

The Southwestern Water Conservation District
The West Building, 841 E Second Avenue
Durango, CO 81301

NOTICE IS HEREBY GIVEN
A Regular Board Meeting of the
Southwestern Water Conservation District
will be held via teleconference on

Thursday, April 2, 2020

8:30 a.m.-11:00 a.m.

Video: <https://zoom.us/j/239754211>

or

Phone Number: (346) 248-7799

Meeting ID: 239 754 211

No Participant ID

Posted and Noticed March 27, 2020

Tentative Agenda

Please text 970-901-1388 if you have difficulty joining the meeting.

1.0 Call to Order – Roll Call, Verification of Quorum and Pledge of Allegiance (8:30 a.m.)

2.0 Review and Approve Agenda (8:33 a.m.)

3.0 Executive Session (8:35 a.m.)

- 3.1 Colorado River Interstate and Intra-state matters, including re-negotiation of the interim guidelines, drought contingency planning and exploration of demand management
- 3.2 Joint SWCD/River District Agreement with Hydros Consulting for Colorado River Basin Modeling
- 3.3 Proposed Extension of C.R.S. 37-92-305(3)(c) to Water Division 7

General Session (9:15 a.m.)

4.0 Report from Executive Session (9:15 a.m.)

5.0 Approve and/or Remove Consent Agenda Items (9:18 a.m.)

6.0 Introductions (9:20 a.m.)

7.0 Consent Agenda (9:25 a.m.)

- 7.1 Approval of Minutes (February 12-13, February 26, March 11, March 18)
- 7.2 Approval of Treasurer's Report (February 2020)
- 7.3 SWCD Policy: Public Access to Records, Research & Retrieval Fee (Updated and amended to reflect increase in research and retrieval fee from \$30 to \$33.58 per hour, after the first hour of time)

8.0 Reports (9:30 a.m.)

- 8.1 Board Committee Reports: Strategic Planning
- 8.2 Schedule Upcoming Board Committee Meetings
- 8.3 Hydrologic Conditions Update
- 8.4 Office Update

9.0 Questions and Comments from Audience (9:45 a.m.)

10.0 Old Business (9:50 a.m.)

- 10.1 Colorado River matters
 - 10.1.1 Interstate and intra-state matters, including re-negotiation of the interim guidelines, drought contingency planning (DCP) effort and exploration of demand management
 - 10.1.1.1 IBCC/Demand Management Workgroup Joint Meeting
 - 10.1.1.2 Law of the Colorado River Conference
 - 10.1.2 Colorado River Water Bank Working Group Update
- 10.2 Legislative Update & Position on Bills
 - 10.2.1 Potential Cancellation of SWCD Board Teleconferences on April 15th and 29th
- 10.3 Proposed extension of C.R.S. 37-92-305(3)(c) to Water Division 7

(This agenda item is listed to provide the following update: The Board had planned on discussing the proposed extension of C.R.S. 37-92-305(3)(c) including, but not limited to, water conservation program participants, in Water Division 7 at its April meeting. We believe this topic lends itself better to an in-person discussion. As a result, the discussion of this topic will be postponed until the Board's next in-person meeting.)

- 10.4 2021 CWCB Instream Flow Program Recommendations
 - 10.4.1 Water Division 4: Big A Creek, Kelly Creek, Naturita Creek (2), Red Canyon Creek, and Spring Creek
 - 10.4.2 Water Division 7: Rincon La Vaca Creek

11.0 New Business (10:35 a.m.)

- 11.1 Update on COVID-19 Impacts and Responses
 - 11.1.1 Board Member Updates
 - 11.1.2 SWCD Operations
 - 11.1.3 SWCD Annual Children's Water Festival

12.0 Engineering Report (10:45 a.m.)

- 12.1 Upper Colorado & San Juan River Basin Recovery Implementation Programs
- 12.2 Paradox Salinity Unit Draft Environmental Impact Statement
- 12.3 Animas Watershed Partnership

13.0 General Counsel Legal Report (10:50 a.m.)

- 13.1 February Water Court Resume Review (Divisions 3, 4, 7)

14.0 Executive Session (if needed)

15.0 Adjournment (11:00 a.m.)

Upcoming Meetings

April 15, 2020	9:00 a.m.	Special Board Meeting & Teleconference
April 29, 2020	9:00 a.m.	Special Board Meeting & Teleconference
June 2-3, 2020	TBD	Regular Board Meeting

Except the time indicated for when the meeting is scheduled to begin, the times noted for each agenda item are estimates and subject to change. The Board may address and act on agenda items in any order to accommodate the needs of the Board and the audience. Agenda items can also be added during the meeting at the consensus of the Board.

Agenda items may be placed on the Consent Agenda when the recommended action is non-controversial. The Consent Agenda may be voted on without reading or discussing individual items. Any Board member may request clarification

about items on the Consent Agenda. The Board may remove items from the Consent Agenda at their discretion for further discussion.

Southwestern Water Conservation District
Budget Comparison Summary
January through February 2020

	Jan - Feb 20	Budget	\$ Over Budget	% of Budget
Income				
4 · SWCD INCOME				
4.1 · Property Tax	57,251	1,620,102	(1,562,851)	4%
4.2 · Specific Ownership Tax	12,303	100,000	(87,697)	12%
4.3 · Interest, PILT & Other Taxes	76	35,500	(35,424)	0%
4.4 · Other Income				
4.4.1 · Interest Earned	11,071	40,000	(28,929)	28%
4.4.2 · Loan Interest	0	275	(275)	0%
4.4.3 · Miscellaneous Income	1,433	5,000	(3,568)	29%
4.4.4 · Water Seminar Registration	0	6,000	(6,000)	0%
4.4.5 · ALP/WIP Cost Sharing	0	200	(200)	0%
4.4.6 · ALP Cost Sharing - Wages	0	0	0	0%
4.4.7 · SJRBRI Water User Committee	50,873	50,873	0	100%
4.4.8 · Stream Gaging Reimbursement	11,913	32,481	(20,568)	37%
4.4.9 · Water Info Program	27,817	37,850	(10,033)	73%
Total 4.4 · Other Income	103,107	172,679	(69,572)	60%
Total 4 · SWCD INCOME	172,737	1,928,281	(1,755,544)	9%
Total Income	172,737	1,928,281	(1,755,544)	9%
Gross Profit	172,737	1,928,281	(1,755,544)	9%
Expense				
5 · SWCD EXPENSES				
5.01 · Water Management & Development				
5.1.1 · SWCD Grant Program	0	400,000	(400,000)	0%
5.1.2 · Previously Committed Grants	0	85,694	(85,694)	0%
5.1.3 · Project Reserve Fund	0	350,000	(350,000)	0%
5.1.4 · SJRBRI Water User Committee	0	101,746	(101,746)	0%
5.1.5 · SWCD Project Water Rights	0	10,000	(10,000)	0%
5.1.6 · Weather Modification	0	117,000	(117,000)	0%
5.1.7 · Emergency Reserve Fund	0	500,000	(500,000)	0%
Total 5.01 · Water Management & Developm...	0	1,564,440	(1,564,440)	0%
5.02 · Data Collection				
5.2.1 · Center for Snow & Avalanche	7,000	7,000	0	100%
5.2.2 · Stream Gaging - Federal	0	108,500	(108,500)	0%
5.2.3 · Stream Gaging - Colorado	0	2,640	(2,640)	0%
5.2.4 · Water Quality Studies	0	13,000	(13,000)	0%
5.2.5 · SW Colorado Permanent Radar	0	10,000	(10,000)	0%
Total 5.02 · Data Collection	7,000	141,140	(134,140)	5%
5.03 · Ongoing Organizational Support				
5.3.1 · Event Sponsorships	700	6,000	(5,300)	12%
5.3.2 · Dues & Memberships	18,879	22,350	(3,471)	84%
5.3.3 · Bonita Peak CAG	0	5,000	(5,000)	0%
5.3.4 · Water Bank Working Group	11,000	17,500	(6,500)	63%
5.3.5 · Demo CSU Farm/Water Efficiency	0	10,000	(10,000)	0%
Total 5.03 · Ongoing Organizational Support	30,579	60,850	(30,271)	50%
5.04 · Water Education				
5.4.1 · Water Info Program	10,196	72,095	(61,899)	14%
5.4.2 · Water Seminar	14	18,000	(17,986)	0%
5.4.3 · Water Education Colorado	10,500	10,500	0	100%
5.4.4 · Water Leaders Scholarship	0	5,000	(5,000)	0%
5.4.5 · Children's Water Festival	266	9,500	(9,234)	3%
5.4.6 · Watershed Education Program	6,000	6,000	0	100%
Total 5.04 · Water Education	26,975	121,095	(94,120)	22%

Southwestern Water Conservation District
Budget Comparison Summary
January through February 2020

	Jan - Feb 20	Budget	\$ Over Budget	% of Budget
5.05 · Technical Support				
5.5.01 · Attorney Fees - General Counsel	14,908	140,000	(125,092)	11%
5.5.02 · Attorney Exps - General Counsel	474	15,000	(14,526)	3%
5.5.03 · Litigation - General Counsel	2,678	30,000	(27,322)	9%
5.5.04 · Co River Litigation- General Co	0	40,000	(40,000)	0%
5.5.05 · Attorney Fees - Special Counsel	0	10,000	(10,000)	0%
5.5.06 · Attorney Exps - Special Counsel	0	5,000	(5,000)	0%
5.5.07 · Lobbying Fees	12,250	50,000	(37,750)	25%
5.5.08 · Lobbying Expenses	511	5,500	(4,989)	9%
5.5.09 · Engineering - General	0	45,000	(45,000)	0%
5.5.10 · Engineering - Special Projects	0	25,000	(25,000)	0%
5.5.11 · Technical Other Expenses	0	50,000	(50,000)	0%
Total 5.05 · Technical Support	30,820	415,500	(384,680)	7%
5.06 · District Staff				
5.6.1 · Wages - Executive Director	22,308	146,450	(124,142)	15%
5.6.2 · Wages - Programs Coordinator	8,445	50,393	(41,948)	17%
5.6.4 · Wages - Payroll Taxes	2,419	17,716	(15,297)	14%
5.6.5 · Wages - Retirement Benefit	1,791	11,811	(10,020)	15%
5.6.6 · Wages - Health & Life Insurance	6,910	46,260	(39,350)	15%
5.6.7 · Wages - ED Bonus	0	0	0	0%
5.6.8 · Wages - Coordinator Bonus	0	0	0	0%
Total 5.06 · District Staff	41,872	272,629	(230,757)	15%
5.07 · Meetings & Travel				
5.7.1 · Director Fees	2,025	21,000	(18,975)	10%
5.7.2 · Director Travel	4,101	31,000	(26,899)	13%
5.7.3 · Registration Fees	6,198	8,500	(2,302)	73%
5.7.4 · Meeting Expenses	1,544	10,000	(8,456)	15%
5.7.5 · Staff Travel	7,192	35,000	(27,808)	21%
Total 5.07 · Meetings & Travel	21,059	105,500	(84,441)	20%
5.08 · Administration				
5.8.01 · Audit	0	8,400	(8,400)	0%
5.8.02 · Accounting	0	500	(500)	0%
5.8.03 · Capital Outlay	1,204	15,000	(13,796)	8%
5.8.04 · Casual Labor	0	200	(200)	0%
5.8.05 · ED Discretionary Budget	0	2,000	(2,000)	0%
5.8.06 · Equipment Leasing	150	1,800	(1,650)	8%
5.8.07 · Insurance - General Liability	6,882	6,000	882	115%
5.8.08 · Legal Notices	0	600	(600)	0%
5.8.09 · Miscellaneous	0	500	(500)	0%
5.8.10 · Office Expenses	1,363	7,500	(6,137)	18%
5.8.11 · Postage	306	1,000	(694)	31%
5.8.12 · Rent	7,300	30,796	(23,496)	24%
5.8.13 · Staff Training/Development	0	2,500	(2,500)	0%
5.8.14 · Telephone	638	3,500	(2,862)	18%
Total 5.08 · Administration	17,843	80,296	(62,453)	22%
5.09 · County Treasurer Fees	1,853	52,668	(50,815)	4%
5.10 · TABOR Reserve	0	84,424	(84,424)	0%
5.11 · Contingency Reserve	0	96,414	(96,414)	0%
Total 5 · SWCD EXPENSES	178,003	2,994,956	(2,816,954)	6%
Total Expense	178,003	2,994,956	(2,816,954)	6%
Net Income	(5,266)	(1,066,675)	1,061,410	0%

10:00 AM
March 6, 2020
Accrual Basis

Southwestern Water Conservation District
Bank Account Summary
As of February 29, 2020

	Feb 29, 20
ASSETS	
Current Assets	
Checking/Savings	
100 · SWCD Checking	43,949.52
101 · SWCD Credit Card	(3,603.09)
102 · SJRBRIP Checking	121,963.29
103 · WIP Checking	118,739.47
105 · COLOTrust Project Reserve	483,532.07
106 · COLOTrust Emergency Reserve	264,014.06
107 · COLOTrust General	151,891.01
123 · CD1 - 24 Month	1,528,622.96
159 · CD2 - 12 Month	409,075.70
160 · CD3 - 12 Month	100,386.67
Total Checking/Savings	3,218,571.66
Other Current Assets	
131 · Bauer Lake Loan	11,011.25
Total Other Current Assets	11,011.25
Total Current Assets	3,229,582.91
TOTAL ASSETS	3,229,582.91
LIABILITIES & EQUITY	0.00

10:01 AM

03/06/20

Southwestern Water Conservation District Check Detail

January through February 2020

Num	Date	Name	Memo	Account	Original Amount
VISA	01/03/2020	National Water Resources Association	Frank NWRA Leadership Forum	101 - SWCD Credit Card	-395.00
			Frank NWRA Leadership Forum	5 7 3 - Registration Fees	395.00
TOTAL					395.00
VISA	01/04/2020	Amazon Prime	Prime Delivery Service	101 - SWCD Credit Card	-12.99
			Prime Delivery Service	5 8 10 - Office Expenses	12.99
TOTAL					12.99
VISA	01/05/2020	Charter Spectrum	Jan 2020	101 - SWCD Credit Card	-139.89
			Jan 2020	5 8 14 - Telephone	139.89
TOTAL					139.89
1008	01/06/2020	Elaine Chick Consulting	Dec 2019	103 - WIP Checking	-3,903.80
			Dec 2019	202 - Accounts Payable/WIP	3,903.80
TOTAL					3,903.80
1009	01/06/2020	SW Water Conservation District	4Q2019, 2020 WebHosting, CWC Registration	103 - WIP Checking	-1,039.55
			4Q2019	202 - Accounts Payable/WIP	184.55
			2020 waterinfo.org hosting	54127 - WIP Web Hosting	240.00
			2020 CWC Annual Conference Registration Elaine	54114 - WIP Conferences/Events/Training	615.00
TOTAL					1,039.55
ACH	01/06/2020	Lincoln Financial Group	12/16-29/19	100 - SWCD Checking	-463.28
			12/16-29/19	221 - 457 Withholding	231.64
			12/16-29/19	5 6 5 - Wages - Retirement Benefit	231.64
TOTAL					463.28
VISA	01/07/2020	ImageNet	Jan 2020	101 - SWCD Credit Card	-150.00
			Jan 2020	5 8 06 - Equipment Leasing	150.00
TOTAL					150.00
VISA	01/07/2020	Durango Rec Center	BRT Mtg 4-23-20	101 - SWCD Credit Card	-435.00
			BRT Mtg 4-23-20	5 7 4 - Meeting Expenses	435.00
TOTAL					435.00
VISA	01/07/2020	Crowne Plaza	NWRA Leadership Forum Frank/Christine	101 - SWCD Credit Card	-41.59
			NWRA Leadership Forum Frank/Christine	5 7 5 - Staff Travel	20.80
			NWRA Leadership Forum Frank/Christine	5 5 08 - Lobbying Expenses	20.79
TOTAL					41.59
VISA	01/09/2020	DARCA	2020 Conference Sponsorship & Membership	101 - SWCD Credit Card	-750.00
			2020 DARCA Annual Conference	5 3 1 - Event Sponsorships	500.00
			2020 Membership	5 3 2 - Dues & Memberships	250.00
TOTAL					750.00
VISA	01/09/2020	Office Depot	1099s, Restock Paper, Check Envelopes	101 - SWCD Credit Card	-135.61
			1099s, Restock Paper, Check Envelopes	5 8 10 - Office Expenses	135.61
TOTAL					135.61
VISA	01/10/2020	CLE International	Law of the CO River Conference, Scottsdale, Frank	101 - SWCD Credit Card	-895.00
			Law of the CO River Conference, Scottsdale, Frank	5 7 3 - Registration Fees	895.00
TOTAL					895.00

10:01 AM

03/06/20

Southwestern Water Conservation District Check Detail

January through February 2020

Num	Date	Name	Memo	Account	Original Amount
ACH	01/12/2020	Laura E Spann	12/30/19-1/12/2020	100 - SWCD Checking	-1,310.81
			12/30/19-1/12/2020	5 6 2 - Wages - Programs Coordinator	376.32
			12/30/19-1/12/2020	5 6 2 - Wages - Programs Coordinator	1,550.72
			12/30/19-1/12/2020	5 6 6 - Wages - Health & Life Insurance	-173.00
			12/30/19-1/12/2020	221 - 457 Withholding	-57.81
			12/30/19-1/12/2020	215 - FICA/Medicare/Fed W/H	-159.00
			12/30/19-1/12/2020	5 6 4 - Wages - Payroll Taxes	119.48
			12/30/19-1/12/2020	215 - FICA/Medicare/Fed W/H	-119.48
			12/30/19-1/12/2020	215 - FICA/Medicare/Fed W/H	-119.48
			12/30/19-1/12/2020	5 6 4 - Wages - Payroll Taxes	27.94
			12/30/19-1/12/2020	215 - FICA/Medicare/Fed W/H	-27.94
			12/30/19-1/12/2020	215 - FICA/Medicare/Fed W/H	-27.94
			12/30/19-1/12/2020	216 - State W/H Tax Payable	-79.00
			12/30/19-1/12/2020	5 6 4 - Wages - Payroll Taxes	5.78
			12/30/19-1/12/2020	217 - State Unemployment Tax	-5.78
TOTAL					1,310.81
ACH	01/12/2020	Frank J Kugel	12/30/19-1/12/20	100 - SWCD Checking	-3,301.75
			12/30/19-1/12/20	5 6 1 - Wages - Executive Director	5,576.92
			12/30/19-1/12/20	5 6 6 - Wages - Health & Life Insurance	-87.14
			12/30/19-1/12/20	221 - 457 Withholding	-665.39
			12/30/19-1/12/20	215 - FICA/Medicare/Fed W/H	-876.00
			12/30/19-1/12/20	5 6 4 - Wages - Payroll Taxes	345.77
			12/30/19-1/12/20	215 - FICA/Medicare/Fed W/H	-345.77
			12/30/19-1/12/20	215 - FICA/Medicare/Fed W/H	-345.77
			12/30/19-1/12/20	5 6 4 - Wages - Payroll Taxes	80.87
			12/30/19-1/12/20	215 - FICA/Medicare/Fed W/H	-80.87
			12/30/19-1/12/20	215 - FICA/Medicare/Fed W/H	-80.87
			12/30/19-1/12/20	216 - State W/H Tax Payable	-220.00
			12/30/19-1/12/20	5 6 4 - Wages - Payroll Taxes	16.73
			12/30/19-1/12/20	217 - State Unemployment Tax	-16.73
TOTAL					3,301.75
ACH	01/13/2020	Lincoln Financial Group	12/30/19-1/12/2020	100 - SWCD Checking	-1,115.63
			12/30/19-1/12/2020	221 - 457 Withholding	723.20
			12/30/19-1/12/2020	5 6 5 - Wages - Retirement Benefit	392.43
TOTAL					1,115.63
VISA	01/13/2020	Chavolo's	Frank SA Mtg 1-13-20	101 - SWCD Credit Card	-19.12
			Frank SA Mtg 1-13-20	5 7 5 - Staff Travel	19.12
TOTAL					19.12
1060	01/14/2020	Telluride Institute	2020 Watershed Education Program Support	100 - SWCD Checking	-6,000.00
			2020 Watershed Education Program Support	5 4 6 - Watershed Education Program	6,000.00
TOTAL					6,000.00
1061	01/14/2020	Colorado River WCD	WBWG Costshare 2020	100 - SWCD Checking	-11,000.00
			WBWG Costshare 2020	5 3 4 - Water Bank Working Group	11,000.00
TOTAL					11,000.00
1062	01/14/2020	SJRBRIP Steering Committee	2020 Assessment	100 - SWCD Checking	-50,873.00
			2020 Assessment	5 1 4 - SJRBRIP Water User Committee	50,873.00
TOTAL					50,873.00
VISA	01/15/2020	Amazon.Com	Kuhn, Fleck Book	101 - SWCD Credit Card	-25.90
			Kuhn, Fleck Book	5 8 10 - Office Expenses	25.90
TOTAL					25.90
VISA	01/16/2020	Irish Embassy	Frank, Bob, Laura Seminar Planning Mtg	101 - SWCD Credit Card	-62.17
			Frank, Bob, Laura Seminar Planning Mtg	5 7 5 - Staff Travel	41.45
			Frank, Bob, Laura Seminar Planning Mtg	5 7 2 - Director Travel	20.72
TOTAL					62.17

10:01 AM

03/06/20

Southwestern Water Conservation District Check Detail

January through February 2020

Num	Date	Name	Memo	Account	Original Amount
VISA	01/17/2020	Colorado Water Congress	2020 SA Membership, Laura (Reports)	101 - SWCD Credit Card	-225.00
			2020 SA Membership, Laura (Reports)	5.3.2 - Dues & Memberships	225.00
TOTAL					225.00
VISA	01/17/2020	United Airlines	David G, Water Congress Flight	101 - SWCD Credit Card	-386.39
			David G, Water Congress Flight	5.7.2 - Director Travel	386.39
TOTAL					386.39
VISA	01/17/2020	Element Denver Downton East	Busto memorial, SA mtg 1/13/20	101 - SWCD Credit Card	-194.46
			Busto memorial, SA mtg 1/13/20	5.7.5 - Staff Travel	194.46
TOTAL					194.46
ACH	01/17/2020	United States Treasury	12/30/19-1/12/20	100 - SWCD Checking	-2,183.12
			12/30/19-1/12/20	215 - FICA/Medicare/Fed W/H	1,035.00
			12/30/19-1/12/20	215 - FICA/Medicare/Fed W/H	465.25
			12/30/19-1/12/20	215 - FICA/Medicare/Fed W/H	465.25
			12/30/19-1/12/20	215 - FICA/Medicare/Fed W/H	108.81
			12/30/19-1/12/20	215 - FICA/Medicare/Fed W/H	108.81
TOTAL					2,183.12
ACH	01/26/2020	Laura E Spann	1/13-26/20	100 - SWCD Checking	-1,508.44
			1/13-26/20	5.6.2 - Wages - Programs Coordinator	1,938.40
			1/13-26/20	5.6.2 - Wages - Programs Coordinator	263.54
			1/13-26/20	5.6.6 - Wages - Health & Life Insurance	-173.00
			1/13-26/20	221 - 457 Withholding	-55.05
			1/13-26/20	215 - FICA/Medicare/Fed W/H	-205.00
			1/13-26/20	5.6.4 - Wages - Payroll Taxes	136.52
			1/13-26/20	215 - FICA/Medicare/Fed W/H	-136.52
			1/13-26/20	215 - FICA/Medicare/Fed W/H	-136.52
			1/13-26/20	5.6.4 - Wages - Payroll Taxes	31.93
			1/13-26/20	215 - FICA/Medicare/Fed W/H	-31.93
			1/13-26/20	215 - FICA/Medicare/Fed W/H	-31.93
			1/13-26/20	216 - State W/H Tax Payable	-92.00
			1/13-26/20	5.6.4 - Wages - Payroll Taxes	6.61
			1/13-26/20	217 - State Unemployment Tax	-6.61
TOTAL					1,508.44
ACH	01/26/2020	Frank J Kugel	1/13-26/20	100 - SWCD Checking	-3,301.76
			1/13-26/20	5.6.1 - Wages - Executive Director	5,576.92
			1/13-26/20	5.6.6 - Wages - Health & Life Insurance	-87.14
			1/13-26/20	221 - 457 Withholding	-665.39
			1/13-26/20	215 - FICA/Medicare/Fed W/H	-876.00
			1/13-26/20	5.6.4 - Wages - Payroll Taxes	345.77
			1/13-26/20	215 - FICA/Medicare/Fed W/H	-345.77
			1/13-26/20	215 - FICA/Medicare/Fed W/H	-345.77
			1/13-26/20	5.6.4 - Wages - Payroll Taxes	80.86
			1/13-26/20	215 - FICA/Medicare/Fed W/H	-80.86
			1/13-26/20	215 - FICA/Medicare/Fed W/H	-80.86
			1/13-26/20	216 - State W/H Tax Payable	-220.00
			1/13-26/20	5.6.4 - Wages - Payroll Taxes	16.73
			1/13-26/20	217 - State Unemployment Tax	-16.73
TOTAL					3,301.76
VISA	01/26/2020	Kokoro Restaurant	Frank CWCB Mtg Denver	101 - SWCD Credit Card	-14.01
			Frank CWCB Mtg Denver	5.7.5 - Staff Travel	14.01
TOTAL					14.01
ACH	01/27/2020	Lincoln Financial Group	1/13-26/20	100 - SWCD Checking	-1,110.11
			1/13-26/20	221 - 457 Withholding	720.44
			1/13-26/20	5.6.5 - Wages - Retirement Benefit	389.67
TOTAL					1,110.11
VISA	01/27/2020	Rock Bottom Brewery	CWCB Mtg Denver, Frank Ken	101 - SWCD Credit Card	-37.60
			CWCB Mtg Denver, Frank Ken	5.7.5 - Staff Travel	37.60
TOTAL					37.60

