
Implementation
WORKING
GROUP

COLLABORATIVE

PROCESS

- The Implementation Working Group effort is meant to:

1. Increase Transparency

2. Develop Guidance Materials

3. Meet Planning Implementation Goals

TABLE 11-1 CYCLICAL PLANNING PROCESS PROPOSED BY THE CWCB

Product	Year Initiated
Basin Implementation Plans	2013
Colorado's Water Plan	2013
Statewide Water Supply Initiative	2016
Basin Implementation Plans	2018
Colorado's Water Plan	2020
Statewide Water Supply Initiative	2022

ACTIONS

1. The CWCB will work with other state agencies, the basin roundtables, and the people of Colorado to update Colorado's Water Plan, beginning no later than 2020.
2. The CWCB will develop guidelines for Basin Roundtable WSRA grants to help facilitate the implementation of the BIPs.

PLANNING HORIZON

BIP Updates Phase I Planning & Implementation Working Group

BIP Updates Phase II Year 1

BIP Updates Phase II Year 2

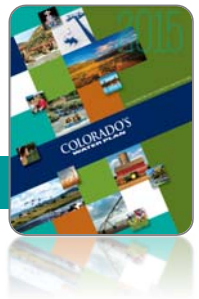
2018	2019	2020	2021
SEPT	SEPT	SEPT	SEPT

IWG

SWSI/TECH UPDATE

C-9 BIP UPDATE

5-YR WATER PLAN UPDATE




PLANNING FOR
SUCCESS
GOALS
1. Enhance Data
2. Enhance Strategies
3. Enhance Methodologies

1 ENHANCE DATA

What's this look like?

Projects

A lookback to step forward

In 2015, each Basin Roundtable developed data sets of Identified Projects and Processes (IPPs) in accordance with CWCB guidance. Due to the complexity of studies, variation by basin, and number of entities involved, IPP data across and within remain inconsistent in content and format. The Technical Update to the Water Plan is reviewing the handling and formattir IPP data to ensure useful data products can be created and future analyses can be performed consistently. The following t shows a summary of statewide IPP data, organized by a *draft recommendation* of minimum supplied data attributes.

Data Attribute	Arkansas	Colorado	Gunnison	North Platte	Rio Grande	S. Platte / Metro	Southwest	Yampa / White
IPP ID Number	X		X	X	X	X	X	X
IPP Name	X	X	X	X	X	X	X	X
IPP Description	X	X	X	X			X	X
Basin						X		
Municipal & Industrial Need	X	X	X		X		X	
Agricultural Need	X	X	X		X		X	
Environmental & Rec Need	X	X	X	X	X		X	X
Admin Need					X			
Multiple Needs	X	X	X		X		X	
Water Source GNIS Name								
Water Source GNIS ID								
Water Destination								
Latitude & Longitude	X		X	X			X	X
Phase	X	X	X				X	
Yield	X	X	X			X		
Yield Units	X	X	X			X		
Estimated Cost	X	X	X		X	X		
Contact	X		X			X	X	
Proponents	X	X	X		X	X	X	X

Rio Grande Basin Implementation Plan

A lookback to step forward

The first Basin Implementation Plans (BIPs) were initiated in 2013 by the Governor's Executive Order and completed by 2015 to form the backbone of the Colorado Water Plan. Built on the synthesis of SWSI 2010 data, BIPs identified basin-focused goals, consumptive and non-consumptive needs, and portfolios of solutions to projected supply gaps (e.g. identified projects and processes known as 'IPPs'). Updating these plans and projects will help:

- *Support funding for basin projects through improved costing data*
- *Incorporate most up-to-date future supply analyses*
- *Allow basins to revisit goals and incorporate recent local planning*

Do basin goals remain the same? Have any emerged as priorities?

Goal Summary	Focus on watershed health
	Uphold Colorado water law
	Sustain the aquifers
	Implement infrastructure to meet long-term water needs
	Sustain optimal agricultural economy
	Support multipurpose projects & methods
	Meet all demands for water
	Establish education and outreach efforts for water use and needs
	Meet applicable water quality standards
	Be adaptive, flexible, and responsive
	Preserve wildlife habitats
	Conserve wetlands and riparian areas
	Sustain active river flows
	Maintain water-dependent recreational activities

How many current members were involved in BIP development?

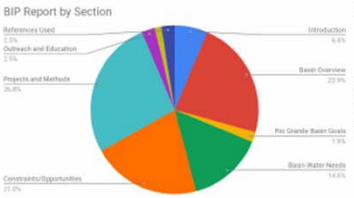
Do IPPs align with basin goals?

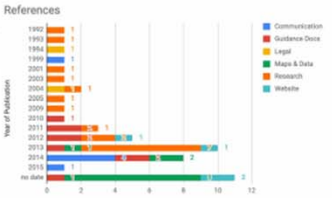
What's the anticipated level of effort?

50% Projects with cost information

37% Pages with potential updates

What are the essential content updates?





