

2016 Instream Flow Workshop

Colorado Water Conservation Board
Instream Flow Program

Little Cimarron River

ISF Program Staff

Linda Bassi
Section Chief

Policy, Program & Staff Management

Jeff Baessler
Deputy Section Chief
Hydrologist

Appropriations, Physical Protection,
Section Finances & Planning

Kaylea White
Senior Water Resource Specialist

Acquisitions and Legal Protection

Brandy Logan
Hydrologist

Appropriations &
Physical Protection Analyses

Don West
Engineer

Engineering Analysis,
Acquisition Support

Rob Viehl
Water Resource Specialist

Appropriations &
Legal Protection Analyses

Brian Epstein
Hydrologist \ Hydrographer

Physical Protection & Monitoring

Kim Ricotta
& Sam May
Legal Protection Support

Elkhead Creek

ISF Program History



Environmental Movement

Increasing public concern about the impact that human activity could have on the environment

Toxic Chemicals

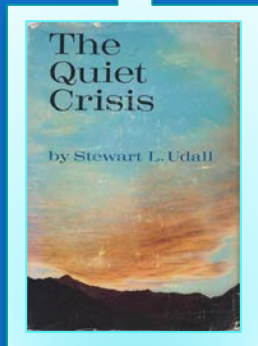


1st Earth Day



- 1970 National Environmental Policy Act
- 1972 Clean Water Act,
Costal Zone Mgt. Act
Marine Mammal Protection Act
- 1973 Endangered Species Act
- 1974 Safe Drinking Water Act

1960's



Abuse of Nation's
Natural Resources

- 1964 Wilderness
Preservation Act
- 1968 Wild and Scenic
Rivers Act



Keep America
Beautiful
Campaign

1970's

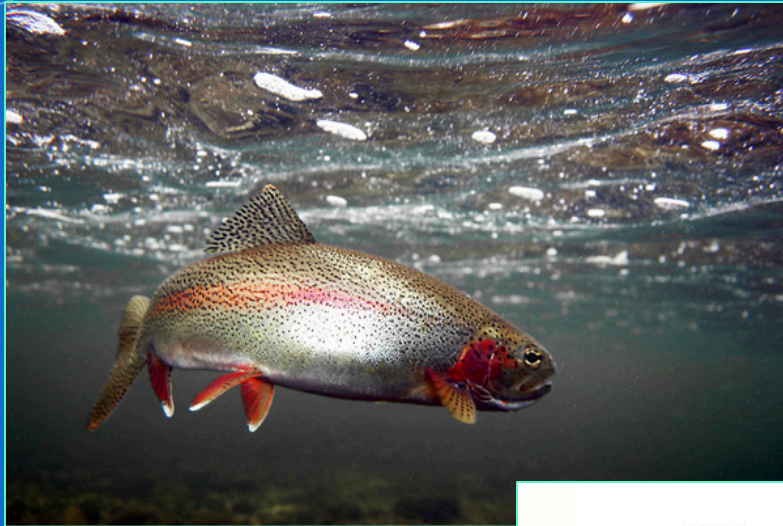


Creation of New
Federal Agencies

Colorado in the 1970's

Federal, state, and public concern over dry stream reaches and the fact that Colorado has no mechanism within the prior appropriation system to keep water within a stream for environmental preservation.

Colorado's legislature Weighs In



Maintain flows in streams to ensure reasonable preservation of the natural environment and achieve a balance with other beneficial uses of water in the state.




Provide regulatory certainty for water users through continued reliance on the doctrine of prior appropriation.



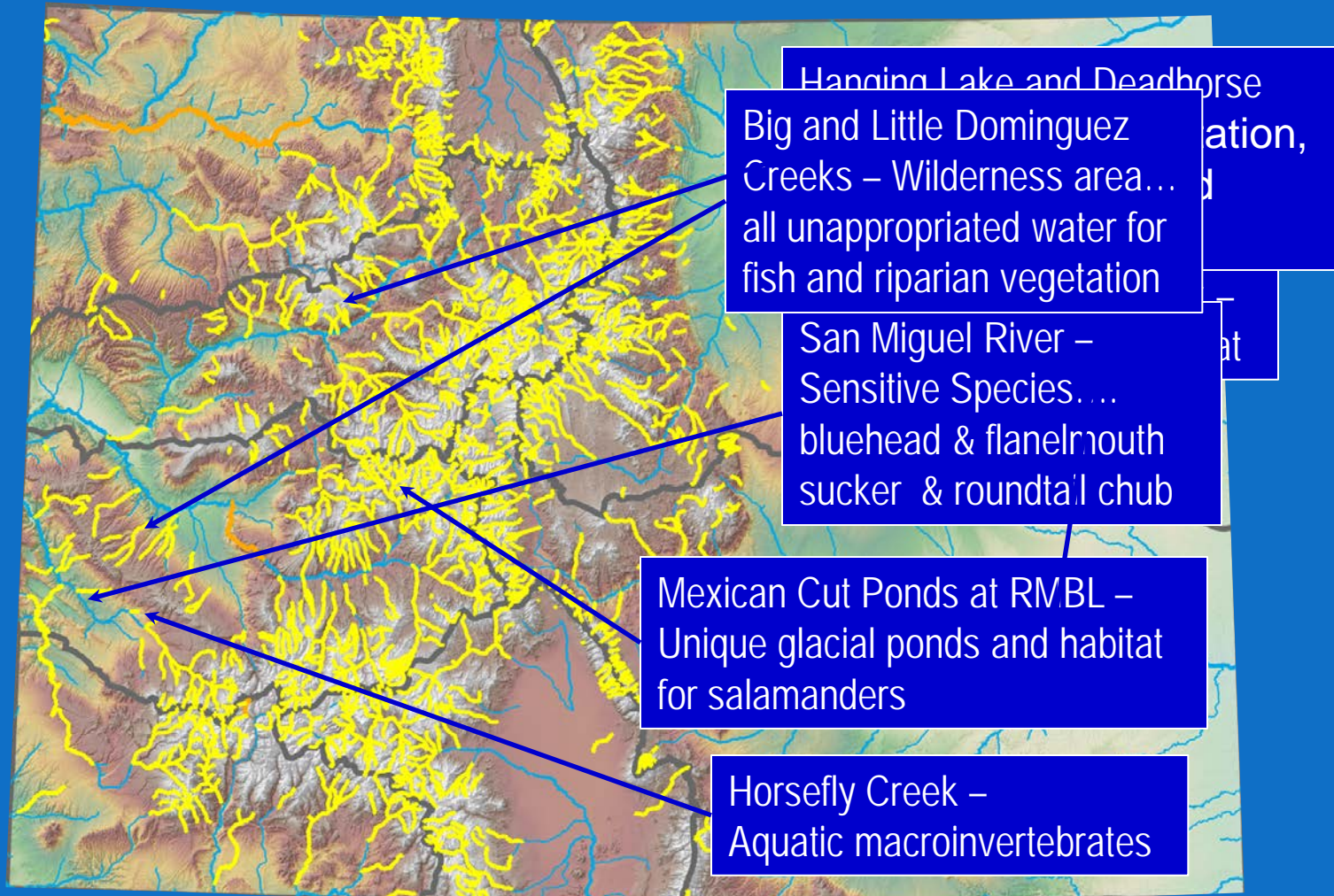
In 1973, the Colorado Legislature established the Instream Flow Program with the passage of Senate Bill 97:

- *Recognized “the need to correlate the activities of mankind with some reasonable preservation of the natural environment”*
- *Vested the Colorado Water Conservation Board with the authority “on behalf of the people of the state of Colorado, to appropriate or acquire... such waters of natural streams and lakes as may be required to preserve the natural environment to a reasonable degree.”*

What did the ISF legislation establish?