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January through February 2020

Num	Date	Name	Memo	Account	Original Amount
WL...	01/28/2020	Bank of Colorado	Wire Fee (Jan 31) from COLOTrust	100 - SWCD Checking	-5.00
			Wire Fee (Jan 31) from COLOTrust	5.8.10 - Office Expenses	5.00
TOTAL					5.00
VISA	01/28/2020	Kachina Southwestern Grill	CWC Annual Conf dinner, Bob Elaine Laura Frank	101 - SWCD Credit Card	-146.84
			CWC Annual Conf dinner, Bob Elaine Laura Frank	5.7.5 - Staff Travel	73.42
			CWC Annual Conf dinner, Bob Elaine Laura Frank	5.7.2 - Director Travel	36.71
			CWC Annual Conf dinner, Bob Elaine Laura Frank	5.4.5 - Children's Water Festival	36.71
TOTAL					146.84
VISA	01/29/2020	Verizon	Dec 2020	101 - SWCD Credit Card	-105.47
			Dec 2020	200 - Accounts Payable	105.47
TOTAL					105.47
VISA	01/29/2020	Westin	CWC Conference Don 1/29-31	101 - SWCD Credit Card	-298.00
			CWC Conference Don	5.7.2 - Director Travel	298.00
TOTAL					298.00
VISA	01/29/2020	Westin	CWC Conference Don 1/29-31	101 - SWCD Credit Card	-2.98
			CWC Conference Don	5.7.2 - Director Travel	2.98
TOTAL					2.98
VISA	01/29/2020	Westin	CWC Conference Jenny 1/28	101 - SWCD Credit Card	-199.00
			CWC Conference Jenny	5.7.2 - Director Travel	199.00
TOTAL					199.00
VISA	01/29/2020	Westin	CWC Conference Jenny 1/29-31	101 - SWCD Credit Card	-298.00
			CWC Conference Jenny	5.7.2 - Director Travel	298.00
TOTAL					298.00
VISA	01/29/2020	Westin	CWC Conference Jenny (Internet & Taxes)	101 - SWCD Credit Card	-28.88
			CWC Conference Jenny (Internet & Taxes)	5.7.2 - Director Travel	28.88
TOTAL					28.88
VISA	01/29/2020	Westin	CWC Conference David 1/29-2/1	101 - SWCD Credit Card	-447.00
			CWC Conference David	5.7.2 - Director Travel	447.00
TOTAL					447.00
VISA	01/29/2020	Westin	CWC Conference/CWCB Mtg Frank 1/26-31	101 - SWCD Credit Card	-995.00
			CWC Conference/CWCB Mtg Frank	5.7.5 - Staff Travel	995.00
TOTAL					995.00
VISA	01/29/2020	Westin	CWC Conference/CWCB Mtg Frank (Taxes, Meal)	101 - SWCD Credit Card	-29.20
			CWC Conference/CWCB Mtg Frank (Taxes, Meal)	5.7.5 - Staff Travel	29.20
TOTAL					29.20
VISA	01/29/2020	Westin	CWC Conference Laura 1/28	101 - SWCD Credit Card	-199.00
			CWC Conference Laura	5.7.5 - Staff Travel	199.00
TOTAL					199.00
VISA	01/29/2020	Westin	CWC Conference Don 1/28	101 - SWCD Credit Card	-199.00
			CWC Conference Don 1/28	*Uncategorized Expenses	199.00
TOTAL					199.00

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January through February 2020

Num	Date	Name	Memo	Account	Original Amount
ACH	01/30/2020	Colorado Department of Revenue	4Q2019	100 - SWCD Checking	-1,798.00
			4Q2019	216 - State W/H Tax Payable	1,798.00
TOTAL					1,798.00
ACH	01/30/2020	Colorado State Treasurer	4Q2019	100 - SWCD Checking	-144.63
			4Q2019	217 - State Unemployment Tax	144.63
TOTAL					144.63
VISA	01/30/2020	Bonefish Grill	SWCD Board, Staff Dinner CWC Annual Conf	101 - SWCD Credit Card	-483.59
			SWCD Board, Staff Dinner CWC Annual Conf	5.7.4 - Meeting Expenses	483.59
TOTAL					483.59
1063	01/31/2020	Center for Snow & Avalanche Studies	2020 Support	100 - SWCD Checking	-7,000.00
			2020 Support	5.2.1 - Center for Snow & Avalanche	7,000.00
TOTAL					7,000.00
1064	01/31/2020	Family Farm Alliance	2020 Membership	100 - SWCD Checking	-9,300.00
			2020 Membership	5.3.2 - Dues & Memberships	9,300.00
TOTAL					9,300.00
1065	01/31/2020	Fairfield and Woods, P.C.	Dec 2019	100 - SWCD Checking	-26,282.53
			Dec 2019	200 - Accounts Payable	26,282.53
TOTAL					26,282.53
1066	01/31/2020	Colorado Employer Benefit Trust	February 2020	100 - SWCD Checking	-2,841.96
			February 2020	5.6.6 - Wages - Health & Life Insurance	2,841.96
TOTAL					2,841.96
1067	01/31/2020	The West Building	February 2020	100 - SWCD Checking	-2,431.81
			February 2020	5.8.12 - Rent	2,431.81
TOTAL					2,431.81
1068	01/31/2020	Laura Spann-V	WEco Bd mtg, CWC Annual Conf	100 - SWCD Checking	-612.18
			Water Congress Annual Conference, mileage + meals	5.7.5 - Staff Travel	407.97
			WEco Bd Mtg mileage, expenses, meals	5.7.5 - Staff Travel	136.96
			Teleconf board packet mailing 1/8, 1/22	5.8.11 - Postage	67.25
TOTAL					612.18
1004	01/31/2020	Water Consult	Nov 23-Dec 27, 2019	102 - SJRBRIP Checking	-4,483.97
			Nov 23-Dec 27, 2019	200 - Accounts Payable	4,483.97
TOTAL					4,483.97
1010	01/31/2020	Elaine Chick Consulting	Jan 2020	103 - WIP Checking	-3,903.80
			Jan 2020	54111 - WIP Contract Coordination	3,903.80
TOTAL					3,903.80
VISA	01/31/2020	Westin	CWC Conference Laura (internet, tax)	101 - SWCD Credit Card	-28.88
			CWC Conference Laura (internet, tax)	5.7.5 - Staff Travel	28.88
TOTAL					28.88
VISA	01/31/2020	Westin	CWC Conference Laura 1/29-31	101 - SWCD Credit Card	-298.00
			CWC Conference Laura 1/29-31	5.7.5 - Staff Travel	298.00
TOTAL					298.00

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Southwestern Water Conservation District Check Detail

January through February 2020

Num	Date	Name	Memo	Account	Original Amount
VISA	01/31/2020	Westin	Charged in Error - Refunded 2/25/20	101 - SWCD Credit Card	-199.00
			Charged in Error - Refunded 2/25/20	5.7.5 - Staff Travel	199.00
TOTAL					199.00
VISA	02/04/2020	Charter Spectrum	Jan 2020	101 - SWCD Credit Card	-139.89
			Jan 2020	5.8.14 - Telephone	139.89
TOTAL					139.89
1011	02/04/2020	Elaine Chick Consulting	CWC Annual Conf, WIP SC Snacks	103 - WIP Checking	-999.57
			WIP SC Mtg Breakfast Jan 2020	54128 - WIP Meeting Expenses	16.36
			CWC Annual Conference Denver	54114 - WIP Conferences/Events/Training	983.21
TOTAL					999.57
1012	02/04/2020	Four Corners Water Center at FLC	Sponsorship (Western Water and Power)	103 - WIP Checking	-100.00
			Sponsorship (Western Water and Power)	54118 - WIP Sponsorships	100.00
TOTAL					100.00
1069	02/04/2020	Elaine Chick Consulting	Water Festival Coordinators Workshop Jan 2020	100 - SWCD Checking	-229.17
			Water Festival Coordinators Workshop Jan 2020	5.4.5 - Children's Water Festival	229.17
TOTAL					229.17
1070	02/04/2020	Robert Wolff	Mtgs 1/1-2/1/20	100 - SWCD Checking	-728.85
			WIP SC Mtg, Water Congress, Bd Teleconfs	5.7.1 - Director Fees	250.00
			Family Farm flight, Teleconf mileage	5.7.2 - Director Travel	478.85
TOTAL					728.85
VISA	02/04/2020	Steamworks	Seminar Mtg: Aaron, Mandy (MSI), Bob, Frank	101 - SWCD Credit Card	-67.37
			Seminar Mtg: Aaron, Mandy (MSI), Bob, Frank	5.7.4 - Meeting Expenses	67.37
TOTAL					67.37
VISA	02/04/2020	Westin	CWC Annual Conf Guilliams Taxes	101 - SWCD Credit Card	-4.47
			CWC Annual Conf Guilliams Taxes	5.7.2 - Director Travel	4.47
TOTAL					4.47
ACH	02/05/2020	United States Treasury	Jan 2020	100 - SWCD Checking	-2,271.16
			Jan 2020	215 - FICA/Medicare/Fed W/H	1,081.00
			Jan 2020	215 - FICA/Medicare/Fed W/H	482.29
			Jan 2020	215 - FICA/Medicare/Fed W/H	482.29
			Jan 2020	215 - FICA/Medicare/Fed W/H	112.79
			Jan 2020	215 - FICA/Medicare/Fed W/H	112.79
TOTAL					2,271.16
VISA	02/05/2020	US Postal Service	Bd Packets 2-12 to 13-20	101 - SWCD Credit Card	-227.20
			Bd Packets 2-12 to 13-20	5.8.11 - Postage	227.20
TOTAL					227.20
VISA	02/06/2020	Four Corners Water Center at FLC	FLC Western Water and Power Event	101 - SWCD Credit Card	-200.00
			FLC Western Water and Power Event	5.3.1 - Event Sponsorships	200.00
TOTAL					200.00

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Num	Date	Name	Memo	Account	Original Amount
ACH	02/09/2020	Laura E Spann	1/27-2/9/20	100 - SWCD Checking	-1,519.21
			1/27-2/9/20	5 6 2 - Wages - Programs Coordinator	1,938.40
			1/27-2/9/20	5 6 2 - Wages - Programs Coordinator	236.28
			1/27-2/9/20	5 6 6 - Wages - Health & Life Insurance	-143.74
			1/27-2/9/20	221 - 457 Withholding	-54.37
			1/27-2/9/20	215 - FICA/Medicare/Fed W/H	-200.00
			1/27-2/9/20	5 6 4 - Wages - Payroll Taxes	134.83
			1/27-2/9/20	215 - FICA/Medicare/Fed W/H	-134.83
			1/27-2/9/20	215 - FICA/Medicare/Fed W/H	-134.83
			1/27-2/9/20	5 6 4 - Wages - Payroll Taxes	31.53
			1/27-2/9/20	215 - FICA/Medicare/Fed W/H	-31.53
			1/27-2/9/20	215 - FICA/Medicare/Fed W/H	-31.53
			1/27-2/9/20	216 - State W/H Tax Payable	-91.00
			1/27-2/9/20	5 6 4 - Wages - Payroll Taxes	6.52
			1/27-2/9/20	217 - State Unemployment Tax	-6.52
TOTAL					1,519.21
ACH	02/09/2020	Frank J Kugel	1/27-2/9/20	100 - SWCD Checking	-3,301.75
			1/27-2/9/20	5 6 1 - Wages - Executive Director	5,576.92
			1/27-2/9/20	5 6 6 - Wages - Health & Life Insurance	-87.14
			1/27-2/9/20	221 - 457 Withholding	-665.39
			1/27-2/9/20	215 - FICA/Medicare/Fed W/H	-876.00
			1/27-2/9/20	5 6 4 - Wages - Payroll Taxes	345.77
			1/27-2/9/20	215 - FICA/Medicare/Fed W/H	-345.77
			1/27-2/9/20	215 - FICA/Medicare/Fed W/H	-345.77
			1/27-2/9/20	5 6 4 - Wages - Payroll Taxes	80.87
			1/27-2/9/20	215 - FICA/Medicare/Fed W/H	-80.87
			1/27-2/9/20	215 - FICA/Medicare/Fed W/H	-80.87
			1/27-2/9/20	216 - State W/H Tax Payable	-220.00
			1/27-2/9/20	5 6 4 - Wages - Payroll Taxes	7.34
			1/27-2/9/20	217 - State Unemployment Tax	-7.34
TOTAL					3,301.75
1071	02/09/2020	Zia Taqueria	Bd Mtg Lunch 2-13-20	100 - SWCD Checking	-405.00
			Bd Mtg Lunch 2-13-20	5 7 4 - Meeting Expenses	405.00
TOTAL					405.00
ACH	02/09/2020	Lincoln Financial Group	1/27-2/9/20	100 - SWCD Checking	-1,108.75
			1/27-2/9/20	221 - 457 Withholding	719.76
			1/27-2/9/20	5 6 5 - Wages - Retirement Benefit	388.99
TOTAL					1,108.75
VISA	02/10/2020	uber	DMWG Frank Laura	101 - SWCD Credit Card	-52.74
			DMWG Frank Laura	5 7 5 - Staff Travel	52.74
TOTAL					52.74
VISA	02/12/2020	ImageNet	February 2020	101 - SWCD Credit Card	-150.00
			February 2020	5 8 10 - Office Expenses	150.00
TOTAL					150.00
VISA	02/12/2020	uber	DMWG Mtg Frank/Laura 2-12-20	101 - SWCD Credit Card	-45.59
			DMWG Mtg Frank/Laura 2-12-20	5 7 5 - Staff Travel	45.59
TOTAL					45.59
VISA	02/12/2020	City Market	Bd Mtg Drinks & Snacks 2/12-13/20	101 - SWCD Credit Card	-66.28
			Bd Mtg Drinks & Snacks 2/12-13/20	5 7 4 - Meeting Expenses	66.28
TOTAL					66.28
VISA	02/12/2020	Durango Airport	DMWG Mtgs Frank/Laura	101 - SWCD Credit Card	-7.00
			DMWG Mtgs Frank/Laura	5 7 5 - Staff Travel	7.00
TOTAL					7.00

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January through February 2020

Num	Date	Name	Memo	Account	Original Amount
VISA	02/12/2020	Doubletree Hotel	Board Mtg Dinner 2/12/20	101 - SWCD Credit Card	-333.06
			Board Mtg Dinner 2/12/20	5.7.5 - Staff Travel	83.27
			Board Mtg Dinner 2/12/20	5.7.2 - Director Travel	208.16
			Board Mtg Dinner 2/12/20	5.5.02 - Attorney Exps - General Counsel	41.63
TOTAL					333.06
VISA	02/12/2020	Jimmy Johns	Bd Mtg Lunch 2-12-20	101 - SWCD Credit Card	-86.64
			Bd Mtg Lunch 2-12-20	5.7.4 - Meeting Expenses	86.64
TOTAL					86.64
VISA	02/18/2020	Lyft	Family Farm Alliance Conference Frank (Reno)	101 - SWCD Credit Card	-11.19
			Family Farm Alliance Conference Frank (Reno)	5.7.5 - Staff Travel	11.19
TOTAL					11.19
VISA	02/18/2020	Four Peaks Brewing	Family Farm Alliance Annual Conf Reno, Frank	101 - SWCD Credit Card	-24.07
			Family Farm Alliance Annual Conf Reno, Frank	5.7.5 - Staff Travel	24.07
TOTAL					24.07
VISA	02/21/2020	uber	Family Farm Alliance Conference Frank (Reno)	101 - SWCD Credit Card	-15.31
			Family Farm Alliance Conference Frank (Reno)	5.7.5 - Staff Travel	15.31
TOTAL					15.31
VISA	02/21/2020	Panda Express	Family Farm Alliance Annual Conf Reno, Frank	101 - SWCD Credit Card	-17.59
			Family Farm Alliance Annual Conf Reno, Frank	5.7.5 - Staff Travel	17.59
TOTAL					17.59
VISA	02/21/2020	El Dorado	Family Farm Alliance Annual Conf Reno, Frank	101 - SWCD Credit Card	-211.03
			Family Farm Alliance Annual Conf Reno, Frank	5.7.5 - Staff Travel	211.03
TOTAL					211.03
VISA	02/21/2020	SL Cafe	Family Farm Alliance Annual Conf Reno, Frank	101 - SWCD Credit Card	-22.01
			Family Farm Alliance Annual Conf Reno, Frank	5.7.5 - Staff Travel	22.01
TOTAL					22.01
ACH	02/23/2020	Frank J Kugel	2/10-23/20	100 - SWCD Checking	-3,301.76
			2/10-23/20	5.6.1 - Wages - Executive Director	5,576.92
			2/10-23/20	5.6.6 - Wages - Health & Life Insurance	-87.14
			2/10-23/20	221 - 457 Withholding	-665.39
			2/10-23/20	215 - FICA/Medicare/Fed W/H	-876.00
			2/10-23/20	5.6.4 - Wages - Payroll Taxes	345.77
			2/10-23/20	215 - FICA/Medicare/Fed W/H	-345.77
			2/10-23/20	215 - FICA/Medicare/Fed W/H	-345.77
			2/10-23/20	5.6.4 - Wages - Payroll Taxes	80.86
			2/10-23/20	215 - FICA/Medicare/Fed W/H	-80.86
			2/10-23/20	215 - FICA/Medicare/Fed W/H	-80.86
			2/10-23/20	216 - State W/H Tax Payable	-220.00
TOTAL					3,301.76
ACH	02/23/2020	Lincoln Financial Group	2/10-23/20	100 - SWCD Checking	-1,107.07
			2/10-23/20	221 - 457 Withholding	718.92
			2/10-23/20	5.6.5 - Wages - Retirement Benefit	388.15
TOTAL					1,107.07

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Num	Date	Name	Memo	Account	Original Amount
ACH	02/24/2020	Laura E Spann	2/10-23/20	100 - SWCD Checking	-1,498.27
			2/10-23/20	5 6 2 - Wages - Programs Coordinator	1,932.34
			2/10-23/20	5 6 2 - Wages - Programs Coordinator	209.01
			2/10-23/20	5 6 6 - Wages - Health & Life Insurance	-143.74
			2/10-23/20	221 - 457 Withholding	-53.53
			2/10-23/20	215 - FICA/Medicare/Fed W/H	-192.00
			2/10-23/20	5 6 4 - Wages - Payroll Taxes	132.76
			2/10-23/20	215 - FICA/Medicare/Fed W/H	-132.76
			2/10-23/20	215 - FICA/Medicare/Fed W/H	-132.76
			2/10-23/20	5 6 4 - Wages - Payroll Taxes	31.05
			2/10-23/20	215 - FICA/Medicare/Fed W/H	-31.05
			2/10-23/20	215 - FICA/Medicare/Fed W/H	-31.05
			2/10-23/20	216 - State W/H Tax Payable	-90.00
			2/10-23/20	5 6 4 - Wages - Payroll Taxes	6.43
			2/10-23/20	217 - State Unemployment Tax	-6.43
TOTAL					1,498.27
1072	02/24/2020	Dolores Water Conservancy District	WY19-20 WSJ, WDT-Tell (Pre-Season, Seeding 1)	100 - SWCD Checking	-28,560.00
			WY19-20 WSJ, WDT-Tell (Pre-Season, Seeding 1)	200 - Accounts Payable	28,560.00
TOTAL					28,560.00
1073	02/24/2020	Fairfield and Woods, P.C.	Jan 2020	100 - SWCD Checking	-17,820.01
			Jan 2020	5 5 01 - Attorney Fees - General Counsel	14,608.00
			Jan 2020	5 5 03 - Litigation - General Counsel	2,678.00
			Jan 2020	5 5 02 - Attorney Exps - General Counsel	234.01
			Jan 2020 Michelle	5 5 01 - Attorney Fees - General Counsel	300.00
TOTAL					17,820.01
1074	02/24/2020	Desert Sun Coffee Roasters	Restock coffee	100 - SWCD Checking	-54.14
			Restock coffee	5 8 10 - Office Expenses	54.14
TOTAL					54.14
1075	02/24/2020	Russell Hinger	Bd Mtg 2/12-13, Teleconf 1/15,1/28	100 - SWCD Checking	-336.25
			Bd Mtg 2/12-13, Teleconf 1/15, 1/28	5 7 1 - Director Fees	250.00
			Bd Mtg 2/12-13	5 7 2 - Director Travel	86.25
TOTAL					336.25
1076	02/24/2020	Douglas Stowe	Bd Mtg 2/12-13/20	100 - SWCD Checking	-303.50
			Bd Mtg 2/12-13/20	5 7 1 - Director Fees	200.00
			Bd Mtg 2/12-13/20	5 7 2 - Director Travel	103.50
TOTAL					303.50
1077	02/24/2020	David Guilliams	Mtgs 1/15, 1/28, 1/29-31/20	100 - SWCD Checking	-499.50
			Mtgs 1/15, 1/28, 1/29-31/20	5 7 1 - Director Fees	350.00
			Taxi to Water Congress 1/29-31/20	5 7 2 - Director Travel	149.50
TOTAL					499.50
1078	02/24/2020	J R Ford	Bd Mtg 2/12-13/20	100 - SWCD Checking	-269.00
			Bd Mtg 2/12-13/20	5 7 1 - Director Fees	200.00
			Bd Mtg 2/12-13/20	5 7 2 - Director Travel	69.00
TOTAL					269.00
1079	02/24/2020	David Guilliams	Bd Mtg 2/12-13/20	100 - SWCD Checking	-286.25
			Bd Mtg 2/12-13/20	5 7 1 - Director Fees	200.00
			Bd Mtg 2/12-13/20	5 7 2 - Director Travel	86.25
TOTAL					286.25
1080	02/24/2020	Don Schwindt	Mtgs 1/15, 1/28, CWC, 2/12-13	100 - SWCD Checking	-850.70
			Mtgs 1/15, 1/28, 2/12-13	5 7 1 - Director Fees	250.00
			CWC mileage, meals	5 7 2 - Director Travel	587.70
			Oath of Office Recording	5 8 10 - Office Expenses	13.00
TOTAL					850.70

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January through February 2020

Num	Date	Name	Memo	Account	Original Amount
1081	02/24/2020	Robert Wolff	Mtg 2/12-13, Install Conference Room Outlets	100 · SWCD Checking	-370.70
			Mtg 2/12-13, Install Conference Room Outlets	5.7.1 · Director Fees	325.00
			Mtg 2/12-13, Parking Ticket	5.7.2 · Director Travel	45.70
TOTAL					370.70
1084	02/24/2020	Durango Development	Conference room modifications	100 · SWCD Checking	-1,203.73
			Conference room modifications	5.8.03 · Capital Outlay	1,203.73
TOTAL					1,203.73
1083	02/24/2020	Laura Spann-V	DMWG 2/10/20, Seminar 2/20, Postage 2/21	100 · SWCD Checking	-45.34
			DMWG 2/10	5.7.5 · Staff Travel	19.42
			Seminar lunch (Mike, Ellen) 2/20	5.4.2 · Water Seminar	13.92
			Teleconf packet 2/26	5.8.11 · Postage	12.00
TOTAL					45.34
VISA	02/24/2020	United Airlines	DMWG/IBCC Denver Laura 3/4-5/20	101 · SWCD Credit Card	-572.80
			DMWG/IBCC Denver Laura 3/4-5/20	5.7.5 · Staff Travel	572.80
TOTAL					572.80
1085	02/26/2020	The West Building	March 2020	100 · SWCD Checking	-2,448.94
			March 2020	5.8.12 · Rent	2,448.94
TOTAL					2,448.94
1086	02/26/2020	Kogovsek & Associates, Inc.	Jan 2020	100 · SWCD Checking	-490.04
			Jan 2020	5.5.08 · Lobbying Expenses	490.04
TOTAL					490.04
1087	02/26/2020	Frank Kugel	Mtg mileage 12/10/19-2/25/20	100 · SWCD Checking	-1,944.09
			Mtg mileage 1/6-2/25/20	5.7.5 · Staff Travel	1,788.25
			Mtg mileage 12/10-18/20	200 · Accounts Payable	155.84
TOTAL					1,944.09
1088	02/26/2020	Doubletree Hotel	Hotel Rooms, Bd Mtg 2/12-13/20	100 · SWCD Checking	-845.53
			Hotel Rooms, Bd Mtg 2/12-13/20	5.7.2 · Director Travel	647.52
			Hotel Room, Bd Mtg 2/12-13/20	5.5.02 · Attorney Exps - General Counsel	198.01
TOTAL					845.53
1013	02/26/2020	La Plata West Water Authority	Refund of Double Paid 2020 Contribution	103 · WIP Checking	-200.00
			Refund of Double Paid 2020 Contribution	4.4.9.1 · WIP Partner Contributions	200.00
TOTAL					200.00
1089	02/26/2020	Colorado Employer Benefit Trust	March 2020	100 · SWCD Checking	-2,207.96
			March 2020	5.6.6 · Wages - Health & Life Insurance	2,207.96
TOTAL					2,207.96
VISA	02/26/2020	Durango Airport	Family Farm Alliance Annual Conf Reno Frank	101 · SWCD Credit Card	-28.00
			Family Farm Alliance Annual Conf Reno Frank	5.7.5 · Staff Travel	28.00
TOTAL					28.00
VISA	02/26/2020	Verizon	Feb 2020 Office & Mobile, 3 Deskphones	101 · SWCD Credit Card	-357.85
			Feb 2020 Office & Mobile, 3 Deskphones	5.8.14 · Telephone	357.85
TOTAL					357.85

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03/06/20

Southwestern Water Conservation District Check Detail

January through February 2020

Num	Date	Name	Memo	Account	Original Amount
VISA	02/27/2020	CLE International	Law of the Colorado River (Scottsdale) Bob	101 · SWCD Credit Card	-895.00
			Law of the Colorado River (Scottsdale) Bob	5.7.3 · Registration Fees	895.00
TOTAL					895.00
VISA	02/27/2020	Home Depot	Replace office tea kettle	101 · SWCD Credit Card	-57.12
			Replace office tea kettle	5.8.10 · Office Expenses	57.12
TOTAL					57.12
VISA	02/27/2020	Office Depot	Restock office supplies	101 · SWCD Credit Card	-128.83
			Restock office supplies	5.8.10 · Office Expenses	128.83
TOTAL					128.83
VISA	02/27/2020	Office Depot	Restock office supplies	101 · SWCD Credit Card	-54.40
			Restock office supplies	5.8.10 · Office Expenses	54.40
TOTAL					54.40
1014	02/28/2020	Elaine Chick Consulting	February 2020	103 · WIP Checking	-4,337.14
			February 2020	54111 · WIP Contract Coordination	4,337.14
TOTAL					4,337.14

**SOUTHWESTERN WATER CONSERVATION DISTRICT
BOARD OF DIRECTORS
POLICY NO. 1**

I. PURPOSE

To determine guidelines pursuant to C.R.S. §24-72-203 – 205, Colorado Public Records Act, whereby the District shall provide public access to its records and will review requests for information. The following guidelines are adopted by the Board of Directors for the Southwestern Water Conservation Board for public access to District records:

II POLICY

Requests must be in writing and must be specific as to the information desired.