Basin	Percent of IPPs with Cost Data
Arkansas	4%
Colorado	2%
Gunnison	28%
North Platte	0%
Rio Grande	50%
South Platte / Metro	22%
Southwest	0%
Yampa / White	0%

9.2 ECONOMICS AND FUNDING

FIGURE 9.2-1 2015 COLORADO STATE BUDGET

GOAL

Colorado's Water Plan coordinates existing funding sources and explores additional funding opportunities.

Introduction

Investing in the long-term sustainable supply and delivery of water is critical to Colorado's future. Even in robust economic times, the difficulties inherent in financing large, long-term, sustainable water projects can create community apprehension and political controversy.

At the same time, the State of Colorado does not invest significant funds in water resources compared to other state priorities.[7] Figure 9.2-1 shows the State's overall natural resources budget compared to other state priorities.

Financing long-term, sustainable water supplies and infrastructure projects requires a collaborative effort involving water users and providers, as well as federal, state, and local entities. Over the years, the CWCB has partnered with various water providers throughout Colorado to conserve, develop, and protect Colorado's water for future generations. The CWCB has provided funding through grants and loans for critical multipurpose and multipartner projects, which have included the Chatfield Reallocation Project, the Animas-La Plata Project, the Rio Grande Cooperative Project, and the Elkhead Reservoir Enlargement Project. For these projects alone, the CWCB contributed over $200 million. These projects supplied over 100,000 acre-feet of water to help water providers meet their water supply and storage needs, while also improving stream health, promoting shared uses, sustaining agriculture, and providing long-term recreational benefits.[8]

To meet long-term water demands, Colorado will need to secure funding through a combination of legislation, partnerships, and state and federal grant and loan programs. It is the CWCB's intent to promote, and potentially financially and politically support, projects that evaluate water supply, storage, and conservation efforts on a regional, multipurpose, multi-partner, multi-benefit basis, and projects that evaluate the consolidation of services where practical, feasible, and acceptable. This section provides: 1)A description of existing financial need; 2) an overview of financial assistance programs; and 3) recommendations and suggested approaches for developing an integrated water infrastructure financing model that could assist in addressing Colorado's short- and long-term water needs.

[8] Chatfield Reallocation Project ($62 million CWCB investment, $80 million loans), Animas- La Plata Project ($37 million water purchase), Rio Grande Cooperative Project ($5 million grant, $15 million loan/grant), and Elkhead Enlargement Project ($11 million).

9-9 Chapter 9: Alignment of State Resources and Policies – 9.2 Economics and Funding

PROJECT COSTS IDENTIFIED IN THE BASIN IMPLEMENTATION PLANS*

SINGLE-PURPOSE PROJECTS AND METHODS			MULTI-PURPOSE PROJECTS	TOTAL
ENVIRONMENTAL, RECREATIONAL, OR WATER QUALITY	MUNICIPAL AND INDUSTRIAL	AGRICULTURAL		
$345,000,000	$270,000,000	$10,000,000	$792,000,000	$1,407,000,000
$1,500,000	$4,000,000	Forthcoming	$132,000,000	$137,500,000
$8,000,000	$46,000,000	$9,000,000	$423,000,000	$486,000,000
Forthcoming	Forthcoming	Forthcoming	Forthcoming	Forthcoming
Forthcoming	Forthcoming	$80,000	$130,000,000	$131,080,000
Forthcoming	Forthcoming	Forthcoming	Forthcoming	Forthcoming
$60,000,000	Forthcoming	Forthcoming	Forthcoming	$60,000,000
$5,000,000	Forthcoming	Forthcoming	Forthcoming	$5,000,000
$419,500,000	**$320,000,000**	**$19,080,000**	**$1,477,000,000**	**$2,235,580,000**

* Costs were rounded to three significant figures. Most identified projects did not have associated costs. Therefore, additional cost estimating and refinement of existing project costs will be forthcoming to develop an overall statewide summary of water project funding needs.

Statewide Water Infrastructure Financing Need

The BIPs for Colorado's major river basins are a critical component of Colorado's Water Plan. In general, each BIP looked at balancing long-term municipal, industrial, agricultural, environmental, and recreational needs within and among the respective basins. As part of the BIPs, the basin roundtables identified a list of projects and methods they believe address the long term needs of their basins.

Table 9.2-1 features an initial summary of the costs the BIPs identified. It must be emphasized that costs were not associated with the vast majority of projects identified. In addition to these projects, the BIPs included other activities that require financial support, including education, outreach, conservation programs, flow agreements, alternative agricultural transfer methods, important legal investigations, and programs that manage various risks and vulnerabilities throughout the state.

