# 2017 Instream Flow Workshop

Colorado Water Conservation Board

Instream Flow Program

# CWCB

**To promote the protection, conservation, and development of Colorado's water resources for present and future generations**

Provides policy direction on water issues

- Finance and Administration
- Interstate & Federal
- Stream and Lake Protection
- Water Supply Planning
- Watershed & Flood Protection

**Ex-Officio Members**:

**Bob Randall**, DNR Director *(voting)*

**James Eklund,** CWCB Director

**Cynthia Coffman**, AG

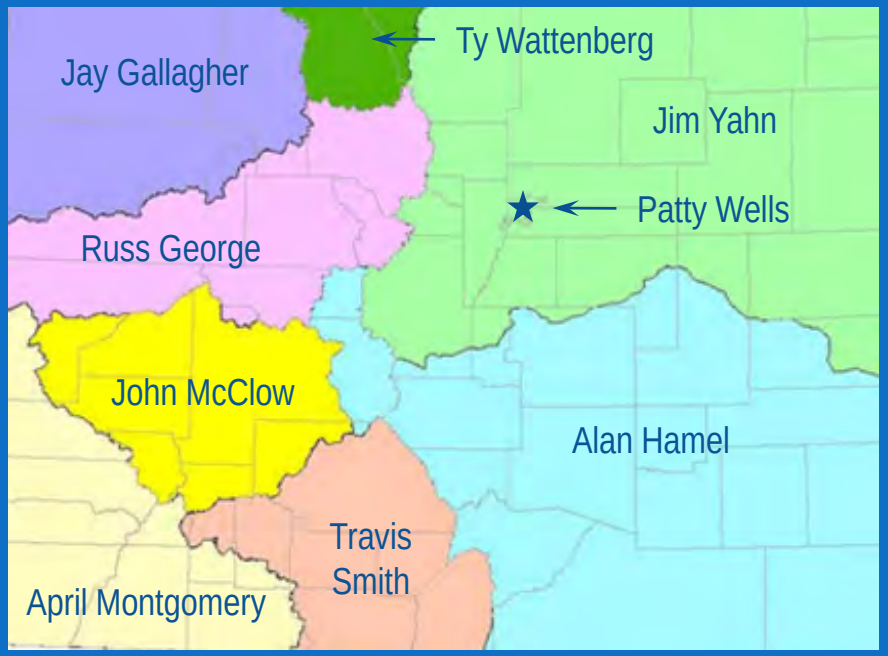
**Dick Wolfe,** State Engineer

**Bob Broscheid,** CPW Director

**Don Brown,** Dept. of Ag Director

**John Stulp,** Special Policy Advisor to the Governor for water

Board of directors



# 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**

Legal Protection Support

Elkhead Creek


*Slater Creek – Moffat County*

# Environmental Movement

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

Toxic Chemicals




1st Earth Day

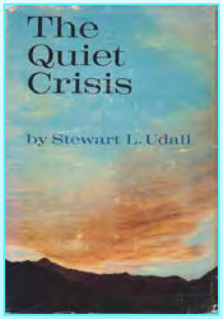
1970 National Environmental Policy Act

1972 Clean Water Act,
Costal Zone Mgt. Act
Marine Mammal Protection Act

1973 Endangered Species Act

1974 Safe Drinking Water Act

**1960's** **1970's**




Abuse of Nation's Natural Resources

1964
Wilderness
Preservation Act

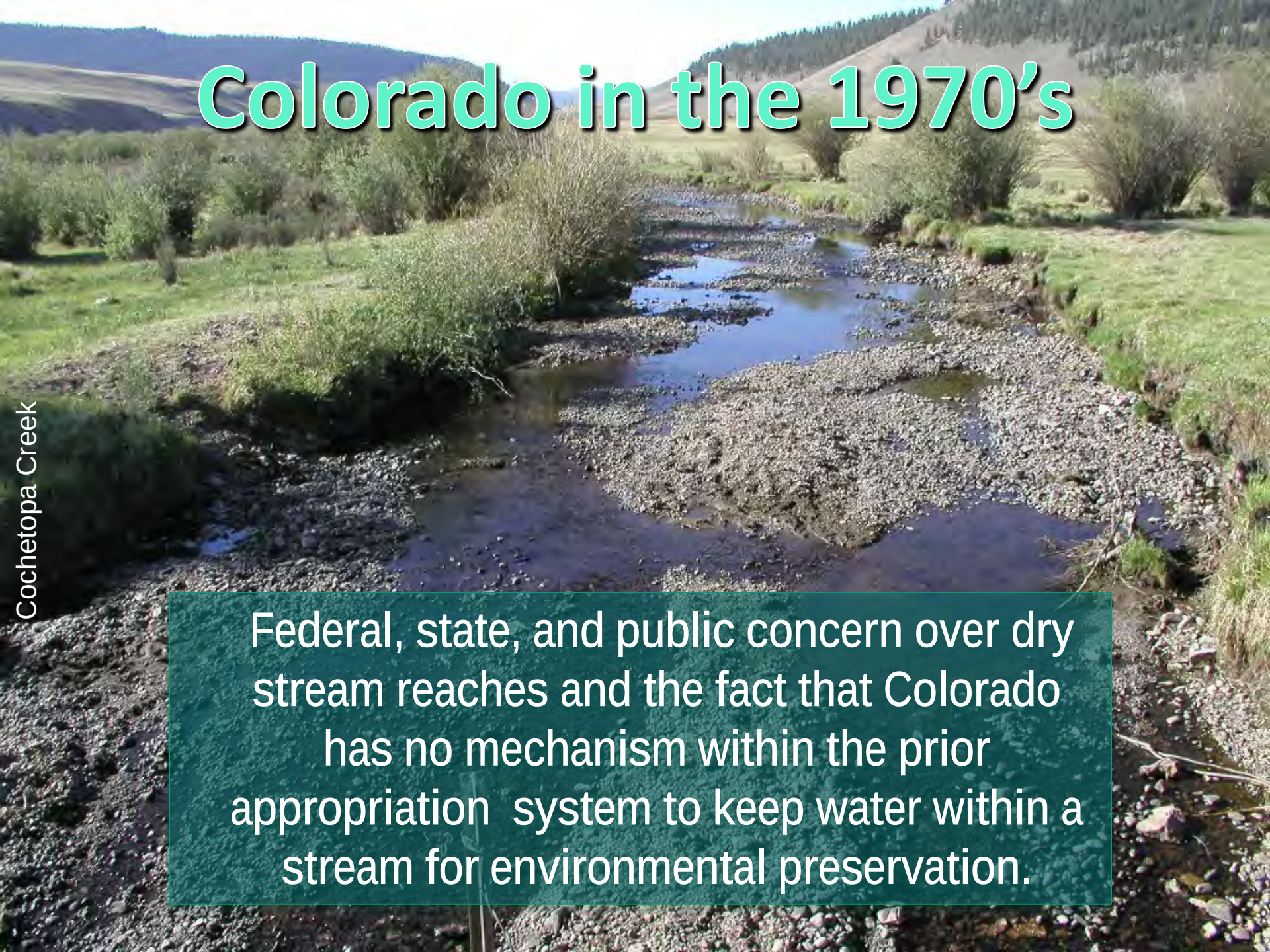
1968
Wild and Scenic
Rivers Act

Keep America Beautiful Campaign



Creation of New Federal Agencies

# Colorado in the 1970's



Cochetopa Creek

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.

