

Initial Draft

No/Low Regrets Action Plan – Nonconsumptive

Prepared for June 5, 2013 IBCC Meeting



Implement Nonconsumptive Projects



Implement Nonconsumptive Projects

There is statewide acknowledgement that supporting environmental and recreational attributes is important for local economies, quality of life, and for Colorado's image. Through the work with the Interbasin Compact Committee (IBCC), it has become clear that the basin roundtables must do much of the work needed to protect nonconsumptive needs in their Basin Implementation Plans, with proper support by the Colorado Water Conservation Board (CWCB). In addition, meeting nonconsumptive needs will require some state assistance, such as targeted funding and technical support.

Environmental and recreational values exist at the reach level, the basin level, and across the state. The statewide environmental benefits provided by Colorado's streams and lakes, as well as the \$10 billion that recreation contributes to the state economy, requires that the state play a role in protecting nonconsumptive needs. For example, for the majority of species that are not contained within a single basin, the state must ensure that Basin Implementation Plans, taken together, meet the needs of such species statewide. Similarly, while there are hotspots for certain kinds of recreation (e.g., rafting on the Upper Arkansas River), it benefits the state to have healthy multi-faceted recreational economies on both the Front Range and on the West Slope.

To support these nonconsumptive values, the IBCC developed several principles, which were used as a guide in developing the potential future actions outlined below. These principles were developed as part of the IBCC's 2010 Letter to Governor Ritter and Governor-Elect Hickenlooper ("Letter to the Governors") and are outlined in the excerpt below.

It is clear that we will need to agree to protecting existing water bodies that are in good health, and to restoring important environmental, wildlife, and recreational values, while we also support the development of properly mitigated water supply projects. In meeting Colorado's non-consumptive water supply needs it is important to: (a) protect identified environmental and recreational values and restore environmental values; (b) promote recovery and sustainability of endangered, threatened, and imperiled species; (c) protect and enhance economic values to local and statewide economies derived from environmental and recreational water uses; (d) pursue projects and other strategies, including the CWCB's Instream Flow (ISF) Program, that benefit consumptive water users, the riparian and aquatic environments, and stream recreation; and (e) recognize the importance of environmental and recreational benefits derived from agricultural water use, storage reservoirs, and other consumptive water uses and water management.

Completed and Ongoing Actions	Potential Future Actions
<ul style="list-style-type: none"> • Implement ESA recovery programs • Implement basin nonconsumptive projects • Develop draft Nonconsumptive Toolbox • Put Wild & Scenic alternatives in place • Implement CWCBS ISF program • Implement Colorado Watershed Restoration Program • Implement Species Conservation Trust Fund • Implement Colorado Parks and Wildlife Management Plans 	<ol style="list-style-type: none"> 1) Develop statewide goals and measurable outcomes to incorporate into Basin Implementation Plans <ol style="list-style-type: none"> a) Develop goals and measurable outcomes for federally-listed endangered and threatened species b) Develop goals and measurable outcomes for imperiled species c) Develop goals and measurable outcomes for economically important nonconsumptive uses d) Develop goals and measurable outcomes for multi-purpose projects and methods 2) Pursue projects and methods to meet nonconsumptive needs as part of the Basin Implementation Plans <ol style="list-style-type: none"> a) Develop basinwide goals b) Develop measurable outcomes c) Identify needs and opportunities d) Utilize the decision process to determine projects and methods 3) Track nonconsumptive projects and methods <ol style="list-style-type: none"> a) Conduct nonconsumptive surveys and analysis b) Create web portal c) Use existing database d) Use the Basin Needs Decision Support System (BNDSS) 4) Develop targeted incentives, including funding for projects and methods in the nonconsumptive focus areas <ol style="list-style-type: none"> a) Assess funding needs b) Target existing funding sources and programs to provide enhanced levels of support for implementation of nonconsumptive needs. c) Explore additional incentives, including funding options 5) Develop environmental metrics that can be used to evaluate future projects (see New Supply section) 6) Manage existing storage to benefit recreation and the environment (see Storage section)

1. Develop Statewide Goals and Measurable Outcomes to Incorporate into Basin Implementation Plans

Potential Future Action Purpose(s)

The following guiding principles were developed as part of the “Letter to the Governors” and can be used as a basis for developing nonconsumptive goals and measurable outcomes that have statewide significance. These principles can then be considered by the basin roundtables when they are developing their own goals and measurable objectives. Nonconsumptive goals and measurable outcomes should:

- Promote recovery and sustainability of endangered, threatened, and imperiled species
- Protect and enhance economic values to local and statewide economies derived from environmental and recreational water uses
- Pursue nonconsumptive projects and methods that also benefit consumptive water users

Based upon the above principles, statewide goals and measurable outcomes may be developed for:

- a) Federally-listed endangered and threatened species
- b) Imperiled species
- c) Economically important nonconsumptive uses
- d) Multi-purpose projects and methods

Existing nonconsumptive goals and measurable outcomes should be used when they are available, such as those included in fish recovery programs.

