

South Platte Basin Implementation Plan

"The Basin Implementation Plans will inform the development of Colorado's Water Plan"

Governor John Hickenlooper

SOUTH PLATTE BASIN FACTS

by **2050**

- Population will grow by 2.5 million
- Water demand projected to exceed supply



7 of 10 top agricultural producing counties are located in the basin

80% of the State's population  **Only 20%** of the State's water supply 



South Platte Basin contains **3** of the top 5 most-visited state parks

SOUTH PLATTE CHALLENGE

In most years, the South Platte Basin does not have sufficient water to meet all of its needs and it faces an increasing water supply gap due to anticipated population growth. The Basin must work to protect the current vitality of economic, social, environmental and recreational attributes through management of its existing water supplies while simultaneously planning to meet future water needs.



The South Platte basin is home to 19 state or federally listed threatened, endangered or species of special concern as well as various imperiled plant communities



COLORADO'S NINE ROUNDTABLES

WATER SUPPLY ISSUES

SUPPLY

- In most years, every drop of water in the river is being used
- Additional surface and groundwater storage, water transfers, reuse, conservation or other strategies to meet the basin's growing demands are needed

CONSTRAINTS ON WATER USE

- South Platte and Republican River Compacts
- Endangered Species Act
- Surface and Groundwater Storage

QUALITY

- High quality water sources have already been developed
- Lower Basin supplies require advanced treatment or blending with higher quality water

ENVIRONMENTAL AND RECREATIONAL

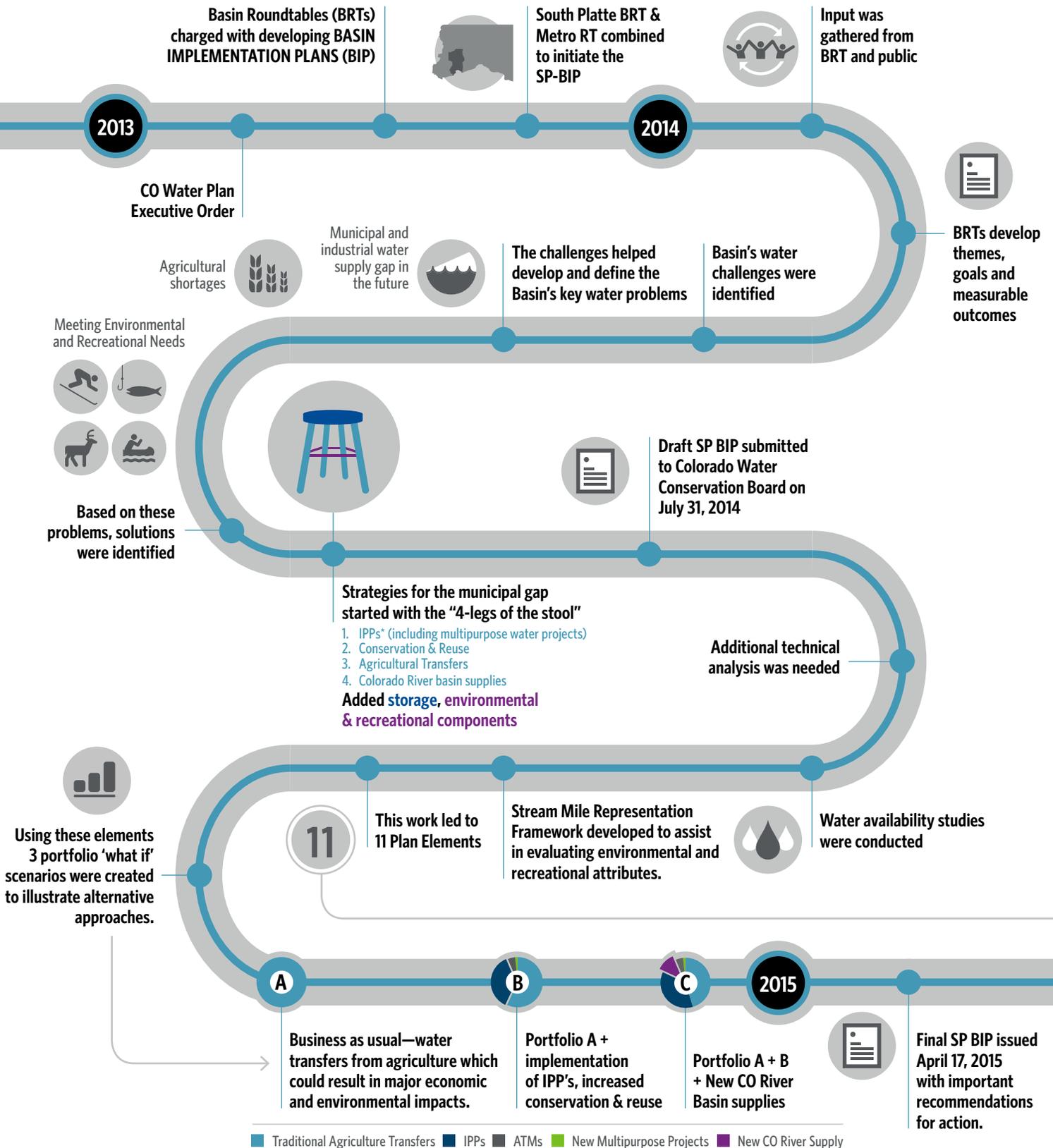
- It is important to maintain or enhance environmental and recreational attributes, including needed stream flows
- Federal and State permitting inefficiencies can slow development of new projects

