30517	2020U 1020SC	Invoice: 34070514 CROP PRODUCTION SERVICES, INC.	7,942.84	7,942.84
8/8/17	30518	2020SC 1020SC	Invoice: 4609200 EVERBANK COMMERCIAL FINANCE	1,096.25	1,096.25
8/8/17	30519	2020SC 1020SC	Invoice: 85029 GHD, INC.	612.00	612.00
8/8/17	30520	2020SC 1020SC	Invoice: CL64055 INTERSTATE OIL COMPANY	582.44	582.44
8/8/17	30521	2020SC 1020SC	Invoice: 1418 IRON SPRINGS CORPORATION	5,516.00	5,516.00
8/8/17	30522	2020N 1020SC	Invoice: 0817-1 JEFFREY J JANIK	750.00	750.00
8/8/17	30523	2020SC 2020SC 1020SC	Invoice: 63100420845 Invoice: 63100423727 LES SCHWAB TIRE CENTER	6,244.59 154.98	6,399.57
8/8/17	30524	2020SC 1020SC	Invoice: 64980 NORMANDEAU ASSOCIATES, INC.	3,417.00	3,417.00
8/8/17	30525	2020SC 1020SC	Invoice: 00986778 RECOLOGY HAY ROAD	26.00	26.00
8/8/17	30526	2020SC 2020SC 1020SC	Invoice: 1357987 Invoice: 1357988 MT. DIABLO RESOURCE RECOVERY	1,163.81 720.54	1,884.35
8/8/17	30527	2020SC 1020SC	Invoice: 0005616 SOLANO IRRIGATION DISTRICT	157,514.57	157,514.57
8/8/17	30528	2020SC 2020SC 1020SC	Invoice: 50825 Invoice: 51112 SUISUN VALLEY FRUIT GROWERS AS	98.14 371.21	469.35
8/8/17	30529	2020SC 1020SC	Invoice: JULY 2017 SUSTAINABLE SOLANO	9,640.40	9,640.40
8/8/17	30530	2020SC 2020SC 2020SC 2020SC 2020SC 1020SC	Invoice: 300264591 Invoice: 300264593 Invoice: 300264592 Invoice: 300264594 Invoice: 100126387 TRACTOR SUPPLY CREDIT PLAN	51.40 72.99 42.94 67.37 1,932.74	2,167.44
8/8/17	30531	2020N 1020SC	Invoice: SARA ALAYLI SARA ALAYLI	716.00	716.00
8/8/17	30532	2020SC 1020SC	Invoice: JEAN SWAN JEAN SWAN	1,176.00	1,176.00
8/8/17	30533	2020N 1020SC	Invoice: ELIZABETH WHITE ELIZABETH WHITE	1,000.00	1,000.00
8/14/17	30534	2020SC 1020SC	Invoice: 0234931-IN AM CONSERVATION GROUP, INC.	3,805.97	3,805.97
8/14/17	30535	2020SC 1020SC	Invoice: 5008579830 CINTAS CORPORATION	137.66	137.66
8/14/17	30536	2020U 1020SC	Invoice: 34070515 CROP PRODUCTION SERVICES, INC.	3,518.13	3,518.13

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8/14/17	30537	2020SC 1020SC	Invoice: JULY 2017 DENNIS BOWKER	560.00	560.00
8/14/17	30538	2020SC 1020SC	Invoice: 4210 EYASCO, INC.	37,551.25	37,551.25
8/14/17	30539	2020SC 2020SC 2020SC 1020SC	Invoice: 85553 Invoice: 85554 Invoice: 85555 HERUM \ CRABTREE \ SUNTAG	287.17 690.54 2,217.99	3,195.70
8/14/17	30540	2020SC 1020SC	Invoice: CL65441 INTERSTATE OIL COMPANY	709.02	709.02
8/14/17	30541	2020SC 1020SC	Invoice: 3622 KONA LABS	1,306.13	1,306.13
8/14/17	30542	2020SC 1020SC	Invoice: 154293 LSA ASSOCIATES, INC.	16,683.75	16,683.75
8/14/17	30543	2020SC 2020SC 2020SC 2020SC 2020SC 2020SC 2020SC 1020SC	Invoice: 759543 Invoice: 760046 Invoice: 760247 Invoice: 760930 Invoice: 761611 Invoice: 762155 Invoice: 762390 PISANIS AUTO PARTS	76.03 29.80 3.01 45.02 35.92 96.48 158.81	445.07
8/14/17	30544	2020SC 1020SC	Invoice: 41505249 RECOLOGY VACAVILLE SOLANO	239.18	239.18
8/14/17	30545	2020SC 1020SC	Invoice: 119879 SMITH & LOVELESS, INC.	2,114.16	2,114.16
8/14/17	30546	2020SC 1020SC	Invoice: 0005696 SOLANO IRRIGATION DISTRICT	164,554.32	164,554.32
8/14/17	30546V	2020SC 1020SC	Invoice: 0005696 SOLANO IRRIGATION DISTRICT	164,554.32	164,554.32
8/14/17	30547	2020SC 1020SC	Invoice: 35265 VISION TECHNOLOGY SOLUTIONS, LLC DBC	200.00	200.00
8/14/17	30548	2020SC 1020SC	Invoice: 2017.0509 YOLO COUNTY FLOOD CONTROL & WATER CONSE	11,780.62	11,780.62
8/14/17	30549	2020SC 1020SC	Invoice: 8001 ZUNZUN	15,000.00	15,000.00
8/14/17	30550	2020SC 2020SC 1020SC	Invoice: 10.01-3 Invoice: 10.01-4 LIFE SCIENCE	11,061.94 7,674.92	18,736.86
8/14/17	30551	2020SC 1020SC	Invoice: AUG 2017 BOD MTG THOMAS BOGUE	100.00	100.00
8/14/17	30552	2020SC 1020SC	Invoice: AUG 2017 BOD MTG DALE CROSSLEY	100.00	100.00
8/14/17	30553	2020SC 1020SC	Invoice: AUG 2017 BOD MTG JOHN D. KLUGE	100.00	100.00
8/14/17	30554	2020SC 1020SC	Invoice: AUG 2017 BOD MTG RYAN MAHONEY	100.00	100.00
8/14/17	30555	2020SC 1020SC	Invoice: AUG 2017 BOD MTG ELIZABETH PATTERSON	132.64	132.64
8/14/17	30556	2020SC 1020SC	Invoice: AUG 2017 BOD MTG JAMES SPERING	100.00	100.00
8/14/17	30557	2020SC 1020SC	Invoice: AUG 2017 BOD MTG JOHN VASQUEZ	100.00	100.00

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8/17/17	30558	2020SC	Invoice: BA5113	1,733.33	
		2020SC	Invoice: BA5111	1,250.00	
		2020SC	Invoice: BA5110	1,916.67	
		1020SC	BLANKINSHIP & ASSOCIATES, INC.		4,900.00
8/17/17	30559	2020SC	Invoice: A716672	1,440.00	
		2020SC	Invoice: A719911	1,476.00	
		2020SC	Invoice: A720288	120.00	
		1020SC	BSK ASSOCIATES		3,036.00
8/17/17	30560	2020SC	Invoice: AUG 2017 LEGIS MTG	100.00	
		1020SC	DALE CROSSLEY		100.00
8/17/17	30561	2020SC	Invoice: ORD10903	6,000.00	
		1020SC	DUTCHMAN INDUSTRIES INC.		6,000.00
8/17/17	30562	2020N	Invoice: US0131845273	2,848.00	
		1020SC	ERNST & YOUNG U.S. LLP		2,848.00
8/17/17	30563	2020SC	Invoice: 85811	314.00	
		1020SC	GHD, INC.		314.00
8/17/17	30564	2020SC	Invoice: 1Z149256	71.20	
		1020SC	HORIZON DISTRIBUTORS, INC.		71.20
8/17/17	30565	2020SC	Invoice: 08092017	255.80	
		1020SC	J. RICHARD EICHMAN, CPA		255.80
8/17/17	30566	2020SC	Invoice: 1009	2,945.84	
		1020SC	NEW ERA WATER TECHNOLOGIES		2,945.84
8/17/17	30567	2020SC	Invoice: 231650	134.88	
		2020SC	Invoice: K62285	199.25	
		2020SC	Invoice: 231552	174.54	
		2020SC	Invoice: 232038	37.49	
		2020SC	Invoice: 963154	296.71	
		2020SC	Invoice: 232136	18.22	
		2020SC	Invoice: 232259	59.30	
		2020SC	Invoice: 232260	110.59	
		2020SC	Invoice: 232349	25.72	
		2020SC	Invoice: 232576	20.08	
		2020SC	Invoice: 232628	16.08	
		2020SC	Invoice: 232655	12.86	
		2020SC	Invoice: 964464	20.44	
		2020SC	Invoice: 232903	49.29	
		2020SC	Invoice: 292785	9.67	
		1020SC	PACIFIC ACE HARDWARE		1,185.12
8/17/17	30568	2020SC	Invoice: 7277	5,001.10	
		1020SC	REGIONAL GOVERNMENT SERVICES		5,001.10
8/17/17	30569	2020SC	Invoice: 40541	107.24	
		1020SC	SHELLWORTH CHEVROLET		107.24
8/17/17	30570	2020SC	Invoice: 0005696	164,765.98	
		1020SC	SOLANO IRRIGATION DISTRICT		164,765.98
8/17/17	30571	2020SC	Invoice: 1140	12,500.00	
		2020SC	Invoice: REFUND 7.26.17	982.37	
		1020SC	SOLANO RESOURCE CONSERVATION DISTRICT		13,482.37
8/17/17	30572	2020SC	Invoice: 34842	21,285.00	
		1020SC	SOUTHWEST ENVIRONMENTAL		21,285.00
8/17/17	30573	2020SC	Invoice: 651982	2,059.07	
		2020SC	Invoice: 1041963	32.40	
		1020SC	SYAR INDUSTRIES, INC		2,091.47
8/17/17	30574	2020SC	Invoice: 725882	129.61	
		1020SC	VALLEY TRUCK & TRACTOR CO.		129.61
8/17/17	30574V	2020SC	Invoice: 725882		129.61
		1020SC	VALLEY TRUCK & TRACTOR CO.	129.61	
8/17/17	30575	2020SC	Invoice: 401	200.00	
		2020SC	Invoice: 417	200.00	

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		1020SC	WINTERS TOW SERVICE		400.00
8/22/17	30576	2020SC	Invoice: A712591	60.00	
		2020SC	Invoice: A720350	120.00	
		1020SC	BSK ASSOCIATES		180.00
8/22/17	30577	2020SC	Invoice: 000010091288	254.15	
		2020SC	Invoice: 000010091333	164.24	
		1020SC	CALNET3		418.39
8/22/17	30578	2020SC	Invoice: 17217	865.83	
		2020SC	Invoice: 17209	725.78	
		1020SC	CENTRAL VALLEY EQUIPMENT REPAIR		1,591.61
8/22/17	30579	2020SC	Invoice: 18-024-V JUL 2017	47,192.00	
		2020SC	Invoice: 17-024-O SEP 2017	632.00	
		2020SC	Invoice: 17-026-T SEP 2017	560,903.00	
		1020SC	DEPARTMENT OF WATER RESOURCES		608,727.00
8/22/17	30580	2020SC	Invoice: 2024375	11.81	
		2020SC	Invoice: 2024376	5.99	
		2020SC	Invoice: 2024345	85.97	
		2020SC	Invoice: 4020082	417.16	
		2020SC	Invoice: 4020083	44.02	
		2020SC	Invoice: 3012126	296.25	
		2020SC	Invoice: FCH-006342215	20.00	
		2020SC	Invoice: 8012936	61.04	
		2020SC	Invoice: 8012937	210.59	
		2020SC	Invoice: 6590140	23.48	
		2020SC	Invoice: 5013292	19.25	
		2020SC	Invoice: 5013293	216.55	
		1020SC	HOME DEPOT CREDIT SERVICE		1,412.11
8/22/17	30581	2020SC	Invoice: 0107254	60.00	
		1020SC	JUST THE FINEST PEST MNGT		60.00
8/22/17	30582	2020SC	Invoice: 505807	144.00	
		1020SC	M&M SANITARY LLC		144.00
8/22/17	30583	2020SC	Invoice: 65210	819.00	
		1020SC	NORMANDEAU ASSOCIATES, INC.		819.00
8/22/17	30584	2020SC	Invoice: 0005702	208.73	
		2020SC	Invoice: 0005701	14,888.63	
		1020SC	SOLANO IRRIGATION DISTRICT		15,097.36
8/22/17	30585	2020SC	Invoice: 006492990046SEP2017	1,490.77	
		1020SC	STANDARD INSURANCE COMPANY		1,490.77
8/22/17	30586	2020SC	Invoice: FUEL REIMBURSEMENT	192.69	
		1020SC	KEVIN YOUNG-LAI		192.69
8/24/17	30587	2020SC	Invoice: 2408797	556.02	
		2020SC	Invoice: 1958213	526.67	
		1020SC	AMERICAN TOWER CORPORATION		1,082.69
8/24/17	30588	2020SC	Invoice: PRESSURE WASHER	12,872.79	
		1020SC	CONNELL JETTING SYSTEMS		12,872.79
8/24/17	30589	2020SC	Invoice: 7/12/17-8/10/17	1,569.27	
		1020SC	PACIFIC GAS & ELECTRIC CO,		1,569.27
8/24/17	30590	2020SC	Invoice: 2001704840	425.00	
		1020SC	SAGE SOFTWARE, INC.		425.00
8/24/17	30591	2020SC	Invoice: 34856	18,096.50	
		2020SC	Invoice: 34854	1,681.50	
		2020SC	Invoice: 34855	1,332.00	
		1020SC	SOUTHWEST ENVIRONMENTAL		21,110.00
8/24/17	30592	2020SC	Invoice: 1860450791	228.13	
		2020SC	Invoice: 1860450921	387.42	
		2020SC	Invoice: 1863527711	44.31	
		2020SC	Invoice: 1864031471	55.94	
		2020SC	Invoice: 1867869021	158.36	
		2020SC	Invoice: 1868927041	33.62	

**SOLANO COUNTY WATER AGENCY**  
**Cash Disbursements Journal**  
**For the Period From Aug 1, 2017 to Aug 31, 2017**

Filter Criteria includes: Report order is by Check Number. Report is printed in Detail Format.

Date	Check #	Account ID	Line Description	Debit Amount	Credit Amount
		2020SC 1020SC	Invoice: 1869999661 STAPLES	6.12	913.90
8/24/17	30593	2020SC 2020SC 1020SC	Invoice: 19476 Invoice: 19477 SUMMERS ENGINEERING, INC.	1,129.61 317.37	1,446.98
8/24/17	30594	2020SC 1020SC	Invoice: CRESITA BAUTISTA CRESITA BAUTISTA	837.00	837.00
8/24/17	30595	2020SC 1020SC	Invoice: TSULLRIAM GAGYA TSULLRIAM GAGYA	480.00	480.00
8/24/17	30596	2020SC 1020SC	Invoice: JONATHAN PADILLA JONATHAN PADILLA	721.00	721.00
8/24/17	30597	2020SC 1020SC	Invoice: REGINA RIZZO REGINA RIZZO	1,000.00	1,000.00
8/28/17	30598	2020SC 1020SC	Invoice: 59686 OCONNELL JETTING SYSTEMS	2,219.27	2,219.27
8/28/17	30599	2020SC 1020SC	Invoice: HCP CONF 2017 ULATIS COMMUNITY CENTER	1,058.40	1,058.40
8/29/17	30600	2020SC 1020SC	Invoice: 7001412975 AMERICAN WATER WORKS ASSOCIATION	262.00	262.00
8/29/17	30601	2020SC 1020SC	Invoice: ADMIN COSTS 2018 BUREAU OF RECLAMATION	69,800.00	69,800.00
8/29/17	30602	2020SC 1020SC	Invoice: 145917 DEPT OF FORESTRY & FIRE PROTECTION	571.00	571.00
8/29/17	30603	2020SC 1020SC	Invoice: 5-901-73291 FEDEX EXPRESS	432.92	432.92
8/29/17	30604	2020SC 2020SC 1020SC	Invoice: 86402 Invoice: 86403 GHD, INC.	7,612.25 4,416.75	12,029.00
8/29/17	30605	2020SC 1020SC	Invoice: 086015 ANDY GIANNINI BOBCAT SERVICE	2,780.00	2,780.00
8/29/17	30606	2020SC 1020SC	Invoice: 1721268 RAY MORGAN COMPANY	96.43	96.43
8/29/17	30607	2020SC 2020SC 1020SC	Invoice: 56818859 Invoice: 55819109 SBS LEASING A PROGRAM DE LAGE	978.72 77.67	1,056.39
8/29/17	30608	2020SC 1020SC	Invoice: 40771 SHELLWORTH CHEVROLET	261.07	261.07
8/29/17	30609	2020SC 1020SC	Invoice: ROSALINDA AQUINO ROSALINDA AQUINO	420.00	420.00
8/29/17	30610	2020SC 1020SC	Invoice: MARIA DONOHOE MARLA DONOHOE	643.00	643.00
8/29/17	30611	2020SC 1020SC	Invoice: HEIDI LAU HEIDI LAU	1,000.00	1,000.00
8/29/17	30612	2020SC 2020SC 1020SC	Invoice: 699536 Invoice: 699994 YELLOW SPRINGS INSTRUMENT CO.	2,984.08 2,310.02	5,294.10
8/30/17	30613	2020SC 1020SC	Invoice: 17249 CENTRAL VALLEY EQUIPMENT REPAIR	4,848.51	4,848.51
8/11/17	ASHLEY JUL 2017	6040AC 6040AC 6040AC 6040AC 6040AC 6040AC	THE OLIVE GARDEN - TEAM MEETING NATIONS - TEAM MEETING DOLLAR TREE - SUPPLIES REMOTELINK - SALMON FEST CONF CALL NAPOLI PIZZA - GSA MEETING REMOTELINK - EXEC COMM CONF CALL	139.89 25.90 6.46 21.67 67.00 13.35	

**SOLANO COUNTY WATER AGENCY**  
**Cash Disbursements Journal**  
**For the Period From Aug 1, 2017 to Aug 31, 2017**

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Date	Check #	Account ID	Line Description	Debit Amount	Credit Amount
		6040AC 1020SC	REMOTELINK - UCD FISH STUDY CONF CALL BANK OF THE WEST	92.33	366.60
8/25/17	BARICH JUL 2017	6310AC 6310AC 6042AC 1020SC	CHEVRON - FUEL CHEVRON - FUEL WALMART - SUPPLIES BANK OF THE WEST	44.77 41.69 36.48	122.94
8/25/17	CUETARA JUL 2017	6144SC 6144SC 6310AC 6144AC 6310AC 6310AC 6040AC 1020SC	TESSO TECHNOLOGIES - SUPPLIES PLATT ELECTRIC - SUPPLIES CHEVRON -FUEL NOVALYNX - RAIN GAUGE CALIBRATOR CHEVRON -FUEL CHEVRON -FUEL ANNUAL FEE BANK OF THE WEST	494.61 275.11 73.23 145.86 79.31 35.95 25.00	1,129.07
8/1/17	EFT	2020SC 1020SC	Invoice: HEALTH AUG 2017 CALPERS	15,668.15	15,668.15
8/4/17	EFT	2020SC 1020SC	Invoice: PPE 07.29.17 CALPERS	8,264.91	8,264.91
8/4/17	EFT	2020SC 1020SC	Invoice: PEPRA PPE 07.29.17 CALPERS	1,324.04	1,324.04
8/4/17	EFT	2020SC 1020SC	Invoice: SIP PPE 07.29.17 CALPERS	4,310.35	4,310.35
8/4/17	EFT	2020SC 1020SC	Invoice: 2017080201 PAYCHEX, INC.	233.65	233.65
8/11/17	EFT	6040AC 6040AC 1020SC	HANDBOOK FEE FOR AUG 2017 FSA PARTICIPANT FEE AUG 2017 PAYCHEX, INC.	69.96 113.50	183.46
8/17/17	EFT	2020SC 1020SC	Invoice: I004233041 SAGE SOFTWARE, INC.	2,189.00	2,189.00
8/18/17	EFT	2020SC 1020SC	Invoice: 2017801601 PAYCHEX, INC.	249.85	249.85
8/18/17	EFT	2024AC 6012AC 1020SC	EMPLOYEE LIABILITIES PPE 08.12.17 EMPLOYER LIABILITIES PPE 08.12.17 PAYROLL TAXES	16,146.22 3,440.76	19,586.98
8/21/17	EFT	2020SC 1020SC	Invoice: I00000015045144 CALPERS	700.00	700.00
8/18/17	EFT	2020SC 1020SC	Invoice: SIP PPE 08.12.17 CALPERS	4,310.35	4,310.35
8/18/17	EFT	2020SC 1020SC	Invoice: PPE 08.12.17 CALPERS	8,264.91	8,264.91
8/18/17	EFT	2020SC 1020SC	Invoice: PEPRA PPE 08.12.17 CALPERS	1,324.05	1,324.05
8/26/17	EFT	2024AC 6012AC 1020SC	EMPLOYEE LIABILITIES PPE 08.26.17 EMPLOYER LIABILITIES PPE 08.26.17 PAYROLL TAXES	16,230.67 3,313.41	19,544.08
8/25/17	FOWLER JUL 2017	6199SC 6199SC 6199SC 6199SC 2025SC 2025SC 6040AC 1020SC	AMAZON - SUPPLIES AMAZON - SUPPLIES WALMART - SUPPLIES WALMART - SUPPLIES SALES TAX ON AMAZON - SUPPLIES SALES TAX ON AMAZON - SUPPLIES ANNUAL FEE BANK OF THE WEST	33.88 332.53 50.07 32.24   25.00	2.40 23.56 447.76
8/25/17	JONES JUL 2017	6310AC 6310AC 6310AC 6183SC 6183SC	BERRYESSA SPORTING GOODS - FUEL CHEVRON - FUEL BERRYESSA SPORTING GOODS - FUEL PRECISION CLEANING YOLO COUNTY LANDFILL	49.34 75.15 29.15 209.87 96.66	

**SOLANO COUNTY WATER AGENCY**  
**Cash Disbursements Journal**  
**For the Period From Aug 1, 2017 to Aug 31, 2017**

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Date	Check #	Account ID	Line Description	Debit Amount	Credit Amount
		6181SC	BATTERY STUFF	121.50	
		6183SC	YOLO COUNTY LANDFILL	90.18	
		1020SC	BANK OF THE WEST		671.85
8/25/17	LEE JUL 2017	6040AC	PUTAH CREEK CAFE - PUTAH CREEK LANDOWNER MEETING	58.00	
		6330AC	SOUTHWEST - INVASIVE SPECIES WORKSHOP	137.96	
		6330AC	PRICELINE RENTAL CAR - INVASIVE SPECIES WORKSHOP	165.00	
		6410AC	ADOBE CREATIVE CLOUD - MONTHLY FEE	49.99	
		6040AC	ANNUAL FEE	25.00	
		1020SC	BANK OF THE WEST		435.95
8/25/17	RABIDOUX JUL 2017	6090AC	AWWA.ORG - MEMBERSHIP FEE	262.00	
		6041AC	AMAZON	39.38	
		6040AC	ANNUAL FEE	25.00	
		1020SC	BANK OF THE WEST		326.38
8/25/17	SANFORD JUL 2017	6330AC	CITY OF SAC PARKING GARAGE - PARKING	20.00	
		6330AC	CITY OF SAC PARKING GARAGE - PARKING	9.00	
		1020SC	BANK OF THE WEST		29.00
8/25/17	SNYDER JUL 2017	6199SC	LOWES - SUPPLIES	36.53	
		6300AC	OREILLY AUTO - SUPPLIES	161.43	
		6310AC	CHEVRON - FUEL	16.22	
		6300AC	OREILLY AUTO - SUPPLIES	212.30	
		6300AC	AGILIS LINXUP - VEHICLE TRACKER	91.96	
		6310AC	CHEVRON - FUEL	29.07	
		6300AC	PAYPAL - TRACKING DEVICE	28.06	
		6310AC	CHEVRON - FUEL	2.82	
		6300AC	AGILIS LINXUP - VEHICLE TRACKER	58.28	
		6040AC	SAFEWAY - SUPPLIES	12.08	
		6042AC	WALMART - SUPPLIES	8.16	
		6310AC	CHEVRON - FUEL	59.44	
		6300AC	OREILLY AUTO - SUPPLIES	118.18	
		6040AC	ANNUAL FEE	25.00	
		2025SC	SALES TAX - PAYPAL		1.99
		1020SC	BANK OF THE WEST		857.54
8/25/17	WILLINGMYRE JUL 20	6210AC	NAPOLI PIZZERIA - BOARD MTG FOOD	94.97	
		1020SC	BANK OF THE WEST		94.97
	<b>Total</b>			<b>1,833,297.07</b>	<b>1,833,297.07</b>

**ACTION OF  
SOLANO COUNTY WATER AGENCY**

**DATE:** September 14, 2017

**SUBJECT:** Vehicle Purchases

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RECOMMENDATION:

Authorize General Manager to purchase the following three replacement vehicles and one additional vehicle for a combined total cost of up to \$110,000:

- 1) Agency office pool vehicles
  - a) Two 2017/2018 Ram 1500 trucks (replace existing vehicles)
  - b) One 2017/2018 Toyota Rav4 Hybrid SUV ("new" vehicle)
  
- 2) Ulatis Flood Control Project vehicle
  - a) One 2017/2018 Polaris Ranger 6x6 off-road vehicle (replace existing vehicle)

FINANCIAL IMPACT:

Combined total cost of up to \$110,000. Sufficient funding for these purchases is included in the Agency's FY 2017-2018 capital expenditures budget.

BACKGROUND:

It is the Water Agency's policy to replace vehicles that are either over 10 years old or have had over 100,000 miles of use. Staff is proposing to replace three vehicles; a 2006 Chevrolet Colorado, a 2002 Ford Expedition, and a 2004 Polaris Ranger 6x6 with two 2017/2018 Ram 1500 trucks and a 2017/2018 Polaris Ranger 6x6, respectively. The former two vehicles are used for general purposes ("pool" vehicles), while the latter is used to control nuisance vegetation along the Ulatis Flood Control Project channels.

Recommended: \_\_\_\_\_  
Roland Sanford, General Manager

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<input type="checkbox"/> Approved as Recommended	<input type="checkbox"/> Other (see below)	<input checked="" type="checkbox"/> Continued on Next Page
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Modification to Recommendation and/or other actions:

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I, Roland Sanford, General Manager and Secretary to the Solano County Water Agency, do hereby certify that the foregoing action was regularly introduced, passed, and adopted by said Board of Directors at a regular meeting thereof held on September 14, 2017 by the following vote.

Ayes:

Noes:

Abstain:

Absent:

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Roland Sanford  
General Manager & Secretary to the  
Solano County Water Agency

Historically, the Water Agency has rented at two vehicles for work associated with the Lake Berryessa Outreach Program, the Water Conservation Program, and general operations and maintenance of SCWA managed facilities. These rental vehicles are used primary by SCWA interns. Based on past experience and as a general rule, the cost of one rental vehicle over a three-year period is equivalent to the purchase price of a new vehicle. Accordingly, for cost saving purposes, staff recommends the Agency purchase at least one new vehicle, in lieu of renting said vehicle. Staff is proposing to purchase rather than rent a 2017/2018 Toyota Rav4Hybrid.

**ACTION OF  
SOLANO COUNTY WATER AGENCY**

**DATE: September 14, 2017**

**SUBJECT: Contract for Dive Support for Putah Diversion Dam Screen Replacement and Solano Project Inspections**

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**RECOMMENDATION:**

Authorize General Manager to execute \$62,350 contract with Global Diving & Salvage, Inc. for dive support for the Putah Diversion Dam Screen Replacement Project and Solano Project inspections.

**FINANCIAL IMPACT:**

Sufficient funding has been included in the FY 2017-2018 Solano Project O&M and R&B budgets for this contract.

**BACKGROUND:**

The Putah Diversion Dam (PDD) and Lake Solano is located 7 miles downstream of Monticello Dam and Lake Berryessa. The purpose of the PDD is to divert water into the Putah South Canal (PSC) and control water releases to Lower Putah Creek. Before water is diverted into the PSC it must pass through a large bay of screens at the PSC Headworks, which screen out adult fish, trash, and aquatic vegetation originating from Lake Solano. This contract will provide the dive team support needed to assist in replacing and installing new screens at the PSC Headworks and for miscellaneous underwater inspections of Solano Project facilities.

**RELEVANCE TO 2016-2025 SCWA STRATEGIC PLAN:**

The Dive Support contract is consistent with Goal #2 of the 2016-2025 Strategic Plan, optimizing the use of SCWA managed infrastructure.

Recommended: \_\_\_\_\_  
Roland Sanford, General Manager

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<input type="checkbox"/> Approved as recommended	<input type="checkbox"/> Other (see below)	<input type="checkbox"/> Continued on next page
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Modification to Recommendation and/or other actions:

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I, Roland Sanford, General Manager and Secretary to the Solano County Water Agency, do hereby certify that the foregoing action was regularly introduced, passed, and adopted by said Board of Directors at a regular meeting thereof held on September 14, 2017 by the following vote.

Ayes:

Noes:

Abstain:

Absent:

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Roland Sanford  
General Manager & Secretary to the  
Solano County Water Agency



Thomas Pate  
Alex Rabadoux

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Contractor or supplier (Contractor) agrees with the Agency that:

- a) **To the fullest extent permitted by law, Contractor will defend, indemnify and hold harmless the Agency, its directors, officers, employees, or authorized volunteers from all claims and demands of all persons arising out of the performance of the work or the furnishing of materials; including but not limited to, claims by the Contractor or Contractor's employees for damages to persons or property except for the sole negligence or willful misconduct or active negligence of the Agency, United States Bureau of Reclamation, their directors, officers, employees, or authorized volunteers.**
- b) By his/her signature hereunder, Contractor certifies that he/she is aware of the provisions of Section 3700 of the California Labor Code which requires every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and he/she will comply with such provisions before commencing the performance of the work of this agreement. Contractor and sub-contractors will keep workers' compensation insurance for their employees in effect during all work covered by this agreement.
- c) Contractor will file with the Agency before beginning work, certificates of insurance and policy endorsements satisfactory to the Agency evidencing general liability coverage, of not less than \$1,000,000 per occurrence (\$2,000,000 general and products-completed operations aggregate (if used)) for bodily injury, personal injury and property damage; auto liability of at least \$1,000,000 for bodily injury and property damage each accident limit; workers' compensation (statutory limits) and employer's liability (\$1,000,000) (if applicable); requiring 30 days (10 days for non-payment of premium) notice of cancellation to the Agency. Such insurance shall be primary and any insurance, self-insurance or other coverage maintained by the Agency, its directors, officers, employees, or authorized volunteers shall not contribute to it. **The general liability coverage shall give the Agency, United States Bureau of Reclamation, their directors, officers, employees, and authorized volunteers insured status using ISO endorsement CG2010, CG2033, or equivalent.** Coverage is to be placed with a carrier with an A.M. Best rating of no less than A-:VII, or equivalent, or as otherwise approved by the Agency. In the event that the Contractor employs other contractors (sub-contractors) as part of the work covered by this agreement, it shall be the Contractor's responsibility to require and confirm that each sub-contractor meets the minimum insurance requirements specified above.
- d) If any of the required coverages expire during the term of this agreement, the Contractor shall deliver the renewal certificate(s) including the general liability additional insured endorsement to the Agency at least ten (10) days prior to the expiration date.
- e) Contractor shall not accept direction or orders from any person other than the General Manager or the person(s) whose name(s) is (are) inserted on Page 1 as "other authorized representatives."
- f) Payment, unless otherwise specified on Page 1, is to be 30 days after acceptance by the Agency.

- g) Contractor will comply with local, state and federal regulations and statutes including the Cal/OSHA requirements.
- h) Any change in the scope of the work to be done, method of performance, nature of materials or price thereof, or to any other matter materially affecting the performance or nature of the work will not be paid for or accepted unless such change, addition or deletion is approved in advance, in writing by a supplemental agreement executed by the Agency. Contractor's "authorized representative(s)" has (have) the authority to execute such written change for Contractor.
- i) Contractor to charge Agency in accordance with the charges identified on page 1, in the event Agency chooses to increase personnel, equipment, or expand the scope of services, Contractor will perform such work, upon written agreement of both parties, at the rates identified in Contractor's Commercial Tariff for 2016, attached hereto and incorporated by reference. The personnel charges identified on Global's Tariff sheet are subject to change pending labor rate increases.
- k) Contractor will perform the Services at the request and direction and under the control of Customer, and shall perform all Services in a prompt and diligent manner, using skilled and competent personnel, in accordance with good industry practices, and in full and material compliance with the instructions of Customer. The services performed by Contractor do not include any design, engineering or similar technical services.

**ACTION OF  
SOLANO COUNTY WATER AGENCY**

**DATE: September 14, 2017**

**SUBJECT: Authorize Purchase of Water Quality Equipment for North Bay Aqueduct and Solano Project Water Quality Monitoring.**

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**RECOMMENDATION:**

Authorize General Manager to purchase water quality equipment for North Bay Aqueduct and Solano Project operations (total cost not to exceed \$50,000).

**FINANCIAL IMPACT:**

Funding is programmed and available in the FY 2017-2018 Solano Project and State Water Project budgets for this expense.

**BACKGROUND:**

The Solano County Water Agency is a wholesale water provider for both the North Bay Aqueduct (NBA) and the Solano Project, which collectively provides municipal and irrigation water to over 400,000 residents and 75,000 acres of irrigated land in Solano County. For the NBA, the Water Agency maintains several water quality stations in the Sacramento-San Joaquin Delta near the Barker Slough Pumping Plant (intake for the NBA). For the Solano Project, the Water Agency maintains several water quality stations in Lake Solano and the Putah South Canal. For both projects, water quality monitoring is of critical importance, informing downstream water users of major changes in water quality that could impact water treatment or water operations. Much of the existing water quality equipment is in need of replacement to ensure reliable and accurate water quality measurements. The Agency has selected YSI Incorporated as the equipment vendor, as this is the same equipment used throughout the Bay-Delta by the Department of Water Resources and the US Geological Survey for water quality monitoring. The equipment will be installed and maintained by Water Agency staff.

**RELEVANCE TO 2016-2025 SCWA STRATEGIC PLAN**

The purchase of water quality equipment is consistent with Goal #2 of the 2016-2025 Strategic Plan, optimizing the use of SCWA managed infrastructure.

Recommended: \_\_\_\_\_  
Roland Sanford, General Manager

Approved as  
recommended

Other  
(see below)

Continued  
on next page

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Modification to Recommendation and/or other actions:

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I, Roland Sanford, General Manager and Secretary to the Solano County Water Agency, do hereby certify that the foregoing action was regularly introduced, passed, and adopted by said Board of Directors at a regular meeting thereof held on September 14, 2017 by the following vote.

