Gunnison Basin Implementation Plan - Updated Project List (09/13/2018)

Note: relative rank within each tier does not indicate a higher priority (Legend provided below table)

Ref#	Tier	Project	Project Sponsor	Use Type	Basin Goals	Point of Contact: Name	Purpose
3	1	Cole Reservoirs #4 and #5	Bill Martin	AG	1, 3, 8	Bill Martin	This project involves the repair or replacement of the main headgate diversion from Surface Creek and cleaning of the associated inlet ditch. It would preserve and restore the use of an important pre-Compact water right.
4	1	Crawford Reservoir System Optimization Study and Prioritized Conveyance Improvements	Crawford Water Conservancy District	AG	1, 3, 8	Gary Kraai	Improve conveyance, automation, and measurement infrastructure as related to irrigation delivery systems.
5	1	Doughty #1 - Chipmunk Reservoir	Perry Hotz	AG	1, 2, 3, 8	Perry Hotz	Replace outlet and slightly enlarge existing breached dam to allow storage of full 68 af decree, of which 30 af is pre-Compact.
6	1	Fire Mountain Canal Delivery Efficiency Project	Fire Mountain Canal Company	AG	1, 3, 8	Steve Fletcher	Help meet deficit irrigation water in the North Fork of the Gunnison.
10	1	Overland Reservoir Enlargement (Part 2)	Overland Ditch and Reservoir Company	AG	1, 3, 8	Dave Kunz	Currently the reservoir stores 1,007 AF of an absolute water decree. The projects involves increasing the reservoir's storage to 7,171 AF in order to use a 1902 conditional decree for 971 AF.
11	1	Paonia Reservoir Sediment Removal and Outlet Modification Project (Part 2)	North Fork Water Conservancy District (NFWCD) and Fire Mountain Canal and Reservoir Company (FMCC)	AG	1, 3, 8	Tom Alvey & Steve Fletcher	Paonia Reservoir was designed to store 21,000 AF of water, which is used for irrigation, flat-water recreation, fishing, augmentation, and improved late season flows to the North Fork of the Gunnison. Over the last fifty years, the reservoir has lost 24% of its total capacity due to sedimentation build up. The goal of this project is so investigate long-term sediment management options, with the intent of minimizing future losses and possibly restoring current capacity losses.
13	1	Granby Reservoirs (#5 and #11) Rehabilitation	Granby Ditch and Reservoir Company	MP	1, 3, 8	Brian Thompson	Re-line the outlet pipe and repair valve. Reservoir has over 400 af of pre-Compact water.
15	1	Inventory of Irrigation Infrastructure Improvement Needs - District 40, Upper North Fork	North Fork Water Conservancy District	MP	1, 3, 5, 7, 8	Tom Alvey	Systematically examine and prioritize projects to restore, maintain, or modernize significant agricultural water supply infrastructure. Inventory will target proposed projects to maximize impact on meeting agricultural shortages, preserving existing uses, and in some cases meeting other purposes such as stream connectivity and flow.
16	1	Rehabilitation/Enlargement-28 Reservoirs LCWUA (Part 2)	Leroux Creek Water Users Association	MP	1, 3, 8	Tom Alvey	Already have priority list of most needed repairs. Some dam repairs begun (Hanson and Miller/Holt reservoirs). Need funding for next series of repairs. Plan is to ultimately rehab all reservoirs in system to allow for another 100 yrs.