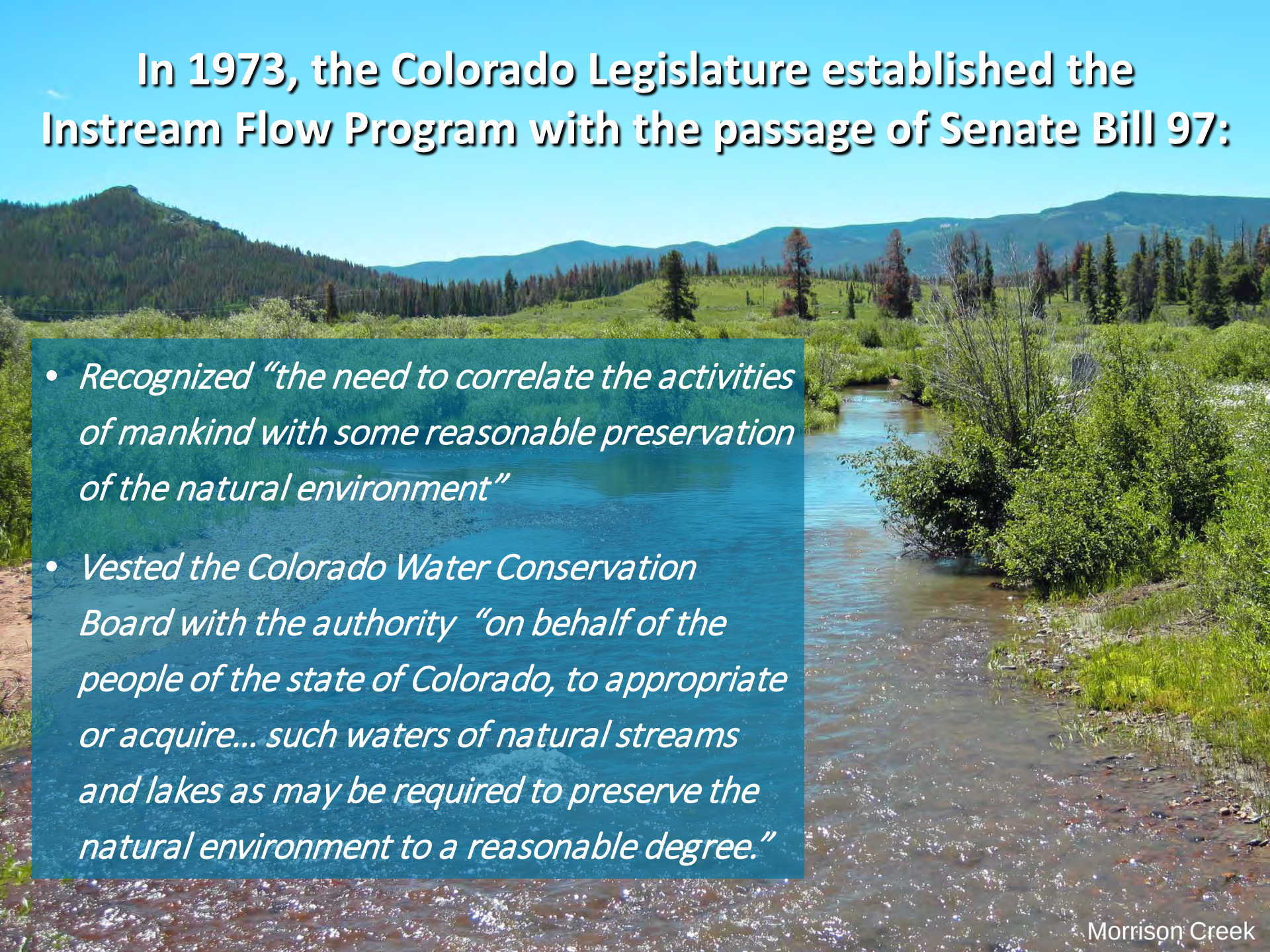
# Colorado's legislature Weighs In

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."*



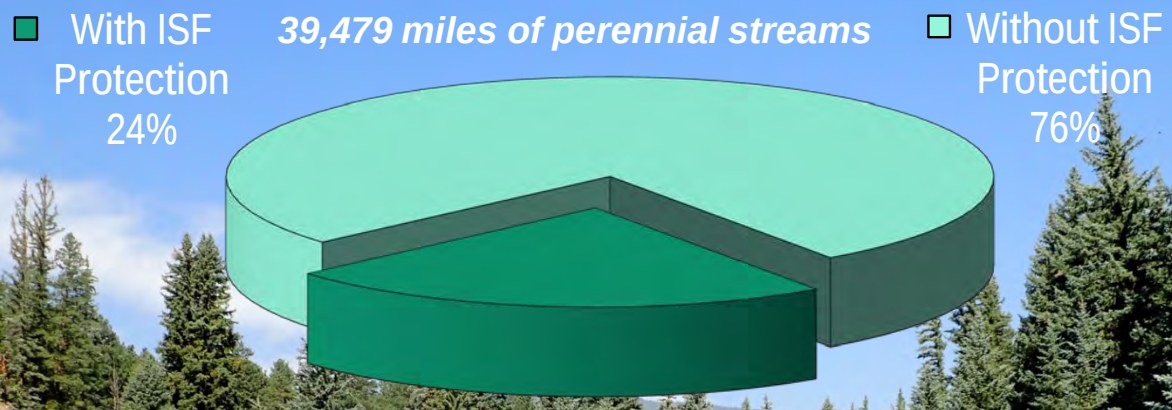
Morrison Creek

# 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

e River

# ISF Program Statistics




## Appropriated

Instream flow water rights on

- over **1,646** stream segments,
- covering **9,460** miles of stream,
- and **484** natural lakes

