



COLORADO

**Colorado Water
Conservation Board**

Department of Natural Resources

Gunnison Basin Education Action Plan 2021-2022

Gunnison River Basin Roundtable

Kathleen Curry, Chair

Dave "DK" Kanzer, Outgoing liaison - PEPO Committee

Background: The Public Education, Participation and Outreach (PEPO) committee was legislatively created as part of the Interbasin Compact Committee (IBCC) under HB05-1177. The Gunnison Basin Roundtable PEPO Liaison, Dave Kanzer, together with the GBRT PEPO Workgroup, developed this Education Action Plan (EAP) for 2021-2022 in support of Colorado Water Plan goals and objectives and consistent with the Gunnison Basin Implementation Plan (GB BIP) to provide water education for current and future Coloradoans with a focus on Gunnison River Basin topics.

1. Basin Educational Vision/Goals (tiered by priority and available funding):

Please include how Basin EAP will help achieve goals in the CO Water Plan to inform/educate an additional 250,000 Coloradoans by 2050?

TIER 1 - using existing funding (up to \$6,500 per year)

To address the needs of the Colorado Water Plan (CWP) to inform and educate current and future Coloradoans regarding important water issues, the GBRT PEPO will:

- a) Continue and expand efforts to develop and distribute water resource information related to the Gunnison River Basin (GRB), including, but not limited to, regional and basin-specific water supplies and demands, related hydrology and watershed information, water quality influences and challenges and opportunities facing citizens.

This primary educational effort will assist in meeting the vision and goals of the CWP and the supporting goals and objectives as described in the GB BIP by making pertinent water data and information readily available to Coloradoans via the following methods:

- i. Operating and maintaining the GunnisonRiverBasin.org website
- ii. Actively managing multiple integrated digital social marketing platforms (*i.e.*, Twitter and Facebook)
- iii. Creating and distributing a monthly GunnisonRiverBasin electronic newsletter (and archived on publicly-accessible website(s) and social media)

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These educational platforms and delivery mechanisms will engage and inform Coloradoans by:

- a. Promoting relevant water news and events in the Gunnison River
 - b. Organizing and distributing information related to Gunnison Basin Roundtable meeting activities, agendas, minutes and events;
 - c. Publicizing relevant events and maintaining electronic calendar of events related to water organizations including, but not limited to, water conservancy districts (Upper Gunnison, North Fork, Crawford, Grand Mesa, Tri-County and water user groups and associations Uncompahgre Valley, Upper Uncompahgre River Watershed, and others);
 - d. Highlighting and explaining important news, hydrological conditions and reservoir operations for major reservoir systems, including by not limited to, the Aspinall Unit, Taylor Park, Ridgway, Paonia and Crawford;
 - e. Providing a public venue or ‘electronic bulletin board’ for informational postings for watershed-related groups such the Coal Creek Watershed Coalition, Friends of the River Uncompahgre, Gunnison Basin & Grand Valley Selenium Task Force, High Country Citizens’ Alliance, Lake Fork Valley Conservancy, Lake Fork Watershed Working Group, Ridgway Ouray Community Coalition, Uncompahgre Watershed Partnership and the Western Slope Conservation Center, as desired and appropriate;
 - f. Publicizing river festivals and river events, such as in those held in Gunnison, Ridgway, Hotchkiss
 - g. Advertising and partnering with sponsors of public water educational meetings, such as the periodic “State of the River” meetings convened by the Colorado River District;
 - h. Collaborating with K-12 educators, especially those involved with water-related activities (e.g., seminars, field trips, and public forums)
 - i. Partnering with related higher education facilities such as the Water Center at Colorado Mesa University, Western Colorado University’s Environmental and Sustainability Program (Water emphasis section) and Water Education Colorado ([WEco](#)) to share pertinent water resource information
 - j. Participating in state and regional activities that are consistent with guidance provided by the Statewide Water Education Action Plan ([SWEAP](#))
- b) This abovementioned water resource information is to be customized and marketed to several distinct audiences, including:
- i. basin residents, state citizens, community leaders and decision makers
 - ii. the “next generation” of Gunnison Basin water users such as K-12, high school and secondary education students as well as young farmers / ranchers of the Gunnison River Basin;
 - iii. experienced and new water users in all sectors, including municipal and industrial water providers;
 - iv. current and potential GBRT participants and WSRF applicants, especially those that are focused CWP and GBIP activities;
 - v. new target audiences, as appropriate, that may be identified

