North Platte Basin Implementation Plan

Draft Basin Goals and Measurable Outcomes

November 12, 2013



Section 1: Basin Goals and Measurable Outcomes

- Opportunity to envision what basin and project proponents "can and should accomplish"
- Highlight challenges (from SWSI 2010 & other reports)
- Define goals (broad) and measureable outcomes (specific)
- Describe how goals/outcomes address gap & inform the Colorado Water Plan

STATE OF COLORADO

Colorado Water Conservation Board

150 Lugar Steri, Baile 600 Denne, Calando 8030 Plane: (NC) 806 M41 Par. (NC) 804 2018



Basin Implementation Plan DRAFT Guidance

John W. Hickenlooper Governor

Mike King DNR Executive Director

Background and Purpose: Governor Hickenicoper issued as executive order
James Extend
calling for CWCE to work with the heats roundables, IDCC, and other
calling for CWCE Director
stakeholders to develop the Colorado Water Plan (CWP). The Basin

Implementation Plans are a critical impatinto the CWP, as they will show how each hashin plans to meet its future resmicipal, industrial, agricultural, recreational, and environmental needs. Each Basin Roundship will help ensure the CWP is a bottom up process by being an assume to get local project proponent input on which projects and methods are necessary and what other implementation strategies will be madely.

The 2010 State Water Supply Initiative (SWSI) determined that every basin faces a gap between supply and demand. The purpose of the Basin Implementation Plans is for each basin to identify projects and methods to near basin-specific manicipal, industrial, agricultural, environmental, and recreational needs. The Basin Implementation Plans will inform and help-drive the Colorado Water Plan. They will review identified Projects and Processes (IPPs) and the development of new projects and methods that near the water supply gaps identified in SWSI 2010 and additional shortages outlined in action three. As part of this work, the Basin Roundshibes (IRETs) will develop goals and measurable outcomes, needs, constraints and opportunities in each basin. In addition, the plan will identify specific implementation strategies that will be needed to fully realize the projects and methods described in action four and indicate how well the plan meets the goals and measurable outcomes as identified by each IRET.

The Basin Implementation Plans will flows on projects and methods recommended by the roundables to address their consumptive and nonconsumptive needs. As such, they are intended to help basins proactively meet water needs, with cummity planned projects, re-prioritized projects, and save projects, operational agreements, flow protections, or other neethods. The Basin Implementation Plans will also Basin include more detailed modeling analyses done via the CRWAS Continuation or WSRA-funded studies in basins contide or the CRWAS area.

Relation to the Colorado Water Plan and SWS1: The Basin Implementation Plans will be a fundamental component of the Colorado Water Plan as they will focus on strategies to meet roundtables' consumptive and nonconsumptive senter supply needs. The Colorado Water for 21° Contary Act attabilished the Basin Roundtables and tasked them to develop a water supply needs assumment, conducts water supply needs assumment, conducts were supply analysis and propose projects and methods to meet those needs. This work will provide a more detailed analysis and be geared towards implementing projects to meet those needs to address the gap in a meaningful way. This effort will be a foundational component of the update to SWSI and provide critical injurity into the Colorado Water Plan.

Interdists Compare Compilance - Webreshell Protection - Flood Phonolog & Miligation - Birrons & Late Protection
White Project Lance & County - Wiston Madeline - Compare tion & December Planets - Web Stands Planets



- **NC Goal:** Ensure Cutthroat Trout have sufficient protection to keep them from being listed as threatened / endangered
 - NC Measurable Objective: Protect 90% of Cutthroat Trout habitat with min ISF's.
- *M&I Goal*: Develop projects and methods within the basin that meet as much of the future M&I gap as possible.
 - Measurable Objective: Develop projects that meet 150,000 AF of new demand.
- Agricultural Goal: Minimize the permanent loss of agricultural acreage to those acres being urbanized and those already planned for in the IPPs.
 - Measurable Objective: Develop agriculture/M&I sharing projects for any agricultural transfers above the 20% agricultural dry-up threshold.



- Maintain and maximize the consumptive use of water in the depletion allowance of the Equitable Apportionment Decree and the Three State Agreement Depletion Plan.
- 2. Increase economic development and diversification through strategic water use and development.
- 3. Restore, maintain, and modernize critical water infrastructure to preserve current uses and increase efficiencies.
- 4. Meet prioritized nonconsumptive needs through the strategic implementation of multipurpose projects.