All requests for information must be directed to the custodian of the records of the District.

Records must be viewed under the supervision of the custodian of the records or his appointed designee at the District headquarters only and may not be removed from this office.

Records will be retrieved and refiled only by the custodian of the records or his appointed designee.

Records may be removed from file folders or places of storage for photocopying only by the custodian of the records or his appointed designee.

Photocopies of records will be provided at \$0.25 per standard page or a fee not to exceed the actual cost of providing a copy, printout, or photograph of a public record in a format other than a standard page.

Information requests will not take priority over previously scheduled work activities of the District.

The District reserves the right to levy a fee for research and retrieval services of ~~\$30~~ **33.58** per hour, and no charge shall be made for the first hour of time expended in connection with the research and retrieval of public records. The fee for research and retrieval shall automatically change to be the maximum allowed under the statute, as amended after the date this policy is approved by the District board of directors.

Records are available for public inspection during normal working hours, provided that an appointment has been made with the custodian of the records or his appointed

designee at least three (3) business days in advance.

The District may withhold records which contain privileged information or that are protected from disclosure by any other statute or rule of any court.

AUTHORITY: Board Motion 9.23.1996, Amended 4.2.1998, 2.7.2008, 8.13.2014, 4.2.2020

**Southwestern Water Conservation District
BOARD COMMITTEE STRUCTURE**

December 2019

Committee assignments:

Please see the Committee descriptions at the end of this memo.

Finance	Colorado River	Litigation	Personnel	Outreach	Strategic Plan
JR Ford	Don Schwindt	Jenny Russell	JR Ford	Rusty Hinger	Charlie Smith
David Guilliams	Doug Stowe	Charlie Smith	David Guilliams	Don Schwindt	Jenny Russell
Jenny Russell	Bob Wolff	Bob Wolff	Jenny Russell	Bob Wolff	Don Schwindt
Bob Wolff			Bob Wolff		Bob Wolff

Staff, consultant, and counsel support:

Frank Kugel will provide staff support for all committees, including management and policy recommendations, and Laura Spann will provide staff support for all committees, including meeting notices, recordings, and notes. Beth Van Vurst will participate upon request of the committee members. Carrie Padgett may also participate upon request of the committee members.

Preliminary committee descriptions:

The following are general descriptions of the scope of each board committee. These committees may propose policies or positions for board consideration and approval.

Finance

This committee will consider finance-related topics, including long- and short-term District financial goals, investment priorities and vehicles, audit, and budget, among others. This committee will also draft a travel reimbursement policy for staff and the board.

Colorado River

This committee will consider items related to Colorado River management, including the 2026 Interim Guidelines, drought contingency planning and demand management.

Strategic Planning

This committee will be charged with drafting the related planning documents and assigning portions of the strategic plan to various committees for drafting.

Litigation

This committee will consider items related to the District's litigation priorities.

Outreach

This committee will consider items related to the District's strategies and tools for public education and engagement.

Personnel

This committee will consider items related to District personnel policies and issues.

Office Report April 2020

Southwestern Water Conservation District



NOTES FROM FRANK KUGEL, EXECUTIVE DIRECTOR

Waters of the United States (WOTUS): The EPA and the Department of the Army have completed their two-step process to review and revise the 2015 Rule. The new WOTUS rule took effect on March 23, 2020. The agencies implemented the two steps to provide certainty to the regulated community and the public while the agencies developed the revised definition of "waters of the United States."

1. **Step One - Repeal** – On October 22, 2019, the agencies published a final rule to repeal the 2015 Rule and recodify the regulation that was in place prior to issuance of the 2015 Rule. This final rule became effective on December 23, 2019. [Read the final Step One rule.](#)
2. **Navigable Waters Protection Rule (Step Two) - Revise** - On January 23, 2020 the agencies finalized the Navigable Waters Protection Rule to define "waters of the United States." The rule will become effective 60 days after it is published in the *Federal Register*. [Read the pre-publication version of the final Navigable Waters Protection Rule.](#)

The final WOTUS rule clarifies key elements related to the scope of federal Clean Water Act jurisdiction, including:

- Providing clarity and consistency by removing the proposed separate categories for jurisdictional ditches and impoundments.
- Refining the proposed definition of "typical year," which provides important regional and temporal flexibility and ensures jurisdiction is being accurately determined in times that are not too wet and not too dry.
- Defining "adjacent wetlands" as wetlands that are meaningfully connected to other jurisdictional waters, for example, by directly abutting or having regular surface water communication with jurisdictional waters.

Law of the River – Implications of the Drought Contingency Plan – Scottsdale Conference: I attended this conference on March 12-13, 2020. Some of the conference speakers and their highlights are listed below:

Bill Hasenkamp, Metropolitan Water District of Southern California, opening remarks – Bill noted that he'd never seen individual bananas shrink-wrapped, alluding to the precautions taken at the conference to limit the spread of the Coronavirus.

Bob Snow, Solicitor's office – gave overview and background of the Law of the Colorado River

- Key elements
 - Between Upper & Lower Basins – 1922 Compact
 - Within the Lower Basin (AZ, CA, NV) – 1928 Boulder Canyon Project Act – All-American Canal & Hoover Dam
 - Between the U.S. & Mexico – 1944 US/Mexico Treaty

- Colorado River Storage Project Act of 1956 – Upper Basin Initial/Participating Units authorized
- Colorado River Basin Project Act of 1968
 - Central Arizona Project was authorized.
 - Criteria established for long-range operation of Powell/Mead (LROC) Sec. 602(a).
- Recent additions
 - 1992 – Grand Canyon Protection Act
 - 2004 – Arizona Water Settlements Act
 - 2009 – Lower Colorado River Multi-Species Conservation Program (Pub. L. No. 111-11)
 - 2019 – Colorado River Drought Contingency Plan Authorization Act (Pub. L. No. 116-14)
- Conventional wisdom
 - Glen Canyon Dam – High Flow releases
 - Lower Basin Water: Lee Ferry Compact Measurement Point
 - Gallup Project takes water above, counts towards Lower Basin
 - Water for the Delta
 - Lower Basin DCP – 1.375 MAF voluntary reduction
 - US/Mexico – Minute 323
 - 2019 – Congressional gridlock overcome to adopt DCP in 3 weeks

Jack Schmidt, Utah State – USGS: Future of the Colorado River project (2014)

- Dolores at Cisco – 44% of 1917-1957 flow. 200kaf exported to MVI/DWCD
- San Juan Basin – climate change affecting it more than others
- Lake Powell – 6 MAF inflow, 8.6 MAF outflow in 2000-2004, lost 3 MAF/yr
 - Groundwater loss 50 kaf, decreasing to 30 kaf by 2030

17 MAF consumptive and losses annually in Colorado River

Brenda Burman – USBR:

- Implemented 2007 Interim Guidelines
- Worked on Indian Water Rights Settlements in AZ – Gila River Indian Tribe
- Large investments in infrastructure
- 6 focus points for USBR
 - Ensure water & power reliability

- Habitat and environmental protection
- Tribal interaction
- 1922 Compact: no need to open or renegotiate
- Consensus instead of litigation
- Pass on knowledge to next generation – make sure they are involved & go to meetings

Carly Jerla – Lower Colorado Basin, USBR

- Development of the 2007 Interim Guidelines
 - Setting: Drought and operations 2000-2004
 - 2004: Mead 54%, Powell 38%
 - Mead dropping 1.3 MAF/year with Powell at 8.23 MAF/year release

Brett Bovee, WestWater Research, Ft Collins

- Tribal Water Marketing in the Colorado River Basin
 - Southern Ute has 130 kaf available to market, Ute Mountain Ute has 88 kaf. Can theoretically market in Upper Basin via change to state rights
 - Most marketing is in AZ

Ali Montazar, Irrigation and Water Management Advisor, Univ of CA Cooperative Extension

- Deficit Irrigation Program Study
 - Average farm size is 1200 ac in desert CA
 - Subsurface Drip Irrigation:
 - Spinach: Downy Mildew incidence down 4-5 times after switching to drip irrigation
 - Alfalfa acreage has increased 12% in southern desert of CA
 - ET rate - 68 inches of water
 - Mild deficit irrigation can improve yields while reducing water use
 - Eliminating ONE irrigation event (from 3 to 2)

Paul Orme, attorney for Pinal County farmers

- The DCP and Arizona Farmers
 - Represents Pinal (pi-NAHL) County farmers near Casa Grande

- Pinal is most junior of the junior CAP
- Infrastructure built in 1980's based upon surface water – must switch to groundwater
- NRCS provided \$25 MIL for development of 70 kaf/yr of new groundwater capacity by 2023
- Total cost \$55 MIL – NRCS funds too slow, so state loaned money to project
- NRCS required conservation and efficiency as part of the funding
- Estimate 30-40% of land will go out of production

Question posed by Bill Hasenkamp asking if it might be a good thing to have a shortage on the Colorado River. Sandy from AZ was incredulous at the suggestion, stating that there would be significant economic hardship in AZ.

Hasenkamp raised issue about delivering 9.0 MAF vs 7.48 or 8.23. He said it was a function of hydrology and that the lower basin would have reduced use if Powell power pool was threatened.

THE COLORADO RIVER

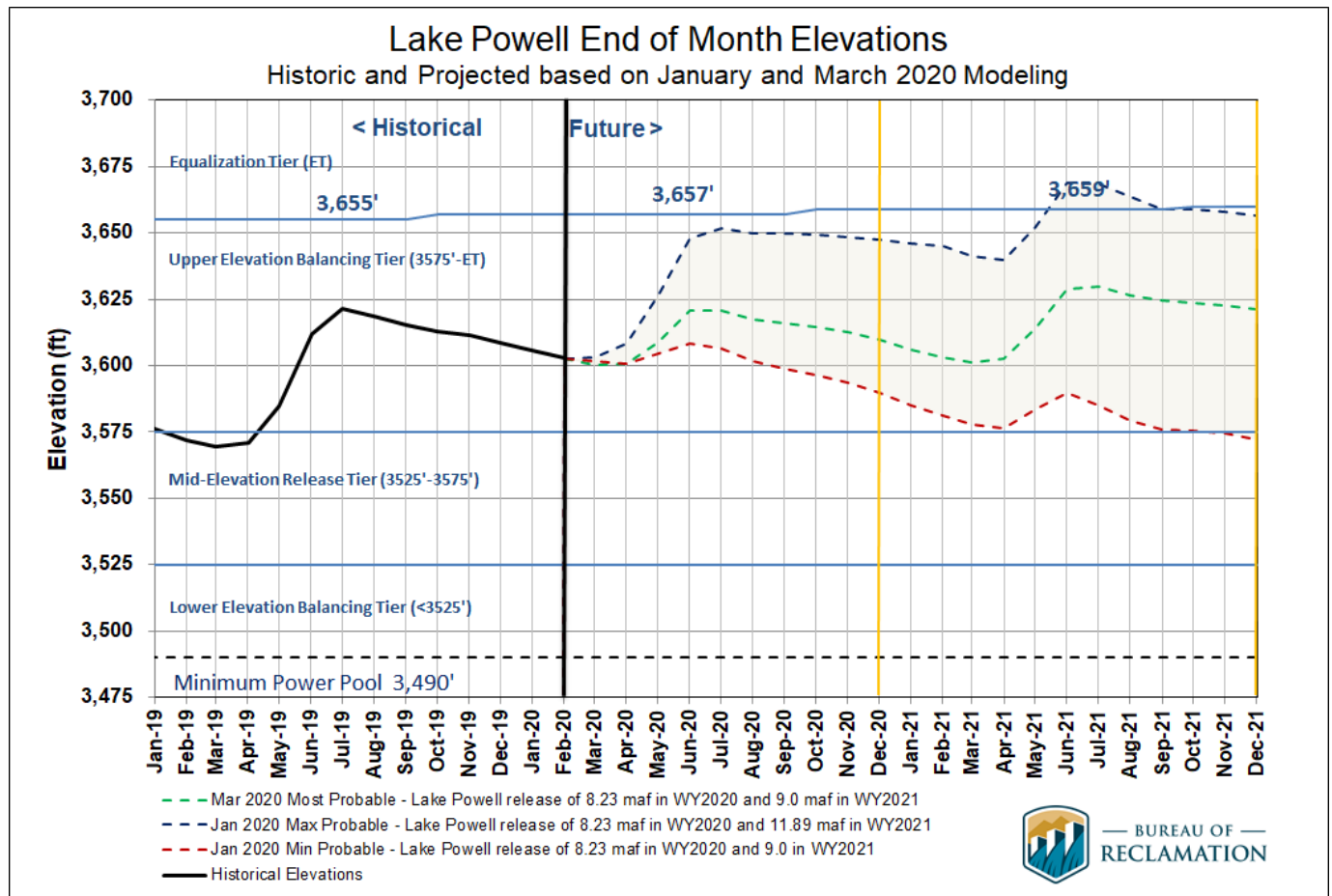
DROUGHT CONTINGENCY PLAN & DEMAND MANAGEMENT:

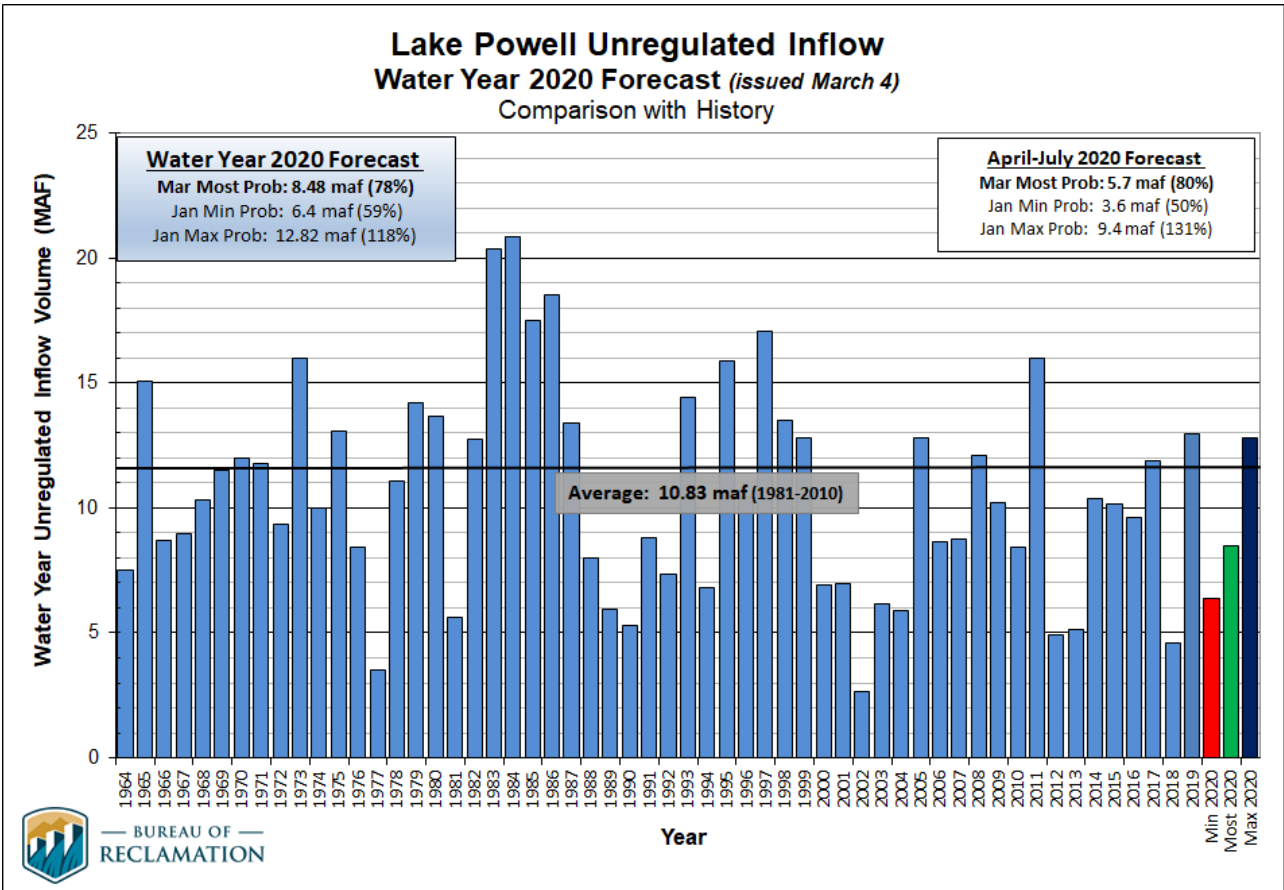
- The Colorado Water Conservation Board held a joint IBCC and Demand Management Workshop in Lakewood on March 4-5, 2020. Our basin was well represented at the event, with Ken Curtis, Ed Millard, Carrie Padgett, Al Pfister, Mely Whiting, Beth Van Vurst and Frank Kugel in attendance. Some highlights of the meeting are listed below:
 - Cleave Simpson, Manager of the Rio Grande Water Conservation District, discussed their voluntary “demand management” program as part of their subdistrict arrangement to address declining aquifers and ground water diversion rules in the San Luis Valley.
 - Paul Bruchez, Kremmling area rancher, discussed a study sponsored by the Colorado Basin Roundtable to evaluate crop impacts, water savings, and recovery from temporary reduced irrigation of high-altitude grasses; the study will also look at the costs/benefits for irrigators and the community.
 - Kevin Rein, State Engineer, discussed a proposed Colorado Compact administration outline in the event of shortages on the Colorado River. His presentation was similar presentation to the one he gave at the January Annual Conference of the Colorado Water Congress. They are reviewing the development of “measurement rules” to quantify diversions. This would ultimately lead to development of compact administration rules.
 - Russell George noted that he attended the SWBRT meeting in Cortez. He stated the importance of ongoing work to develop the non-demand management components of the Drought Contingency Plan, including phreatophyte removal and weather modification. Russell also acknowledged the importance of forest health in addressing water supply.
 - The various Demand Management workgroups met individually to develop a general statement describing the goals of the group. Each DM workgroup then met with two other workgroups to discuss each group’s goals and how they can help each other.

COLORADO RIVER HYDROLOGY & STORAGE CONDITIONS

The Reclamation 24-month study for Lake Powell shows the content at 12.0 MAF (50% of capacity) and elevation 3603 feet at the end of February. Reclamation projects that with the most probable inflow, Lake Powell will finish 2020 with a content of 13.33 MAF and elevation 3616.

At the beginning of water year 2020, total system storage in the Colorado River Basin was 31.64 maf (53 percent of 59.6 maf total system capacity). This is an increase of 3.64 maf over the total storage at the beginning of water year 2019 when total system storage was 28 maf (47 percent of capacity). Since the beginning of water year 2000, total Colorado Basin storage has experienced year to year increases and decreases in response to wet and dry hydrology, ranging from a high of 94 percent of capacity at the beginning of 2000 to the now current level of 53 percent of capacity at the beginning of water year 2020. Based on current inflow forecasts, the current projected end of water year total Colorado Basin reservoir storage for water year 2020 is approximately 30.8 maf (52 percent of total system capacity). The actual end of water year 2020 system storage may vary from this projection, primarily due to uncertainty regarding this season's runoff and reservoir inflow.





HYDROLOGY SNAPSHOT

STREAMFLOWS/SNOWPACK

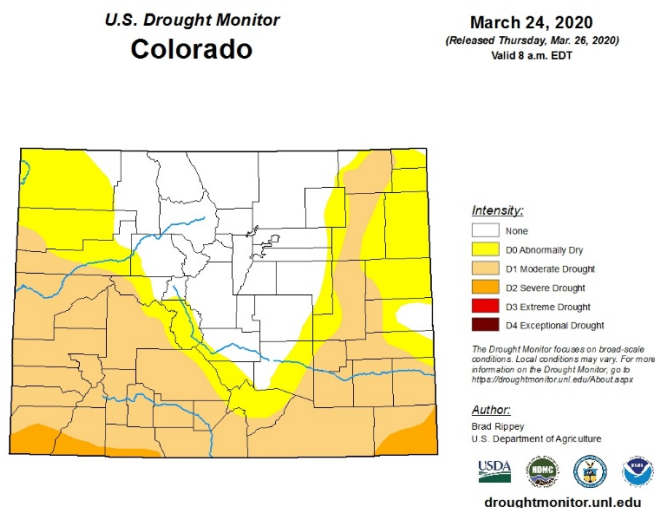
STREAM FLOWS ON 3/26/20

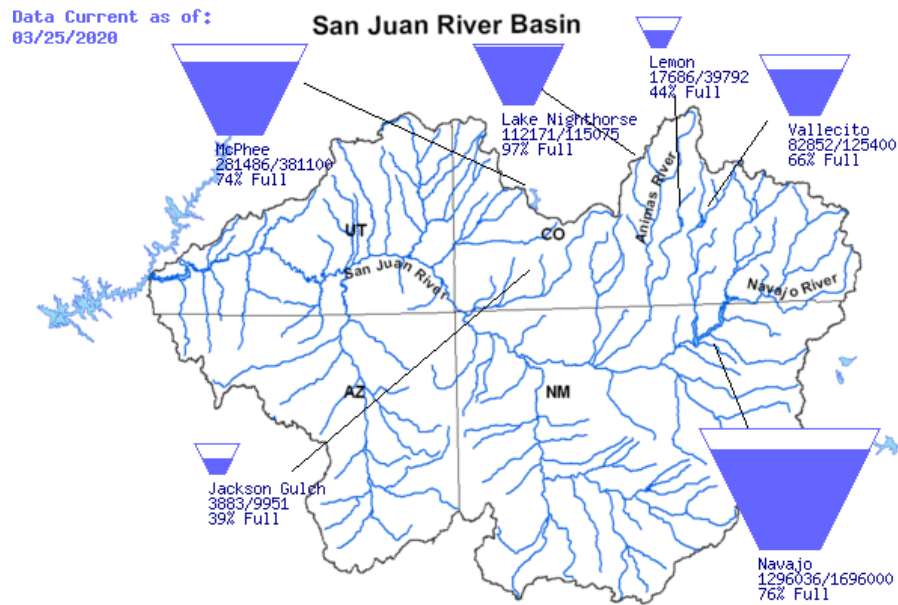
San Juan at Pagosa Springs – 118 cfs
Piedra at Arboles – 201 cfs
Pine near Ignacio – 43 cfs
Animas at Durango – 197 cfs
La Plata at Hesperus – 10.1 cfs
Mancos near Towaoc – 13.3 cfs
McElmo Creek near Cortez – 15.5 cfs
Dolores at Dolores – 73 cfs
San Miguel at Placerville – 68 cfs

SAN MIGUEL, DOLORES, ANIMAS AND SAN JUAN RIVER BASINS							
Beartown	11600	22.0	20.8	106	18.5	22.8	81
Black Mesa	11580	17.4	N/A	*	18.1	N/A	*
Cascade	8880	11.6	11.1	105	16.0	18.9	85
Columbus Basin	10785	23.8	23.0 _C	103	23.9	26.1 _C	92
El Diente Peak	10000	14.0	13.4	104	15.6	18.1	86
Lizard Head Pass	10200	16.0	15.0	107	10.3	15.1	68
Lone Cone	9600	12.7	16.0	79	12.7	18.5	69
Mancos	10000	14.4	14.4 _C	100	12.2	16.4 _C	74
Mineral Creek	10040	14.4	14.1	102	14.3	16.3	88
Molas Lake	10500	17.3	18.1	96	16.1	18.8	86
Red Mountain Pass	11200	22.7	21.4	106	22.7	24.0	95
Scotch Creek	9100	13.2	10.1	131	12.8	16.4	78
Sharkstooth	10720	18.0	20.2 _R	89	18.5	N/A	*
Spud Mountain	10660	23.4	22.8	103	23.6	27.6	86
Stump Lakes	11200	19.1	15.8	121	18.2	18.8	97
Upper San Juan	10200	26.3	30.6	86	26.1	32.3	81
Vallecito	10880	18.9	14.2	133	11.4	17.5	65
Weminuche Creek	10740	18.9	N/A	*	21.7	N/A	*
Wolf Creek Summit	11000	27.4	29.2	94	22.8	30.7	74
Basin Index (%)		102			82		

DRY CONDITIONS REMAIN

As you can see in the graphic below, southwestern Colorado remains in mostly a Moderate Drought, with Severe Drought conditions present along our southern boundary.





