



Colorado's Water
Supply Future



Phase II Nonconsumptive Needs Assessment

Silverthorne, CO

February 10th, 2010

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The People Behind the Work

Colorado Water Conservation Board Nonconsumptive Needs Team:

- **Jacob Bornstein** (*Project Manager, Water Supply Planning Section*)
- **Eric Hecox** (*Water Supply Planning Section Chief*)
- **Linda Bassi** (*ISF Section Chief*)
- **Ray Alvarado** (*Data Section Chief*)
- **Chris Sturm** (*Stream Restoration Coordinator*)
- **Jeffrey Baessler** (*ISF Section*)
- **Taryn Hutchins-Cabibi** (*OWCDP Section*)
- **Ted Kowalski** (*Water Supply Protection Section*)

Interbasin Compact Committee Governor Appointees:

- **Taylor Hawes** (*The Nature Conservancy*)
- **Melinda Kassen** (*Trout Unlimited*)

Technical Consulting Team:

- **Nicole Rowan** (*Camp, Dresser, McKee*)
- **John Sanderson** (*The Nature Conservancy*)
- **Amy Beatie** (*Colorado Water Trust*)
- **Adam Bergeron** (*The Nature Conservancy*)

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AGENDA

10:00_{am} – Overall Context: *Why are we here?* (40 min)

10:40_{am} – Panel Discussion (90 min)

12:10_{pm} – Lunch (30 min)

12:40_{pm} – Breakout overview (20 min)

1:00_{pm} – Breakout groups by basin (90 min)

2:30_{pm} – Next steps (30 min)

3:00_{pm} – Adjourn

3:00_{pm} – Watershed Flow Evaluation Tool optional
information session (45 min)

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Overall Context

- Legislation
- Phase I
- IBCC process
- Phase II Approach

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Why are we here?

37-75-104 (2)(c). Using data and information from the Statewide Water Supply Initiative and other appropriate sources and in cooperation with the on-going Statewide Water Supply Initiative, develop a basin-wide consumptive and **nonconsumptive water supply needs assessment**, conduct an analysis of available unappropriated waters within the basin, and **propose projects or methods**, both structural and nonstructural, **for meeting those needs** and utilizing those unappropriated waters where appropriate. Basin Roundtables shall **actively seek the input and advice of affected local governments, water providers, and other interested stakeholders** and persons in establishing its needs assessment, and shall propose projects or methods for meeting those needs. Recommendations from this assessment shall be forwarded to the Interbasin Compact Committee and other basin roundtables for analysis and consideration after the General Assembly has approved the Interbasin Compact Charter.

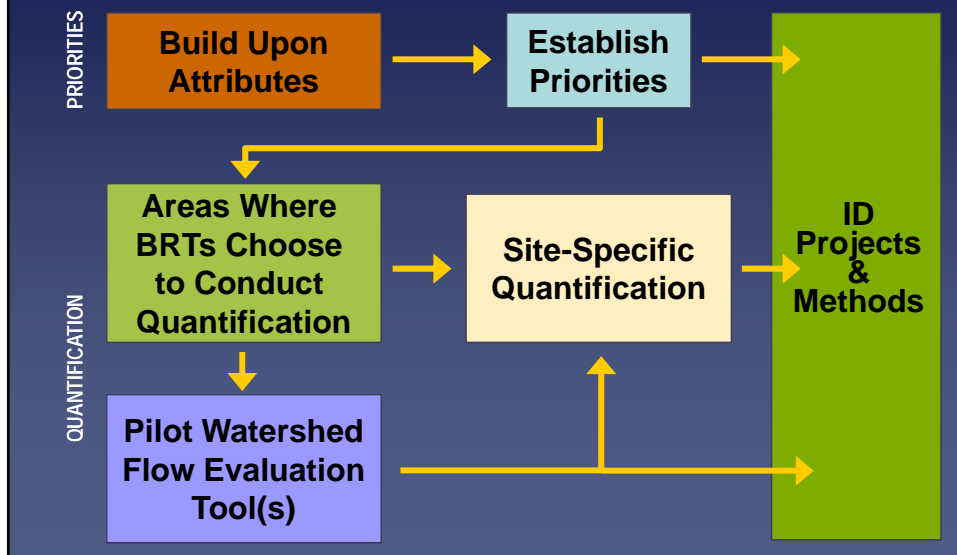
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Phase I: Example Attributes, mapped & considered by the roundtables