## Acquired

Over **43** water right donations or long-term contracts for water

Lake Fork Gunnison

# 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

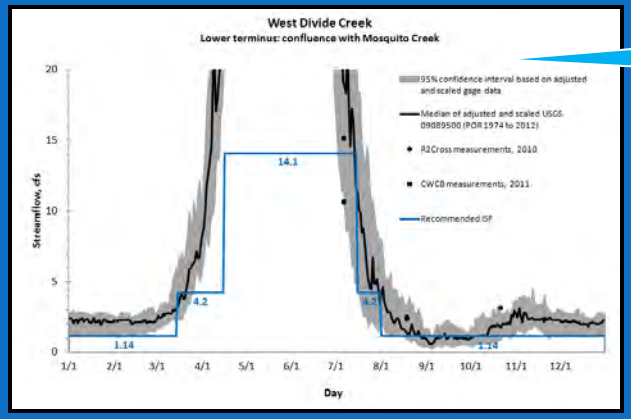
Kelso Creek

# 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

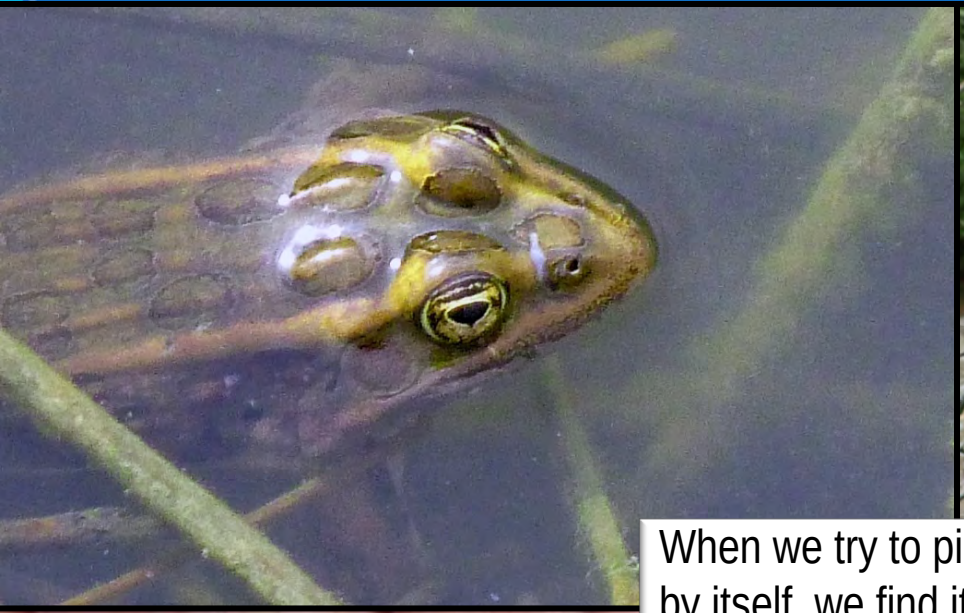
- Determined by water right and hydrologic investigations
- Daily **Median** hydrology when available – general CWCB policy to show water available 50% of time

## 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*

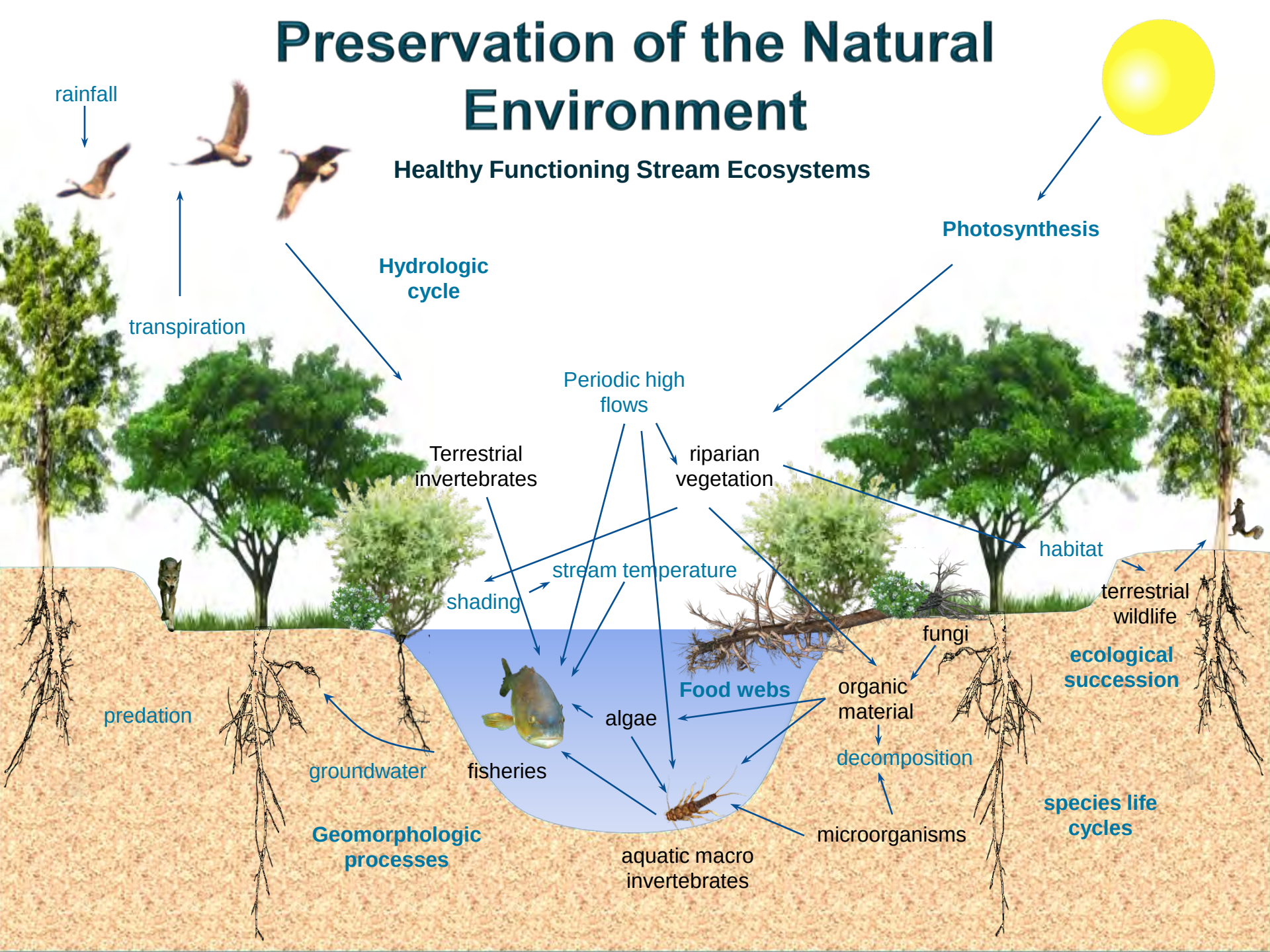


When we try to pick out anything by itself, we find it hitched to everything else in the universe.