- 
- ISF and NLL rights are “in-channel” or “in-lake” appropriations of water and are recognized beneficial uses of water.
 - Made exclusively by the Colorado Water Conservation Board
 - To preserve the natural environment to a reasonable degree
 - For “minimum flows” between specific points on a stream, or “levels” on natural lakes
 - Administered within the State’s water right priority system

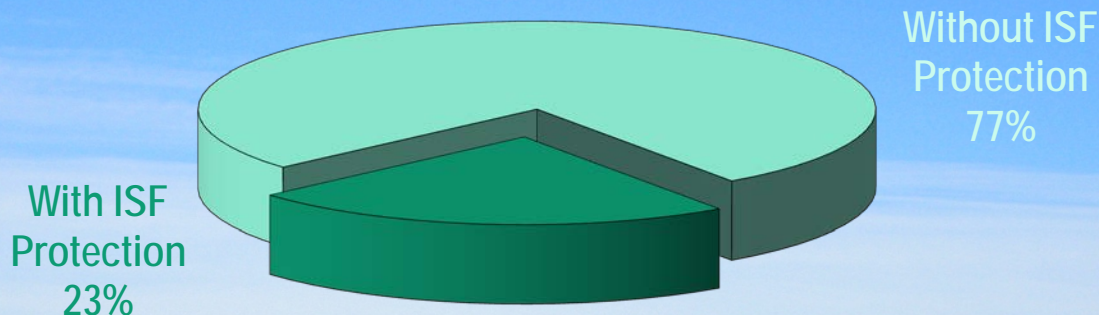
Distribution of Existing ISF Water Rights in Colorado



Yellow lines represent streams with decreed ISF rights

ISF Program Statistics

39,479 miles of perennial streams



Appropriated

Instream flow water rights on

- over 1,600 stream segments,
- covering 9,352 miles of stream,
- and 480 natural lakes

Acquired

Over 26 water right donations or long-term contracts for water totaling

420 cfs and 9,340 AF

A photograph of a stream with a fish and green foliage. The background is a shallow stream with murky water, some green algae or grass, and a single fish with brown spots swimming. On the right side, there are green leaves and branches of a tree or shrub.

New Appropriation Recommendations (ISF Rule 5 Procedure)

Any *person* or *entity* may recommend streams
or lakes to be considered for appropriation to
preserve the natural environment

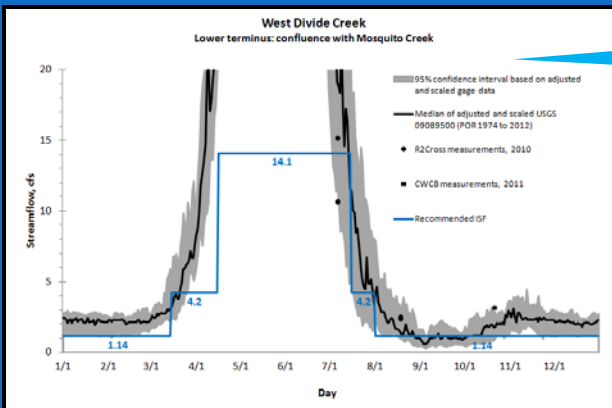
Statutory Requirements



A natural environment exists

- Typically identified by the presence of a fishery, but other indicators can be used

Note: Quantification of the amount of water needed is provided by the recommending entity.



Natural environment will be preserved by the water available for appropriation

- Determined by water right and hydrologic investigations
- Daily Median hydrology when available – general CWCB policy to show water available 50% of time



No material injury to other rights

- New appropriations are junior water rights and have no effect on existing senior appropriations
- 37-92-102(3) b. Recognition of existing undecreed uses and exchanges