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- c) The abovementioned water resource information will support education related to current and emerging water resource issues, for example -
- a. understanding and protecting historical water uses
 - b. water quality (e.g., selenium, nutrients, salinity, bacteria, etc.)
 - c. hydro-climatic influences and related impacts (e.g., climate variability, warming and dust-on-snow) that directly affect water resources in the Gunnison Basin
 - d. concepts and topics that relate to new and evolving regulations, permitting, river restoration, groundwater hydrology, drought planning,
 - e. consumptive and non- consumptive needs assessments
 - f. management of public lands and watershed areas that impact Gunnison Basin water resources

TIER 2 - Aspirational Goals (subject to additional future grant funding)

To realize these Tier 2 goals and objectives, it is anticipated that, based upon GBRT direction and support, a future funding request may be made (see proposed Tier 2 Budget Table)

These aspirational visions / goals include:

- Creation of an updated public representative survey of current water education levels
- Use of new survey results and intercomparison to previous survey baseline results to preform ‘gap analysis of water education / intelligence
- Analyzing and optimizing digital media traffic and readership for the website and each of the social media platforms;
- Create updated comprehensive EAP strategy to address ‘gaps’ identified in survey and digital marketing analyses
- Creation of targeted marketing strategy with budget for boosting and sponsored advertising, as appropriate
- Creation and distribution of concise one-page fact sheets on important basin issues
- Updating and re-distributing the revised booklet: “The Gunnison River Basin, A Handbook for Residents ver. 2021” (https://www.coloradomesa.edu/water-center/documents/Gunnison_Basin_Special_2013.pdf);
- Production of topical snippets from updated handbook for use in monthly newsletters and weekly Twitter feeds and Facebook posts to motivate and engage and influence additional visitors to website and social media;
- Creation of customized and editable web-based templates;
- Collaboration with WECO / SWEAP to create Gunnison Basin focused educational curricula and to support and local water leaders program / curriculum;
- Create monthly GBRT member profiles (i.e., rotate the highlighting of a member in every newsletter, thus making the GBRT more personal and accessible;
- Expand and create a focused Drought Contingency Program content for webpage and social media focused on ‘what does it mean for you - the public - for example cloud seeding, demand management, coordinated reservoir operations as part of DCP issues)

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How many people do you estimate your engagement efforts will reach?

It is recognized that public education and engagement is a key tool that can be employed to help with CWP messaging and to assist in managing projected impacts by helping to change public perception and associated water use behavior.

As such the GB EAP is designed to maximize potential engagement.

As of 2013, it was estimated that the Gunnison River Basin was home to nearly 120,000 inhabitants and by 2050 that number is could to increase to 250,000, potentially exacerbating water quantity and quality issues and challenges.

It is extremely difficult to estimate how many people the GB EAP could reach within the basin, but if we were to estimate a market penetration of 5-15%, it is possible that the EAP could engage upwards of 6,000-18,000 people per year. Realistically, the GBRT EAP would grow the program annually to exceed this initial target.

Background (from CWP): The largest cities in the basin are Montrose (pop. 14,153), Delta (pop. 7,827) and Gunnison (pop. 5,271). Although small in comparison to statewide numbers, the residents and water users in the Gunnison Basin play an important role in the Upper Colorado River as the Gunnison River is its largest tributary.

As such, the Gunnison River Basin potentially has an essential role in influencing outcomes in the State of Colorado, the UCRB and all of the basin states. The basin stretches over 8,000 square miles of western Colorado, extending from the Continental Divide to the confluence of the Gunnison and Colorado Rivers near Grand Junction, contributing approximately 13-15% of the natural flow to the Colorado River at Lee Ferry.