*John Muir*

Central stoneroller Nate Cathcart photo 2010

# Preservation of the Natural Environment




## Healthy Functioning Stream Ecosystems

# Water Availability

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

# Hydrologic analyses

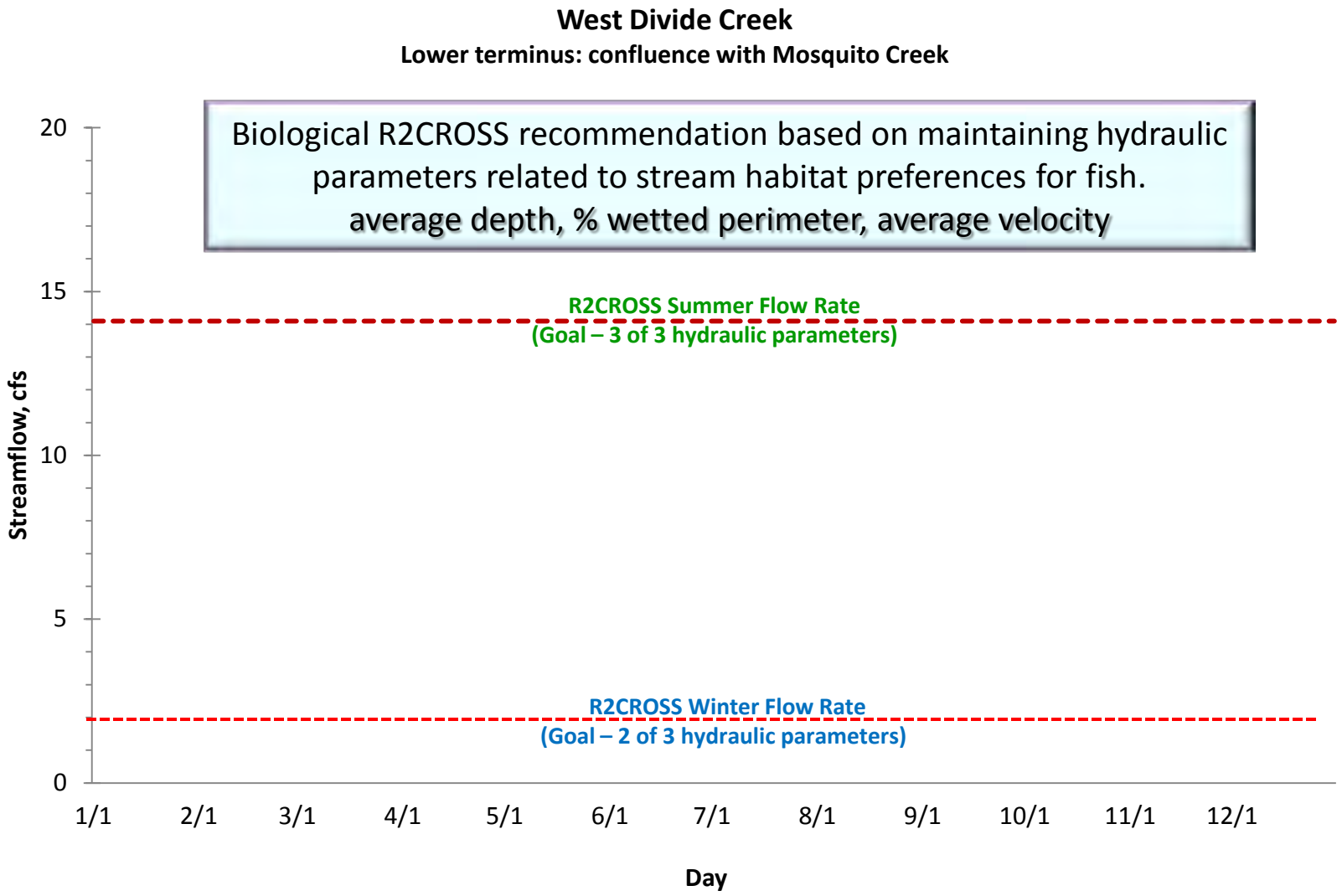
## Driven by best available data and analysis methodology

