

CONJUNCTIVE ADMINISTRATION OF WATER RIGHTS IN THE BIG WOOD BASIN - What lies ahead? Part I

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Prediction...

Relative to water delivery in the Wood River Valley...

Change

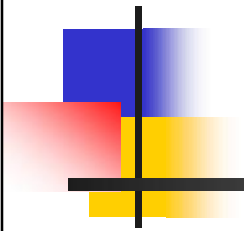
is coming between now and 2014

Do we want to manage that change or are we willing to respond to a crisis?



Outline

- Water distribution concepts in Idaho
- The experience on the Eastern Snake River Plain
- Evolution from *Adjudication* to *Conjunctive Administration*
- Tools for moving forward
- Considerations for moving forward
- Discussion



In Idaho the *appropriation doctrine*
is used for the delivery both
surface water rights and ground
water rights—

“first in time is first in right”

Administered by a State of Idaho
Water District
which hires a *Watermaster*

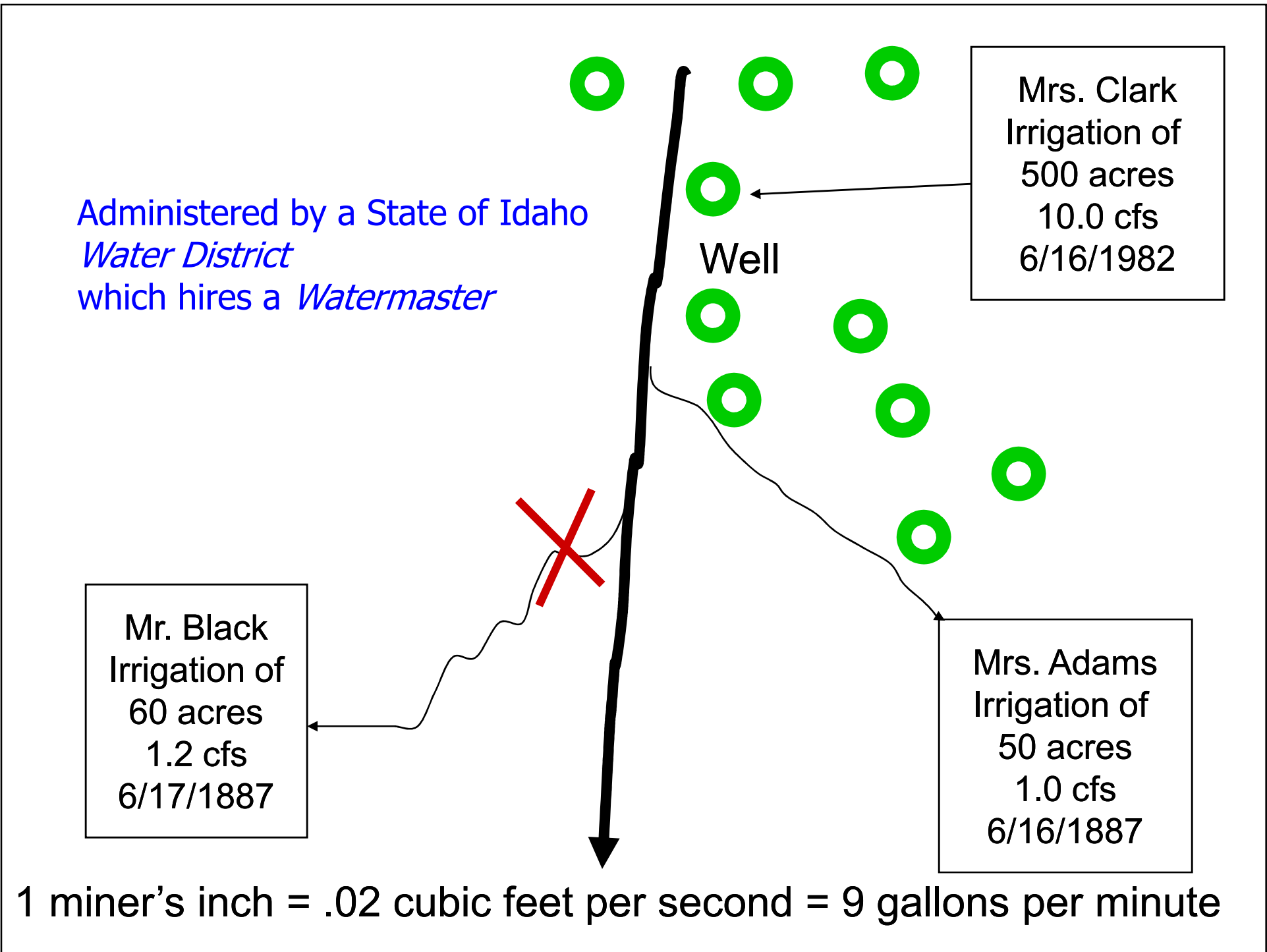
Mrs. Clark
Irrigation of
500 acres
10.0 cfs
6/16/1982