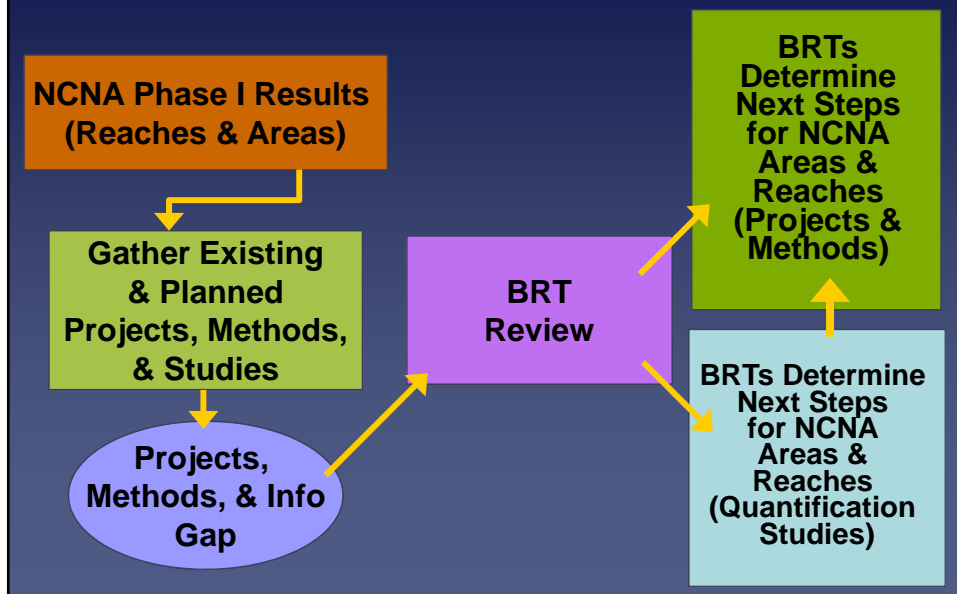
- CWCB Instream Flow Rights
- CWCB Natural Lake Levels
- CWCB water rights where water availability had a role in appropriation
- Audubon important bird areas
- CDPHE WQCD 303(d) listed segments
- Rare Riparian Wetland Vascular Plants
- Significant Riparian/Wetland Communities
- Boreal Toad Critical Habitat
- Arkansas Darter
- Greenback Cutthroat Trout
- Colorado Pikeminnow
- Bonytail Chub
- Flannelmouth Sucker
- Colorado River Cutthroat Trout
- Razorback Sucker
- Humpback Chub
- Greenback Cutthroat Trout
- Bluehead Sucker
- Rio Grande Cutthroat Trout
- Rio Grande Sucker
- Roundtail Chub
- Gold Medal Trout Streams
- Gold Medal Trout Lakes
- Recreational In-Channel Diversions
- Rafting and Kayak reaches
- Eligible/Suitable Wild & Scenic Reaches

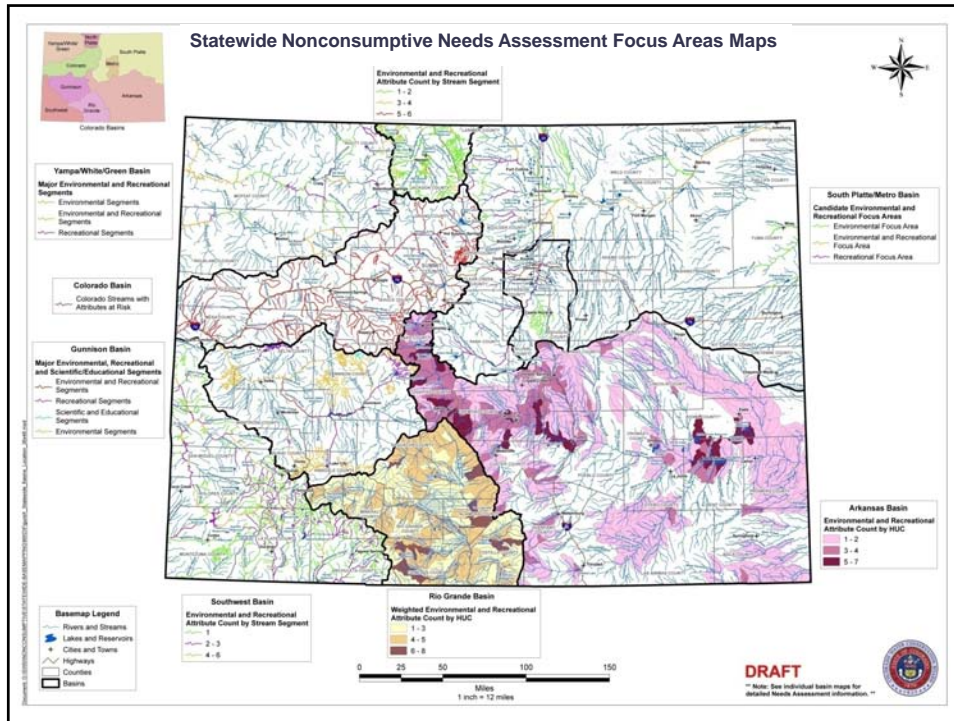
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Nonconsumptive Needs Assessment Methodology

