

# STATE OF COLORADO

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## Colorado Water Conservation Board

### Department of Natural Resources

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TO: Colorado Water Conservation Board Members

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John W. Hickenlooper  
Governor

FROM: Linda Bassi, Chief  
Stream and Lake Protection Section

Mike King  
DNR Executive Director

DATE: July 1, 2013

James Eklund  
CWCB Director

SUBJECT: **Agenda Item 14, July 16-17, 2013 Board Meeting**  
**Stream and Lake Protection – Draft Amendments to Policy 19 (Expenditures for Instream Flow Acquisitions)**

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### Introduction

Section 37-60-123.7(1), C.R.S., enacted in 2008, authorizes a continuous appropriation of \$1,000,000 to the CWCB annually for the costs of water acquisitions for instream flow (“ISF”) use. Section 15 of this year’s Projects Bill amended section 37-60-123.7(1) to allow these funds to be used for water acquisitions that will improve the natural environment to a reasonable degree. Prior to that amendment, the statute limited use of the funds to paying the costs of water acquisitions to preserve the natural environment to a reasonable degree. To implement this statutory revision, staff has provided draft amendments to CWCB Policy 19 - Expenditures of Funds for Water Acquisitions for Instream Flow Use Pursuant to Section 37-60-123.7, C.R.S., attached to this memo. This is an informational item with no Board action requested.

### Staff Recommendation

Staff recommends that the Board discuss and provide comments on the draft amended Policy 19.

### Background

On May 13, 2013, Governor Hickenlooper signed Senate Bill 13-181, the CWCB Projects Bill, into law. Section 15 of the Projects Bill amended section 37-60-123.7 to read as follows:

**37-60-123.7. Acquisitions of water for instream flows.** (1) In addition to any other moneys appropriated from the Colorado water conservation board construction fund, up to one million dollars in the fund are continuously appropriated to the board annually to pay for the costs of acquiring water, water rights, and interests in water for instream flow use. The total amount of the continuous appropriation that is unencumbered in any fiscal year must not exceed one million dollars. The primary priority for expenditures of these revenues is the costs of water acquisitions for existing or new instream flow water rights to preserve and improve the natural environment to a reasonable degree. These revenues also may be used, in limited circumstances, for the costs of water acquisitions to:

(a) Preserve and improve the natural environment of species that have been listed as threatened or endangered under state or federal law, or are candidate species, or are likely to become candidate species;

- (b) Support wild and scenic alternative management plans; or
- (c) Provide federal regulatory certainty.

The amendments to this statutory provision consisted of adding the words “and improve” after “preserve” in two places, along with some editorial revisions.

## **Discussion**

During the legislative process, various stakeholders expressed concerns over authorizing the Board to use these funds for water acquisitions to improve the natural environment to a reasonable degree. The primary concern expressed was that the use of acquired water to improve the natural environment appears to be undefined and to have no upper limits, as opposed to using water to preserve the natural environment, which section 37-92-102(3), C.R.S. (2012) describes as “minimum stream flows to preserve the natural environment to a reasonable degree.” A discussion of the biological aspects of improving the natural environment and staff’s proposed response to this concern in the proposed amended Policy 19 is set forth below.

Stakeholders also have expressed concerns that the CWCB may compete with other potential buyers or lessees for water rights available on the market, and have suggested that when considering expenditures for an ISF water acquisition to improve the natural environment, the CWCB keep in mind the need to balance between consumptive and nonconsumptive needs and uses of water. Another concern expressed is that the CWCB’s ability to expend funds on water acquisitions to improve the natural environment could contribute to additional agricultural lands being dried up. In response to these concerns, proposed amended Policy 19 states that the Board will consider the balance between consumptive and nonconsumptive needs and uses of water when evaluating recommendations from staff for expenditures for ISF water acquisitions to improve the natural environment to a reasonable degree.