The SWSI estimated that by 2050, municipal and industrial water infrastructure improvements will require between $17 billion and $19 billion in funding.[9, 9] In addition, approximately $150,000 is needed per mile of stream for smaller-scale river restoration work, but substantial structural changes or channel reconfiguration could cost $240,000 or even $500,000 per mile.[9] Up to 90 watershed or stream management plans, at an estimated cost of $18 million statewide, will be necessary to help CWCB and stakeholders better determine the amount of river restoration work and other similar types of work that may be required.[10]

As basins and stakeholders identify their environmental and recreational needs, the basins will need to develop and fund further projects and methods to meet those needs. For planning purposes, however, one could estimate a $2 billion to $3 billion environmental and recreational statewide need, equivalent to approximately 10 to 15 percent of the municipal and industrial water infrastructure cost

[9] This number is based on an estimated $14 billion to $16 billion of identified M&I needs calculated in the Portfolio and Trade-off tool (CWCB, 2011), plus an additional $3 billion estimated need for maintaining existing M&I infrastructure. The numbers, however, are being refined in accordance with the BIPs.

Chapter 9: Alignment of State Resources and Policies – 9.2 Economics and Funding 9-10

"It must be emphasized that costs were not associated with the vast majority of projects identified."

-COLORADO'S WATER PLAN / CHAPTER 9-10

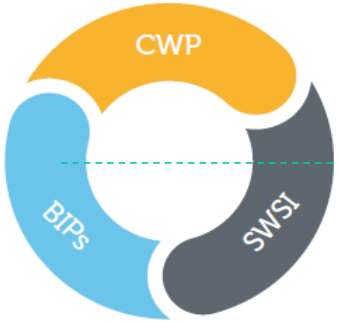
FACT SHEET

SWSI Update Overview

This fact sheet provides an overview of the context, processes, and features of the current update to the Statewide Water Supply Initiative (SWSI).

Context

The current SWSI Update is the first iteration of SWSI to be conducted in the context of Colorado's Water Plan (CWP) and the Basin Implementation Plans (BIPs) that were developed in Colorado's eight major river basins. Prior iterations of SWSI included components (such as portfolios of projects and methods to meet future gaps) that are now exclusive to the BIP & CWP processes. As a result, the SWSI Update will be a technically-focused effort to develop analysis tools and data sets that will be useful to the basin roundtables, water managers, and the public for planning and education purposes. The SWSI Update results will provide more detailed scientific information to help guide basin roundtables as they update their BIPs, which in turn will serve as the backbone for the next update to CWP.



Features of the SWSI Update

The SWSI Update addresses a wide variety of new new questions, processes, and tools.

New Questions

The SWSI Update will estimate future available water supplies and gaps under the five different planning scenarios described in CWP. Previous iterations of SWSI were conducted prior to CWP and therefore did not consider the scenarios. The planning scenarios incorporate water supply and demand drivers associated with the potential effects of climate change, population growth, and many other factors.

New Processes

In their BIPs, the basin roundtables cataloged various projects and methods to mitigate future water supply gaps. The SWSI Update focuses on developing tools and more detailed datasets to help the basin roundtables update their portfolios and of projects and methods for meeting future water needs in a targeted manor with forthcoming updates to their BIPs.

New Tools

New analysis tools and data sets have been developed since the last iteration of SWSI. Consumptive use and surface water allocation models are now available in most river basins. Municipal water demand and conservation data is available via 1051 reporting. The availability of these new tools and data sets allows for a more robust approach to assessing future water availability and gaps.

IS THE CYCLE ADDING

VALUE?

BIPs BY THE NUMBERS

- About **25%** BIP pages need updating
- **50%** BRT turnover since first BIPs
- At most, **50%** IPPs have costs (many have much less)
- **100%** of BIPS have new reports to reference
- **1/3** of BIPS use some form of tiers

Projects

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Agricultural Need	X	X	X		X		X	
Environmental & Rec Need	X	X	X	X	X		X	X
Admin Need					X			
Multiple Needs	X	X	X		X		X	
Water Source GNIS Name								
Water Source GNIS ID								
Water Destination								
Latitude & Longitude	X		X	X			X	X
Phase	X	X	X				X	
Yield	X	X	X			X		
Yield Units	X	X	X			X		
Estimated Cost	X	X	X		X	X		
Contact	X		X			X	X	
Proponents	X	X	X		X	X	X	X

Rio Grande Basin Implementation Plan

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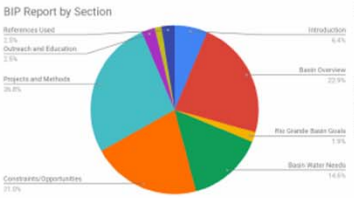
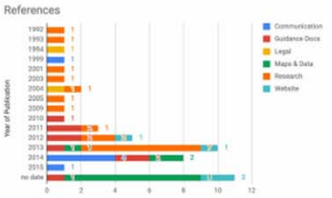




ADDING VALUE TO

THE BIP UPDATES

TALKING POINTS:

- Are basin goals the same?
- Who remembers the first BIP process?
- Do IPPs align with basin goals? Do they have costs?
- What's the level of effort needed to update your BIP?

QUESTIONS:

1) Are the one-pagers helpful to facilitating ongoing BIP update discussions with BRTs?

2) What is the most important point to you?