By 2050, the Gunnison Basin is projected to increase in municipal and industrial (M&I) water demand between 16,000 and 23,000 acre feet (AF) when considering additional conservation (passive). As outlined in the GB BIP, it is essential that these new uses do not significantly impact existing historical uses - it is recognized that this is a central challenge for the GB EAP.

How is the Basin structured to implement the EAP? (List of Individuals/organizations Implementing EAP):

In conjunction with and under the guidance of the GBRT membership, it is anticipated that the PEPO committee of the GBRT is the principal entity responsible for designing and implementing the EAP. By design the GBRT represents a broad cross section of interested parties in all sectors of the water community and as such, the GBRT is the proper entity to implement the elements of the EAP. The list of individuals / organizations implementing the EAP can be found on the membership roster

<https://dnrweblink.state.co.us/cwcbsearch/ElectronicFile.aspx?docid=211762&dbid=0>

How will programs be assessed/monitored?

The EAP and associated outreach strategy relies upon standard assessment and analytical methods and techniques, for example web based tools provided by Google and social media hosts. This includes examining and understanding current readership via website and social media analytics. While it is recognized that these analytics are very helpful to determine raw numbers of participants and engagement, such metrics are somewhat

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limited, at present. For example, the PEPO liaison has observed strong growth in readership / engagement overall, but at this point without additional independent evaluation and marketing analysis it is difficult to understand the nature of the readership and depth of engagement.

What are the key metrics that you use to track engagement?

At this point formal metrics have not been established to accurately monitor and assess EAP engagement. In the Tier 2 goals, a survey program has been identified to update previous survey to determine quantified changes since the last baseline and to establish a new baseline to assist in evaluating the effectiveness of the 2020-2021 EAP, going forward.

Critical issues currently in the basin that need to be addressed over the EAP planning period?

- Where possible, please reference your BIP and/or specific IPPs.
- How would you design your programs to target these issues?

As outlined in the GB BIP, protection of historical uses is one of the primary challenges facing residents and water users in the Gunnison River Basin. Specifically, it is essential that projected new uses and population growth identified in the CWP and other Colorado River Basin studies (USBR Colorado River Water Supply and Demand Study, 2012) do not impact existing historical water uses and the interconnected economy and way of life of the Gunnison River Basin.

The GB BIP and CWP indicate that agricultural water demands are projected to be larger than available supplies by 2050 and shortages of approximately 116,000 AF per year may occur and at the same time, based on projected population growth, the demand for drinking water and water for industrial purposes in the Gunnison Basin is projected to increase 16,000 and 23,000 acre feet (AF) by 2050. (BIP, pg 60).

If the GB BIP, and associated EAP, is successful it is anticipated that “these increased needs are generally expected to be managed with sufficient existing supplies and/or planned projects” (pg 6 BIP Executive Summary). This anticipates some changes and deviations from historical water use and social behaviors.

The Gunnison BIP describes several ways to improve water supply reliability and to minimize the loss of agriculture lands and water to other uses by rehabilitating key water supply infrastructure and by developing public education programs (Table 4, Executive Summary).

As identified above in the Tier 1 goals / visions, the GB EAP will focus on addressing these identified critical issues by:

- a. Quantifying and explaining the importance of historical water uses
- b. Connecting water quality (e.g., selenium, nutrients, salinity, bacteria, etc.) to current and future water uses

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- c. Explaining hydro-climatic influences and related impacts (e.g., climate variability, warming and dust-on-snow) that directly affect water resources in the Gunnison Basin
- d. Linking current and future water uses to new and evolving regulations, permitting, river restoration, groundwater hydrology, drought planning, and such
- e. Describing how current and future water uses are related to consumptive and non- consumptive needs assessments
- f. Investigating and reporting on management plans of public lands and watershed areas that impact Gunnison Basin water resources

In summary, the GB EAP will endeavor to support the protection of historical water uses in the Gunnison River Basin by addressing the highlighted goals/objectives/visions from the GB BIP:

- Preserve open space
- Maintain agricultural viability
- Provide for in-basin augmentation
- Address compact delivery impacts to existing and future in-basin water rights
- Ensure endangered species' needs do not negatively impact future in-basin uses
- Ensure adequate water for future needs
 - M&I
 - Agricultural
 - Environmental
 - Recreational

Identify the audience the EAP will be targeting:

- What new group (stakeholders/general public) are you hoping to engage?