Well

Mr. Black
Irrigation of
60 acres
1.2 cfs
6/17/1887

Mrs. Adams
Irrigation of
50 acres
1.0 cfs
6/16/1887

1 miner's inch = .02 cubic feet per second = 9 gallons per minute



Problem

Water deliveries must consider connections
between ground water and surface water
(conjunctive administration)

if fair delivery is to be achieved

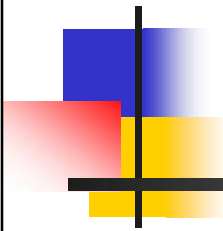










Additional Drivers of Change

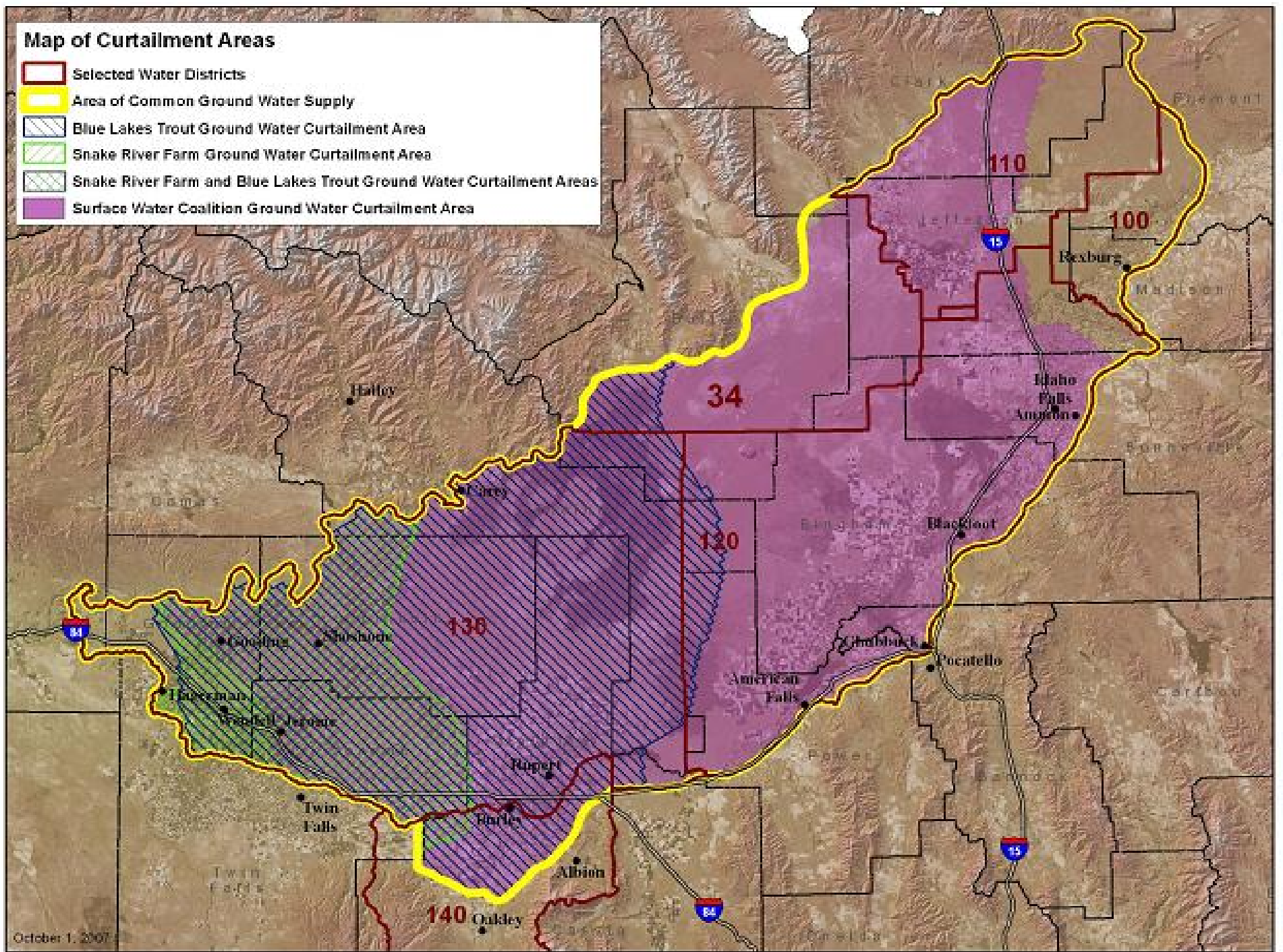
- Increased efficiencies of irrigation have lead to reduced deep percolation
- Increasing urbanization
- Increased recognition of instream values
- Impacts of climate change?
- And... a need to coordinate land use planning with water use planning