17	1	Somerset Diversion Improvement	Delta Conservation District/Somerset Domestic Waterworks District	MP	1, 3, 4, 5	Mike Drake	The purpose of this project is to improve the efficiency of the diversion, reduce the intake of sediment, improve fish and boater passage/safety, and improve the river/riparian habitat. The second purpose is to develop additional public access to the North Fork of the Gunnison River between the Paonia Reservoir and Paonia.
18	1	Environmental/Recreational Project Identification and Inventory - North Fork Region	The Conservation Center	NC	1, 5, 7	Jake Harter	Investigate the feasibility of implementing specific projects targeted towards nonconsumptive focus segments.
	1	Trio Reservoir Dam Repair	Shepard Family Trust	AG	1,2,3,8		Slide on corner of dam and seepage issues. Est. repair cost of \$100k. Currently restricted.
	1	Knox Reservoir Dam Repair	Knox Reservoir Owners	AG	1,2,3,8		Leaks through the dam toe. Engineering complete. Piezometers and drain ditches installed.
	1	Leon Reservoir Outlet Repair	Leon Ditch and Reservoir Company	AG, MP	1,2,3,48	Jerry Figueroa	Tunnel repairs on transbasin dam. 2000k af of pre-Compact storage.
	1	Deep Ward Rservoir	Grand Mesa Water Conservancy District	AG, MP	1,2,3,4 8	Keith Waibel	Major leak in dam face. Est cost of repair \$300k/\$800k.
	1	Big Battlement Reservoir	City of Delta	AG MP	1,2,3,4 8	Bill Chick	Leak on the face of the blind dam. Est. cost \$150k. 240 af of pre-Compact storage.
	1	Beaver Dam Reservoir	Surface Ditch and Reservoir Company	AG	1,2,3, 8	Keith Waibel	Replace dam. 30 af of pre-Compact storage.
	1	Greenwood Reservoir	Greenwood Reservoir Owners	AG	1,2,3,8	Starplace HOA	Repair leak in dam and enlarge to allow storage of full decree. 180 af pre-Compact storage.
	1	Automated Measurement Devices	Grand Mesa Water Conservancy District	AG MP	1,3,8	Austin Keiser	Automation to better manage flow off Grand Mesa. 7 units at \$20k each = \$140k.
19	1	Uncompangre Valley Water Users System Optimization Projects (Canal Lining and Automation, and Reregulation Reservoirs)	Uncompahgre Valley Water Users Association and Others	AG	1, 3, 8	Steve Anderson	This project includes repairing and lining prioritized Uncompander Project canals as well as the re-regulation of 2 reservoirs. The goal is to improve efficiency and help reduce agricultural shortages.
20	1	Project 7 - 10 kAF Raw Storage (Part 2)	Project 7 WA	M&I	1, 4	Adam Turner	Enlargement of existing Fairview Reservoir for net gain of 500 AF. Project includes upgrading outlet structure (or siphon) of existing Cerro Reservoir for useful gain of 800 AF and siting 2 new reservoirs above South Canal to provide hardened supply for one-year out.
21	1	Redlands Pump Modernization and Hydropower Optimization Project	Redlands Water and Power Company	MP	1, 3, 5, 7, 8	Chuck Mitisek	This project involves the replacement of relocation of the main pumps into the tail race area of the current hydro plant to increase power generation capacity and efficiency, while also reducing pumping costs and providing more accurate and reduced diversions.