Ayes:

Noes:

Abstain:

Absent:

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Roland Sanford  
General Manager & Secretary to the  
Solano County Water Agency



Quote Number: B147712  
Quote Date: 8/30/2017  
Quote Expiration Date: 9/29/2017

Quotation Prepared For:  
Justin Pascual  
Solano County Water Agency  
810 Vaca Valley Pkwy  
Vacaville, CA 95688  
(707) 451-6090  
jpascual@scwa2.com

Submitted By:  
Diego Davis  
858-790-1814  
ddavis@ysi.com



## Proposal Summary

### Solano Project- Headworks

#	Product	Description	List Price	Qty	Ext. Price
1	599502-00	EXO2 Sonde, No Depth, 6 Sensor Ports, 1 Wiper Port - No depth sensor installed - AUX port for future expansion - Contains: Sonde, 4 'D' Batteries, Calibration Cup, Tool Kit, 4 port plugs, USB drive loaded with User Manual and KOR Software	\$5,950.00	1	\$5,950.00
2	599827	EXO Wiped Conductivity/Temperature Sensor - Purpose-built for combating sensor fouling in long-term monitoring applications - Designed and engineered for compatibility with EXO2 Sonde's Central Wiper - Additional Central Wiper Brush and Spacing Kit included	\$1,650.00	1	\$1,650.00
3	599702	EXO ISE02 pH Sensor Assembly, Unguarded, Ti - Patented user replaceable sensor head - Incorporates wet-mate connector and welded titanium housing	\$560.00	1	\$560.00
4	599101-01	EXO Turbidity Sensor, Ti - Compatible with any EXO sonde - Wide range Sensor reads from 0-4000 FNU - Incorporates wet-mate connector and welded titanium housing	\$1,800.00	1	\$1,800.00
5	599090-01	EXO Central Wiper, EXO2, Ti - Installs in center wiper port on EXO2 sonde only - Includes two wiper brushes and installation tool - Used in unattended monitoring deployments to reduce bio-fouling	\$1,110.00	1	\$1,110.00
6	599008-15	EXO 15-m Flying Lead Cable - Connects EXO sonde to DCP Signal Output Adapter	\$535.00	1	\$535.00
7	599820	EXO Signal Output Adapter - DCP, Rev. 2.0 - Wires into the end of YSI field cable via flying leads - Converts EXO signal to RS-232 or SDI-12 for datalogger applications	\$295.00	1	\$295.00

Quote Number B147712

Subtotal: \$11,900.00

## NBA-BSPP

#	Product	Description	List Price	Qty	Ext. Price
1	599502-00	EXO2 Sonde, No Depth, 6 Sensor Ports, 1 Wiper Port - No depth sensor installed - AUX port for future expansion - Contains: Sonde, 4 'D' Batteries, Calibration Cup, Tool Kit, 4 port plugs, USB drive loaded with User Manual and KOR Software	\$5,950.00	1	\$5,950.00
2	599827	EXO Wiped Conductivity/Temperature Sensor - Purpose-built for combating sensor fouling in long-term monitoring applications - Designed and engineered for compatibility with EXO2 Sonde's Central Wiper - Additional Central Wiper Brush and Spacing Kit included	\$1,650.00	1	\$1,650.00
3	599702	EXO ISE02 pH Sensor Assembly, Unguarded, Ti - Patented user replaceable sensor head - Incorporates wet-mate connector and welded titanium housing	\$560.00	1	\$560.00
4	599101-01	EXO Turbidity Sensor, Ti - Compatible with any EXO sonde - Wide range Sensor reads from 0-4000 FNU - Incorporates wet-mate connector and welded titanium housing	\$1,800.00	1	\$1,800.00
5	599104-01	EXO fDOM Sensor, Ti - AKA CDOM or UV Fluorometer - Incorporates wet-mate connector and sealed welded titanium design	\$2,480.00	1	\$2,480.00
6	599090-01	EXO Central Wiper, EXO2, Ti - Installs in center wiper port on EXO2 sonde only - Includes two wiper brushes and installation tool - Used in unattended monitoring deployments to reduce bio-fouling	\$1,110.00	1	\$1,110.00
7	599008-15	EXO 15-m Flying Lead Cable - Connects EXO sonde to DCP Signal Output Adapter	\$535.00	1	\$535.00
8	599820	EXO Signal Output Adapter - DCP, Rev. 2.0	\$295.00	1	\$295.00

Quote Number B147712

#	Product	Description	List Price	Qty	Ext. Price
		<ul style="list-style-type: none"> <li>- Wires into the end of YSI field cable via flying leads</li> <li>- Converts EXO signal to RS-232 or SDI-12 for datalogger applications</li> </ul>			

Subtotal: \$14,380.00

**Back up Rover/Special Study Sonde/Extra Sensors**

#	Product	Description	List Price	Qty	Ext. Price
1	599502-02	EXO2 Sonde, 100 meter Depth, 6 Sensor Ports, 1 Wiper Port <ul style="list-style-type: none"> <li>- Depth range: 0-100 meters</li> <li>- AUX port for future expansion</li> <li>- Contains: Sonde, 4 'D' Batteries, Calibration Cup, Tool Kit, 4 port plugs, USB drive loaded with User Manual and KOR Software</li> </ul>	\$6,620.00	1	\$6,620.00
2	599827	EXO Wiped Conductivity/Temperature Sensor <ul style="list-style-type: none"> <li>- Purpose-built for combating sensor fouling in long-term monitoring applications</li> <li>- Designed and engineered for compatibility with EXO2 Sonde's Central Wiper</li> <li>- Additional Central Wiper Brush and Spacing Kit included</li> </ul>	\$1,650.00	1	\$1,650.00
3	599702	EXO ISE02 pH Sensor Assembly, Unguarded, Ti <ul style="list-style-type: none"> <li>- Patented user replaceable sensor head</li> <li>- Incorporates wet-mate connector and welded titanium housing</li> </ul>	\$560.00	1	\$560.00
4	599101-01	EXO Turbidity Sensor, Ti <ul style="list-style-type: none"> <li>- Compatible with any EXO sonde</li> <li>- Wide range Sensor reads from 0-4000 FNU</li> <li>- Incorporates wet-mate connector and welded titanium housing</li> </ul>	\$1,800.00	1	\$1,800.00
5	599102-01	EXO Total Algae - PC Sensor, Ti <ul style="list-style-type: none"> <li>- Optimized for freshwater use - Phycocyanin</li> <li>- Includes chlorophyll and blue green algae sensors in a single Sensor</li> <li>- Incorporates wet-mate connector and sealed welded titanium design</li> </ul>	\$3,480.00	1	\$3,480.00
6	599104-01	EXO fDOM Sensor, Ti <ul style="list-style-type: none"> <li>- AKA CDOM or UV Fluorometer</li> </ul>	\$2,480.00	1	\$2,480.00

Quote Number B147712

#	Product	Description	List Price	Qty	Ext. Price
		- Incorporates wet-mate connector and sealed welded titanium design			
7	599090-01	EXO Central Wiper, EXO2, Ti - Installs in center wiper port on EXO2 sonde only - Includes two wiper brushes and installation tool - Used in unattended monitoring deployments to reduce bio-fouling	\$1,110.00	1	\$1,110.00
8	599040-15	EXO 15-m Field Cable - Connects sonde to EXO Handheld Display or USB adaptor - wet mate connectors and strain relief	\$690.00	1	\$690.00

Subtotal: \$18,390.00

Total Net Price \$44,670.00

Subtotal \$44,670.00

Tax Estimate, 7.625% \$3,407.00

Freight Prepay &amp; Add \$150.00

**Grand Total \$48,227.00**

Terms Net 30

FOB Origin

This pricing is Proprietary and Confidential information. Neither this document nor its contents may be revealed or disclosed to unauthorized persons or sent outside the institution without prior permission from Xylem Inc. This order is subject to the Standard Terms and Conditions of Sale - Xylem Americas effective on the date the order is accepted which terms are available at <http://www.xylem.com/en-us/Pages/terms-conditions-of-sale.aspx> and incorporated herein by reference and made a part of the agreement between parties.

Quote Number B147712

Ordering Instructions:

Credit Card Reference This Quote Number	Call: (937) 767-7241 (Option 3)
Purchase Order Include a Copy of Quote with PO	Email: <a href="mailto:orders@ysi.com">orders@ysi.com</a> Fax: (937) 767-1058 Mail: YSI Incorporated Attn: Order Entry 1725 Brannum Lane Yellow Springs, OH 45387

- All purchase orders should be accompanied with a copy of this quote or clearly reference the quotation number.
- All purchase orders should have a complete billing and complete shipping address on the purchase order.
- For order acknowledgement please provide email address to send updates on order. Email Address: \_\_\_\_\_
- Taxes and Tariffs are additional and are not included in the above pricing unless explicitly stated as a line item.
- Shipping charges are additional and are not included in the above pricing unless explicitly stated as a line item.
- Tax Exempt customers must include their Tax ID on their Purchase Order. Proof of Tax Exempt status may be required.

Business Information:

YSI Incorporated  
Tax Identification #: 31-0526418  
DUNS #: 004246716

Remit to Address for Orders:  
Checks (Drawn on US Banks Only)  
YSI Incorporated  
PO Box 640373  
Cincinnati OH 45264-0373

ACH (With ADDENDA Record)  
US Bank NA  
Cincinnati, OH 45202  
Acct# 8506321; ABA# 042000013

ORDERED BY:

**SOLANO COUNTY WATER AGENCY**

810 VACA VALLEY PARKWAY  
SUITE 203  
VACAVILLE, CA 95688  
U.S.A.

Voice: 707-451-6090

Fax: 707-451-6099

# PURCHASE ORDER

Purchase Order No.: a2018-086

Date Issued: 9/15/17

To:
YELLOW SPRINGS INSTRUMENT CO. P.O. BOX 640373 CINCINNATI, OH 45264-0373

Ship To:
SOLANO COUNTY WATER AGENCY 810 VACA VALLEY PARKWAY SUITE 203 VACAVILLE, CA 95688 U.S.A.

Good Thru	Ship Via	Account No.	Terms
10/6/17			Net 30 Days

Quantity	Item	Description	Unit Cost	Amount
1.00		EXO2 SONDE, NO DEPTH, 6 SENSOR PORTS, 1 WIPER PORT	5,950.00	5,950.00
1.00		EXO2 SONDE, 100 METER DEPTH, 6 PORTS, 1 WIPER PORT	6,620.00	6,620.00
2.00		EXO WIPED CONDUCTIVITY/TEMPERATURE SENSOR	1,650.00	3,300.00
2.00		EXO ISE02 PH SENSOR ASSEMBLY, UNGUARDED, TI	560.00	1,120.00
2.00		EXO TURBIDITY SENSOR	1,800.00	3,600.00
2.00		EXO FDOM SENSOR	2,480.00	4,960.00
2.00		EXO CENTRAL WIPER, EXO2	1,110.00	2,220.00
1.00		EXO TOTAL ALGAE - PC SENSOR	3,480.00	3,480.00
1.00		EXO 15-M FLYING LEAD CABLE	535.00	535.00
1.00		EXO 15-M FIELD CABLE	690.00	690.00
1.00		EXO SIGNAL OUTPUT ADAPTER - DCP, REV. 2.0	295.00	295.00
1.00		TAX	2,499.38	2,499.38
1.00		SHIPPING	75.00	75.00
<b>TOTAL</b>				<b>\$35,344.38</b>

Authorized Signature \_\_\_\_\_

ORDERED BY:

**SOLANO COUNTY WATER AGENCY**

810 VACA VALLEY PARKWAY  
SUITE 203  
VACAVILLE, CA 95688  
U.S.A.

Voice: 707-451-6090

Fax: 707-451-6099

# PURCHASE ORDER

Purchase Order No.: a2018-087

Date Issued: 9/15/17

**To:**  
YELLOW SPRINGS INSTRUMENT CO.  
P.O. BOX 640373  
CINCINNATI, OH 45264-0373

**Ship To:**  
SOLANO COUNTY WATER AGENCY  
810 VACA VALLEY PARKWAY  
SUITE 203  
VACAVILLE, CA 95688  
U.S.A.

Good Thru	Ship Via	Account No.	Terms
10/9/17			Net 30 Days

Quantity	Item	Description	Unit Cost	Amount
1.00		EXO2 SONDE, NO DEPTH, 6 SENSOR PORTS, 1 WIPER PORT	5,950.00	5,950.00
1.00		EXO WIPED CONDUCTIVITY/TEMPERATURE SENSOR	1,650.00	1,650.00
1.00		EXO ISE02 PH SENSOR ASSEMBLY, UNGUARDED, TI	560.00	560.00
1.00		EXO TURBIDITY SENSOR	1,800.00	1,800.00
1.00		EXO CENTRAL WIPER, EXO2	1,110.00	1,110.00
1.00		EXO 15-M FLYING LEAD CABLE	535.00	535.00
1.00		EXO SIGNAL OUTPUT ADAPTER - DCP, REV. 2.0	295.00	295.00
1.00		TAX	907.62	907.62
1.00		SHIPPING	75.00	75.00
<b>TOTAL</b>				<b>\$12,882.62</b>

Authorized Signature \_\_\_\_\_

**ACTION OF  
SOLANO COUNTY WATER AGENCY**

**DATE: September 14, 2017**

**SUBJECT: Rio Vista Flood Control Feasibility Study**

---

**RECOMMENDATION:**

Authorize General Manager to execute \$499,904 agreement with Wood Rodgers, Inc. for Rio Vista Flood Control Feasibility Study.

**FINANCIAL IMPACT:**

Water Agency to be reimbursed for all costs by City of Rio Vista, via Department of Water Resources (DWR) grant awarded to City of Rio Vista.

**BACKGROUND:**

In February 2016 the Water Agency Board of Directors approved a letter of agreement with the City of Rio Vista to provide technical support and project management services for the Rio Vista Flood Protection Feasibility Study Project. Through a competitive process, SCWA, on behalf of the City of Rio Vista, selected Wood Rodgers, Inc. to prepare a grant application for the Rio Vista Flood Protection Feasibility Study Project, with the understanding that if the grant application was successful, Wood Rodgers Inc. would conduct the study.

The feasibility study is 100% DWR grant reimbursable. DWR and Rio Vista are finalizing their funding agreement, and per the February 2016 agreement letter, funds received by Rio Vista will be turned over to SCWA to cover the work and consultant fees. The completed feasibility study will provide Rio Vista with a report of the feasible option(s) for 200-year flood protection to the City.

**RELEVANCE TO 2016-2025 SCWA STRATEGIC PLAN:**

The Water Agency's participation in the Rio Vista Flood Protection Feasibility Study Project is consistent with Objective "C" (Assist local interests in developing flood management plans and improvements outside of SCWA direct responsibility) of Goal # 3 (Implement SCWA's role in flood management) of the 2016-2025 SCWA Strategic Plan

Recommended: \_\_\_\_\_  
Roland A. Sanford, General Manager

Approved as  
recommended

Other  
(see below)

---

Modification to Recommendation and/or other actions:

---

I, Roland A. Sanford, General Manager and Secretary to the Solano County Water Agency, do hereby certify that the foregoing action was regularly introduced, passed, and adopted by said Board of Directors at a regular meeting thereof held on September 14, 2017 by the following vote:

Ayes:

Noes:

Abstain:

Absent:

---

Roland A. Sanford  
General Manager & Secretary to the  
Solano County Water Agency

# SOLANO COUNTY WATER AGENCY



February 11, 2016

Mayor Norman Richardson  
City of Rio Vista  
One Main Street  
Rio Vista, CA 94571

RE: Small Communities Flood Risk Reduction Program Grant, Rio Vista Feasibility Study

Dear Mayor Richardson,

This letter constitutes an understanding between the City of Rio Vista (City) and the Solano County Water Agency (SCWA) regarding SCWA's assistance to the City to procure grant funding from the Small Communities Flood Risk Reduction Program (SCFRRP) and provide staff technical support to develop the "Rio Vista Flood Protection Feasibility Study" (the Study) for Rio Vista, California. The City has adopted Resolution No. 2016-002 (attached) authorizing the City to apply and enter into a funding agreement with the Department of Water Resources through the SCFRRP to implement the Study.

This work is an outgrowth of the Yolo Bypass/Cache Slough Corridor Management Framework and is part the Delta North Regional Flood Management Plan that SCWA is participating in with Sacramento, Yolo, and other Solano agencies. SCWA in collaboration with SAFCA previously developed a prefeasibility study on this subject in 2014 for a total cost of \$50,700. This next phase will leverage that local investment to procure State grant funds to advance the prefeasibility study to a feasibility level. The new Study may assist with procuring funding assistance to implement a solution.

SCWA will select a professional engineering consultant to develop the grant application on behalf of the City and enter into a contract with the consultant to implement an approved scope of work upon grant award. SCWA will pay the consultant and bill the City for reimbursement of these costs from the grant funding. However, prior to executing any agreement with any engineering consultant, SCWA will notify the City of its share of the costs and obtain consent from the City with respect to those costs. SCWA staff time shall not be charged to the City.

810 Vaca Valley Parkway, Suite 203  
Vacaville, California 95688  
Phone (707) 451-6090 • FAX (707) 451-6099  
[www.scwa2.com](http://www.scwa2.com)



By the signatures below, SCWA and City affirm the understanding put forth in this document.

SOLANO COUNTY WATER AGENCY

CITY OF RIO VISTA



\_\_\_\_\_  
Roland Sanford  
General Manager

\_\_\_\_\_  
Greg Bowman  
Interim City Manager

F-31N.RV-SCWA letter agmt

Name of Project: **Rio Vista Flood Control Feasibility Study**

## **SOLANO COUNTY WATER AGENCY**

### **AGREEMENT FOR PROFESSIONAL SERVICES**

(Professional Services/Professional Liability/General Liability & Auto/with Additional Insured)

THIS AGREEMENT, **effective September 15, 2017** is between SOLANO COUNTY WATER AGENCY, a public agency existing under and by virtue of Chapter 573 of the 1989 statutes of the State of California, hereinafter referred to as "Agency," and Wood Rodgers, Inc., hereinafter referred to as "Contractor".

The Agency requires services for Rio Vista Flood Control Feasibility Study; and the Contractor is willing to perform these services pursuant to the terms and conditions set out in this Agreement.

IT IS MUTUALLY AGREED, as follows:

#### 1. SCOPE OF SERVICES

The Agency hereby engages the Contractor, and the Contractor agrees to perform the services for **Rio Vista Flood Control Feasibility Study**, as described in Exhibit A, in accordance with the terms of this Agreement and any applicable laws, codes, ordinances, rules or regulations. In case of conflict between any part of this Agreement, this Agreement shall control over any Exhibit.

#### 2. COMPENSATION

Compensation for services shall be as follows: Hourly rate of personnel plus any allowed reimbursable expenses based on unit costs as indicated on any allowed reimbursable expense in Exhibit B **not to exceed \$499,904** for all work contemplated by this Agreement.

#### 3. METHOD OF PAYMENT

Upon submission of an invoice by the Contractor, and upon approval of the Agency's representative, the Agency shall pay the Contractor monthly in arrears for fees and allowed expenses incurred the prior month, however in no event shall the cumulative total paid pursuant to this agreement exceed the maximum amount provided for in paragraph 2 of this Agreement. Every invoice shall specify hours worked for each task identified in Exhibit A undertaken.

Each invoice shall be accompanied by a spreadsheet showing, by month, costs incurred to date for the project broken down by the Tasks identified in Exhibit A. The spreadsheet shall show, for each task, budget amounts, total expended and remaining amounts. The spreadsheet shall show a subtotal for each fiscal year covered by the contract. Any amendments to the

contract shall be listed and incorporated into spreadsheet. An example of a typical spreadsheet shall be provided by the Agency.

4. TIME OF PERFORMANCE

This Agreement shall become effective as of the date it is executed and said services will take place between this date and **October 31, 2018** as directed by the Agency.

5. MODIFICATION AND TERMINATION

This Agreement may be modified or amended only by written instrument signed by the parties hereto, and the Contractor's compensation and time of performance of this Agreement shall be adjusted if they are materially affected by such modification or amendment.

Any change in the scope of the professional services to be done, method of performance, nature of materials or price thereof, or to any other matter materially affecting the performance or nature of the professional services will not be paid for or accepted unless such change, addition or deletion be approved in advance, in writing, by the Agency's General Manager.

This Agreement may be terminated by the Agency at any time, without cause, upon written notification to the Contractor. The Contractor may terminate this Agreement upon 30 days written notice to Agency.

Following termination by the Agency or the Contractor, the Contractor shall be reimbursed for all expenditures made in good faith in accordance with the terms of this Agreement that are unpaid at the time of termination.

6. PERMITS

Permits required by governmental authorities will be obtained at the Contractor's expense, and the Contractor will comply with local, state and federal regulations and statutes including Cal/OSHA requirements.

7. INDEMNIFY AND HOLD HARMLESS

**When the law establishes a professional standard of care for the Contractor's services, to the fullest extent permitted by law, Contractor will defend, indemnify and hold harmless the Agency, its directors, officers, employees, and authorized volunteers from all claims and demands of all persons that arise out of, pertain to, or relate to the Contractor's negligence, recklessness, or willful misconduct in the performance (or actual or alleged non-performance) of the work under this agreement. The Contractor shall defend itself against any and all liabilities, claims, losses, damages, and costs arising out of or alleged to arise out of Contractor's performance or non-performance of the work hereunder, and shall not tender such claims to Agency nor to its directors, officers, employees, or authorized volunteers, for defense or indemnity.**

**Other than in the performance of professional services, to the fullest extent permitted by law, Contractor will defend, indemnify and hold harmless the Agency, its directors, officers, employees and authorized volunteers from all claims and demands of all persons arising out of the performance of the work or furnishing of materials; including but not limited to, claims by the Contractor or Contractor's employees for damages to persons or property except for the sole negligence or willful misconduct or active negligence of the Agency, its directors, officers, employees, or authorized volunteers.**

## **8. INSURANCE**

By his/her signature hereunder, Contractor certifies that he/she is aware of the provisions of Section 3700 of the California Labor Code which requires every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and that Contractor will comply with such provisions before commencing the performance of the professional services under this agreement. Contractor and sub-contractors will keep workers' compensation insurance for their employees in effect during all work covered by this agreement.

Contractor will file with the Agency, before beginning professional services, a certificate of insurance satisfactory to the Agency evidencing professional liability coverage of not less than \$1,000,000 per claim and annual aggregate, requiring 30 days notice of cancellation (10 days for non-payment of premium) to the Agency. Any insurance, self-insurance or other coverage maintained by the Agency, its directors, officers, employees, or authorized volunteers shall not contribute to it. Coverage is to be placed with a carrier with an A.M. Best rating of no less than A-:VII, or equivalent, or as otherwise approved by the Agency. The retroactive date (if any) is to be no later than the effective date of this agreement. In the event that the Contractor employs other contractors (sub-contractors) as part of the work covered by this agreement, it shall be the Contractor's responsibility to require and confirm that each sub-contractor meets the minimum insurance requirements specified above.

Contractor will file with the Agency, before beginning professional services, certificates of insurance satisfactory to the Agency evidencing general liability coverage of not less than \$1,000,000 per occurrence (\$2,000,000 general and products-completed operations aggregate (if used)) for bodily injury, personal injury and property damage; auto liability of at least \$1,000,000 for bodily injury and property damage each accident limit; workers' compensation (statutory limits) and employer's liability (\$1,000,000) (if applicable); requiring 30 days (10 days for non-payment of premium) notice of cancellation to the Agency. Any insurance, self-insurance or other coverage maintained by the Agency, its directors, officers, employees, or authorized volunteers shall not contribute to it. The general liability coverage shall give the Agency, its directors, officers, employees, and authorized volunteers insured status using ISO endorsement CG2010, CG2033, or equivalent. Coverage is to be placed with a carrier with an A.M. Best rating of no less than A- :VII, or equivalent, or as otherwise approved by the Agency. In the event that the Contractor employs other contractors (sub-contractors) as part of the work covered by this agreement, it shall be the Contractor's responsibility to require and confirm that each sub-contractor meets the minimum insurance requirements specified above.

If any of the required coverages expire during the term of this agreement, the Contractor shall deliver the renewal certificate(s) including the general liability additional insured endorsement to the Agency at least ten (10) days prior to the expiration date.

9. COMPLIANCE WITH LAW

The Contractor shall be subject to and comply with all federal, state and local laws and regulations applicable with respect to its performance under this Agreement, including but not limited to, licensing, employment and purchasing practices; and wages, hours and conditions of employment.

10. RECORD RETENTION

Except for materials and records, delivered to the Agency, the Contractor shall retain all materials and records prepared or obtained in the performance of this Agreement, including financial records, for a period of at least three (3) years after the Contractor's receipt of the final payment under this Agreement. Upon request by the Agency, the Contractor shall make such materials and records available to the Agency at no additional charge and without restriction or limitation to State and federal governments at no additional charge.

11. OWNERSHIP OF DOCUMENTS

All materials and records of a finished nature, such as final plans, specifications, reports and maps, prepared or obtained in the performance of this Agreement, shall be delivered to and become the property of the Agency. All materials of a preliminary nature, such as survey notes, sketches, preliminary plans, computations and other data, prepared or obtained in the performance of this Agreement, shall be made available, upon request, to the Agency at no additional charge and without restriction or limitation on their use.

12. SUBCONTRACT AND ASSIGNMENT

This Agreement binds the heirs, successors, assigns and representatives of the Contractor. The Contractor shall not enter into subcontracts for any work contemplated under this Agreement and shall not assign this Agreement or monies due or to become due, without the prior written consent of the General Manager of the Agency or his designee, subject to any required state or federal approval.

- GEI Consultants, Inc.
- MBK Engineers, Inc.

13. NONRENEWAL

The Contractor understands and agrees that there is no representation, implication, or understanding that the services provided by the Contractor under this Agreement will be purchased by the Agency under a new agreement following expiration or termination of this

Agreement, and waives all rights or claims to notice or hearing respecting any failure to continue purchase of all or any such services from the Contractor.

14. NOTICE

Any notice provided for herein are necessary to the performance of this Agreement and shall be given in writing by personal delivery or by prepaid first-class mail addressed as follows:

AGENCY

Roland Sanford, General Manager  
Solano County Water Agency  
810 Vaca Valley Parkway, Suite 203  
Vacaville, CA 95688

CONTRACTOR

**INSERT NAME, TITLE**  
Wood Rodgers, Inc.  
3301 C Street, Bldg. 100-B  
Sacramento, CA 95816

-----  
The parties have executed this Agreement the day and year first above written. If the Contractor is a corporation, documentation must be provided that the person signing below for the Contractor has the authority to do so.

Solano County Water Agency  
a Public Agency

Wood Rodgers, Inc.

By: \_\_\_\_\_  
Roland Sanford  
General Manager

By: \_\_\_\_\_  
**INSERT NAME**  
**INSERT TITLE**

## **EXHIBIT A**

### **SCOPE OF SERVICES**

(As specified in Exhibit A of “Funding Agreement Between the State of California, Department of Water Resources and The City of Rio Vista for Rio Vista Flood Risk Reduction Feasibility Study – Agreement No. 4600012106”)

## **EXHIBIT B**

### **RATE OF COMPENSATION**

(As specified in Exhibit B of “Funding Agreement Between the State of California, Department of Water Resources and The City of Rio Vista for Rio Vista Flood Risk Reduction Feasibility Study – Agreement No. 4600012106”)

**STATE OF CALIFORNIA  
THE NATURAL RESOURCES AGENCY  
DEPARTMENT OF WATER RESOURCES**

**FUNDING AGREEMENT BETWEEN THE STATE OF CALIFORNIA,  
DEPARTMENT OF WATER RESOURCES  
AND**

**THE CITY OF RIO VISTA**

**FOR**

**RIO VISTA FLOOD RISK REDUCTION FEASIBILITY STUDY**

**A PART OF THE SMALL COMMUNITIES FLOOD RISK REDUCTION PROGRAM**

**UNDER**

**THE CALIFORNIA DISASTER PREPAREDNESS AND FLOOD PREVENTION  
BOND ACT OF 2006, PUBLIC RESOURCES CODE SECTION 5096.800, ET SEQ.**

**DRAFT-FINAL QA/QC**

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**FUNDING AGREEMENT BETWEEN THE DEPARTMENT OF WATER RESOURCES**

**AND**

**The City of Rio Vista**

**UNDER THE CALIFORNIA DISASTER PREPAREDNESS AND FLOOD PREVENTION BOND  
ACT OF 2006**

**(Public Resources Code § 5096.800 et seq.)**

**THIS FUNDING AGREEMENT** is entered into by and between the Department of Water Resources (DWR) and the City of Rio Vista, a public agency, in the State of California (State), duly organized, existing, and acting pursuant to the laws thereof, herein referred to as the "Grantee," which parties do hereby agree as follows:

**1. PURPOSE:**

DWR shall provide funding from the Disaster Preparedness and Flood Prevention Bond Act of 2006 (Proposition 1E; Pub. Resources Code § 5096.800, et seq.) to the Grantee to assist in financing the Feasibility Study as defined in the attached Scope of Work, Exhibit A (Project) pursuant to the Small Communities Flood Risk Reduction (SCFRR) Program. Nothing herein shall preclude the Grantee from proceeding, self-funded, with work that has not been deemed eligible by DWR.

**2. TERM OF THE AGREEMENT:**

The term of this Agreement shall be from the date this Agreement is executed by DWR through final payment plus three (3) years unless otherwise terminated or amended as provided in this Agreement. However, all work shall be completed by **October 31, 2018**, and no funds may be requested after **January 31, 2019**.

**3. FUNDING AMOUNT:**

The maximum amount payable by DWR under this Agreement shall not exceed **\$499,904**. The Grantee agrees to fund any additional costs necessary to complete the Project. Such additional costs are the sole responsibility of the Grantee.

**4. ELIGIBLE COSTS:**

The Grantee shall seek reimbursement only for Eligible Costs in accordance with applicable provisions of the law and as described in Exhibit B of this Agreement. Eligible costs are the reasonable and necessary actual costs associated with the Project incurred upon execution of this Agreement. The execution date of this Agreement is the date of the final signature by the State. Further information as to what costs are eligible and ineligible may be found in the SCFRR Program Guidelines (September 2016) which are incorporated herein by reference.

**5. PROGRAM AND PROJECT MANAGERS:**

**DRAFT-FINAL QA/QC**

Either party may change its Project Manager upon written notice to the other party. DWR's Project Manager shall be Robert Crane, SCFRR Program Manager. Except as set forth in Paragraph 16, DWR's Project Manager shall be DWR's representative and shall have the authority to make determinations and findings with respect to each controversy arising under or in connection with the interpretation, performance, or payment for work performed under the Agreement.

The Grantee's Project Manager shall be Robert Hickey, City Manager. The Grantee's Project Manager shall be the Grantee's representative for the administration of the Agreement and shall have full authority to act on behalf of the Grantee, including authority to execute all payment requests.

DWR's Program Manager shall be the DWR Division of Flood Management Chief. DWR's Program Manager shall execute the Agreement and any amendments thereto.

**6. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA):**

The Project is exempt from CEQA compliance pursuant to California Code of Regulations, title 14, sections 15262 and 15304. A feasibility study is a document involving planning for possible future actions and geotechnical activities are minor alterations to land subject to the exceptions listed in California Code of Regulations, title 14, sections 15300.2. The Grantee shall file a Notice of Exemption (NOE) or Notice of Determination (NOD), as it deems appropriate, with its County Clerk, or with the State Office of Planning and Research. The Grantee acknowledges that the filing of the NOE or NOD is a condition precedent to the disbursement of any grant funds pursuant to this Agreement.

**7. GRANTEE'S RESPONSIBILITIES:**

The Grantee or its authorized representatives shall be responsible for work and for persons or entities engaged in work, including, but not limited to, contractors, partners, subcontractors, suppliers, and providers of services. The Grantee shall be responsible for any and all disputes arising out of its contracts for work on the Project, including but not limited to, payment disputes with the Grantee's partners, contractors and subcontractors. DWR will not mediate disputes between the Grantee and any other entity concerning responsibility for performance of work. The Grantee or its representatives shall fulfill the Grantee's obligations under the Agreement and shall be responsible for the quality of the Project. The Grantee shall faithfully and expeditiously perform or cause to be performed all work as described in Exhibit A, Scope of Work and in accordance with Exhibit B, Budget and Schedule.

**8. RELATIONSHIP OF PARTIES:**

The Grantee is acting in its independent capacity and is solely responsible for the Project as set forth in the Scope of Work in Exhibit A. Review or approval of the Project or other planning documents by DWR is solely for the purpose of proper administration grant funds by DWR and shall not be deemed to relieve or restrict responsibilities of the Grantee under this Agreement.

**9. GRANTEE REPRESENTATIONS:**

The Grantee accepts and agrees to comply with all terms, provisions, conditions, and commitments of this Agreement, including all incorporated documents, and to fulfill all assurances, declarations, representations, and statements made by Grantee in the application, accompanying documents, amendments, and communications filed in support of its request for funding. The Grantee shall comply with and require its contractors, subcontractors, and providers of services to comply with all applicable State laws and regulations.

**10. REQUIREMENTS FOR DISBURSEMENT:**

The Grantee shall meet all conditions precedent to the disbursement of money under this Agreement, including filing an NOE pursuant to Paragraph 6, and Basic Conditions, Paragraph 11. Failure by the Grantee to comply may, at the option of DWR, result in termination of the Agreement. DWR shall have no obligation to reimburse funds under this Agreement unless and until the disbursement is in accordance with requirements of Proposition 1E. For disbursements of funds for the Project, the Grantee shall continue to meet the Basic Conditions stated in Paragraph 11.

**11. BASIC CONDITIONS:**

DWR shall have no obligation to disburse funds for the Project under this Agreement unless and until the Grantee has satisfied DWR's requirements for disbursement, which include:

- a. The Grantee demonstrates compliance with the provisions of the Agreement.
- b. As required by this Agreement, the Grantee submits timely periodic progress reports as required by Paragraph 17.

**12. STATEMENT OF COSTS:**

The Grantee shall provide DWR with a Statement of Costs.

- a. The Grantee shall provide a statement of the incurred Eligible Costs for work performed during the period identified in the particular statement. The Statement of Costs shall include:
  - i. The date of the invoice, the time period covered by the invoice, and the total amount due;
  - ii. Itemized costs based on the categories specified in Exhibit B, Project Costs and Budget. The amount claimed for salaries/wages/consultant fees must be based on a calculation formula (i.e., hours or days worked times the hourly or daily rate = the total amount claimed);
  - iii. Delineation between costs claimed for reimbursement from DWR's funding amount and the Grantee's costs as set forth in Paragraph 3;
  - iv. Original signature and date (in ink) of the Grantee's authorized representative or Project Manager.
- b. DWR will provide payment for those Eligible Costs that were incurred after the DWR's execution of this Agreement.