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OVERARCHING THEMES

1. **A Good Colorado Plan Needs a Good South Platte Plan**—The economies of the State's river basins are closely intertwined. A comprehensive South Platte Basin Implementation Plan will need to be consistent with the values represented in Governor Hickenlooper's executive order. A comprehensive and reliable solution to meeting the South Platte basin's consumptive, environmental and recreational water supply gaps benefits all of Colorado and all Coloradan's share the need for a viable South Platte plan. The "default" plan of continued and possibly extensive loss of agricultural production is not in Colorado's overall interest.
2. **Solutions must be Pragmatic, Balanced and Consistent with Colorado Law and Property Rights**—A useful basin implementation plan must deal with the realities of obtaining regulatory approvals.
3. **The South Platte River Basin will continue its Leadership Role in Efficient Use and Management of Water**—No person, company or institution operates without risk/ perils of change. The State's future as a whole (and the future of each of its river basins) depends on efficient, sustainable and collaborative solutions.
4. **A Balanced Program is needed to Plan and Preserve Colorado River Basin Options**—A balanced program to plan and preserve options to responsibly develop Colorado River Basin water to benefit both east slope and west slope consumptive, environmental and recreational water uses is needed to assure that the State's plan has equal focus on the other three previously identified strategies including: 1) developing IPPs; 2) municipal conservation and reuse; and 3) agricultural transfers.

SOUTH PLATTE BASIN IMPLEMENTATION PLAN DEVELOPMENT



11

PLAN ELEMENTS IN THE BIP

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- The diagram features a vertical line on the left side with a bracket-like shape at the top. This line is divided into two sections. The upper section is labeled 'Water Supply & Management Elements' and contains elements 1 through 7. The lower section is labeled 'Risk Management, Process Improvement and New Research elements' and contains elements 8 through 11. Each element is represented by a circled number followed by a dashed line and a descriptive text block.
- 1** ----- Maximize implementation of Identified Projects & Processes (IPPs)
 - 2** ----- Maintain leadership in conservation & reuse
 - 3** ----- Maximize use of existing South Platte water supplies including groundwater
 - 4** ----- Minimize "Buy and Dry" and maximize Alternative Transfer Methods (ATMs)
 - 5** ----- Protect & enhance environmental and recreational attributes
 - 6** ----- Continue to investigate, preserve, and develop new Colorado River Basin supplies
 - 7** ----- Promote multi-purpose storage projects
 - 8** ----- Manage risks of climate change
 - 9** ----- Utilize effective communications and outreach to support program
 - 10** ----- Research new technologies and strategies to utilize low quality water supplies
 - 11** ----- Improve federal and state permitting processes without hurting environmental protections

RECOMMENDATIONS

MAXIMIZE IMPLEMENTATION OF IPPS

Facilitate the implementation of IPPs both within and outside of the basin. Continue to support efforts to develop a basin-wide groundwater monitoring network, and to mitigate localized high groundwater.