ENHANCING
PROJECT DATA

- Update Projects (with essential data; list of 20)
- Compare to No-Low-Regrets (i.e. Core Strategies)
- Align Basin goals and Water Plan goals and prioritize needs
- Provide an easy way to maintain a projects list (database)

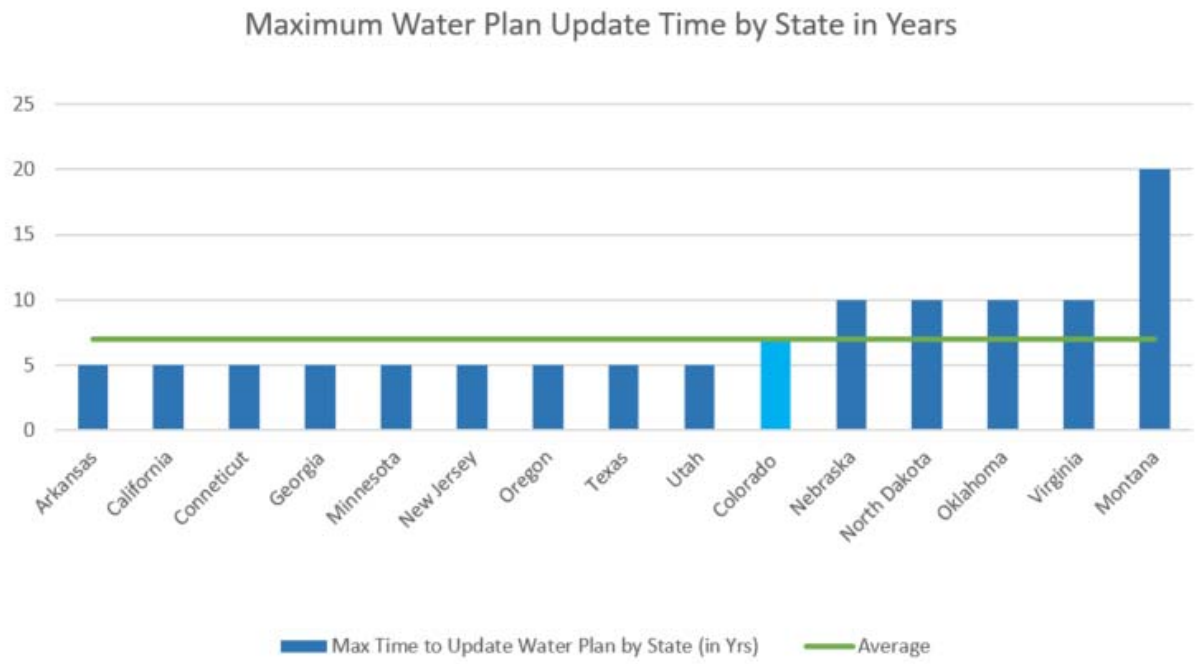
SUPPORTING
BASIN PROJECT
IMPLEMENTATION

2 ENHANCE PLANNING STRATEGIES

What's this look like?

COMPARING
UPDATE TIMES

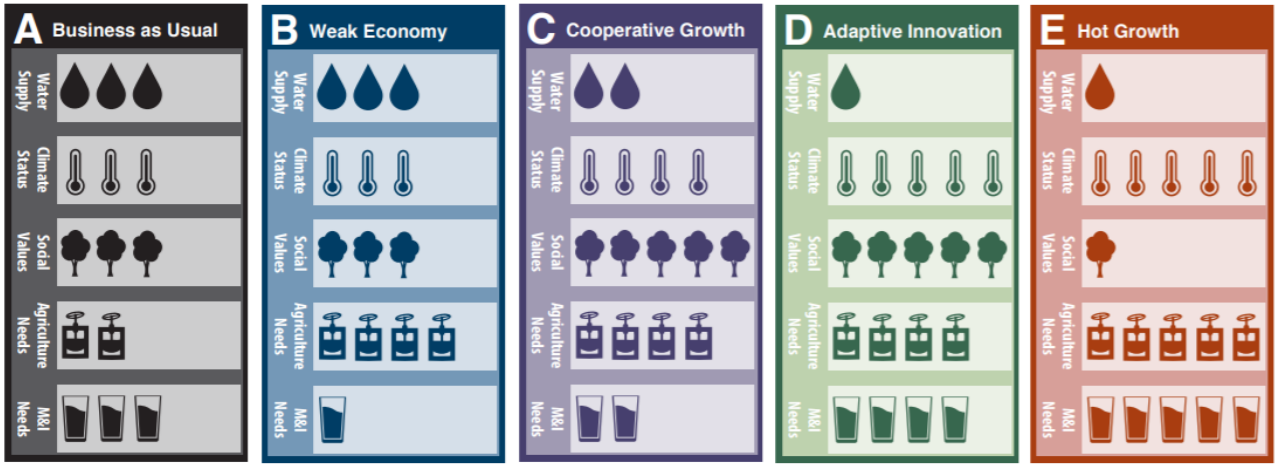
- Colorado's Water Plan update started by initiating SWSI in 2015.
- Chapter 11 mandates the Water Plan update be initiated in 2020.
- The Water Plan update is slated for 2022 (putting CO on track with the 7 year update average).