Both the 6-10 day and 8-14 day forecasts from the National Weather Service call for warmer than normal temperatures, with precipitation being near to slightly above normal. The 90-day forecast for April through June, released on March 19, calls for above normal temperatures and below normal precipitation.

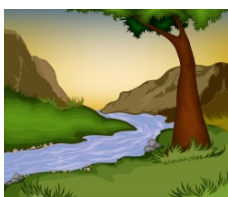
STATE WATER MANAGEMENT

WATER EDUCATION COLORADO Water Education Colorado: Laura attended the January board meeting, at which the focus was the adoption of "Equity Principles" for WEco. The Equity Principles can be found on the website, and will guide WEco's board development, content, and programming in ensuring that the organization does fulfill its strategic planning goal to provide resources for all Coloradoans.



WEco's current programming (President's Reception, Water Leaders Program, etc.) has been postponed or put on hold due to COVID-19. The Water Fluency Program coming to southwest Colorado is scheduled for the summer, so no change there yet.

Content is still on track. The latest *Headwaters* magazine focused on environmental justice just hit the presses. Also, you may have seen that the organization has put out a new educational email "Six Feet in Solidarity" with links to new and old content to review while we are at home.



CWC WATER STEWARDSHIP PROJECT

Colorado Water Congress - Colorado Water Stewardship Project: The Water Stewardship Committee met via conference call on March 9, 2020. Floyd Ciruli gave a summary of 2020 Proposed Ballot Initiatives, which currently number over 100. There has been no proposal submitted regarding the Public Trust Doctrine. Only two have qualified to be on the ballot thus far – the **Citizenship Qualification of Electors** and the **Restoration of Grey Wolves**. Floyd also summarized the results of Super Tuesday, stating that it was an unprecedented turnaround for the Biden campaign.

Colorado Water Congress - Federal Affairs Committee: The Federal Affairs Committee met via conference call on March 6, 2020. The group discussed its comments on the proposed revision to the National Environmental Policy Act (NEPA). In this action, the Council on Environmental Quality (CEQ) is proposing to update its regulations for implementing the procedural provisions of NEPA. CEQ has not comprehensively updated its regulations since their promulgation in 1978, more than four decades ago. This proposed rule would modernize and clarify the regulations to facilitate more efficient, effective, and timely NEPA reviews by Federal agencies in connection with proposals for agency action. The proposed amendments would advance the original goals of the CEQ regulations to reduce paperwork and delays and promote better decisions consistent with the national environmental policy set forth in section 101 of NEPA. If finalized, the proposed rule would comprehensively update and substantially revise the 1978 regulations. CEQ invites comments on the proposed revisions.

DISTRICT OPERATIONS

NOTES FROM THE OFFICE

Pursuant to direction from the Board and as a result of the Governor’s Executive Order regarding the Coronavirus, Laura and Frank will be working from home until April 11.

The videoconferencing upgrade is underway for the District boardroom. Southwest Pro Audio in Durango is installing the equipment. The Director J. R. Ford was appointed to the newly created Urban Renewal Authority by the Pagosa Springs Town Council at its February 20 meeting. The URA board is comprised of all seven Town Council members, plus four additional members — one from the County government, one from the School District, one appointed by the Mayor, and one representing all six of the special districts in the community.

John Ott, manager of the Animas Water Company, was recently appointed to the Colorado Water Quality Control Commission.

UPCOMING MEETINGS

- Southwest Basin Roundtable meeting – April 23 (via Zoom videoconference)
- Southwestern Water Conservation District board meeting – June 2-3
- Colorado Water Congress Summer Conference – August 25-27, Steamboat Springs

WATER DESK

State demand-management investigation moves ahead

By **Heather Sackett** March 24, 2020



HEATHER SACKETT/ASPEN JOURNALISM

The Government Highline Canal, seen here just before its filled for irrigation season, irrigates farmland in the Grand Valley near the Utah state line. Some Grand Valley irrigators may welcome the chance to be paid to leave water in the Colorado River.

LAKEWOOD — State workgroups charged with making sense of a program to add water to a savings account in Lake Powell have begun narrowing down the complicated questions such a program would have to grapple with.

But some state officials worry that a Western Slope group is going its own way, possibly undermining the state process.

Water managers and experts from around the state met for two days in early March to compare notes on their current investigation of the feasibility of a voluntary, temporary and compensated water-use-reduction program, known as demand management.

The workshop brought together many of the participants who sit on the eight workgroups created by the state to explore different aspects of a demand-management program: law and policy; monitoring and verification; water-rights administration and accounting; environmental considerations; economic considerations and local government; funding; education and outreach; and agricultural impacts.

At the heart of a demand-management program is a reduction in water use in an effort to send up to 500,000 acre-feet of water downstream to Lake Powell to bolster levels in the giant reservoir and meet 1922 Colorado River Compact obligations. Under such a program, agricultural-water users could get paid to temporarily fallow fields and leave more water in the river.

Russell George, a former Colorado lawmaker and chair of the Interbasin Compact Committee who helped create the state's basin roundtables, rallied participants and acknowledged that tackling demand management was a hugely ambitious and thorny project.

"It's time for this and here we are, to wrestle to the ground this monster that just does not want to give," he said.

The Colorado Water Conservation Board is heading up the investigation into demand management and is about nine months into the process. Workgroups have met two or three times so far, and many have acknowledged the chicken-or-egg dilemma in front of them.

"It's like going on vacation, but we don't know if we even want to go on vacation or where we are going or who's going with us," said CWCB Interstate and Federal Manager Amy Ostdiek.

Some groups say they can't complete their work because they need the input of other groups to inform their work. Some want to know what the alternative to demand management — shutting off water rights in the event of a compact call, known as curtailment — would look like before they commit to creating a water-use-reduction program.

Under the terms of the Colorado River Compact, the Upper Basin states (Colorado, Wyoming, New Mexico and Utah) are required to deliver 75 million acre-feet over 10 years to the Lower Basin states (Arizona, Nevada and California). If the Upper Basin fails to deliver the water, the Lower Basin could make a "compact call," triggering cutbacks — something water managers want desperately to avoid.



Heather Sackett/Aspen Journalism

Some members of the Colorado Water Conservation Board expressed concern that the Colorado River Water Conservation District's demand management study may be at odds with the state process. From left, back row: Steve Anderson, Dan Gibbs, Kevin Rein, Jim Yahn, Heather Dutton, Russell George, Curran Trick, Greg Felt; front row: Jessica Brody, Gail Schwartz, Celene Hawkins, Jaclyn Brown, Becky Mitchell.

Equity

Equity is one topic that demand-management discussions keep turning to again and again. Some Western Slope water users fear that their ranches and fields will be ground zero for a water-use-reduction program. And with temporarily dry fields comes the potential for secondary negative economic impacts to agricultural communities.

“The other side of the fairness coin is mistrust,” George said.

But members of the agricultural-impacts workgroup pointed out that equity means equity of opportunity, not just shared burden. Some irrigators may welcome payment for their water.

“There are many people in ag that don’t want others being too quick to take away potentially profitable opportunities for their farm or ranch,” said Mark Harris, general manager of the Grand Valley Water Users Association. “If demand management can be considered a different kind of crop, farmers and ranchers will consider it because they have an economic incentive. Farmers and ranchers are not dead-set against it.”

But for all the uncertainty still out there, workgroups have begun to narrow the focus of their work down to “threshold” issues, some of which overlap among the eight workgroups.

The two-day workshop concluded with a group exercise that found the following issues to be the most important for those who could be crafting Colorado’s demand-management program: simplicity of monitoring; state-wide resiliency; environmental impacts and benefits; agriculture viability; and shared responsibility.

Some said it was time to stop talking and start acting. According to a real-time text poll, 57% of the workshop participants said the demand-management feasibility investigation was moving too slowly.

“It’s time to take the next step and start doing some pilot projects,” said Barbara Biggs, general manager of Roxborough Water and Sanitation District. “We can’t answer questions sitting around a room talking about it.”



Heather Sackett/Aspen Journalism

This cornfield in Fruita is an example of agricultural land that could be temporarily fallowed and farmers paid under a demand management program. State workgroups are working toward narrowing the scope of a demand management feasibility investigation.

River District study

A week after the state-led demand-management workshop, Colorado River Water Conservation District general manager Andy Mueller stood before the CWCB board at its regular meeting and told board members that the River District had received a grant for its own study of demand management and water marketing on the Western Slope, a move that some board members saw as subverting the state's grassroots process.

"All the conversations we had in this room for two straight days and to preempt that discussion, that bothers me somewhat because I think we are getting out in front as a river district," said Gail Schwartz, a former lawmaker and Basalt-based CWCB board member who represents the Colorado main stem on the board.

CWCB South Platte River Basin representative Jim Yahn agreed.

"We have to be careful because it could be somewhat confusing," he said. "We want to project this unified front. We are looking at everything we can, but we want to be on this path together."

Mueller said the study, which will be funded in part by a \$315,721 WaterSMART grant from the Bureau of Reclamation, is meant not to compete with the state process but, rather, to feed into it. He said the decision to undertake the study is not a result of dissatisfaction with the CWCB's work but, rather, is based on the need to fulfill the River District's mission.

"We think our district has an obligation to the water users in the communities within our district to make sure that the water supply within our district and for water users in our district is adequate for all our needs," Mueller said. "(The CWCB) is not the only governing body that has the right and obligation to be involved with demand management; the River District shares that obligation."

The mission of the River District, which represents 15 Western Slope counties, is to protect, conserve, use and develop water in the Colorado River Basin. Mueller said the study is meant to come up with policy recommendations for the state if and when it develops a demand-management program.

Still, the move had echoes of a lingering and long-standing mistrust between Western Slope and Front Range water users, which George had alluded to the week before.

"There can be a perception in rural Colorado that people on the Front Range don't have our best interest in mind," Mueller said.

Colorado River drought study advances as participants call for fairness between cities, ranches

by [Jerd Smith](#) | Mar 11, 2020 | [Infrastructure](#), [Law and Policy](#), [Major River Basins](#), [Water Quality](#), [Water Supply](#), [Water Supply](#) |



Lake Powell would become home to a special 500,000 acre foot drought pool if Colorado, Wyoming, Utah and New Mexico agree to save enough water to fill it. Credit: Creative Commons

If Colorado decides to join in an historic Colorado River drought protection effort, one that would require setting aside as much as 500,000 acre-feet of water in Lake Powell, can it find a fair way to get the work done? A way that won't cripple farm economies and one which ensures Front Range cities bear their share of the burden?

That was one of the key questions more than 100 people, citizen volunteers and water managers, addressed last week as part of a two-day meeting in Denver to continue exploring whether the state should participate in the effort. The Lake Powell drought pool, authorized by Congress last year as part of the Colorado River Drought Contingency Plan, would help protect Coloradans if the Colorado River, at some point in the future, hits a crisis point, triggering mandatory cutbacks.

But finding ways to set aside that much water, the equivalent of what roughly 1 million people use in a year at home, is a complex proposition. The voluntary program, if created, would pay water users who agree to participate. And it would mean farmers fallowing fields in order to send their water downstream and cities convincing their customers to do with less water in order to do the same. The concept has been dubbed "demand management."

Among the key issues discussed at the joint Interbasin Compact Committee and demand management work group confab last week is whether there is a truly equitable way to fill the drought pool that doesn't disproportionately impact one region or sector in the state.

In addition, a majority of participants reported that they wanted any drought plan to include environmental analyses to ensure whichever methods are selected don't harm streams and river habitat.

Some pointed to the need to identify "tipping points" when reduced water use would create harmful economic effects in any given community, and suggested that demand management be viewed as a shared responsibility.

Flipping the narrative of shared responsibility, participants said sharing benefits equally was important as well. They want to ensure that people selected to participate would do so on a time-limited basis, so that a wide variety of entities have the opportunity to benefit from the payments coming from what is likely to be a multi-million-dollar program.

“People are starting to get it,” said Russell George. George is a former lawmaker who helped create the 15-year-old public collaborative program which facilitates and helps negotiate issues that arise among Colorado’s eight major river basins and metro area via basin roundtables. He chairs the Interbasin Compact Committee, composed of delegates from those roundtables.

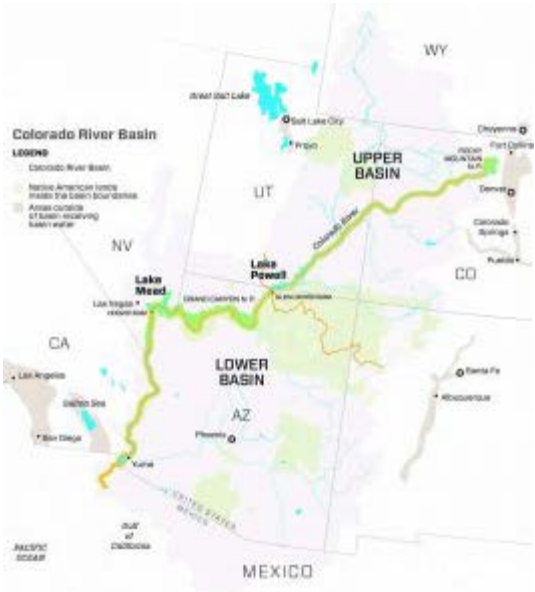
“It’s understood that we have to be fair about this and we have to share [the burden] or it won’t work. I think we’re making great progress,” George said.

The Colorado River is a major source of the state’s water, with all Western Slope and roughly half of Front Range water supplies derived from its flows.

But growing populations, chronic drought and climate change pose sharp risks to the river’s ability to sustain all who depend on it. The concept behind the drought pool is to help reduce the threat of future mandatory cutbacks to Colorado water users under the terms of the 1922 Colorado River Compact.

The public demand management study process, facilitated by the Colorado Water Conservation Board, has caused concern among different user groups, including farmers. Because growers consume so much of the state’s water, they worry that they are the biggest target for water use reductions, which could directly harm their livelihoods if the program isn’t implemented carefully and on a temporary basis.

In early 2019 the seven states that comprise the Colorado River Basin—Arizona, California and Nevada in the Lower Basin, and Colorado, New Mexico, Utah and Wyoming in the Upper Basin—agreed for the first time to a series of steps, known as the Colorado River Basin Drought Contingency Plan, to help stave off a crisis on the river.



Colorado River Basin. Credit: Chas Chamberlin

And while Lower Basin states have already begun cutting back water use in order to store more in Lake Mead, the four Upper Basin states are still studying how best to participate to shore up Lake Powell. For the drought pool program to move forward, all four states would need to agree and contribute to the pool. George pointed to Colorado as a leader among the four states, saying it would likely be responsible for contributing as much as 250,000 acre-feet to the pool.

“We appreciate the focus, dedication and collaboration of our work group members,” said CWCB Director Rebecca Mitchell in a statement. “This workshop was the next step in sharing ideas for Colorado’s water future, and positioning our state as a national leader for cooperative problem solving.”

The eight major volunteer work groups, addressing such topics as the law, the environment, agriculture and water administration, will continue meeting throughout the year, with a mid-point report based on their findings to date due out sometime this summer.

Travis Smith, a former CWCB board member from Del Norte who is now participating on the agriculture work group, said he is hopeful that the work groups will be able to come up with a plan the public will endorse. Any final plan will likely have to be approved by Colorado lawmakers.

“Coming together to address Colorado’s water future is something we’ve been practicing

through the [nine river basin roundtables] for years. Will we get there? Absolutely,” Smith said.

Jerd Smith is editor of Fresh Water News. She can be reached at 720-398-6474, via email at jerd@wateredco.org or [@jerd_smith](https://www.instagram.com/jerd_smith).

Fresh Water News is an independent, non-partisan news initiative of Water Education Colorado. WEco is funded by multiple donors. Our editorial policy and donor list can be viewed at [wateredco.org](https://www.wateredco.org)



News Digest

New Mexico watershed groups win \$300,000 in federal funds for river work

March 17, 2020

Arizona utilities assure regulators that operations are safe from COVID-19 disruptions

March 16, 2020

After record-breaking dry February, California sees snow and rain

March 13, 2020

Court rejects Las Vegas's latest attempt to tap rural groundwater

March 10, 2020

Colorado snowpack hits 101 percent of average, but lags last year

New law strengthens historical agricultural water uses

March 16, 2020, **Lauren Blair / Aspen Journalism**

CRAIG — A bill that cleared the Colorado legislature with bipartisan support March 4 seeks to resolve an eight-year debate over how ranchers and other water users can maintain their historical water use when dry conditions trigger cutbacks to protect streamflows.

House Bill 1159, which passed the House with a unanimous 63-0 vote and the Senate with a 31-1 vote, authorizes state water officials to confirm historical usages, such as water used for livestock, whether or not it's held in an official water right. This allows ranchers' uses to stay first in line for water ahead of the stream protections, known as instream-flow rights.

"It's really a belt-and-suspenders clarification of existing authority," said Zane Kessler, director of government relations for the Colorado River Water Conservation District, which drafted the language for the bill. "I think it's a good example of when we sit down and pore over these issues, it's not hard to come up with a fix that protects West Slope water users and provides the state engineer the authority he needs to continue administering them."

Instream-flow rights, which are held exclusively by the Colorado Water Conservation Board, exist for the sole purpose of preserving the natural environment of streams and lakes "to a reasonable degree." Most of these date to the 1970s and are junior to most agricultural-water rights under Colorado's prior appropriation system of "first in time, first in right." To date, instream-flow rights protect roughly 9,700 miles of stream in Colorado.

The debate over historical uses has turned on whether a water user must go to water court to make their pre-existing use official in a decree.

A 2012 drought brought the question to a head when state officials cut off water users on the Elk River in northwestern Colorado in favor of instream-flow rights. Although many ranchers in the area have water rights for irrigation that are senior to the 1977 instream-flow rights and have historically used that water also for their cattle, the state Division of Water Resources determined that livestock watering wasn't implicit in irrigation rights.

Those without specific rights for stockwatering were left high and dry once the summer irrigation season was deemed over, even though they had used the water for livestock for generations.

"My grandparents bought this piece of land in 1946," said Krista Monger, a cattle rancher on the Elk River. "We have the records to show we've been using (our water) for livestock."

Stockwatering and irrigation often go hand in hand. During the irrigation season, if a rancher's livestock drink from the ditches used to irrigate their fields, the use is considered incidental to irrigation. But once the growing season is over and a rancher keeps the water flowing through the ditch for the exclusive purpose of watering their livestock, the use is not covered under irrigation-water rights.

The amount of water typically used for exclusive stockwatering is a fraction of what is used for irrigating, around 80% to 90% less. Some ranchers also use stock ponds, which require a water-storage right.

More than 90,000 irrigation-water rights are held across the state, of which 29,000 specifically name both irrigation and livestock uses. That means the new law could potentially apply to 61,000 water rights, although not all of these are held by ranchers raising livestock. An additional nearly 32,000 water rights are held exclusively for livestock purposes but not irrigation.

The Monger family holds both irrigation- and livestock-water rights to grow hay and to water their 300 cattle. Her family's rights and diligent record-keeping meant their ditches kept flowing while their neighbors' ditches were shut down in 2012, highlighting the need for better record-keeping among the region's irrigators.

But the incident prompted a statewide debate over the meaning of Colorado statute C.R.S. 37-92-102(3)(b), which states that instream-flow rights are subject to pre-existing uses of water, "whether or not previously confirmed by court order or decree."

The state Department of Natural Resources, home to both the Division of Water Resources and CWCB, argued that when the instream-flow protections were created, lawmakers intended for water users to make their existing use official in a decree. The Colorado Cattlemen's Association and the Colorado River Water Conservation District argued that the statute clearly precludes the need for a court decree and sought to protect ranchers' historical usage without requiring them to go to water court.

"The statute says... prior uses would be honored. But they're saying the statute doesn't say what the statute says," said Mike Hogue, former president of the cattlemen's group.

After years of negotiations, stakeholders agreed on a simple piece of legislation to clarify the state water engineer's authority "to confirm a claim of an existing use (if it) has not been previously confirmed by court order or decree," according to the bill summary. The bill had bipartisan sponsorship from Reps. Marc Catlin, R-Montrose, and Dylan Roberts, D-Avon, and Sens. Don Coram, R-Montrose, and Kerry Donovan, D-Vail.

"I do think this is very helpful legislation," said State Engineer Kevin Rein, who is with the Division of Water Resources. "We had what I'd call an honest disagreement about what the statute meant. My position is if they change the law and give me a place to hang my hat on, that solves the problem."

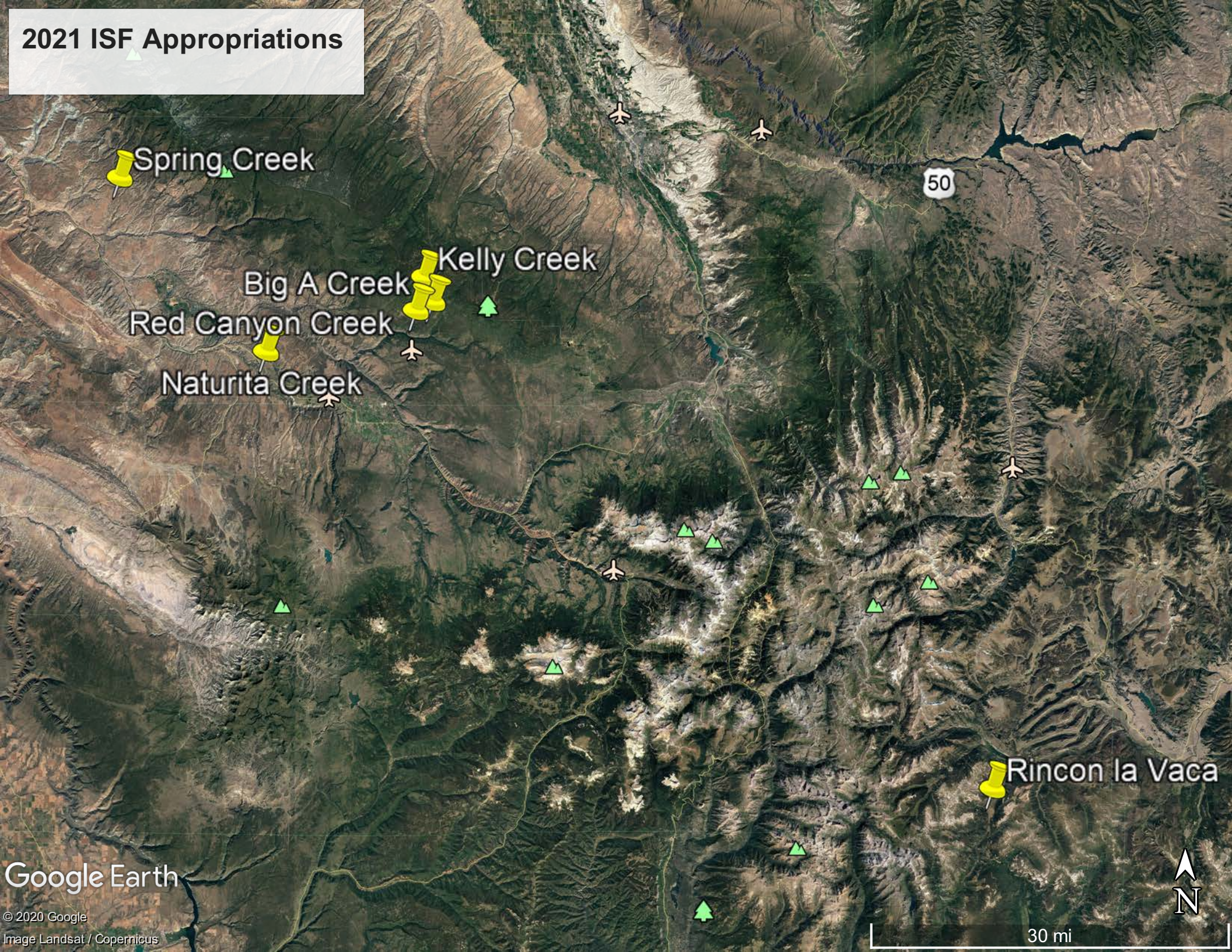
However, what the legislation doesn't resolve — and what is perhaps a bigger Pandora's box opened by the 2012 incident — is the decision that state water officials made that irrigation rights do not include stockwatering rights. In practice, irrigators around the state, many of whom hold water rights dating to the late 1800s and early 1900s, have used irrigation- or agricultural-water rights not to just irrigate their hayfields, but also to water their livestock.