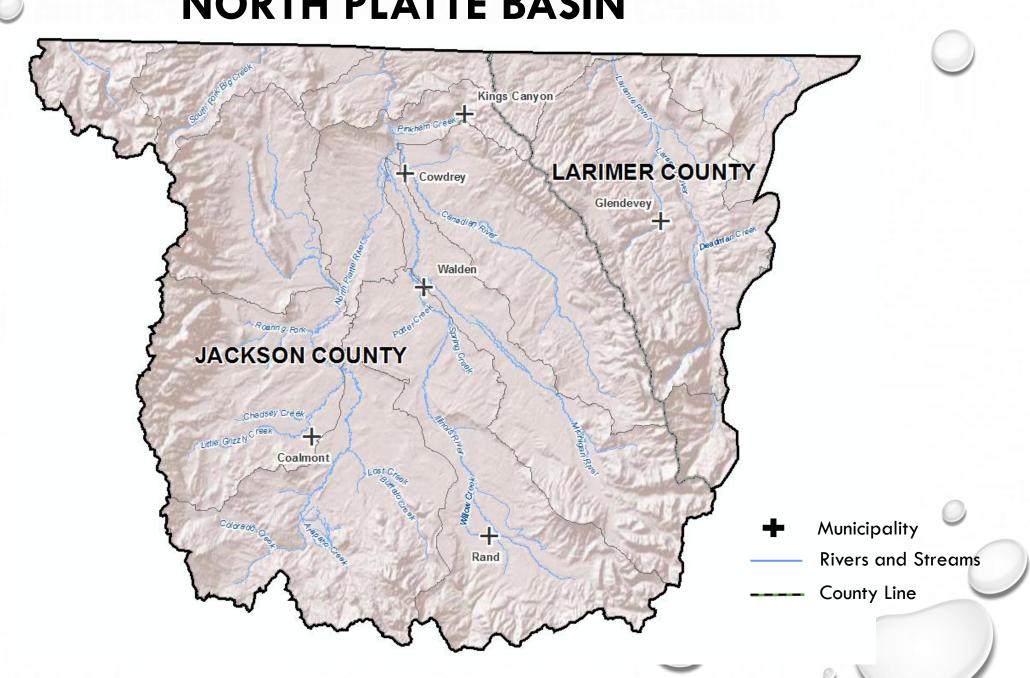


- 5. Describe and quantify the nonconsumptive benefits of agricultural use.
- 6. Promote water rights protection and management through improved streamflow gaging data.
- 7. Enhance forest health and management efforts for wildfire protection and beetle kill impacts.