Natural Environment

There is a natural environment that can be preserved to a reasonable degree

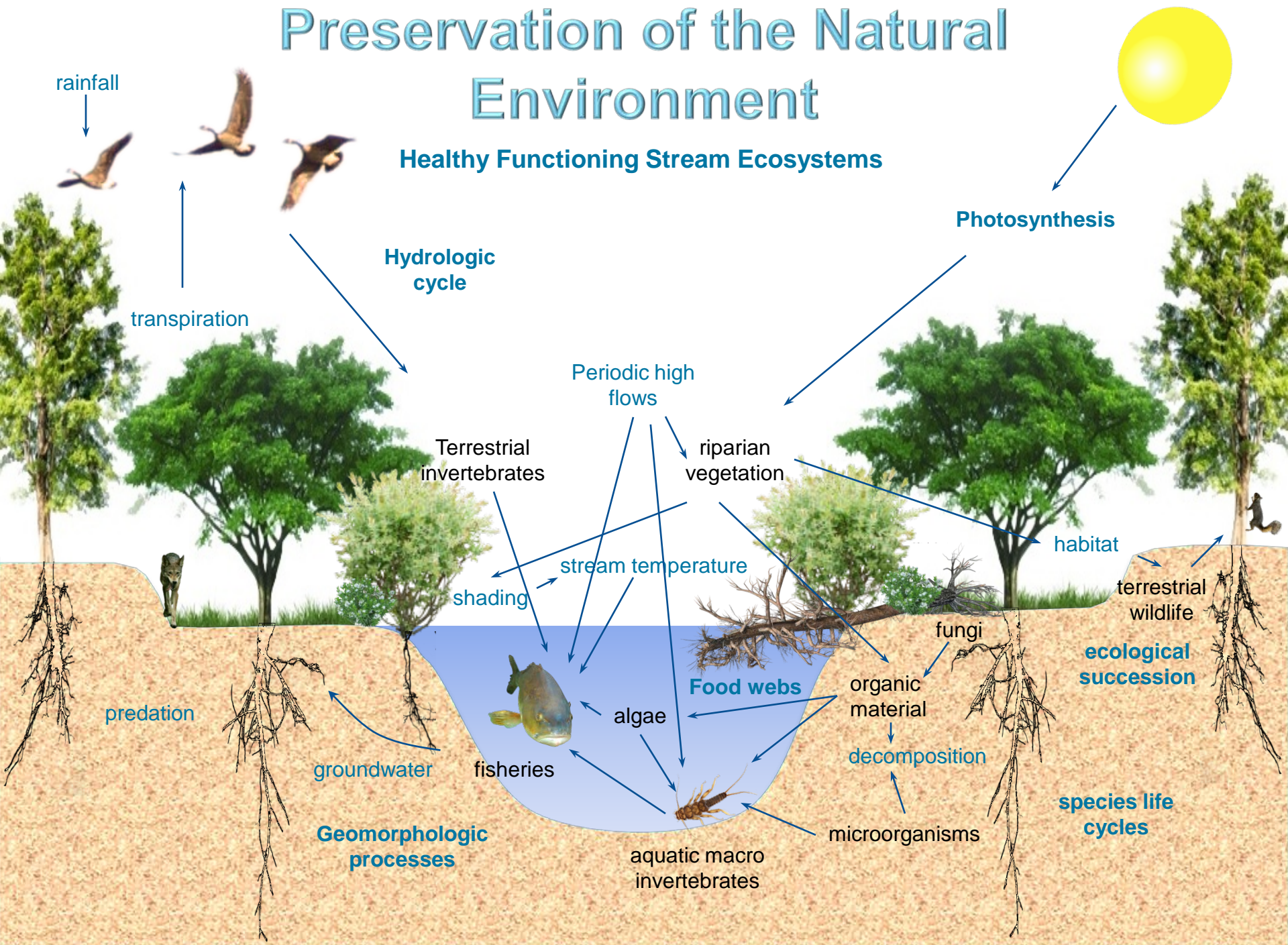


When we try to pick out anything by itself, we find it hitched to everything else in the universe.

John Muir



Preservation of the Natural Environment



Water Availability

The natural environment will be preserved to a reasonable degree by the water available for the appropriation



Hydrologic analyses

Driven by best available data and analysis methodology

- ✓ Gage Records + 20 years, short term gages, temporary gages, spot flow measurements, diversion records.
- ✓ Statistical analysis of data to provide median daily flow hydrograph when possible.
- ✓ StreamStats analysis to provide mean monthly hydrograph when data is limited.
- ✓ Detailed CDSS modeling on larger streams.
- ✓ Anecdotal information from water commissioners, land owners, ditch or reservoir operators, resource managers.



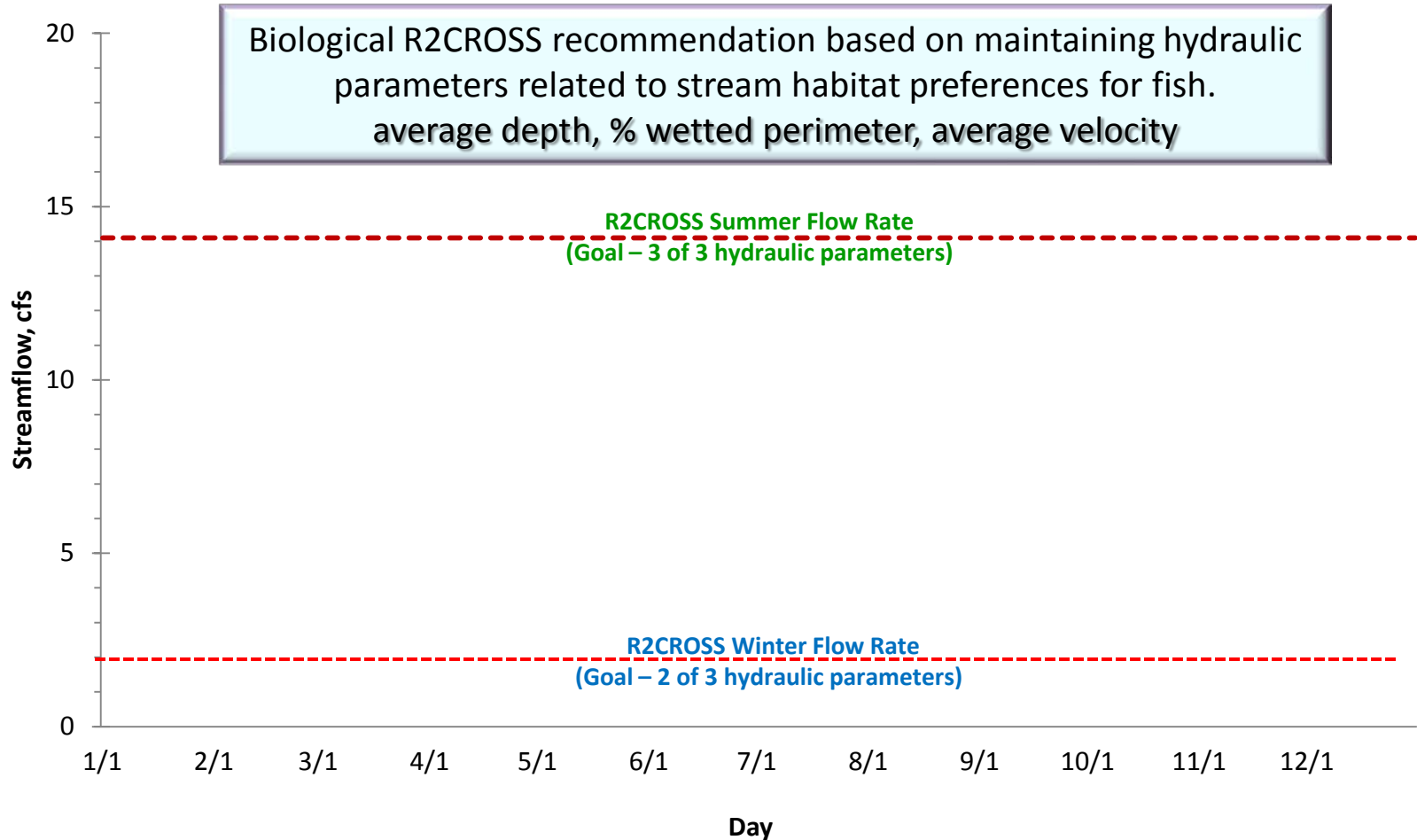
USGS 0930622 (Piceance Creek
near White River, Co)
Approximately 47 years of record

Water availability can be viewed as a necessary refinement that may impose limitations on biological quantification model findings.