Potential Specific Actions

- a) **Develop goals and measurable outcomes for federally-listed endangered and threatened species:** These goals and measurable outcomes can be based on existing recovery programs for endangered and threatened species.
- b) **Develop goals and measurable outcomes for imperiled species:** Goals and measurable outcomes can be developed for imperiled species. This would include species that are candidates or potential candidates for becoming listed as federally threatened or endangered. These goals and outcomes may be based on Colorado Parks and Wildlife (CPW) management plans, or other plans, such as the Colorado Natural Heritage Program.
- c) **Develop goals and measurable outcomes for economically important nonconsumptive uses:** Identify the most critical areas in the state that derive economic benefit from stream-dependent recreational activities, such as boating and fishing, and develop goals and measurable outcomes that will benefit these areas.
- d) **Develop goals and measurable outcomes for multi-purpose projects and methods:** Identify some of the best opportunities for multi-purpose projects that can benefit both nonconsumptive and consumptive needs. Develop initial goals and measurable objectives for these potential projects. This action relates to one of the recommendations of the IBCC from November 2011: "Identify one or more pilot projects [in each basin] that integrate nonconsumptive with consumptive projects/needs. The pilot ... projects ... [should] clearly meet the nonconsumptive needs gap."

Potential Measurable Outcome

Basin roundtables should incorporate statewide goals and measurable outcomes into their Basin Implementation Plans. Basin Implementation Plans will play a key role in helping Colorado to meet its statewide targets.

Timeframe

Develop statewide goals and measurable outcomes by December 2013.

Partners

CWCB Board and staff, statewide stakeholders interested in nonconsumptive needs, basin roundtables, CPW, U.S. Fish and Wildlife Service (USFWS), endangered species recovery programs, conservation and recreation nongovernmental organizations and businesses.

Background

Opportunities

There are a considerable number of goals and measurable outcomes already developed by various agencies operating in Colorado. Much of this work is summarized in Appendix B of the [Nonconsumptive Toolbox](#).

2. Pursue Projects and Methods to Meet Nonconsumptive Needs as Part of the Basin Implementation Plans

Potential Future Action Purpose(s)

As requested by the IBCC at the end of 2011, CWCB has produced a draft Nonconsumptive Toolbox to help basin roundtables develop the nonconsumptive portion of their Basin Implementation Plans. These plans are meant to address one of the key aspects of House Bill (HB) 1177, which is to "propose projects or methods, both structural and nonstructural, for meeting [the identified] needs" 37-75-104 (2)(c).

Each basin roundtable has determined where their nonconsumptive attributes are and the locations of projects and methods that offer some protection to those attributes. The draft Nonconsumptive Toolbox provides a framework for how to develop and pursue projects and methods to meet each basin roundtable's identified nonconsumptive needs and will build upon Potential Future Action #1.

This potential future action will draw directly from the methodology outlined in the Nonconsumptive Toolbox and allow for the implementation of three other recommendations the IBCC made at its November 2011 meeting, which have been revised and are included below:

- **Develop nonconsumptive implementation plan:** Building on information previously compiled for the Statewide Water Supply Initiative (SWSI) 2010, identify nonconsumptive geographic and/or seasonal gaps and then suggest and prioritize projects and methods that can fill those gaps in a strategic manner. Using the Nonconsumptive Toolbox the projects should identify initial cost estimates, potential partners, and whether any entity has agreed to take the lead.
- **Initiate three to five nonconsumptive projects by the end of 2014:** Each roundtable should use the basin's nonconsumptive IPP list to select and begin to implement three to five nonconsumptive projects or methods that meet the basin's identified nonconsumptive needs by the end of 2014. Thereafter, each basin should implement additional nonconsumptive projects and methods to meet the basin's nonconsumptive needs consistent with the roundtable's Basin Implementation Plan.
- **Technical questions:** Define technical questions related to nonconsumptive needs that continue to need answers for a basin to finalize and implement its Implementation Plan. Basin roundtables can work with staff and the technical team to search the CWCB nonconsumptive database for some answers, e.g., how many projects support a particular attribute, or how a portfolio may affect flows in a given reach, etc.