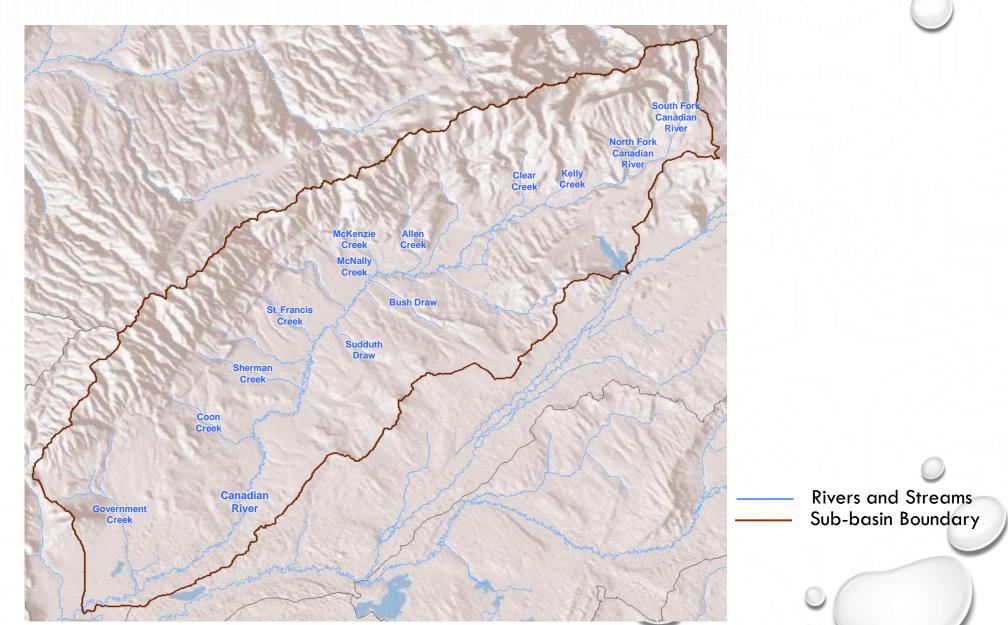


Initial Concepts for Presentation of NPBIP Data

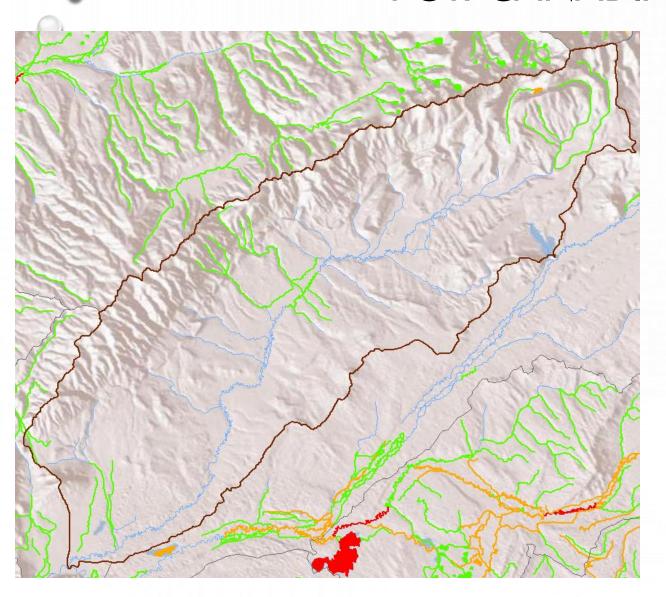
NORTH PLATTE BASIN



IN-DEPTH LOOK AT THE CANADIAN SUB-BASIN



NONCONSUMPTIVE USE ATTRIBUTES FOR CANADIAN SUB-BASIN

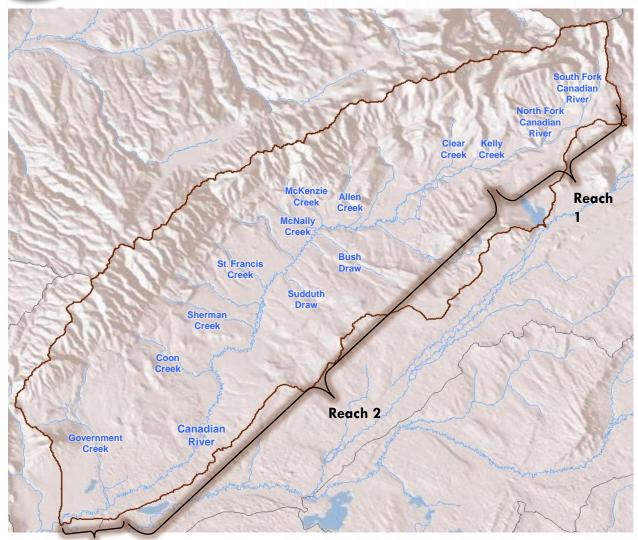


Environmental and Recreational Subcategories:

- Bald Eagle and Osprey
- River Otter
- Amphibians
- Rare Plants and Significant Riparian/Wetland Communities
- WQCD Outstanding Waters, Eligible/Suitable Wild and Scenic River Reaches
- CWCB Instream Flow Waters
- Lake Chub
- Important Waterfowl and Crane Habitat
- Important Fishing
- Whitewater and Floatwater Boating
- Waterfowl Hunting and Riparian/Wetland Wildlife Viewing

Frequency of Environmental and Recreational Subcategory Occurrences by Stream Segment

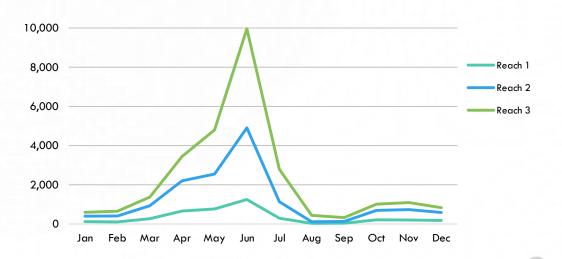
LEGALLY AVAILABLE FLOW FOR THE CANADIAN SUB-BASIN