The new distinction means that ranchers with irrigation rights must apply for livestock water rights if they want to protect their usage into the future. Although the new legislation protects a rancher's stockwatering use from being shut off specifically by an instream-flow right, their stockwater use could still be cut off if another water user makes a call on the river to fulfill a formal water right.

"We all thought that was part of our ag water rights," said Doug Monger, a Routt County commissioner and a cattle rancher on the Yampa River in northwest Colorado, and also uncle to Krista Monger. "It's a wakeup call for all of us."

Aspen Journalism collaborates with The Craig Daily Press, Steamboat Pilot and Today and other Swift Communications newspapers on coverage of water and rivers. For more, go to aspenjournalism.org.

2021 ISF Appropriations



Google Earth

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Image Landsat / Copernicus

30 mi

HARRIS WATER ENGINEERING, INC.
954 EAST SECOND AVENUE, #202
DURANGO, COLORADO 81301
970-259-5322
carrie@durangowater.com

Memorandum
March 25, 2020

To: SWCD Board of Directors
From: Carrie Padgett
Subject: Engineering Report for the April 2, 2020 Board Meeting

The following is a summary of the topics Carrie Padgett worked on for SWCD since the last Board meeting, during the months of February and March of 2020. For more background and detail please contact me.

San Juan and Upper Basin Endangered Fish Recovery Programs

I participated in multiple Program activities in February and March. These activities included: attending a series of Biology Committee meetings in late February and virtually meetings with congressional staff in Washington, D.C. during the week of March 24. Due to the coronavirus, our annual trip back east was canceled. I was able to get a full refund on all travel expenses. This week we've been conducting Google webinars with staff members. Overall, I think these 30-minute briefings have been successful even with everyone telecommunicating. I provided the Board a digital copy of the 2019-2020 Program Highlights booklet. This is was sent to everyone we meet with this week.

Below is a list of the briefing meetings I participated in or will participate in by the end of this week. The people typically on a Colorado centric calls are: Tom Pitts, Bill Miller a biologist with the Southern Ute Indian Tribe, Michelle Garrison with CWCB, Jojo La with CWCB, Leslie James with Colorado River Energy Distributors Association, and a TNC representative. Everyone else attends sub-committee and other meets as their schedules allow.

- | | |
|---|---|
| 1. Rep. Jason Crow | 10. Rep. Doug Lamborn |
| 2. Rep. Deb Haaland (NM) | 11. Rep. Ken Buck |
| 3. Rep. Ed Perlmutter | 12. Rep. Diana DeGette |
| 4. Rep. Joe Neguse | 13. Sen. Cory Gardener |
| 5. House Natural Resources – Water, Oceans, and Wildlife Sub Committee | 14. House Appropriations – Interior, Environmental and Related Agencies Sub Committee |
| 6. Rep. Scott Tipton | 15. Sen. Michael Bennet |
| 7. House Appropriations – Energy and Water Development and Related agencies Sub Committee | 16. Senate Energy and Natural Resources – Water and Power Sub Committee |
| 8. Senate Appropriations – Interior, Environment and Related Agencies Sub Committee | 17. Senate Appropriations – Energy and Water Development Sub Committee |

At each meeting, I introduced myself as a representative of Southwest Colorado, SWCD, and water users of both Programs. I emphasized how important these Programs are in providing our rural communities ESA compliance and water security. The Programs are a great success story on how to make the ESA work among a wide range of interests. The following key talking points were made at each meeting.

- The recovery programs use science-based, cost-effective measures such as re-operating federal reservoirs to create and maintain habitat, working with irrigators to improve their water efficiency, and constructing fish passages to assist in endangered fish recovery.
- The recovery programs' actions provide Endangered Species Act compliance for approximately 2,500 water projects providing water for irrigation, cities, industry, recreation, and tribal uses.
- The programs have been successful and are highly regarded for their collaborative approach among numerous partners to help recover endangered fish while continue to meet the needs of water development in the Upper Colorado River Basin. This has been possible through the established cooperative agreement, program guidance and open communication. Communication is the key to building trust and maintaining the partnerships.
- As is well known by the DOI, participants from both programs recently initiated discussions on the future of the programs (termed post-2023). The ultimate result of these discussions will be a report to congress containing recommendations on the size and funding sources of the programs moving forward. We are optimistic that the programs' federal, nonfederal and tribal partners will provide a consensus proposal to Congress that works for all parties.

The annual meeting of the Program will be held on May 13 at Fort Lewis College in Durango. This is a great all-day meeting to attend, providing an overall “status” check of the fish. Presenters describe the life cycle of a fish and the recovery efforts specific to each stage. If you'd like to attend, please let me know and I can provide you with meeting information once we get closer to the date.

Navajo Reservoir

I did not attend any specific meetings related to Navajo Reservoir operations during this time period. As of March 23, the daily average release from the dam were increased to 500 cfs. The next operations meeting is proposed for late April, which may change based on coronavirus concerns.

Water Bank

I have participated in minimal Water Bank Work Group activities since my last update at the February board meeting. The second round of basin stakeholder meetings have been postponed. The Southwest Basin group was scheduled to meet April 1. This meeting has tentatively been rescheduled for the first week May.

Paradox Salinity Project

At the last Board meeting, the Board approved me drafting a comment letter to be submitted the following week. I worked with Beth and Frank to draft and submit this letter on February 19, 2020. I have attached a copy of this letter for your records. Since this letter was submitted, no public activities have occurred. Reclamation and BLM will now review comments and determine their agency's final recommendation. A final draft EIS with the recommended alternative should be available for review and comment this summer.

Animas Watershed Partnership (AWP)

Since my last update, members of the AWP Steering Committee members conducted interviews with potential coordinator applicants. The group selected Warren Rider, owner of Rider Resources International, LLC, as new coordinator. The contracting process to hire Warren is underway. Once it is completed, he will begin completing the tasks outlined in AWP's two active Bureau of Reclamation grants.

Demand Management Workgroup

I attended the Demand Management Workgroup conference on March 4 and 5 in Denver. The first day was an IBCC meeting and the second day was a meeting of all DM workgroups. I thought these meets were productive and it was very helpful to hold discussions as a larger group. From the first day, I think the highlight of the meeting were table and larger group discussions of the notion of "equity" and "fairness" with a potential program. The tables were each given a different potential method for distributing DM across the state and asked to discuss questions of fairness. My table's statement was "A DM program has equal participants on the east and west slopes." During the afternoon, common themes that emerged were: free market alone may not be "fair" but sideboards may be needed; if sideboards or "criteria" for project selection are adopted, who adopts? Who decides? Most importantly, groups expressed the need to better define terms so we're speaking the same language and to provide more structure to the conversation, maybe through scenario planning.

Highlights from the second meeting of the day were:

- Each DM workgroup was asked to meet to come up with a general statement describing the goals of the group, list and prioritize the uncertainties and values associated with the workgroup's assigned subject, and identify how other workgroups can help achieve the group achieve its goals.
- Each DM workgroup then met with two other workgroups to discuss each group's goals, uncertainties and values and how they can help each other.
- Representatives from each DM workgroup then reported to the general group. I was my group's reporter.
- Again, common themes seemed to emerge among the groups, including confusion as to the group's task, assumption that another group is handling topics they may not be, and, the need to begin to put more structure to the conversation, such as through scenario planning.
- The top values from each workgroup were then voted on, with the following rising to the top:
 - Simplicity and accuracy in measurements
 - Water resiliency
 - Agricultural viability
 - Environmental benefits



THE SOUTHWESTERN WATER CONSERVATION DISTRICT

Developing and Conserving the Waters in the
SAN JUAN AND DOLORES RIVERS AND THEIR TRIBUTARIES

**West Building – 841 East Second Avenue
DURANGO, COLORADO 81301
(970) 247-1302**

February 19, 2020

Ed Warner
Area Manager, Bureau of Reclamation
445 West Gunnison Avenue, Suite 221
Grand Junction, Colorado 81501
paradoxeis@usbr.gov

RE: Comments on the Paradox Valley Unit Draft Environmental Impact Statement

Dear Mr. Warner:

The Southwestern Water Conservation District (SWCD) was created by Colorado statute in 1941 to promote the conservation, use and development of the waters of the San Juan and Dolores River basins in southwestern Colorado, and to safeguard for Colorado all waters to which the state of Colorado is equitably entitled. The SWCD encompasses all of La Plata, Montezuma, Archuleta, San Juan, San Miguel, and Dolores counties and parts of Montrose, Hinsdale, and Mineral counties.

SWCD has been a cooperating agency over the past several years with the Paradox Valley Unit (PVU). SWCD appreciates this opportunity to provide comments on the draft Environmental Impact Statement (DEIS) for the PVU. SWCD previously provided comments during the cooperating agency comment period. SWCD is grateful for Reclamation's efforts to allow significant comment opportunities for agencies and public alike during the development and review process of the DEIS.

SWCD strongly supports the Colorado River Basin Salinity Control Program in its efforts to reduced salinity levels in the Colorado River basin. By eliminating approximately 100,000 tons of salt annually, the PVU improves salt loading within the Dolores River and decreased salinity concentrations downstream in the Colorado River. These reduced salt loads result in an estimated seven percent reduction in total salinity in the Colorado River basin. SWCD believes that without this single point source reduction in salinity control, significant impacts may occur within the Dolores River and downstream that will have adverse economic impacts throughout the basin.

In addition to general support of reducing salinity levels in the Colorado River basin, SWCD has the following comments on specific issues in the proposal.

Existing PVU Injection Well

There are serious concerns about the existing PVU injection well and the seismic activities caused by the well. These negative impacts to the local community have been voiced to SWCD on numerous occasions. SWCD would support the continued use of the existing well at decreased injection rates under the condition that it would not cause any further seismic activities. SWCD understands the importance of operating the well and the positive impacts the well operations have had on salinity in the basin. Even decreased pumping rates will have a positive impact on the salt loading, while also addressing growing concerns the community at large has had about potential seismic impacts.

Preferred Alternative

The draft EIS describes four alternatives to the existing PVU inject well. While each alternative has an array of positive and negative impacts, SWCD's preferred alternative is the evaporation ponds. While SWCD may support this alternative, concerns still exist its potential negative impacts to wildlife, which are a substantial concern for the local community and SWCD. In the interim period prior to completion of the evaporation ponds, we would support use of the existing well to a lesser extent than historic operations to limit seismic activities.

SWCD appreciates the opportunity to comment. Please contact the SWCD office if there are any questions or comments on this letter.

Sincerely,

A handwritten signature in black ink that reads "Frank J. Kugel". The signature is written in a cursive style with a large, stylized "F" and "K".

Frank Kugel, Executive Director
Southwestern Water Conservation District

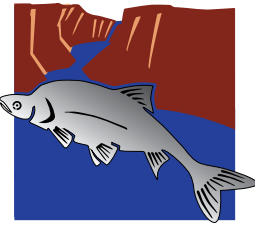
Program Highlights

San Juan River Basin Recovery Implementation Program
Upper Colorado River Endangered Fish Recovery Program

Download our digital edition at
www.coloradriverrecovery.org



Photograph © Wayne Wurtsbaugh - LimnoVision



Upper Colorado River Endangered
Fish Recovery Program



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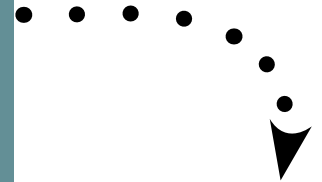


San Juan River Basin
Recovery Implementation Program

Recovery Program Basics: Connecting the Dots of Recovery

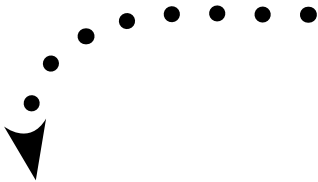
Committed Collaborative Partnerships That Work

Recovery programs' partners are committed to recovering Colorado River endangered native fishes. They participate on managing and technical committees, perform field work, attend meetings, provide funding and present scientific findings. The partners are the recovery programs. [See pages 3-4 to learn more about the partners and how the recovery programs were formed.](#)



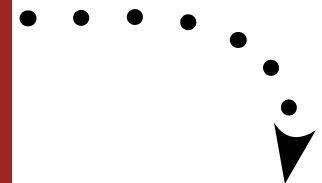
Capital Projects are Groundwork for Recovery Efforts

The recovery programs' partners have invested time and money into projects that reconnect habitat, add screens at diversions to keep native fish out of irrigation canals and screen reservoirs to keep nonnative fish out of the rivers. Predatory nonnative fish in the rivers are the biggest obstacle to recovery. [To learn about the major accomplishments of the recovery programs please see our timeline on pages 22-23. To learn more about the problem of nonnative fish in the rivers please see pages 12-13.](#)



Water Users Provide Flows for the Benefit of People and Fish

By working together, water users are provided legal certainty regarding the Endangered Species Act (ESA) while continuing to develop and manage water. During the growing season on the western slope of Colorado, water users meet weekly to manage flows to provide water for human uses and to benefit endangered fish. These flows benefit agriculture, recreation, fishing and tourism. [To learn more about in-stream flow see pages 8-9](#)

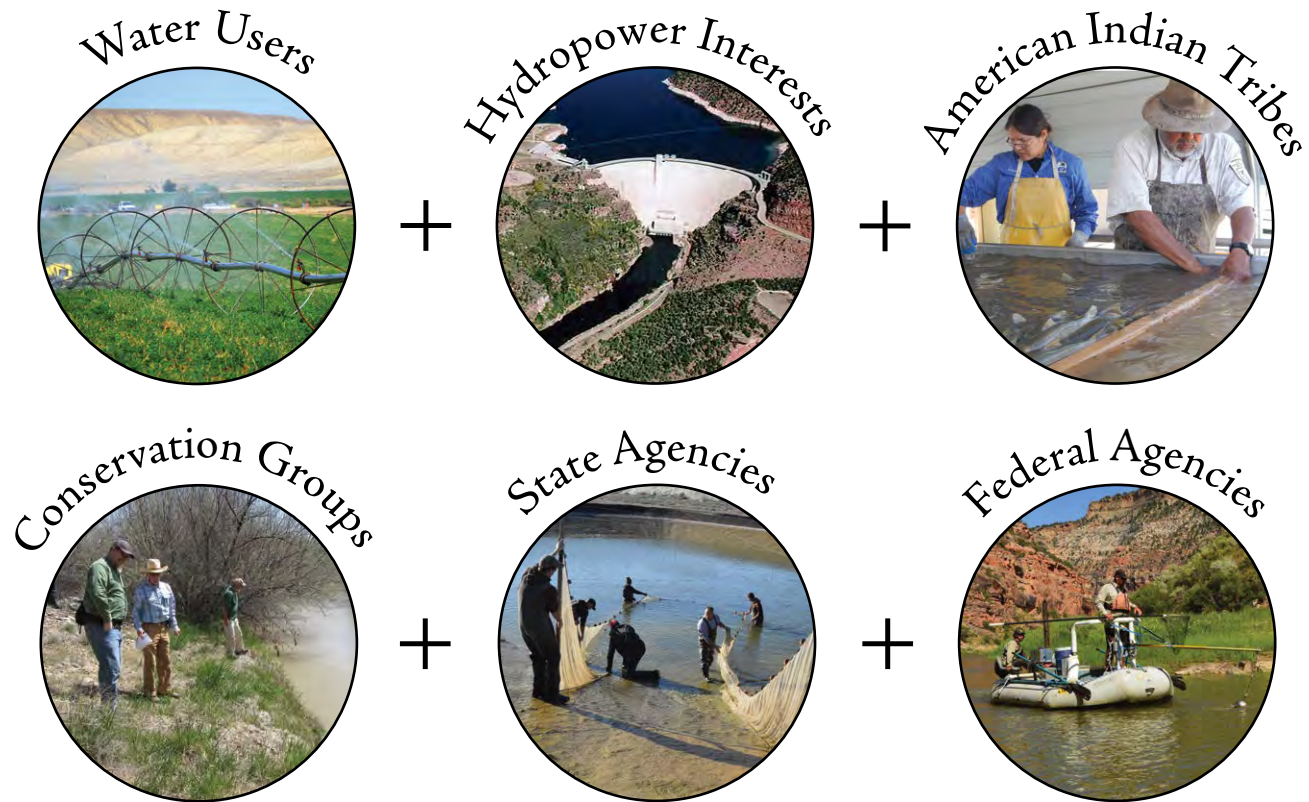


Recovery Actions are Science-Based and Adaptive

Field biologists study the fishes in the rivers to determine the best way to support recovery. The Colorado River's rare native fishes are large-bodied and can live 30-50 years. Using the elements of recovery, biologists provide information that is used to fine-tune management actions (adaptive management). [To learn more about the 4 fishes see pages 5-6. To learn more about the elements of recovery see pages 7-21.](#)

Program Highlights is produced annually to summarize the recovery programs' progress toward recovery of the endangered fishes.
This document is not a publication of the U.S. Department of the Interior or its agencies.
All uncredited photographs are courtesy of the recovery programs.

Partners Collaborate to Recover Rare Native Fishes



“The Upper Colorado River and San Juan River Basin Recovery Implementation Programs are models for Endangered Species Act implementation and help provide water reliability for approximately 2,500 municipal, industrial, and agricultural water projects throughout the Upper Colorado Basin. These programs were established under cooperative agreements between federal, state, tribal and non-government agencies who are working collaboratively to ensure the future of the endangered fish while meeting the water delivery requirements of communities within the basin.”

Brenda Burman, Commissioner of Reclamation, 2018

Upper Colorado River Endangered Fish Recovery Program

State of Colorado
 State of Utah
 State of Wyoming
 U.S. Bureau of Reclamation (USBR)
 Colorado River Energy Distributors Association (CREDA)
 Colorado Water Congress
 National Park Service (NPS)
 The Nature Conservancy (TNC)
 U.S. Fish and Wildlife Service (USFWS)
 Utah Water Users Association
 Western Area Power Administration (WAPA)
 Western Resource Advocates
 Wyoming Water Association

San Juan River Basin Recovery Implementation Program

State of Colorado
 State of New Mexico
 Jicarilla Apache Nation
 Navajo Nation
 Southern Ute Indian Tribe
 Ute Mountain Ute Tribe
 Bureau of Indian Affairs (BIA)
 Bureau of Land Management (BLM)
 U.S. Bureau of Reclamation
 The Nature Conservancy
 U.S. Fish and Wildlife Service
 Water Development Interests

Powerful Partnerships Drive Recovery Programs' Success

Upper Colorado River



Endangered Fish Recovery Program

On January 22, 1988, the Upper Colorado River Endangered Fish Recovery Program (Upper Colorado Program) was established via a Cooperative Agreement signed by the governors of Colorado, Utah, and Wyoming, the Secretary of the Interior, and the Administrator of the Western Area Power Administration. Water users, power customers, and environmental interests participate in the Program as well. The goal of the Upper Colorado Program is to recover four native fish species of the Colorado River basin that have been listed as endangered under the Endangered Species Act (ESA) while water development and management activities proceed in accordance with state and federal law.

The Upper Colorado Program has taken actions to benefit the endangered species and their status has improved. Two of the species are being considered for downlisting from endangered to threatened in 2020. As of December 31, 2019, 2,169 water projects rely on a successful Recovery Program for ESA compliance.

Progress to Recovery

8⁰ of 10
FISH
PASSAGES

have been constructed.

5⁰ of 6
LARGE
IRRIGATION
CANALS

have been screened or modified.

3⁰ of 7
RESERVOIR
OUTLETS

have been screened to prevent nonnative fish escapement with 4 more pending.

2⁰ of 4
FISH SPECIES
recommended for downlisting
from endangered to threatened.

3⁰ of 3
RECLAMATION RESERVOIRS
reoperated to provide endangered fish flows.



In 1991, an ESA consultation on the Bureau of Reclamation's Animas-La Plata Project determined that the project would jeopardize the endangered Colorado pikeminnow and razorback sucker in the San Juan River Basin. The San Juan River Basin Recovery Implementation Program was established in October 1992 as the ESA compliance vehicle for the project and all other water projects in the San Juan basin. Participants include the states of Colorado and New Mexico, Jicarilla Apache Nation, Navajo Nation, Southern Ute Indian Tribe, Ute Mountain Ute Tribe, BIA, BLM, USBR, USFWS, water users, and environmental interests.

The Upper Colorado and San Juan recovery programs work collaboratively with states, tribes, agencies, environmental interests, water users, land owners, and recreational fishing interests to achieve recovery of the listed species.



The Rare Native Fishes of the Colorado River Basin

The four federally listed species represent more than a quarter of all native species in the Colorado River basin and are essential indicators of ecosystem health. All Colorado River fishes evolved 3-5 million years ago in flashy, desert rivers.

If you encounter any of these fish please return them unharmed to the river.

Photo © Mark Newell III



Colorado pikeminnow (*Ptychocheilus lucius*)

The Colorado pikeminnow is the largest minnow in North America. Called the “white salmon” by early settlers, the Colorado pikeminnow has a torpedo-shaped body which allows for long migrations of more than 200 miles in late spring and early summer to reach spawning grounds.

Colorado pikeminnow can live as long as 40 years and were historically known to grow to nearly 6 feet long and weigh 80 pounds. Today, researchers see adult Colorado pikeminnow up to 4 feet in length. Young Colorado pikeminnow feed on insects and plankton, whereas adults feed mostly on fish.

The Colorado pikeminnow was a valued food source by early settlers. In the early 1900s, it was a top line predator and has been known to take anglers’ bait in the form of mice, birds, and even small rabbits, despite its only “teeth” are found on a bony, circular structure located deep within its throat. This fish also readily strikes lures and live bait used to catch sportfish or nonnative fish.



Bonytail (*Gila elegans*)

Bonytail is the rarest of the native fish of the Colorado River, with large fins and a streamlined body that is pencil-thin near its tail. Bonytail are members of the “chub” group of minnows and typically have gray or olive-colored backs, silver sides, and white bellies.

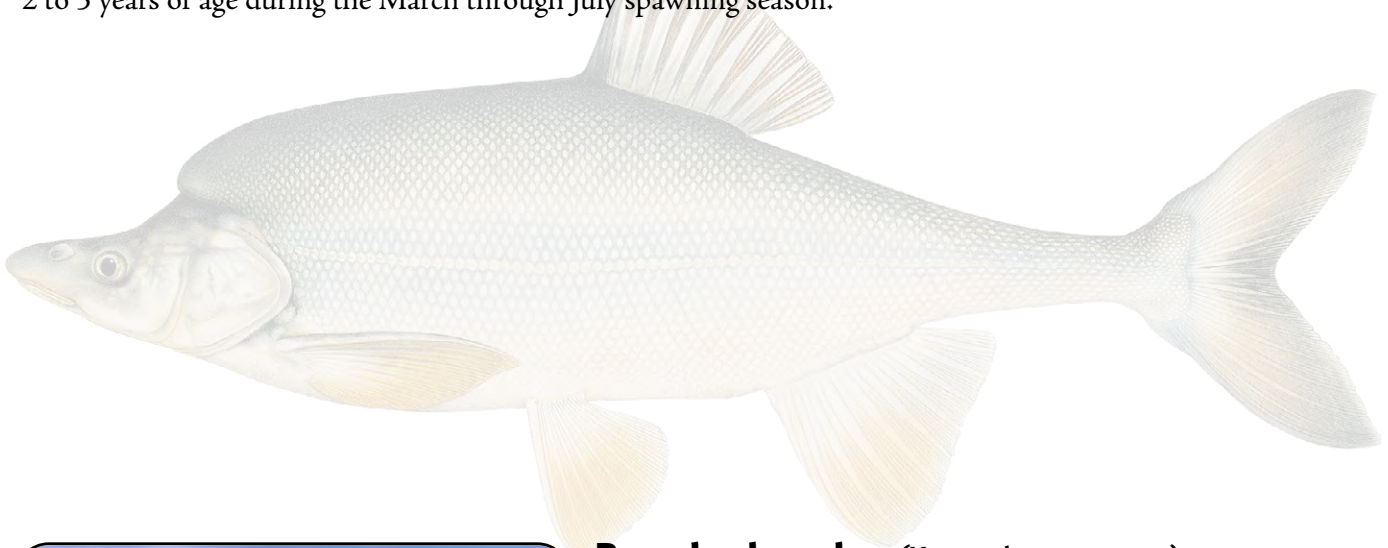
Bonytail can grow to 22 inches or more and have been known to live up to 50 years. As the rarest of the four species, little is known about what environmental conditions the bonytail prefer. Bonytail are thought to spawn at 2 to 3 years of age during late June and early July and eat insects, plankton, and plant matter.



Humpback chub (*Gila cypha*)

The humpback chub has a pronounced muscular hump behind its head, giving this fish a striking, unusual appearance. Unlike the other three species, humpback chub stay in deep canyon habitat for their entire lives. The hump that gives this fish its name acts as a stabilizer that helps it maintain position in whitewater conditions. The humpback chub uses its large fins to “glide” through slow-moving areas, feeding on insects that become trapped in water pockets.

Humpback chub has an olive-colored back, silver sides, a white belly, small eyes and a long snout that overhangs its jaw. Like the Colorado pikeminnow and bonytail, the humpback chub is a member of the minnow family. The humpback chub is a relatively small fish by most standards –only growing to about 20 inches and 2.5 pounds. Humpback chub can survive more than 30 years and typically spawn as young as 2 to 3 years of age during the March through July spawning season.