The Experience on the Eastern Snake River Plain



Map of Curtailment Areas

-  Selected Water Districts
-  Area of Common Ground Water Supply
-  Blue Lakes Trout Ground Water Curtailment Area
-  Snake River Farm Ground Water Curtailment Area
-  Snake River Farm and Blue Lakes Trout Ground Water Curtailment Areas
-  Surface Water Coalition Ground Water Curtailment Area

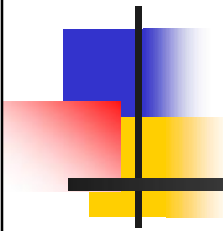


Looking to the Eastern Snake Plain Aquifer

While often used and often an exaggeration, “Water Wars” is unfortunately a fairly apt description of the intransigent battles currently being waged by surface water users with senior water rights against ground water users, with junior water rights, on the Eastern Snake River Plain in Idaho.

Randy Budge, Attorney for the Idaho Ground Water Appropriators, Inc.

Evolution from Adjudication to Conjunctive Administration





What is the water delivery challenge?

- In order to achieve fair water delivery in the Big Wood and Little Wood river basins, the impacts of ground water pumping need to be quantified and mitigated (accounted for)
- This is termed “implementation of conjunctive administration”
- The challenge is to implement conjunctive administration in an equitable manner which provides fair input for all – at a time when the State of Idaho has limited resources to assist the process



General Sequence for Implementing Conjunctive Administration

- Water rights are determined by Snake River Basin Adjudication (SRBA) Court
- A Water Measurement District can be formed as an interim step
- IDWR petitions SRBA Court for Interim Administration
- A Water District implements Conjunctive Administration

But, IDWR has scaled back assistance due to funding reductions



Thus...

- A new paradigm is needed if the Wood River Valley is to proactively address water management challenges...