- ✓ 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



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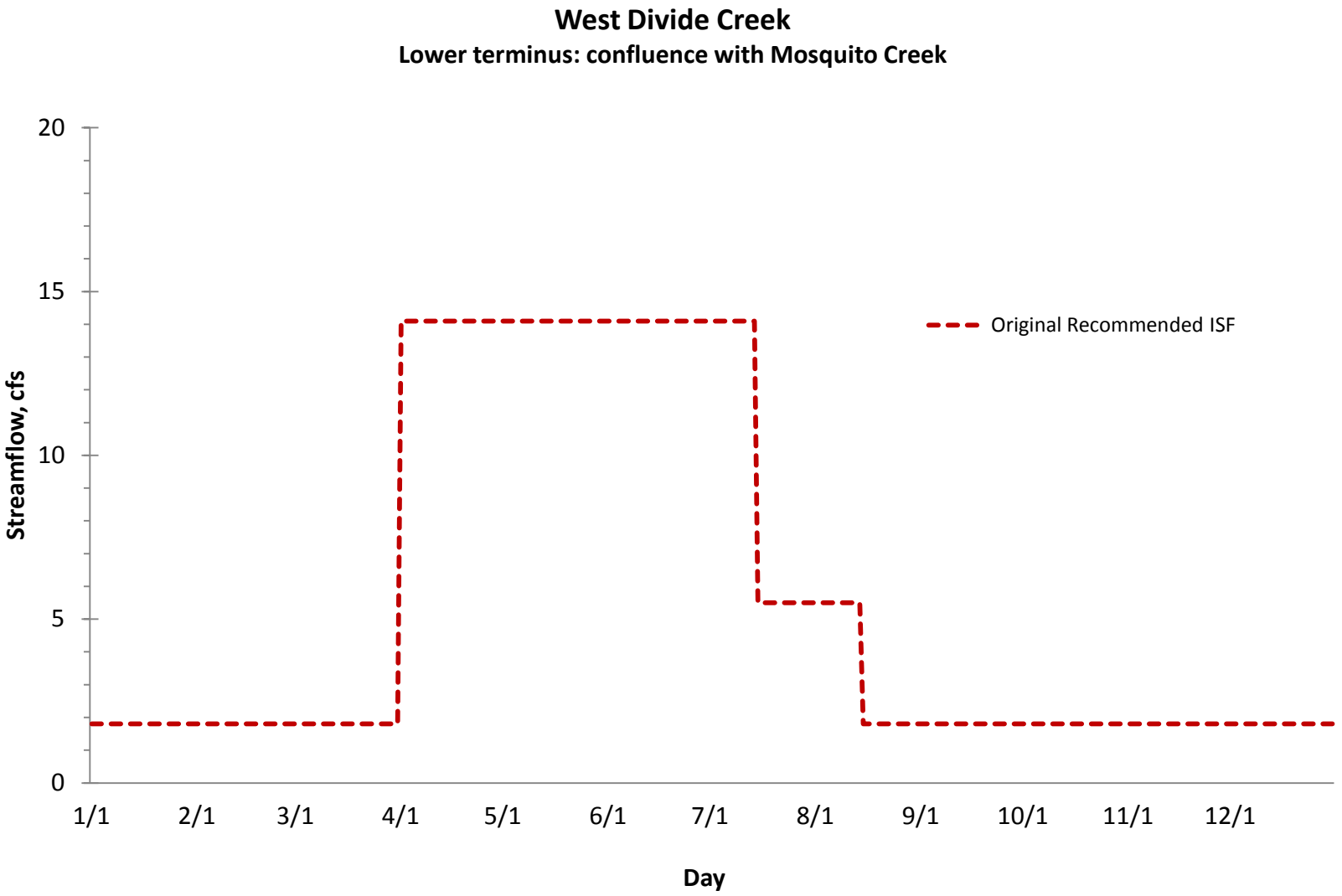

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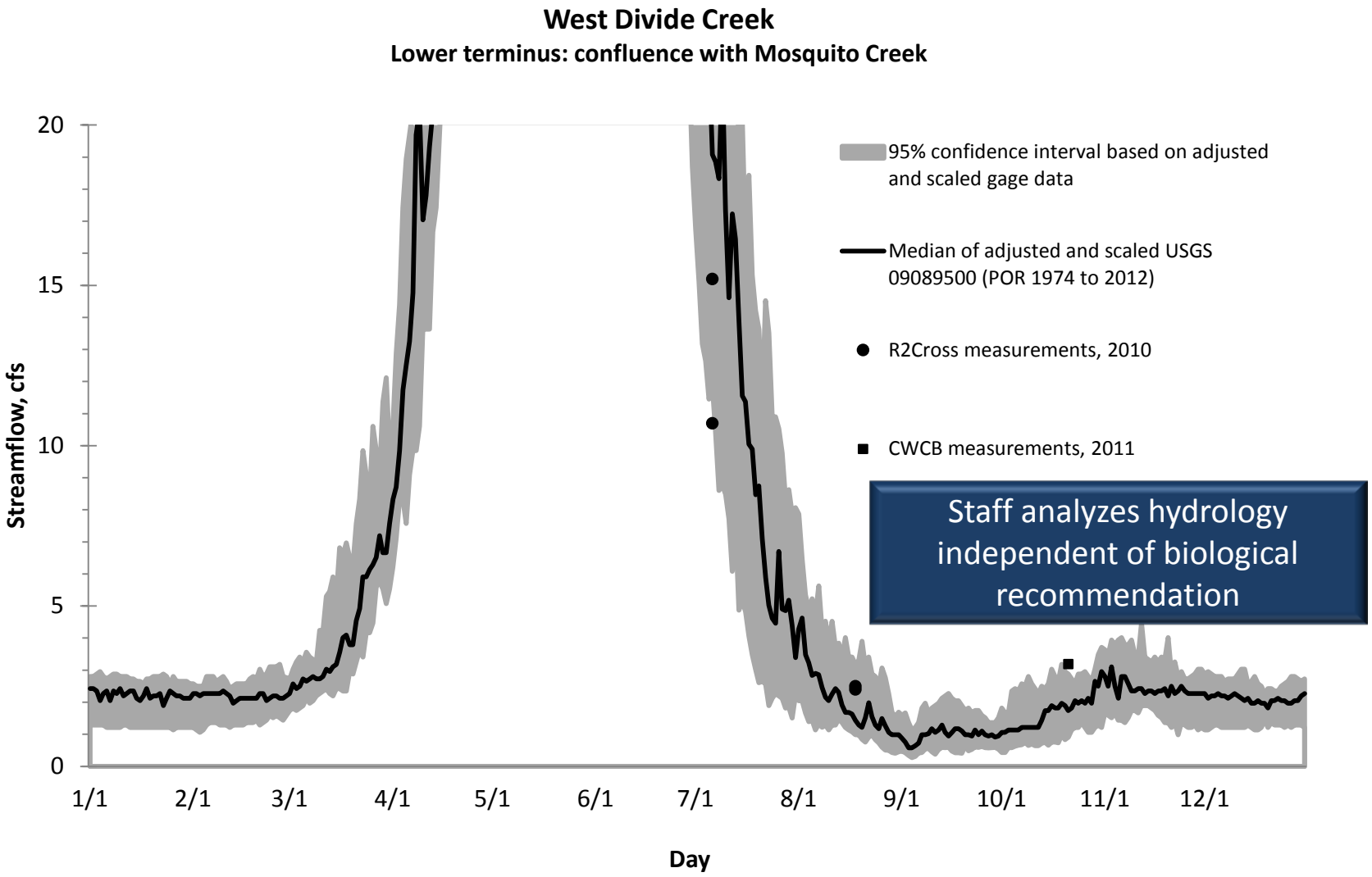