Potential Specific Actions

The Nonconsumptive Toolbox framework is organized around four steps that provide the resources and information to encourage comprehensive planning for nonconsumptive needs in each basin.

- a) **Develop basinwide goals:** Develop basin-level goals for the mapped attributes identified in the Statewide Nonconsumptive Needs Assessment Focus Area Map.

Example: Maintain enough populations of a native fish in the basin, that the species is sustainable within its range to help prevent additional federal listings.

- b) **Develop measurable outcomes:** Establish quantifiable, measurable basin-wide or sub-basin outcomes for the nonconsumptive goals.

Example: Sustain 10 populations of bluehead sucker in 10 different river locations.

- c) **Identify needs and opportunities:** Using the projects and methods database, identify needs and opportunities for protecting targets and attributes and strategically plan to meet those nonconsumptive needs.

Example: Based on analyses of existing levels of protection and where attributes occur, there are five populations of bluehead sucker that are protected. As a result, the basin has identified five additional populations that need projects and methods to meet its established measurable outcomes.

- d) **Utilize the decision process to determine projects and methods:** Use the decision tree outlined in Figure 6 of the draft Nonconsumptive Toolbox to determine what actions need to be taken to meet nonconsumptive needs and implement projects.

Example: For one of the five locations where protection of bluehead sucker populations is limited, moving through the decision template may result in the determination that reservoir reoperation could achieve desired outcomes.



Basin Implementation Plans

Potential Measurable Outcome

Developing goals and measurable outcomes as part of the Nonconsumptive Toolbox methodology will clarify and define what the nonconsumptive needs are in each basin. The difference between what is currently being protected or restored and the goal/measurable outcome is the "nonconsumptive gap." Basin Implementation Plans will then address unmet nonconsumptive needs.

Additional work will be needed to track whether, how, and when nonconsumptive projects are implemented, which is the subject of Potential Future Action #3.

Timeframe

This work will be incorporated into the Basin Implementation Plans. Drafts are due in January 2015, and the final Plans will be completed by May 2015.

Partners

Basin roundtables will partner with CWCB and the technical team, local nonconsumptive project proponents and experts, water users and providers, and may utilize additional consultants.

Background

Opportunities

The CWCB Board will consider finalizing the Nonconsumptive Toolbox during its July 2013 board meeting. The Toolbox has already been reviewed by the IBCC Nonconsumptive Subcommittee, which

includes members of the nonconsumptive, municipal, and agricultural communities. In addition, a public comment period for the Toolbox ended May 20th, 2013 and the comments received will be summarized for the CWCB Board at its July 2013 board meeting.

3. Track Nonconsumptive Projects and Methods

Potential Future Action Purpose(s)

Tracking nonconsumptive projects and methods is important to determine if goals are being met and whether strategies should be adjusted.

Potential Specific Actions

- a) **Conduct nonconsumptive surveys and analyses:** CWCB could work with the basin roundtables to periodically survey nonconsumptive project and method proponents. This would be similar to the effort taken as part of SWSI 2010, in which CWCB developed a survey to collect information on existing and planned nonconsumptive projects, methods, and studies from nonconsumptive project proponents.
- b) **Create web portal:** Create a web portal or other mechanism that allows proponents to update information about their nonconsumptive projects and methods. A web portal would also allow basin roundtables to track progress on meeting their nonconsumptive needs and would help potential project proponents to understand where there may be opportunities to help meet the needs of their basin.
- c) **Use existing database:** Continue to track the existing and planned projects and methods in the nonconsumptive projects and methods database (see Background section below). The responses from this effort will be added to the database and mapped. As part of this task, the nonconsumptive projects and methods database likely needs to be updated so that it is more user-friendly. This work could be incorporated into the Instream Flow (ISF) decision support system.
- d) **Use the Basin Needs Decision Support System (BNDSS):** Incorporate nonconsumptive needs into the BNDSS, which can be used to track environmental projects. The BNDSS currently consists of a prototype database and tools to assist CWCB staff in the tracking and analysis of consumptive projects and methods required by updates to SWSI. Time series data can be stored for providers and projects, counties, basins, and for the state. Water development projects and processes can be tracked to understand their impact on the water supply gap. Other tools are available to facilitate bulk loads, exports, and quality control of data and to perform a prototype gap analysis. The BNDSS currently houses data collected during the SWSI 2010 process. Data will be updated via input from the basin roundtables, data collected from the HB-1051 process, and other survey methods during the forthcoming SWSI Update and Basin Implementation Plan processes.