Water Availability

West Divide Creek

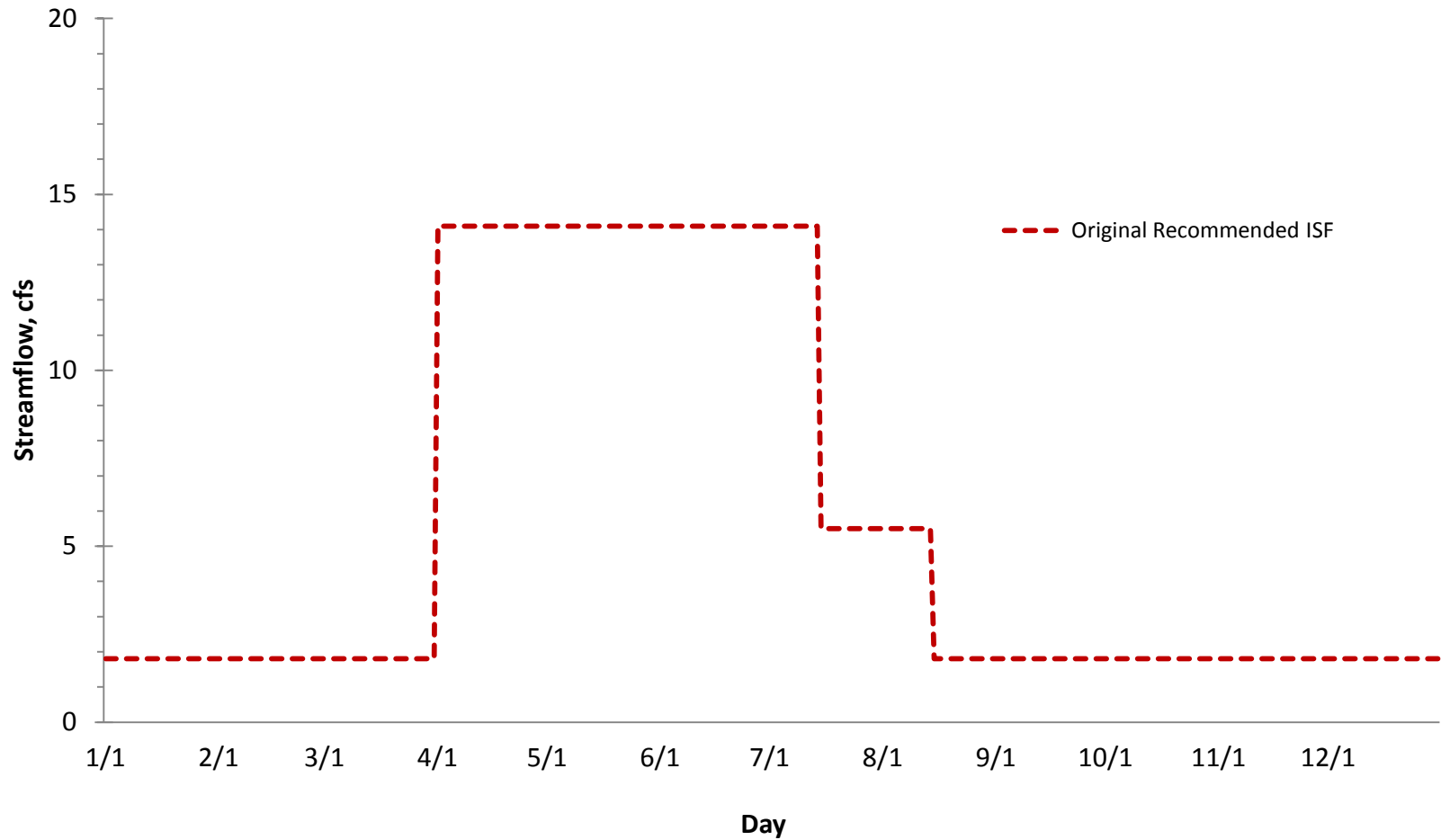
Lower terminus: confluence with Mosquito Creek



Water Availability

West Divide Creek

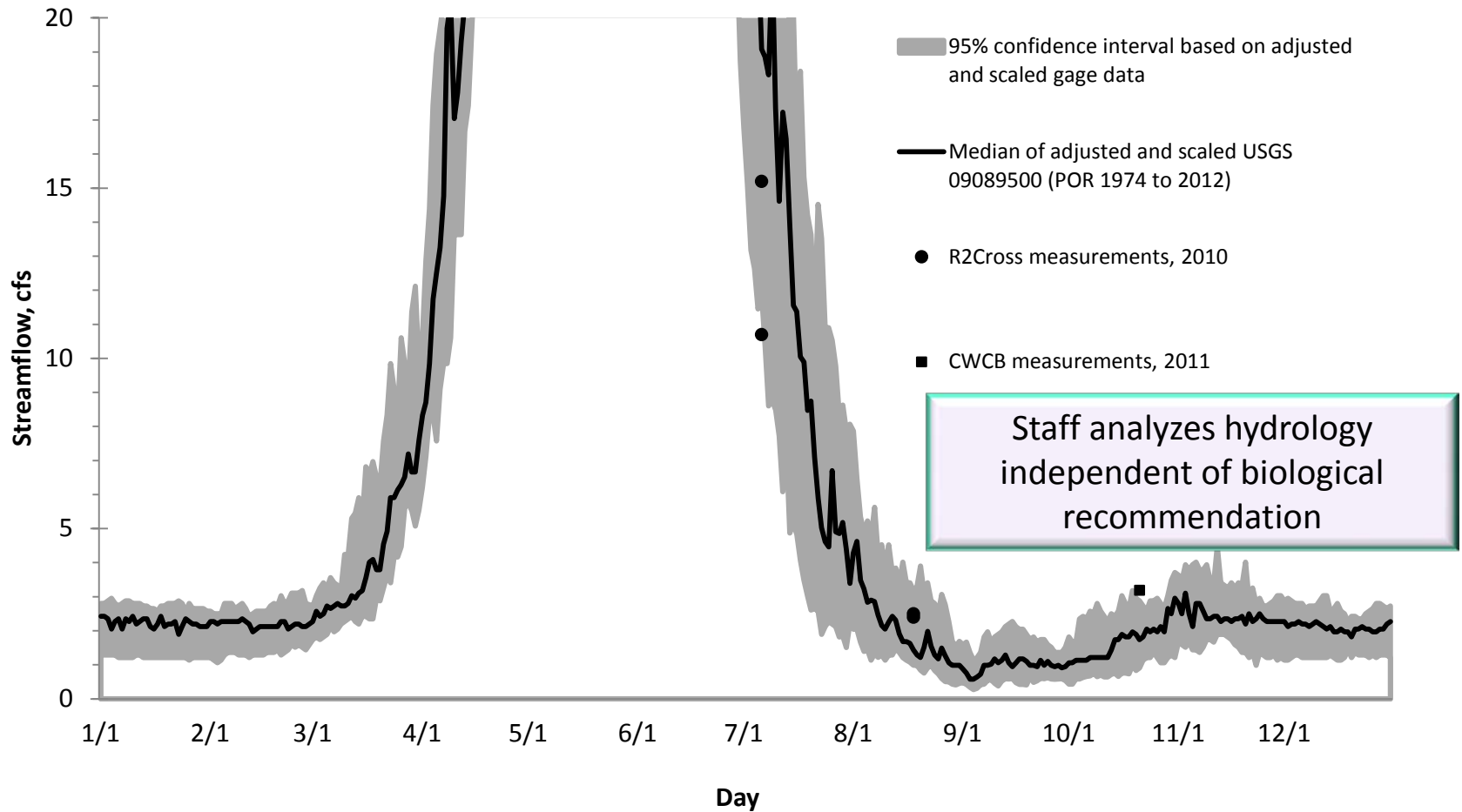
Lower terminus: confluence with Mosquito Creek