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22	1	Dillsworth Ditch	Spann Ranches	AG	1, 2, 3, 8	Spann Ranches	Repair the headgate's spill structure, thus improving efficiency of the ditch.
23	1	Meridian Lake Reservoir and Washington Gulch Storage Project	Mt CB Water & San Dist., UGRWCD	AG	1, 2, 3	Mike Fabbre	This project involves enlarging the firm yield of Meridian Lake Reservoir (aka called Long Lake) to a capacity of 1,381 AF by constructing a pump and pipeline from Washington Gulch.
25	1	Lake Irwin Evaluation and Monitoring Improvement	UGRWCD, CPW, Town of Crested Butte, North Fork WCD	MP	3,4,5,8	Ryan Unterreiner, Frank Kugel, Peter Foster, Tom Alvey	This project is located on the divide between the Upper Gunnison and the North Fork. Flow measurement improvements and remote sensing would provide necessary tools for real-time water administration and allow optimization of storage.
27	1	Elk Home Ditch Improvement, Steuben Creek Flow Restoration	Upper Gunnison River Water Conservancy District	MP	1, 2, 3, 5, 6, 7, 8	Frank Kugel	Pipe the Elk Home Ditch to improve efficiencies, maximize deliveries, minimize maintenance, and enable the Elk Home 2 Ditch water rights to help baseflows (and a population of Colorado Cutthroat Trout) in Steuben Creek by not being diverted.
32	1	City of Ouray Water Efficiency and Conservation Plan	City of Ouray	M&I	1, 4, 8	Peter Foster, Carol Viner	The Water Efficiency and Conservation Plan outlines a plan for updating aging infrastructure and identifies areas in which conservation is both feasible and economical – critical to the development of the City of Ouray.
33	1	Ouray County Upper Uncompahgre Basin-Wide Water Supply & Augmentation Plan	Ouray County	M&I	1, 2, 4, 8	Peter Foster, Marti Whitmore	Creation of a regional augmentation plan to serve a variety of water uses in the Upper Uncompangre Basin without adverse impacts to existing uses.
37	1	NoChicoBrush	Trout Unlimited and CRWCD	MP	1, 2, 3, 8	Steve Shrock Dave Kanzer Cary Denison	The project incorporates system improvements, including solutions such as canal lining, piping, on farm/system storage, and system optimizations as well as more multipart improvements such as increased hydroelectric production, and on- farm efficiency projects.
38	1	Gunnison Basin Selenium Management Plan and Gunnison Basin Selenium Task Force	USBR and River District	NC	1, 3, 6, 8	Leslie McWhirter, Dave Kanzer, Sonja Baca	The goal of the Selenium Management Plan and Task Force is to reduce selenium concentrations in the Lower Gunnison River Basin, thus improving water quality and helping in the recovery of federally listed endangered fish.
39	1	Colorado River Storage Project - MOA Projects	USBR & River District	MP	1, 3, 6, 8	Dave Kanzer, Ted Dunn	The Upper Colorado River Basin Fund MOA projects encompass a range of projects throughout Colorado. The projects pertinent to the Gunnison Basin that are not already included in the Gunnison Basin Implementation Plan Project List as individual projects are the Bostwick Park Project, Paonia Project and Smith Fork Project.
41	1	Improvements to Red Mountain Ditch	City of Ouray and other parties	MP	1, 3, 4, 8	Peter Foster	This project includes piping, shaping and lining of the ditch to improve stability and carrying capacity, and the installation of waste gates to protect the ditch from overtopping and installation of improved measuring devices.
42	1	Water Bank Working Group	SWWCD, CRD, TNC, State of Colorado	MP	1, 2, 3, 8	Chris Trees, Sonja Chavez Taylor Hawes	Increase certainty across all sectors and reduce the potential for crises by working to delay, minimize, or prevent a compact shortage, and in the event of a shortage, operate to allow certain post-compact uses to continue. The Water Bank uses a market-based approach to accomplish this by compensating willing water rights owners to fallow or deficit irrigate their fields and then use this water towards Colorado's obligations under the Colorado River Compact.
44	1	Weather Modification Program Enhancements	UGRWCD, Gunnison County, CRWCD	MP	1, 3, 4, 5	Frank Kugel, Dave Kanzer	Enhance weather modification programs by installing remote generators. Build on recent research demonstrating how to maximize the effectiveness and efficiency of weather modification. Increase snowpack and resulting water supply within the basin.
87	1	Prioritized Conveyance Improvements and System Optimization Planning Study	Bostwick Park Water Conservancy District	AG	8	Allen Distel Dave Kanzer	The project incorporates improvements to conveyance, automation, and measurement infrastructure as related to delivery systems.
100	1	Project 7- 10 MGD Water Treatment Plant at Ridgway Reservoir	Project 7 WA	M&I	4	Adam Turner	Build and maintain 10 MGD of surface water treatment for a backup source to the Gunnison river water that supplies the main WTP upon which 46,000 people rely for daily needs.
101	1	Youngs Creek #3 Dam	Youngs Creek Reservoir Co	AG	1,3,8	Bob Morris	Outlet pipe on the reservoir needs to be repaired with a liner.
102	1	Fruitgrowers Reservoir	Orchard City Irrigation Dist	AG	1,3,8	Jeff Wick	Replace the outlet gates in the dam as required by BuRec
103	1	Dry Creek Transfer Ditch	Orchard City Irrigation Dist	AG	1,3,8	Jeff Wick	Diversion Structure is inoperable due to landslide. Needs new diversion structure at different location.
45	2	Duke Stomp	North Fork Water Consequence	AG	8	Tom Alvey	
46	2	Electric Mountain Reservoir	North Fork Water Conservancy District	AG	8	Tom Alvey	
47	2	Horse Ranch Reservoir	Dion & Dixie Luke	AG	8	Dion & Dixie Luke	Conditional storage right for 12,000 acre ft., adjudication 3/31/06, appropriation date of 3/3/04. Site is on Gunnison National Forest land and would flood part of Kebler Pass Road.
48	2	Poison Gulch Reservoir	Grand Mesa Water Conservancy District	AG	2	Austin Keiser	New reservoir construction.
49	2	Smith Pasture	2.50.00	AG	8	Tom Alvey	
50	2	Snowshoe	West Elk Mine	AG	8	Kathy Welt	Project includes enlarging and lining a feeder ditch, and possibly enlarging the reservoir itself.