As identified in the Tier 1 goals / visions, the EAP will focus on addressing identified critical issues and will customize and marketed to several distinct audiences. In addition to the basin residents, state citizens, water users, and other potential 'water insiders,' the EAP will endeavor to engage uninvolved, new water users and the "next generation" of Gunnison Basin water 'inhabitants' such as K-12, high school and secondary education students as well as young farmers / new ranchers, recreators, retirees, incoming 'transplants' that, in one way or another, are new to the traditional water uses in the Gunnison River Basin.

These new users and potential marketing targets would be in addition to the already identified targets that include:

- i. experienced water users, managers and citizens and in all sectors, including municipal and industrial water providers;
- ii. current and potential GBRT participants and WSRF applicants, especially those that are focused CWP and GBIP activities.

Looking forward, there may be additional potential new target audiences that are yet to be identified.

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Budget: How will \$6,500 be spent? If possible, please include if your basin is using other funding sources to implement the EAP. (Please create table or attach an excel spreadsheet with EAP submittal)

The visions, goals and objectives as scoped currently exceed the available funding. The budget table outlined below is divided into two sections; section 1 outlines those activities related to the available funding of \$6,500. Tier 2 would need additional funding; this is shown as additional funding needs as shown in the subsequent table. The amount of \$15,000 shown in Tier 2 is above and beyond the currently provided \$6,500/year support level.

2020-2021 PEPO Budget (TIER 1)

TASK	DESCRIPTION OF TIER 1 ACTIVITIES	BUDGET
1	K-12 Water education (i.e, transportation assistance)	1,000
2	Website operation and maintenance - Hosting fees, software updates, content management, including updating links, curating and posting news articles, operational updates, GBRT updates, agendas; soliciting info on water-related events to ensure that calendar of events is updated For planning - this is anticipated to be 10 hrs/month @ \$35/hr = \$4200/year	4,200
3	Digital and related social marketing (primarily Facebook, Twitter) For planning - this is anticipated to be 5 hrs/month @ \$35/hr = \$2100/year	\$2,100
4	Newsletter, monthly, creation, distribution, database maintenance For planning - this is anticipated to be 16 hrs/month @ \$25/hr = \$4800/year	\$4,800
	Subtotal:	\$11,100
	In-kind and cash contributions - Colorado River District and committee members	(\$4,600)
	Total:	\$6,500

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2020-2021 PEPO Budget (TIER 2)

TASK	DESCRIPTION OF TIER 1 ACTIVITIES	BUDGET
1	Support additional K-12 Water education (transportation assistance for 3 school districts; 3x\$1000)	\$3,000
2	Enhanced website content development and O&M - including optimization and strategic tagging; For planning - this is anticipated to be an additional 10 hrs/month @ \$35/hr = \$4200/year	\$4,200
3	Enhanced coverage of GBRT meetings, grant projects and additional integrated public meetings with refreshments and streaming. For planning - this is anticipated to be an additional 15 hrs/month @ \$35/hr for two months for 2 meetings - one in upper basin / one in lower basin, room rental and food / drinks (\$2000 per meeting) = \$5,050/year	\$5,050
4	Enhanced social media optimization and integrated targeted campaigns with traditional media (newspaper, radio, and local TV) For planning purposes, anticipated to be 15 hours/month @ \$35/hour) plus targeted advertisements and submitted news articles (\$1000)	\$2,050
5	Newsletter enhancement with targeted distribution based upon carefully curated database active management and maintenance, with additional graphics and analytics (20 hours month @ \$35/hr)	\$700
6	Design, implement and analyze an updated survey to measure water resource intelligence aka what WECO calls "water fluency"	\$5,000
		\$20,000