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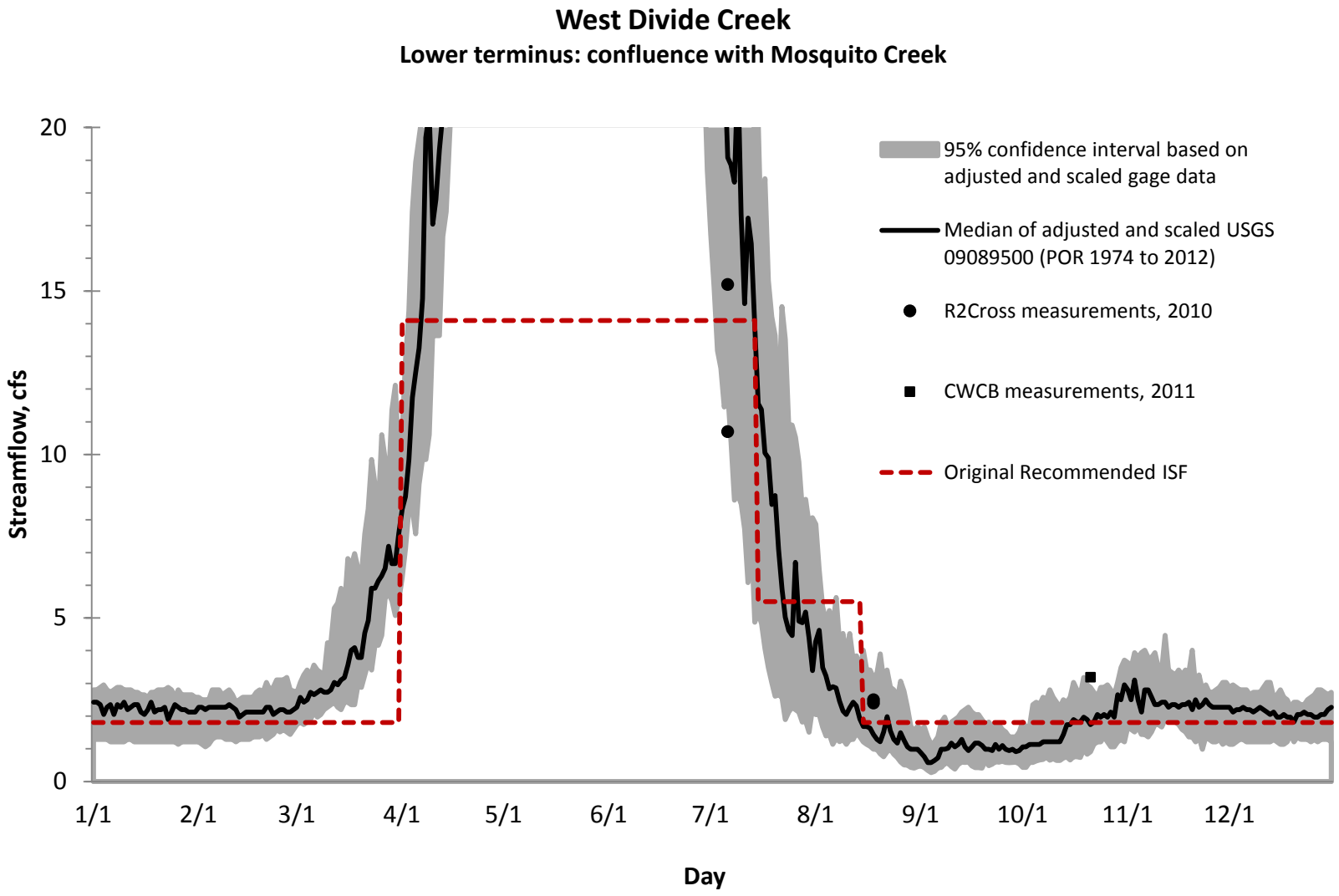

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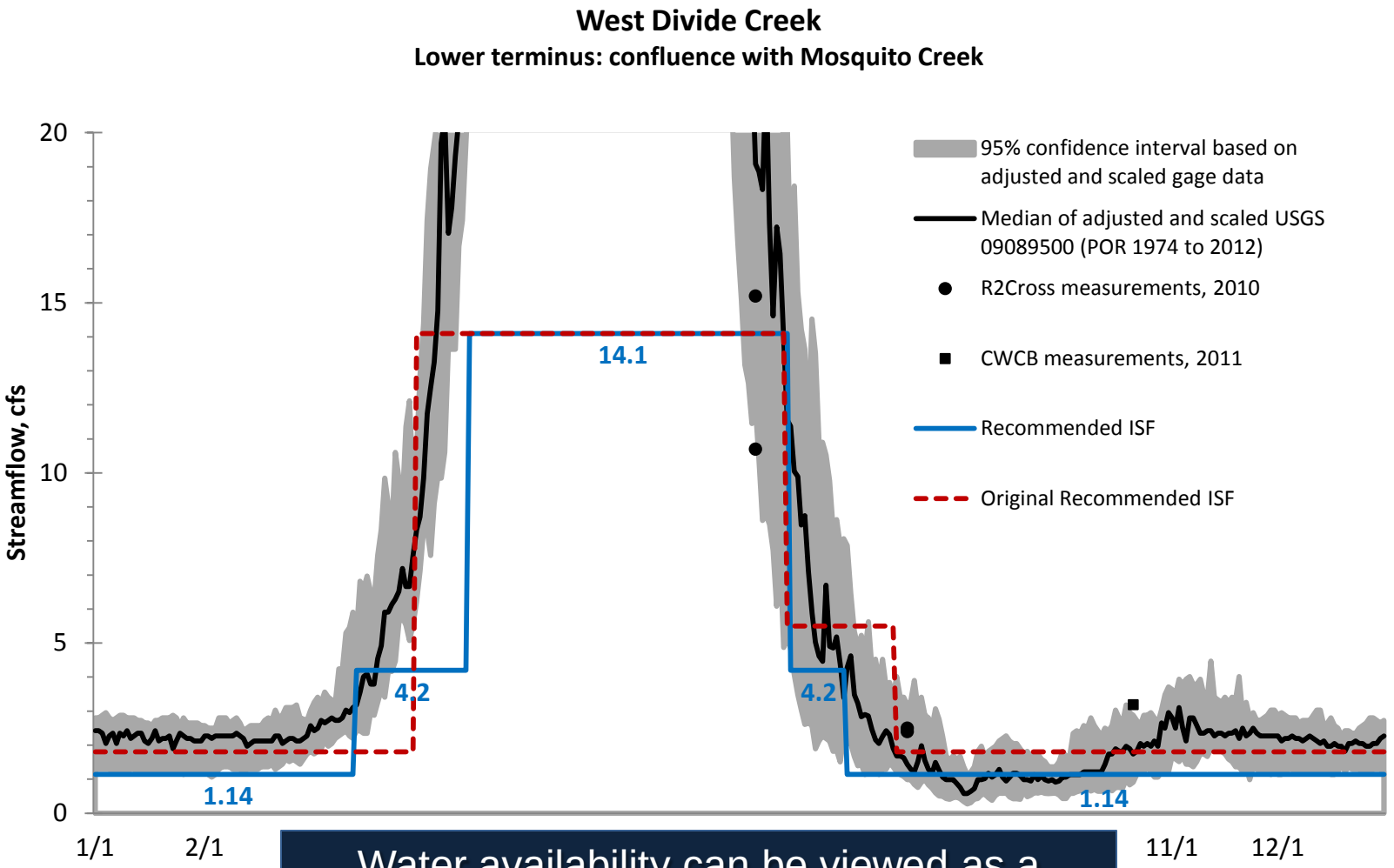


Water availability can be viewed as a necessary refinement that may impose limitations on biological quantification model findings.