BUILDING ON PAST EFFORTS

- No and Low Regrets were “Core Strategies” in the Water Pl
- Achieved 100% consensus from IBCC and board support
- Meant to be reviewed with each SWSI Update:
  - Actions that can move forward in the near-term and serve as water plan phase I (10-15 years)
  - Actions that have few or no disadvantages in terms of costs and benefits, regardless of the future.

“The No/Low Regrets Action Plan is based on the foundation of the Scenario Planning and Portfolio work conducted by the IBCC and the Basin Roundtables.”



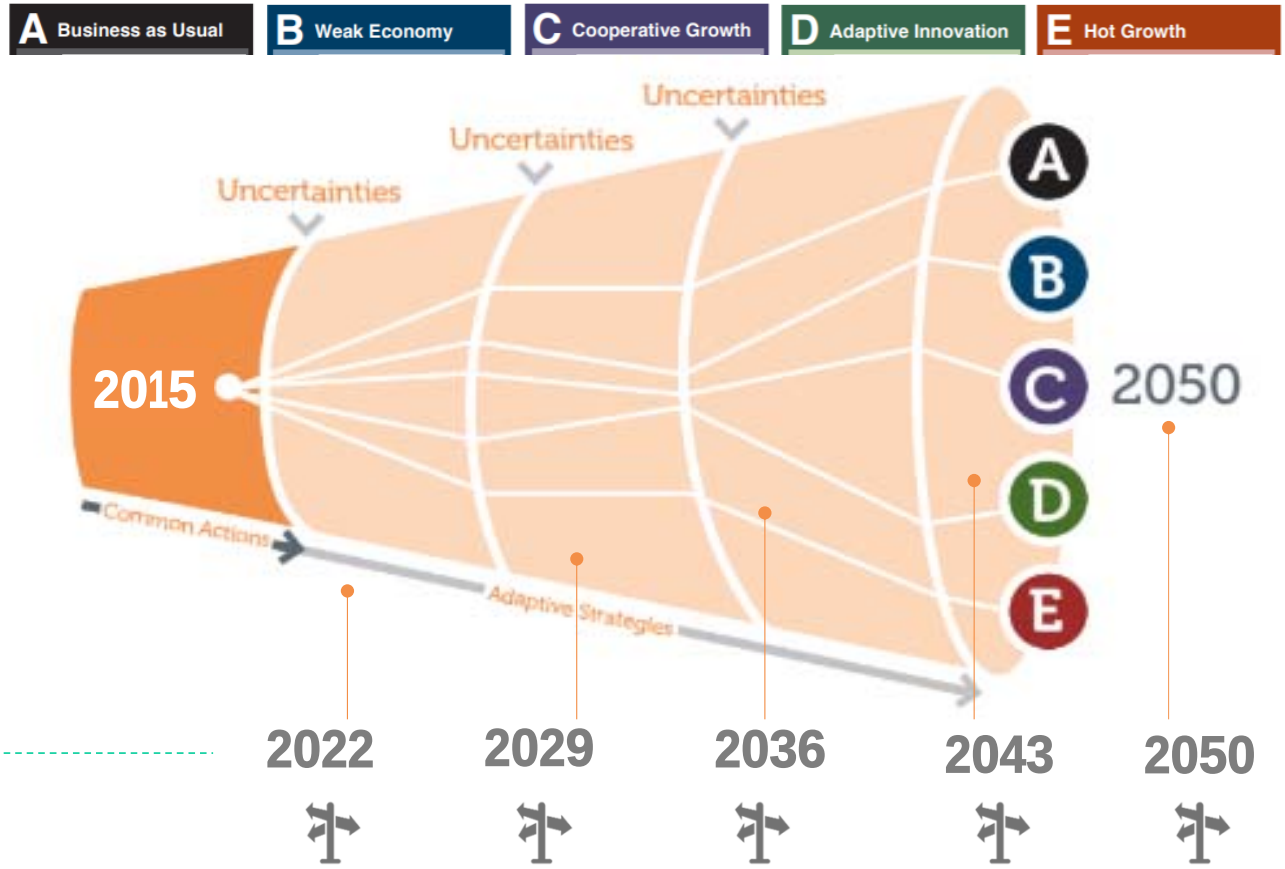
COLORADO DECISION SUPPORT SYSTEM (CDSS)

REPLICABLE + FASTER TO UPDATE

ADAPTIVE PLANNING

Review & adjust plans based on observed trends.