Water Availability

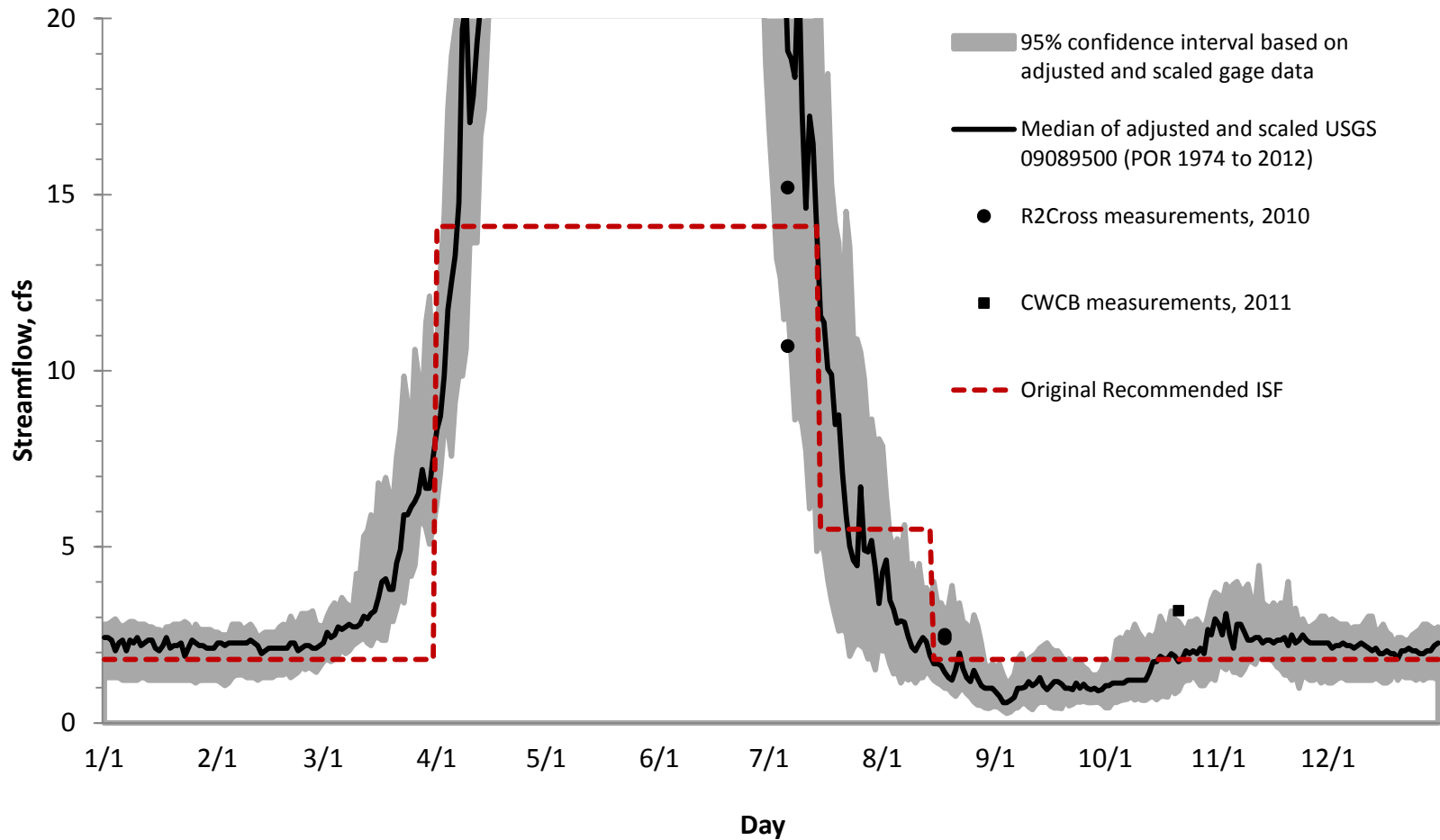
West Divide Creek

Lower terminus: confluence with Mosquito Creek



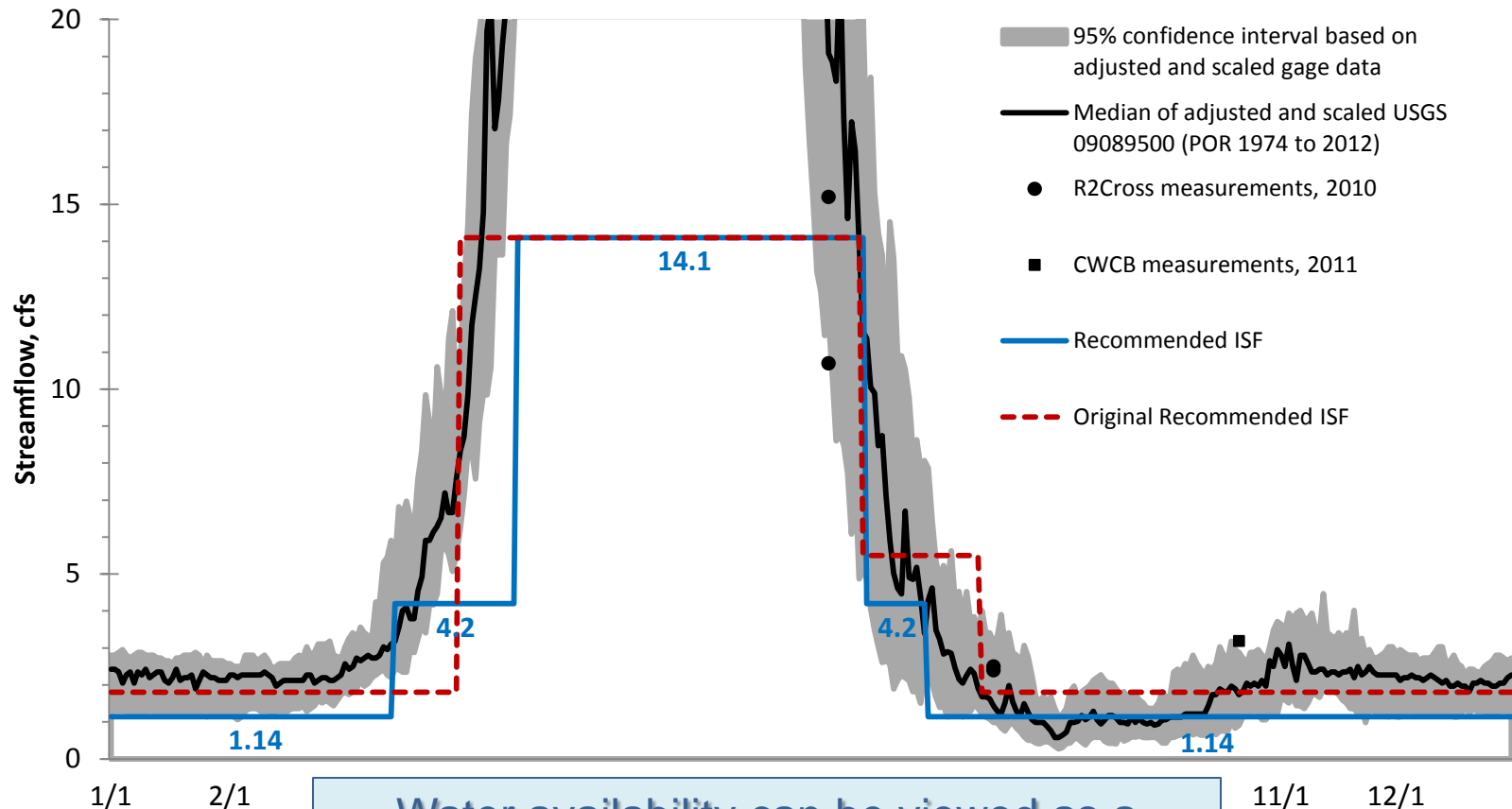
Water Availability

West Divide Creek
Lower terminus: confluence with Mosquito Creek