Tools for Moving Forward

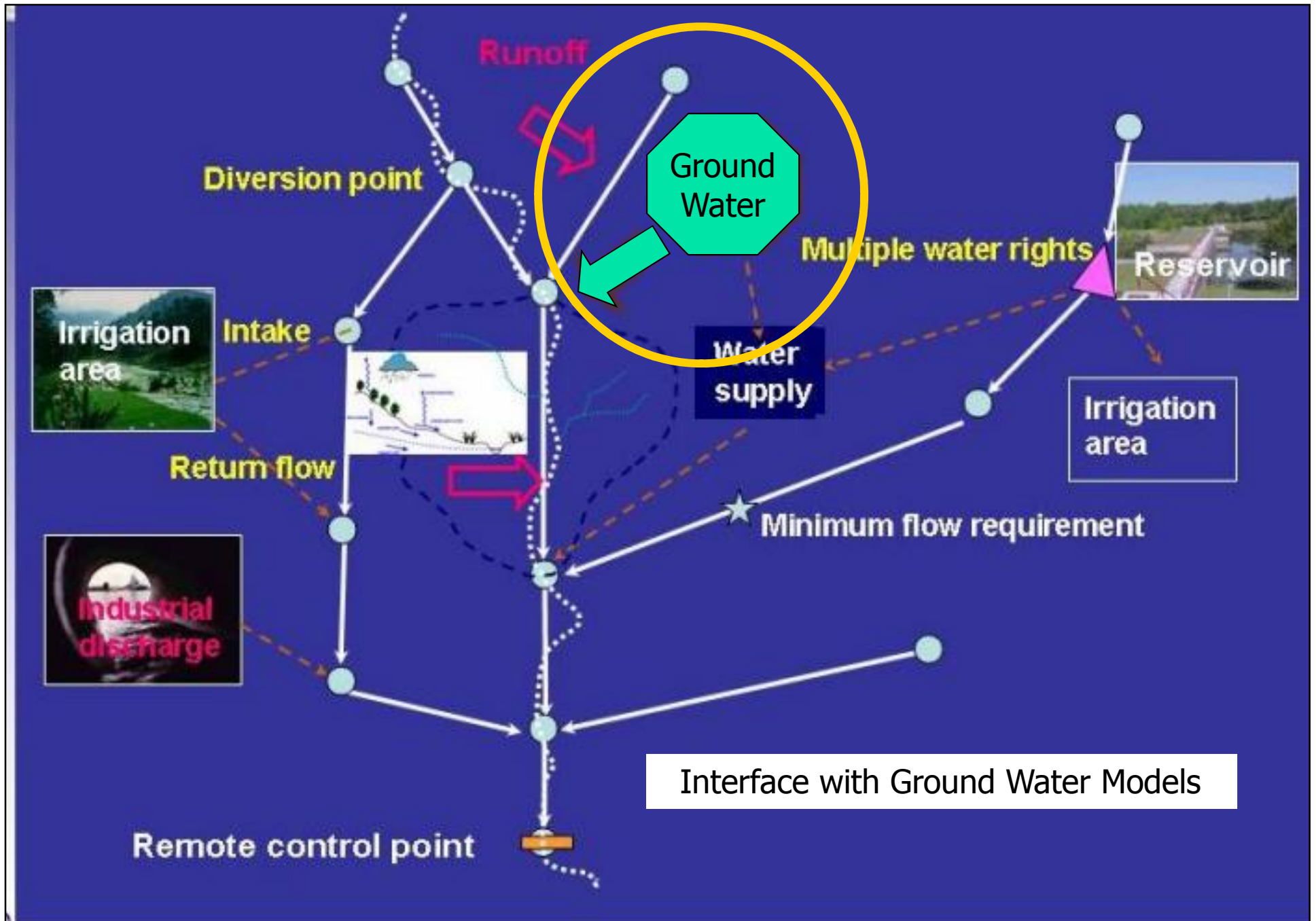
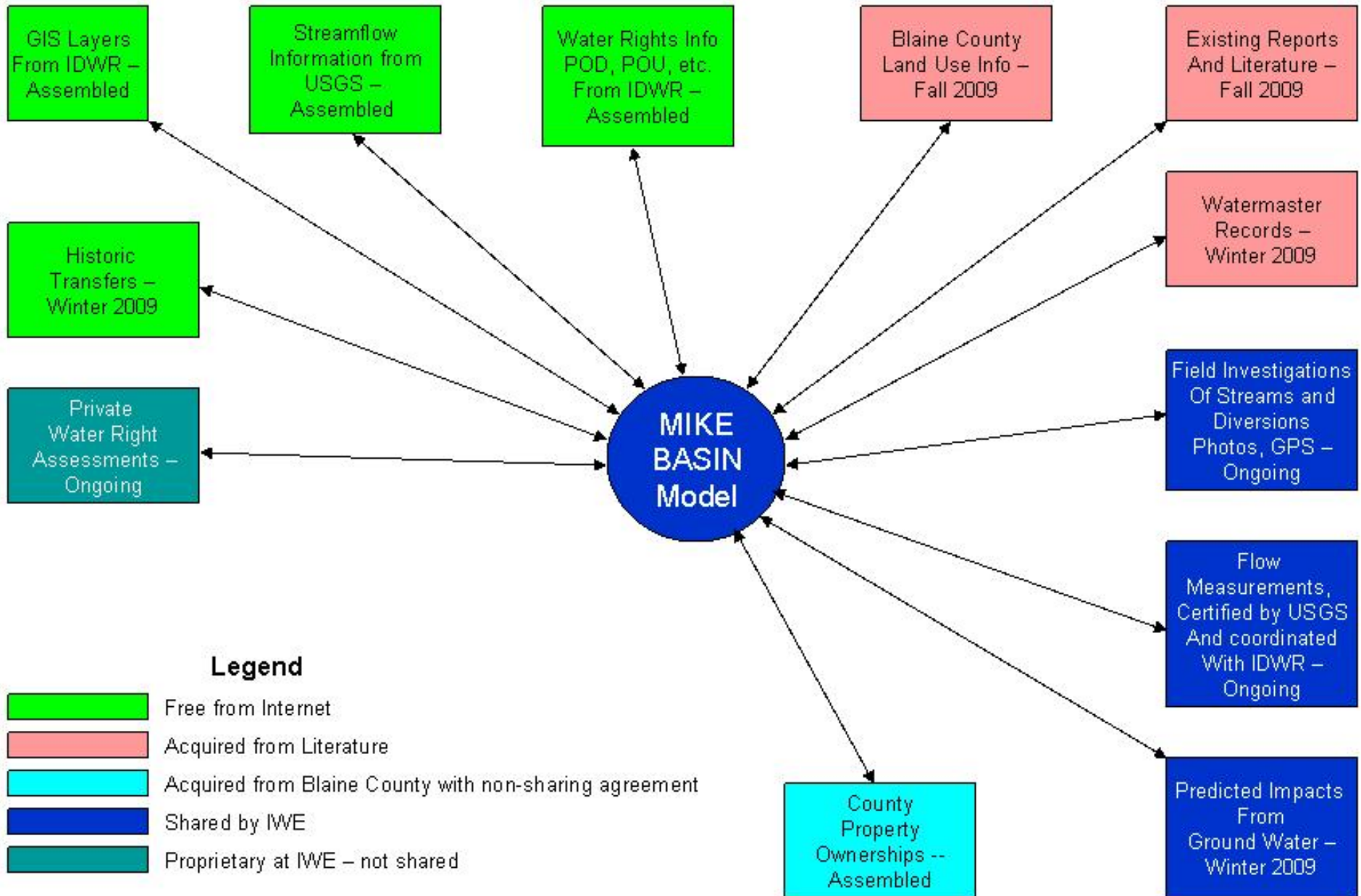