Razorback sucker (*Xyrauchen texanus*)

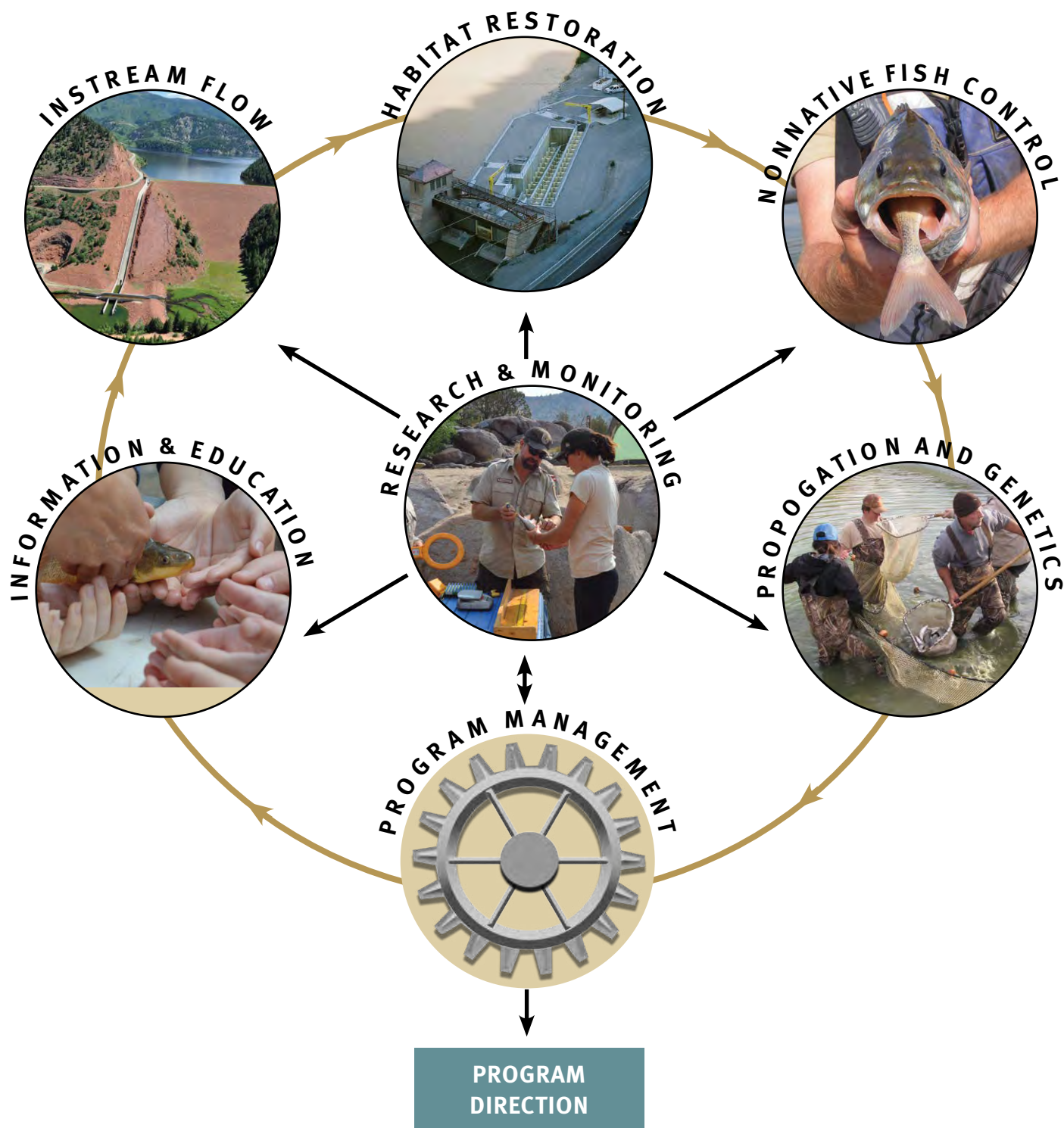
Three to 5 million years ago, a unique-looking fish with a sharp-edged keel “razorback” behind its head swam the Colorado River and its tributaries. The razorback sucker is most closely related to “lake suckers” and is the only member of the genus *Xyrauchen*. One of the largest suckers in North America, the razorback sucker can grow to 3 feet in length and can live for more than 40 years. Razorback sucker eat insects, plankton, and plant matter on the bottom of the river using their soft sucker mouth.

Spawning occurs at age 2-3 during high spring flows when razorback sucker migrate to cobble bars to lay their eggs. Larvae drift from the spawning areas and enter backwaters or floodplain

wetlands that provide a nursery environment with quiet, warm, and shallow water. These protected environments allow young razorback sucker to grow beyond fingerling size, dramatically increasing their chance for survival. As they mature, razorback sucker leave the wetlands in search of deep eddies and backwaters where they remain relatively sedentary, staying mostly in quiet water near the shore. In the spring, razorback sucker commonly swim long distances to return to where they were spawned.

Program Elements Are Adaptive

Both recovery programs focus on seven elements of recovery: instream flow, habitat restoration, nonnative fish control, information and education, propagation and genetics, research and monitoring, and program management. Each element contributes uniquely to stronger fish populations and healthier ecosystems to benefit people and fish. The programs are adaptive, so feedback from each element affects actions in the other elements. Research and monitoring provides the scientific basis to guide decision making in the other elements to ensure that program funds are spent effectively. For specific examples of how research and monitoring guide the other elements, see pages 18-19.



To learn more about how the recovery programs are managed adaptively, please see pages 20-21

Recovery Program Elements

Instream Flow: Identification & Protection

1

Instream flows are the foundation for all fish habitat and provide water for people, recreation and fishing. Program partners use scientifically based flow recommendations to drive management decisions to ensure endangered fish are protected as water is used to grow crops and supply homes and businesses with clean, reliable water.

Partners Work Together to Coordinate Water Releases

Green River: Releases from Flaming Gorge Dam augment spring and base flows, ROD Feb. 2006

White River: Future Water Management Plan and PBO will identify flow protections

Duchesne River: Releases from Starvation and Big Sand Wash Reservoirs augment spring and base flows, BO July 1998

15-Mile Reach–Colorado River: Releases from multiple reservoirs and irrigation efficiencies augment flows, PBO Dec. 1999

Price River: Opportunities being investigated to help achieve USFWS suggested minimum flows, Position Paper May 2012



Reservoirs

Critical Habitat

BO = Biological Opinion

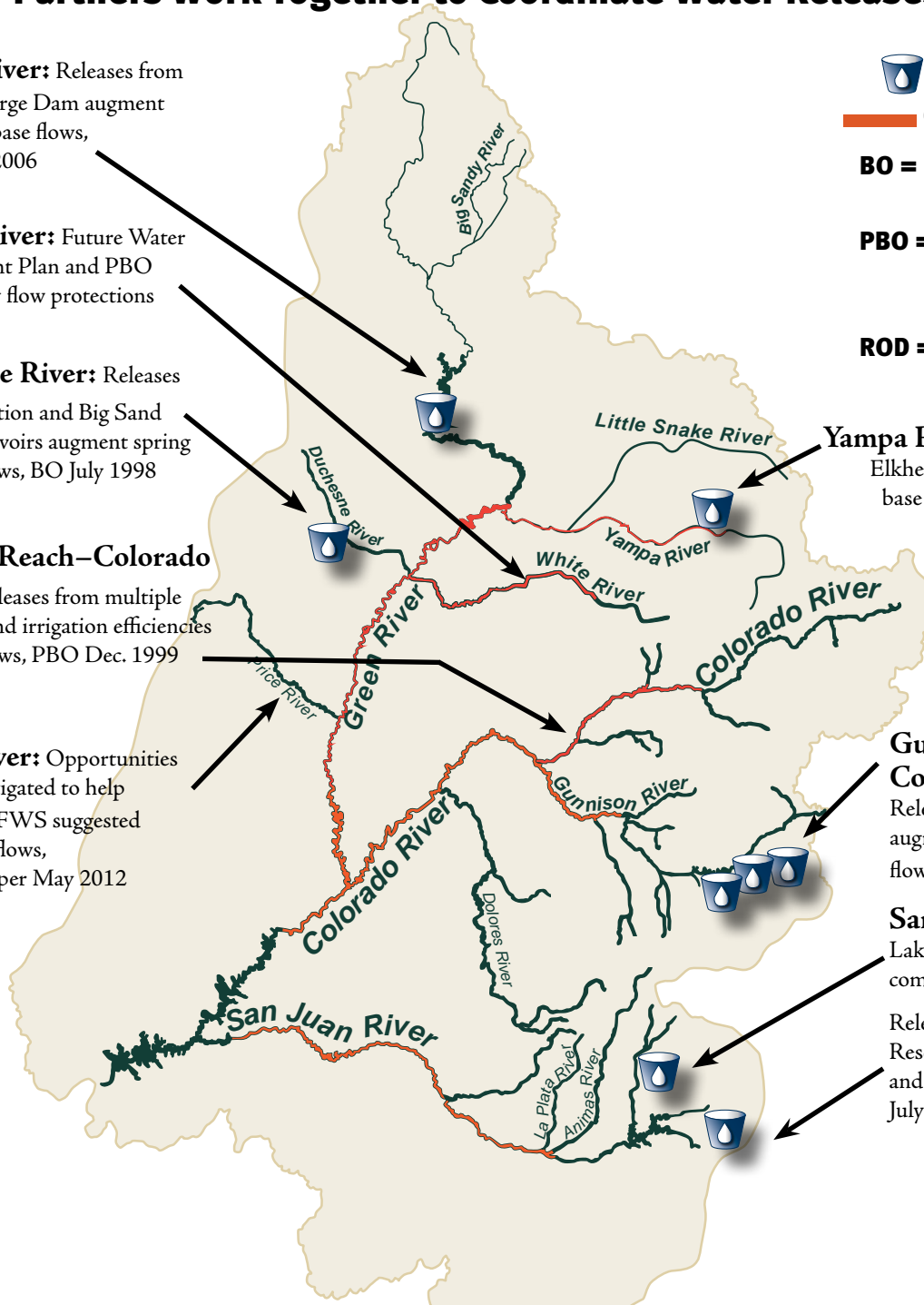
PBO = Programmatic Biological Opinion

ROD = Record of Decision

Yampa River: Releases from Elkhead Reservoir augment base flows, PBO Jan. 2005

Gunnison & Colorado Rivers: Releases from Aspinall Unit augment spring and base flows, ROD May 2012

San Juan River: Lake Nighthorse, completed in 2011
Releases from Navajo Reservoir augment spring and base flows, ROD July 2006



The recovery programs currently provide ESA compliance for 2,500 water projects using more than 3.7 million acre-feet per year.

No lawsuits have been filed on ESA compliance for any of these water projects.

Partners Collaborate to Provide Water for People and Fish

Numerous water interests on Colorado's West Slope collaborate with the Upper Colorado Program to augment streamflows for endangered fish. Every irrigation season, weekly calls are held with reservoir managers and water users in the Yampa and Colorado River basins to coordinate operations that best meet the needs of irrigators, power generators, recreationists and municipalities as well as the fish. Programmatic Biological Opinions (PBO) for each of the rivers establish agreements that allow program collaborators to promote recovery of the four species while ensuring that water users can continue developing water resources and exercising water rights in compliance with the Endangered Species Act (see Milestones in Recovery on pages 22-23).

The drought year of 2018 is a good example of what makes this collaboration so valuable. Disappointing winter snowpack was followed by hot and dry conditions that set in early and persisted for most of the irrigation season. The 2017-2018 Water Year was the warmest in 124 years of recorded Colorado history, and the second-driest. River flows dwindled and reservoirs were drawn down to alarmingly low levels.

Drought conditions threaten endangered fish recovery too. Low river flows and high water temperatures in early summer stress native fish by reducing their food base and forcing them to seek refuge in scarce pools and backwaters. Problematic nonnative species like smallmouth bass get a jump-start under warm conditions. They eat young endangered fish, and grow to a size that promotes over-winter survival, allowing them to wreak more havoc in subsequent years.

The Upper Colorado Program accesses substantial amounts of water from reservoirs annually to boost flows for endangered fish during low-flow periods of the year. However, in years when augmentation water

is most crucial, less is available. Thousands of acre-feet accessible in a "normal" year from West Slope reservoirs like Green Mountain and Ruedi are unavailable in very dry years. As a result, flow conditions for endangered fish grew particularly dire in 2018, especially in the lower Yampa River and in the '15-Mile Reach' of the Colorado River above the Gunnison River confluence.

The good news: Upper Colorado Program partners stepped up to provide extraordinary support for maintaining instream flows in 2018. In the Yampa River basin, the Colorado River Water Conservation District (CRWCD) leased water from Elkhead Reservoir to help prevent the dismally low flow conditions in the lower Yampa from becoming worse. In the Colorado River above the 15-Mile Reach, multiple partners stepped up and voluntarily provided desperately needed water. The CRWCD advantageously timed their maintenance releases from Wolford Reservoir to provide maximum benefits for endangered fish. The Ute Water Conservancy District of Grand Junction leased their unused water in Ruedi Reservoir to support flows. ExxonMobil subsidiary XTO Energy released their hold on 5,000 acre-feet of contract water in Ruedi Reservoir, enabling an equivalent amount to be released for endangered fish. Note that without these collaborative efforts, the 15-Mile Reach likely would have gone completely dry for approximately 12 days in late September and early October. Not good.

Others making these water deliveries possible included the Colorado Water Conservation Board, the U.S. Bureau of Reclamation, the Colorado State Engineer's Office, and agricultural water users like the Grand Valley Water Users Association, Grand Valley Irrigation Co., and Orchard Mesa Irrigation District in Palisade, Colorado. The Upper Colorado Program is fortunate to count these entities among its partners.

"The Colorado River recovery programs have become a national model for implementing the Endangered Species Act while addressing the demand for water development to support growing western communities. In one of the nation's fastest growing areas, Interior agencies work collaboratively with a broad array of partners to secure the future of the river's endangered native fishes, while meeting the water needs of communities across the river's watershed and preserving the natural heritage in the Colorado River basin."

Timothy Petty, Assistant Secretary of the Interior, 2018



Recovery Program Elements

Habitat Restoration

2

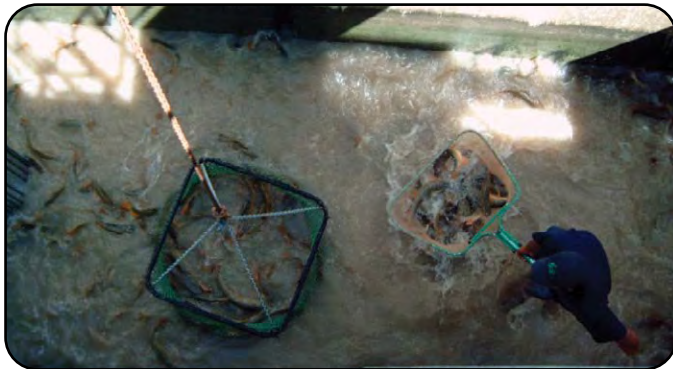
Each of the protected species has different habitat preferences that often change as the fish mature. Program partners work cooperatively to provide passage across diversion dams, access to warm, food-rich nursery habitat and to protect fish from entering canals where they could end up on a farmer's field instead of in the river.



Managed wetlands provide nursery habitats which help rare native fish survival. A picket weir gate allows biologists to slowly release wetland water back into the river while fish are counted and PIT-tagged. PIT-tagging allows biologists to track the young fish once released into the river.



Young-of-year razorback sucker have a greater chance of survival the larger they are when returning to the river.



When fish enter a selective fish ladder, a biologist will sort the rare fish, PIT-tag them and release them back into the river on the other side of the dam. Predatory nonnative fish are removed.



From 1996-2018 a total of 161,538 native fish have passed through the Redlands Diversion Dam fish passage. Passage is also provided for Colorado pikeminnow and razorback sucker, which can migrate hundreds of miles to spawn in the stretch of river where they were born.



Photo © Linda Whitman, TNC

Recovery programs' partners, The Nature Conservancy and UDWR, have blended science and engineering at the Matheson Wetland Preserve in Utah. By widening the existing channel from the Colorado River to the preserve's central pond, more water inflow is possible to give larval razorback sucker a secure place to grow.



Capital construction funds allow us to create fish ladders that provide passage over dams and other structures for rare native fish. For more information about completed capital projects see Milestones in Recovery pages 22-23.

Managed Wetlands Provide Nursery Habitat for Rare Native Fish

Over the last decade, floodplain wetlands have become an essential part of endangered species management. It has long been suspected that warm, food-rich floodplain wetlands were key to certain life stages of razorback sucker. Larval, or baby, fish in the wetland are protected from large-bodied predators and have plenty of food to eat. Floodplain wetlands are only accessible by fish during the spring runoff period when the river swells with snowmelt and floods the wetlands. Since the construction of Flaming Gorge Dam, an on-channel reservoir located on the Utah-Wyoming border, the Green River experienced fewer years when wetlands connected to the river. In an attempt to reconnect these habitats for endangered fish, the Bureau of Reclamation released flows out of Flaming Gorge Dam to match the peak of the Yampa River, but fish were still not routinely found in those wetlands. That changed in 2012 with the Larval Trigger Study Plan (see Milestones in Recovery on pages 22-23). Using annual monitoring data, scientists developed a hypothesis that flows were not being released at the right time because razorback sucker larvae were not yet present in the river when flows increased.

Dam releases are now delayed until razorback sucker larvae are found in the river channel. This simple change has produced dramatic results. Stewart Lake, managed by Utah Division of Wildlife Resources (UDWR), became the first gated wetland to regularly produce fingerling razorback sucker. Over the last few years, UDWR biologists have documented the survival of four Stewart-raised razorback sucker to three years of age – the first documentation of natural recruitment to an adult life stage in the upper Colorado River basin. The floodplains also seem to benefit other endangered species. In 2015, bonytail spawned in Stewart Lake, the first documented occurrence of reproduction for that species in the Basin. Prior to 2015, wild reproduction of bonytail had not been documented for decades. Bonytail reproduction has been observed in wetlands four more times since 2015.

After the success at Stewart, the Upper Colorado Program continues to develop floodplain wetlands that are gated and screened to make sure that we can manage both flow and nonnative predators. Capital construction funds are essential to build the gate structures that keep out large-bodied fish and keep water in the wetlands. There are currently four such wetlands in operation along the banks of the Green River, including: Johnson Bottom, Old Charley, and Sheppard Bottom. The Nature Conservancy and UDWR just completed construction on Matheson Wetland, the first wetland of this kind on the Colorado River. In addition, there are several more wetlands along the Green River that can provide habitat, but are not intensively managed.

“Wyoming has been an active participant in the Upper Colorado Program, ensuring the recovery of four endangered fish species while allowing for the development of the Compact appropriations. It is imperative that the recovery program remains viable and continues to provide reasonable and practical alternatives to assure ESA compliance.”

Matthew H. Mead, Former Governor, State of Wyoming



Recovery Program Elements

Nonnative Fish Control

3 Nonnative fish have been introduced across the basin, for many years and for many reasons. Predation by nonnative fish species is a serious threat to endangered fishes and perhaps the most challenging to manage. Program partners are using a diverse range of solutions to address this threat, but novel solutions are needed.



Legend



The fish pictured in the green rectangle represent nonnative fish introduced into the Colorado River Basin through various means: escapement, illegal introductions and previous stocking. These nonnative fish do not have a serious impact to the native fish.



The blue circle represents the native fish of the Colorado River.



The 3 nonnative fish (smallmouth bass, northern pike and walleye) pictured in the red rectangle are the biggest obstacle to the recovery of rare native fish in the rivers. They eat native fish and compete for habitat and resources.

Upper Colorado River Major Threat: Invasive Species

Over the last 150 years, people have brought many species of fish into western rivers. Some were brought to start fisheries for anglers, others were accidentally introduced as bait fish. Most of the introduced species came from places with high levels of biodiversity and they adapted to be able to compete. Some have big teeth, some have spines or barbs, others use parental care strategies to ensure higher survival of offspring. Fish native to the Colorado River adapted in a different system, where the primary threats were drought and large flood events. Few species of fish managed to survive the desert gauntlet; the ones that did are long-lived and tolerant of poor water quality conditions. They are not robust to outside competition.

Over the life of the programs, a lot has been learned about nonnative species. Many species valued as sportfish are not substantial threats to Colorado River native fishes and therefore have been designated as Compatible Species. That list includes cutthroat, rainbow, brook and brown trout, kokanee, largemouth bass, black crappie, bluegill and yellow perch. These species are routinely stocked into reservoirs across the upper basin to provide angling opportunities.

Other species, however, pose a substantial risk to native fish, primarily because they are effective at establishing reproducing populations in rivers. The three most problematic species are northern pike, smallmouth bass and walleye. All three have high concentrations in river systems across the basin despite extensive removal efforts, creating a gauntlet of predatory mouths for native species.

Changing Paradigms

In 2009, the U.S. Fish and Wildlife Service, Utah, Colorado and Wyoming agreed that only compatible species would be stocked in the Upper Colorado basin to support endangered species recovery. Over the last decade, Utah and Wyoming have issued must-kill regulations for all three of the most problematic species. Colorado has unlimited bag limits for northern pike, smallmouth bass and walleye in rivers and reservoirs across the western slope. Colorado Parks and Wildlife currently holds fishing tournaments targeting smallmouth bass and northern pike, encouraging anglers to catch and remove these species where they are found. Water organizations across the basin pay bounties for northern pike caught and removed.

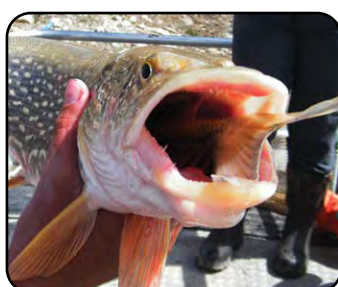
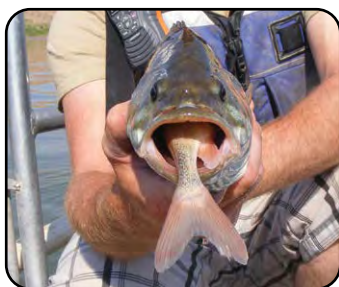
Despite these efforts, these species keep spreading. Individuals have illegally introduced problematic species into new reservoirs at least 15 times in the past 12 years in the upper basin. Moving fish is illegal in all three upper basin states because introducing fish to new waters can have negative consequences for water users, anglers, agencies and ecosystems. Illegal introductions have caused state wildlife management agencies to reset fisheries, stop stocking desirable species like rainbow trout, and spend time on removal efforts instead of fishery development. Without a paradigm shift and help from the public, management of these three problematic species will continue to be the largest hurdle to endangered fish recovery.

Grab a fishing pole today!

Please see the Utah, Colorado and Wyoming fishing guides for relevant regulations.

“The success of the Upper Colorado River and San Juan River Endangered Species recovery programs is vital for Utah’s continued use and development of Utah’s Colorado River apportionment as part of our state’s continued progress in providing for the needs of the citizens of Utah.”

Gary R. Herbert, Governor, State of Utah



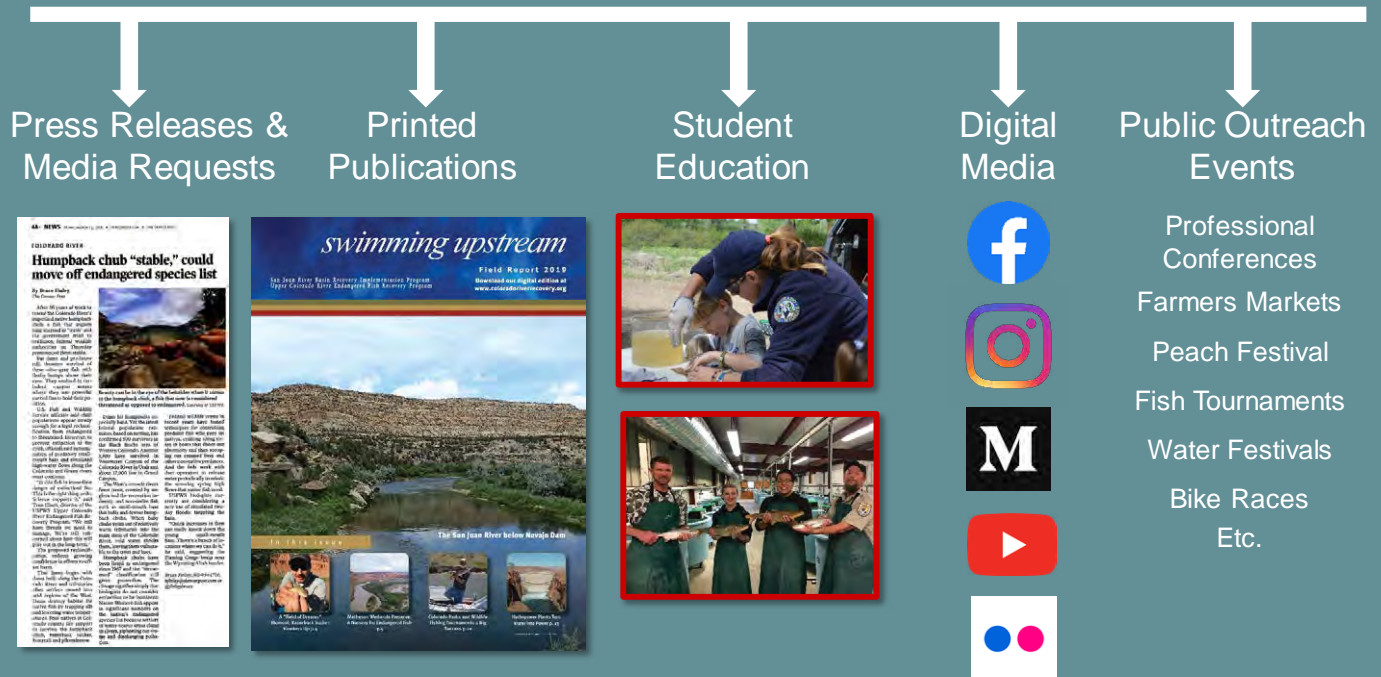
Photos by Recovery Program partners.