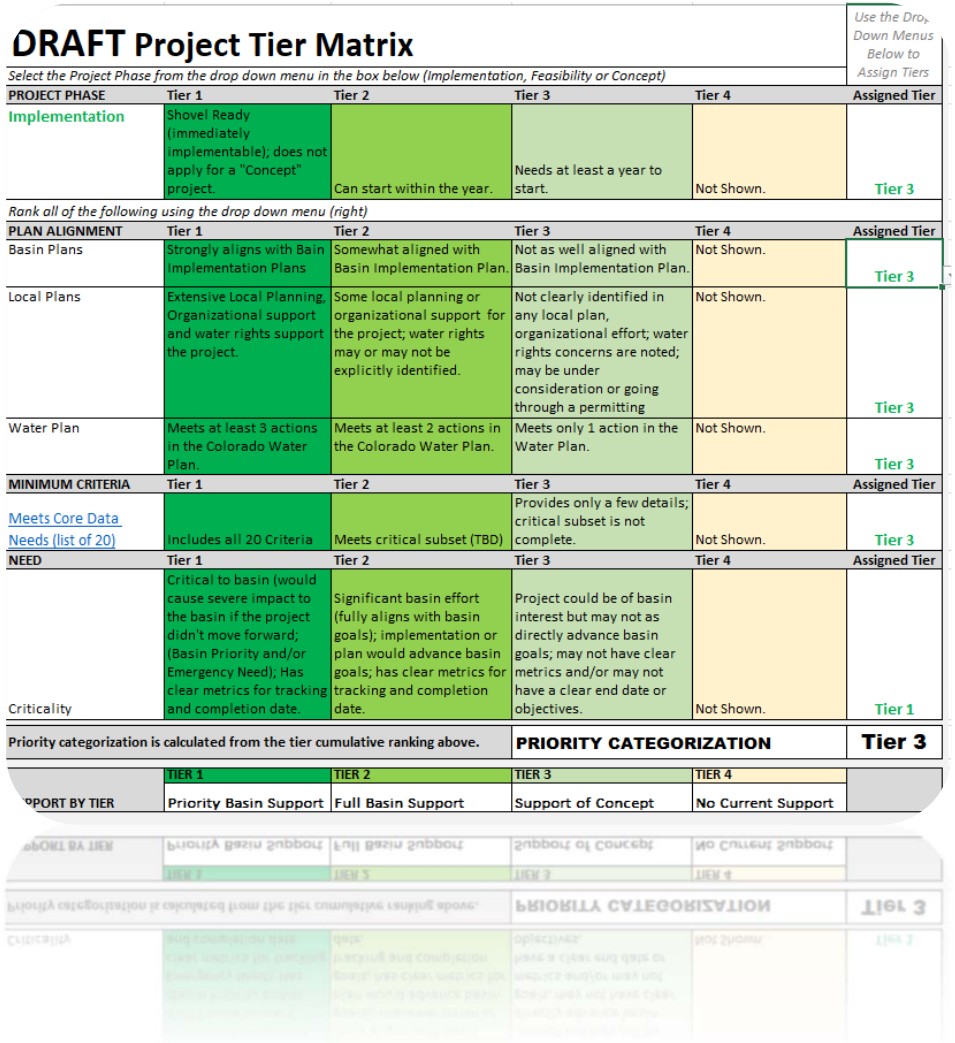
Actions that have few or no disadvantages in terms of costs and benefits, **regardless of the future**.



PRIORITIZING

PROJECTS

What thoughts did you have on the Project Tier Matrix?



DRAFT Project Tier Matrix

Use the Drop Down Menus Below to Assign Tiers

Select the Project Phase from the drop down menu in the box below (Implementation, Feasibility or Concept)

PROJECT PHASE	Tier 1	Tier 2	Tier 3	Tier 4	Assigned Tier
Implementation	Shovel Ready (immediately implementable); does not apply for a "Concept" project.	Can start within the year.	Needs at least a year to start.	Not Shown.	Tier 3

Rank all of the following using the drop down menu (right)

PLAN ALIGNMENT	Tier 1	Tier 2	Tier 3	Tier 4	Assigned Tier
Basin Plans	Strongly aligns with Basin Implementation Plans	Somewhat aligned with Basin Implementation Plan.	Not as well aligned with Basin Implementation Plan.	Not Shown.	Tier 3
Local Plans	Extensive Local Planning, Organizational support and water rights support the project.	Some local planning or organizational support for the project; water rights may or may not be explicitly identified.	Not clearly identified in any local plan, organizational effort; water rights concerns are noted; may be under consideration or going through a permitting	Not Shown.	Tier 3
Water Plan	Meets at least 3 actions in the Colorado Water Plan.	Meets at least 2 actions in the Colorado Water Plan.	Meets only 1 action in the Water Plan.	Not Shown.	Tier 3

MINIMUM CRITERIA	Tier 1	Tier 2	Tier 3	Tier 4	Assigned Tier
Meets Core Data Needs (list of 20)	Includes all 20 Criteria	Meets critical subset (TBD)	Provides only a few details; critical subset is not complete.	Not Shown.	Tier 3

NEED	Tier 1	Tier 2	Tier 3	Tier 4	Assigned Tier
Criticality	Critical to basin (would cause severe impact to the basin if the project didn't move forward; (Basin Priority and/or Emergency Need); Has clear metrics for tracking and completion date.	Significant basin effort (fully aligns with basin goals); implementation or plan would advance basin goals; has clear metrics for tracking and completion date.	Project could be of basin interest but may not as directly advance basin goals; may not have clear metrics and/or may not have a clear end date or objectives.	Not Shown.	Tier 1

Priority categorization is calculated from the tier cumulative ranking above.	PRIORITY CATEGORIZATION	Tier 3

	TIER 1	TIER 2	TIER 3	TIER 4
PPORT BY TIER	Priority Basin Support	Full Basin Support	Support of Concept	No Current Support

3 ENHANCE THE METHODOLOGY

What's this look like?