- c. DWR will review each Quarterly Progress Report and each Statement of Costs to determine whether claimed costs are Eligible Project Costs and whether the Grantee has provided adequate information to verify that claimed expenses were incurred.
- d. DWR may reject a Statement of Costs if: (1) it is submitted without signature; or (2) it is submitted under signature of a person other than the Grantee's Project Manager or the Grantee's authorized representative.
- e. A Statement of Costs containing a mathematical error will be corrected by DWR, after a telephone call or email to the Grantee; and will thereafter be treated as if submitted in the corrected amount. DWR will provide the Grantee with notification of the corrected Statement of Costs.
- f. DWR will notify the Grantee by mail or e-mail, whenever, upon review of a Statement of Costs, DWR determines that any portion or portions of the costs claimed: (1) are ineligible to be paid under Federal or State law, or the terms of this Agreement; (2) do not constitute Eligible Project Costs approved by DWR for funding under the terms of this Agreement; or (3) are not supported by invoices or receipts acceptable to DWR. The Grantee may, within thirty (30) days of the date of receipt of such notice, submit additional documentation to DWR to cure such deficiency(ies). If the Grantee fails to timely submit adequate documentation curing the deficiency(ies), DWR will adjust the pending Statement of Costs by the amount of the ineligible and/or unapproved cost(s). The Grantee may continue to submit additional documentation in support of rejected cost(s) and may include such cost(s) with additional supporting documentation on a subsequent Statement of Costs. Disputes concerning whether costs are Eligible Projects Costs and have been adequately documented will be resolved in accordance with the dispute resolution process set forth in Paragraph 16.
- g. All Statements of Costs shall be accompanied by a statement signed by the Grantee's Project Manager or authorized representative that the statement is correct to the best of his or her knowledge and belief after an investigation that is reasonable under the circumstances and is submitted under penalty of perjury.
- h. At the sole discretion of the DWR, DWR may modify the requirements for preparation and submittal of Statements of Costs in order to improve administration of this Agreement or to ensure compliance with the Governor's Executive Order on accountability for bond funds, Executive Order S-02-07, or other legal requirements.

**13. METHOD OF PAYMENT FOR ELIGIBLE PROJECT COSTS:**

After the disbursement requirements in Paragraph 10 are met, the Grantee shall provide to DWR a Statement of Costs in accordance with Paragraph 12 and timely progress reports in accordance with Paragraph 17. Following receipt of the Statement of Costs

and timely progress reports, the State will disburse the whole or portions of the funding commitment to the Grantee.

Payment will be made, in arrears, within 60 days after upon receipt of an invoice bearing the Grantee's Name. Submit the original and three (3) copies of the invoice form to the following address:

Department of Water Resources  
Division of Flood Management  
Attention: Nahideh Madankar  
3464 El Camino Ave, Suite 200  
Sacramento, CA. 95821-9000

**14. DISBURSEMENT:**

Following the review of each Statement of Cost, DWR will disburse to the Grantee the amount approved, subject to the availability of funds through normal State processes and pursuant to Paragraphs 7 and 10. Notwithstanding any other provision of this Agreement, no disbursement shall be required at any time or in any manner which is in violation of, or in conflict with, federal or state laws, rules or regulations, or which may require any rebates to the federal government, or any loss of tax-free status on state bonds, pursuant to any federal statute or regulation. All money disbursed pursuant to this Agreement shall be used solely to pay Eligible Project Costs and deposited, administered, and accounted for pursuant to the provisions of applicable law. Funds will be disbursed by the State in response to each approved invoice, and in accordance with the Project Costs and Budget, Exhibit B. Any and all money disbursed to the Grantee under this Agreement shall be used solely to pay Eligible Costs.

**15. WITHHOLDING OF FUNDING DISBURSEMENT BY STATE:**

If DWR determines the Scope of Work is not being implemented in accordance with the provisions of this Agreement, or that the Grantee has failed in any other respect to comply with the provisions of this Agreement, and if the Grantee does not remedy any such failure to DWR's satisfaction, DWR may withhold from the Grantee all or any portion of the grant funds and take any other action that it deems necessary to protect the State's interests. DWR may require the Grantee to immediately repay all or any portion of the disbursed funding amount with interest, consistent with its determination. DWR may consider the Grantee's refusal to repay the requested funding amount a contract breach subject to the default provisions in Paragraph 16. If DWR notifies the Grantee of its decision to withhold the entire funding amount from the Grantee pursuant to this paragraph, this Agreement shall terminate upon receipt of such notice by the Grantee and shall no longer be binding on either party.

**16. DEFAULT PROVISIONS AND DISPUTE RESOLUTION:**

The Grantee will be in default under this Agreement if any of the following occur:

- a. Breach of this Agreement, or any supplement or amendment to it, or any other agreement between the Grantee and the State evidencing or securing the Grantee's obligations;

- b. Making any false warranty, representation, or statement with respect to this Agreement;
- c. Failure to complete the Project in accordance with this Agreement; or,
- d. Failure to make any remittance required by this Agreement.

Should an event of default occur, DWR shall provide a notice of default to the Grantee. If the Grantee fails to cure the default within a reasonable period of time (not less than 10 days) prescribed by DWR, DWR may do any or all of the following:

- a. Require repayment of any grant funds disbursed, with interest, which shall be equal to State of California general obligation bond interest rate in effect at the time of the default;
- b. Terminate any obligation to make future payments to the Grantee;
- c. Terminate this Agreement; and,
- d. Take any other action that it deems necessary to protect its interests.

Any claim the Grantee may have regarding the performance of this Agreement including, but not limited to claims for an extension of time, shall be submitted to the Program Manager within thirty (30) calendar days of the Grantee's knowledge of the claim. DWR and the Grantee shall then attempt to negotiate a resolution of such claim and process an amendment to the Agreement to implement the terms of any such resolution.

Before either party to this Agreement may bring suit in any court concerning an issue relating to this Agreement, that party must first seek in good faith to resolve the issue through negotiation or other forms of nonbinding alternative dispute resolution mutually acceptable to the parties. Any costs of dispute resolution shall be shared evenly by the parties. Except as specifically provided in this Agreement, the existence of a dispute shall not excuse the parties from performance pursuant to this Agreement.

In the event of litigation between the parties arising from this Agreement, it is agreed that each party shall bear its own filing costs and attorney fees, and that any such action shall be filed and maintained in the Superior Court in and for the County of Sacramento, California, or in the United States District Court in and for the Eastern District of California. The Grantee hereby waives any existing sovereign immunity for the purposes of this Agreement.

**17. SUBMISSION OF PROGRESS REPORTS:**

The submittal and approval of all progress reports is a requirement for the successful completion of this Agreement. Progress reports shall meet generally accepted professional standards for technical reporting and shall be proofread for content, numerical accuracy, spelling, and grammar prior to submittal to DWR. All progress reports shall be submitted along with the invoices to the address in Paragraph 13, and shall be submitted in both electronic and hard copy forms. If requested, the Grantee shall promptly provide any additional information deemed necessary by DWR for approval of progress reports. Progress reports shall be presented in the formats described in Exhibit D. The submittal and approval of progress reports is a requirement for processing each

Statement of Costs. Submittal of a Project Completion Report is a requirement for the release of any funds retained for the Project.

- a. Quarterly Reports: Beginning the month that the Agreement is executed by DWR, and for the duration of the Agreement, the Grantee shall submit to DWR a Quarterly Progress Report which explains the status of the Project described in the Scope of Work, Exhibit A. Reports shall be submitted by the last day in each Quarter month. Progress reports shall summarize the work as explained in Exhibit D.
- b. Project Completion Report: Upon completion of the tasks for the Project included in Exhibit A, Scope of Work, the Grantee shall prepare and submit to DWR a Project Completion Report. The Grantee shall submit a Project Completion Report within ninety (90) calendar days of completion of all tasks in the Scope of Work. The Project Completion Report shall summarize the work as explained in Exhibit D.
- c. Compliance with Executive Order S-02-07: At the sole discretion of DWR, DWR may modify the requirements for preparation and submittal of work plans and reports called for in this Agreement in order to improve administration of the State-Federal Flood Control System Modification Program or ensure compliance with the Governor's Executive Order on accountability for bond funds, Executive Order S-02-07, or other legal requirements.

**18. PERFORMANCE EVALUATION:**

The Grantee's performance under this Agreement will be evaluated by DWR after completion.

**19. NOTIFICATION OF STATE:**

The Grantee shall promptly notify, in writing, State of the following items:

- a. Events or proposed changes that could affect the scope, budget, or work performed under this Agreement. The Grantee agrees that no substantial change in the scope of the Project will be undertaken until written notice of the proposed change has been provided to DWR and DWR has given written approval for such change.
- b. Any public or media event publicizing the accomplishments and/or results of this Agreement and provide the opportunity for attendance and participation by DWR or the State's representatives. The Grantee shall make such notification at least fourteen (14) calendar days prior to the event.
- c. Completion of work on the Project.

**20. NOTICES:**

Any notice, demand, request, consent, or approval that either party desires or is required to give to the other party under this Agreement shall be in writing. Notices may be sent by any of the following means: (i) by delivery in person; (ii) by certified U.S. mail, return receipt requested, postage prepaid; (iii) by "overnight" delivery service; provided that next-business-day delivery is requested by the sender; or (iv) by facsimile transmission, followed submittal of a hard copy. Notices delivered in person will be deemed effective immediately on receipt (or refusal of delivery or receipt). Notices sent by certified mail

will be deemed effective given seven (7) calendar days after the date deposited with the U. S. Postal Service. Notices sent by overnight delivery service will be deemed effective one business day after the date deposited with the delivery service. Notices sent by facsimile will be effective on the date of successful transmission, which is documented in writing. Notices shall be sent to the following addresses. Either party may, by written notice to the other, designate a different address that shall be substituted for the one below:

Department of Water Resources  
Division of Flood Management  
Attention: Robert Crane  
3464 El Camino Ave, Suite 200  
Sacramento, CA. 95821-9000

City of Rio Vista  
Robert Hickey, City Manager  
1 Main Street  
Rio Vista, CA 94571

**21. MODIFICATION OF OVERALL WORK PLAN:**

At the request of the Grantee, DWR, may, at its sole discretion, approve non-material changes to the Scope of Work which concern the budget and schedule without formally amending this Agreement. Non-material changes with respect to the budget are changes that only result in reallocation of the line items within the budget and will not result in an increase in the amount of the DWR Funding Commitment set forth in Paragraph 3. Non-material changes with respect to the Project schedule are changes that will not extend the Term of this Agreement which is set forth in Paragraph 2. Requests for non-material changes to the budget and schedule must be submitted by the Grantee to DWR in writing and are not effective unless and until specifically approved by the DWR Project Manager in writing.

If the Grantee and DWR agree to a material change with respect to the Overall Work Plan that decreases the Eligible Costs in Paragraph 4, the parties agree there shall be proportionate reduction in the limit on State funds set forth in Paragraph 3.

DWR may, without requiring an amendment to this Agreement, increase DWR's Funding Commitment set forth in Paragraph 3, if changes in the Scope of Work, agreed to by the parties, require such increase. A request for an increase in DWR's Funding Commitment is not effective unless and until specifically approved by DWR's Project Manager in writing.

**22. INCORPORATION OF STANDARD CONDITIONS AND GRANTEE COMMITMENTS:**

The following exhibits are attached and made a part of this Agreement by this reference:

Exhibit A – Scope of Work  
Exhibit B – Budget and Schedule  
Exhibit C – Standard Conditions

- Exhibit D – Progress Report Format and Requirements
- Exhibit E – Guidelines for Grantees under DWR Funding Programs  
Documents Required for State Audits
- Exhibit F – Local Agency Resolution

IN WITNESS WHEREOF, the parties hereto have executed this Agreement.

STATE OF CALIFORNIA  
DEPARTMENT OF WATER RESOURCES

(NAME OF Grantee)

\_\_\_\_\_  
Eric Koch, P.E., Chief  
Division of Flood Management

\_\_\_\_\_  
(name and title)

Date\_\_\_\_\_

Date\_\_\_\_\_

Approved as to Legal Form and Sufficiency

Approved as to Legal Form and Sufficiency  
for (Name of Grantee)

\_\_\_\_\_  
Robin Brewer, Assistant Chief Counsel  
Office of the Chief Counsel

\_\_\_\_\_  
(name and title) Grantee Counsel

Date\_\_\_\_\_

Date\_\_\_\_\_

## EXHIBIT A – SCOPE OF WORK

### CITY OF RIO VISTA FLOOD RISK REDUCTION FEASIBILITY STUDY

The City of Rio Vista (Grantee) under the California Department of Water Resources (DWR) Small Community Flood Risk Reduction Program (SCFRRP) will prepare the Rio Vista Flood Risk Reduction Feasibility Study (Project) which will evaluate a suite of structural and non-structural actions to reduce the risk of flooding to the Grantee. The area to be included in the Feasibility Study extends along the west bank of the Sacramento River from Marina Creek to the Mellin Levee. The Mellin Levee, a State Plan of Flood Control facility, is also included in the Project. An overview of the area that will be evaluated in the Feasibility Study is shown on **Figure 1** (attached).

The Grantee has partnered with the Solano County Water Agency (SCWA) to retain a team of consultants to assist in the preparation of the Feasibility Study. The team members and their respective roles on the Feasibility Study are:

- City of Rio Vista: Grant Applicant
- SCWA: Overall Program Management
- Wood Rodgers: Project Management, Civil and Structural Evaluation, preparation of the Feasibility Study
- GEI Consultants: Geotechnical Evaluation, Environmental/Multi-Benefit Assessment
- MBK Engineers: Hydraulic/Hydrologic Analysis

### FEASIBILITY STUDY GOALS AND OBJECTIVES

The overarching goal of the Feasibility Study is to advance the work done as part of the 2015 Pre-Feasibility Study and identify a preferred alternative to reduce the flood risk to the City of Rio Vista. This goal is supported by the following objectives:

- Develop an array of structural and nonstructural alternatives to reduce the risk of flooding in Rio Vista.
- Refine the floodwall alternatives evaluated in the pre-feasibility study by determining the load-bearing capacities of floodwall foundation soils.
- Fully identify impacts to the local storm conveyance infrastructure and the improvements/modifications needed to mitigate these impacts
- Develop appropriate design and phasing for accommodating uncertainty, climate change, and Sea Level Rise (SLR)
- Coordinate flood risk reduction measures with the Grantee's waterfront plans and the Basin Wide Feasibility Study (BWFS).
- Identify multi-benefit opportunities and constraints.
- Evaluate trade-offs associated with extending flood protection features.

### SCOPE OF WORK

#### Task 1 – Project Management and Meetings

Project management will include the preparation of progress reports that will be submitted to DWR with invoices. The progress reports will describe work completed during the invoice period and anticipated work items to be completed in the next month. Progress reports will include a schedule showing overall progress on the Feasibility Study, as well as an earned value analysis report showing the overall progress versus budget expended.

Regular project status meetings are anticipated to be held on a bi-weekly basis, where work progress, schedule, data requests, preliminary results, and other aspects of the Feasibility Study will be discussed and coordinated. The Feasibility Study team will schedule, facilitate, and attend these meetings, and will prepare meeting agendas and notes for the meetings. A total of 24 status meetings are included in the budget for the Feasibility Study.

Deliverables:

- Monthly invoices w/progress reports and earned value reports
- Meeting agendas and meeting notes (distributed to the team via email)

### **Task 2 – Stakeholder Outreach and Coordination**

The Feasibility Study will be coordinated with many of the stakeholders who have an interest in the Feasibility Study. The Feasibility Study will be closely coordinated with DWR due to the mutual interest in the Floodwall Project. Additionally, the Feasibility Study will be coordinated with the Regional Flood Management Plans (RFMP) team, the Sacramento Area Flood Control Agency (SAFCA), and the Department of Transportation (Caltrans) responsible for State Highways 12 and 84, both of which could potentially be impacted by a flood risk reduction project.

The stakeholders will be invited to participate in the bi-weekly status meetings/conference calls, when appropriate. Outreach will also include separate one-on-one coordination with these stakeholders outside of the bi-weekly status meetings and up to two presentations to the RFMP team and the Coordinating Committee.

Deliverables:

- Up to two presentations to DWR and the RFMP team at the Coordinating Committee Meetings (one presentation at the end of Task 4 and another at the end of Task 5). The purpose of these meetings will be to get input from stakeholders on structural and non-structural alternatives, and on the preferred alternative recommended in the Feasibility Study.

### **Task 3 – Problem Identification/Data Gathering**

This task will include performing site-specific explorations, evaluations, and analyses to close the data gaps that exist in the available information and will support refinement of the alternatives developed in the (2015) pre-feasibility study. Furthermore, information gathered in support of Problem Identification (Task 3) would be “no regrets” investments, since this information would be necessary to support the design phases of a selected Rio Vista flood risk reduction project.

Each of the tasks performed as part of the Problem Identification phase of the Feasibility Study are described below.

### Task 3.1 – Geotechnical Exploration and Evaluation

Historic imagery will be collected and reviewed to assess areas where buried debris from the historic use of the shipping in the area. The site-specific geotechnical exploration and testing will be used to provide additional information needed to better understand the foundation conditions. The condition of the Mellin Levee will also be evaluated to assess if embankment or foundation improvements are needed to reduce flooding risks for Rio Vista.

Site-specific exploration is planned along the right bank of the Sacramento River immediately adjacent to Rio Vista, as well as, along the existing Mellin Levee on the right bank of the Yolo Bypass also adjacent to Rio Vista.

The following available existing subsurface investigations were reviewed for development of this Scope of Work:

- 8 borings completed by Construction Testing Services (CTS) in 2008 and 2011 which were focused along a 2,000-foot-long area of the Old Front Street Seawall Project.
- 16 borings and probes drilled by Caltrans in 1958 for the West Approach to the California Highway 12 Bridge that crosses the Sacramento River Bridge at Rio Vista and is immediately adjacent to the Old Front Street Seawall Project

The investigation program will include collection of soil samples and in-situ data, detailed descriptions of embankment and foundation conditions, and laboratory testing to support geotechnical analyses and development of feasibility-level recommendations. A total of approximately 1.5 miles of frontage along the Sacramento River right bank (excluding the Old Front Street Seawall Project and Highway 12 approach area) and approximately 0.6 mile of existing levee embankment (Mellin Levee) will be evaluated. Subsurface exploration will utilize Cone Penetration Testing (CPT), hollow-stem auger, and mud-rotary methods to investigate the subsurface and identify the depth of transition between soft, compressible bay mud and peat deposits to more consolidated lean clays and sands.

The investigation program will include up to five CPTs and two geotechnical borings positioned along the west bank of the Sacramento River, and three CPTs and two geotechnical borings on the landside toe of the existing Mellin Levee embankment. Based on discussions with the Central Valley Flood Protection Board, the Mellin Levee is a US Army Corps of Engineers (USACE) “project” levee and a State Plan of Flood Control levee, so permitting requirements for conducting the investigations through the levee crown are not expected to fit within the Project timeline. Laboratory testing will include index tests for soils classification and characterization (i.e.: sieve analysis and Atterberg limits), and strength and consolidation testing for estimating soil strength parameters and settlement potential.

Levee and foundation conditions along the project alignment will be assessed based on existing information and subsurface exploration data collected through Scope of Work (SOW) outlined above.

Feasibility-level geotechnical analyses will be performed to evaluate potential structural alternatives and to support the development of conceptual costs. Geotechnical assessments will include interpretation of subsurface conditions and material properties, development of representative reaches and cross-sections, and geotechnical analyses (underseepage, through seepage, landside slope stability, waterside rapid drawdown stability, settlement, geometry, and floodwall-bearing capacity).

The geotechnical analyses for assessment of structural alternatives will be performed at up to two locations along the project alignment.

**Deliverable:**

As part of this task, a technical memorandum will be developed that summarizes the assumptions, methodology, and results of the geotechnical exploration and evaluation. This technical memorandum will be provided to the SCWA and DWR in electronic (PDF) format.

**Task 3.2 – Design Water Surface Elevation Refinement**

The 200-year design water surface elevation (DWSE) used in the pre-feasibility study was based on the USACE Comprehensive Study (Comp Study) hydrology, and utilized the 200-year boundary conditions from the USACE Common Features General Reevaluation Report. Additionally, the models assumed the following upstream actions:

- The Fremont and Sacramento weirs on the Sacramento River are widened.
- A weir is constructed from the Yolo Bypass into the Deep Water Ship Channel.
- Setback levees are constructed in the Upper and Lower Elkhorn Basins.
- Railroads in the area of Davis, Woodland, and West Sacramento are relocated.
- Restricted height levees are degraded in the Yolo Bypass and at Lower Egbert Tract.
- The Folsom Joint Federal Project and dam raise are complete.

An updated 200-year water surface elevation will be developed as part of the Feasibility Study. The updated 200-year water surface elevation will incorporate new hydrology for the Sacramento River Flood Control Project that has been developed by DWR as part of the Central Valley Hydrology Study (CVHS). Existing CVHS studies prepared by DWR will be reviewed to determine an appropriate adjustment to the pre-feasibility study design water surface. A CVHS event selection analysis is not scoped for this phase of the study and is recommended for future design phases should the project proceed forward.

In addition, the Sacramento River transitions from tidal to riverine control during large flood events near Rio Vista, thus the tidal boundary condition has the potential to affect the water surface elevation in this area. Therefore, the 200-year water surface elevation in the Sacramento River at Collinsville used by the USACE in their HEC-RAS model will be reviewed. An appropriate 200-year water surface elevation adjustment will be recommended based on a review of this model.

**Deliverable:**

A brief technical memorandum will be developed as part of this task that summarizes the assumptions and methodology, and recommends a 200-year water surface elevation for the

Sacramento River and Yolo Bypass in the vicinity of the study area. This technical memorandum will be provided to the SCWA and DWR in electronic (PDF) format. Since the team expects to keep the SCWA and DWR apprised of the progress and development of this technical memorandum via the bi-weekly status meetings (see Task 1), only one technical memorandum will be delivered for review.

#### Task 3.3 – Adaptive Management and System Resiliency Considerations

The Feasibility Study will include adaptive management and system resiliency considerations for changing hydrologic, climate, social, political, regulatory, or ecological conditions. This will be accomplished by including adjustments to the Design Water Surface Elevation (DWSE) that account for uncertainty and SLR.

The Feasibility Study team will further refine the SLR determination used in the pre-feasibility study and will coordinate directly with DWR in order to use the appropriate approach. This approach will target consistency with projects performing similar analyses in the San Francisco Bay and the Sacramento-San Joaquin Delta.

#### Deliverable:

A brief technical memorandum will be developed as part of this task that summarizes the assumptions and approach, and recommends adjustments to the 200-year water surface elevation to account for uncertainty and SLR. This technical memorandum will be provided to the SCWA and DWR in electronic (PDF) format. Since the team expects to keep the SCWA and DWR apprised of the progress and development of this technical memorandum via the bi-weekly status meetings (see Task 1), only one technical memorandum will be delivered for review.

#### Task 3.4 – Existing and Future Floodplains

The information developed as part of the DWSE Refinement and Adaptive Management and System Resiliency efforts will be used to develop existing and future conditions floodplain maps for the study area. The floodplains will be developed by projecting the adjusted DWSE in the Sacramento River landward. These floodplains will be used to estimate the number of properties that are impacted by each of these floodplains. Impacts to infrastructure and critical facilities such as highways, municipal wells, water/wastewater treatment facilities, hospitals, police/fire stations, etc. will also be described.

#### Deliverable:

A brief technical memorandum will be developed that summarizes the assumptions, approach, and results of this task. This technical memorandum will be provided to the SCWA and DWR in electronic (PDF) format. Since the team expects to keep the SCWA and DWR apprised of the progress and development of this technical memorandum via the bi-weekly status meetings (see Task 1), only one technical memorandum will be delivered for review.

#### Task 3.5 – Identify Impacts to and Necessary Modifications for Local Storm Runoff Conveyance Infrastructure

This task will evaluate the proposed floodwalls and levees' potential impact on the local storm conveyance facilities around the City of Rio Vista, and will identify the improvements needed to mitigate those impacts. In order to accomplish this, the Feasibility Study will perform a hydrologic and hydraulic analysis that models the dynamic interaction of gravity

discharge to the Sacramento River, with the detention storage volume required because the gravity system cannot drain due to high water stages. Pumping needs for low-lying areas immediately adjacent to and upstream of the proposed levee and floodwalls will be assessed to determine the appropriate local storm runoff conveyance system modifications and additional facilities that will be needed in conjunction with a proposed floodwall and levee project.

The Feasibility Study will evaluate local storm runoff conveyance system configurations that limit the tributary area runoff that must be stored and pumped during high water stages. This can be accomplished by maximizing gravity conveyance for areas located above the DWSE and minimizing low-lying land areas adjacent to the river that would need to be pumped into the river.

**Deliverable:**

A brief technical memorandum will be developed that summarizes the assumptions, approach, and recommended local storm runoff conveyance system improvements that would be needed to mitigate impacts caused by a proposed floodwall or levee project along the waterfront. This technical memorandum will be provided to the SCWA and DWR in electronic (PDF) format. Since the team expects to keep the SCWA and DWR apprised of the progress and development of this technical memorandum via the bi-weekly status meetings (see Task 1), only one technical memorandum will be delivered for review.

**Task 3.6 – Identify Multi-Benefit Opportunities and Constraints**

The Feasibility Study team will identify and assess multi-benefit opportunities and constraints in the project area. Specifically, opportunities to integrate open space, recreation, and ecosystem enhancements will be evaluated. Opportunities for multi-benefit uses in conjunction with flood control construction will be emphasized; however, other opportunities outside of the flood control improvements footprints will also be assessed if they present the ability to integrate several multi-benefit uses.

**Deliverable:**

A technical memorandum will be developed as part of this task that summarizes the assumptions, methodology, and results of the multi-benefit opportunity assessment of the study area. The technical memorandum will also include:

- A description of known listed species and habitats that exist in or near the project area
- An estimate of the specific performance measures that could be accomplished by implementing each multi-benefit alternative that is identified in the TM (i.e. x acres of riparian habitat could be created)
- Considerations and recommendations provided in the multi-benefit assessment sheet
- A preferred multi-benefit project alternative clearly stated with next steps

This technical memorandum will be provided to the SCWA and DWR in electronic (PDF) format. Since the team expects to keep the SCWA and DWR apprised of the progress and development of this technical memorandum via the bi-weekly status meetings (see Task 1), only one technical memorandum will be delivered for review.

**Task 3.7 – Identify Permitting Needs**

Construction of the preferred structural improvements will require permits from federal, state, and local agencies. The Feasibility Study will include a discussion of anticipated permits needed for the project.

Flood control related permits, including an encroachment permit from the Central Valley Flood Protection Board, will be required for the ultimate construction due to the construction of a floodwall or similar feature adjacent to or within the Sacramento River and for modification of the existing Mellin Levee. Other permits are anticipated to be needed due to work in proximity to or within the Sacramento River.

To determine which environmental permits will be required for the project, baseline environmental studies will first be conducted. Baseline studies for this proposed project will include a reconnaissance-level wetland survey (to identify areas of potential waters and wetlands), a reconnaissance-level biological resources site survey, and a desktop cultural resources record search and review.

Once the baseline studies are completed, a permit strategy plan will be prepared that lists the anticipated required permits and that provides a preliminary schedule and cost estimate for obtaining the permits. As part of the Feasibility Study, the CEQA checklist will be completed to determine the appropriate level of CEQA documentation needed for project implementation.

**Deliverable:**

A technical memorandum will be developed that summarizes the known permitting needs associated with a flood risk reduction project in the study area. This technical memorandum will be provided to the SCWA and DWR in electronic (PDF) format. Since the team expects to keep the SCWA and DWR apprised of the progress and development of this technical memorandum via the bi-weekly status meetings (see Task 1), only one technical memorandum will be delivered for review.

#### **Task 4 – Develop Structural and Nonstructural Alternatives**

Using the information obtained from the Problem Identification task (Task 3), the Feasibility Study will develop a suite of structural and nonstructural alternatives that can provide a 200-year level of flood protection to the City of Rio Vista. The structural alternatives are assumed to be refinements to the floodwall and levee alternatives evaluated as part of the pre-feasibility study. However, the Feasibility Study will engage local and regional stakeholders (i.e. DWR, the RFMP team, SAFCA, and Caltrans) in the development and refinement of potential alternatives. A typical cross section of each alternative will be prepared in an exhibit format, and will be included in the Feasibility Study.

Nonstructural alternatives that can be used in conjunction with, or in lieu of, structural alternatives will also be developed. Nonstructural measures such as flood-proofing, building elevation/relocation, localized ring levees, temporary and/or passive floodwalls, emergency response plan enhancements, and purchasing properties in the floodplain are all potential nonstructural alternatives that can be used. Each of the nonstructural alternatives developed will be evaluated as part of the alternatives analysis for their effectiveness and feasibility.

Deliverable: A presentation to DWR and the RFMP. Input from DWR and the RFMP team on the preliminary array of alternatives will be taken into consideration as to what alternatives are advanced for consideration in the Feasibility Study.

### **Task 5 – Alternatives Analysis**

Each of the structural and non-structural alternatives developed will be evaluated in order to determine the most appropriate measure(s) for reducing the risk of flooding to the City of Rio Vista. An Alternatives Analysis will be performed using DWR's Guidance for Development of State-Led Feasibility Studies. Alternatives will be evaluated based on their public safety benefits (i.e. flood risk reduction benefits), cost, implementation feasibility, environmental impact, right-of-way needs, multi-benefit opportunities and other factors, as appropriate. Nonstructural measures will also be evaluated based on their effectiveness, implementation feasibility, and potential cost savings if used in conjunction with, or in lieu of, structural alternatives.

Real estate needs including right-of-way and land acquisition needs will be assessed for each of the alternatives. Land ownership will be determined using available Geographic Information System (GIS) data.

A preliminary cost estimate will be prepared for each alternative to identify construction, design, permitting, and other project costs. A contingency of 30 percent will be included in the preliminary cost estimates. Costs for Operation and Maintenance for each of the alternatives will also be estimated.

Each of the alternatives will be reviewed with the DWR, the RFMP team, SAFCA, and Caltrans in order to assess the feasibility of implementation.

Costs associated with land acquisition, demolition, and relocation of private homes and businesses likely to impact the alternatives will be evaluated, including upstream of Highway 12 and downstream of the Montezuma Street dock. The incremental costs and benefits associated with including/excluding these segments of each alternative will be assessed.

Based on this evaluation, a preferred plan will be developed that may consist of a combination of floodwall segments, levee segments, and nonstructural measures. The selection of the preferred plan will be based on the combination of flood risk reduction measures that are physically and politically feasible and that effectively reduce the 200-year risk to people and property in the City of Rio Vista, while maximizing the potential for multi-benefit opportunities at the lowest cost.

Deliverable:

A presentation to DWR and the RFMP to receive input from DWR and the RFMP team on the alternatives analysis will be taken into consideration as to what alternatives are recommended for implementation in the Feasibility Study.

### **Task 6 - Develop a Preliminary Project Implementation Plan**

A preliminary project implementation plan will be prepared that includes a description of the estimated costs, as well as the local and state funding sources that could be used for Phase 2 (design and implementation). A discussion on why elements of the preferred project that are outside of the Sacramento River Flood Control Project should be eligible for future DWR funding

opportunities will be discussed. Opportunities to fund the recommended project outside of the SCFRRP (i.e. via Delta restoration and related flood protection initiatives) will also be included. The preliminary project implementation plan will also include descriptions and estimated timelines for the various state and federal permits that are needed to advance the preferred plan.

Therefore, the preliminary project implementation plan will determine appropriate project phasing for the initial project life and the extended project life.

Deliverable:

None, but the project implementation plan will be included in the Feasibility Study report.

### **Task 7 – Prepare a Feasibility Study Report**

The approach, methodology, and results of the Feasibility Study will be described in a Feasibility Study Report (Report). The Report will include a description of the project area, regional setting, history, challenges and opportunities identified by the Feasibility Study, sources of flooding, existing and projected future conditions, the alternatives considered, cost estimates, the results of the alternatives analysis, a description of the preferred plan, recommended project phasing, and a description of potential funding sources to advance the project. The Report will describe the relationship of the recommended alternative to existing SPFC facilities, and will describe how the recommended alternative is consistent with the 2017 Central Valley Flood Protection Plan. Finally, a description of how the recommended project could be funded from sources outside the SCFRRP will be included.

The Report will include appendices that will provide additional details on the geotechnical evaluations and DWSE development. Detailed cost estimates will also be included in the appendices. Additional information developed as part of the Feasibility Study will also be included in an appendix, as appropriate.

#### Task 7.1 – Prepare a Draft Feasibility Study Report

A Draft Feasibility Study Report (Draft Report) will be prepared for DWR and stakeholder review and comment. The Draft Report will be provided in electronic (PDF) format.

Deliverable:

Draft Feasibility Study Report. The draft report will be provided to the SCWA and DWR in electronic (PDF) format for review and comment.

#### Task 7.2 – Respond to Stakeholder Comments

Comments are anticipated to come from the SCWA, DWR, SAFCA and the RFMP team. The Feasibility Study team will review comments received on the Draft Report and will prepare responses to comments ahead of preparing the Final Report.

Deliverable:

Responses to comments on the Draft Report. The response to comments will be provided to the SCWA and DWR in electronic MS Excel format.

#### Task 7.3 – Prepare a Final Feasibility Study Report

Four (4) bound copies and one (1) electronic copy of the Final Report will be provided.

**Deliverable:**

Final Feasibility Study Report. The final report will be provided to the SCWA and DWR in electronic (PDF) format. One hard copy will be provided to SCWA, and two hard copies will be provided to DWR.