MAINTAIN LEADERSHIP IN CONSERVATION AND REUSE AND IMPLEMENT ADDITIONAL MEASURES TO REDUCE WATER CONSUMPTION RATES

Better coordinate water and land use planning to improve water use efficiency. Implement rate design improvements to require more efficient plumbing fixtures, appliances, and landscaping. Implement additional reuse where practicable.

MAXIMIZE USE AND EFFECTIVENESS OF NATIVE SOUTH PLATTE SUPPLIES

Develop new, in-basin, multipurpose water storage and conveyance mechanisms, explore further integration of South Platte water supply systems to enhance yield and reliability, and develop methods to more effectively use groundwater. Encourage surface water and groundwater availability/hydrologic modeling to provide more detailed and reliable estimates of water availability.

MINIMIZE TRADITIONAL AGRICULTURAL “BUY AND DRY” AND MAXIMIZE USE OF ALTERNATIVE TRANSFER METHODS (ATMS) TO EXTENT PRACTICAL AND RELIABLE

Continue to study water sharing practices and adjust the water court process to encourage water sharing practices while protecting the vested rights of water rights holders. Continue to support measures to maintain the economy and agricultural production of the Republican River Basin and long-term compliance with the Interstate Water Compact. Finally, continue compliance with the South Platte Compact and the Platte River Recovery Implementation Program (PRRIP).

PROTECT AND ENHANCE ENVIRONMENTAL AND RECREATIONAL ATTRIBUTES

Identify and fill data gaps regarding protection of environmental and recreational attributes in order to better understand the need for and adequacy of existing and future protections. This should be done first for all South Platte focus areas where opportunities arise for new or additional projects. Additionally, provide sustainable and reliable funding for data collection and analysis and assistance with constructing environmental and recreational projects.

SIMULTANEOUSLY ADVANCE THE CONSIDERATION AND PRESERVATION OF NEW COLORADO RIVER BASIN SUPPLY OPTIONS

Promote additional conceptualization analysis of shared development of additional Colorado River Basin supplies. Consider potential criteria for “State Water Projects” including benefits and challenges.

PROMOTE MULTI-PURPOSE STORAGE PROJECTS THAT ENHANCE OTHER SOUTH PLATTE BASIN SOLUTIONS

The Metro and South Platte Basin Roundtables strongly advocate for the development of additional surface and groundwater storage, further research of aquifer storage and recovery (ASR), and investigation into additional off-channel storage and reservoir sites in the basin.

MANAGE THE RISK OF INCREASED DEMANDS AND REDUCED SUPPLIES DUE TO CLIMATE CHANGE

The South Platte and Metro Roundtables recommend continued analysis of the potential for back-up supply, such as for east slope interruptible supply agreements. They also encourage additional research to disaggregate the basin’s M&I supply gap to gather more specific data on the quantity, time, and geography of the gaps within each county.

FACILITATE EFFECTIVE SOUTH PLATTE COMMUNICATIONS AND OUTREACH PROGRAMS THAT COMPLEMENT THE STATE’S OVERALL PROGRAM

Design and implement an intensive education, participation and outreach program designed to generate a lasting baseline of public awareness and support.

RESEARCH NEW TECHNOLOGIES AND STRATEGIES

Continue research and development of new strategies to address both the technical and regulatory constraints associated with treating low quality water and disposing of waste including direct potable reuse (DPR) and indirect potable reuse (IPR), developing an appropriate regulatory framework for these technologies, and promoting and monitoring research on relevant technologies to advance these objectives.

ADVOCATE FOR IMPROVEMENTS TO FEDERAL AND STATE PERMITTING PROCESSES

Identify methods to improve the approval process by increasing efficiencies in agency coordination, making changes to applicable statutes and regulations, and supporting the formation of a task force to study and implement ways to improve the permitting process for water supply projects while maintaining environmental protections.

THANK YOU !

- South Platte/Metro Roundtables
- Rio Chato Executive Committee
- Metro BIP Committee
- Environmental/Recreational Subcommittee
- Colorado Water Conservation Board

To access the Executive Summary, the full SP BIP and for more information on how to get involved please visit:

www.southplattebasin.com
www.coloradowaterplan.com



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