Water Availability

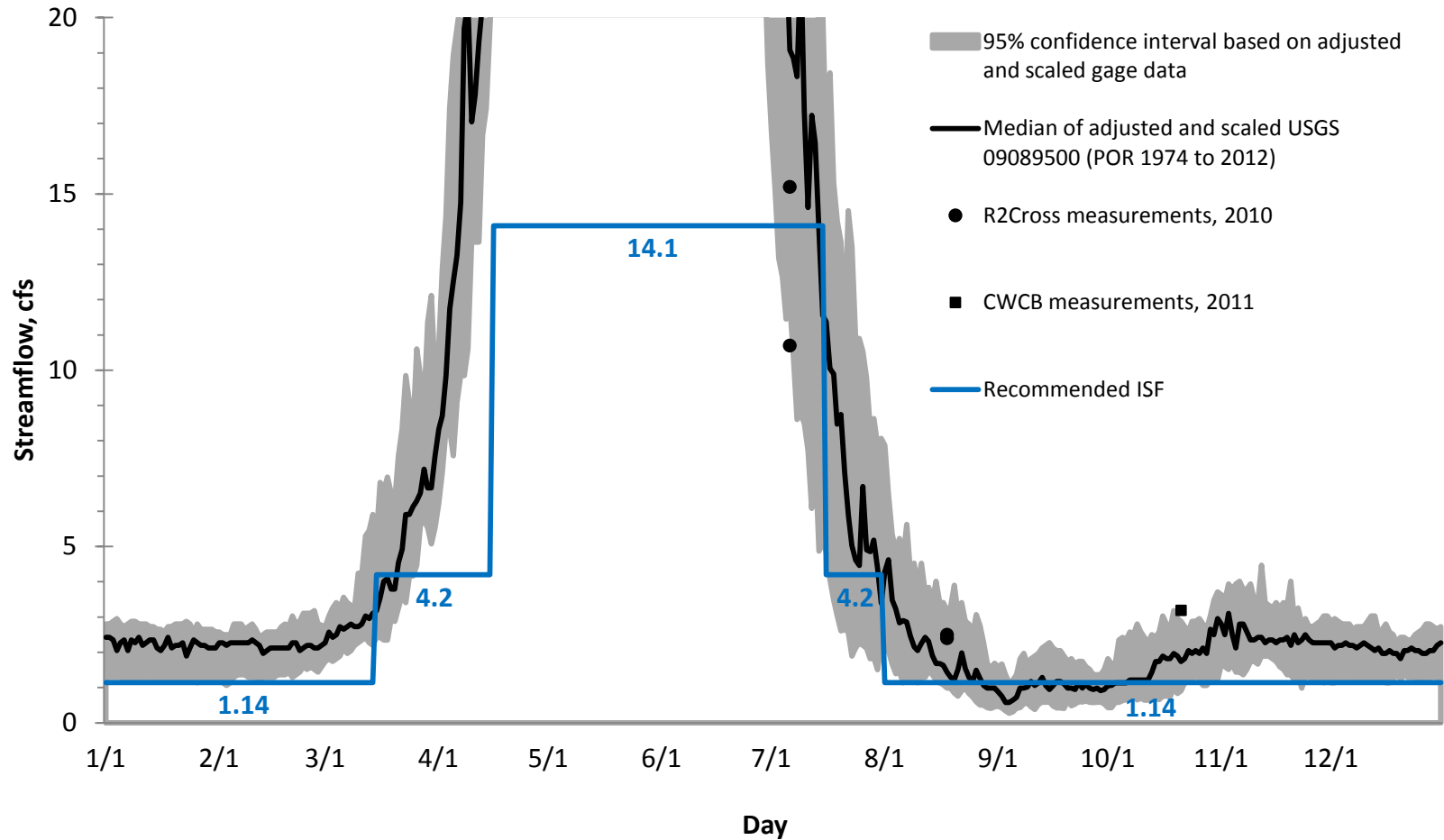
West Divide Creek
Lower terminus: confluence with Mosquito Creek



Water availability can be viewed as a necessary refinement that may impose limitations on biological quantification model findings.