**EXHIBIT B – BUDGET AND SCHEDULE**

<b>Exhibit B</b> <b>Rio Vista Flood Control Feasibility Study</b> <b>Summary of Estimated Budget</b>									
Task ID	Task Description	Wood Rodgers Labor (Hours)	Wood Rodgers Cost	GEI Labor (Hours)	GEI Cost	MBK Labor (Hours)	MBK Cost	Total Labor Hours	TOTAL BUDGET
1.0	Project Management and Meetings	273	\$49,445	16	\$3,794		\$0	289	\$53,239
2.0	Stakeholder Outreach and Coordination	98	\$16,338	4	\$949		\$0	102	\$17,287
3.0	Problem Identification / Data Gathering	0		0				0	\$0
3.1	Geotechnical Exploration and Evaluation	26	\$4,433	452	\$104,240		\$0	478	\$108,673
3.2	DWSE Refinement	10	\$1,970	0	\$0	68	\$14,860	78	\$16,831
3.3	Adaptive Management and System Resiliency Considerations	58	\$9,606	0	\$0		\$0	58	\$9,606
3.4	Existing and Future Floodplains	78	\$12,726	0	\$0		\$0	78	\$12,726
3.5	Interior Drainage	424	\$74,177	0	\$0		\$0	424	\$74,177
3.6	Identify Multi-Benefit Opportunities and Constraints	38	\$6,527	81	\$14,378		\$0	119	\$20,905
3.7	Identify Permitting Needs	18	\$3,448	108	\$16,813		\$0	126	\$20,261
4.0	Develop Structural and Nonstructural Alternatives	194	\$32,265	0	\$0		\$0	194	\$32,265
5.0	Alternatives Analysis	142	\$23,275	34	\$6,004		\$0	176	\$29,279
6.0	Develop a Preliminary Project Implementation Plan	108	\$17,816	0	\$0		\$0	108	\$17,816
7.0	Prepare a Feasibility Study Report	0		0				0	\$0
7.1	Prepare a Draft Feasibility Study Report	142	\$23,234	156	\$26,815		\$0	298	\$50,049
7.2	Respond to Stakeholder Comments	62	\$10,325	0	\$0		\$0	62	\$10,325
7.3	Prepare a Final Feasibility Study Report	88	\$14,430	76	\$12,037		\$0	164	\$26,466
<b>TOTALS:</b>		<b>1,759</b>	<b>\$300,016</b>	<b>927</b>	<b>\$185,028</b>	<b>68</b>	<b>\$14,860</b>	<b>2,754</b>	<b>\$499,904</b>



**EXHIBIT C – STANDARD CONDITIONS**

- C.1. ACCOUNTING AND DEPOSIT OF FUNDING DISBURSEMENT:
- a. **Separate Accounting of Funding Disbursements:** The Grantee shall account for the money disbursed pursuant to this Agreement separately from all other Grantee funds. The Grantee shall maintain audit and accounting procedures that are in accordance with generally accepted accounting principles and practices, consistently applied. The Grantee shall keep complete and accurate records of all receipts, disbursements, and expenditures of such funds. The Grantee shall require its contractors or subcontractors to maintain books, records, and other documents pertinent to their work in accordance with generally accepted accounting principles and practices. Records are subject to inspection by the State at any and all reasonable times.
  - b. **Fiscal Management Systems and Accounting Standards:** The Grantee agrees that, at a minimum, its fiscal control and accounting procedures will be sufficient to permit tracing of grant funds to a level of expenditure adequate to establish that such funds have not been used in violation of state or federal law, or this Agreement.
  - c. **Disposition of Money Disbursed:** All money disbursed pursuant to this Agreement shall be deposited in a non-interest bearing account, administered, and accounted for pursuant to the provisions of applicable law.
  - d. **Remittance of Unexpended Funds:** The Grantee shall remit to the State any unexpended funds that were disbursed to the Grantee under this Agreement and were not used to pay Eligible Project Costs within a period of sixty (60) calendar days from the final disbursement from the State to the Grantee of funds or, within thirty (30) calendar days of the expiration of the Agreement, whichever comes first.
- C.2. ACKNOWLEDGEMENT OF CREDIT: The Grantee shall include appropriate acknowledgement of credit to DWR and to all cost-sharing partners for their support when promoting the Project or using any data and/or information developed under this Agreement.
- C.3. AMENDMENT: This Agreement may be amended at any time by mutual agreement of the parties, except insofar as any proposed amendments are in any way contrary to applicable law. Requests by the Grantee for amendments must be in writing stating the amendment request and the reason for the request. DWR shall have no obligation to agree to an amendment.
- C.4. AMERICANS WITH DISABILITIES ACT: By signing this Agreement, the Grantee assures DWR that it complies with the Americans with Disabilities Act (ADA) of 1990, (42 U.S.C., § 12101 et seq.), which prohibits discrimination on the basis of disability, as well as all applicable regulations and guidelines issued pursuant to the ADA.
- C.5. APPROVAL: This Agreement is of no force or effect until signed by all parties to the Agreement. The Grantee may not submit invoices or receive payment until all required signatures have been obtained.
- C.6. ASSIGNMENT: This Grant is not assignable by the Grantee, either in whole or in part, without the written consent of the State.

- C.7. AUDITS: The State reserves the right to conduct an audit during the Term of the Agreement as set forth in Paragraph 2, with the costs of such audit borne by the State. After completion of the Project, State may require the Grantee to conduct a final audit to State's specifications, at the Grantee's expense, such audit to be conducted by and a report prepared by an independent certified public accountant. Failure or refusal by the Grantee to comply with this provision shall be considered a breach of this Agreement, and DWR may elect to pursue any remedies provided in Paragraph 16 or take any other action it deems necessary to protect its interests.

Pursuant to Government Code section 8546.7, the Grantee shall be subject to the examination and audit by the State for a period of three (3) years after final payment under this Agreement with respect of all matters connected with this Agreement, including but not limited to, the cost of administering this Agreement. All records of Grantee or its contractor or subcontractors shall be preserved for this purpose for at least three (3) years after final payment.

- C.8. BUDGET CONTINGENCY: If the Budget Act of the current year and/or subsequent years covered under this Agreement does not appropriate sufficient funds for this program, this Agreement shall be of no force and effect. This provision shall be construed as a condition precedent to the obligation of State to make any payments under this Agreement. In this event, the State shall have no liability to pay any funds whatsoever to the Grantee or to furnish any other considerations under this Agreement and the Grantee shall not be obligated to perform any provisions of this Agreement. Nothing in this Agreement shall be construed to provide Grantee with a right of priority for payment over any other grantee. If this Agreement's funding for any fiscal year is reduced or deleted by the Budget Act, by Executive Order, or by order of the Department of Finance, the State shall have the option to either cancel this Agreement with no liability occurring to the State, or offer an Agreement amendment to the Grantee to reflect the reduced amount.
- C.9. CHILD SUPPORT COMPLIANCE ACT: For any Agreement in excess of \$100,000, the Grantee acknowledges in accordance with Public Contract Code section 7110, that:
- a. The Grantee recognizes the importance of child and family support obligations and shall fully comply with all applicable state and federal laws relating to child and family support enforcement, including, but not limited to, disclosure of information and compliance with earnings assignment orders, as provided in Chapter 8 (commencing with section 5200) of Part 5 of Division 9 of the Family Code; and,
  - b. The Grantee, to the best of its knowledge is fully complying with the earnings assignment orders of all employees and is providing the names of all new employees to the New Hire Registry maintained by the California Employment Development Department.
- C.10. COMPETITIVE BIDDING AND PROCUREMENTS: The Grantee shall comply with all applicable laws and regulations regarding securing competitive bids and undertaking competitive negotiations in the Grantee's contracts with other entities for acquisition of goods and services and construction of public works with funds provided by the State under this Agreement.

- C.11. COMPUTER SOFTWARE: The Grantee certifies that it has appropriate systems and controls in place to ensure that state funds will not be used in the performance of this
- C.12. Agreement for the acquisition, operation, or maintenance of computer software in violation of copyright laws.
- C.13. CONFLICT OF INTEREST: All participants are subject to State and federal conflict of interest laws. Failure to comply with these laws, including business and financial disclosure provisions, will result in this Agreement being declared void; other legal action may also be taken. Applicable statutes include, but are not limited to, Government Code section 1090 and Public Contract Code sections 10410 and 10411, for State conflict of interest requirements.
- a. Current State Employees: No State officer or employee shall engage in any employment, activity, or enterprise from which the officer or employee receives compensation or has a financial interest and which is sponsored or funded by any State agency, unless the employment, activity, or enterprise is required as a condition of regular State employment. No State officer or employee shall contract on his or her own behalf as an independent contractor with any State agency to provide goods or services.
  - b. Former State Employees: For the two-year period from the date he or she left State employment, no former State officer or employee may enter into a contract in which he or she engaged in any of the negotiations, transactions, planning, arrangements, or any part of the decision-making process relevant to the contract while employed in any capacity by any State agency. For the twelve-month period from the date he or she left State employment, no former State officer or employee may enter into a contract with any State agency if he or she was employed by that State agency in a policy-making position in the same general subject area as the proposed contract within the twelve-month period prior to his or her leaving State service.
  - c. Employees of the Grantee: Employees of the Grantee shall comply with all applicable provisions of law pertaining to conflicts of interest, including but not limited to any applicable conflict of interest provisions of the California Political Reform Act, Government Code section 87100 et seq.
  - d. Employees and Consultants to the Grantee: Individuals working on behalf of a Grantee may be required by DWR to file a Statement of Economic Interests (Fair Political Practices Commission Form 700) if it is determined that an individual is a consultant for Political Reform Act purposes.
- C.14. DELIVERY OF INFORMATION, REPORTS, AND DATA: The Grantee agrees to expeditiously provide throughout the term of this Agreement, such reports, data, information, and certifications as may be reasonably required by DWR.
- C.15. DISPOSITION OF EQUIPMENT: The Grantee shall provide to DWR, not less than thirty (30) calendar days prior to submission of the final invoice, an itemized inventory of equipment purchased with funds provided by DWR. The inventory shall include all items with a current estimated fair market value of more than \$5,000.00 per item. Within sixty (60) calendar days of receipt of such inventory DWR shall provide the Grantee with a list of the items on the inventory to which the State will take title. All other items shall become

the property of the Grantee. The State shall arrange for delivery from the Grantee of items to which it takes title. The cost of transportation, if any, shall be borne by the State.

C.16. DRUG-FREE WORKPLACE CERTIFICATION – CERTIFICATION OF COMPLIANCE:

By signing this Agreement, the Grantee, its contractors or subcontractors hereby certify, under penalty of perjury under the laws of the State, compliance with the requirements of the Drug-Free Workplace Act of 1990 (Government Code section 8350 et seq.) and have or will provide a drug-free workplace by taking the following actions:

- a. Publish a statement notifying employees, contractors, and subcontractors that unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited and specifying actions to be taken against employees, contractors, or subcontractors for violations, as required by Government Code section 8355(a)(1).
- b. Establish a Drug-Free Awareness Program, as required by Government Code section 8355(a)(2) to inform employees, contractors, or subcontractors about all of the following:
  - i. The dangers of drug abuse in the workplace;
  - ii. The Grantee's policy of maintaining a drug-free workplace;
  - iii. Any available counseling, rehabilitation, and employee assistance programs; and,
  - iv. Penalties that may be imposed upon employees, contractors, and subcontractors for drug abuse violations.
- c. Provide, as required by Government Code section 8355(a)(3), that every employee, contractor, and/or subcontractor who works under this Agreement:
  - i. Will receive a copy of the Grantee's drug-free policy statement, and
  - ii. Will agree to abide by terms of the Grantee's condition of employment, contract or subcontract.

C.17. GOVERNING LAW: This Grant Agreement is governed by and shall be interpreted in accordance with the laws of the State of California.

C.18. GRANTEE'S RESPONSIBILITY FOR WORK AND PERFORMANCE: The Grantee is solely responsible for the design, implementation, and operation and maintenance of the Project. Review or approval of plans, specifications, Project documentation, bid documents, or other documents by the State is solely for the purpose of proper administration of grant funds and shall not be deemed to relieve or restrict the Grantee's responsibility.

The Grantee shall be responsible for all work and for all persons or entities engaged in the work, including contractors, subcontractors, suppliers, and providers of services. The Grantee shall give personal supervision to any work in progress that is required under this Grant Agreement or employ a competent representative, satisfactory to the State, with the authority to act for the Grantee. The Grantee or its authorized representative shall be present while work is in progress. The Grantee shall be responsible for any and all disputes arising out of its contracts for work on the Project, including bid disputes, and

payment disputes with the Grantee's contractors and subcontractors. The State will not mediate disputes between the Grantee and any other entity concerning responsibility for performance of or payment for work. The Grantee agrees to faithfully and expeditiously

perform or cause to be performed all requirements of this Agreement and any amendments hereto.

- C.19. INCOME RESTRICTIONS: The Grantee agrees that any refunds, rebates, credits, or other amounts (including any interest thereon) accruing to or received by the Grantee under this Agreement shall be paid by the Grantee to the State, to the extent that they are properly allocable to costs for which the Grantee has been reimbursed by the State under this Agreement.
- C.20. INDEMNIFICATION: The Grantee shall indemnify and hold and save the State, its officers, agents, and employees, free and harmless from any and all liabilities for any claims and damages (including inverse condemnation) that may arise out of the Project and this Agreement, including, but not limited to, any claims or damages arising from the planning, design, construction, maintenance and/or operation of this Project and any breach of this Agreement. The Grantee shall require its contractors or subcontractors to name the State, its officers, agents and employees as additional insureds on their liability insurance for activities undertaken pursuant to this Agreement.
- C.21. INDEPENDENT CAPACITY: The Grantee, and the agents and employees of the Grantee, in the performance of the Agreement, shall act in an independent capacity and not as officers, employees, or agents of DWR or the State.
- C.22. INSPECTION OF BOOKS, RECORDS, AND REPORTS: During regular office hours, each of the parties hereto and their duly authorized representatives shall have the right to inspect and to make copies of any books, records, or reports of either party pertaining to this Agreement or matters related hereto. Each of the parties hereto shall maintain and shall make available at all times for such inspection accurate records of all its costs, disbursements, and receipts with respect to its activities under this Agreement. Failure or refusal by the Grantee to comply with this provision shall be considered a breach of this Agreement, and DWR may withhold disbursements to the Grantee or take any other action it deems necessary to protect its interests.
- C.23. INSPECTIONS OF PROJECT BY STATE: The State shall have the right to inspect the work being performed at any and all reasonable times during the term of the Agreement. This right shall extend to any subcontracts, and the Grantee shall include provisions ensuring such access in all its contracts or subcontracts entered into pursuant to this Agreement.
- C.24. INVOICE DISPUTES: In the event of an invoice dispute, payment will not be made until the dispute is resolved and a corrected invoice submitted. Failure to use the address exactly as provided in Paragraph 13, may result in return of the invoice to the Grantee. Payment by the State to the Grantee shall be deemed complete upon deposit of the payment, properly addressed, postage prepaid, in the United States mail. Any claim that the Grantee may have regarding the performance of this Agreement including, but not

limited to, claims for additional compensation or extension of time, shall be submitted to the DWR Project Manager within thirty (30) calendar days of the Grantee's knowledge of the claim. DWR and the Grantee shall then attempt to negotiate a resolution of such claim and may process an amendment to the Agreement to implement the terms of any such resolution.

- C.25. LABOR CODE COMPLIANCE: If applicable, the Grantee agrees to be bound by all the provisions of the Labor Code regarding prevailing wages and shall monitor all contracts subject to reimbursement from this Agreement to assure that the prevailing wage provisions of the Labor Code are being met. Current Department of Industrial Relations (DIR) requirements may be found at <http://www.dir.ca.gov/lcp.asp>. For more information, please refer to DIR's *Public Works Manual* at: <http://www.dir.ca.gov/dlse/PWManualCombined.pdf>. The Grantee affirms that it is aware of the provisions of section 3700 of the Labor Code, which requires every employer to be insured against liability for workers' compensation or to undertake self-insurance, and the Grantee affirms that it will comply with such provisions before commencing the performance of the work under this Agreement and will make its contractors and subcontractors aware of this provision.
- C.26. NON-DISCRIMINATION:
- a. During the performance of this Agreement, the Grantee and its consultants and contractors shall not unlawfully discriminate, harass, or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, sexual orientation, physical disability (including HIV and AIDS), mental disability, medical condition (cancer), age (over 40), marital status, and denial of family care leave.
  - b. The Grantee, its consultants, and contractors shall ensure that the evaluation and treatment of their employees and applicants for employment are free from such discrimination and harassment.
  - c. The Grantee, its consultants, and contractors shall comply with the provisions of the Fair Employment and Housing Act (Gov. Code, § 12990) and the applicable regulations promulgated thereunder (Cal. Code Regs., tit. 2, § 7285 et seq.). The applicable regulations of the Fair Employment and Housing Commission implementing Government Code section 12990, set forth in Chapter 5 of Division 4 of Title 2 of the California Code of Regulations, are incorporated into this Agreement by reference and made a part hereof as if set forth in full.
  - d. The Grantee, its consultants, and contractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other Agreement, if any.
  - e. The Grantee shall include the nondiscrimination and compliance provisions of this clause in all subcontracts to perform work under the Agreement. Failure by the Grantee to carry out these requirements and applicable requirements of 40 C.F.R. part 33 is a breach of a material provision of this Agreement which may result in its termination.

- C.27. OPINIONS AND DETERMINATIONS: Where the terms of this Agreement provide for action to be based upon, judgment, approval, review, or determination of either party hereto, such terms are not intended to be and shall never be construed as permitting such opinion, judgment, approval, review, or determination to be arbitrary, capricious, or unreasonable.
- C.28. REMAINING BALANCE: In the event the Grantee does not submit invoices requesting all of the funds encumbered under this Grant Agreement, any remaining funds revert to the State. The State will notify the Grantee stating that the Project file is closed and any remaining balance will be disencumbered and unavailable for further use under this Grant Agreement.
- C.29. REMEDIES NOT EXCLUSIVE: The use by either party of any remedy specified herein for the enforcement of this Agreement is not exclusive and shall not deprive the party using such remedy of, or limit the application of, any other remedy provided by law.
- C.30. RETENTION: Notwithstanding any other provision of this Agreement, DWR shall withhold ten percent (10%) of the funds requested by the Grantee for reimbursement of Eligible Project Costs. DWR shall disburse the retained funds of the Project to the Grantee when the Project is completed and the Project Completion Report (Paragraph 17) is submitted to and approved by DWR.
- C.31. RIGHTS IN DATA: The Grantee agrees that all data, plans, drawings, specifications, reports, computer programs, operating manuals, notes and other written or graphic work produced in the performance of this Agreement shall be made available to the State and shall be in the public domain to the extent to which release of such materials is required under the California Public Records Act, Government Code section 6250 et seq. The Grantee may disclose, disseminate and use in whole or in part, any final form data and information received, collected and developed under this Agreement, subject to appropriate acknowledgement of credit to DWR and the State for financial support. The Grantee shall not utilize the materials for any profit-making venture or sell or grant rights to a third party who intends to do so. The State shall have the right to use any data described in this paragraph for any public purpose.
- C.32. SEVERABILITY: Should any portion of this Agreement be determined to be void or unenforceable, such shall be severed from the whole and this Agreement shall continue as modified.
- C.33. STATE REVIEWS: The parties agree that review or approval of project application, documents, permits, plans, and specifications or other project information by DWR is for administrative purposes only and does not relieve the Grantee of their responsibility to properly plan, design, construct, operate, maintain, implement, or otherwise carry out the Project.
- C.34. SUSPENSION OF PAYMENTS: This Agreement may be subject to suspension of payments or termination, or both, and the Grantee may be subject to debarment if the State determines that:
- a. The Grantee, its contractors, or subcontractors have made a false certification, or

- b. The Grantee, its contractors, or subcontractors violates the certification by failing to carry out the requirements noted in this Agreement.
- C.35. SUCCESSORS AND ASSIGNS: This Agreement and all of its provisions shall apply to and bind the successors and assigns of the parties. No assignment or transfer of this Agreement or any part thereof, rights hereunder, or interest herein by the Grantee shall be valid unless and until it is approved by DWR and made subject to such reasonable terms and conditions DWR may impose.
- C.36. TERMINATION BY GRANTEE: Subject to DWR approval which may be reasonably withheld, the Grantee may terminate this Agreement and be relieved of contractual obligations. In doing so, the Grantee must provide a reason(s) for termination. The Grantee must submit all progress reports summarizing accomplishments up until termination date.
- C.37. TERMINATION FOR CAUSE: Subject to the right to cure under Paragraph 16 (Default Provisions), DWR may terminate this Agreement and be relieved of any payments should the Grantee fail to perform the requirements of this Agreement at the time and in the manner herein, provided including but not limited to reasons of default under Paragraph 16.
- C.38. TERMINATION WITHOUT CAUSE: DWR may terminate this Agreement without cause on 30 days advance written notice. The Grantee shall be reimbursed for all reasonable expenses incurred up to the date of termination.
- C.39. THIRD PARTY BENEFICIARIES: The parties to this Agreement do not intend to create rights in, or grant remedies to, any third party as a beneficiary of this Agreement, or any duty, covenant, obligation or understanding established herein.
- C.40. TIMELINESS: Time is of the essence in this Grant Agreement.
- TRAVEL: Travel includes the reasonable and necessary costs of transportation, subsistence, and other associated costs incurred by personnel during the term of this Agreement. Travel and per diem expenses to be reimbursed under this Agreement shall be at the same rates the State provides for unrepresented employees in accordance with the provisions of Title 2, Chapter 3, of the California Code of Regulations and shall be reimbursed consistent with the rates current at the time of travel. These rates are published at: <http://www.calhr.ca.gov/employees/Pages/travel-meals.aspx>, or its successor website. For the purpose of computing such expenses, the Grantee's designated headquarters shall be: 1 Main Street, Rio Vista, CA 94571.
- C.41. No travel outside the State of California shall be reimbursed unless prior written authorization is obtained from the DWR's Project Manager.
- C.42. UNION ORGANIZING: The Grantee, by signing this Agreement, hereby acknowledges the applicability of Government Code sections 16645 through 16649 to this Agreement. Furthermore, the Grantee, by signing this Agreement, hereby certifies that:
- No State funds disbursed by this Agreement will be used to assist, promote, or deter union organizing.
  - The Grantee shall account for State funds disbursed for a specific expenditure by this Agreement to show those funds were allocated to that expenditure.

- c. The Grantee shall, where State funds are not designated as described in (b) above, allocate, on a pro rata basis, all disbursements that support the program.

If the Grantee makes expenditures to assist, promote, or deter union organizing, the Grantee will maintain records sufficient to show that no State funds were used for those expenditures and that the Grantee shall provide those records to the Attorney General upon request.

- C.43. WAIVER OF RIGHTS: None of the provisions of this Agreement shall be deemed waived unless expressly waived in writing. It is the intention of the parties here to that from time to time either party may waive any of its rights under this Agreement unless contrary to law. Any waiver by either party of rights arising in connection with the Agreement shall not be deemed to be a waiver with respect to any other rights or matters, and such provisions shall continue in full force and effect.

## **EXHIBIT D – PROGRESS REPORT FORMAT AND REQUIREMENTS**

### **PROGRESS REPORTS**

Progress Reports shall generally use the following format. This format may be modified as necessary to effectively communicate information on the Project contained in the Scope of Work. The report should reflect the status of the entire Project identified in the Agreement. Describe the work performed during the quarter or month including:

#### **PROJECT INFORMATION**

- Status of the Project;
- Major accomplishments during the month (e.g. tasks completed, milestones met, meetings held or attended, press releases, etc.);
- Discuss participation level of other entities in the feasibility study process
- Issues and risks that have, will, or could affect the schedule or budget, with a recommendation on how to mitigate the matter; and,
- Description of the differences between the work performed and the work outlined in the Scope of Work, Exhibit A.

#### **COST INFORMATION**

- List costs incurred during the month by the Grantee and each contractor working on the Project. The list should include hours per task worked on during the month for above personnel. This does not include in-kind costs.
- In-kind expenditures for the month.
- A discussion on how the actual budget is progressing in comparison to the Project budget included in Exhibit B; and,
- A revised budget, by task, if changed from latest budget.
- Projected expenditures for the next reporting period.

#### **SCHEDULE INFORMATION**

- A schedule showing actual progress (% complete and planned completion date) versus planned progress (baseline) as shown in Exhibit B;
- A discussion on how the actual schedule is progressing in comparison to the schedule in Exhibit B; and,
- A revised schedule, by task, if changed from latest schedule in Exhibit B

#### **ANTICIPATED ACTIVITIES NEXT REPORTING PERIOD**

Provide a description of anticipated activities for the reporting period.

## **PROJECT COMPLETION REPORT**

The Project Completion Report shall generally use the following format. This format may be modified as necessary to effectively communicate information on the Project contained in the Exhibit A, Scope of Work. The report should reflect the status of the entire Project identified in the Agreement.

### **Executive Summary**

Provide a brief summary of the completed Project.

### **Report Status**

- a. Describe work performed.
- b. Describe major accomplishments, such as:
  - i. Tasks completed
  - ii. Milestones met
  - iii. Meetings held or attended
  - iv. Press releases, etc.
  - v. Data delivered or information gained.
- c. Discuss any issues or concerns that affected the schedule or budget.

### **Cost Information**

- a. Complete cost accounting of the Project by Grantee and each subcontractor working on the Project. Include hours per task worked on during the reporting period for above personnel.
- b. Discuss how the final expenditure compares to the Project Budget.

### **Schedule Information**

- a. Provide a final Project schedule showing actual progress versus planned progress from the schedule.

### **ELECTRONIC REPORT FORMATTING**

The Grantee agrees that work funded under this Agreement will be provided in an electronic format to DWR. Electronic submittal of final reports, plans, studies, data, and other work performed under this Agreement shall be as follows:

- Text preferably in MS WORD or text PDF format. The PDF file shall be searchable.
- Files named so that the public can determine their content. For example, file naming of reports must have the title and, if subdivided into smaller sized files, the chapter number/letter and names in the report Table of Content (TOC); files of maps, figures, and tables by number/letter as referenced in the TOC; well logs files with State-required naming convention; and Appendix number/letter and named in the TOC.
- For projects involving a modeling component, the Grantee shall provide the major input data files, parameters, calibration statistics, output files, and other information requested by DWR's Project Manager.
- DWR will retain all ownership of the digital data it has generated and any derivative works using the digital data as its source. The Grantee agrees to immediately notify DWR in writing of any and all defects, errors, inaccuracies or any other problems with the Data discovered during Data usage.
- Electronic copies of all finalized geographic information system (GIS) data files, or non-GIS files containing spatial data (such as in Excel worksheets), in ArcGIS version 10.0, including but not limited to shapefiles (all components), geodatabases, coverages, grids, MXD files, etc. All data, subject to DWR review and approval, shall comply with all aspects of DWR FloodSAFE GIS Standards. Maps developed by the Grantee shall include a logo that will be provided by DWR. Each data file shall include or be attached to metadata in compliance with the current DWR FloodSAFE GIS Standards. Metadata shall include detailed descriptions of: creation methods, analysis steps, spatial and attribute accuracies/completeness, complete data dictionaries, and any other relevant information that could affect interpretation of applicability of these data toward any potential purpose. All data shall be provided in NAD83/NAVD88 reference datums.
- All other physical or electronic components used to create any printed or electronic product, so that State obtains the capability to open and print any document, figure, plate, profile, table or graph included in this task order, and edit them as necessary. These include, but are not limited to: all GIS data files used to produce any map, regardless of the file origin; all finalized GIS document files such as, but not limited to, ESRI ArcMap Document (MXD) files and AutoCAD Drawing Exchange Format (DXF) files; style sheets for all symbology used in any GIS product; any linked or embedded tables, graphics or text that were included in any map layout, all in a form that permits editing; all CADD files, all image files.
- Electronic copies of all source data (including, but not limited to, GIS files) and significant intermediate processing step files used to generate final data files.

**EXHIBIT E**  
**GUIDELINES FOR GRANTEES UNDER DWR FUNDING PROGRAMS**  
**DOCUMENTS REQUIRED FOR STATE AUDITS**

The list below detail the documents and records that State auditors will need to review in the event that this Agreement is audited. The Grantee should ensure that such records are maintained for the Project and retained for at least three (3) years after receipt of the final payment of grant funds pursuant to this Agreement.

**Internal Controls:**

1. Organization chart (i.e. Grantee's overall organization chart, and organization chart for this).
2. Written internal procedures and flowcharts for the following:
  - a. Receipts and deposits
  - b. Disbursements
  - c. State reimbursement requests
  - d. Grant fund expenditure tracking
  - e. Guidelines, policy, and procedures on grant Program/Project
3. Audit reports of the Grantee's internal control structure and/or financial statements within the last two years.
4. Prior audit reports on grant, loan, or funding Program/Project.

**Grants, Loans or Directed Funding:**

1. Original grant agreement, any amendment(s) and budget modification documents.
2. A listing of all bond-funded grants, loans or directed funds received from the State.
3. A listing of all other funding sources for the Project.

**Contracts:**

1. All subcontractor and consultant contracts and related or partners documents, if applicable.
2. Contracts between the Grantee and other agencies as related to the Project.

**Invoices:**

1. Invoices from vendors and subcontractors for expenditures submitted to DWR for payments under this Agreement.
2. Documentation linking subcontractor invoices to DWR reimbursement requests for this Agreement.
3. Reimbursement requests submitted to DWR for this Agreement.

**Cash Documents:**

1. Receipts (copies of warrants) showing payments received from the State.

2. Deposit slips (or bank statements) showing deposit of the payments received from the State.
3. Cancelled checks or disbursement documents showing payments made to vendors, subcontractors, consultants, and/or agents under this Agreement.
4. Bank statements showing the deposit of the receipts.

**Accounting Records:**

1. Ledgers showing entries for loan receipts and cash disbursements.
2. Ledgers showing receipts and cash disbursement entries of other funding sources.
3. Bridging documents that tie the general ledger to requests for funding reimbursement.

**Administration Costs:**

1. Supporting documents showing the calculation of administration costs and how those costs directly relate to the Project.

**Personnel:**

1. List of all contractors and Grantee staff that worked on the Project.
2. Payroll records including timesheets for contractor staff and the Grantee personnel who provided services charged to the program.

**Project Files:**

1. All supporting documentation maintained in the Project files.
2. All grant funding related correspondence.

# EXHIBIT F – LOCAL AGENCY RESOLUTION

## Appendix 2 - Local Public Agency Authorizing Resolution

### RESOLUTION NO. 2016-002

#### A RESOLUTION BY THE CITY COUNCIL OF THE CITY OF RIO VISTA AUTHORIZING AN APPLICATION FOR FUNDING FROM THE DEPARTMENT OF WATER RESOURCES AND DESIGNATING A REPRESENTATIVE TO EXECUTE THE AGREEMENT AND ANY AMENDMENTS THERETO, FOR THE RIO VISTA FLOOD PROTECTION FEASIBILITY STUDY PROJECT

WHEREAS, the City of Rio Vista is a California Public Agency with responsibility for flood management and authority over land use in the area protected by the facilities of the State Plan of Flood Control and is willing to participate in, coordinate, and collaborate with other interested parties that are participating in the development of the City of Rio Vista flood management planning activities;

WHEREAS, the City of Rio Vista is authorized to enter into an agreement with the Department of Water Resources and the State of California;

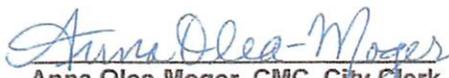
THEREFORE, BE IT RESOLVED by the City Council of the City of Rio Vista as follows:

1. That pursuant and subject to all of the terms and conditions of the Disaster Preparedness and Flood Prevention Bond Act of 2006 (Pub. Resources Code, § 5096.800 et seq.), the City of Rio Vista shall submit an application to obtain funding for the Rio Vista Flood Protection Feasibility Study Project from the Department of Water Resources.
2. That the City Council authorize the Mayor, or designee, to execute the funding agreement with the Department of Water Resources and any amendments thereto.
3. That the Mayor, or designee, shall prepare the necessary data, make investigations, and take other such actions as necessary and appropriate to obtain funding for the Rio Vista Flood Protection Feasibility Study Project.

PASSED AND ADOPTED this 19<sup>TH</sup> day of JANUARY, 2016. I, ANNA OLEA-MOGER, CITY CLERK OF THE CITY OF RIO VISTA, HEREBY CERTIFY the foregoing resolution was introduced and passed at a regular meeting of the Rio Vista City Council by the following roll call vote:

AYES: Council Members Boulware, Hampton, Kott, Vice Mayor McCracken & Mayor Richardson  
 NOES: None  
 ABSTAIN: None  
 ABSENT: None

ATTEST:

  
 Anna Olea-Moger, CMC, City Clerk



**ACTION OF  
SOLANO COUNTY WATER AGENCY**

**DATE:** September 14, 2017

**SUBJECT:** Contract with Solano Resource Conservation District for administration of Welcome to the Watershed Education Program through fiscal year 2019-2020

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RECOMMENDATION:

Authorize General Manager to execute a contract with Solano Resource Conservation District (Solano RCD) to administer the Welcome to the Watershed Education Program through fiscal year 2019-2020.

FINANCIAL IMPACT:

\$16,000 per fiscal year; three fiscal years, total contract amount of \$48,000. Sufficient funding has been programmed into the Water Agency's FY 2017-2018 budget for FY 2017-2018 activities. If this contract is approved funding will be programmed into the FY 2018-2019 and FY 2019-2020 budgets, respectively.

BACKGROUND:

The Solano RCD administers the Welcome to the Watershed Education Program, a public outreach program designed to educate landowners and other interested parties about water conservation, water-wise landscaping, wildlife habitat creation and preservation, and best management practices for watershed stewardship. The program consists of four components; dissemination of "Welcome to the Watershed Kits", public workshops, tabling at eco-events, and organization/oversite of volunteers performing field restoration projects. Additional information about the Welcome to the Watershed Education Program is provided in the attached "Welcome to the Watershed Program Report: July 2014 – June 2017.

RELEVANCE TO 2016-2025 SCWA STRATEGIC PLAN

Funding of the Welcome to the Watershed Education Program is consistent with Goal # 5 of the 2016-2025 Strategic Plan (*Education and Outreach*), Objective B (*Evaluate, and where appropriate, coordinate public awareness of water-related programs throughout the County*).

Recommended: \_\_\_\_\_  
Roland Sanford, General Manager

Approved as  
recommended

Other  
(see below)

Continued on  
next page

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Modification to Recommendation and/or other actions:

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I, Roland Sanford, General Manager and Secretary to the Solano County Water Agency, do hereby certify that the foregoing action was regularly introduced, passed, and adopted by said Board of Directors at a regular meeting thereof held on September 14, 2017 by the following vote.

Ayes:

Noes:

Abstain:

Absent:

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Roland Sanford  
General Manager & Secretary to the  
Solano County Water Agency

## Welcome to the Watershed Program Report July 2014 – June 2017

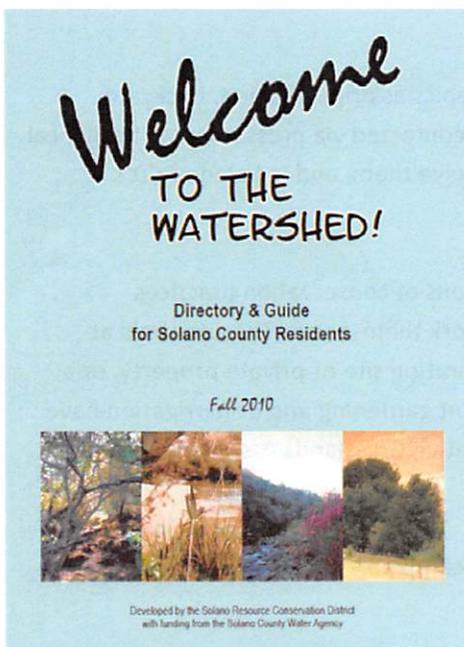
### Introduction

Solano RCD's Welcome to the Watershed program focuses on outreach to landowners in Solano County about relevant conservation issues. Through the program, Solano RCD staff demonstrates and distributes information on best management practices for water and soil conservation, native wildlife habitat, urban gardens and agricultural and rangeland management.

### Program Overview

The Welcome to the Watershed program has four major components:

**1. Welcome to the Watershed kits:** Available to all interested Solano County residents are these popular packages of local conservation information. Contents of the kits are purchased with funds from SCWA, SID, NRCS and other partners, indicated in parentheses below. The kits include:



- Welcome to the Watershed Directory – this full-color booklet (left) was written by Solano RCD staff and is updated and printed as needed. It is a useful reference for a variety of conservation practices, county, state and federal resources that can help landowners to implement those practices, and maps of the County from a watershed basin perspective. Directories were updated and printed in fall 2010. (SCWA)

- Flood Awareness – Ready for the Flood Manuals, if applicable (SCWA)

- “Don’t Plant a Pest” brochures – from the California Invasive Plant Council. Excellent reference to avoid invasive species at horticultural nurseries, and other plants to use in their place. (SCWA)

- Low-flow shower heads, hose nozzles, in-line hose timers, sink aerators, etc. to conserve water (SID, SCWA)

- “California Water Facts” publication (SID)

- “Creek Birds” pocket identification guide – distributed

to landowners that border a creek (NRCS)

- Pens, rulers, sponges and other small items – all refer to [www.solanosaveswater.org](http://www.solanosaveswater.org) (SID)
- Solano County Outdoors Guide to Parks and Open Space Areas – maps and highlights of all parks in the County (SCWA, SRCD)



- Information on recycling used oil (SRCD)
- Native plants – when seasonally appropriate, small native and drought-tolerant plants are given away with the kits (SCWA)

All of these items are distributed to landowners in a reusable canvas shopping bag (left).