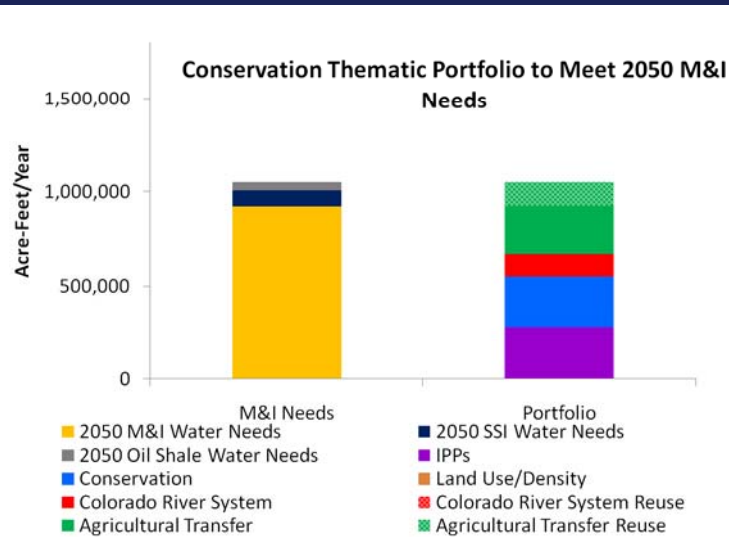


Phase II NCNA Methodology Detail

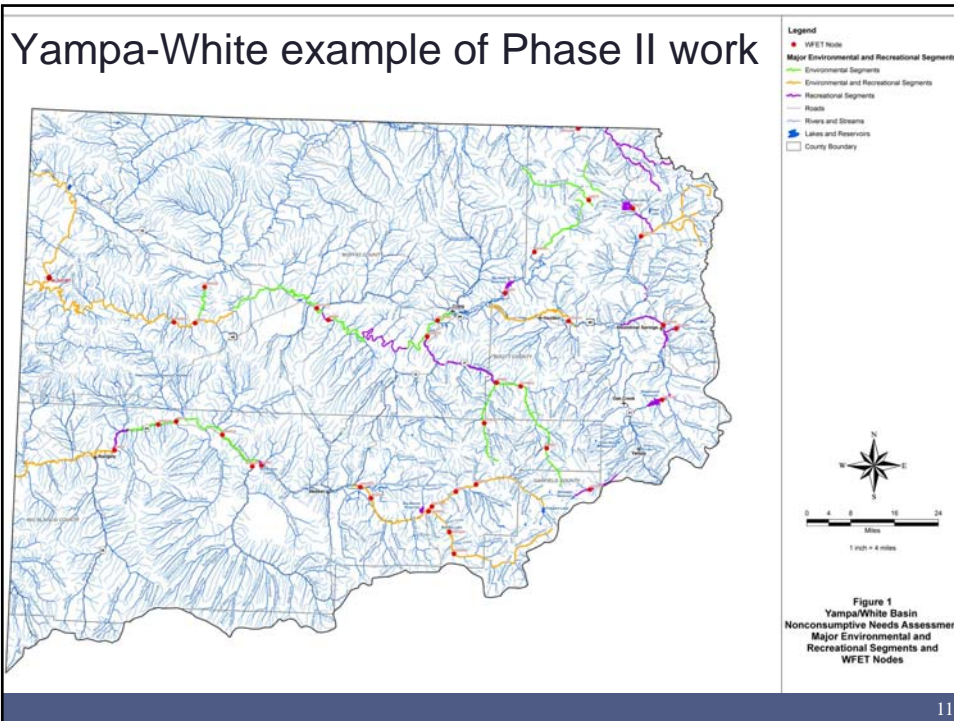




Water for the 21st Century Act



- Consumptive Needs
- Non-Consumptive Needs
- Water Supply Availability
- Projects & Methods to Meet Needs



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SIX THINGS YOU CAN TELL US:

1. Existing projects or methods
by stream reach, for which attributes, & what sources of info
2. Existing studies, especially quantification
by stream reach, for which attributes, & what sources of info
3. Planned projects or methods
by stream reach, for which attributes, & what sources of info
4. Planned studies
by stream reach, for which attributes, & what sources of info
5. Potential next steps for the roundtables to consider.
6. Who are we missing (and contact info)

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Why are we here?