Potential Measurable Outcome

Tracking nonconsumptive projects and methods will help determine whether there is progress being made on achieving nonconsumptive goals and measurable outcomes for each basin roundtable.

Timeframe

Ongoing.

Partners

CWCB, basin roundtables, water providers, nonconsumptive project proponents, CPW, USFWS, U.S. Forest Service, Bureau of Land Management, U.S. Environmental Protection Agency, etc.

Background

Opportunities

CWCB staff synthesized information from the nonconsumptive surveys and analyses and compiled it into a nonconsumptive projects and methods database. Studies were included, as they may recommend or inform the implementation of projects or methods that will provide protection or enhancement of environmental and recreational attributes. CWCB and the technical team also supplemented the survey data with information from CWCB's grant programs, the ISF program, and protection guidelines established by public and private land management agencies.

Basin roundtables can access the nonconsumptive projects and methods database and work with CWCB staff to ask questions about the locations of planned and existing projects and the resulting level of protection for a given attribute. The 2010 survey and resulting nonconsumptive projects and methods database will help basin roundtables focus on locations that may be the most strategic for executing nonconsumptive projects and methods.

In addition to identifying the spatial extent and status of the identified projects and methods, CWCB also examined what type of protection the project or method may provide to a given environmental or recreational attribute. CWCB has classified the projects as having direct or indirect protections based on a given environmental or recreational attribute. The definitions used for direct and indirect protections are as follows:

- **Direct protection:** Direct protection consists of projects and methods with components designed intentionally to protect a specific attribute. For example, ISFs provide direct protection of fish attributes, and recreation in-channel diversions (RICDs) can do the same for community kayaking. Additionally, restoration of a stream channel would provide direct protection of aquatic species.
- **Indirect protection:** Indirect protection consists of projects and methods with components that were not designed to directly protect the specific attribute but may still provide protection. For example, flow protection that benefits a fish species—whether from an appropriated ISF, an ISF lease, or a release from a reservoir as part of its operations to move water downstream to a consumptive user—may also indirectly protect riparian vegetation that is located in the protected stream reach. Other examples include protective land stewardship or a wetland or bank stabilization effort that could indirectly protect aquatic species.

The direct and indirect protections included in the nonconsumptive projects and methods database can be analyzed by river, basin, or at the statewide level as they relate to environmental and recreational attributes.

Additionally, the nonconsumptive Focus Area Maps created by basin roundtables (available online and in Section 2 of SWSI 2010) can be used in combination with the nonconsumptive projects and methods database to devise a strategic, comprehensive plan that sets targets and measurable outcomes for protecting nonconsumptive attributes. To start, basin roundtables should ask what they want to achieve for each river segment on their Focus Areas Map. Is the measurable outcome to sustain all attributes in all focal segments? Are there some attributes or segments that are more

important than others? Are there attributes that will be maintained or improved only on an opportunistic basis?

Maps of projects and methods for each basin have been superimposed on top of the Focus Area Maps. Basin roundtable members or other stakeholders may want to identify what types of projects or methods could be implemented on these segments to sustain the nonconsumptive values.

[This overlay](#) enables the users to ask a series of questions, including:

- For each focus segment, are there protections in place for the attributes?
- If protections are in place, are they sufficient to maintain/sustain the attributes?
- If protections are either insufficient or are not present, what additional action can be taken to maintain the attributes?

4. Develop Targeted Incentives, including Funding for Projects and Methods in the Nonconsumptive Focus Areas

Potential Future Action Purpose(s)

Funding is a critical component in meeting nonconsumptive needs, whether it is to ensure that existing funding sources are used strategically, or to identify additional funds to recover threatened and endangered species, maintain and improve habitats, and support stream-based recreation.

As stated in the relevant portions of the “Letter to the Governors,” there are two main ways to use funding to meet these goals:

- **Current funding:** Target funding toward reaches and sub-watersheds that support the guiding principles.
- **Additional funding:** Find sustainable funding for projects that help meet nonconsumptive needs.