**2. Workshops:** 2-5 workshops are held each year, covering such topics as drip irrigation, backyard composting, lawn replacement options, and more. Residents are contacted via press releases in all local newspapers, emails to those residents who have requested to receive them, and in Solano RCD's newsletter, which is mailed to over 2,000 households twice/year.

Welcome to the Watershed workshops are hands-on demonstrations of conservation practices combined with opportunities for participants to do some of the work themselves. They are held at Solano RCD's Conservation Education Center (CEC), at a local restoration site or private property, or a partner facility. For example, recent workshops on drought tolerant gardening and drip irrigation have been held at the Demonstration Garden at the CEC, a California Native Grasslands Association event, and at a homeowner's property who is replacing his lawn.

In addition to any workshop-specific handouts and materials, workshop participants receive a Welcome to the Watershed kit.

**4. Volunteer events:** Solano RCD manages several large restoration programs throughout the County, and often solicits volunteers from the community to assist with planting, irrigation, weeding, etc. at restoration sites. Volunteers receive Welcome to the Watershed kits in addition to learning about native plantings and practices.



*Community volunteers join Solano RCD staff to plant natives in Centennial Park (Vacaville) as part of a large riparian restoration and public trail building effort. Volunteers learned about native (and drought-tolerant) plant species and techniques for plant and drip irrigation installation.*

**Details of workshop attendance and kit distribution during reporting period**

Conservation Workshops

Workshop title	Date	Material Covered	# attendees
Solano County Weed Management Area Mtg.	January 2014, 2015, 2016	Coordinate weed efforts with other county agencies, discuss outreach efforts	60/year
Water Thrifty Landscaping and Irrigation	May 2014	Plant selection, installation practices and drip irrigation tips	25
CA Native Grasslands Association: Lawn Removal Methods	October 2015	How to effectively remove your lawn so the area can be planted to drought-tolerant alternatives	120
Project WET training for Solano educators	February 2016, 2017 and September 2016	How to incorporate water conservation and watershed stewardship into K-12 curriculum	20/wkshop
Converting a sprinkler system to drip	April 2016	Hands-on demo of this conversion	4
		<b>Total # attendees</b>	<b>389</b>
		<b>Total # kits distributed</b>	<b>85</b>



Visitors to the Solano RCD Plant Sale learn about the native plants they can install in their gardens to conserve water. The Fall 2016 Plant Sale featured a joint workshop with SRCD and SCWA staff, focusing on lawn replacement.

**3. Tabling at eco-events:** Solano RCD staff participate in local eco-events several times per year to promote the Welcome to the Watershed program and distribute the kits.



A Welcome to the Watershed table at Vallejo's Visions of the Wild film festival.

Outreach Tables at Eco-events

Event	Date	# kits distributed
Solano RCD Fall Plant Sale	Oct 2014	24
City of Vallejo Earth Day	April 2015	24
City of Fairfield Earth Day	April 2015	24
Visions of the Wild Film Fest	Oct 2015	33
Solano RCD Fall Plant Sale	Oct 2016	15
Solano Youth Ag Day	March 2017	Approx 200
City of Vallejo Earth Day	April 2017	121
Solano Community College Earth Day	April 2017	60
	<b>Total</b>	<b>501</b>

Volunteer events

Event	Date	# kits distributed
Alamo Creek Urban Greening planting days	Jan-April 2015	35
Centennial Park planting days	Jan-April 2017	30
	<b>Total</b>	<b>65</b>

Flood Awareness program site visits

Fiscal Year	# kits distributed
14-15	1
15-16	3
16-17	6
<b>Total</b>	<b>10</b>

**Total kits distributed July 2014 – June 2017 = approximately 661**

Budget

The contract amount to Solano RCD from SCWA for the Welcome to the Watershed program has been \$16,000/year since 2008. This has always been an adequate amount for the program, and the most recent contract (July 1 2013 – June 30 2016) had \$5,165.65 remaining at the end of the contract term. A similar contract for the next three years (\$48,000 for July 1 2016 – June 30 2019) would be ideal.

Future activities

Conservation workshops continue to be a priority effort for the program, as we get routine requests for them on topics such as lawn replacement, drip irrigation and rainwater capture.

Name of Project: **Welcome to the Watershed**

## **SOLANO COUNTY WATER AGENCY**

### **AGREEMENT FOR PROFESSIONAL SERVICES**

THIS AGREEMENT, **effective** July 1, 2017 is between SOLANO COUNTY WATER AGENCY, a public agency existing under and by virtue of Chapter 573 of the 1989 statutes of the State of California, hereinafter referred to as "Agency," and the **Solano Resource Conservation District**, hereinafter referred to as "Contractor."

The Agency requires services for **Welcome to the Watershed**; and the Contractor is willing to perform these services pursuant to the terms and conditions set out in this Agreement.

IT IS MUTUALLY AGREED, as follows:

#### 1. SCOPE OF SERVICES

The Agency hereby engages the Contractor, and the Contractor agrees to perform the services **Welcome to the Watershed**, as described in Exhibit A, in accordance with the terms of this Agreement and any applicable laws, codes, ordinances, rules or regulations. In case of conflict between any part of this Agreement, this Agreement shall control over any Exhibit.

#### 2. COMPENSATION

Compensation for services shall be as follows: Hourly rate of personnel plus any allowed reimbursable expenses based on unit costs as indicated on any allowed reimbursable expense in Exhibit B **not to exceed \$48,000** for all work contemplated by this Agreement.

#### 3. METHOD OF PAYMENT

Upon submission of an invoice by the Contractor, and upon approval of the Agency's representative, the Agency shall pay the Contractor monthly in arrears for fees and allowed expenses incurred the prior month, however in no event shall the cumulative total paid pursuant to this agreement exceed the maximum amount provided for in paragraph 2 of this Agreement. Every invoice shall specify hours worked for each task identified in Exhibit A undertaken.

Each invoice shall be accompanied by a spreadsheet showing, by month, costs incurred to date for the project broken down by the Tasks identified in Exhibit A. The spreadsheet shall show, for each task, budget amounts, total expended and remaining amounts. The spreadsheet shall show a subtotal for each fiscal year covered by the contract. Any amendments to the contract shall be listed and incorporated into spreadsheet. An example of a typical spreadsheet shall be provided by the Agency.

#### 4. TIME OF PERFORMANCE

This Agreement shall become effective as of the date it is executed and said services will take place between this date and **June 30, 2020** as directed by the Agency.

5. **MODIFICATION AND TERMINATION**

This Agreement may be modified or amended only by written instrument signed by the parties hereto, and the Contractor's compensation and time of performance of this Agreement shall be adjusted if they are materially affected by such modification or amendment.

Any change in the scope of the professional services to be done, method of performance, nature of materials or price thereof, or to any other matter materially affecting the performance of nature of the professional services will not be paid for or accepted unless such change, addition or deletion be approved in advance, in writing, by the Agency's General Manager.

This Agreement may be terminated by the Agency at any time, without cause, upon written notification to the Contractor. The Contractor may terminate this Agreement upon 30 days written notice to Agency.

Following termination by the Agency or the Contractor, the Contractor shall be reimbursed for all expenditures made in good faith in accordance with the terms of this Agreement that are unpaid at the time of termination.

6. **PERMITS**

Permits required by governmental authorities will be obtained at the Contractor's expense, and the Contractor will comply with local, state and federal regulations and statutes including Cal/OSHA requirements.

7. **INDEMNIFY AND HOLD HARMLESS**

**When the law establishes a professional standard of care for the Contractor's services, to the fullest extent permitted by law, Contractor will defend, indemnify and hold harmless the Agency, its directors, officers, employees, and authorized volunteers from all claims and demands of all persons that arise out of, pertain to, or relate to the Contractor's negligence, recklessness, or willful misconduct in the performance (or actual or alleged non-performance) of the work under this agreement. The Contractor shall defend itself against any and all liabilities, claims, losses, damages, and costs arising out of or alleged to arise out of Contractor's performance or non-performance of the work hereunder, and shall not tender such claims to Agency nor to its directors, officers, employees, or authorized volunteers, for defense or indemnity.**

**Other than in the performance of professional services, to the fullest extent permitted by law, Contractor will defend, indemnify and hold harmless the Agency, its directors, officers, employees and authorized volunteers from all claims and demands of all persons arising out of the performance of the work or furnishing of materials; including**

**but not limited to, claims by the Contractor or Contractor's employees for damages to persons or property except for the sole negligence or willful misconduct or active negligence of the Agency, its directors, officers, employees, or authorized volunteers.**

8. INSURANCE

By his/her signature hereunder, Contractor certifies that he/she is aware of the provisions of Section 3700 of the California Labor Code which requires every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and that Contractor will comply with such provisions before commencing the performance of the professional services under this agreement. Contractor and sub-contractors will keep workers' compensation insurance for their employees in effect during all work covered by this agreement.

Contractor will file with the Agency, before beginning professional services, certificates of insurance satisfactory to the Agency evidencing general liability coverage of not less than \$1,000,000 per occurrence (\$2,000,000 general and products-completed operations aggregate (if used)) for bodily injury, personal injury and property damage; auto liability of at least \$1,000,000 for bodily injury and property damage each accident limit; workers' compensation (statutory limits) and employer's liability (\$1,000,000) (if applicable); requiring 30 days (10 days for non-payment of premium) notice of cancellation to the Agency. Any insurance, self-insurance or other coverage maintained by the Agency, its directors, officers, employees, or authorized volunteers shall not contribute to it. Coverage is to be placed with a carrier with an A.M. Best rating of no less than A- :VII, or equivalent, or as otherwise approved by the Agency. In the event that the Contractor employs other contractors (sub-contractors) as part of the work covered by this agreement, it shall be the Contractor's responsibility to require and confirm that each sub-contractor meets the minimum insurance requirements specified above.

If any of the required coverages expire during the term of this agreement, the Contractor shall deliver the renewal certificate(s) including the general liability additional insured endorsement to the Agency at least ten (10) days prior to the expiration date.

9. COMPLIANCE WITH LAW

The Contractor shall be subject to and comply with all federal, state and local laws and regulations applicable with respect to its performance under this Agreement, including but not limited to, licensing, employment and purchasing practices; and wages, hours and conditions of employment.

10. RECORD RETENTION

Except for materials and records, delivered to the Agency, the Contractor shall retain all materials and records prepared or obtained in the performance of this Agreement, including financial records, for a period of at least three years after the Contractor's receipt of the final payment under this Agreement. Upon request by the Agency, the Contractor shall make such materials and records available to the Agency at no additional charge and without restriction or limitation to State and federal governments at no additional charge.

11. OWNERSHIP OF DOCUMENTS

All materials and records of a finished nature, such as final plans, specifications, reports and maps, prepared or obtained in the performance of this Agreement, shall be delivered to and become the property of the Agency. All materials of a preliminary nature, such as survey notes, sketches, preliminary plans, computations and other data, prepared or obtained in the performance of this Agreement, shall be made available, upon request, to the Agency at no additional charge and without restriction or limitation on their use.

12. SUBCONTRACT AND ASSIGNMENT

This Agreement binds the heirs, successors, assigns and representatives of the Contractor. The Contractor shall not enter into subcontracts for any work contemplated under this Agreement and shall not assign this Agreement or monies due or to become due, without the prior written consent of the General Manager of the Agency or his designee, subject to any required state or federal approval.

13. NONRENEWAL

The Contractor understands and agrees that there is no representation, implication, or understanding that the services provided by the Contractor under this Agreement will be purchased by the Agency under a new agreement following expiration or termination of this Agreement, and waives all rights or claims to notice or hearing respecting any failure to continue purchase of all or any such services from the Contractor.

14. NOTICE

Any notice provided for herein are necessary to the performance of this Agreement and shall be given in writing by personal delivery or by prepaid first-class mail addressed as follows:

AGENCY

Roland Sanford, General Manager  
Solano County Water Agency  
District  
810 Vaca Valley Parkway, Suite 203  
Vacaville, CA 95688

CONTRACTOR

Chris Rose, Executive Director  
Solano Resource Conservation  
  
1170 N. Lincoln St., Suite 110  
Dixon, CA 95620

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The parties have executed this Agreement the day and year first above written. If the Contractor is a corporation, documentation must be provided that the person signing below for the Contractor has the authority to do so.

Solano County Water Agency

Solano Resource Conservation District

a Public Agency

By: \_\_\_\_\_  
Roland Sanford, General Manager  
Solano County Water Agency

By: \_\_\_\_\_  
Joseph R. Martinez, Chair  
Board of Directors

## **EXHIBIT A**

### **SCOPE OF SERVICES**

The Solano Resource Conservation District will administer the Welcome to the Watershed program which focuses on public outreach of conservation information, covering topics such as water conservation, water-wise landscaping, wildlife habitat creation and best management practices for watershed stewardship. The program tasks include the following:

- Distribute Welcome to the Watershed kits to landowner-cooperators and the general public.
- Create, purchase and procure water and resource conservation tools to be given away in the Welcome to the Watershed kits.
- Teach a minimum of two conservation workshops per year, on topics such as irrigation efficiency for the homeowner, lawn replacement with sustainable landscaping, water conservation, wildlife habitat creation, etc.
- Attend a minimum of two conservation events per year with a table of relevant information for attendees and Welcome to the Watershed kits to distribute.
- Host a minimum of two volunteer events for conservation activities per year.

**EXHIBIT B**

**RATE OF COMPENSATION**

Fiscal Year 2017 – 2018: \$16,000

Fiscal Year 2018 – 2019: \$16,000

Fiscal Year 2019 – 2020: \$16,000

# SOLANO COUNTY WATER AGENCY



## MEMORANDUM

**TO:** Board of Directors

**FROM:** Roland Sanford, General Manager

**DATE:** September 6, 2017

**SUBJECT:** September General Manager's Report

---

### **NBA Alternate Intake Project (NBA AIP)**

The North Bay Alternate Intake Project (NBA AIP) has been quietly idling for the last six months and will most likely continue to do so well into 2018. The NBA AIP, as currently configured, is a “single-purpose” infrastructure project designed to improve the quality and reliability of the Solano County and Napa County State Water Project supplies. The project is estimated to cost on the order of 600 million dollars to construct – a price tag that cannot be reasonably borne by the end water users. There is general consensus among the participating cities that unless alternative funding is secured – at least one-half of the total construction cost, and more likely, at least two-thirds of the total construction cost – the NBA AIP, as currently configured, is unaffordable.

An Administrative Draft Environmental Impact Report for the NBA AIP has been prepared, but not released by the Department of Water Resources (DWR) for public review due to a number of factors, most notably, other DWR priorities (Cal Water Fix, Oroville Dam emergency spillway repair) and leadership changes (departure of key DWR staff). In many respects, the fact that the Administrative Draft Environmental Impact Report has not been released is fortuitous, as Water Agency staff believes it would be better to reformulate the NBA AIP as a “multi-purpose” project and revise the Administrative Draft Environmental Impact Report accordingly, than release an Environmental Impact Report for a project that is essentially dead on arrival.

In order to attract significant funding from alternative sources, the NBA AIP will need to provide additional benefits worthy of State and/or Federal dollars. Because the NBA AIP traverses the Yolo Bypass and crosses the Ulatis Flood Control Project, there are potential opportunities to deliver water for environmental purposes to the Yolo Bypass and the Cache Slough Complex. Similarly, the NBA AIP could be used as an alternative mechanism for delivering agricultural water to certain areas within the Cache Slough Complex, thereby eliminating problematic water diversions (water diversions that entrain endangered species or otherwise cause environmental harm).

810 Vaca Valley Parkway, Suite 203  
Vacaville, California 95688  
Phone (707) 451-6090 • FAX (707) 451-6099  
[www.scwa2.com](http://www.scwa2.com)



Because the NBA AIP traverses portions of the Solano Irrigation District and Maine Prairie Water District, both of which are Solano Project water users, there are potential opportunities to exchange North Bay Aqueduct water for Solano Project water – an alternative to the Noonan Reservoir project, which has been stymied by significant geotechnical issues. Finally, the NBA AIP could encompass a conjunctive use component – drawing groundwater from the southern portions of the Solano Subbasin during specific times and conditions.

Water Agency staff has had preliminary discussions with DWR and other interested stakeholders regarding the aforementioned opportunities. There is general interest and acknowledgement that additional investigations – technical and institutional - are needed for any of these conceptual opportunities to mature into “doable” elements of a reformulated NBA AIP, and more specifically, an NBA AIP “project description” that would be the basis of a revised Environmental Impact Report. It is also abundantly clear that the Water Agency, as opposed to DWR, must take the lead in order to complete the necessary investigations in a timely manner, and as discussed elsewhere, the Water Agency has already initiated some of these investigations.

The anticipated technical investigations can be broadly characterized as biological, water quality, and hydrologic/drainage in subject matter; while the institutional investigations are largely in the realm of regulatory compliance and political. Collectively, these investigations would likely take at least a year or more to complete. Assuming a potentially affordable multi-purpose NBA AIP project is identified (affordable from the NBA water users perspective), work on the revised Environmental Impact Report could begin in 18 to 24 months from today (mid to latter 2019).

The Water Agency has begun an in-house study to thoroughly characterize the sources, amounts and drainage network(s) that ultimately drain to and through the Cache Slough Complex, and is in discussions with U.C. Davis to continue and expand what has been a multi-year water quality and biological monitoring effort in and near the Cache Slough Complex. Both studies will not only provide pertinent information for the NBA AIP, but also information needed in support of a County-wide water supply – future demands study scheduled to begin later this year; and for the Water Agency to formulate its position with respect to the State Water Resources Control Board’s on going Bay-Delta Plan update. Funding for these studies, and most likely for the majority of the investigations leading up to the formulation of viable multi-purpose NBA AIP project description, will need to come directly from the Water Agency. Grants and other alternative funding sources will be pursued, but I am not optimistic that we will be able to secure significant outside funding in the time frame that these investigations need to occur.

Ultimately, the cost of the investigations leading up to a viable multi-purpose NBA AIP project description will be relatively modest in comparison to the cost of the revised Environmental Impact Report and the regulatory permitting that precedes project construction. The Water Agency is pursuing water bond monies for these latter project costs.

## **Flood Control**

At the June SCWA Board of Directors meeting the SCWA Water Policy Committee was assigned the task of reviewing and recommending, for Board consideration, flood management policies that would guide future SCWA flood management activities. For the purposes of these flood management discussions the committee was expanded to include one additional County Supervisor

– Supervisor Vasquez. The committee now consists of two County supervisors, Hannigan and Vasquez; two mayors, Patterson and Richardson; two irrigation district directors; Crossley and Kluge, and one representative from the SCWA Advisory Commission, Cunningham.

The committee met on August 28, 2017 and while the discussions were productive, two things are abundantly clear to me; (1) it is likely to take several committee meetings to formulate policy recommendations, due in part to the diversity of perspectives, and (2) given the diversity of perspectives, the complexity of the issues, and the difficulty of aligning Board member schedules, attempting to schedule one or two Board flood management workshops, as originally envisioned, would be of limited value at this time.

I recommend the Board and staff utilize the same approach taken with the development of the SCWA 2016-2025 Strategic Plan: allow the SCWA Water Policy Committee to continue working toward the development of flood management policies, which would then be brought to the full Board for consideration. The committee is now scheduled to meet monthly – 9 a.m. on the last Monday of the month, at the County Administration Building in Fairfield.

### **Solano Habitat Conservation Plan (HCP)**

Preparation of the Solano Habitat Conservation Plan (HCP) is required pursuant to the 1999 Solano Project Contract Renewal Biological Opinion issued by the United States Fish and Wildlife Service. Accordingly, preparation of the HCP is one of the terms of the current Solano Project water supply contract between SCWA and the United States Bureau of Reclamation. In addition to satisfying a key term of the water supply contract, the HCP will provide incidental take coverage for certain endangered species (typically meaning the unavoidable death of an endangered species during normal operations) for any of the Water Agency's operation and maintenance activities, including flood control channel maintenance, as well as the operation and maintenance activities of all the participating members that comprise the Water Agency.

The HCP's ability to streamline regulatory permitting, as it pertains to endangered species, is extremely attractive to those that must operate and maintain facilities. On the other hand, the fact that the HCP can streamline regulatory permitting makes its development and ultimately its approval by State and Federal regulatory agencies an exhausting and time consuming process. Development and final approval of an HCP can easily take ten to fifteen years, if not longer. The development of the Solano HCP is now in its eighteenth year.

The draft Solano HCP is currently under review – it's been nearly a year - by the United States Fish and Wildlife Service (Service). While the delays have been frustrating, they may not be without some benefits. Recently, the Service indicated it would be amendable to adding Travis AFB as a Solano HCP participant. Doing so would provide Travis AFB with the same regulatory permitting benefits as the Water Agency's participating members and potentially save Travis AFB considerable time and money with respect to endangered species regulatory compliance. Water Agency staff has had preliminary discussions with Travis AFB personnel, including Travis AFB as a participating member of the HCP would necessitate minor revisions to the HCP documents and a short re-review by the Service, which would theoretically take a few months.

**REPORT OF CONSTRUCTION CHANGE ORDERS AND  
CONTRACTS APPROVED BY GENERAL MANAGER UNDER  
DELEGATED AUTHORITY**

**Construction Contract Change Orders (15% of original project costs or \$50,000, whichever is less) - none**

**Construction Contracts (\$30,000 and less) - none**

**Professional Service Agreements (\$30,000 and less)**

David Okita – Water Supply Planning - \$27,000

**Non-Professional Service Agreements (\$30,000 and less) - none**

**Construction contracts resulting from informal bids authorized by SCWA Ordinance- none**

Note: Cumulative change orders or amendments resulting in exceeding the dollar limit need Board approval.



Putah Creek is known for its wild coastal rainbow trout. Phil Reedy/Courtesy photo

### Arts

## Film festival to benefit Putah Creek wild trout restoration projects

**By Special to The Enterprise** [From page A3](#) | August 30, 2017

Fans of fly-fishing won't have to brave the heat to enjoy their passion as the Orvis Down The Hatch Fly-Fishing Film Festival comes to Davis for the first time on Saturday, Sept. 9. The event will begin at 6 p.m. at the Veterans Memorial Center, 203 E. 14th St.

The festival will be hosted by the Fly Fishers of Davis and Putah Creek Trout and will raise funds for wild trout restoration projects on Putah Creek.

The festivities will start at 3 p.m. with a celebration where guests can purchase beer from Three Mile Brewing Co., wine from Bogle Vineyards and food from the El Verduzco Taco Truck while they enjoy the groovy sounds of the band The Five Thirty. Guests also can chat with a variety of fly-fishing vendors, fly shops, conservation groups and outfitters who will showcase their goods.

There will be a fly-casting competition for anyone to show off their skills, and activities for children.

Putah Creek originates from springs on the eastside of Cobb Mountain in Lake Country, and is joined by several tributaries before entering Lake Berryessa. Before Monticello Dam was built in 1957, steelhead and salmon ran up the creek into the headwaters, but today, the creek's natural flow has been altered.

At 300 feet tall, Monticello Dam stores more than 1.6 million acre-feet of water in Lake Berryessa. The 6-mile section below the dam is called the Interdam Reach. Rich in nutrients, the first 4.5 miles consists of fast-flowing cold water, with runs, riffles and deep pools.

Beyond that, the creek slows as the gradient flattens and flows into Lake Solano, terminates at the Putah Diversion Dam, and then runs eastward for approximately 22 miles, eventually draining into the Sacramento River.

Putah Creek's entire Interdam Reach is designated a "catch and release" trophy wild trout water, with rainbows reaching up to 30 inches in length. A 2014 survey estimated the population at up to 3,000 fish per mile.

For the fly-fishing community, Putah Creek is the only designated trophy water on the west side of California's Central Valley. Within the IDR, Putah Creek's cold-water fishery is one of the more unusual ones found in California, consisting entirely of wild coastal rainbow trout.

Although previous hatchery plantings included brown and brook trout, none have survived to reproduce. The creek's coastal rainbows are late fall and early winter spawners that develop bright and intense coloration, reminiscent of steelhead. Recently, a run of Chinook salmon has established in the lower creek.

Putah Creek Trout was founded in 2007 by an informal group of fly fishers concerned about the health of the wild trout population. When it became an official nonprofit organization in 2009, interest grew, backed by a community of more than 900 concerned fly fishers.

The group's mission is to enhance Putah Creek's wild trout fishery. Current restoration efforts include increasing critical fish habitat; removing and replacing non-native vegetation with native plantings; improving access; trail extension and repair; and the development of outdoor education modules that showcase this resource.

For the first time, since the Orvis Down The Hatch Fly Fishing Film Festival has gone on tour, the festival will premiere in Northern California. The collection of short films — family-friendly and funny — capture the culture of fly-fishing today and feature fresh and saltwater fly-fishing. Many of these are films are not available in other touring film festivals.

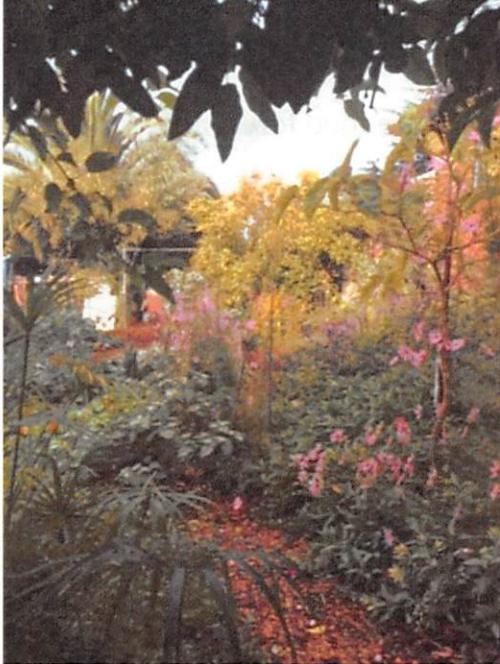
There is no charge for admission to the celebration prior to the film premiere. Movie tickets are \$20 and may be purchased online at [ffd.ticketspice.com/orvis-dth-davis](http://ffd.ticketspice.com/orvis-dth-davis) or at the door. A raffle during intermission will feature prizes including fly fishing equipment, cool swag, guided trips and more.

For more information, go to [flyfishersofdavis.org/downthehatchfilm](http://flyfishersofdavis.org/downthehatchfilm).

Community News and Views

# Backyard sustainability program expands to Fairfield

By **Marcella Licea** From page A2 | August 30, 2017



FAIRFIELD — Sustainable Solano celebrates the expansion of its Sustainable Backyard Program this month by bringing inspirational speakers and free educational workshops and classes to Fairfield.

The program will offer Fairfield homeowners who are passionate about sustainability and community resilience an opportunity to become “food forest keepers” of public demonstration gardens in exchange for a five-year commitment of public tours and workshops – once or twice per calendar year on a mutually agreed upon schedule.

Installations and tours are free and open to the public for a hands-on experience on how to grow food, save water and build community.

The application period began Aug. 15 and ends Sept. 30. Installations will take place on three separate weekend dates for each yard in the months of October and November.

Two Fairfield yards will be selected for conversion into edible forest gardens based on permaculture design principles complete with a laundry-to-landscape and rainwater catchment system.

Rain and secondary water from the laundry will be diverted to mulch-filled ditches, called swales, to slow down and absorb water into the soil using every drop to feed fruit trees, shrubs and plants. Highly visible front yard lawns are preferred but other types of landscapes – up to 2,000 square feet – are welcome to apply.

Households will be evaluated for suitability for a permaculture food forest and a laundry-to-landscape gray water system.

The installation of these demonstration food forests is sponsored by the Solano County Water Agency and are free of cost to selected homeowners.

The significant annual water-saving impact of the already-established demonstration food forests in Benicia private homes caught the attention of the Solano County Water Agency, which supported the expansion of the program to greater Solano County, resulting in two additional private demonstration gardens in Vallejo installed in March and April.

Suisun City and Vacaville residents interested in the program can experience a preview of what is to come to their cities in 2018 by attending these public installations and future workshops after these gardens are established.

Applicants must be available on installation dates and are encouraged to attend the volunteer training workshops offered to the public to learn more about the Sustainable Backyard Program, basic permaculture design principles and wise-water usage. Fairfield residents may download an application by going to [www.sustainablesolano.org](http://www.sustainablesolano.org) or by contacting Sustainable Backyard program manager Nicole Newell at [nicole@sustainablesolano.org](mailto:nicole@sustainablesolano.org).

## **About Sustainable Solano**

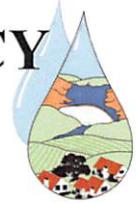
Sustainable Solano is a nonprofit organization dedicated to Nurturing Initiatives for the Good of the Whole. For more information, email [info@sustainablesolano.org](mailto:info@sustainablesolano.org) or visit [www.sustainablesolano.org](http://www.sustainablesolano.org).

*Share news about what's happening in the community, in real time, with readers of the Daily Republic. It's fast and it's easy. Get started now.*

**Editor's note:** The Daily Republic no longer offers free, unlimited access to articles online, effective Monday, Aug. 21, 2017. More information can be found here: [DR to launch online subscriptions](#).

ADVISORY  
COMMISSION  
UPDATES

# SOLANO COUNTY WATER AGENCY



## SOLANO WATER ADVISORY COMMISSION

### Meeting Announcement

DATE: Wednesday, August 23, 2017

TIME: 12:30 – 2:00 PM

PLACE: SCWA Office – Engineering Conference Room  
810 Vaca Valley Parkway, Suite 203  
Vacaville, CA 95688

### AGENDA

1. Minutes of July 26, 2017 meetings
2. Future Direction of the Advisory Commission
3. SCWA General Manager's Report
  - a. Water Supply-Demand Analysis (County Wide)
  - b. NBA Treatment Analysis (Formation of Working Group)
  - c. Ulatis Flood Control Channel Working Group, Summary
  - d. SCWA Board Items
    - i. UCD Cache Slough Complex Fisheries Study
  - e. Other Issues
4. Groundwater Planning
  - a. SGMA Update
5. Solano County Report
6. PSC/NBA Maintenance
7. Solano Water Authority Report
8. Water Conservation Report
9. Legislative/Initiative/Court Decision Issues (Not Discussed Above)
10. New Business
11. Public Comments

NEXT MEETING: Wednesday September 27, 2017.

810 Vaca Valley Parkway, Suite 203  
Vacaville, California 95688  
Phone (707) 451-6090 • FAX (707) 451-6099  
[www.scwa2.com](http://www.scwa2.com)



**Solano Water Advisory Commission  
Meeting Minutes  
July 26, 2017**

**Present:** Roland Sanford, Thomas Pate and Alex Rabidoux, Solano County Water Agency; Felix Riesenber, Fairfield; Royce Cunningham, Steve Sawyer and Justen Cole, Vacaville; Cary Keaton, Solano Irrigation District; Mike Hardesty and Bryan Busch, RD 2068; Michael Malone and Stuart Cole, Vallejo; Christian Di Renzo and Leo Larkin, Benicia; Misty Kaltreider, Solano County; David Melilli, Rio Vista; Don Holdener, Maine Prairie Water District; and Rick Wood.

The meeting was called to order at 12:37 PM.

**1. Approval of Minutes**

The minutes of the March 22, April 26, and May 24, 2017 meetings were approved.

**2. SCWA General Manager's Report**

Roland gave a brief update on the Bay Delta Plan, and how it impacts the NBA, Solano Project, and Ulatis Flood Control Project. The State Board has received some push back from the Governor and ACWA on the heavy handed approach from the Bay Delta Plan. There are also active discussions on Sacramento Valley settlement talks, but with no Westside representatives in the discussions.

Roland informed the Commission that there continues to be a large focus on Cache Slough Complex restoration. The Ulatis Flood Control Project appears to play an important role in water quality and fish/food productivity within the Complex. The Water Agency will need to take a proactive role in better understanding the entire system. The Water Agency is interested in funding an ongoing Cache Slough Complex fish study by UC Davis as part of this effort. Additionally, Roland would like to form a Ulatis-Cache Working Group to have a uniform and consistent front in dealing with future Ulatis-Cache issues.

On Solano Project issues, "Friends of Putah Creek" have filed a lawsuit against the Water Agency's Programmatic EIR. On other Solano Project items, the State Board is looking to regulate mercury in elevated reservoirs, which include Lake Berryessa and Lake Solano. The Water Agency is working closely with USBR to push back on the State, as well as other policy avenues to prevent unnecessary regulation by the State Board.

For Flood Management, Roland has been unable to get the Board to meet. The flood policy will be discussed at the September Board Meeting.

**3. Groundwater Planning**

For SGMA, a total of 17 GSA's were filed within the Solano Subbasin. Moving forward a single Groundwater Sustainability Plan will be created, with each GSA having a section. The Advisory Commission recommended adding a standing SGMA agenda item to future meetings.

**4. Solano County Report**

None

5. PSC/NBA Maintenance

For the NBA, there will be 1-2 additional 24-hr outages scheduled for mid/late September. PG&E will work with DWR and the NBA contractors to schedule the outages.

6. Solano Water Authority Report

None

7. Water Conservation

None

8. Legislative/Initiative/Court Decision Issues Not Discussed Above

None

9. New Business

Mike Hardesty and Rick Wood gave a brief background on how the Advisory Commission and Water Agency were formed. Mike strongly recommended the need for the Advisory Commission to be more effective. The Commission was created by legislation to advise the SCWA Board. Moving forward, the Commission will need to take a more proactive stance with the Board. There is also a need to move forward with implementing the Strategic Plan. Future Advisory Commission agendas should be more policy driven. Lastly, a draft list of items going to the Board, should be discussed with the Advisory Commission.

10. Public Comments

None

The next meeting will be August 23, 2017 at 12:30 PM.

The meeting adjourned at 2:08 PM.

SWAC Minutes.07-26-2017 (ID 219062)

**ACTION OF  
SOLANO COUNTY WATER AGENCY**

**DATE:** September 14, 2017

**SUBJECT:** Solano Subbasin Groundwater Sustainability Agency Grant Funding Request for Development of Groundwater Sustainability Plan for Solano Subbasin

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**RECOMMENDATION:**

Provide grant funding match of up to \$350,000 to Solano Subbasin Groundwater Sustainability Agency for development of a Groundwater Sustainability Plan for the Solano Subbasin.

**FINANCIAL IMPACT:**

Sufficient funding is available in the FY 2017-2018 budget. Staff is proposing to reallocate up to \$350,000 of the \$3,000,000 originally programed for the purchase of HCP conservation easements. Due to limited availability of U.S. Fish and Wildlife staff, the Solano Project HCP has yet to be approved and therefore, the anticipated purchase of HCP conservation easements will not occur in FY 2017-2018. Alternatively, sufficient reserve funds are available in the Water Agency's Solano Project Fund.