Ref#	Tier	Project	Project Sponsor	Use	Basin	Point of Contact:	Purpose
		,	,	Type	Goals	Name	1.57
51	2	Cactus Park Reservoir	Grand Mesa Water Conservancy District	MP	2, 3, 7	Austin Keiser	Lower elevation reservoir intended to capture early runoff and store extra flow during off peak use. It will be used in concert with the West Fork Reservoir.
52	2	East Beckwith Enlargement - Lost Lake Reservoir	Fire Mountain Canal, North Fork Water Conservancy District	MP	8, 5	Tom Alvey	
53	2	Scotts Pasture Reservoir	Grand Mesa Water Conservancy District	MP	2	Austin Keiser	New reservoir construction.
54	2	West Fork Reservoir	Grand Mesa Water Conservancy District	MP	2, 3, 7	Austin Keiser	A new lower elevation reservoir intended to capture early runoff and store extra flow during peak use.
55	2	Brush Creek Reservoir	Trampe Ranches and Spann Ranches	AG	1,3,8	Bill Trampe	Development of two on-channel reservoirs (Farris Creek Reservoirs 1 and 2) on Farris Creek. These reservoirs would provide late season supply to irrigation diversions both upstream and downstream on Slate River.
56	2	Ridgway Ditch Pipeline	Town of Ridgway	MP	1, 3, 4, 6, 8	Joanne Fagan	This project will protect and improve raw water quality, reduce seepage and evaporation losses, and more efficiently transport the Town's water from the diversion on Beaver Creek to Lake Otonowanda.
64	2	Farmers Ditch	North Fork Water Conservancy District	AG	1,2,3,8	Tom Alvey	
65	2	Water Conservation Plan for the Upper Gunnison Basin	Upper Gunnison River Water Conservancy District	M&I	1, 4	Frank Kugel	Enable communities of the Upper Gunnison Basin to reduce municipal and industrial water consumption by 20 percent by 2030
66	2	Gunnison River Pump Station	Orchard City Irrigation Dist	AG	1,3,8	Jeff Wick	Existing water right faces abandonment. Construct new diversion at confluence with Dry Creek.
67	2	Surface Creek Control Reservoir	Grand Mesa Water Conservancy District	MP	1,3,8	Austin Keiser	Construct regulating reservoir on Surface Creek downstream of USFS property.
58	3	Alfalfa Ditch	Alfalfa Ditch Company	AG	7	Russ Reger	The project will improve conveyance by approximately 3 miles of the ditch.
59	3	Beaver Reservoir	Surface Ditch and Reservoir Company	AG	2, 7	Keith Waibel	Reconstruct the reservoir.
60	3	Big Ditch	Big Ditch Company	AG	7	Robert Morris	The project will improve conveyance by approximately 1 mile of the ditch.
61	3	Boulder Park Reservoir	Hart Basin Ranch	AG	2, 7	Donnie Hebert	This reservoir needs to be completely rebuilt with a new dam, headgate and outlet pipe.
62	3	Butte Ditch	Butte Ditch Company	AG	2, 7	Jeff Wick	The project will improve conveyance by approximately 5 miles of the ditch.
63	3	Cole Reservoir #2		AG	8		The reservoir's outlet valve needs repairs, coupled with leaks in the water pool area.
65	3	Fogg Ditch	Fogg Ditch Company	AG	2, 7	Jeff Widner	The project will improve conveyance by approximately 5 miles of the ditch.
66	3	Forrest Ditch	Forrest Ditch Company	AG	2, 7		The project will improve conveyance by approximately 8 miles of the ditch.
67	3	Fruitgrowers Reservoir Pumpback	Grand Mesa Water Conservancy District	AG	2, 7	Austin Keiser	Project will pump water from Gunnison River under a 20 cfs decree held by OCID to fill and maintain water levels in Fruitgrowers Reservoir.
68	3	Fruitland Irrigation Ditch - Upper and Lower Tunnels	Fruitland Irrigation Company	AG	2, 7	Danny Todd	Project will repair upper and lower tunnels (total length is 1/2 mile)
69	3	Granby Ditch	Granby Ditch and Reservoir Company	AG	2, 7		Pipe approximately 2 miles of the ditch where leaks are present.
70	3	Greenwood Reservoir	Private Owners	AG	2, 7		Leaks need to be repaired, thus requiring a partial rebuilding of the reservoir.
71	3	Highline		AG			
72	3	Last Chance Reservoir	Town of Cedaredge	AG	2, 3		
73	3	Little Giant Reservoir	Town of Cedaredge	AG	2, 3		
74	3	Little Jonah Reservoir	Town of Cedaredge	AG	2, 3	Com. Kroni	
75	3	Prioritized Conveyance Improvements and System Optimization Study	Crawford Water Conservancy District	AG	8	Gary Kraai Dave Kanzer	The project incorporates improvements to conveyance, automation, and measurement infrastructure as related to delivery systems.
76	3	Rogers Mesa Risk Project	North Fork Water Conservancy District	AG			
77	3	Ryan Reservoir	Robert Morris	AG	2, 7	Robert Morris	The size of the reservoir needs to be increased in order to hold the decree.
78	3	Stewart Canal HG		AG	8		
79	3	Surface Creek Reservoirs	Grand Mesa Water Conservancy District	AG	3, 5, 8		Project includes the rehabilitation of 13 breached dams.