Potential Specific Actions

- a) **Assess funding needs:** Determine the amount of funding needed to meet nonconsumptive needs, as identified in the Basin Implementation Plans.
- b) **Target existing funding sources and programs to provide enhanced levels of support for implementation of nonconsumptive needs:** There are several existing funding sources and programs available to meet nonconsumptive needs; these are listed in the Nonconsumptive Toolbox. Efforts could be made to ensure that funds and programs incentivize meeting the needs identified in the nonconsumptive focus areas.
- c) **Explore additional incentives, including funding options:** Explore and pursue options for additional funding sources, if needed. Some options include:

- i) **Expand authority of Great Outdoors Colorado (GOCO) funding:** GOCO currently generates more than \$50 million per year and has been tremendously successful statewide, returning approximately \$6 in benefits for every dollar spent. GOCO should be encouraged to continue its thoughtful consideration of how to effectively spend funds in support of the nonconsumptive principles, including purchasing or leasing water for flow protection or restoration.
- ii) **Farm Bill:** Create specific Farm Bill initiatives that appropriate funds for enhancing agricultural operations while supporting nonconsumptive attributes. Examples of this type of program are the Republican River Conservation Reserve Enhancement Program (CREP) and the San Luis Valley CREP. A "Colorado River Initiative," which would cover parts of the West Slope, could also be formulated.
- iii) **Regional taxing:** Create regional districts with regional property taxing authority (e.g., forest protection districts, water conservancy sub-districts). Colorado statutes currently authorize the submission of ballot questions to certain identified electors to create regional governmental structures in the form of special districts or sub-districts of existing governmental structures, such as conservancy districts or water conservation districts. Based on careful statewide prioritization of water-related environmental and recreational projects and methods, the IBCC and the Governor's office could work with these existing governmental entities and other stakeholders to establish these special districts or sub-districts for purposes of collecting revenue to support consumptive and nonconsumptive projects and methods.
- iv) **Statewide user fee:** Water supply and delivery organizations abound throughout Colorado. Incentives, such as State of Colorado-subsidized borrowing rates to pay for infrastructure (paid for by—and therefore leveraging—other revenue sources such as severance taxes), could be made available to those organizations that agree to collect a modest user fee from customers. Alternatively, a user fee associated with hotel stays, boating, or other tourism-related activities could be instituted either on a voluntary or mandatory basis.
- v) **Statewide tax on internet-based transactions:** Currently, internet-based transactions are not taxed and Colorado foregoes a substantial amount of potential tax revenue as a result. With the U.S. Congress making substantial headway on the Marketplace Fairness Act, which would create a nationally uniform Internet-based transaction taxing environment, Colorado's General Assembly likely will enact such taxes to benefit the state. A fraction of the revenue stream that would be collected from this source could be designated into a cash fund for purposes of supporting consumptive and nonconsumptive water projects and methods.
- vi) **Severance tax:** Long a source of support for the Construction Fund and the Perpetual Base Account at CWCB, severance taxes paid on the extraction of certain mineral resources currently are reduced annually in accordance with the application of a somewhat complex formula of credits linked to payment of local taxes. Such credits could be reduced or eliminated to increase annual severance tax collections, with some share of the increase being designated for both consumptive and nonconsumptive water-related projects and methods. Colorado's severance tax is currently considered to be the lowest in the region.

- vii) **Statewide sales tax:** Colorado's current state sales tax is 2.9 percent, the lowest non-zero state-level sales tax rate in the nation according to data assembled by the Tax Foundation. A modest increase in this rate, designated into a cash fund (as opposed to the General Fund) for use for both consumptive and nonconsumptive water projects and methods could generate several tens of millions of dollars without making Colorado less competitive relative to other states.
- viii) **Mill levy:** Though Colorado has not had a statewide property tax since 1964, and the Taxpayer Bill of Rights (TABOR) amendment to the State Constitution currently prohibits imposition of a statewide property tax, the General Assembly could refer a measure to the electorate that would repeal that portion of TABOR prohibiting statewide property taxes. Subsequently, in order to remain compliant with TABOR's single-subject constitutional amendment provision, the General Assembly could refer another measure to the voters to approve a statewide sales tax that would generate revenue into a cash fund (as opposed to the General Fund) for consumptive and nonconsumptive water projects and methods.
- ix) **Debt financing:** (debt backed by existing or newly created revenue source): The State of Colorado has employed many acceptable and legal mechanisms that function similarly to more traditional issuance of state revenue or general obligation bonds. These mechanisms could be employed in conjunction with one or more of the revenue sources identified above to capitalize a nonconsumptive projects and methods fund that could be used in the near-term while consumptive projects go through requisite planning and permitting processes.

Partners

CWCB, other state agencies, GOCO, basin roundtables, nonconsumptive communities, water providers, and many others if additional funding sources are sought.

Background

Challenges/Barriers

It will be difficult to develop additional funding sources, if they are required.

Opportunities

The Nature Conservancy and the Tamarisk Coalition have already conducted reports on potential funding options. In addition, CWCB already utilizes the nonconsumptive focus areas to support ISF appropriations and watershed restoration grants.