## **Biological Aspects of Improving the Natural Environment to a Reasonable Degree**

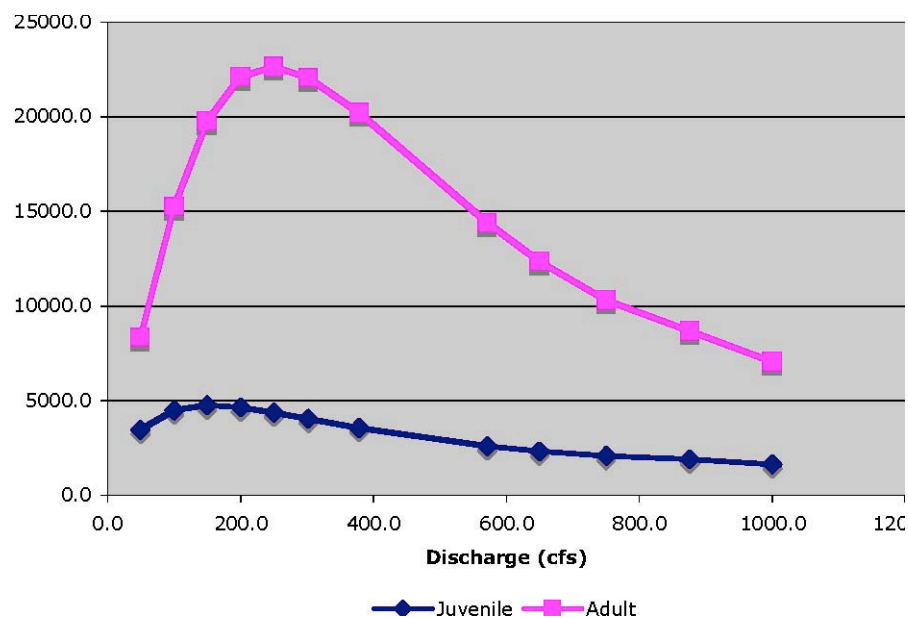
Staff has consulted with Colorado Parks and Wildlife (“CPW”) staff about identifying and quantifying the biological benefits that can result from using acquired water to improve the natural environment. The underlying assumption for that consultation was that using acquired water to improve the natural environment means protecting flows at a rate above the rate quantified by CPW or another biologist as the minimum necessary to preserve the natural environment.

Below are some examples of metrics used in determining the benefits that can result from using acquired water, alone or in combination with other acquired water, to improve the natural environment to a reasonable degree:

- The degree to which the acquired water adds useable habitat in all stream habitat types such as riffles, pools and runs within the ISF reach
  - Increasing width and depth of riffles
    - Increases ability of fish to migrate up and down stream (connectivity)
    - Provides more suitable spawning habitat
    - Can increase biological productivity of stream reach
  - Increasing depths of pools and runs increases area of suitable habitat for feeding and resting
- The amount of additional useable area for fish and macroinvertebrates -- reduces competition and stress and increases food production

- The additional amount of protection from high temperatures and low oxygen levels in hot summer months

While protecting additional flows in a stream can provide the above-described benefits, there is a limit to how much additional water is beneficial. There is an upper limit on the rate of velocity in a stream that various life stages of fish can tolerate. At some point, higher flows reduce the amount of available habitat for fish. This concept is illustrated by the PHABSIM (Physical Habitat Simulation System) quantification method used for some ISF recommendations, which simulates a relationship between stream flows and physical habitat for various life stages of a given species of fish. The table below shows the amount of useable habitat in square feet (left axis) in relation to stream discharge amount for two life stages of brown trout, and indicates that the amount of useable habitat begins to decline at a certain rate of flow. This type of analysis also can be done using R2Cross or other instream quantification methodologies, depending upon the size of the stream and the amount of water to be acquired.



In response to concerns expressed about the lack of information and perceived lack of upper limits on using acquired water to improve the natural environment, pages 2-3 of proposed amended Policy 19 identify information based upon the above metrics that staff must provide to the Board when requesting the Board to approve an expenditure of funds for a water acquisition to improve the natural environment to a reasonable degree.