Ref#	Tier	Project	Project Sponsor	Use Type	Basin Goals	Point of Contact: Name	Purpose
80	3	Trickle Ditch	Trickle Ditch Company	AG	2, 7	Doug Wist	The project will improve conveyance by approximately 2 miles of the ditch.
81	3	Weir and Johnson	Private Owners	AG	2, 7		The project will improve conveyance by approximately 2 miles of the ditch.
82	3	West Reservoir #1 Outlet Pipe Replacement	West Reservoir and Ditch Company	AG	3, 8	Nick Hughes	West Reservoir is currently under a no fill restriction from the State engineers office because of concerns about a deteriorating outlet pipe. The owners propose to replace the existing pipe and restore the reservoir to use, thus helping preserve a pre-1922 water right.
83	3	Zig Zag Reservoir	Town of Cedaredge	AG	2, 3		
84	3	Doughty #2 - Slide Rock Reservoir	Town of Cedaredge	MP	2, 3, 7	Town of Cedaredge	This project includes reconstructing and repairing leaks in slide rock.
85	3	Leon Lake Reservoir	Leon Lake Reservoir Company	MP	7		The project will repair a damaged outlet tunnel which is severely restricting flow.
86	3	Rebuilding Diversion Structure and Fish Screen for Benefit of CO CTT		NC	5		
88	3	Town of Olathe Pipeline and Reservoir	Town of Olathe	MP	3, 4		Olathe is at the juncture of trying to address the best use of some of their water rights which have multiple associated uses. The project will help them decide the best use of the water for the district - possibly including system rehabilitation.
89	3	Uncompahgre Watershed Planning Partnership - Planned Process to Develop Remediation Plans		NC	5		
90	3	City of Grand Junction - Raw Flow Line	City of Grand Junction	M&I	4	Rick Brinkman	This project will help replacing 46,000 linear feet of Raw Water Flow Line for the City of Grand Junction.
91	3	Planned Native Fish Population Restoration Project		NC	5		
92	3	East River Number 2	Spann Ranches	AG	8		The ditch needs repair and this project helps achieve this goal.
93	3	Leaps Gulch Reservoir	UGRWCD	AG	8		
94	3	Bank Stabilization & Fish Habitat Improvement		NC	5		
95	3	Curecanti NRA Cottonwood Gallery		NC	5		The relationship between discharge and cottonwood gallery is presently being monitored; however no data exists to support the idea of flow protection. This project involves such data collection and analysis.
96	3	River Restoration, Mine Remediation	Coal Creek Watershed Coalition	NC	5	Zach Vaughter	
97	3	Bank Stabilization & Fish Habitat Improvement		NC	5		
98	3	Lake Fork Trail Stair Project		NC	5		Install better stream access to reduce human impacts.
99	3	Expansion/Enlargement of the Ouray Hydro Plant Dam and Reservoir	City of Ouray	MP	4,8		The City of Ouray wishes to work with the owner of the hydroelectric plant to expand the capacity of the reservoir that provides the water for the plant.