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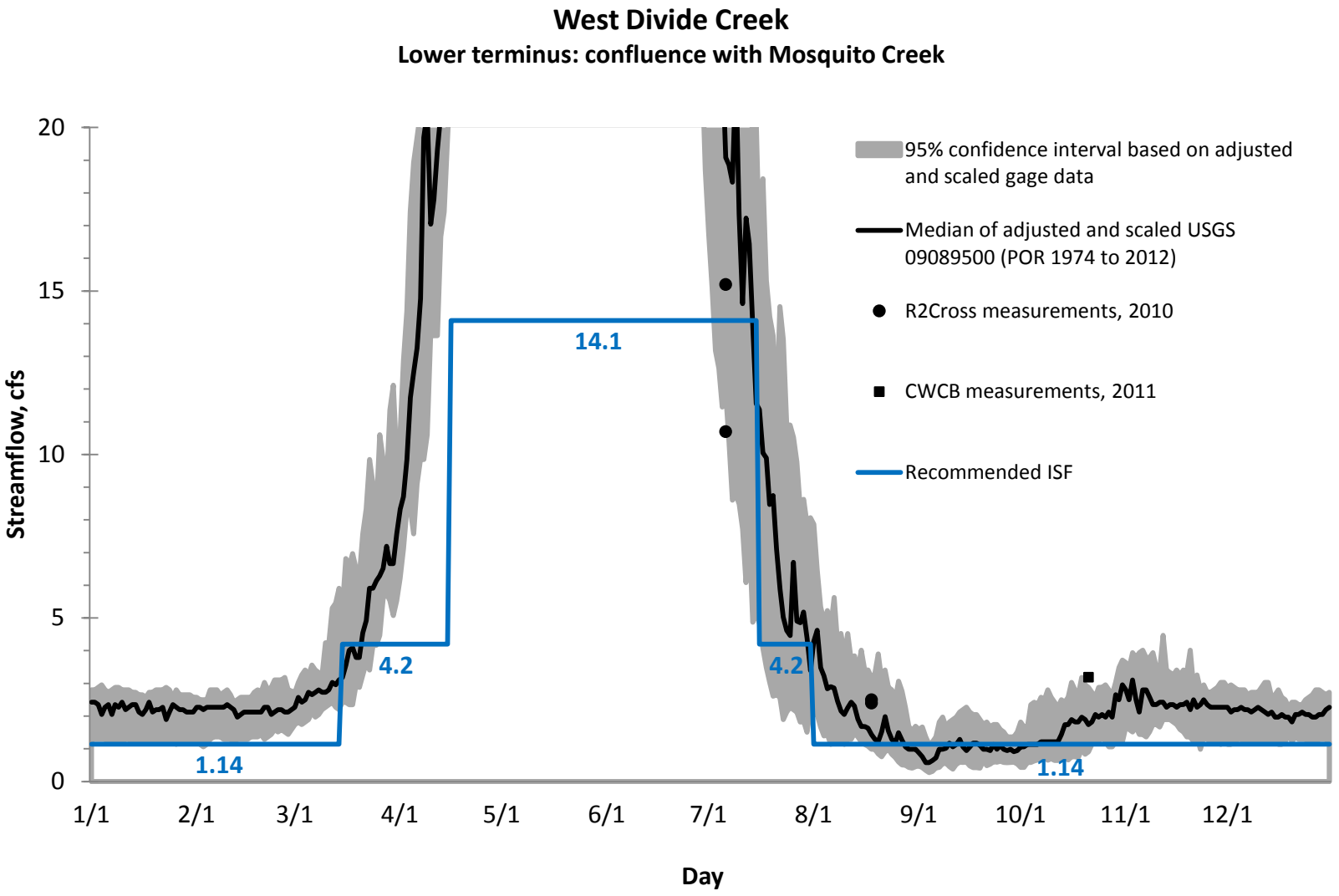


# New Appropriation Process

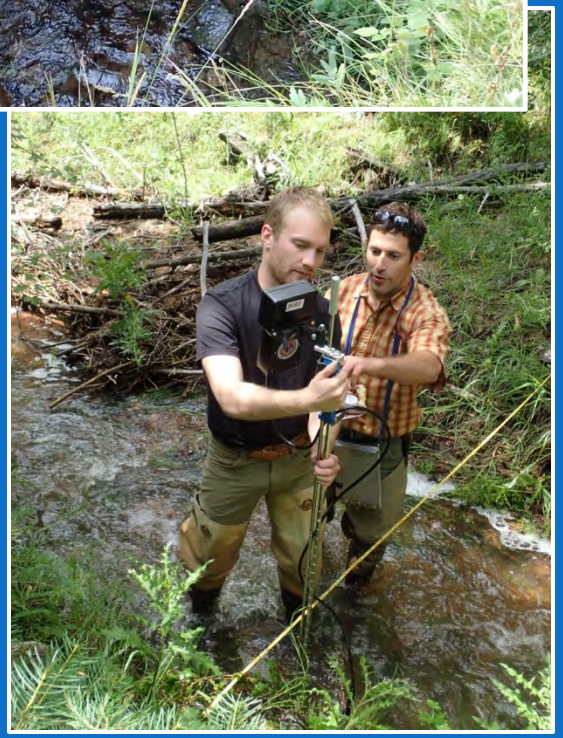
**Collect and analyze scientific information related to the required statutory findings and conduct outreach activities with stakeholders so that the Board can declare its intent to appropriate and take final action on the recommendation.**