Recovery Program Elements

Information & Education

4 Public support is essential to recover the endangered fishes, now and in the future. Program partners visit schools, attend community events, engage anglers and boaters along the rivers, present at professional meetings, and develop a variety of printed materials and educational items that inform people about the value of endangered fish in their communities. Partners are especially passionate about engaging students of all ages. There are programs like “Razorback Sucker in the Classroom” for fourth graders and a high school hatchery project in Palisade, CO. Both of these programs use native fish as the basis for STEM activities in science, technology, engineering and math. The recovery programs participate at water festivals, close to critical habitat, where kids handle native fish and learn about river ecosystems.

Increase Public Awareness and Support



Students Raise Native Fish in the Classroom

Not too long ago, native fish were commonly referred to as the trash fish of the river. Misunderstood from the start, the native fish were seen as not as good to eat or as fun to catch as introduced sportfish. Thanks to the many dedicated efforts of program partners, that attitude is starting to change. People across the basin are coming to value the history, ecological importance, and uniqueness of native fish in the Colorado River basin.

Many of these efforts target students with hands-on experiences that develop bonds with these species. Teachers across the basin raise a few hatchery razorback sucker in fish tanks that are then released into the wild. They integrate the fish into lesson plans, writing and reading about the species and learning about their biology.

In 2019, educational efforts hit a new high with the construction of a fish hatchery at Palisade High School, Palisade, Colorado. Thanks to the efforts of Pat Steele, a science teacher at the high school and Michael Gross, a fish culturist at USFWS Grand Valley Hatchery, students are developing real-world skills in their own school. The hatchery will receive fingerling razorback sucker and bonytail to be raised by the students until they are ready for river release. Students will use water quality testing to learn about chemistry, collect biometrics to learn about biology, and use the fish as the subject of writing assignments around environmental conditions, biodiversity and climate change. Students raised money to make the hatchery possible, applying for grants, selling peaches and even donating scholarship money they received. They developed and executed planning documents that considered how a hatchery is built. They teach elementary school students about endangered species at the Ute Children's Water Festival. Students are using their own interest areas to develop marketable skills and experience, make a difference in their community and assist in the recovery of these species.

"The passion behind this project originates with education and environmental protection. To have the ability to encompass both in a single venture is an outstanding feat that has made me so proud to be a part of this community."

Dyllon Hoaglund, PHS student



Isabelle Haderlie and Kaleb Hawkins, former Palisade High School (PHS) students, sell peaches to raise money for the PHS Fish Hatchery project. They raised \$1,500 by selling peaches and donating scholarship money.



Pictured from left to right: Patrick Steele, PHS science teacher, Levi Van Pelt and James Soria, PHS students, and Mike Gross, USFWS, hold four endangered fish raised at the Ouray National Fish Hatchery, Grand Junction, CO

Recovery Program Elements

Propagation & Genetics

- 5** Hatchery-produced fish are stocked into rivers and streams when populations fall below self-sustainability. Program partners work together to maximize genetic diversity and continuously improve techniques so stocked fish are more likely to survive in the wild.

“The Colorado River recovery programs have become a national model for collaborative species recovery efforts. Here in one of the nation’s fastest growing areas, we continue to work successfully with a broad array of partners to secure the future of the river’s endangered native fishes, while meeting the water needs of communities across the river’s watershed. As the impacts of a changing climate and human populations continue to grow, these partnerships will become increasingly vital to sustaining our natural heritage in the Colorado River basin.”

Sally Jewell, Former Secretary of the Interior, 2014

Hatchery personnel work with geneticists to insure that the captive broodstocks are as genetically diverse as the wild populations.

Visit a hatchery to learn more about the science of propagation and genetics.

Make a Reservation to Tour a Hatchery Facility

J.W. Mumma Native Aquatic Species Restoration Facility, Alamosa, CO (719) 587-3392 **See bonytail here**

Wahweap State Fish Hatchery, Big Water, UT, (435) 675-3714 **See bonytail here**

Ouray National Fish Hatchery – Randlett Unit, Vernal, UT, (435) 789-0351 **See bonytail and razorback sucker here**

Ouray National Fish Hatchery – Grand Valley Unit, Grand Junction, CO, (970) 245-9236 **See bonytail and razorback sucker here**

Southwest Native Aquatic Resources and Recovery Center, Dexter, NM 575-734-5910 extension 119 **See Colorado pikeminnow here**



Photo by Melanie Fischer, USFWS



Photo by Zane Olsen, UDWR

Bonytail are raised in grow-out ponds and harvested using seine nets. They are measured, tagged, transported to the river, and released.

Wahweap State Fish Hatchery in Big Water Utah raises bonytail.

Effective Stocking Programs Bring Razorback Sucker Back from the Brink of Extinction

The razorback sucker has advanced far along its path to recovery since being listed as endangered under the Endangered Species Act in 1991. In the nearly 30 years since, the razorback sucker has gone from the brink of extinction to proposed downlisting to threatened status.

This comeback story wouldn't be possible without the efforts of hatchery programs. Since 1996, about 200,000 razorback sucker have been stocked in the Upper Colorado River system, and since 1994, over 100,000 razorback sucker have been stocked in the San Juan River. Stocking efforts allowed the species to persist despite the odds, with populations expanding throughout the Green, San Juan, and Colorado River basins. Stocked razorback sucker have been observed reproducing at spawning sites in the Green, Colorado, and San Juan rivers and, based on captures of larval fish, are reproducing in the wild in the Green, Gunnison, Colorado, and San Juan rivers. Recently, record numbers of age-0 and age-1 razorback sucker have been found in the San Juan River.

While hatchery programs have been successful in their role toward recovery, raising endangered fishes in a hatchery isn't easy. Hatchery staff have had to identify and resolve a number of issues. At the Ouray-Randlett Hatchery, high levels of the mineral manganese were causing fish mortality. Hatchery managers added special water filters. After high levels of bird predation, Ouray-Randlett used netting to cover ponds, which kept the herons and cormorants away. At the Ouray-Grand Valley hatchery, managers noticed stressed fish during the harvesting process. They redesigned their ponds to incorporate kettle basins and now use cranes to move fish quickly and gently. Southwestern Native Aquatic Resource and Recovery Center developed protocols to minimize stress so managers knew how to handle and release fish in the best way possible.

For other issues, hatchery staff worked collaboratively to find solutions. A razorback sucker-specific diet was developed by the USFWS Bozeman Fish Technology Center in 2011, aiding in the growth and survival of hatchery-reared fish. Based on the recommendations of program biologists, integrated stocking plans for the Upper Colorado and San Juan Programs were developed in 2003, resulting in more fish surviving their first year in the wild (see Milestones in Recovery pages 22-23). In the Upper Colorado Program, a 2015 revision recommended innovative techniques like flow training at Mumma Native Aquatic Species Restoration Facility, which prepares fish before they are released into a rushing river. Health Condition Profiles (HCP) initiated at Wahweap State Fish Hatchery were also implemented at all facilities, providing valuable information to assess health of the fish before they are released.

The success of the endangered fish stocking programs is made possible by numerous integrated management actions, including education and outreach; habitat and flow management; research and monitoring; and non-native fish removal. Together, the recovery programs' efforts will help ensure that these unique fishes continue to be an integral part of the Upper Colorado River system's fish community for generations to come.



Photo by Matthew Fry, USFWS

Recovery Program Elements

Research & Monitoring

6

Research and monitoring produce information to evaluate progress to recovery and guide management efforts. Program partners provide the science to support decision making regarding recovery actions, to see what is working and what isn't, and make adaptive improvements.



Releases from Flaming Gorge Dam provide flows that benefit larval razorback sucker in the Green River.



This razorback sucker was captured on the San Juan River. It was tagged, weighed and measured, then released back into the wild.



Netting for invasive northern pike happens in the early spring prior to spawning. By removing these fish before they spawn, it reduces the populations in the river.



Casey Pennock (rowing), and Nate Cathcart (netting) capture native and nonnative fish in the eddy below the Piute Farms Waterfall. The waterfall is located below Mexican Hat, Utah.



Monitoring Uses Science to Produce Data that Influence Adaptive Management Decisions

The programs use a wide variety of tools to monitor fish populations and environmental conditions, including nets, electrofishing, passive antennas, observational data and even hydrophones. The accumulated data (many datasets span multiple decades) inform future decision making. Because monitoring supports the other program elements, each of the examples below touches on another element of recovery.

Larval Trigger Study Plan (LTSP)

The Larval Trigger Study Plan (LTSP) was developed after years of monitoring showed that we could improve the timing of spring releases from Flaming Gorge Dam to push more larval razorback sucker out of the cold main channel into warm and food-rich floodplain wetlands along the Green River in northeastern Utah. The original flow recommendations for Flaming Gorge guided dam managers to release the spring peak to coincide with the natural flow peak in the Yampa River, a tributary to the Green River. However, our long term monitoring program told us that the Yampa River often peaked before the newly hatched larval razorback sucker had emerged from Green River spawning bars. So instead of relying so much on the Yampa River flows, we relied more on our larval razorback monitoring program to guide Flaming Gorge Dam operations. Now, when larval razorback sucker are detected in the Green River, a request is made to the Bureau of Reclamation at Flaming Gorge dam to increase releases. The year 2019 marked the 8th year in a row that razorback sucker larvae were captured in one or more productive floodplain wetlands under these modified operational plans.

Bigger Razorback Sucker

Each time an endangered species is stocked or captured in the river, it is weighed and measured. Those data are tracked in a database that identifies each unique fish by an implanted PIT tag number. Analyzing those data for razorback sucker led to a dramatic change in how fish were produced from hatcheries. In 2010, Koreen Zelasko from Colorado State University published a study indicating that first year survival was related to size at stocking and that larger fish were more likely to survive. Based on her results, the hatcheries began stocking fewer, but larger fish, resulting in higher overall survival.

Netting Backwaters for Northern Pike

Unlike many other residents of the upper Colorado River basin, invasive northern pike migrate into flooded sloughs and the mouths of small tributaries soon after ice-out in the spring to spawn. After years of in-river removal our monitoring data indicated little decline in overall populations. Colorado Parks and Wildlife biologists suggested focusing greater attention on the spawning adults by blocking the entrance to those spawning habitats with gill-nets. This technique has resulted in greater efficiency; CPW is capturing more adult northern pike before they spawn with less effort. Studies are currently underway to see whether the effort has affected overall northern pike population numbers.

The Piute Farms Waterfall

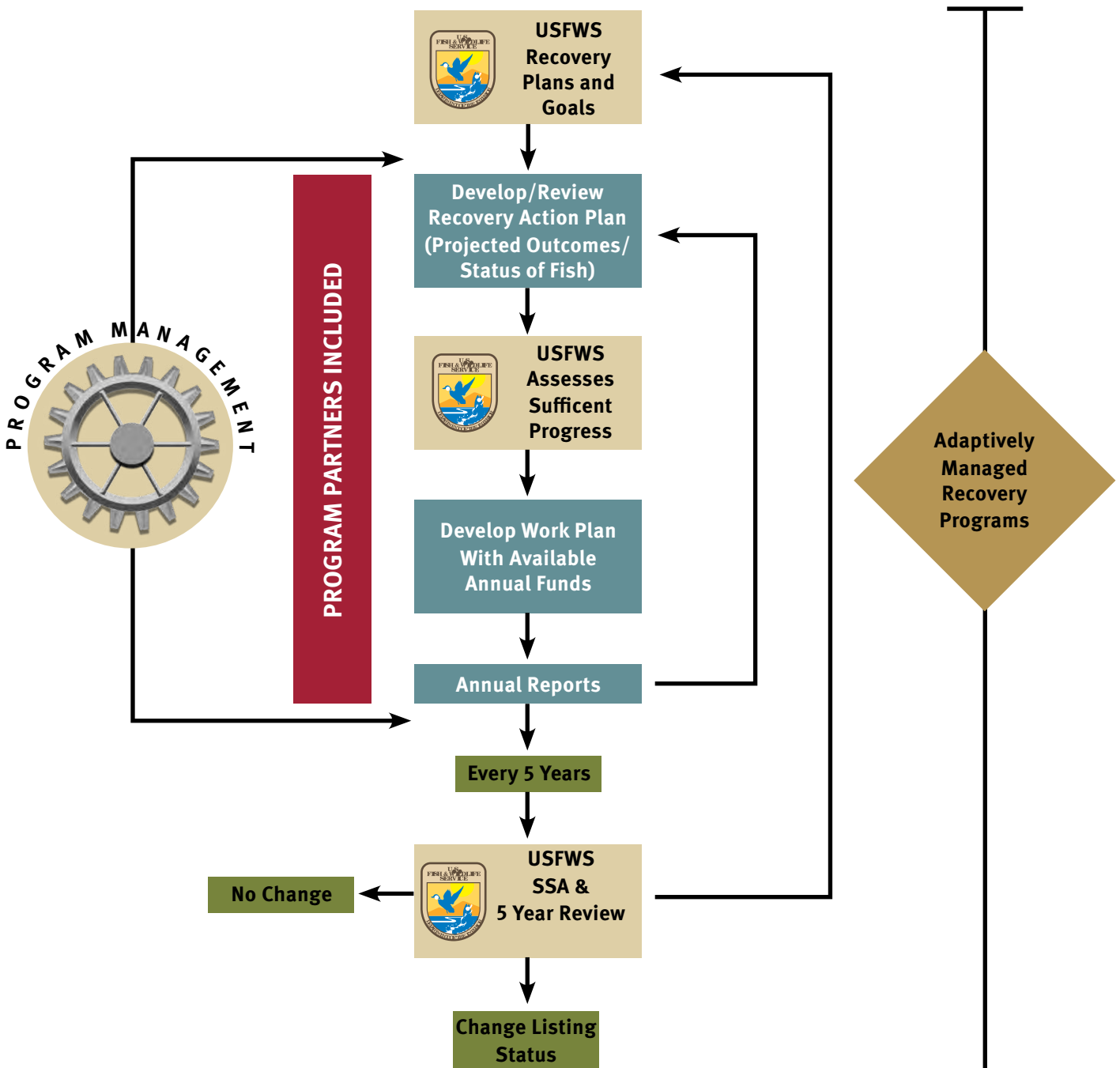
Since about 2001, a natural waterfall on the San Juan River has been preventing upstream movement of both native and nonnative species. As long-distance migrations are common for both razorback sucker and Colorado pikeminnow, biologists needed to determine whether the problem was big enough to cause population-level effects. Using submersible PIT tag antennas, over 1,600 individual fish were detected gathering at the base of the waterfall, presumably attempting to migrate back into the system. Additional monitoring efforts are underway to determine the best mechanism to provide these fish with access to all the habitat present in the San Juan River.

Monitoring is expensive, time consuming, and essential to making sure the programs are using the best available science to implement the best possible management. As the recovery programs move into the future, we will continue monitoring to assess and redirect our actions through adaptive management.

Recovery Program Elements

Program Management

7 The programs are adaptive by nature, and each has an annual review process (shown in the figure below) designed to incorporate information from the previous year into the next year's plan. The recovery programs are managed by the USFWS to ensure compliance with the ESA. Information from these programs and others is used in USFWS processes like Species Status Assessments (SSA) and 5-year reviews which provide the best available science. Program partners routinely come together to discuss the best path forward, and have done so in a cooperative, collaborative manner for over 30 years.



Program Management

The Upper Colorado River and San Juan River recovery programs were created out of necessity – but have since become a model for how diverse stakeholders can work together to make progress in complex systems.

About 30 years ago, the programs were created as mechanisms to provide Endangered Species Act compliance for ongoing water development in the Rocky Mountain West. Today, they provide compliance for over 2,500 unique water projects and have not prevented or slowed development of a single one. Since inception, the programs have integrated stakeholder perspectives into the adaptive management process to benefit populations of endangered fishes across the upper Colorado River basin.

Program Management, the seventh element of recovery, serves as the foundation of the adaptive processes, ensuring that all perspectives are heard and incorporated into the next year's action plan. Since our programs were created, we have not lost a single stakeholder. In fact, the programs continue to grow; the San Juan Program is currently working to add the State of Utah as a partner.

Recovery Programs Sunset in 2023

The mechanisms used to adaptively manage were established 30 years ago when the programs were new, smaller, and more simple. Today, because the scope of our actions has grown, our annual Recovery Implementation Plan – Recovery Action Plan (RIPRAP) in the Upper Colorado River Program is exhaustively reviewed with program partners before it is finalized. We have an opportunity to create a more efficient process when our authorizing legislation is renewed in 2023.

We can consider a collaborative path forward because of the trust developed between our partners. During discussions of our post-2023 future, our partners have unfailingly committed to continuing to support recovery into the future. They have expressed confidence in the program offices to lead those efforts and are recommending that management of the programs remain with the USFWS into the future. In return, the program offices are working to develop a new generation of adaptive management processes – processes that rely more on scientific modeling. Adaptive management models build on the best available scientific information and support quick decision making in response to changing environmental conditions, allowing resources to be redirected to their most efficient use. Modeling also allows for transparency, supporting and enhancing the trust that has been built over the last 30 years. The Cooperative Agreements that implement both programs will sunset in 2023. In an effort to sustain the programs post 2023, and as outlined in PL 116-9, program partners are committed to work with the Secretary of Interior to submit a Report to Congress by the end of fiscal year (FY) 2021.

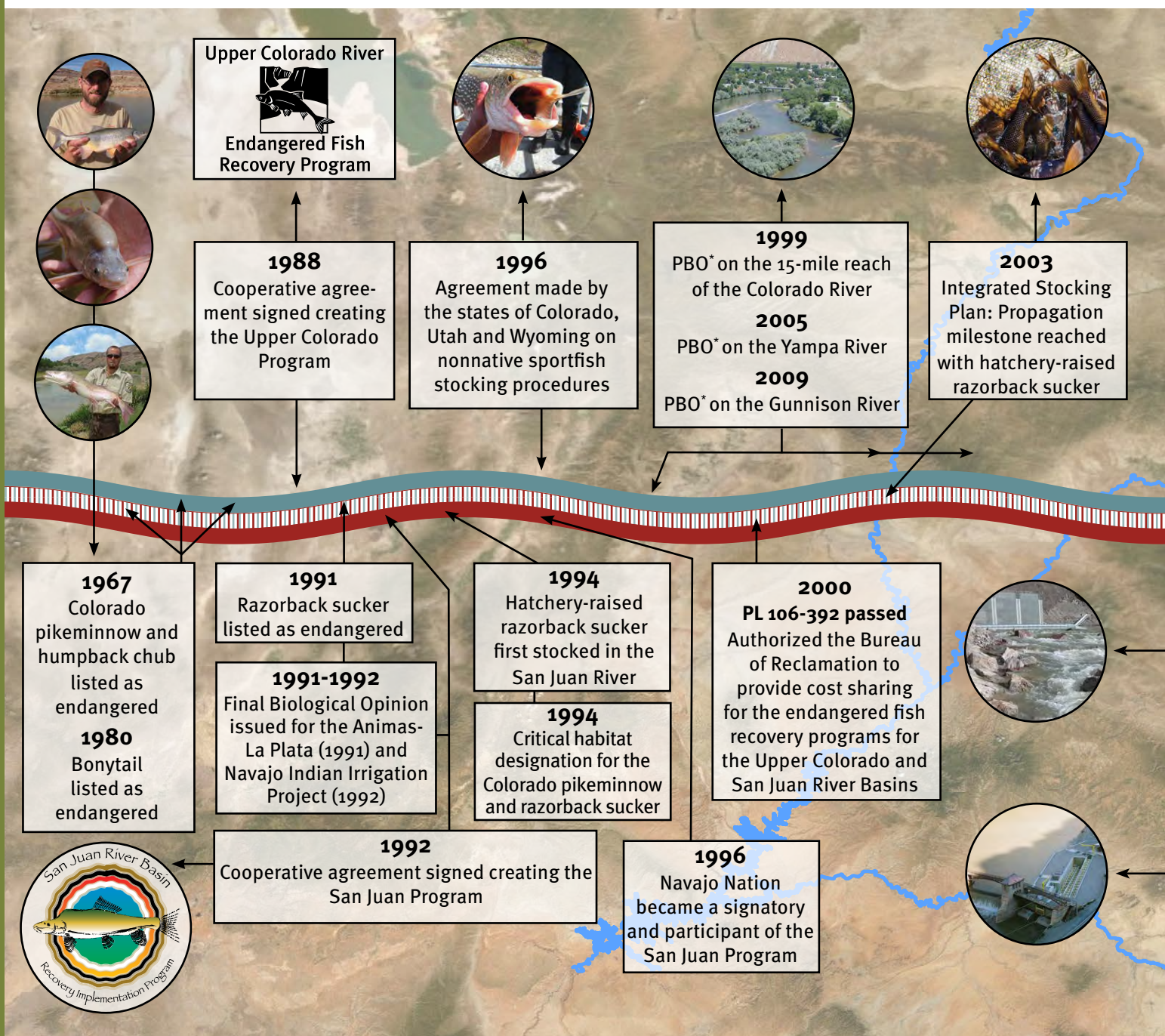
The Report to Congress Will Contain:

- ✦ A description of the programs' accomplishments
- ✦ Current listing status of the four listed species and their projected status in 2023
- ✦ Total programs' expenditures (by funding source) through FY 2021 and projected expenditures through 2023
- ✦ Identification of recovery activities and projected costs by the programs beyond 2023

Status Report – Technical and managerial representatives from both programs have identified and prioritized post 2023 activities and developed estimates of associated annual and capital costs. Program partners will submit a draft Report to Congress to DOI bureaus in Headquarters by the end of FY 2020 to meet our end of FY2021 deadline.

Milestones in Recovery

Over the past 30 years, the recovery programs have made substantial strides towards recovery, resulting in proposed downlisting status for two species. The timeline below outlines some of the largest successes in flow management, nonnative fish management, capital construction projects and more.

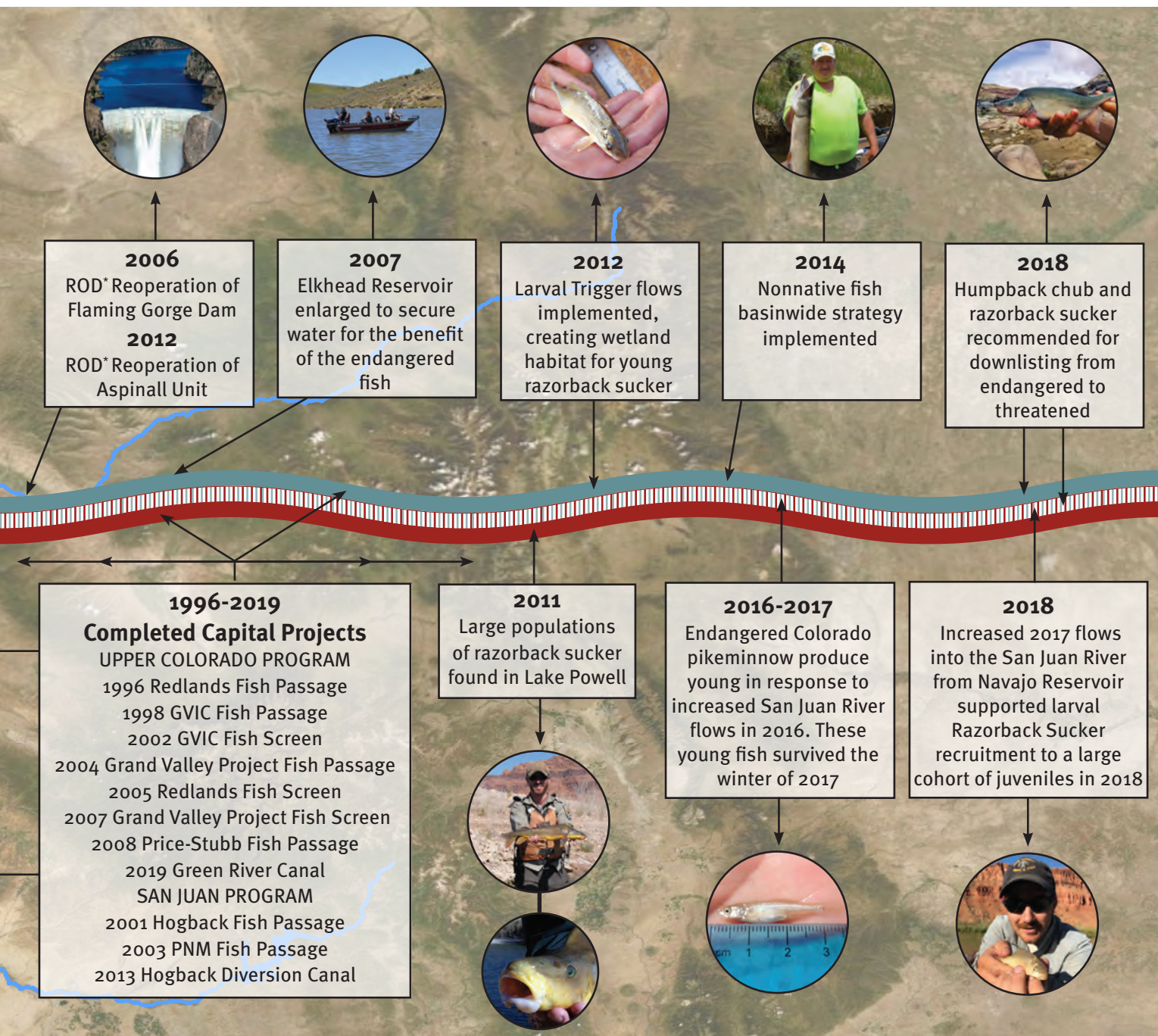


Upper Colorado River Endangered Fish Recovery Program Timeline
 San Juan River Basin Recovery Implementation Program Timeline
 Timeline that impacts both recovery programs

PBO*: A biological opinion from the USFWS identifies whether a federal action is likely to jeopardize the continued existence of listed species. A programmatic biological opinion (PBO) considers multiple actions and activities, often over a broad area (e.g., a river watershed), and frequently includes many small projects similar in nature (e.g., multiple diversions that deplete river flow). Typically, various conservation actions are required within the PBO to help ensure that the listed species survives.