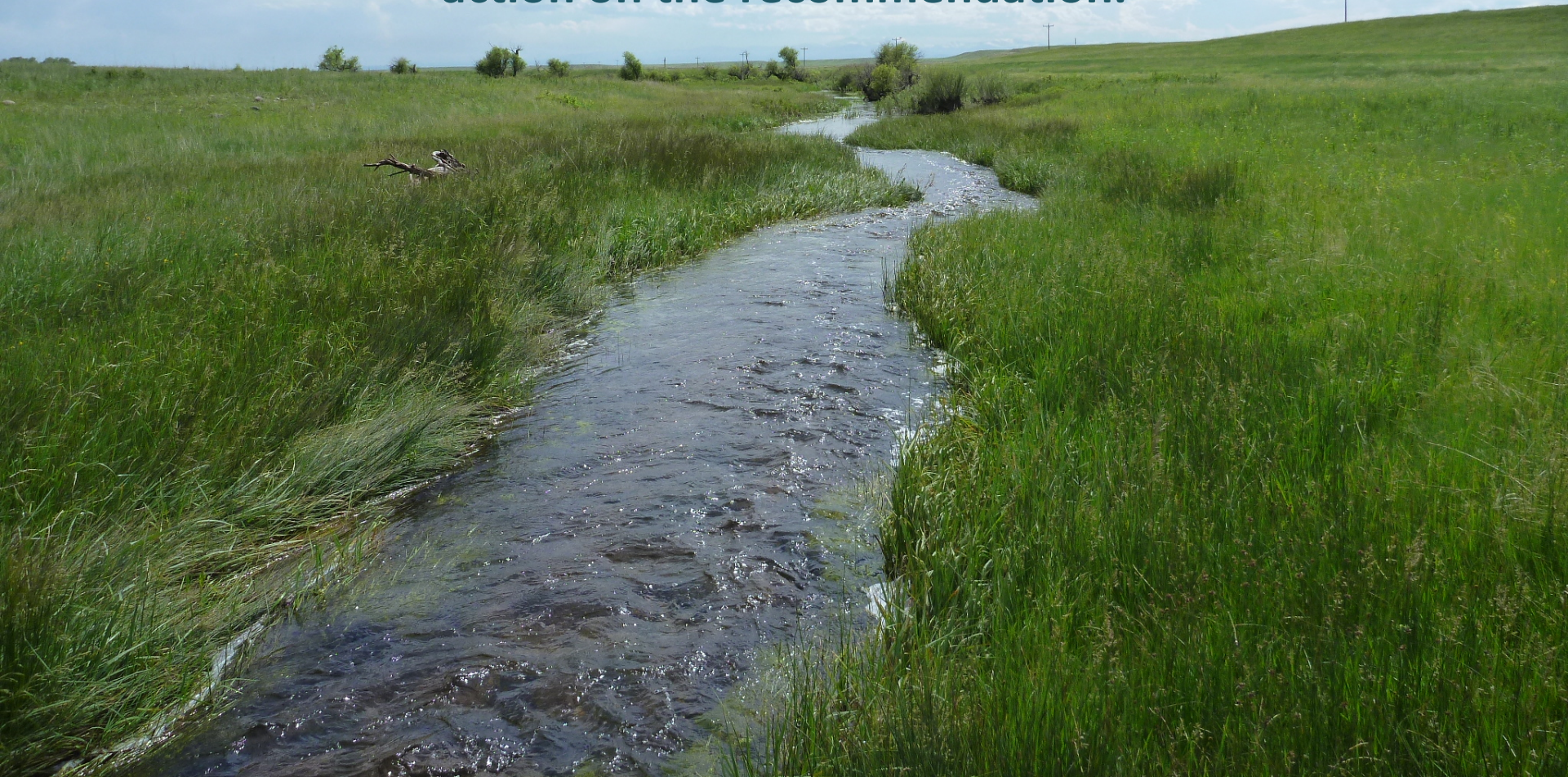
Water Availability

West Divide Creek
Lower terminus: confluence with Mosquito Creek



New Appropriation Process

Collect and analyze scientific information related to the required statutory findings and conduct outreach activities with stakeholders so that the Board can declare its intent to appropriate and take final action on the recommendation.



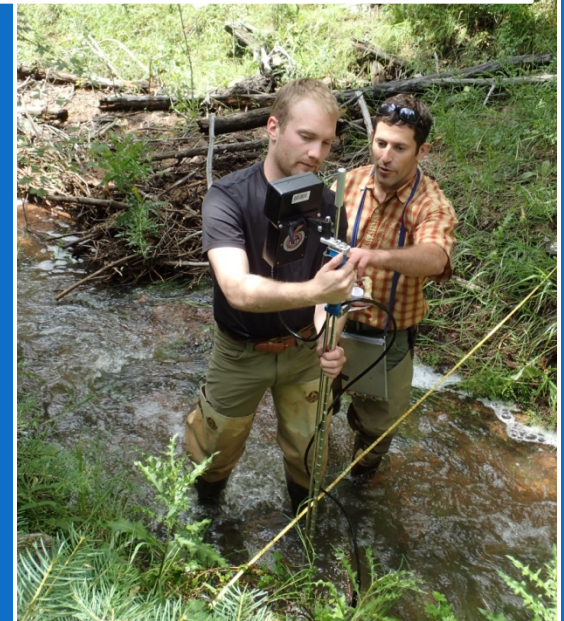
Recommending Entity's Role

- Identify the stream or lake of interest and provide location information and termini for stream reaches (UTM locations, Division, County, etc)
- Identify the aspects of the Natural Environment that would be preserved with an ISF or NLL water right (Provide any supporting reports, fish surveys, photos)
- Quantify the amount of water needed using standard methodologies: R2Cross, PHABSIM, River2D, etc.
- Prepare a cursory analysis of water availability (ie: Streamstats, water rights review)
- Identify stakeholders and participate in staff outreach efforts.
- Identify any specific stream access issues.
- Testify on natural environment and quantification science at a potential contested hearing.

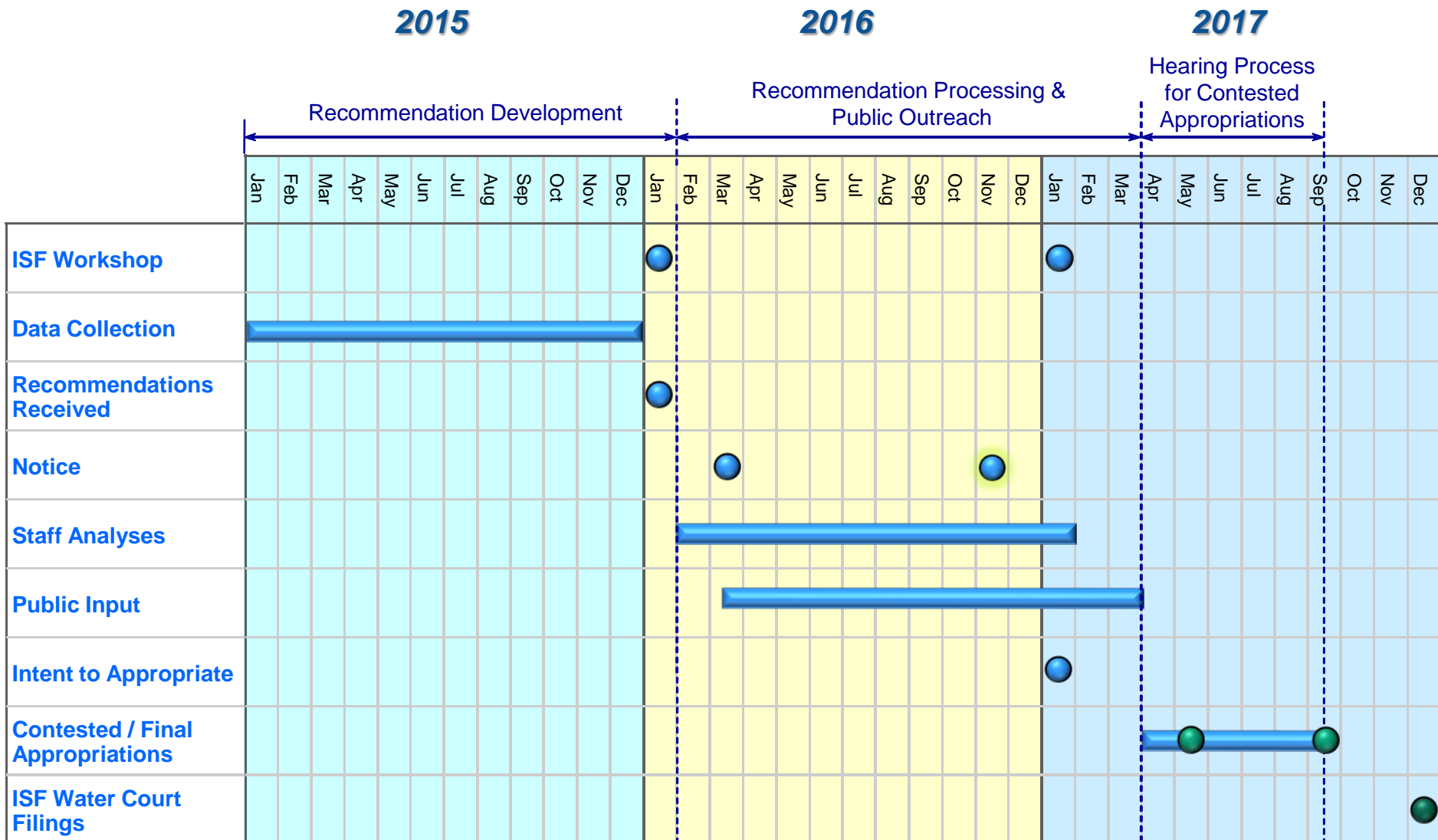


CWCB Staff's Role

- Review and analyze data provided by the recommending entity.
- Prepare a detailed water availability analysis
- Perform a site investigation on each stream and collect additional data as necessary.
- Provide notice and outreach to stakeholders
- Prepare executive summaries for the Board for each stream that provides sufficient information for the Board to make its statutory findings.
- Move the recommendation through the Board's ISF Rule 5 process from appropriation to filing with the water court. (If contested, staff will work with the recommending entity to support the appropriation).