**BACKGROUND:**

The Solano Groundwater Sustainability Agency (Solano GSA) is coordinating with the Solano Irrigation District GSA (SID GSA), the City of Vacaville GSA (Vacaville GSA) and others to develop, pursuant to the Sustainable Groundwater Management Act (SGMA), a single Groundwater Sustainability Plan for the Solano Subbasin. Preliminarily, it is estimated that preparation of a Groundwater Sustainability Plan that encompasses the entire Solano Subbasin could cost on the order of \$1,000,000 to \$2,000,000. Collectively, the aforementioned entities will soon be applying for Proposition 1 grant funding from the Department of Water Resources (DWR) to prepare the Solano Subbasin Groundwater Sustainability Plan. DWR will be awarding one grant per groundwater basin or subbasin. Maximum awards are expected to be capped at \$1,000,000, with a 50% match requirement. These grants will be highly competitive as there is approximately \$46 million available for approximately 127 medium and high priority basins throughout the state. Final guidelines for this grant program have yet to be released, but it is likely that grant applications will be due on or near October 31<sup>st</sup>.

Recommended: \_\_\_\_\_  
Roland Sanford, General Manager

Approved as  
recommended

Other  
(see below)

Continued  
on next page

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Modification to Recommendation and/or other actions:

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I, Roland Sanford, General Manager and Secretary to the Solano County Water Agency, do hereby certify that the foregoing action was regularly introduced, passed, and adopted by said Board of Directors at a regular meeting thereof held on September 14, 2017 by the following vote.

Ayes:

Noes:

Abstain:

Absent:

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Roland Sanford  
General Manager & Secretary to the  
Solano County Water Agency

The Solano Subbasin GSA, which encompasses the largest geographic area within the Solano Subbasin boundaries delineated by DWR, and whose governing board includes a number of SCWA Board members, was formed just two months ago. The water management interests of the Solano Subbasin GSA (as well as the SID GSA and Vacaville GSA) and SCWA are closely aligned in that groundwater constitutes a significant source of Solano County's water supply and to some degree can be characterized as one of the three legs of a countywide water supply stool – the other two legs being the North Bay Aqueduct and Solano Project supplies managed by SCWA. How groundwater is managed can ultimately impact the demands placed on the North Bay Aqueduct and Solano Project supplies.

Based on discussions with DWR, Water Agency staff believes the Solano Subbasin is unlikely to be awarded significant (if any) grant funds unless the three largest GSA's in the Solano Subbasin; the Solano Subbasin GSA, Vacaville GSA and SID GSA jointly submit a single proposal. Complicating proposal preparation is the fact that the Solano Subbasin GSA has very limited fiscal resources, and therefore, is not able to provide much if any of the required matching grant funds; and the fact that proposals will likely be due within the next two months. Furthermore, as of this writing the proposed scope of work and associated funding request by the aforementioned GSA's has yet to be defined. In short, there are currently many unknowns and little time to respond to the DWR grant opportunity.

The Solano Subbasin GSA is requesting funds – up to \$350,000 – from the Water Agency to meet the Solano Subbasin GSA's likely grant match contribution (see attached letter dated August 17, 2017). In view of the aligned water management interests and the strong desire by all parties to develop a single overarching Groundwater Sustainability Plan for the Solano Subbasin, staff recommends the Board approve the Solano Subbasin GSA's request, with the understanding that the exact matching funds request remains to be determined, but will not exceed \$350,000.

RELEVANCE TO 2016-2025 SCWA STRATEGIC PLAN:

The Water Agency's fiscal participation in the development of a single Groundwater Sustainability Plan for the Solano Subbasin is consistent with Goal # 9 of the 2016-2025 Strategic Plan (*Implement SCWA's role in Sustainable Groundwater Management Act*); Objective "A" (*Participate in ongoing development of Solano Subbasin Groundwater Water Sustainability Agency*).

## SOLANO SUBBASIN GSA

### Directors

Mayor Thom Bogue-City of Dixon  
Mayor Norman Richardson-City of Rio Vista  
Supervisor John Vasquez-Solano County  
Supervisor Skip Thomson-Solano County  
Spencer Bei-Dixon Resource Conservation District  
Joe Martinez-Solano Resource Conservation District  
Ryan Mahoney-Maine Prairie Water District  
Dale Crossley-Reclamation District No. 2068  
Jack Caldwell-California Water Service  
John Rotteveel-Solano County Farm Bureau  
Russ Lester-Landowner Representative

August 17, 2017  
Mayor Pete Sanchez, Chair  
Solano County Water Agency, Board of Directors  
810 Vaca Valley Parkway, Suite 203  
Vacaville, CA 95688

Subject: Solano Groundwater Sustainability Agency-Grant Funding Request for  
Development of Groundwater Sustainability Plan for Solano Subbasin

Dear Mayor Sanchez:

The Solano Groundwater Sustainability Agency (Solano GSA) requests that the Solano County Water Agency (SCWA) Board of Directors consider their request for assistance with grant funding for the development of a Groundwater Sustainability Plan for the Solano Subbasin. As SCWA has expanded their role of management of water resources throughout the County, this request is consistent with Goal # 9 of the 2016-2025 SCWA Strategic Plan (*Implement SCWA's role in Sustainable Groundwater Management Act*); Objective "A" (*Participate in ongoing development of Solano Subbasin Groundwater Water Sustainability Agency*).

The California Department of Water Resources (DWR) is administering the Sustainable Groundwater Planning Grant Program (SGWP), using funds authorized by the Water Quality, Supply, and Infrastructure Improvement Act of 2014 (Proposition 1). DWR will be awarding one grant per groundwater basin or subbasin. Maximum awards are capped at \$1,000,000, with a 50% match requirement. These grants will be highly competitive as there is approximately \$46 million available for approximately 127 medium and high priority basins throughout the state.

Respectively, the Solano GSA would like to request from SCWA up to \$350,000 to help with matching funds for this grant opportunity.

Preliminary discussions amongst the Groundwater Sustainability Agencies (GSAs) within the Solano Subbasin indicate a strong desire to develop one GSP for the entire subbasin. Discussion on equitable cost-share on a GSP have not commenced yet as this grant cycle has a fast moving timeline<sup>1</sup>. The Solano GSA will negotiate with the Solano Irrigation District GSA (SID GSA)

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<sup>1</sup> Within the Solano Subbasin, the Solano GSA extracts approximately 115,000 acre/feet of groundwater per year (90% of use), the Solano Irrigation District GSA extracts about 8,000 acre/feet (6% of use), and the City of Vacaville GSA extracts about 5,200 acre/feet (4% of use). The Reclamation District GSAs do not extract groundwater.

## Mayor Sanchez Letter, Page Two

and the City of Vacaville GSA (Vacaville GSA) on equitable cost share over the next few months. There are a few smaller Reclamation District GSAs within the subbasin as well, but they are unlikely to be in a position to contribute financially towards the GSP.

Pursuant to the Sustainable Groundwater Management Act (SGMA), one or more Groundwater Sustainability Plans (GSPs) must be developed for the Solano Subbasin by January 1, 2022; and collectively, these plans must encompass the entire subbasin. The purpose of these SGWP grants is for GSAs to develop GSPs.

Notwithstanding contributions and collaboration from the other GSAs in the subbasin, it is the intent of the Solano GSA to develop a GSP that encompasses the entire subbasin to insure compliance with SGMA, hence the amount of the funding match request. If SCWA chooses to grant this request and all of the matching funds are not utilized, any remaining funds would only be used on management of groundwater resources within the Solano GSA portion of the subbasin. Given the uncertainty of overall requirements of the GSP at this time, in particular with respect to groundwater models, it is likely that collectively we will need to seek out additional funds.

## Project Background

SGMA requires that a GSP be prepared for each medium- and high- priority groundwater basin in California. The Solano Subbasin is a medium-priority basin. Plans must include a physical description of the basin, including groundwater levels, groundwater quality, subsidence, information on groundwater-surface water interaction, data on historical and projected water demands and supplies; a map of existing and potential recharge areas; measurable objectives and milestones; monitoring and management provisions, and a description of how the plan will affect other plans, including city and county general plans.

## Solano GSA

As a result of the requirements of SGMA, the Solano GSA was formed on June 8<sup>th</sup>, 2017, through a Joint Powers Agreement. The purpose of the Solano GSA is to comply with SGMA, managing and reporting on groundwater conditions in the Solano Subbasin through a GSP.

The Solano GSA consist of the following entities: City of Dixon, City of Rio Vista, Solano County, Dixon Resource Conservation District, Solano Resource Conservation District, Maine Prairie Water District, Reclamation District 2068, California Water Service, and two landowner representatives, one from the Solano County Farm Bureau, and one from the Solano County Agricultural Advisory Committee,.

The purpose of the Solano GSA is for the Members to collectively develop, adopt, and implement one GSP for the sustainable management of groundwater for that portion of the subbasin underlying the jurisdictional boundaries of the Members. The Members intend to

Mayor Sanchez Letter, Page Three

cooperatively work together to ensure that groundwater in the management area is proven to be sustainably managed by the January 1, 2040 regulatory deadline and thereafter.

#### Sustainable Groundwater Management Act

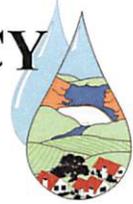
The Sustainable Groundwater Management Act (SGMA), which went into effect on January 1, 2015, provides a state framework to regulate groundwater for the first time in California history. The SGMA gives local agencies the authorities to manage groundwater in a sustainable manner and allows for limited state intervention when necessary to protect groundwater resources. The SGMA requires the creation of local Groundwater Sustainability Agencies to develop and implement Groundwater Sustainability Plans. The goal is to achieve sustainability within the next twenty years.

If you have any questions, or require additional information, please contact Chris Lee at (707) 455-1105 or via email at [clcc@scwa2.com](mailto:clcc@scwa2.com).

Thank you for your consideration in this most important groundwater matter.

Sincerely,  
  
Supervisor Skip Thomson,  
Chair, Solano GSA Board of Directors

# SOLANO COUNTY WATER AGENCY



September 15, 2017

The Honorable Cecilia Aguiar-Curry  
California State Assembly  
State Capitol, Suite 5144  
Sacramento, CA 95814

Assemblywoman Aguiar-Curry,

I respectfully write on behalf of the Solano County Water Agency (SCWA) in support of your AB 1420, "Water Rights: Small Irrigation Use: Lake or Streambed Alteration Agreements".

SCWA recognizes that AB 1420 will streamline the permitting process to divert water to small irrigation ponds, and in doing so, encourage participation in existing programs designed to protect salmon and steelhead populations.

We appreciate your efforts. Please contact me if we may be of assistance.

Sincerely,

Roland Sanford, General Manager  
Solano County Water Agency

cc: Senator Bill Dodd

810 Vaca Valley Parkway, Suite 203  
Vacaville, CA 95688  
(707) 451-6090  
Fax (707) 451-6099

# SOLANO COUNTY WATER AGENCY



September 15, 2017

The Honorable Gerald Mark McNerney  
2265 Rayburn House Office Building  
United States House of Representatives  
Washington, D.C. 29515

Dear Representative McNerney,

I respectfully write on behalf of the Solano County Water Agency (SCWA) in support of your HR 3275.

SCWA believes in a robust discussion regarding the main thrust of your measure; increased water supply and regional self-sufficiency, improved infrastructure, improved data, technology and education and energy water nexus technology and data.

Your efforts to bring balance to regional interests and integrated regional solutions is most appreciated.

Please contact me if we may be of assistance.

Sincerely

Roland Sanford, General Manager  
Solano County Water Agency

810 Vaca Valley Parkway, Suite 203  
Vacaville, CA 95688  
(707) 451-6090  
Fax (707) 451-6099

**ASSEMBLY BILL**

**No. 1420**

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**Introduced by Assembly Member Aguiar-Curry**  
(Principal coauthor: Senator Dodd)

February 17, 2017

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An act to add Section 1602.1 to the Fish and Game Code, and to amend Sections 1229 and 1229.1 of the Water Code, relating to water.

LEGISLATIVE COUNSEL'S DIGEST

AB 1420, as introduced, Aguiar-Curry. Water rights: small irrigation use: lake or streambed alteration agreements.

Existing law, the Water Rights Permitting Reform Act of 1988, authorizes a person to obtain a right to appropriate water for a small domestic use, small irrigation use, or livestock stockpond use upon first registering the use, as those uses are defined by the act, with the State Water Resources Control Board and thereafter applying the water to reasonable and beneficial use with due diligence. The act requires the registration of water use to be made upon a form prescribed by the board that requires, among other things, a certification that the registrant has contacted a representative of the Department of Fish and Wildlife and has agreed to comply with conditions set forth by the department. The act requires the board to establish reasonable general conditions to which all appropriations made pursuant to the act are required to be subject, including, among other things, that all conditions lawfully required by the department are conditions upon the appropriations. The act provides that the board is not required to adopt general conditions for small irrigation use until the board determines that funds are available for that purpose, and that a registration for small irrigation use pursuant to the act is not authorized until the board establishes

general conditions for small irrigation use to protect instream beneficial uses, as specified.

This bill would require the board to give priority to adopting, on or before June 30, 2021, except as provided, general conditions that permit a registrant to store water for small irrigation use during times of high streamflow in exchange for the registrant reducing diversions during periods of low streamflow, as specified. The bill would require that the actions of the board under these provisions be deemed an action taken for the protection of the environment for purposes of specified California Environmental Quality Act guidelines, if those actions do not result in the relaxation of streamflow standards.

Existing law exempts certain stream segments subject to certain minimum streamflow requirements from the provisions of the act upon proper registration.

This bill, if the Director of Fish and Wildlife establishes proposed streamflow requirements for a stream segment, as specified, would instead prohibit the authorization of a registration for that stream segment until the board establishes instream flow requirements as a part of the general conditions applicable to that stream segment. The bill would require that the establishment of those instream flow requirements be done after the board considers the proposed streamflow requirements, if proposed by the director.

Existing law prohibits an entity from substantially diverting or obstructing the natural flow of, or substantially changing or using any material from the bed, channel, or bank of, any river, stream, or lake, or from depositing certain material where it may pass into any river, stream, or lake, without first notifying the department of that activity and entering into a lake or streambed alteration agreement, if required by the department to protect fish and wildlife resources. Existing law exempts certain routine maintenance and operation activities from those requirements after the initial notification and agreement, certain emergency activities from those notification and agreement requirements and certain activities authorized by a license or renewed license issued for cannabis cultivation from those agreement requirements. Existing law authorizes the department to establish a graduated schedule of fees to be charged to any entity subject to the notification and agreement provisions and requires any fees received to be deposited into the Fish and Game Preservation Fund.

This bill would exempt an entity from the requirement to enter into a lake or streambed alteration agreement with the department if the

entity submits a board-approved registration or renewed or amended registration for water use to the department and the department determines certain requirements are met, including, the payment of a fee required for a lake or streambed alteration agreement and the submission of a copy of any department conditions imposed for the registration for water use. With respect to the submission of a renewed or amended registration, the bill would require the department to modify the existing conditions, or add new conditions, which would become part of the renewed or amended registration, if the department determines the conditions for the use will not protect fish and wildlife resources that may be substantially adversely affected by the activity authorized by the renewed or amended registration. If the department determines that an entity has failed to comply with these conditions, the exemption, upon written notice by the department, would no longer apply and the entity would be required to comply with the regular notice and agreement requirements.

Vote: majority. Appropriation: no. Fiscal committee: yes.  
State-mandated local program: no.

*The people of the State of California do enact as follows:*

- 1 SECTION 1. Section 1602.1 is added to the Fish and Game  
2 Code, to read:  
3 1602.1. (a) (1) Notwithstanding subdivision (a) of Section  
4 1602, an entity that submits a registration of water use made  
5 pursuant to Section 1228.3 of the Water Code that has been  
6 approved by the State Water Resources Control Board is deemed  
7 to have given the notification required by paragraph (1) of  
8 subdivision (a) of Section 1602, and shall not be required to obtain  
9 an agreement from the department for the activity that the  
10 registration covers for the term of the registration, if all of the  
11 following occur:  
12 (A) The fee specified in paragraph (3) of subdivision (a) of  
13 Section 1602 is submitted to the department with the registration.  
14 (B) The entity submits to the department a copy of any  
15 conditions imposed by the department pursuant to paragraph (2)  
16 of subdivision (a) of Section 1228.6 of the Water Code.  
17 (C) The department notifies the entity in writing that the  
18 exemption in this paragraph applies to the registered water use.

1 (2) The department shall notify the entity in writing whether  
2 the exemption in this paragraph applies to the registered water use  
3 within 60 days of receiving the registration and fee.

4 (3) If the department determines that an entity has failed to  
5 comply with any of the department conditions described in  
6 paragraph (1), the failure shall not constitute a violation of this  
7 chapter, and the exemption provided in paragraph (1), upon written  
8 notice by the department, shall no longer apply and the entity shall  
9 comply with Section 1602.

10 (b) (1) An entity that submits a renewal of registration or  
11 amended registration made pursuant to Section 1228.5 or 1228.7  
12 of the Water Code that has been approved by the State Water  
13 Resources Control Board is deemed to have given the notification  
14 required by paragraph (1) of subdivision (a) of Section 1602, and  
15 shall not be required to obtain an agreement from the department  
16 for the activity that the registration covers for the term of the  
17 renewed or amended registration, if all of the following occur:

18 (A) The fee specified in paragraph (3) of subdivision (a) of  
19 Section 1602 is submitted to the department with the renewal of  
20 registration or amended registration, as applicable.

21 (B) The entity submits to the department a copy of any  
22 conditions imposed by the department pursuant to paragraph (2)  
23 of subdivision (a) of Section 1228.6 of the Water Code.

24 (C) The department determines the conditions described in  
25 subparagraph (B), together with any other conditions in the  
26 renewed or amended registration, will protect fish and wildlife  
27 resources that may be substantially adversely affected by the  
28 activity that the renewed or amended registration authorizes.

29 (D) The department notifies the entity in writing that the  
30 exemption in this paragraph applies to the registered water use.

31 (2) The department shall notify the entity in writing whether  
32 the exemption in paragraph (1) applies to the registered water use  
33 within 60 days of receiving the registration and fee.

34 (3) If the department determines the conditions described in  
35 paragraph (1), together with any other conditions in the renewed  
36 or amended registration, will not protect fish and wildlife resources  
37 that may be substantially adversely affected by the activity that  
38 the renewed or amended registration authorizes, the department  
39 shall modify the existing conditions, or add new conditions to the  
40 renewed or amended registration, and notify the entity in writing

1 that the exemption in paragraph (1) applies to the registered water  
2 use with the modified or new conditions, which shall become part  
3 of the renewed or amended registration.

4 (4) If the department determines that an entity has failed to  
5 comply with any of the department conditions described in  
6 paragraph (1) or (3), the failure shall not constitute a violation of  
7 this chapter, and the exemption provided in paragraph (1), upon  
8 written notice by the department, shall no longer apply and the  
9 entity shall comply with Section 1602.

10 SEC. 2. Section 1229 of the Water Code is amended to read:

11 1229. (a) The board is not required to adopt general conditions  
12 for small irrigation use pursuant to subdivision (a) of Section  
13 1228.6 *and this section* until the board determines that funds are  
14 available for that purpose.

15 (b) A registration for small irrigation use pursuant to this article  
16 is not authorized until the board establishes general conditions for  
17 small irrigation use pursuant to subdivision (a) of Section 1228.6  
18 to protect instream beneficial uses.

19 (c) The board may establish general conditions for some  
20 methods of diversion or categories of small irrigation use before  
21 establishing general conditions for other methods or categories,  
22 in which case a registration for small irrigation use is authorized  
23 only for those methods or categories for which the board has  
24 established the general conditions for the protection of instream  
25 beneficial uses.

26 (d) (1) *Except as necessary to adopt principles and guidelines*  
27 *implementing paragraph (1) of subdivision (a) of Section 1259.4*  
28 *or 13149, and subject to subdivision (a), the board shall give*  
29 *priority to adopting, on or before June 30, 2021, general conditions*  
30 *that permit a registrant to store water for small irrigation use*  
31 *during times of high streamflow in exchange for that registrant*  
32 *reducing diversions during periods of low streamflow for diversions*  
33 *from coastal streams entering the Pacific Ocean and streams*  
34 *entering the San Francisco Bay, not including the Sacramento*  
35 *River and San Joaquin River, for the following:*

36 (A) *Off-stream storage reservoirs.*

37 (B) *On-stream storage reservoirs located on stream reaches*  
38 *where fish are not present, if the reservoirs will not substantially*  
39 *affect fish habitat in downstream reaches where fish are present.*

1     (2) *An action of the board pursuant to this subdivision shall be*  
2 *deemed an action taken for the protection of the environment for*  
3 *purposes of Section 15308 of Title 14 of the California Code of*  
4 *Regulations, if those actions do not result in the relaxation of*  
5 *existing streamflow standards.*

6     SEC. 3. Section 1229.1 of the Water Code is amended to read:

7     ~~1229.1. (a) This article does not apply to those stream segments~~  
8 ~~for which the Director of Fish and Wildlife establishes proposed~~  
9 ~~streamflow requirements pursuant to Section 10002 of the Public~~  
10 ~~Resources Code, notwithstanding the July 1, 1989, deadline for~~  
11 ~~preparation of the requirements.~~

12     1229.1. (a) *If the Director of Fish and Wildlife establishes*  
13 *proposed streamflow requirements for a stream segment pursuant*  
14 *to Section 10002 of the Public Resources Code, regardless of*  
15 *whether those requirements were proposed before July 1, 1989, a*  
16 *registration for that stream segment pursuant to this article is not*  
17 *authorized until the board establishes instream flow requirements*  
18 *as a part of the general conditions applicable to that stream*  
19 *segment. The establishment of those instream flow requirements*  
20 *shall be done after the board considers the proposed streamflow*  
21 *requirements, if proposed by the Director of Fish and Wildlife.*

22     (b) ~~Notwithstanding subdivision (a), this article applies to a~~  
23 ~~registration filed before the Director of Fish and Wildlife~~  
24 ~~establishes proposed streamflow requirements for the source of~~  
25 ~~water supply for the registration. registration may be renewed even~~  
26 ~~if the board has not yet adopted instream flow requirements.~~ The  
27 conditions for renewal under subdivision (c) of Section 1228.5  
28 may include any conditions the Department of Fish and Wildlife  
29 determines to be necessary to protect stream-related fish and  
30 wildlife resources on a source of water supply for which the  
31 Director of Fish and Wildlife has established proposed streamflow  
32 requirements pursuant to Section 10002 of the Public Resources  
33 Code.

115TH CONGRESS  
1ST SESSION

# H. R. 3275

To provide drought relief through innovation, increased water supply, and regional adaptation and self-sufficiency, and for other purposes.

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## IN THE HOUSE OF REPRESENTATIVES

JULY 17, 2017

Mr. MCNERNEY introduced the following bill; which was referred to the Committee on Energy and Commerce, and in addition to the Committees on Natural Resources, Transportation and Infrastructure, Agriculture, Science, Space, and Technology, Ways and Means, and Foreign Affairs, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

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## A BILL

To provide drought relief through innovation, increased water supply, and regional adaptation and self-sufficiency, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*  
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE; TABLE OF CONTENTS.**

4 (a) **SHORT TITLE.**—This Act may be referred to as  
5 the “Water and Energy Sustainability through Technology  
6 Act”.

1 (b) TABLE OF CONTENTS.—The table of contents for  
 2 this Act is as follows:

Sec. 1. Short title; table of contents.

TITLE I—WATER INNOVATION THROUGH ENERGY-WATER NEXUS  
 TECHNOLOGY AND DATA

Subtitle A—Energy-Water Nexus Technology and Data

- Sec. 1111. DOE energy-water nexus findings, sense of Congress, and definition.
- Sec. 1112. National energy-water nexus database.
- Sec. 1113. Energy-water nexus technology R&D program.
- Sec. 1114. Smart energy and water efficiency program.
- Sec. 1115. State energy-water technology services program.
- Sec. 1116. Energy-water efficient buildings and power plants.
- Sec. 1117. Energy-water nexus data for power plants.
- Sec. 1118. Reclamation water conservation and energy savings.
- Sec. 1119. Rural water utilities energy and water efficiency program.

Subtitle B—Improved Data, Technology, and Education

- Sec. 1221. DOI groundwater information system.
- Sec. 1222. EIA water consumption data collection in the residential and commercial sectors.
- Sec. 1223. USGS water consumption analysis survey.
- Sec. 1224. Innovations at the nexus of food, energy, and water systems.
- Sec. 1225. USDA and DOI coordinated water conservation efforts.
- Sec. 1226. Agricultural technology centers.
- Sec. 1227. Efficient irrigation technical assistance grant program.
- Sec. 1228. United States-Israel Water Cooperation Working Group.

TITLE II—INCREASED WATER SUPPLY AND REGIONAL SELF-SUFFICIENCY

- Sec. 2001. WaterSMART reauthorization.
- Sec. 2002. Amendment to competitive grant program for water recycling and reuse projects.
- Sec. 2003. Recycling standards assistance.
- Sec. 2004. Stormwater management and technical assistance.
- Sec. 2005. Groundwater management technical assistance.
- Sec. 2006. Groundwater recharge program.
- Sec. 2007. Community water enhancement.
- Sec. 2008. Water system mitigation and adaptation grants.
- Sec. 2009. WaterSense program.
- Sec. 2010. State residential water efficiency and conservation incentives program.
- Sec. 2011. Appropriative water rights charitable tax deduction.
- Sec. 2012. Storage.

TITLE III—IMPROVED INFRASTRUCTURE

- Sec. 3001. Water leak control technology study.
- Sec. 3002. Water main break data clearinghouse.
- Sec. 3003. Sustainable Water Loss Control Program.
- Sec. 3004. Tax-exempt facility bonds.

Sec. 3005. Improving green infrastructure and community water systems through State revolving loan funds.

Sec. 3006. Best practices for administration of State revolving loan fund programs.

**TITLE IV—REPEAL CERTAIN TAX PREFERENCES FOR ENERGY AND NATURAL RESOURCE-BASED INDUSTRIES**

Sec. 4001. No expensing for intangible drilling and development costs for oil and gas wells.

Sec. 4002. Repeal of percentage depletion.

**TITLE V—SAVINGS CLAUSE**

Sec. 5001. Savings clause.

1 **TITLE I—WATER INNOVATION**  
2 **THROUGH ENERGY-WATER**  
3 **NEXUS TECHNOLOGY AND**  
4 **DATA**

5 **Subtitle A—Energy-Water Nexus**  
6 **Technology and Data**

7 **SEC. 1111. DOE ENERGY-WATER NEXUS FINDINGS, SENSE**  
8 **OF CONGRESS, AND DEFINITION.**

9 (a) FINDINGS.—Congress finds the following:

10 (1) Water and energy are essential resources  
11 that are inherently linked and interconnected.

12 (2) In 2010, the U.S. water system consumed  
13 approximately 12.6 percent of the Nation’s energy  
14 according to a study by the University of Texas at  
15 Austin.

16 (3) The Nation’s wastewater plants and drink-  
17 ing water systems expend approximately \$4 billion  
18 per year on energy to treat water.

1           (4) Water and wastewater facilities account for  
2 approximately 4 percent of U.S. electricity consump-  
3 tion.

4           (5) California water systems together consume  
5 approximately 19 percent of the State's electricity.

6           (6) If water and wastewater utilities could re-  
7 duce energy use by just 10 percent using demand  
8 management and cost-effective investments in energy  
9 efficiency, it would save about \$400 million annu-  
10 ally.

11           (7) The energy-water nexus is integral to com-  
12 bating and mitigating the effects of climate change  
13 and enhancing energy and water security.

14           (8) The Government Accountability Office has  
15 issued several reports calling for improved informa-  
16 tion and coordination from the Department of En-  
17 ergy with respect to the energy-water nexus, includ-  
18 ing improving Federal data for power plants, im-  
19 proving information on water produced during oil  
20 and gas production, and increasing Federal coordi-  
21 nation to better manage energy and water tradeoffs.

22           (9) The Department of Energy's Energy-Water  
23 Nexus Crosscut Team is a collaboration of agencies,  
24 national laboratories, State and local governments,  
25 utilities, industry stakeholders, and the science and

1 environmental community that work to address  
2 water and energy challenges and opportunities.

3 (b) SENSE OF CONGRESS.—It is the sense of Con-  
4 gress that Congress supports—

5 (1) with respect to the energy-water nexus—

6 (A) an advanced, integrated data, mod-  
7 eling, and analysis platform to improve under-  
8 standing and inform decision making for a  
9 broad range of users and at multiple scales; and

10 (B) investments in targeted technology re-  
11 search that offer the greatest potential for posi-  
12 tive impact;

13 (2) innovative technology advances that address  
14 the challenges relating to the energy-water nexus;  
15 and

16 (3) the Department of Energy’s Energy-Water  
17 Nexus Crosscut Team and its mission.

18 (c) DEFINITION OF ENERGY-WATER NEXUS.—In  
19 this Act, the term “energy-water nexus” means the links  
20 between energy and water systems, including—

21 (1) the water needed to produce fuels, generate  
22 electricity, and produce other forms of energy;

23 (2) the energy needed to transport, reclaim,  
24 treat, and reuse—

1 (A) water, including water needed for heat-  
2 ing and cooling; and

3 (B) wastewater, including produced waters;

4 (3) the energy available in organic wastewaters  
5 and wet waste streams, including municipal and in-  
6 dustrial wastewaters and livestock manures; and

7 (4) the waste heat available in industrial proc-  
8 ess and cooling water discharges, steam system con-  
9 densate and cooling water, and thermoelectric cool-  
10 ing water discharges.

11 **SEC. 1112. NATIONAL ENERGY-WATER NEXUS DATABASE.**

12 (a) **ESTABLISHMENT.**—Not later than 4 years after  
13 the date of enactment of this Act, the Secretary of Energy  
14 shall establish and maintain an energy-water nexus data-  
15 base.

16 (b) **PURPOSES.**—The purposes of the database are—

17 (1) to advance the availability, timely distribu-  
18 tion, and widespread use of data and information re-  
19 lating to the energy-water nexus for energy and  
20 water management, education, research, assessment,  
21 and monitoring purposes;

22 (2) to advance understanding of interactions be-  
23 tween energy and water systems through access to  
24 data, including models and modeling results;

1           (3) to promote data collection and information  
2 management with respect to—

3           (A) the uses, characteristics, and ultimate  
4 fate of water used for or produced in oil and  
5 gas production, including safe and appropriate  
6 reuse of these non-traditional waters;

7           (B) water consumption based on metered  
8 data; and

9           (C) energy use in water systems;

10          (4) to increase accessibility to, and expand the  
11 use of, data and information relating to the energy-  
12 water nexus, in a standard, easy-to-use format, by  
13 Federal, State, local, and tribal governments, com-  
14 munities, educational institutions, and the private  
15 sector, while leveraging existing data at Federal  
16 agencies;

17          (5) to facilitate the open exchange of informa-  
18 tion relating to the energy-water nexus in the face  
19 of changing technologies, changes in demand, and  
20 climate change; and

21          (6) to make data, modeling, and modeling re-  
22 sults relating to the energy-water nexus of the De-  
23 partment of Energy widely available.

24          (c) ACTIVITIES.—In carrying out this section, the  
25 Secretary of Energy shall—

1           (1) integrate data and information relating to  
2 the energy-water nexus into an interoperable, na-  
3 tional, geospatially referenced energy-water data  
4 framework;

5           (2) identify new data and information needs re-  
6 lating to the energy-water nexus;

7           (3) use existing shared databases, infrastruc-  
8 ture, monitoring networks, and tools to provide—

9                 (A) a platform for innovation, predictive  
10 analytics, modeling and data sharing, and solu-  
11 tion development for data and information re-  
12 lating to the energy-water nexus; and

13                 (B) nationally uniform water and energy  
14 use data;

15           (4) support energy-water nexus data and infor-  
16 mation sharing, applied research, and educational  
17 programs of State, local, and tribal governments,  
18 communities, educational institutions, and the pri-  
19 vate sector;

20           (5) promote enhanced cooperation among Fed-  
21 eral and State agencies, including cooperation in  
22 sensing, surveying, compilation, analysis, modeling,  
23 presentation, and interactive updating of data sets  
24 to improve data quality and usability; and



1           “(A) optimizing the freshwater efficiency  
2 of energy production, electricity generation, and  
3 end use technologies;

4           “(B) optimizing the energy efficiency of  
5 water management, treatment, distribution, and  
6 end use technologies;

7           “(C) enhancing the reliability and resil-  
8 ience of energy and water technologies;

9           “(D) increasing safe and productive use of  
10 nontraditional water sources through improved  
11 technology;

12           “(E) promoting responsible energy oper-  
13 ations with respect to water quality, ecosystem,  
14 and seismic impacts;

15           “(F) utilizing efficient synergies among  
16 water and energy system technologies; and

17           “(G) recovering energy in the form of  
18 biofuels, bioproducts, and biopower from munic-  
19 ipal and industrial wastewaters, and similar or-  
20 ganic streams.”;

21           (2) by redesignating subsections (d), (e), and  
22 (f) as subsections (e), (f), and (g), respectively;

23           (3) by inserting after subsection (c) the fol-  
24 lowing subsection:

1 “(d) COORDINATION OF EFFORTS.—The Secretary  
2 shall coordinate efforts with respect to technologies related  
3 to the energy-water nexus (as such term is defined in sec-  
4 tion 1111(c) of the Water and Energy Sustainability  
5 through Technology Act) under subsection (b)(4) of this  
6 section with similar efforts by the National Labora-  
7 tories.”;

8 (4) in subsection (g), as redesignated by para-  
9 graph (2)—

10 (A) by striking “date of enactment of this  
11 Act” and inserting “date of enactment of the  
12 Water and Energy Sustainability through Tech-  
13 nology Act, and annually thereafter”; and

14 (B) by striking “assessment described in  
15 subsection (b)” and inserting “program under  
16 this section”; and

17 (5) by adding at the end the following:

18 “(h) AUTHORIZATION OF APPROPRIATIONS.—There  
19 are authorized to be appropriated to carry out this section  
20 \$20,000,000 for each of fiscal years 2018 through 2027.”.

21 **SEC. 1114. SMART ENERGY AND WATER EFFICIENCY PRO-**  
22 **GRAM.**

23 (a) DEFINITIONS.—In this section:

24 (1) ELIGIBLE ENTITY.—The term “eligible enti-  
25 ty” means—

- 1 (A) a utility;  
2 (B) a municipality;  
3 (C) a water district;  
4 (D) a sanitation district; or  
5 (E) any other authority that provides  
6 water, wastewater, or water reuse services.

7 (2) SMART ENERGY AND WATER EFFICIENCY  
8 PILOT PROGRAM.—The terms “smart energy and  
9 water efficiency pilot program” and “pilot program”  
10 mean the pilot program established under subsection  
11 (b).