101	3	Colorado River Basin Salinity Control Projects (Colorado River Basin Salinity Control Act of 1974)	USBR & River District	NC	6	Dave Kanzer	
102	3	Planned Mining Remediation		NC	5		
103	3	Lake Fork Fish Enhancements		NC	5		
	3	Cedar Mesa Ditch / Lone Pine Ditch	Grand Mesa Water Conservancy District	AG	1,2,3,6, 8	Jerry Figueroa	Pipe and combine the two ditches for the first five miles to reduce water loss and improve the quality of water in both ditches.
	3	Cedar Mesa Ditch	Grand Mesa Water Conservancy District	AG	1,2,3 8	Jerry Figueroa	Pipe and pressurize the last 5 miles of ditch to reduce salt and selenium and impove irrigation efficiency and reduce water loss.

LEGEND

Sponsor Type - Single Entity (SE), Partnership (P)

Use Type – Agriculture (AG), Municipal and Industrial (M&I), Nonconsumptive (NC), Multipurpose (MP)

Project Type – Structural (S), Nonstructural (NS)

Tier 1 - Implementation is likely feasible by 2020, and project will clearly meet Basin Goals

Tier 2 - Implementation likely not feasible by 2020, but would excel at meeting Basin Goals. Also may have important conditional water rights and/or completed planning efforts

District

Tier 3 - Implementation is likely not feasible by 2020; the project is in more preliminary stages of planning and/or may meet Basin Goals to a lesser degree

1. Protect existing water uses in Gunnison Basin

2. Discourage the conversion of productive agricultural land to all other uses within the context of private party rights

3. Improve agricultural water supplies to reduce shortages

Ref#	Tier	Project			Basin Goals	Point of Contact: Name	: Purpose
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- 4. Identify and address municipal and industrial water shortages
- 5. Quantify and protect nonconsumptive water uses
- 6. Maintain or, where necessary, improve water quality throughout the Gunnison Basin
- 7. Describe and quantify the beneficial relationship between agricultural and nonconsumptive water uses
- 8. Restore, maintain, and modernize critical water infrastructure, including hydropower
- 9. Maintain active and comprehensive public education process about water resources in the Gunnison Basin

Point of Contact – Person well versed with project; responsible for providing information to BIP consulting team in sufficient detail to complete the Project Template

Purpose - Brief description of the project/objective

*Additional technical analysis has been completed with the results provided in Appendix 12 - Appendix 17.