### Planned Public Outreach on Amended Policy 19

In addition to individual outreach efforts by staff and Board meeting discussions, staff has been invited to present proposed amended Policy 19 to the Southwestern Water Conservation District's board in August, and is coordinating with Andy White, legislative liaison for the Department of Natural Resources on scheduling a discussion of the proposed policy with the Water Resources Review Committee.

POLICY NUMBER: 19

SUBJECT: **EXPENDITURES OF FUNDS FOR WATER ACQUISITIONS FOR INSTREAM FLOW USE PURSUANT TO SECTION 37-60-123.7, C.R.S.**

EFFECTIVE DATE: ~~March 1, 2009~~

POLICY: The Colorado Water Conservation Board ("CWCBC") may expend funds provided under section 37-60-123.7, C.R.S. to pay for the costs of acquiring water, water rights and interests in water for instream flow ("ISF") use. The primary priority for expenditures of these funds shall be the costs of water right acquisitions for existing or new ISF water rights to preserve or improve the natural environment to a reasonable degree. These funds also may be used in limited circumstances for the costs of water acquisitions to (1) preserve or improve the natural environment of species that have been listed as threatened or endangered under state or federal law, or are candidate species or likely to become candidate species; (2) support wild and scenic alternative management plans; or (3) provide federal regulatory certainty. The CWCBC shall approve any expenditure of funds pursuant to section 37-60-123.7, ~~C.R.S.~~

The CWCBC will consider recommendations from the CWCBC staff for expenditures of funds to pay for the following types of costs related to acquiring water, water rights and interests in water for ISF use:

1. lease or purchase price of water, water rights or interests in water for ISF use;
2. costs of preliminary evaluations of the feasibility of a temporary or permanent transfer of a water right for ISF use;
3. costs of historical consumptive use analyses of water rights;
4. costs of water rights appraisals;
5. costs of water rights title searches;
6. costs related to negotiating and finalizing the agreement(s) necessary for the transaction;
7. costs related to obtaining a decreed right to use the water for ISF purposes; and
8. any other costs related to an acquisition of water for ISF use that the Board may deem appropriate.

When considering recommendations from the CWCBC staff for expenditures of funds for water acquisitions to improve the natural environment to a reasonable degree, the CWCBC shall consider the

balance between consumptive and nonconsumptive needs and uses of water on the subject stream.

PURPOSE: To establish priorities and procedures for expenditures of funds under section 37-60-123.7, ~~C.R.S.~~ for the costs of acquiring water, water rights and interests in water for instream flow use.

APPLICABILITY: This policy and procedure applies to recommendations from the CWCB staff to the Board for expenditures of funds to pay the costs of acquiring water, water rights and interests in water for instream flow use under section 37-60-123.7, ~~C.R.S.~~

PROCEDURE: The CWCB staff will proceed under ISF Rule 6 in bringing proposed water acquisitions to the Board. When a proposed acquisition will involve the expenditure of funds under section 37-60-123.7, ~~C.R.S.~~, staff will prepare for the Board's consideration a summary of the financial aspects of the proposal, which will be part of the administrative record, including but not limited to:

- a. where applicable, the lease or purchase price of water, water rights or interests in water for ISF use, which, for a purchase of water, shall be supported by an appraisal or other appropriate valuation method;
- b. a breakdown of costs related to the proposal, such as
  - 1) costs of preliminary evaluations of the feasibility of a temporary or permanent transfer of a water right for ISF use;
  - 2) costs of historical consumptive use analyses of water rights;
  - 3) costs of water rights appraisals;
  - 4) costs of water rights title searches;
  - 5) costs related to negotiating and finalizing the agreement(s) necessary for the transaction; and
  - 6) costs related to obtaining a decreed right to use the water for ISF purposes.
- c. the amount of money staff is recommending that the Board spend on the proposal, and what costs the money will be applied to;
- d. the source of funds available to cover any remaining costs (for example, cost sharing by the water rights owner or any other individual or entity); and
- e. any in-kind services provided by the water rights owner or any other individual or entity.