12 (b) SMART ENERGY AND WATER EFFICIENCY PILOT  
13 PROGRAM.—

14 (1) IN GENERAL.—The Secretary of Energy  
15 shall establish and carry out a smart energy and  
16 water efficiency pilot program in accordance with  
17 this section.

18 (2) PURPOSE.—The purpose of the smart en-  
19 ergy and water efficiency pilot program is to award  
20 grants to eligible entities to demonstrate advanced  
21 and innovative technology-based projects that will—

22 (A) increase and improve the energy effi-  
23 ciency of water, wastewater, and water end-use  
24 and reuse systems to help communities across  
25 the United States make significant progress in

1 conserving water, saving energy, and reducing  
2 costs;

3 (B) support the implementation of innova-  
4 tive processes for energy and water efficiency  
5 and the installation of advanced automated sys-  
6 tems that provide real-time data on energy and  
7 water;

8 (C) improve energy and water conserva-  
9 tion, water quality, and predictive maintenance  
10 of energy and water systems, through the use  
11 of software and communication enabled tech-  
12 nologies, including sensors, intelligent gateways,  
13 and security embedded in hardware; or

14 (D) support the recovery of energy, in the  
15 form of biofuels, bioproducts (including nutrient  
16 recovery), and biopower, from municipal  
17 wastewaters, biosolids, and biowastes.

18 (3) PROJECT SELECTION.—

19 (A) IN GENERAL.—The Secretary of En-  
20 ergy shall make competitive grants under the  
21 pilot program to at least 2 eligible entities.

22 (B) SELECTION CRITERIA.—In selecting an  
23 eligible entity to receive a grant under the pilot  
24 program, the Secretary of Energy shall con-  
25 sider—

1 (i) energy and water cost savings an-  
2 ticipated to result from the project;

3 (ii) the innovative nature, commercial  
4 viability, and reliability of the technology  
5 to be used;

6 (iii) the degree to which the project  
7 integrates next-generation sensors, soft-  
8 ware, hardware, predictive analytics, and  
9 management tools;

10 (iv) the anticipated cost effectiveness  
11 of the project in terms of energy savings,  
12 water savings or reuse, and infrastructure  
13 costs averted per dollar spent;

14 (v) whether the technology can be de-  
15 ployed in a variety of geographic regions  
16 and the degree to which the technology can  
17 be implemented on a smaller or larger  
18 scale, including whether the technology can  
19 be implemented by each type of eligible en-  
20 tity;

21 (vi) whether the technology has been  
22 successfully deployed elsewhere;

23 (vii) whether the technology is sourced  
24 from a manufacturer based in the United  
25 States; and

1 (viii) whether the project will be com-  
2 pleted in 5 years or less.

3 (C) APPLICATIONS.—

4 (i) IN GENERAL.—Subject to clause  
5 (ii), an eligible entity seeking a grant  
6 under the pilot program shall submit to  
7 the Secretary of Energy an application at  
8 such time, in such manner, and containing  
9 such information as the Secretary deter-  
10 mines to be necessary.

11 (ii) CONTENTS.—An application under  
12 clause (i) shall, at a minimum, include—

13 (I) a description of the project;

14 (II) a description of the tech-  
15 nology to be used in the project;

16 (III) the anticipated results, in-  
17 cluding energy and water savings, of  
18 the project;

19 (IV) a comprehensive budget for  
20 the project;

21 (V) the names of the project lead  
22 organization and any partners;

23 (VI) the number of users to be  
24 served by the project; and

1 (VII) any other information that  
2 the Secretary of Energy determines to  
3 be necessary to complete the review  
4 and selection of a grant recipient.

5 (4) ADMINISTRATION.—

6 (A) IN GENERAL.—Not later than 300  
7 days after the date of enactment of this Act,  
8 the Secretary of Energy shall select grant re-  
9 cipients under this section.

10 (B) EVALUATIONS.—The Secretary of En-  
11 ergy shall annually carry out an evaluation of  
12 each project for which a grant is provided  
13 under this section that—

14 (i) evaluates the progress and impact  
15 of the project; and

16 (ii) assesses the degree to which the  
17 project is meeting the purpose of the pilot  
18 program.

19 (C) TECHNICAL AND POLICY ASSIST-  
20 ANCE.—On the request of a grant recipient, the  
21 Secretary of Energy shall, to the extent prac-  
22 ticable, provide technical and policy assistance  
23 to the grant recipient to carry out the project.

24 (5) FUNDING.—To carry out this section, the  
25 Secretary is authorized to use not more than

1       \$15,000,000, to the extent provided in advance in  
2       appropriation Acts.

3       **SEC. 1115. STATE ENERGY-WATER TECHNOLOGY SERVICES**  
4                                   **PROGRAM.**

5       (a) ESTABLISHMENT.—The Secretary of Energy  
6 shall establish and carry out a program that—

7               (1) strengthens State programs that aid small  
8               and start-up businesses that develop energy-water,  
9               water, or water-related hardware and software tech-  
10              nologies;

11             (2) provides State programs technical assist-  
12             ance to improve engineering principles and tech-  
13             niques for energy-water nexus technology products,  
14             manufacturing, and commercial production by small  
15             and start-up businesses; and

16             (3) fosters greater assistance to small and  
17             start-up businesses in dealing with the Federal Gov-  
18             ernment on energy-water nexus technology related  
19             matters.

20       (b) AUTHORIZATION OF APPROPRIATIONS.—There  
21 are authorized to be appropriated to carry out this section  
22 \$5,000,000 for each of fiscal years 2018 through 2027.

1 **SEC. 1116. ENERGY-WATER EFFICIENT BUILDINGS AND**  
2 **POWER PLANTS.**

3 Section 106 of the Energy Policy Act of 2005 (42  
4 U.S.C. 15811) is amended—

5 (1) in subsection (c)—

6 (A) in the heading, but striking “GOAL”  
7 and inserting “GOALS”;

8 (B) by striking “as a goal” and inserting  
9 “as goals”; and

10 (C) by striking “2007 through 2016” and  
11 inserting “2018 through 2027 and an improve-  
12 ment in water efficiency each year during such  
13 period of calendar years”;

14 (2) in subsection (c), by inserting “and water  
15 efficiency” after “energy efficiency”; and

16 (3) in subsection (f)—

17 (A) in the matter preceding paragraph

18 (1)—

19 (i) by striking “2012, and” and in-  
20 sserting “2018,”; and

21 (ii) by striking “2017” and inserting  
22 “2027”; and

23 (B) in paragraph (2), by inserting “and  
24 water” after “energy”.

1 **SEC. 1117. ENERGY-WATER NEXUS DATA FOR POWER**  
2 **PLANTS.**

3 (a) **METHODOLOGY.**—The Secretary of Energy shall  
4 conduct research on, and develop, a methodology for esti-  
5 mating water consumption for open-loop cooling systems  
6 for thermoelectric power plants.

7 (b) **EIA.**—The Secretary of Energy, acting through  
8 the Administrator of the Energy Information Administra-  
9 tion, shall develop a data portal for better access by the  
10 public to data on water use by thermoelectric power  
11 plants.

12 (c) **USGS.**—The Director of the United States Geo-  
13 logical Survey shall—

14 (1) collect data on the withdrawal and con-  
15 sumptive use of water by laboratory and pilot scale  
16 thermoelectric power plants;

17 (2) as part of such collection, collect data on  
18 use of sources other than surface water, for water  
19 withdrawn by power plants;

20 (3) develop and publish a standard method for  
21 determining consumptive losses through enhanced  
22 evaporation resulting from water discharges from  
23 power plant cooling systems; and

24 (4) distribute to other relevant Federal and  
25 State agencies data collected under paragraph (2).

1 (d) COORDINATION AND COLLABORATION.—The Di-  
2 rector of the United States Geological Survey, the Admin-  
3 istrator of the Energy Information Administration, and  
4 the Administrator of the Environmental Protection Agen-  
5 cy shall—

6 (1) collaborate in collecting, analyzing, and re-  
7 porting all material information on water usage by  
8 thermoelectric power plants; and

9 (2) make such information available in the en-  
10 ergy-water nexus database established pursuant to  
11 section 1112.

12 **SEC. 1118. RECLAMATION WATER CONSERVATION AND EN-**  
13 **ERGY SAVINGS.**

14 Not later than one year after the date of the enact-  
15 ment of this Act, the Secretary of the Interior, acting  
16 through the Commissioner of Reclamation, shall—

17 (1) determine the annual energy consumption,  
18 including purchased energy, by pumping stations op-  
19 erated by the Bureau of Reclamation for each of the  
20 previous 10 years;

21 (2) estimate the annual energy consumption, in-  
22 cluding purchased energy, by pumping stations oper-  
23 ated by the Bureau of Reclamation for each of the  
24 next 10 years;

1           (3) generate a list of the 10 pumping stations  
2 operated by the Bureau of Reclamation that con-  
3 sumed the most energy, including purchased energy,  
4 in the previous 10 years; and

5           (4) pursue opportunities for energy efficiency  
6 and low-carbon energy technologies at the pumping  
7 stations described in paragraph (3).

8 **SEC. 1119. RURAL WATER UTILITIES ENERGY AND WATER**  
9 **EFFICIENCY PROGRAM.**

10           (a) IN GENERAL.—Section 103(a) of the Reclamation  
11 Rural Water Supply Act of 2006 (43 U.S.C. 2402(a)) is  
12 amended—

13           (1) in paragraph (2), by striking “and” at the  
14 end;

15           (2) in paragraph (3), by striking the period at  
16 the end and inserting “; and”; and

17           (3) by adding at the end the following:

18           “(4) carry out a program similar to and con-  
19 sistent with the national rural water and wastewater  
20 circuit rider program established under section  
21 306(a)(22) of the Consolidated Farm and Rural De-  
22 velopment Act (7 U.S.C. 1926(a)(22)) (including the  
23 authority to make grants) in consultation with—

24           “(A) the Environmental Protection Agency  
25 to provide on-site technical assistance to rural

1 drinking water and wastewater utilities, includ-  
2 ing utilities serving an Indian tribe (as defined  
3 in section 4 of the Indian Self-Determination  
4 and Education Assistance Act (25 U.S.C.  
5 450b));

6 “(B) the Secretary of Energy to improve  
7 energy efficiency, identify and develop low-car-  
8 bon energy supplies, and conserve water and  
9 end uses of water in the operation of rural  
10 drinking water and wastewater utilities; and

11 “(C) the National Centers for Innovation  
12 in Small Drinking Water Systems to strengthen  
13 the technical, managerial, and financial capac-  
14 ities of small drinking water providers through-  
15 out the country.”.

16 **Subtitle B—Improved Data,**  
17 **Technology, and Education**

18 **SEC. 1221. DOI GROUNDWATER INFORMATION SYSTEM.**

19 (a) DATA COLLECTION AND INFORMATION SYS-  
20 TEM.—

21 (1) DATA COLLECTION.—Not later than 2 years  
22 after the date of the enactment of this Act, the Sec-  
23 retary of the Interior shall—

1 (A) conduct a study on the potential im-  
2 pacts of Federal projects operated by the Bu-  
3 reau of Reclamation on groundwater resources;

4 (B) submit to Congress a report on the  
5 findings of the study required by subparagraph  
6 (A);

7 (C) determine, to the extent possible, the  
8 current groundwater levels and the groundwater  
9 levels of Federal projects operated by the Bu-  
10 reau of Reclamation over the previous 10 years;  
11 and

12 (D) share the data described in subpara-  
13 graph (C) with the United States Geological  
14 Survey.

15 (2) IMPLEMENTATION OF GROUNDWATER IN-  
16 FORMATION SYSTEM.—As soon as practicable after  
17 receipt by the United States Geological Survey of  
18 the data described in paragraph (1)(C), the United  
19 States Geological Survey shall implement a ground-  
20 water information system for the purpose of advanc-  
21 ing the availability, timely distribution, and wide-  
22 spread use of groundwater data for groundwater  
23 management, education, research, assessment, and  
24 monitoring purposes.



1 (and verify such consumption by users) and water  
2 consumption and usage by principal building activ-  
3 ity, census division, and end use; or

4 (B) if not feasible, conduct activities to develop  
5 the capability to produce and collect such data;

6 (2)(A) if feasible, collect, through each Residen-  
7 tial Energy Consumption Survey of the Energy In-  
8 formation Administration that is conducted after the  
9 date of enactment of this section, data on water con-  
10 sumption and usage, including total water consump-  
11 tion for residential buildings and water consumption  
12 and usage by housing type, census division, and end  
13 use; or

14 (B) if not feasible, conduct activities to develop  
15 the capability to produce and collect such data; and

16 (3) make the data collected under paragraphs  
17 (1) and (2) available in the energy-water nexus data-  
18 base established pursuant to section 1112.

19 (b) AUTHORIZATION OF APPROPRIATIONS.—There  
20 are authorized to be appropriated to carry out this section  
21 \$15,000,000 for each of fiscal years 2018 through 2027.

22 **SEC. 1223. USGS WATER CONSUMPTION ANALYSIS SURVEY.**

23 (a) IN GENERAL.—The Director of the United States  
24 Geological Survey shall—

1 (1) include estimates of the consumptive use of  
2 surface water, groundwater, and recycled water in  
3 its published survey on water uses in the United  
4 States; and

5 (2) make this data available as an input to the  
6 Department of Energy's National Energy-Water  
7 Nexus Data System.

8 (b) STATE PARTNERSHIPS.—The Director shall enter  
9 into cooperative agreements with States to carry out this  
10 section.

11 (c) AUTHORIZATION OF APPROPRIATIONS.—To carry  
12 out this section there is authorized to be appropriated  
13 \$10,000,000 for each fiscal year in the 5-fiscal-year period  
14 beginning with fiscal year 2018.

15 **SEC. 1224. INNOVATIONS AT THE NEXUS OF FOOD, ENERGY,**  
16 **AND WATER SYSTEMS.**

17 (a) AUTHORIZATION OF APPROPRIATIONS.—There  
18 are authorized to be appropriated to the National Science  
19 Foundation for the National Science Foundation-wide in-  
20 vestment in Innovations at the Nexus of Food, Energy,  
21 and Water Systems \$62,180,000 for each of the fiscal  
22 years 2018 through 2021.

23 (b) SMALL BUSINESS CONSULTATION.—The Innova-  
24 tions at the Nexus of Food, Energy, and Water Systems  
25 program may inform and consult with the National

1 Science Foundation Small Business Innovation Research  
2 program and Small Business Technology Transfer pro-  
3 gram to determine criteria for innovative projects that  
4 consider the nexus between food, energy, and water sys-  
5 tems.

6 **SEC. 1225. USDA AND DOI COORDINATED WATER CON-**  
7 **SERVATION EFFORTS.**

8 (a) COORDINATION.—The Secretary of Agriculture  
9 shall coordinate with the Secretary of the Interior to im-  
10 prove the efficiency of agricultural water use in a manner  
11 that is also protective of wildlife, including through coordi-  
12 nation of grant programs, best known methods for water  
13 management, drought resilience guidelines, education,  
14 technical assistance, irrigation technology development,  
15 water application system maintenance, research into prac-  
16 tices that improve soil health and safe and appropriate  
17 uses for recycled water on crops, evaluations of water de-  
18 livery systems, and recommendations for improvements  
19 needed to meet the needs of efficient water application sys-  
20 tems.

21 (b) REPORT.—Not later than one year after the date  
22 of enactment of this Act, the Secretary of Agriculture shall  
23 submit to Congress a report regarding the implementation  
24 of this section.

1 **SEC. 1226. AGRICULTURAL TECHNOLOGY CENTERS.**

2 Chapter 3 of subtitle B of title XVI of the Food, Ag-  
3 riculture, Conservation, and Trade Act of 1990 (7 U.S.C.  
4 5831 et seq.) is amended by adding at the end the fol-  
5 lowing new section:

6 **“SEC. 1630. AGRICULTURAL TECHNOLOGY CENTERS.**

7 “(a) GRANTS FOR AGRICULTURAL TECHNOLOGY  
8 CENTERS.—The Secretary, acting through the Director of  
9 the National Institute of Food and Agriculture, shall carry  
10 out a program to provide grants to State agencies, univer-  
11 sities, nonprofit organizations, and other entities to estab-  
12 lish or improve agricultural technology centers that pro-  
13 vide—

14 “(1) entrepreneurial support programs;

15 “(2) resources on the development and improve-  
16 ment of new and existing technologies, including—

17 “(A) efficient irrigation technologies, in-  
18 cluding drip and microsprinkler systems;

19 “(B) soil moisture monitors and direct  
20 plant measurements to determine plant irriga-  
21 tion needs and management practices that im-  
22 prove soil health;

23 “(C) irrigation scheduling, including  
24 weather-based irrigation scheduling;

25 “(D) software designed to increase the effi-  
26 ciency of water management, including inte-

1           grating irrigation with energy use and the ap-  
2           plication of fertilizer and other chemicals;

3           “(E) remote monitoring and control sys-  
4           tems, including drones for agricultural moni-  
5           toring;

6           “(F) water treatment technologies relating  
7           to—

8                   “(i) brine and nitrates; and

9                   “(ii) increasing the safe and appro-  
10           priate use of recycled water for crops;

11           “(3) data-sharing and privacy guidelines for ag-  
12           ricultural producers; and

13           “(4) conference facilities for agricultural busi-  
14           nesses, universities, and nonprofit organizations.

15           “(b) REQUEST FOR APPLICATIONS.—The Secretary,  
16           acting through the Director of the National Institute of  
17           Food and Agriculture, shall publish an annual funding an-  
18           nouncement that provides information on the availability  
19           of grants under subsection (a), including the purpose, eli-  
20           gibility, restriction, focus areas, evaluation criteria, regu-  
21           latory information, and instructions on how to apply for  
22           such grants.

23           “(c) DEADLINE FOR PROGRAM.—Not later than 180  
24           days after the date on which funds are first made available  
25           to carry out this section, the Secretary shall—

1 “(1) establish the program under subsection  
2 (a); and

3 “(2) publish the initial request for applications  
4 for grants under the program.

5 “(d) CONSULTATION.—An entity that receives a  
6 grant under subsection (a) may consult with clusters es-  
7 tablished by the Environmental Protection Agency under  
8 the Environmental Technology Innovation Clusters pro-  
9 gram to develop, improve, and implement water technology  
10 innovation.

11 “(e) AUTHORIZATION OF APPROPRIATIONS.—For  
12 purposes of carrying out this section, there is authorized  
13 to be appropriated to the Secretary \$15,000,000 for each  
14 of fiscal years 2018 through 2022.”.

15 **SEC. 1227. EFFICIENT IRRIGATION TECHNICAL ASSISTANCE**  
16 **GRANT PROGRAM.**

17 Chapter 5 of subtitle D of title XII of the Food Secu-  
18 rity Act of 1985 (16 U.S.C. 3839bb et seq.) is amended  
19 by adding at the end the following new section:

20 **“SEC. 1240S. EFFICIENT IRRIGATION TECHNICAL ASSIST-**  
21 **ANCE GRANT PROGRAM.**

22 “(a) GRANTS FOR TECHNICAL ASSISTANCE.—The  
23 Secretary, acting through the Chief of the Natural Re-  
24 sources Conservation Service, shall carry out an efficient  
25 irrigation technical assistance program to provide grants

1 to States, State agencies, local governments, tribal organi-  
2 zations, or water districts for technical assistance pro-  
3 grams that provide—

4 “(1) technical assistance workshops and edu-  
5 cation programs on water and energy efficient irri-  
6 gation systems for agricultural producers;

7 “(2) technical assistance to producers to de-  
8 velop irrigation water management plans to improve  
9 irrigation efficiency;

10 “(3) ongoing assistance to agricultural pro-  
11 ducers in implementing and maintaining water and  
12 energy efficient irrigation systems that are protective  
13 of wildlife, including systems that use water meter  
14 and soil sensor data, soil management practices that  
15 improve soil health, pump efficiency standards, sys-  
16 tem audits, routine maintenance, irrigation sched-  
17 uling, and information control automation; and

18 “(4) other technical assistance the Secretary  
19 determines appropriate.

20 “(b) REQUEST FOR APPLICATIONS.—The Secretary  
21 shall publish an annual funding announcement that pro-  
22 vides information on the availability of grants under sub-  
23 section (a), including the purpose, eligibility, restriction,  
24 focus areas, evaluation criteria, regulatory information,  
25 and instructions on how to apply for such grants.

1       “(c) DEADLINE FOR PROGRAM.—Not later than 180  
2 days after the date on which funds are first made available  
3 to carry out this section, the Secretary shall—

4           “(1) establish the program under subsection  
5 (a); and

6           “(2) publish the initial request for applications  
7 for grants under the program.

8       “(d) DEFINITION OF WATER DISTRICT.—In this sec-  
9 tion, the term ‘water district’ means an entity engaged  
10 in—

11           “(1) the provision of water to the public  
12 through pipes or other constructed conveyances; or

13           “(2) the collection, treatment, management, or  
14 disposal of stormwater or wastewater generated by  
15 the public.

16       “(e) AUTHORIZATION OF APPROPRIATIONS.—For  
17 purposes of carrying out this section, there is authorized  
18 to be appropriated to the Secretary \$15,000,000 for each  
19 of fiscal years 2018 through 2022.”.

20 **SEC. 1228. UNITED STATES-ISRAEL WATER COOPERATION**  
21 **WORKING GROUP.**

22       (a) SENSE OF CONGRESS.—It is the sense of Con-  
23 gress that open dialogue and continued mechanisms for  
24 regular engagement encourages further cooperation be-  
25 tween applicable departments, agencies, ministries, insti-

1 tutions of higher education, and the private sectors of the  
2 United States and Israel on water security issues.

3 (b) ESTABLISHMENT.—There is established a United  
4 States-Israel Water Cooperation Working Group (in this  
5 section referred to as the “Working Group”).

6 (c) MEMBERSHIP.—The Working Group shall be  
7 composed of the following officials or their designees:

8 (1) The Secretary of State.

9 (2) The Secretary of Agriculture.

10 (3) The Secretary of Energy.

11 (4) The Secretary of the Interior.

12 (5) The Administrator of the Environmental  
13 Protection Agency.

14 (d) CHAIRPERSON.—The Secretary of State shall  
15 serve as chairperson of the Working Group.

16 (e) PURPOSES.—The Working Group shall seek to  
17 strengthen dialogue between the United States and Israel  
18 in order to—

19 (1) improve the use of water resources through  
20 water-saving technologies and practices;

21 (2) counter water shortages;

22 (3) modernize pipeline and other applicable in-  
23 frastructure; and

24 (4) pursue best practices in drip irrigation,  
25 water recycling, and desalination.

1 **TITLE II—INCREASED WATER**  
2 **SUPPLY AND REGIONAL SELF-**  
3 **SUFFICIENCY**

4 **SEC. 2001. WATERSMART REAUTHORIZATION.**

5 Section 9504(a)(1)(B) of the Omnibus Public Land  
6 Management Act of 2009 (42 U.S.C. 10364(a)(1)(B)) is  
7 amended to read as follows:

8 “(B) to increase water use and energy effi-  
9 ciency and work to improve instream flows;”.

10 **SEC. 2002. AMENDMENT TO COMPETITIVE GRANT PRO-**  
11 **GRAM FOR WATER RECYCLING AND REUSE**  
12 **PROJECTS.**

13 Subsection (f)(1) of section 1602 of the Reclamation  
14 Wastewater and Groundwater Study and Facilities Act  
15 (Public Law 102–575; U.S.C. 390h) is amended by insert-  
16 ing “(including reimbursement for costs incurred prior to  
17 enactment of this Act)” after “funding”.

18 **SEC. 2003. RECYCLING STANDARDS ASSISTANCE.**

19 Not later than 2 years after the date of enactment  
20 of this Act, the Administrator of the Environmental Pro-  
21 tection Agency shall—

22 (1) conduct research relevant to developing reg-  
23 ulations regarding direct potable reuse; and

1           (2) provide the results of such research and  
2           technical assistance to States that are in the process  
3           of developing direct potable reuse regulations.

4 **SEC. 2004. STORMWATER MANAGEMENT AND TECHNICAL**  
5 **ASSISTANCE.**

6           (a) **STORMWATER CAPTURE.**—In issuing a permit  
7 under section 402(p) of the Federal Water Pollution Con-  
8 trol Act (33 U.S.C. 1342(p)), the Administrator of the  
9 Environmental Protection Agency (or the State, in the  
10 case of a permit program approved under section 402(b)  
11 of such Act) shall evaluate the capacity of stormwater cap-  
12 ture and reuse programs, on-site stormwater retention  
13 standards, green infrastructure projects, and adoption of  
14 other innovative practices, to reduce the discharge of pol-  
15 lutants to the maximum extent practicable and to produce  
16 additional benefits.

17           (b) **TECHNICAL ASSISTANCE.**—The Administrator  
18 shall provide technical assistance to communities to de-  
19 velop integrated plans for the purposes of complying with  
20 Federal Water Pollution Control Act regulations for mu-  
21 nicipal wastewater and stormwater management.

22           (c) **AUTHORIZATION OF APPROPRIATIONS.**—There is  
23 authorized to be appropriated to carry out this section  
24 \$10,000,000 for each of fiscal years 2018 through 2022.

1 **SEC. 2005. GROUNDWATER MANAGEMENT TECHNICAL AS-**  
2 **SISTANCE.**

3 (a) IN GENERAL.—The Director of the United States  
4 Geological Survey shall provide technical assistance in the  
5 development and implementation of new and existing  
6 groundwater management plans in the United States.

7 (b) PRIORITY FOR DROUGHT-AFFLICTED AREAS.—  
8 In implementing this section, the Director may give pri-  
9 ority to such plans for areas that are subject to a drought  
10 declaration by a State.

11 (c) AUTHORIZATION OF APPROPRIATIONS.—To carry  
12 out this section there is authorized to be appropriated to  
13 the Director \$15,000,000 for each of fiscal years 2018  
14 through 2022.

15 **SEC. 2006. GROUNDWATER RECHARGE PROGRAM.**

16 Chapter 5 of subtitle D of title XII of the Food Secu-  
17 rity Act of 1985 (16 U.S.C. 3839bb et seq.), as amended  
18 by section 1228, is further amended by adding at the end  
19 the following new section:

20 **“SEC. 1240T. GROUNDWATER RECHARGE PROGRAM.**

21 **“(a) GRANTS FOR GROUNDWATER RECHARGE IM-**  
22 **PROVEMENTS.—**The Secretary shall carry out a ground-  
23 water recharge program to provide grants to producers for  
24 groundwater recharge improvements to eligible land, in-  
25 cluding the installation of measurement devices on wells  
26 and pumps.

1       “(b) PRIORITY.—In making grants under subsection  
2 (a), the Secretary shall give priority to groundwater re-  
3 charge improvements—

4           “(1) implemented in conjunction with State  
5 groundwater recharge programs; and

6           “(2) that provide habitat benefits and maintain  
7 groundwater quality without adversely impacting  
8 surface waters.

9       “(c) REQUEST FOR APPLICATIONS.—The Secretary  
10 shall publish an annual funding announcement that pro-  
11 vides information on the availability of grants under sub-  
12 section (a), including the purpose, eligibility, restriction,  
13 focus areas, evaluation criteria, regulatory information,  
14 and instructions on how to apply for such grants.

15       “(d) DEADLINE FOR THE PROGRAM.—Not later than  
16 180 days after the date on which funds are first made  
17 available to carry out this section, the Secretary shall—

18           “(1) establish the program under subsection  
19 (a); and

20           “(2) publish the initial request for applications  
21 for grants under the program.

22       “(e) ELIGIBLE LAND DEFINED.—In this section, the  
23 term ‘eligible land’ has the meaning given the term in sec-  
24 tion 1240A.

25       “(f) REPORT.—

1           “(1) REPORT TO SECRETARY.—Not later than  
2 1 year after the date of the enactment of this sec-  
3 tion, the Administrator of the Agricultural Research  
4 Service shall—

5           “(A) conduct a study on groundwater re-  
6 charge improvements; and

7           “(B) submit to the Secretary a report that  
8 includes recommendations on groundwater re-  
9 charge improvements to be used for the pur-  
10 poses of this section.

11           “(2) REPORT TO CONGRESS.—Not later than 2  
12 years after the date of the enactment of this section,  
13 the Secretary shall submit to Congress a report that  
14 includes an assessment of the effectiveness of the  
15 groundwater recharge improvements funded pursu-  
16 ant to this section.

17           “(g) AUTHORIZATION OF APPROPRIATIONS.—For  
18 purposes of carrying out this section, there is authorized  
19 to be appropriated to the Secretary \$15,000,000 for each  
20 of fiscal years 2018 through 2022.”.

21 **SEC. 2007. COMMUNITY WATER ENHANCEMENT.**

22           (a) SELECTION OF PROJECTS.—Section 220(d) of  
23 the Federal Water Pollution Control Act (33 U.S.C.  
24 1300(d)) is amended—

1 (1) by striking paragraph (2) and redesignating  
2 paragraph (3) as paragraph (2); and

3 (2) by adding at the end the following:

4 “(3) PARTICIPATION OF RURAL COMMU-  
5 NITIES.—In making grants under this section, the  
6 Administrator shall consider whether the project—

7 “(A) is located in an unincorporated rural  
8 community;

9 “(B) is located in an area that—

10 “(i) is served by a public water system  
11 (as defined in section 1401 of the Safe  
12 Drinking Water Act) with fewer than  
13 3,000 connections; or

14 “(ii) does not have a public water sys-  
15 tem (as so defined);

16 “(C) is located in an agricultural area with  
17 rural residences served by a public water sys-  
18 tem (as so defined) or by private wells; or

19 “(D) is not only a benefit to the rural com-  
20 munity served by the project, but also a benefit  
21 to additional regional partners.”.

22 (b) COMMITTEE RESOLUTION PROCEDURE.—Section  
23 220 of such Act (33 U.S.C. 1300) is amended by striking  
24 subsection (e) and redesignating subsections (f) through  
25 (j) as subsections (e) through (i), respectively.

1 (c) DEFINITION OF ALTERNATIVE WATER  
2 SOURCE.—Section 220(h)(1) of such Act (as so redesign-  
3 nated) is amended—

4 (1) in the first sentence, by striking “water or  
5 wastewater or by treating wastewater” and inserting  
6 “water, wastewater, or stormwater, by treating  
7 wastewater or stormwater, or through conjunctively  
8 managing groundwater supplies by delivering surface  
9 water instead of groundwater”; and

10 (2) in the second sentence, by inserting before  
11 the period at the end the following: “unless the  
12 project requires those facilities to deliver the alter-  
13 native water supply”.

14 (d) AUTHORIZATION OF APPROPRIATIONS.—Section  
15 220(i) of such Act (as so redesignated) is amended by  
16 striking “\$75,000,000 for fiscal years 2002 through  
17 2004” and inserting “\$150,000,000 for fiscal years 2018  
18 through 2020”.

19 **SEC. 2008. WATER SYSTEM MITIGATION AND ADAPTATION**  
20 **GRANTS.**

21 (a) GRANTS.—Beginning in fiscal year 2018, the Ad-  
22 ministrator shall make grants to owners or operators of  
23 water systems to address any ongoing or forecasted (based  
24 on the best available research and data) climate-related  
25 impact on the water quality or quantity of a region of the

1 United States, for the purposes of mitigating or adapting  
2 to the impacts of climate change.

3 (b) ELIGIBLE USES.—In carrying out this sub-  
4 section, the Administrator shall make grants to assist in  
5 the planning, design, construction, implementation, or  
6 maintenance of any program or project to increase the re-  
7 silience of a water system to climate change by—

8 (1) conserving water or enhancing water use ef-  
9 ficiency, including through the use of water meter-  
10 ing;

11 (2) preserving or improving water quality, in-  
12 cluding through measures to manage, reduce, treat,  
13 or reuse municipal stormwater, wastewater, or  
14 drinking water;

15 (3) investigating, designing, or constructing  
16 groundwater remediation, recycled water, or desali-  
17 nation facilities or systems;

18 (4) enhancing green infrastructure in the man-  
19 agement or treatment of water, wastewater, or  
20 stormwater;

21 (5) enhancing energy efficiency or the use and  
22 generation of low-carbon energy in the management,  
23 conveyance, or treatment of water, wastewater, or  
24 stormwater;

1           (6) supporting practices and projects, such as  
2 improved irrigation systems, groundwater recharge,  
3 stormwater capture, and reuse or recycling of drain-  
4 age water and groundwater, to improve water qual-  
5 ity or promote more efficient water use, including on  
6 land currently in agricultural production;

7           (7) conducting and completing studies or as-  
8 sessments to project how climate change may impact  
9 the sustainability of water systems; or

10           (8) developing and implementing mitigation  
11 measures to rapidly address impacts on water sys-  
12 tems most susceptible to abrupt climate change, in-  
13 cluding those in the Colorado River Basin and coast-  
14 al regions at risk from rising sea levels.

15           (c) APPLICATION.—To be eligible to receive a grant  
16 from the Administrator under subsection (b), the owner  
17 or operator of a water system shall submit to the Adminis-  
18 trator an application that—

19           (1) includes a proposal of the program or strat-  
20 egy to be planned, designed, implemented, or main-  
21 tained by the water system;

22           (2) cites the best available research or data that  
23 demonstrates—

24           (A) the risk to the water resources of the  
25 water system as a result of ongoing or fore-

1           casted changes to the hydrological system  
2           brought about by factors arising from climate  
3           change, including rising sea levels, temperature  
4           changes, and changes in precipitation levels;  
5           and

6                   (B) how the proposed program or strategy  
7           would perform under the anticipated climate  
8           conditions and demonstrates no adverse envi-  
9           ronmental impacts; and

10           (3) explains how the proposed program or strat-  
11           egy is expected to enhance the resiliency of the water  
12           system, including source water protection for com-  
13           munity water systems, to these risks or reduce the  
14           direct or indirect greenhouse gas emissions of the  
15           water system.

16           (d) COMPETITIVE PROCESS.—

17                   (1) IN GENERAL.—Each calendar year, the Ad-  
18           ministrator shall conduct a competitive process to  
19           select and fund applications under this subsection.

20                   (2) PRIORITY REQUIREMENTS AND  
21           WEIGHTING.—In carrying out the process, the Ad-  
22           ministrator shall—

23                   (A) prioritize funding of programs or strat-  
24           egies the applications for which—

1 (i) are submitted by the owners or op-  
2 erators of water systems that are, based on  
3 the best available research and data, at the  
4 greatest and most immediate risk of facing  
5 significant climate-related negative impacts  
6 on water quality or quantity; and

7 (ii) propose a program or strategy  
8 that will provide an environmental benefit;

9 (B) in selecting among the priority applica-  
10 tions determined under subparagraph (A), en-  
11 sure that the final list of programs and strate-  
12 gies funded for each year includes programs  
13 and strategies for disadvantaged communities  
14 to the maximum extent practicable; and

15 (C) select not fewer than three programs  
16 or strategies to receive a grant under subsection  
17 (b).

18 (3) DISADVANTAGED COMMUNITY DEFINED.—  
19 For purposes of this subsection, the term “disadvan-  
20 taged community” means a community with an an-  
21 nual median household income that is less than 80  
22 percent of the annual median household income of  
23 the State in which the community is located.