METHOD REVIEW

- PROCUREMENT: General contactor model
  - Local contractors and BRTs understand basin needs
- MODELING: More than 20 key assumptions need review
  - EX: Free River
- SCENARIOS: Evaluation of scenarios and value
  - Is 5 too many? Should we continue?
- DATA REVIEW: Data is constrained by what we do/don't know
  - Is there better data we can get into the model?
  - EX: Irrigated area?

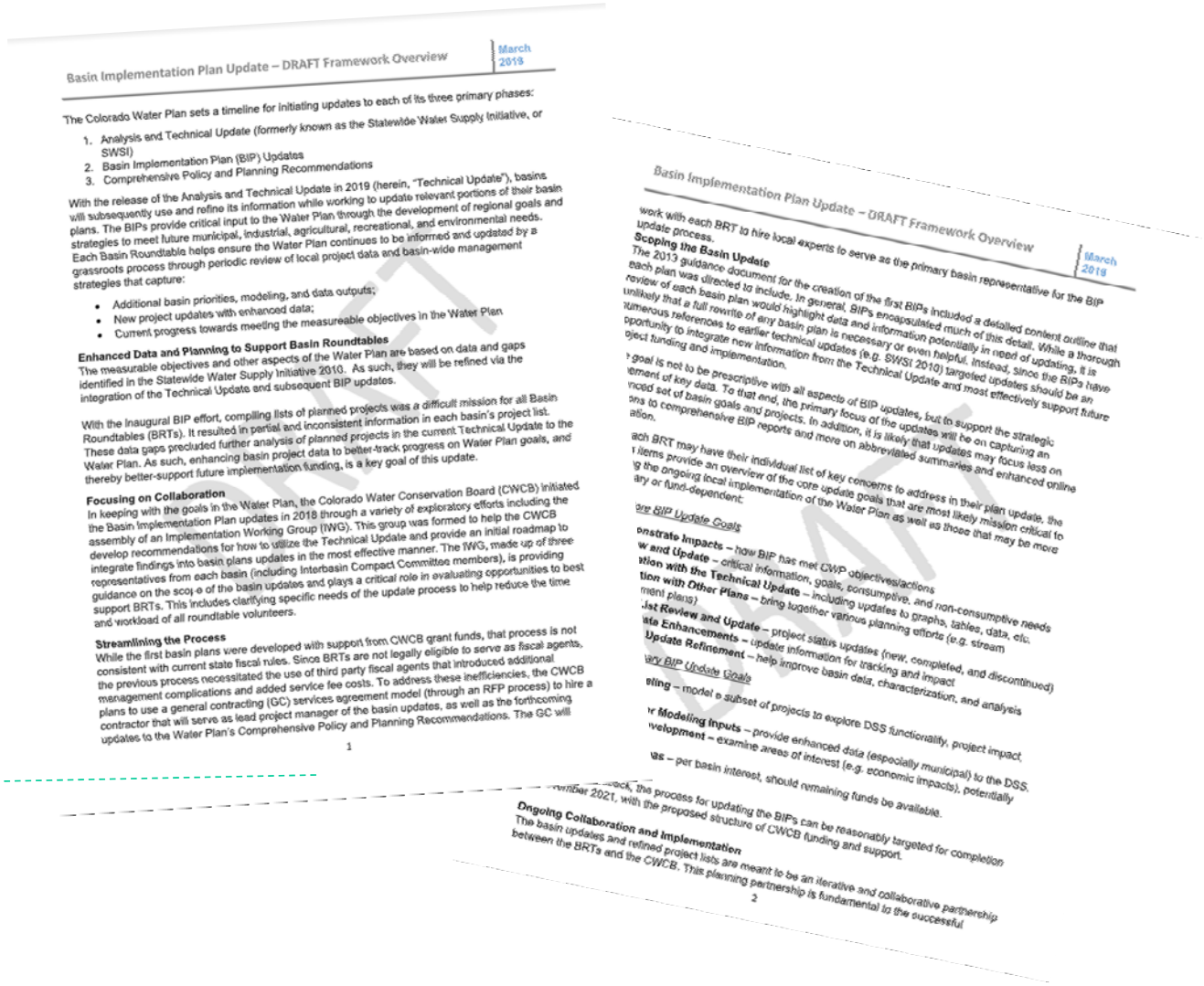
MODELING PROJECTS

- What projects will be modeled once you:
  - Refine the list?
  - Add missing data?
  - Evaluate permitting concerns?

FRAMEWORK

DISCUSSION

What did you think of the guidance framework?