In addition to the information listed above, staff also will bring all information required by ISF Rule 6 to the Board for its consideration, including, but not limited to, information related to the factors listed in ISF Rules 6e. and 6f.

When a proposed expenditure is for a water acquisition that, alone or in combination with other water acquisitions, will improve the

natural environment to a reasonable degree, the CWCB staff, in coordination with Colorado Parks and Wildlife staff, also will provide the following information:

- a. The degree to which the acquired water will add useable habitat to riffles, pools and runs within the subject ISF reach;
- b. The amount of additional useable area for fish and macroinvertebrates that the acquired water will provide;
- c. Where applicable, the amount of protection from high temperatures and low oxygen levels in hot summer months that the acquired water will provide; and
- d. Confirmation that the increased velocity of stream flows that will result from the acquired water is within an acceptable range for all life stages of fish species intended to be benefitted by the acquired water.

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The CWCB staff will prioritize and recommend expenditures for water acquisitions in the following order:

- a. Permanent or temporary water acquisitions that supplement existing ISF water rights that are not always fully satisfied by existing stream flows.
- b. Water acquisitions that facilitate the appropriation of new ISF water rights that are the minimum amount necessary to preserve the natural environment to a reasonable degree.
- ~~b-c.~~ Water acquisitions to improve the natural environment to a reasonable degree.
- ~~c-d.~~ Permanent or temporary water acquisitions that: (1) preserve or improve the natural environment of species that have been listed as threatened or endangered under state or federal law, or are candidate species or likely to become candidate species; (2) support wild and scenic alternative management plans; or (3) provide federal regulatory certainty.

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In general, water acquisitions that provide permanent protection will be given a higher priority than temporary acquisitions.

For leases of water, water rights or interests in water under section 37-92-102(3), the Board shall request an affidavit from the lessor stating the lessor's intended use of the water right during and after the term of the lease. The Board shall calculate the amount of compensation to be paid for the lease, and may increase or decrease that amount, based upon:

- a. the lessor's stated intent as set forth in the affidavit and on the administrative record before the Board;
- b. the fair market value of the subject water right;

- c. the existence of one or more of the following circumstances:
  - (1) The lessor agrees in writing to put the water right back to its original decreed use after the term of the lease.
  - (2) The lessor agrees in writing to give the CWCB a right of first refusal on purchasing the water right at a fair market value if the lessor sells the water right after the term of the lease.
  - (3) The leased water will provide water to critical habitat for a species that has been listed as threatened or endangered under state or federal law, or is a candidate species or likely to become a candidate species.
  - (4) The positive or negative effects of public access, if any, to the ISF reach through which the Board will use the leased water.
  - (5) The historical consumptive use of the leased water could be used downstream of the ISF reach for compact compliance purposes.
  - (6) The lessor has entered into, or intends to enter into, an agreement for the lease of the historic consumptive use of the subject water right downstream of the ISF reach that would not have occurred but for the lease to the CWCB.
  - (7) The lessor or the CWCB will receive payment for leasing the historical consumptive use of the subject water right for use downstream of the ISF reach.
  - (8) The lessor has informed the Board that it intends to sell the subject water right after the term of the lease; and
- d. any other pertinent information before the Board.

All lease agreements shall:

- a. require the lessor to supplement the above-referenced affidavit if the lessor's intent or actions regarding use of the water right during and after the term of the lease change during the term of the lease, including, but not limited to, lessor entering into an agreement for downstream use of the historic consumptive use of the leased water right, or a sale or subdivision of the land upon which the leased water historically has been used; and
- b. ~~shall~~ establish a mechanism for adjusting the compensation to the lessor based upon such supplementation and change(s).

NOTE: Recognizing that future needs and responses to those needs cannot be predicted with certainty, the Colorado Water Conservation Board reserves the right to expend funds for any water acquisition that it determines worthy of funding in accordance with applicable law.

~~Approved by the CWCB  
January 27-28, 2009 Board Meeting  
Agenda Item # 19~~