# Recommending Entity's Role

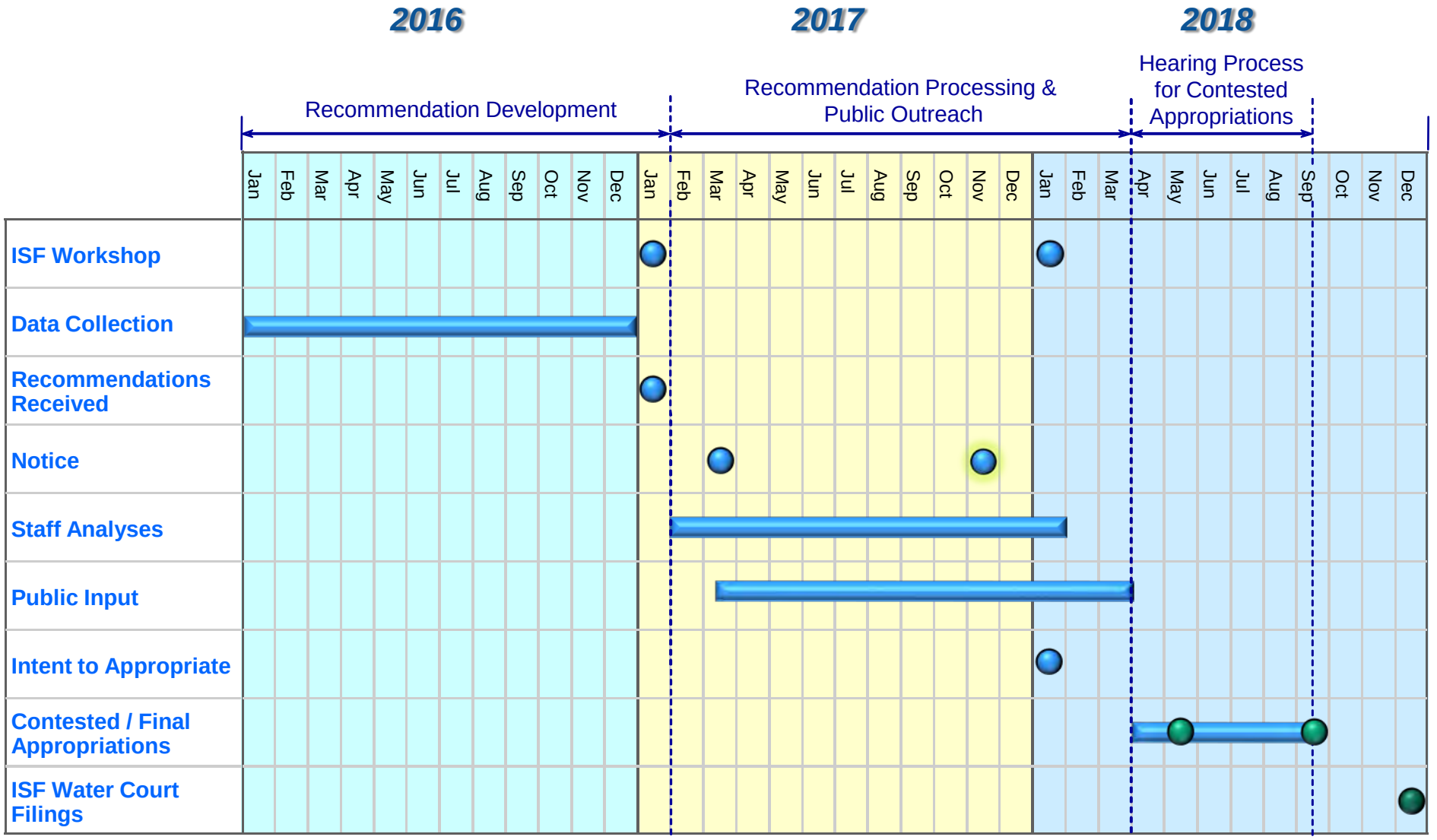
- Identify the stream or lake of interest and provide location information and termini for stream reaches (UTM locations, Division, County, etc).
- Identify the aspects of the natural environment that would be preserved with an ISF or NLL water right (Provide any supporting reports, fish surveys, photos).
- 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



# Potential USFS Recommendations for March 2017 or later

| Stream Name | County |
|---|---|
| Little Sand Creek<br>*(Headwaters to Confl. with Weminuche Creek)* | Hinsdale |
| Lower Vallecito Creek<br>*(Wilderness Boundary to USFS Boundary)* | La Plata / San Juan |
| Upper Vallecito Creek<br>*(Outlet Vallecito Lake to Wilderness Boundary)* | |

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

# Web Site updates on Recommended Streams

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**Environment**

- **Instream Flow Program**
  - Instream Flow Appropriations
  - Water Acquisitions
  - Monitoring & Enforcement
  - 2016 Contested ISF Appropriations
- Climate Change
- Watershed Protection & Restoration
- Nonconsumptive Needs
- Endangered Species
- Recreational In-Channel Diversions
- Salinity Control
- Wild & Scenic Rivers Fund

## Instream Flow Program

In Colorado's semi-arid environment, water is scarce with many competing demands placed on it by an ever-increasing population. Recognizing the need to correlate the activities of mankind with the reasonable preservation of the natural environment, the CWCB is responsible for the appropriation, acquisition, protection and monitoring of instream flow (ISF) and natural lake level water rights to preserve and improve the natural environment to a reasonable degree.

### What is an instream flow or natural lake level water right?

These water rights are nonconsumptive, in-channel or in-lake uses of water made exclusively by the CWCB for minimum flows between specific points on a stream or levels in natural lakes. These rights are administered within the state's water right priority system to preserve or improve the natural environment to a reasonable degree.

### What is the purpose of this type of water right?

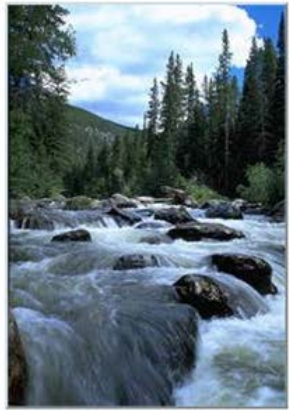
The CWCB's instream flow and natural lake level water rights protect diverse environments in Colorado including:

- Coldwater and warm water fisheries (various streams and lakes)
- Waterfowl habitat (Gageby Creek)
- Unique glacial ponds and habitat for neotenic salamanders (Mexican Cut Ponds and Galena Lake)
- Riparian vegetation, unique hydrologic and geologic features (Hanging Lake and Deadhorse Creek)
- Critical habitat for threatened or endangered native fish (Yampa and Colorado River)

### Status of the CWCB ISF Program

Since 1973, the CWCB has appropriated instream flow water rights on more tha
segments covering more than 9,250 miles of stream and 480 natural lak
completed more than 35 voluntary water acquisition transactions
these activities, select an option below:

- Instream Flow Appropriations: Inclu
process, as well as pr



**Additional Information**

- 2017 ISF & NLL Appropriations
- 2016 ISF Contested Appropriations
- Inst

# Questions ?