Basin Implementation Plan Update – DRAFT Framework Overview | March 2018

The Colorado Water Plan sets a timeline for initiating updates to each of its three primary phases:

1. Analysis and Technical Update (formerly known as the Statewide Water Supply Initiative, or SWSI)
2. Basin Implementation Plan (BIP) Updates
3. Comprehensive Policy and Planning Recommendations

With the release of the Analysis and Technical Update in 2019 (herein, "Technical Update"), basins will subsequently use and refine its information while working to update relevant portions of their basin plans. The BIPs provide critical input to the Water Plan through the development of regional goals and strategies to meet future municipal, industrial, agricultural, recreational, and environmental needs. Each Basin Roundtable helps ensure the Water Plan continues to be informed and updated by a grassroots process through periodic review of local project data and basin-wide management strategies that capture:

- Additional basin priorities, modeling, and data outputs;
- New project updates with enhanced data;
- Current progress towards meeting the measureable objectives in the Water Plan

Enhanced Data and Planning to Support Basin Roundtables

The measurable objectives and other aspects of the Water Plan are based on data and gaps identified in the Statewide Water Supply Initiative 2010. As such, they will be refined via the integration of the Technical Update and subsequent BIP updates.

With the inaugural BIP effort, compiling lists of planned projects was a difficult mission for all Basin Roundtables (BRTs). It resulted in partial and inconsistent information in each basin's project list. These data gaps precluded further analysis of planned projects in the current Technical Update to the Water Plan. As such, enhancing basin project data to better-track progress on Water Plan goals, and thereby better-support future implementation funding, is a key goal of this update.

Focusing on Collaboration

In keeping with the goals in the Water Plan, the Colorado Water Conservation Board (CWCB) initiated the Basin Implementation Plan updates in 2018 through a variety of exploratory efforts including the assembly of an Implementation Working Group (IWG). This group was formed to help the CWCB develop recommendations for how to utilize the Technical Update and provide an initial roadmap to integrate findings into basin plans updates in the most effective manner. The IWG, made up of three representatives from each basin (including Interbasin Compact Committee members), is providing guidance on the scope of the basin updates and plays a critical role in evaluating opportunities to best support BRTs. This includes clarifying specific needs of the update process to help reduce the time and workload of all roundtable volunteers.

Streamlining the Process

While the first basin plans were developed with support from CWCB grant funds, that process is not consistent with current state fiscal rules. Since BRTs are not legally eligible to serve as fiscal agents, the previous process necessitated the use of third party fiscal agents that introduced additional management complications and added service fee costs. To address these inefficiencies, the CWCB plans to use a general contracting (GC) services agreement model (through an RFP process) to hire a contractor that will serve as lead project manager of the basin updates, as well as the forthcoming updates to the Water Plan's Comprehensive Policy and Planning Recommendations. The GC will

1

Basin Implementation Plan Update – DRAFT Framework Overview | March 2018

work with each BRT to hire local experts to serve as the primary basin representative for the BIP update process.

Scoping the Basin Update

The 2013 guidance document for the creation of the first BIPs included a detailed content outline that each plan was directed to include. In general, BIPs encapsulated much of this detail. While a thorough review of each basin plan is necessary or even helpful, instead, since the BIPs have unlikely that a full rewrite of any basin plan is necessary or even helpful, it is numerous references to earlier technical updates (e.g. SWSI 2010) targeted updates should be an opportunity to integrate new information from the Technical Update and most effectively support future oject funding and implementation.

goal is not to be prescriptive with all aspects of BIP updates, but to support the strategic ement of key data. To that end, the primary focus of the updates will be on capturing an nced set of basin goals and projects. In addition, it is likely that updates may focus less on ons to comprehensive BIP reports and more on abbreviated summaries and enhanced online ation.

ach BRT may have their individual list of key concerns to address in their plan update, the items provide an overview of the core update goals that are most likely mission critical to g the ongoing local implementation of the Water Plan as well as those that may be more ary or fund-dependent:

re BIP Update Goals

onstrate Impacts – how BIP has met CWP objectives/actions
w and Update – critical information, goals, consumptive, and non-consumptive needs
tion with the Technical Update – including updates to graphs, tables, data, etc.
tion with Other Plans – bring together various planning efforts (e.g. stream ment plans)
ist Review and Update – project status updates (new, completed, and discontinued)
ata Enhancements – update information for tracking and impact
Update Refinement – help improve basin data, characterization, and analysis

ary BIP Update Goals

eling – model a subset of projects to explore DSS functionality, project impact
r Modeling Inputs – provide enhanced data (especially municipal) to the DSS.
velopment – examine areas of interest (e.g. economic impacts), potentially
as – per basin interest, should remaining funds be available.

ack, the process for updating the BIPs can be reasonably targeted for completion
mber 2021, with the proposed structure of CWCB funding and support.

Ongoing Collaboration and Implementation

The basin updates and refined project lists are meant to be an iterative and collaborative partnership between the BRTs and the CWCB. This planning partnership is fundamental to the successful

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NEXT STEPS

- Review Input To-Date
- Refine Recommendations
- Inform C-9 Summit Agenda


Implementation
WORKING
GROUP
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