1. To collectively understand what is going on for environmental and recreational needs in the state...
2. So that we can understand what work still needs to be done (defining the nonconsumptive "gap.")
3. Because nonconsumptive needs will continue to be important as we have increased competition for water resources in the future (e.g. population growth, climate change, & drought)

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So that we can...

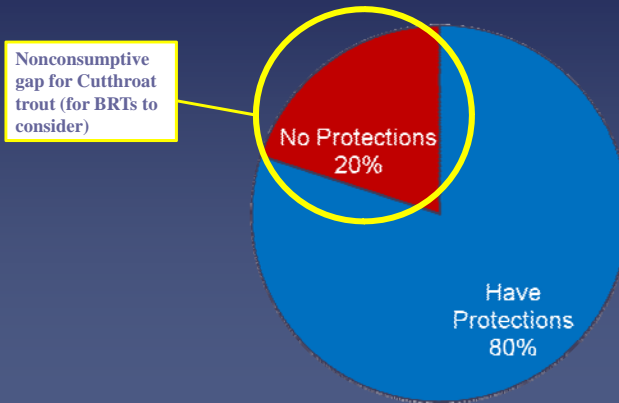
PLAN Upfront

- Provide valuable information to the roundtables so that they can determine sufficiency of protection and next steps
- Determine where CWCB should look at funding and supporting nonconsumptive projects
- Avoid long National Environmental Policy Act (NEPA) and litigation processes (be a useful guide for water supply planning up front),
- Avoiding Endangered Species Act "train wrecks" (help plan to prevent species of special concern from becoming federally listed),
- Inform Wild & Scenic Process
- Point to win/win opportunities for future multi-objective projects, and
- Help identify where future conflicts may occur

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Hypothetical Example Results

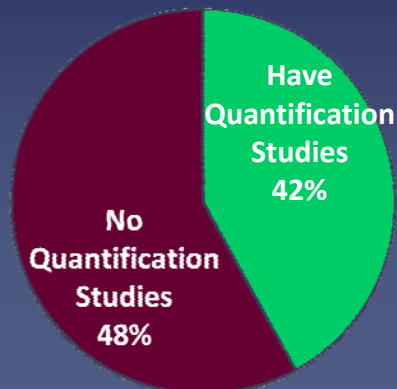
X Basin Cutthroat Trout Streams with Protections



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Hypothetical Reaches with Quantification

X Basin Nonconsumptive Segments with Quantification Studies



Literature Review & GIS database will include flow range data (e.g. seasonal variability, ranges of flows)

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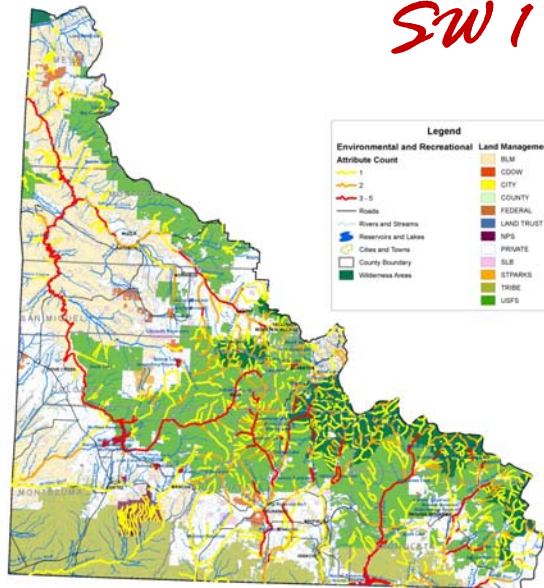
Panel Discussion

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Breakout Overview

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Southwest Basin Non-Consumptive Needs Assessment
Environmental and Recreational Attribute Count per Stream Segment



Sign-in #	Name	Organization
1	Casey Smith	Watershed
2	John Humphrey	U.S.F.

Colorado Water Conservation Board
Basin Needs Decision Support System Nonconsumptive Survey
 10-Feb-10
 Sign-in # 2 (John Humphrey) Map ID: SW 1
 Segment number as labeled on map: 2 1
 Segment description: Defunct bridge from completion of road to bridge

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Breakout Groups

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Next Steps

- Outreach to additional people and follow up with people here (April, 2010)
- Gather Literature (April, 2010)
- Compile Information (May, 2010)
- Initial Report (June, 2010)
- Further Analysis & Report (November, 2010)
- Bring to Roundtables to determine next steps
 - Additional Quantification Studies
 - Projects and Methods