New Appropriation Processing Timeline



Postponed Recommendations to be reconsidered in 2016

Water Division 1

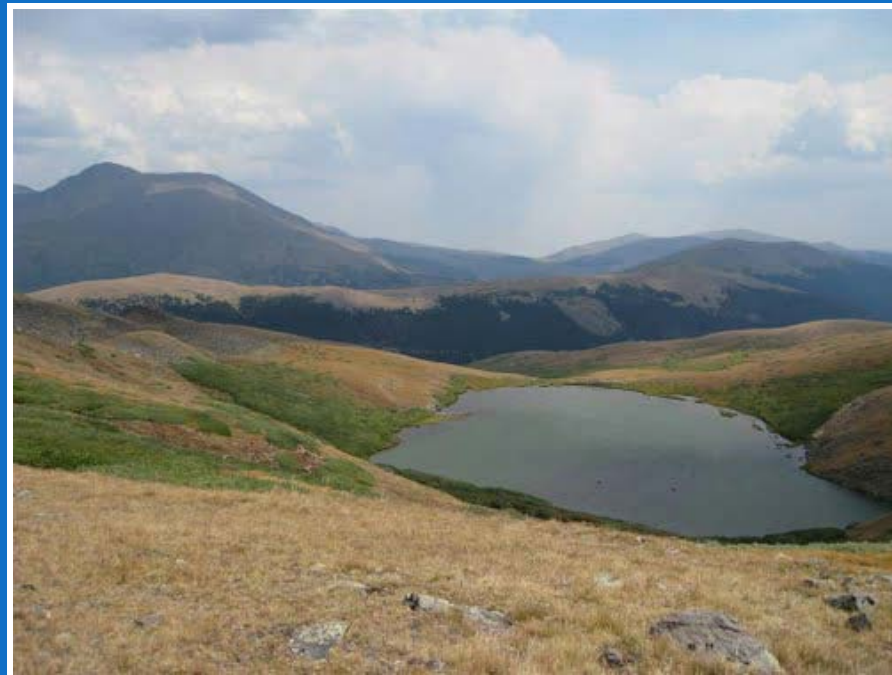
Stream Name	County
Coal Creek <i>(Boulder County Open Space Boundary to Louisville Wastewater Treatment outfall)</i>	Boulder
Coal Creek <i>(to Louisville Wastewater Treatment outfall to Lafayette pumping station #2)</i>	
Duck Creek <i>(Coutlet of Lower Square Top lake to Inlet Duck Lake)</i>	Clear Creek
Indian Creek <i>(Headwaters to confl. Willow Gulch)</i>	Park
McCurdy Creek <i>(Headwaters to confl. Lost Creek)</i>	
Platte Gulch <i>(Headwaters to confl. Middle Fork South Platte River)</i>	
Rock Creek <i>(Headwaters to confl. Natural Falls)</i>	
Unnamed Tributary Rough and Tumbling Creek <i>(Headwaters to confl. Rough and Tumbling Creek)</i>	

Specifics of recommendations are located at cwcb.state.co.us

Postponed Recommendations to be reconsidered in 2016

Water Division 1 (Lakes)

Stream Name	County
Lower Square Top Lakes <i>UTM North: 4382623</i> <i>UTM East: 436440</i>	Clear
Upper Square Top Lakes <i>UTM North: 4382782</i> <i>UTM East: 436057</i>	



Specifics of recommendations are located at cwcb.state.co.us

Postponed Recommendations to be reconsidered in 2016

Water Division 2

Stream Name	County
Beaver Creek <i>(Confl. East & West Beaver Creeks to confl. Patton Canyon)</i>	Fremont
West Beaver Creek <i>(Confl. Douglas Gulch to confl. East Beaver Creek)</i>	Fremont, Teller
Baker Creek <i>(headwaters to USFS Boundary)</i>	Huerfano
Bonnett Creek <i>(headwaters to USFS Boundary)</i>	
Apishapa River <i>(Headwaters to confl. Herlick Canyon Creek)</i>	Las Animas
Arkansas River <i>(Outlet of Fish Hatchery to confl. Fountain Creek)</i>	Pueblo

Specifics of recommendations are located at cwcb.state.co.us

Postponed Recommendations to be Processed in 2016

Water Division 4

Stream Name	County
Little Cimarron River <i>(Butte Ditch headgate to confl. Cimarron River)</i>	Gunnison, Montrose
Cow Creek <i>(USFS Property Boundary to confl. Uncompahgre River)</i>	Ouray
Kelso Creek <i>(Headwaters to confl. Bear Gulch)</i>	Mesa

Water Division 5

Stream Name	County
Dry Fork Roan Creek <i>(Confl. North Dry Fork Creek & South Dry Fork Creek to confl. Roan Creek)</i>	Garfield
Abrams Creek (ISF Increase) <i>(Headwaters to Mrs. Paye Ditch Hdgt.)</i>	Eagle

Specifics of recommendations are located at cwcb.state.co.us

Postponed Recommendations to be Processed in 2015

Water Division 6

Stream Name	County
Elkhead Creek <i>(Confl. First Creek to confl. North Fork Elkhead Creek)</i>	Routt
Elkhead Creek <i>(Confl. North Fork Elkhead Creek to inlet Elkhead Reservoir)</i>	
North Fork Elkhead Creek <i>(Headwaters to confl. Sawmill Creek)</i>	
North Fork Elkhead Creek <i>(Confl. Sawmill Creek to confl. Elkhead Creek)</i>	

Specifics of recommendations are located at cwcb.state.co.us

Web Site updates on Recommended Streams

<http://cwcb.state.co.us/environment/instream-flow-program/Pages/InstreamFlowAppropriations.aspx>



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[Water Acquisitions](#)

[Monitoring & Enforcement](#)

[Climate Change](#)

[Watershed Protection & Restoration](#)

[Nonconsumptive](#)

Instream Flow Appropriations

The CWCB appropriates water rights to preserve the natural environment of streams and lakes in the state. After receiving detailed recommendations for instream flow (ISF) water rights from state and federal agencies, conservation groups and members of the public, the CWCB reviews and processes the recommendations in accordance with the Board's ISF Rules.

The CWCB performs detailed hydrological analyses to ensure that all recommendations meet the statutory requirements for an ISF appropriation. The CWCB notifies and involves the public throughout the ISF appropriation process.

Recommendation Process

Each February, the CWCB holds a workshop to request recommendations for streams and lakes to be protected. The workshop is open to the public and notice is provided through this



Recommended Appropriations

Click on the links below for more information about that year's recommended appropriations:

- [2014 Proposed ISF Appropriations](#)
- [2013 Proposed ISF Appropriations](#)

Questions ?