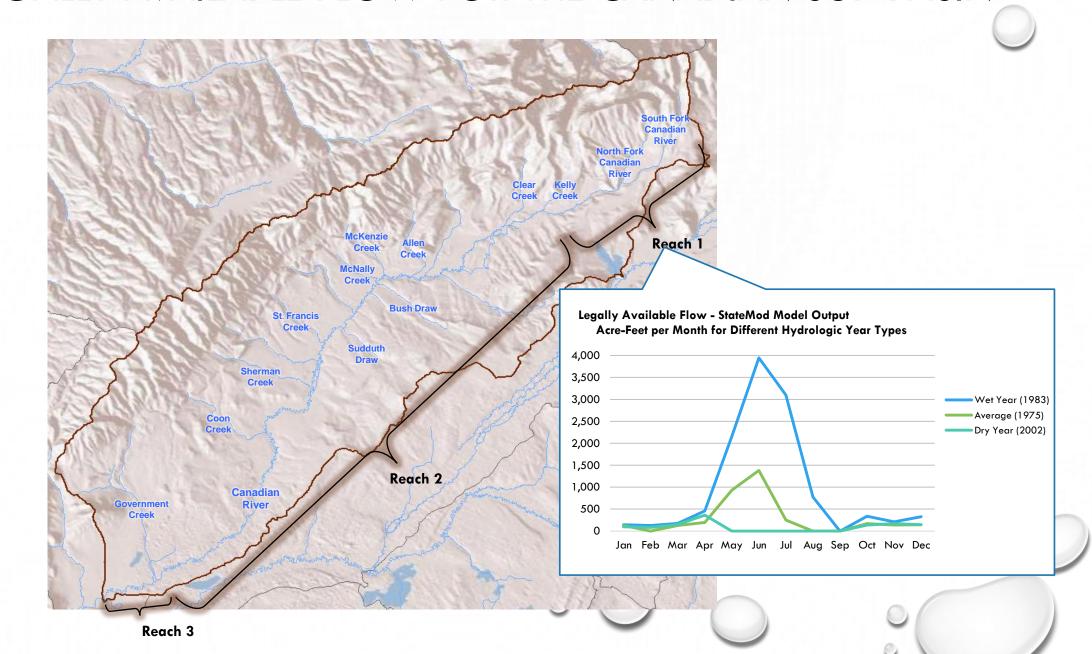
Reach 3

Canadian mainstem subdivided into 3 different reaches based on average legally available flow for study period (1975-2007)

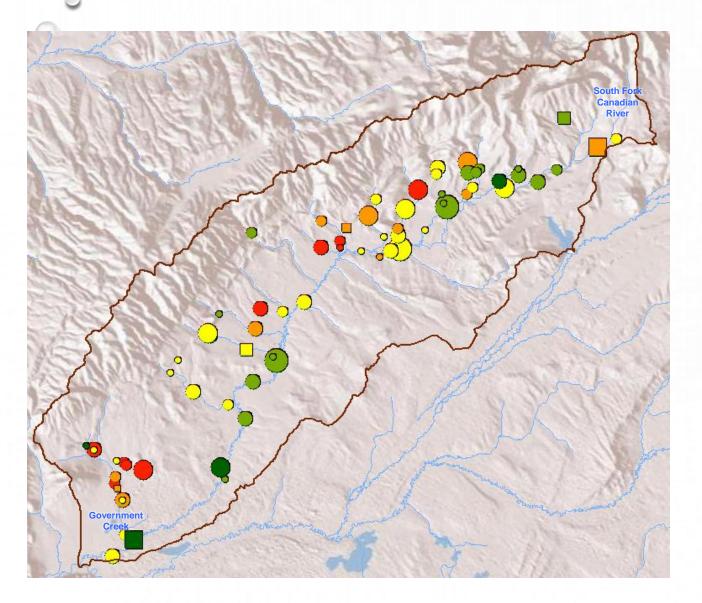
Legally Available Flow - StateMod Model Output
Average Legally Available Flow (acre-feet/month) for Study Period (1975-2007)



LEGALLY AVAILABLE FLOW FOR THE CANADIAN SUB-BASIN



PERCENT SHORTAGE AND IRRIGATED ACREAGE



- Diversion Systems
- Explicit Structures

Crop Area Acres

- Less than 50 acres
- 50 to 100 acres
- 100 to 250 acres
- 250 to 500 acres
- More than 500 acres

Percent Shortage

- 0 to 25
- 25 to 35
- 35 to 45
- 45 to 60
- 60 to 100