Collaborative Conservation

Both recovery programs are managed by partner committees, with decisions made by consensus. All partners may have a seat at the table on managing and technical committees. Both recovery programs use science-based, cooperative actions to assist in endangered fish recovery, such as to reoperate federal reservoirs to create and maintain habitat, work with irrigators to improve their water efficiency, construct fish passages, remove invasive predatory fish and provide information and education to the public.



ROD*: A Record of Decision (ROD) is a short public document that records a federal agency's decision(s) concerning implementing a proposed action for which the agency has prepared an environmental impact statement (EIS).

EIS: An Environmental Impact Statement (EIS) is a report evaluating the potential effects on the environment of a proposed project or action. These statements are required by Section 102(2)(C) of the National Environmental Policy Act of 1969 (NEPA) for federal activities determined to significantly affect the environment.

HELP PREVENT THE SPREAD OF NONNATIVE SPECIES



KNOW THE LAW



SMALLMOUTH BASS



NORTHERN PIKE



WALLEYE

UTAH AND WYOMING HAVE
CATCH & KEEP
REGULATIONS IN CERTAIN RIVER
REACHES. IT IS ILLEGAL TO
RETURN THESE FISH TO THE RIVER.

One hundred years ago only 13 native species swam in the Upper Colorado River and its tributaries—today they have been joined by more than 50 nonnative species. Introduction and establishment of problematic nonnative predators affect native fishes, the Upper Colorado Recovery Program, anglers, and local communities with high environmental and

economic costs. Removing illegally introduced species is expensive and time-consuming. We must all join forces to prevent the spread of these problematic nonnative predators to preserve native fish in the river and desirable sportfisheries in reservoirs.

Review your state fishing regulations. State regulations may vary based on river mile and are the **LAW**. Regulations on the river may be **very different** than in reservoirs. **KNOW THE LAW.**

<https://cpw.state.co.us/Documents/RulesRegs/Brochure/fishing.pdf>

<https://wildlife.utah.gov/fishing/fishing-regulations.html>

<https://wgfd.wyo.gov/Fishing-and-Boating/Fishing-Regulations>

<http://www.wildlife.state.nm.us/fishing/game-fish/>

New WOTUS Rule: An Overview

Developed by National Water Resources Association

The recently released final rule defining “waters of the United States” was accompanied by an extensive Preamble that was designed to respond to comments received and explain the factual and legal basis for the agencies’ decisions on the rule. It also serves to clarify the intent of certain provisions of the final rule where they may not be entirely clear on their face. The following is a summary of key statements found in the Preamble which address issues raised by WUWC during the rulemaking comment process. They are arranged by topic for ease of reference and supplement the overview of the content of the new rule provided herewith. Included within the topic list are such matters as the treatment of ephemeral streams, the status of ditches, the identification of jurisdictional wetlands, and exclusions for certain impoundments, stormwater and reuse facilities, and waste treatment systems.

In general, the final rule is consistent with many of the comments filed by WUWC, though there are a couple of departures from the position initially advocated by WUWC. That said, in some instances though the WUWC approach to resolving the issue may not have been adopted, the end result appears satisfactory.

General Observations:

- The rule rejects the argument that CWA jurisdiction derives from Congressional authority over “the instrumentalities of interstate commerce” and activities that “substantially affect interstate commerce”. Rather, the agencies state that it derives from Congress’s more narrowly defined “commerce power over navigation”. (p. 48)
- The rule attempts to maintain the constitutional balance between the States and the federal government—between the “restore and maintain” goals of section 101(a) of the Act and the “state’s primary responsibility” policy of section 101(b). According to the preamble, the CWA accomplishes this by having both regulatory mechanisms governing the “prohibition of the discharge of pollutants to navigable waters” and “non-regulatory sections” designed to “restore and maintain...waters using federal assistance to support state partnerships to control pollution.” (pp.55, 72)
- “Under this rule, the agencies do not view the definition of ‘waters of the United States’ as conclusively determining which of the nation’s waters warrant environmental protection and which do not; rather, the agencies interpret the definition as drawing the boundary between those waters subject to federal requirements under the CWA and those waters that States and Tribes are free to manage under independent authorities.” (p.76)
- EPA’s Science Advisory Board critiqued the rule, finding that it “did not fully incorporate the Connectivity Report and offers no comparable body of peer reviewed evidence to support this departure.” However, the agencies note in response that they “used the Connectivity Report to inform certain aspects of the definition of ‘waters of the United States’, but recognize that science alone cannot dictate where to draw the line between Federal and State waters, as this is a legal question that must be answered based on the overall framework and construct of the CWA.” (pp. 44-45)

Ephemeral Streams:

- "...a stream in the arid West is ephemeral if it flows only in direct response to rainfall, even if the flow may appear relatively continuous as a result of multiple, individual storms during the monsoon season." (p. 96-97)
- "Ephemeral features, such as dry washes and arroyos, that lack the perennial or intermittent flow necessary to satisfy the 'tributary' definition under this final rule are excluded from the definition." (p. 139)
- An ephemeral channelized break between two jurisdictional waterbodies that accrues flow in a typical year does not sever jurisdiction for the relatively permanent waterbodies (perennial or intermittent) though the ephemeral reach itself is not jurisdictional. (p. 144)
- "The rule creates a new exclusion for ephemeral features, including ephemeral streams, swales, gullies, rills, and pools...." (p.245)

Intermittent Streams:

- "The term 'intermittent' in the final rule means surface water flowing continuously during certain times of the year and more than in direct response to precipitation.... The phrase 'certain times of the year' is intended to include extended periods of predictable, continuous surface flow occurring in the same geographic feature year after year." (p. 94)
- "If a perennial tributary becomes intermittent and then ephemeral and then perennial again, it may be viewed as four separate reaches...." (p. 148)
- "The agencies are not providing a specific duration...of surface flow that constitutes intermittent flow...as the time period can vary widely across the country based upon climate, hydrology, topography, soils, and other conditions. The 'typical year' construct captures that variability..." (p. 154)

Perennial Streams:

- There exists continuous, year-round surface water flows in such waterbodies. (See rule definition) Perennial streams are within the class of "relatively permanent" waters, along with intermittent streams, that may be "tributaries".

Tributaries:

- "The agencies approach to defining 'tributary' is also intended to ensure that federal regulatory jurisdiction does not intrude upon State, tribal, and local control of land and water use decisions." (p. 139)
- "...tributaries that contribute surface water flow to a downstream jurisdictional water in a typical year through certain natural features (such as debris piles or boulder fields) or artificial features (such as culverts or dams) are tributaries even though these features may result in an interruption in the surface water channel." (p. 147)
- "... the point at which a tributary becomes ephemeral may fluctuate upstream and downstream in a typical year based on climatic conditions, changes in topography and surrounding

development, water input, and water withdrawals. When such a transition zone of flow classification occurs, the agencies will use best professional judgment....” (p. 149)

- Tributary status may be influenced by man-made endeavors, i.e., there may be “modified systems”. “An altered tributary is one in which the flow or geomorphic conditions have been modified in some way, for example, by...adding concrete or riprap to stabilize the banks of a tributary, reducing flow conditions from perennial to intermittent flow due to water withdrawals....To be considered a tributary, such features must continue to meet the flow conditions of the ‘tributary’ definition.” (pp. 149-150)
- “The final ‘tributary’ definition contains no volume requirement, but only a requirement of perennial or intermittent flow and a contribution of surface flow to a paragraph (a)(1) water in a typical year.” (p.153)
- “The agencies may need to use the multiple tools described above to determine the flow classification for a tributary that is not flowing because of seasonally dry conditions...” (p. 164)
- “...a tributary does not lose its jurisdictional status if it contributes surface flow to a downstream jurisdictional water in a typical year through a channelized ephemeral feature, such as an ephemeral stream or gully.” (p. 252)
- “The lateral limits of jurisdiction for tributaries extends to the ordinary high water mark.” (p. 166)

Traditional Navigable Waters:

- “...whether a water is susceptible to use in interstate commerce requires more than simply being able to float a boat to establish jurisdiction over navigable-in-fact waters under paragraph (a)(1)....Simply driving across a state line and using a waterbody, or having the potential to use a waterbody” or having the capacity to “float a boat in a water that is near or on an interstate highway” is not enough to establish jurisdiction. (p. 119)

Wetlands:

- “...wetlands obtain jurisdictional status under the CWA by virtue of their adjacency to traditional navigable waters, tributaries, and other actual waters, not adjacency to other wetlands.” (pp.111-12)
- “...wetlands separated from jurisdictional waters only by a natural berm, bank, dune, or other similar natural feature are adjacent wetlands.” (p. 111) This is true without regard to a specific hydrologic surface connection. (p. 223)
- “The agencies have also expanded jurisdiction, as compared to the proposal, over wetland complexes that are crossed by roads and similar structures if those structures allow for a surface water connection...such as through a culvert through a roadway....” (p. 210—WUWC suggestion)
- “Ecological connections... do not provide an independent basis for including physically isolated wetlands with the phrase ‘waters of the United States.’” (p. 216)
- “Wetlands that abut other jurisdictional waters are adjacent under this final rule even absent evidence of a hydrologic surface connection....” (p.218)
- “...wetlands are considered ‘adjacent’ if they are inundated by flooding from a paragraph (a)(1) through (3) water in a typical year.” (p. 220) However, “inundation sufficient to establish adjacency occurs only in one direction....” (p. 221) “Inundation need only occur once in a typical

year to establish adjacency....with no particular requirement for the volume or duration of inundation.” (p. 222)

- “Under the final rule, wetlands may be separated from a paragraph (a)(1) through (3) water by only one natural feature....in order to be considered adjacent.” (p. 226)
- A flood gate, culvert, pump or similar structure that maintains the surface water connection is adequate to maintain adjacency. (p. 227)
- “...the agencies have simplified the proposal’s approach...and have eliminated the requirement that a wetland maintain a perennial or intermittent connection to the jurisdictional water in a typical year.” (p. 228)
- The same rules apply to constructed or restored wetlands as apply to natural wetlands. (p. 231)
- “...the agencies are not including any distance thresholds or limits to determine adjacency in the final rule....” (p. 232)
- “This categorical inclusion [for adjacent wetlands] does not alleviate the need for site-specific verification of jurisdiction, such as confirmation of wetland characteristics....” (p. 237)
- Wetlands only need touch TNWs at one point. (p. 238)
- “...wetlands that about a tributary only during the wet or rainy season remain adjacent under this final rule.” (p. 238)
- “Adjacent wetlands under this final rule include wetlands with alternating hydroperiods and seasonal wetlands with vegetation shifts.” (p. 243)

Ditches:

- “A ditch can also be a traditional navigable water if it meets the conditions of that category.” (p. 135)
- Ditches that are constructed in TNWs, constructed in tributaries, or that relocate tributaries and meet the tributary flow conditions, and ditches constructed in adjacent wetlands and satisfy the tributary definition are jurisdictional. (p. 167, 175)
- “...non-jurisdictional ditches under this final rule may be capable of conveying channelized surface water flow between upstream relatively permanent jurisdictional waters and downstream jurisdictional waters in a typical year. In this example, the ditch itself, however, would remain non-jurisdictional.” (p. 169)
- A ditch could be considered a “point source” however. (p. 170, 173) “Excluded ditches ...could potentially be conveyances of discharges of pollutants from ‘point sources’ subject to CWA permitting....” (p. 136) However, if a 402 permit is not currently required, “it is unlikely that this final rule will create a requirement for a new CWA permit.” (p. 173)
- “Canals” e.g., the Los Angeles River, can fall within the definition of a navigable waterbody. (p. 174)
- With reference to irrigation and water management ditches in the Western United States, “the majority...will not be jurisdictional under the final rule.” (p. 175)
- The agencies will not look to the “function” of the ditch to determine jurisdiction. (p. 176)
- “Only the portion or portions of the ditch that meets the definition of ‘adjacent wetland’ are jurisdictional....” (p. 177)
- “Under this final rule, the agencies will continue the existing practice of regulating portions of otherwise non-jurisdictional ditches [portion flooded by TNW] as waters of the United States

based on the ordinary high water mark of the contributing water, but only up to the location of the ordinary high water mark....” (p. 179) This “reach” concept can apply to all ditches with jurisdictional ‘portions’. (p. 277)

- “The agencies have incorporated a clear statement ...that all types of ditches would be excluded except where they meet the conditions of paragraphs (a)(1) or (a)(2) of the final rule or...the conditions of paragraph (c)(1).” (p. 254)
- “The agencies did not retain the term ‘alter’ from the proposed rule given the potential confusion associated with the use of that term. As some commenters noted [including WUWC], most, if not all, ditches may have some effect on and therefore may ‘alter’ a tributary or some portion of the tributary system.” (p. 168)
- “... a ditch constructed or excavated wholly in upland that connects to a tributary would not be considered a jurisdictional ditch. The connection to a jurisdictional water does not eliminate applicability of a paragraph (b) exclusion conditioned by the upland or non-jurisdictional waters language. To avoid any confusion in implementation, this is why the agencies have not included the term ‘wholly’ in the final regulatory text.” (p. 262)

Interstate Waters:

- The final rule removes “interstate waters” as a separate category of WOTUS. Waters which cross state lines will be judged on the same basis as any other waters. (p. 121)

Treatment of Jurisdictional Breaks:

- In general, ephemeral features found between two relatively permanent waterbodies will not sever jurisdiction upstream so long as they provide a surface water connection in a typical year. (p. 102) If the break does not allow continuance of the flow, it will sever jurisdiction. (p. 103) However, the breaks or features themselves do not become jurisdictional in any event. (p. 104)

Impoundments:

- An impoundment meets the WOTUS definition if it satisfies the conditions of paragraph (a)(1), e.g., Lake Mead, if it contributes surface flow to a TNW in a typical year either directly or through a jurisdictional water, or if it is inundated by flooding from a paragraph (a)(1) through (3) water in a typical year. (p. 183, 190). Any other impoundments lack the necessary connection to jurisdictional waters to warrant federal jurisdiction. (. 190, 192) One need not show, however, a “perennial or intermittent” flow to the downstream water. (p. 191)
- The connection must be a “surface” flow as compared to “a mere hydrologic connection”. (p. 193) “An impounded water that lacks a sufficient surface water connection to a downstream paragraph (a)(1) water in a typical year is not a water of the United States.” (P. 194) However, that connection can be through a “channelized non-jurisdictional feature.” (p. 195, 196)
- “Such contribution [of water from an impoundment] could occur through pumps, flood gates, reservoir releases, or other mechanisms.” (p. 206)
- “Water storage reservoirs” constructed or excavated in upland or in non-jurisdictional waters, so long as [they]...are not impoundments of jurisdictional waters that meet the conditions of paragraph (c)(6)” are not jurisdictional. (p. 246)

Stormwater Features:

- “The agencies have excluded stormwater control features constructed or excavated in upland or in non-jurisdictional waters to convey, treat, infiltrate, or store stormwater run-off.” (p. 246)
- “...the agencies recognize that upland features may be connected to jurisdictional waters and that such a connection does not preclude application of the exclusion.” (p. 269) The agencies recognize that such stormwater features may have channelized features that provide a connection between upstream and downstream jurisdictional waters, but even in this instance the feature remains non-jurisdictional. (p. 269) Nevertheless, the features could be found to be “point source” discharges and subject to section 402 permitting requirements (p. 269). However, one would assume that this would be limited to the utilization of stormwater control BMPs.
- Stormwater control features could qualify “for both the stormwater control features exclusion and the waste treatment systems exclusion.” (p. 286—a WUWC suggestion)

Reuse Facilities:

- “...groundwater recharge, water reuse and wastewater recycling structures, including detention, retention, and infiltration basins and ponds constructed or excavated in upland or in non-jurisdictional waters” are excluded by rule. (p. 246, 271). “The agencies recognize the importance of water reuse and recycling, particularly in the arid West where water supplies can be limited and droughts can exacerbate supply issues.” (p. 271—WUWC comment)
- “Detention and retention basins can play an important role in capturing and storing water prior to beneficial reuse. Similarly, groundwater recharge basins and infiltration ponds are becoming more prevalent tools for water reuse and recycling.” (p. 271) Hence, the importance of the exclusion.

Waste treatment Systems:

- The new rule maintains the historical exclusion for waste treatment systems. “...when an applicant receives a permit to impound a water of the United States in order to construct a waste treatment system,...under this final rule the agencies are affirmatively relinquishing jurisdiction over the resulting waste treatment system as long as it is used for this permitted purpose. Also consistent with longstanding practice, waters upstream of the waste treatment system are still consider jurisdictional where they meet the final rule’s definition of ‘waters of the United States’.”

Typical Year:

- Typical year is a defined term in the rule and is used in establishing whether there exists an adequate surface water connection between relatively permanent bodies of water and TNWs and between certain wetlands and other jurisdictional waters so as to warrant the application of federal jurisdiction. It means a year “within the normal range of precipitation over a rolling thirty-year period for a particular geographic area; that is, times when it is not too wet and not too dry.” (p. 91) “...the agencies have modified the definition of ‘typical year’ to expressly include other climatic variables in addition to precipitation and additional description of the normal periodic range, signaling that such range need not be based on a calendar year.” (p. 91)

Thus, there will be a need for further guidance on this topic, e.g., identification of acceptable data sources, definition of geographic area, etc.

Significant Nexus Test:

- Under the final rule, there will no longer be any case-by-case specific determinations, i.e., the Kennedy significant nexus test will no longer be applied. (p. 151) The new rule is designed to provide categorical “bright lines” and therefore improve clarity and predictability for regulators and the regulated community. “This final rule ends the agencies’ practice of conducting case-specific significant nexus evaluations for determining whether wetlands are jurisdictional as adjacent.” (p. 234) On a similar note, there will be no reference to ecological processes as a basis for jurisdiction and no aggregation of “similarly situated” waterbodies. (p. 216)

Burden of Proof:

- In most instances, the burden of proof will fall upon the agencies. “The agencies will continue to bear the burden of proof for determinations [of flow classification, e.g., perennial and intermittent].” (p. 159)
- “The burden of proof lies with the agencies to demonstrate that a ditch relocated a tributary or was constructed in a tributary or an adjacent wetland.” (p. 180, 182)



**Southwest Water Conservation District
2019 Expo & SJMRC Sponsor**



Laura Spann
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Dear Laura,

Thank you for the sponsorship in the amount of \$750 for the 2019 Silverton Innovation Expo from September 24th – 26th. The event was a great success!

Changing Approaches

Building upon the efforts of multiple partners and decades of collaborative efforts the 2019 Silverton Innovation Expo addressed abandoned mine lands and draining mines. The Expo was held in conjunction with the San Juan Mining & Reclamation Conference this year, as both events were scheduled to be in Silverton. The 2019 events highlighted changes and innovations related to mining and remediation with a focus on technological development and business opportunities to bring those innovations to market for more widespread use. The theme was Changing Approaches, and it provided a forum for discussion and exchange of ideas. Sponsors, exhibitors, and speakers had the opportunity to showcase their innovative technologies, and participants had ample time and space for networking and building partnerships with other stakeholders.

The Expo, now in its 3rd year, and the SJMRC, now in its 9th year, attracted participants and speakers from across the country and beyond. A professor and student traveled from Chile to present at and attend the events. Attendance grew by over 20% from last year's Innovation Expo. The sold-out event attracted 135 people from a diverse range of organizations, including the Environmental Protection Agency (EPA), Bureau of Land Management (BLM), United States Forest Service (USFS), Town of Silverton, private environmental consulting companies, venture capitalists, business accelerator programs, students, teachers, and non-profits. Six exhibitors and 12 sponsors attributed a combined total of \$30,857 in sponsorship for the event. In addition to the \$4,995 we received from the Nonpoint Source grant, funds were provided by Coutts & Clark Western Foundation (\$5,000), the Colorado Water Conservation Board (\$15,000), and registration fees, which were \$155/person. We offered a highly discounted rate of \$25 for student or teacher attendees. Overall, with partner match and in-kind support the event income totaled \$81,018. This included 395 hours of in-kind contributions of volunteer time from partners and volunteers. Additional detail below:

Innovation Expo - September 2019	4,995.00
Project Support	
Match Funds in Support of Innovation Expo and San Juan Mining Conference:	
Sponsorships - Business	28,088.00
Sponsorships - Nonprofit, Association & Government Partners:	
CO Water Conservation Board Water Plan Grant	17,508.00
Coutts & Clark Western Foundation	5,000.00
Start up Colorado	1,500.00
CO Division of Reclamation, Mining & Safety	1,200.00
Southwest Water Conservation District	750.00
Four Corners Water Resource Center, Fort Lewis College	500.00
Colorado Mining Association	450.00
Ruth Hutchins Water Center, Colorado Mesa University	300.00
Trout Unlimited, local chapter	200.00
Participant Fees	8,430.00
In Kind Support	
Venue donation, Town of Silverton	3,000.00
Event organization, 395 hours from various partners	14,092.00
Total Partner Match & In Kind Support	\$81,018

The 2019 Silverton Innovation Expo and San Juan Mining and Reclamation conference included presentations from a diverse range of experts. Topics addressed navigating liability concerns to training the next generation in mine reclamation to supporting the full ecosystem of innovation to passive treatments and source control. Presentations included EPA's Efforts to Promote Cleanup of Abandoned Mine Lands; Reimagining Superfund within Historic Mining Districts: Legal Panel and Discussion; Transforming Liabilities into Assets; and Mine Waste Source Control: Successful Proof of Principle (see the attached event packet for a complete list).

Attendees were encouraged to make connections with one another throughout the event during scheduled networking sessions and during breakfast, lunches, and evening receptions. The event included optional tours in the Bonita Peak Mining District to Lake Emma and out Cement Creek to the Gladstone area. Tours were led by relevant professionals and land managers to showcase the past, present, and future of innovative mining remediation technologies. See the packet (included) for the details of the events and the talented speaker pool.

Towards our goals, the SJMRC & Expo:

- Showcased the potential for innovation and technology by providing for 28 presentations and 4 technology pitches and demonstrations across a spectrum of topics to garner a systems approach to accelerating business.
- Discussed how to establish clear guidelines for testing and evaluation to support the refinement of potential technologies through a common verification process and sampling guidance.
- Identified liability challenges as well as existing tools for innovation acceleration through our legal panel
- Offered networking time and space for innovators, industry representatives, scientists, creators, and customers to mix and mingle at three social hour events and long lunches and breaks
- Invited future generations to develop the talent pool by recruiting students to participate. Hosted the inaugural student challenge awarding scholarships to three students that presented their ideas from the calls for abstracts.
- Included a Lightning Pitch event to encourage more business and entrepreneurs to share their big ideas.
- Showcased Newmont's "Mine Next Door" movie highlighting the history of reclamation at the Idarado Mine and Treasure Tunnel.
- Provided digital archive of the presentations as videos, through Youtube, providing a growing resource of mining and reclamation practices for southwest Colorado and other areas.

Attendees were given evaluations to complete regarding the success of the 2019 San Juan Mining and Reclamation Conference and Silverton Innovation Expo. Of the 135 participants, 30 evaluations were collected with very

positive results. The evaluations highlighted the strengths of the event as the educational and informational field tours, the time for networking, and the importance of the collaboration.

At least 75 attendees stayed in Silverton, most reported staying three nights, with a small amount staying only two and even fewer staying four nights. Attendees reported spending \$500-\$700 in Silverton during the events. With 125 attendees traveling to Silverton, we estimate a total of \$63,000 economic input into local businesses.

We thank Southwest Water Conservation District for your support and helping us to tackle the challenges associated with acid mine drainage. The Expo helps move the needle on this critical issue. It also helps us to look forward and to continue to learn from and improve this event. We plan to build on our current momentum to make significant leaps in addressing the challenges. We appreciate the opportunity to partner with Heritage toward these goals.

With Gratitude,

A handwritten signature in black ink, appearing to read "M. Bidwell". The signature is fluid and cursive, with the first letter "M" being large and prominent.

Marcie Bidwell | Executive Director