24 (e) COST SHARING.—

1           (1) FEDERAL SHARE.—The Federal share of  
2           the cost of any program or strategy that is the sub-  
3           ject of a grant awarded by the Administrator to a  
4           water system under subsection (b) shall not exceed  
5           50 percent of the cost of the program or strategy.

6           (2) CALCULATION OF NON-FEDERAL SHARE.—  
7           In calculating the non-Federal share of the cost of  
8           a program or strategy proposed by a water system  
9           through an application submitted by the water sys-  
10          tem under subsection (d), the Administrator shall—

11                   (A) include the value of any in-kind serv-  
12                   ices that are integral to the completion of the  
13                   program or strategy, as determined by the Ad-  
14                   ministrator; and

15                   (B) not include any other amount that the  
16                   water system receives from a Federal agency.

17          (f) LABOR STANDARDS.—

18           (1) IN GENERAL.—All laborers and mechanics  
19           employed on infrastructure improvements funded di-  
20           rectly by or assisted in whole or in part by this sec-  
21           tion shall be paid wages at rates not less than those  
22           prevailing for the same type of work on similar con-  
23           struction in the immediate locality, as determined by  
24           the Secretary of Labor in accordance with sub-

1 chapter IV of chapter 31 of part A of subtitle II of  
2 title 40, United States Code.

3 (2) AUTHORITY AND FUNCTIONS.—With re-  
4 spect to the labor standards in this paragraph, the  
5 Secretary of Labor shall have the authority and  
6 functions set forth in Reorganization Plan Num-  
7 bered 14 of 1950 (64 Stat. 1267; 5 U.S.C. App.)  
8 and section 3145 of title 40, United States Code.

9 (g) REGULATIONS.—

10 (1) IN GENERAL.—Not later than 1 year after  
11 the date of enactment of this Act, the Administrator  
12 shall promulgate final regulations to carry out this  
13 section.

14 (2) SPECIAL RULE FOR THE CONSTRUCTION OF  
15 TREATMENT WORKS.—In carrying out this sub-  
16 section, the Administrator shall incorporate all rel-  
17 evant and appropriate requirements of title VI of the  
18 Federal Water Pollution Control Act (33 U.S.C.  
19 1381 et seq.) applicable to the construction of treat-  
20 ment works that are carried out under this sub-  
21 section.

22 (h) REPORT TO CONGRESS.—Not later than 3 years  
23 after the date of enactment of this Act, and every 3 years  
24 thereafter, the Administrator shall submit to the Congress  
25 a report on progress in implementing this section, includ-

1 ing information on project applications received and fund-  
2 ed annually.

3 (i) AUTHORIZATION OF APPROPRIATIONS.—There is  
4 authorized to be appropriated to carry out this section  
5 \$10,000,000 for each of fiscal years 2018 through 2022.

6 **SEC. 2009. WATERSENSE PROGRAM.**

7 (a) ESTABLISHMENT.—

8 (1) IN GENERAL.—There is established within  
9 the Environmental Protection Agency a WaterSense  
10 program to identify and promote water-efficient  
11 products, buildings, landscapes, facilities, processes,  
12 and services so as—

13 (A) to reduce water use;

14 (B) to reduce the strain on water, waste-  
15 water, and stormwater infrastructure;

16 (C) to conserve energy used to pump, heat,  
17 transport, and treat water; and

18 (D) to preserve water resources for future  
19 generations through voluntary labeling of, or  
20 other forms of communications about, products,  
21 buildings, landscapes, facilities, processes, and  
22 services that meet the highest water efficiency  
23 and performance criteria.

24 (2) DUTIES.—The Administrator of the Envi-  
25 ronmental Protection Agency shall—

1 (A) establish—

2 (i) a WaterSense label to be used for  
3 certain items; and

4 (ii) the procedure by which an item  
5 may be certified to display the WaterSense  
6 label;

7 (B) promote WaterSense-labeled products,  
8 buildings, landscapes, facilities, processes, and  
9 services in the marketplace as the preferred  
10 technologies and services for—

11 (i) reducing water use; and

12 (ii) ensuring product and service per-  
13 formance;

14 (C) work to enhance public awareness of  
15 the WaterSense label through public outreach,  
16 education, and other means;

17 (D) preserve the integrity of the  
18 WaterSense label by—

19 (i) establishing and maintaining per-  
20 formance criteria so that products, build-  
21 ings, landscapes, facilities, processes, and  
22 services labeled with the WaterSense label  
23 perform as well or better than less water-  
24 efficient counterparts;

1           (ii) considering factors, when devel-  
2           oping the performance criteria, to ensure  
3           that the criteria do not directly or indi-  
4           rectly contribute to the degradation of  
5           waste streams treated by community sewer  
6           systems;

7           (iii) overseeing WaterSense certifi-  
8           cations made by third parties;

9           (iv) conducting reviews of the use of  
10          the WaterSense label in the marketplace  
11          and taking corrective action in any case in  
12          which misuse of the label is identified; and

13          (v) carrying out such other measures  
14          as the Administrator determines to be ap-  
15          propriate;

16          (E) regularly review and, if appropriate,  
17          update WaterSense criteria for categories of  
18          products, buildings, landscapes, facilities, proc-  
19          esses, and services, at least once every 4 years;

20          (F) to the maximum extent practicable,  
21          regularly estimate and make available to the  
22          public the production and relative market  
23          shares of, and the savings of, water, energy,  
24          and capital costs of water, wastewater, and  
25          stormwater infrastructure attributable to the

1 use of WaterSense-labeled products, buildings,  
2 landscapes, facilities, processes, and services, at  
3 least annually;

4 (G) solicit comments from interested par-  
5 ties and the public prior to establishing or re-  
6 vising a WaterSense category, specification, in-  
7 stallation criterion, or other criterion (or prior  
8 to effective dates for any such category, speci-  
9 fication, installation criterion, or other cri-  
10 terion);

11 (H) provide reasonable notice to interested  
12 parties and the public of any changes (including  
13 effective dates) on the adoption of a new or re-  
14 vised category, specification, installation cri-  
15 terion, or other criterion, along with—

16 (i) an explanation of the changes; and  
17 (ii) as appropriate, responses to com-  
18 ments submitted by interested parties and  
19 the public; and

20 (I) provide appropriate lead time (as deter-  
21 mined by the Administrator) prior to the appli-  
22 cable effective date for a new or significant revi-  
23 sion to a category, specification, installation cri-  
24 terion, or other criterion, taking into account  
25 the timing requirements of the manufacturing,

1 marketing, training, and distribution process  
2 for the specific product, building and landscape,  
3 or service category addressed;

4 (J) identify and, if appropriate, implement  
5 other voluntary approaches in commercial, insti-  
6 tutional, residential, industrial, and municipal  
7 sectors to encourage recycling and reuse tech-  
8 nologies to improve water efficiency or lower  
9 water use; and

10 (K) if appropriate, apply the WaterSense  
11 label to water-using products that are labeled  
12 by the Energy Star program implemented by  
13 the Administrator and the Secretary of Energy.

14 (b) AUTHORIZATION OF APPROPRIATIONS.—There is  
15 authorized to be appropriated to carry out this section—

16 (1) \$5,000,000 for fiscal year 2018;

17 (2) \$10,000,000 for fiscal year 2019;

18 (3) \$15,000,000 for fiscal year 2020; and

19 (4) \$20,000,000 for fiscal year 2021.

20 **SEC. 2010. STATE RESIDENTIAL WATER EFFICIENCY AND**  
21 **CONSERVATION INCENTIVES PROGRAM.**

22 (a) ELIGIBLE ENTITIES.—An entity shall be eligible  
23 to receive an allocation under subsection (b) if the entity—

24 (1) establishes (or has established), in consulta-  
25 tion with the Department of Energy, an incentive

1 program to provide financial incentives to residential  
2 consumers for the purchase of residential water-effi-  
3 cient products, buildings, landscapes, processes, or  
4 services;

5 (2) submits an application for the allocation at  
6 such time, in such form, and containing such infor-  
7 mation as the Administrator of the Environmental  
8 Protection Agency may require; and

9 (3) provides assurances satisfactory to the Ad-  
10 ministrator that the entity will use the allocation to  
11 supplement, but not supplant, funds made available  
12 to carry out the incentive program.

13 (b) AMOUNT OF ALLOCATIONS.—For each fiscal  
14 year, the Administrator shall determine the amount to al-  
15 locate to each eligible entity to carry out subsection (c),  
16 taking into consideration—

17 (1) the population served by the eligible entity  
18 during the most recent calendar year for which data  
19 are available;

20 (2) the targeted population of the incentive pro-  
21 gram of the eligible entity, such as general house-  
22 holds, low-income households, or first-time home  
23 owners, and the probable effectiveness of the incen-  
24 tive program for that population;

1           (3) for existing programs, the effectiveness of  
2 the program in encouraging the adoption of water  
3 efficient products, buildings, landscapes, facilities,  
4 processes, and services, including the cost-effective-  
5 ness measured as acre-feet saved per program dollar;

6           (4) any allocation to the eligible entity for a  
7 preceding fiscal year that remains unused; and

8           (5) the per capita water demand of the popu-  
9 lation served by the eligible entity during the most  
10 recent calendar year for which data are available  
11 and the accessibility of water supplies to the eligible  
12 entity.

13       (c) USE OF ALLOCATED FUNDS.—Funds allocated to  
14 an eligible entity under subsection (b) may be used to pay  
15 up to 50 percent of the cost of establishing and carrying  
16 out an incentive program.

17       (d) FIXTURE RECYCLING.—Eligible entities are en-  
18 couraged to promote or implement fixture recycling pro-  
19 grams to manage the disposal of older fixtures replaced  
20 due to the incentive program under this section.

21       (e) ISSUANCE OF INCENTIVES.—

22           (1) IN GENERAL.—Financial incentives may be  
23 provided to residential consumers that meet the re-  
24 quirements of the applicable incentive program.

1           (2) MANNER OF ISSUANCE.—An eligible entity  
2 may—

3           (A) issue all financial incentives directly to  
4 residential consumers; or

5           (B) with approval of the Administrator,  
6 delegate all or part of financial incentive admin-  
7 istration to other organizations, including local  
8 governments, municipal water authorities, water  
9 utilities, and nonprofit organizations.

10          (3) AMOUNT.—The amount of a financial in-  
11 centive shall be determined by the eligible entity,  
12 taking into consideration—

13           (A) the amount of any Federal or State  
14 tax incentive available for the purchase of the  
15 residential water-efficient product or service;

16           (B) the amount necessary to change con-  
17 sumer behavior to purchase water-efficient  
18 products and services; and

19           (C) the consumer expenditures for on-site  
20 preparation, assembly, and original installation  
21 of the product.

22          (f) DEFINITIONS.—In this section, the following defi-  
23 nitions apply:

24           (1) ELIGIBLE ENTITY.—The term “eligible enti-  
25 ty” means a State government, local or county gov-

1       ernment, tribal government, wastewater or sewerage  
2       utility, municipal water authority, energy utility,  
3       water utility, or nonprofit organization that meets  
4       the requirements of subsection (a).

5               (2) INCENTIVE PROGRAM.—The term “incentive  
6       program” means a program for administering finan-  
7       cial incentives for consumer purchase and installa-  
8       tion of water-energy efficient residential tech-  
9       nologies, buildings, landscapes, processes, or serv-  
10      ices.

11              (3) RESIDENTIAL WATER-EFFICIENT PRODUCT,  
12      BUILDING, LANDSCAPE, PROCESS, OR SERVICE.—

13              (A) IN GENERAL.—The term “residential  
14      water-efficient product, building, landscape,  
15      process, or service” means a product, building,  
16      landscape, process, or service for a residence or  
17      its landscape that is rated for water efficiency  
18      and performance.

19              (B) INCLUSIONS.—The term “residential  
20      water-efficient product, building, landscape,  
21      process, or service” includes—

22                      (i) faucets;

23                      (ii) irrigation technologies and serv-  
24                      ices;

25                      (iii) reuse and recycling technologies;

- 1 (iv) toilets;
- 2 (v) clothes washers;
- 3 (vi) dishwashers;
- 4 (vii) showerheads;
- 5 (viii) landscaping and gardening prod-
- 6 ucts, including moisture control or water
- 7 enhancing technologies;
- 8 (ix) xeriscaping, turf removal, and
- 9 other landscape conversions that reduce
- 10 water use; and
- 11 (x) new water efficient homes certified
- 12 under the WaterSense program.

13 (4) WATERSENSE PROGRAM.—The term

14 “WaterSense program” means the program estab-

15 lished by section 2010.

16 (g) AUTHORIZATION OF APPROPRIATIONS.—There is

17 authorized to be appropriated to the Administrator to

18 carry out this section—

- 19 (1) \$25,000,000 for fiscal year 2018;
- 20 (2) \$50,000,000 for fiscal year 2019;
- 21 (3) \$75,000,000 for fiscal year 2020;
- 22 (4) \$50,000,000 for fiscal year 2021;
- 23 (5) \$25,000,000 for fiscal year 2022; and
- 24 (6) for each subsequent fiscal year, the applica-
- 25 ble amount for the preceding fiscal year, as adjusted

1 to reflect changes for the 12-month period ending  
2 the preceding November 30 in the Consumer Price  
3 Index for All Urban Consumers published by the  
4 Bureau of Labor Statistics of the Department of  
5 Labor.

6 **SEC. 2011. APPROPRIATIVE WATER RIGHTS CHARITABLE**  
7 **TAX DEDUCTION.**

8 Not later than 2 years after the date of the enact-  
9 ment of this Act, the Secretary of the Treasury shall clar-  
10 ify, though a revenue ruling, regulation, or other guidance,  
11 the Federal tax treatment of charitable donations of water  
12 rights acquired by appropriation.

13 **SEC. 2012. STORAGE.**

14 (a) **PILOT PROGRAM.**—In order to determine the fea-  
15 sibility of agreements for long-term use of existing or ex-  
16 panded non-Federal storage and conveyance facilities to  
17 augment Federal water supply, ecosystem, and operational  
18 flexibility benefits, not later than 6 months after the date  
19 of the enactment of this section, the Secretary of the Inte-  
20 rior shall enter into cooperative agreements with non-Fed-  
21 eral entities to provide water supplies for units of the Na-  
22 tional Wildlife Refuge System, State wildlife areas, and  
23 private wetland areas, pursuant to section 3406(d)(2) of  
24 the Central Valley Project Improvement Act (Public Law  
25 102–575; 106 Stat. 4706).

1 (b) REQUIREMENTS.—Cooperative agreements with  
2 non-Federal entities under this section shall—

3 (1) include the purchase of storage capacity in  
4 non-Federal facilities from willing sellers;

5 (2) provide reimbursement to non-Federal enti-  
6 ties for the temporary use of available capacity in  
7 existing above-ground, off-stream storage, and asso-  
8 ciated conveyance facilities owned by local water  
9 agencies;

10 (3) provide reimbursement to non-Federal enti-  
11 ties for operation and maintenance costs; and

12 (4) provide reimbursement to Federal entities  
13 and non-Federal entities for studies conducted by  
14 such entities that analyze the operational feasibility  
15 and costs of using non-Federal storage and convey-  
16 ance facilities to provide the water supplies described  
17 in subsection (a).

18 (c) REPORT.—Not later than 2 years after the date  
19 of the enactment of this section, the Secretary of the Inte-  
20 rior shall complete a report on the feasibility of the agree-  
21 ments described in subparagraph (a) for long-term use of  
22 existing or expanded non-Federal storage and conveyance  
23 facilities to augment Federal water supply, ecosystem, and  
24 operational flexibility benefits. The report shall be made  
25 available to the Chief of the National Wildlife Refuge Sys-

1 tem and to the public by posting such report on the appro-  
2 priate website of the Secretary.

3 **TITLE III—IMPROVED**  
4 **INFRASTRUCTURE**

5 **SEC. 3001. WATER LEAK CONTROL TECHNOLOGY STUDY.**

6 Part E of the Safe Drinking Water Act (42 U.S.C.  
7 300j et seq.) is amended by adding at the end the fol-  
8 lowing:

9 **“SEC. 1460. WATER LEAK CONTROL TECHNOLOGY.**

10 “(a) **STUDY.**—The Administrator shall conduct a  
11 study on technological improvements in location, mapping,  
12 monitoring, and communications practices to monitor and  
13 regulate pressure and detect leaks in transmission pipe-  
14 lines, water distribution systems, and aqueducts operated  
15 by public water systems.

16 “(b) **CONTENTS.**—In conducting the study under  
17 subsection (a), the Administrator shall—

18 “(1) in consultation with industry, develop a  
19 compilation of, and analyze, available and new tech-  
20 nologies to improve location and mapping practices  
21 used by States and industry to monitor and regulate  
22 pressure and reduce water loss and leaks;

23 “(2) conduct an analysis of how increased use  
24 of existing and new technologies documented in the  
25 compilation under paragraph (1), including G.P.S.

1 digital mapping technologies, predictive analytic  
2 tools, the use of mobile devices, and other advanced  
3 technologies, could reduce loss of water from leaks;  
4 and

5 “(3) based on the analyses conducted under  
6 paragraphs (1) and (2), identify criteria for effective  
7 pressure management and water loss and leak con-  
8 trol technologies to be used by transmission pipe-  
9 lines, water distribution systems, and aqueducts op-  
10 erated by public water systems.

11 “(c) REPORT.—Not later than 3 years after the date  
12 of the enactment of this section, the Administrator shall  
13 submit a report to Congress on the study under this sec-  
14 tion, including recommendations on how to incorporate,  
15 nationwide, technological improvements in practices in  
16 managing pressure and identifying water loss and leaks  
17 in aging infrastructure, provided that in developing such  
18 recommendations, the Administrator takes into consider-  
19 ation technical, operational, and economic feasibility.”.

20 **SEC. 3002. WATER MAIN BREAK DATA CLEARINGHOUSE.**

21 Part B of the Safe Drinking Water Act (42 U.S.C.  
22 300g et seq.) is amended by adding at the end the fol-  
23 lowing:

24 **“SEC. 1420A. WATER MAIN BREAK DATA CLEARINGHOUSE.**

25 **“(a) ONLINE DATA CLEARINGHOUSE.—**

1           “(1) ESTABLISHMENT.—Not later than 2 years  
2 after the date of enactment of this section, the Ad-  
3 ministrator shall establish and maintain a publicly  
4 accessible website with a national data clearinghouse  
5 on reported water main breaks and associated repair  
6 activity.

7           “(2) CONTENTS.—The website established pur-  
8 suant to paragraph (1) shall present—

9                   “(A) information submitted to the Admin-  
10 istrator by a public water system under this  
11 section with respect to reported water main  
12 breaks;

13                   “(B) aggregate State and national data on  
14 reported water main breaks; and

15                   “(C) trends in such information and data  
16 over time.

17           “(3) UPDATES.—The website established pursu-  
18 ant to paragraph (1) shall be updated at least twice  
19 per year.

20           “(b) DEFINITION.—In this section, the term ‘re-  
21 ported water main break’ means the unplanned rupture  
22 or breach of a pipe 6 inches in diameter or more in service  
23 as part of a public water system resulting in water escap-  
24 ing and being reported to the public water system by an  
25 employee or other person.

1       “(e) RULE.—Not later than one year after the date  
2 of enactment of this section, the Administrator shall issue  
3 a rule requiring each public water system serving more  
4 than 10,000 persons to submit to the Administrator infor-  
5 mation on each reported water main break in, and the re-  
6 pair activity for such break to be provided by, the public  
7 water system with respect to a calendar year. Such rule  
8 shall—

9           “(1) specify the format, content, quality assur-  
10        ance procedure, and method of submission of infor-  
11        mation;

12           “(2) apply to reported water main breaks that  
13        occur in the calendar year following the date of en-  
14        actment of this section and each calendar year  
15        thereafter;

16           “(3) allow for the submission, storage, and dis-  
17        play of information in electronic format;

18           “(4) allow for the submission of information by  
19        a public water system serving 10,000 or fewer per-  
20        sons submitted on a voluntary basis;

21           “(5) allow for submission of any additional in-  
22        formation that may be required of a public water  
23        system by a State regarding reported water main  
24        breaks and repair activity; and

1           “(6) require that a summary of the information  
2           submitted be included in a public water system’s an-  
3           nual consumer confidence report required under sec-  
4           tion 1414(c)(4).

5           “(d) REPORTED WATER MAIN BREAK AND REPAIR  
6           INFORMATION.—The rule issued under subsection (c)  
7           shall require each public water system serving more than  
8           10,000 persons to submit to the Administrator the fol-  
9           lowing information with respect to each reported water  
10          main break in the public water system:

11           “(1) To the extent practicable, the time and  
12          date the reported water main break was reported to  
13          the public water system.

14           “(2) The specific location of the reported water  
15          main break.

16           “(3) The size, type, age, and bedding material  
17          of the broken water main.

18           “(4) The elapsed time from the initial report of  
19          the water main break to the public water system to  
20          the completion of repairs.

21           “(5) The amount of water escaping from the  
22          public water system between the time of the report  
23          and the repair, estimated in accordance with ‘Water  
24          Audits and Loss Control Programs, Manual—36’

1 (2016) published by the American Water Works As-  
2 sociation or any successor manual.

3 “(6) The estimated cost of repairing the re-  
4 ported water main break and associated public infra-  
5 structure, including pavement restoration, and the  
6 cost of any damage to other public or private prop-  
7 erty.

8 “(e) ANNUAL REPORT.—Not later than 4 years after  
9 the date of enactment of this section, and annually there-  
10 after, the Administrator shall prepare and make available  
11 to the public a report summarizing and evaluating submis-  
12 sions by public water systems pursuant to this section.  
13 Such report shall include information and recommenda-  
14 tions concerning the methods and resources needed by  
15 public water systems to reduce the frequency, duration,  
16 and cost of water main breaks.”.

17 **SEC. 3003. SUSTAINABLE WATER LOSS CONTROL PROGRAM.**

18 (a) TECHNICAL ASSISTANCE AND GRANT PRO-  
19 GRAM.—The Administrator of the Environmental Protec-  
20 tion Agency shall establish and carry out a program to—

21 (1) make grants to public water systems to vol-  
22 untarily undergo an audit of the public water system  
23 that is—

24 (A) conducted in accordance with the pro-  
25 cedures contained in “Water Audits and Loss

1 Control Programs, Manual—36”, 4th edition,  
2 published by the American Water Works Asso-  
3 ciation; and

4 (B) validated under such criteria as may  
5 be specified by the Administrator; and

6 (2) provide technical assistance to public water  
7 systems to—

8 (A) address any findings of audits con-  
9 ducted in accordance with the procedures and  
10 criteria described in paragraph (1), including  
11 audits conducted pursuant to a grant under  
12 paragraph (1); and

13 (B) help such public water systems estab-  
14 lish sustainable water loss control programs.

15 (b) CRITERIA.—In selecting public water systems to  
16 make grants and provide technical assistance to pursuant  
17 to subsection (a), the Administrator shall consider—

18 (1) the relative share of the customer base of  
19 the public water system made up of customers from  
20 disadvantaged communities (as defined in section  
21 2008); and

22 (2) the ability of the public water system to  
23 successfully sustain a water loss control program  
24 upon completion of the audit.

1 (c) FEDERAL SHARE.—The Federal share of the cost  
2 of any audit for which a grant is awarded by the Adminis-  
3 trator under subsection (a) shall not exceed 50 percent  
4 of the cost of the audit.

5 (d) AUTHORIZATION OF APPROPRIATIONS.—There  
6 are authorized to be appropriated to carry out this section  
7 \$10,000,000 for each of fiscal years 2018 through 2022.

8 **SEC. 3004. TAX-EXEMPT FACILITY BONDS.**

9 (a) VOLUME CAP EXCEPTION.—Section 146 of the  
10 Internal Revenue Code of 1986 is amended by adding at  
11 the end the following new subsection:

12 “(o) EXCEPTION FOR BONDS FOR WATER INFRA-  
13 STRUCTURE IN AREAS WITH DROUGHT OR DISASTER.—

14 “(1) IN GENERAL.—Only for purposes of this  
15 section, the term ‘private activity bond’ shall not in-  
16 clude any exempt facility bond issued as part of an  
17 issue described in paragraph (4) or (5) of section  
18 142(a) if not less than 95 percent of the net pro-  
19 ceeds of such bond are used to provide property lo-  
20 cated—

21 “(A) in an area that is, at any time during  
22 the 5-year period ending on the date of enact-  
23 ment of this subsection, rated by the U.S.  
24 Drought Monitor as having at least a D2 inten-  
25 sity, and



1 ance under this title is used for, projects to address green  
2 infrastructure, water or energy efficiency improvements,  
3 or other environmentally innovative activities, including  
4 activities related to—

5 “(1) improving the sustainability of community  
6 water systems (as defined in section 1401 of the  
7 Safe Drinking Water Act);

8 “(2) water efficiency or conservation, including  
9 the rehabilitation or replacement of existing leaking  
10 pipes;

11 “(3) stormwater harvesting and use of re-  
12 claimed and recycled water, and investment in pipes  
13 used for the purposes of transporting recycled water;

14 “(4) increasing energy efficiency in public water  
15 systems (as defined in section 1401 of the Safe  
16 Drinking Water Act), including public water systems  
17 that use pump or hydraulic systems; and

18 “(5) implementation of source water protection  
19 plans under the Safe Drinking Water Act.”.

20 (b) DRINKING WATER STATE REVOLVING FUNDS.—

21 Section 1452 of the Safe Drinking Water Act (42 U.S.C.  
22 300j–12) is amended by adding at the end the following:

23 “(s) PRIORITIZATION OF GREEN PROJECTS.—Each  
24 State that has entered into a capitalization agreement  
25 pursuant to this section may prioritize projects or activi-

1 ties that maximize the potential for efficient water use,  
 2 reuse, recapture, and conservation, and energy conserva-  
 3 tion, taking into account the cost of constructing the  
 4 project or activity and the cost of operating and maintain-  
 5 ing the project or activity over the life of the project or  
 6 activity.”.

7 (c) AUTHORIZATION OF APPROPRIATIONS.—

8 (1) STATE WATER POLLUTION CONTROL RE-  
 9 VOLVING FUNDS.—Section 607 of the Federal Water  
 10 Pollution Control Act (33 U.S.C. 1387) is amended  
 11 to read as follows:

12 **“SEC. 607. AUTHORIZATION OF APPROPRIATIONS.**

13 “There are authorized to be appropriated to carry out  
 14 this title—

15 “(1) \$2,000,000,000 for fiscal year 2018; and

16 “(2) \$2,400,000,000 for fiscal year 2019.”.

17 (2) DRINKING WATER TREATMENT REVOLVING  
 18 LOAN FUND.—Section 1452(m) of the Safe Drinking  
 19 Water Act (42 U.S.C. 300j–12(m)) is amended to  
 20 read as follows:

21 “(m) AUTHORIZATION OF APPROPRIATIONS.—There  
 22 are authorized to be appropriated to carry out this sec-  
 23 tion—

24 “(1) \$1,186,000,000 for fiscal year 2018; and

25 “(2) \$1,286,000,000 for fiscal year 2019.”.

1 **SEC. 3006. BEST PRACTICES FOR ADMINISTRATION OF**  
2 **STATE REVOLVING LOAN FUND PROGRAMS.**

3 Section 1452 of the Safe Drinking Water Act (42  
4 U.S.C. 300j-12), as amended, is further amended by add-  
5 ing at the end the following:

6 “(t) **BEST PRACTICES FOR PROGRAM ADMINISTRA-**  
7 **TION.**—The Administrator shall—

8 “(1) collect information from States on admin-  
9 istration of State programs with respect to State  
10 loan funds, including—

11 “(A) efforts to streamline the process for  
12 applying for assistance through such programs;

13 “(B) programs in place to assist with the  
14 completion of application forms;

15 “(C) incentives provided to systems that  
16 partner with small public water systems for the  
17 application process; and

18 “(D) techniques to ensure that obligated  
19 balances are liquidated in a timely fashion;

20 “(2) not later than 3 years after the date of en-  
21 actment of the Water and Energy Sustainability  
22 through Technology Act, disseminate to the States  
23 best practices for administration of such programs,  
24 based on the information collected pursuant to this  
25 subsection; and

1           “(3) periodically update such best practices, as  
2           appropriate.”.

3 **TITLE IV—REPEAL CERTAIN TAX**  
4 **PREFERENCES FOR ENERGY**  
5 **AND NATURAL RESOURCE-**  
6 **BASED INDUSTRIES**

7 **SEC. 4001. NO EXPENSING FOR INTANGIBLE DRILLING AND**  
8 **DEVELOPMENT COSTS FOR OIL AND GAS**  
9 **WELLS.**

10           (a) **IN GENERAL.**—Section 263(c) of the Internal  
11 Revenue Code of 1986 is amended—

12                 (1) in the second sentence, by striking “are de-  
13                 ductible” and inserting “would, but for the last sen-  
14                 tence of this subsection, be deductible”, and

15                 (2) by adding at the end the following new sen-  
16                 tence: “In the case of any taxable year beginning  
17                 after December 31, 2017, this subsection shall not  
18                 apply with respect to any oil or gas well.”.

19           (b) **CONFORMING AMENDMENT.**—

20                 (1) **IN GENERAL.**—Section 263(i) of such Code  
21                 is amended by striking “an oil, gas, or geothermal”  
22                 and inserting “a geothermal”.

23                 (2) **EFFECTIVE DATE.**—The amendment made  
24                 by this section shall apply with respect to taxable  
25                 years beginning after December 31, 2017.

1 **SEC. 4002. REPEAL OF PERCENTAGE DEPLETION.**

2 (a) IN GENERAL.—Part I of subchapter I of chapter  
3 1 of the Internal Revenue Code of 1986 is amended by  
4 striking sections 613 and 613A (and by striking the items  
5 relating to such sections in the table of sections for such  
6 part).

7 (b) CONFORMING AMENDMENTS.—

8 (1)(A) Such part is amended by redesignating  
9 section 614 as section 613 (and, in the table of sec-  
10 tions for such part, by redesignating the item relat-  
11 ing to section 614 as an item relating to section  
12 613).

13 (B) Clauses (iv) and (v) of section 465(c)(2)(A)  
14 are each amended by striking “section 614” and in-  
15 serting “section 613”.

16 (C) Section 1016(e) is amended by striking  
17 “section 614” and inserting “section 613”.

18 (D) Section 1254(a)(3) is amended by striking  
19 “section 614” and inserting “section 613”.

20 (2) Section 45(c)(4) is amended to read as fol-  
21 lows:

22 “(4) GEOTHERMAL ENERGY.—

23 “(A) IN GENERAL.—The term ‘geothermal  
24 energy’ means energy derived from a geo-  
25 thermal deposit.

1           “(B) GEOTHERMAL DEPOSIT.—The term  
2           ‘geothermal deposit’ means a geothermal res-  
3           ervoir consisting of natural heat which is stored  
4           in rocks or in an aqueous liquid or vapor  
5           (whether or not under pressure).”.

6           (3) Section 48(a)(3)(A)(iii) is amended by  
7           striking “section 613(e)(2)” and inserting “section  
8           45(c)(4)(B)”.

9           (4) Section 381(c) is amended by striking para-  
10          graph (18).

11          (5) Section 465(c)(1)(E) is amended by striking  
12          “section 613(e)(2)” and inserting “section  
13          45(c)(4)(B)”.

14          (6) Section 468(d)(3) is amended by striking  
15          “section 614” and inserting “section 613”.

16          (7) Section 611(a) is amended by striking the  
17          second sentence.

18          (8) Section 613(d), as redesignated by para-  
19          graph (1), is amended by striking “includes only”  
20          and all that follows and inserting “includes only an  
21          interest burdened by the costs of production.”.

22          (9) Section 636(a) is amended by striking “(for  
23          purposes of section 613)”.

24          (10) Section 636(d) is amended by striking  
25          “section 614(a)” and inserting “section 613(a)”.

1 (11) Section 705(a) is amended—

2 (A) in paragraph (1), by adding “and” at  
3 the end of subparagraph (A), by striking “,  
4 and” at the end of subparagraph (B) and in-  
5 serting a period, and by striking subparagraph  
6 (C),

7 (B) in paragraph (2), by striking “; and”  
8 at the end of subparagraph (B) and inserting a  
9 period, and

10 (C) by striking paragraph (3).

11 (12) Section 901(e)(1)(A) is amended by strik-  
12 ing “(or, if smaller” and all that follows through  
13 “under section 613)”.

14 (13) Section 993(e)(2)(C) is amended by insert-  
15 ing “(as each such section was in effect before its  
16 repeal by the Tax Reform Act of 2014)” after “sec-  
17 tion 613 or 613A”.

18 (14) Section 1202(e)(3)(D) is amended by in-  
19 serting “(as each such section was in effect before  
20 its repeal by the Tax Reform Act of 2014)” after  
21 “section 613 or 613A”.

22 (15) Section 1367(a) is amended—

23 (A) in paragraph (1), by adding “and” at  
24 the end of subparagraph (A), by striking “,  
25 and” at the end of subparagraph (B) and in-

1           serting a period, and by striking subparagraph  
2           (C), and

3                   (B) in paragraph (2), by adding “and” at  
4           the end of subparagraph (C), by striking “,  
5           and” at the end of subparagraph (D) and in-  
6           serting a period, and by striking subparagraph  
7           (E).

8           (16) Section 1446(c) is amended by striking  
9           paragraph (2) and by redesignating paragraph (3)  
10          as paragraph (2).

11          (17) Section 4612(a)(7) is amended by insert-  
12          ing “(as in effect before its repeal by the Tax Re-  
13          form Act of 2014)” after “section 613”.

14          (18) Section 4940(c)(3)(B) is amended—

15                  (A) by striking clause (ii), and

16                  (B) by striking all that precedes “The de-  
17          duction provided” and inserting the following:

18                         “(B) MODIFICATIONS.—For purposes of  
19          subparagraph (A), the deduction provided”.

20          (c) EFFECTIVE DATE.—The amendments made by  
21          this section shall apply to taxable years beginning after  
22          December 31, 2017.

1           **TITLE V—SAVINGS CLAUSE**

2   **SEC. 5001. SAVINGS CLAUSE.**

3           This Act shall not be interpreted or implemented in  
4 a manner that—

5           (1) preempts or modifies any obligation of the  
6 United States to act in conformance with applicable  
7 State law, including applicable State water law;

8           (2) affects or modifies any obligation under the  
9 Central Valley Project Improvement Act (Public  
10 Law 102–575; 106 Stat. 4706);

11           (3) overrides, modifies, or amends the applica-  
12 bility of the National Environmental Policy Act of  
13 1969 (42 U.S.C. 4321 et seq.), the Endangered Spe-  
14 cies Act of 1973 (16 U.S.C. 1531 et seq.), or the  
15 Federal Water Pollution Control Act of 1948 (33  
16 U.S.C. 1251 et seq.); or

17           (4) authorizes the expenditure of funds for par-  
18 ticipation in the construction or use of any facility  
19 first put into service after January 1, 2015, that  
20 conveys water directly from the Sacramento River to  
21 pumping facilities in the south Sacramento-San Joa-  
22 quin Delta that are part of the California State  
23 Water Project or the Central Valley Project.

○