Figure 1.1 Simplified schematization of the MIKE BASIN model network

Idaho Water Engineering, LLC

MIKE BASIN Model Data Sets



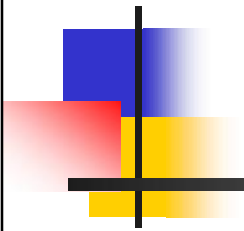
allgageusgs

Location: 2,466,390.286 1,387,005.587 Meters

Field	Value
FID	438
Shape	Point
AGENCY_CD	USGS
SITE_NO	13136400
STATION_NM	WARM SPRINGS CREEK NR KETCHUM ID
LAT_VA	434100
LONG_VA	1142500
DEC_LAT_VA	43.68323970
DEC_LONG_V	-114.41755280
COORD_METH	M
COORD_ACY_	F
COORD_DATU	NAD27
DEC_COORD_	NAD83
DISTRICT_C	16
STATE_CD	16
COUNTY_CD	013
COUNTRY_CD	US
LAND_NET_D	
MAP_NM	
MAP_SCALE_	
ALT_VA	
ALT_METH_C	
ALT_ACY_VA	
ALT_DATUM_	
HUC_CD	17040219
BASIN_CD	
TOPO_CD	
STATION_TY	YNNNNNNNNNNNNNNNNNNN
AGENCY_USE	I
DATA_TYPES	
INSTRUMENT	
CONSTRUCTI	
INVENTORY_	
DRAIN_AREA	
CONTRIB_DR	
TZ_CD	MST
LOCAL TIME	V

MIKE BASIN

Considerations for Moving Forward





Lessons Learned

- Barriers to effective land and water use planning are often more institutional and legal than technical and financial
- Role of leadership is critical
- Water challenges in western states are nested in nature
- Emergence of Parallel Groups under certain conditions
- Conflict management is a better strategy than conflict resolution
- Core values that built western water organizations are not necessarily the best values to sustain them
- Evidence indicates large scale solutions are ineffective



Types of Water Delivery Organizations

Private Water Organizations

Commercial and Mutual, canal, or ditch Companies

Public Water Organizations

Drainage Districts ~ Title 42, Chapter 29

Water & Sewer Districts ~ Title 42, Chapter 32

Flood Control Districts ~ Title 42, Chapter 31

Watershed Improvement Districts ~ Title 42, 37

Local Improvement Districts ~ Title 43, Chapter 25

Water Measurement Districts ~ Title 42, Chapter 7

Aquifer Recharge Districts ~ Title 42, Chapter 42

Lateral Ditch Users ~ Title 42, Chapter 13

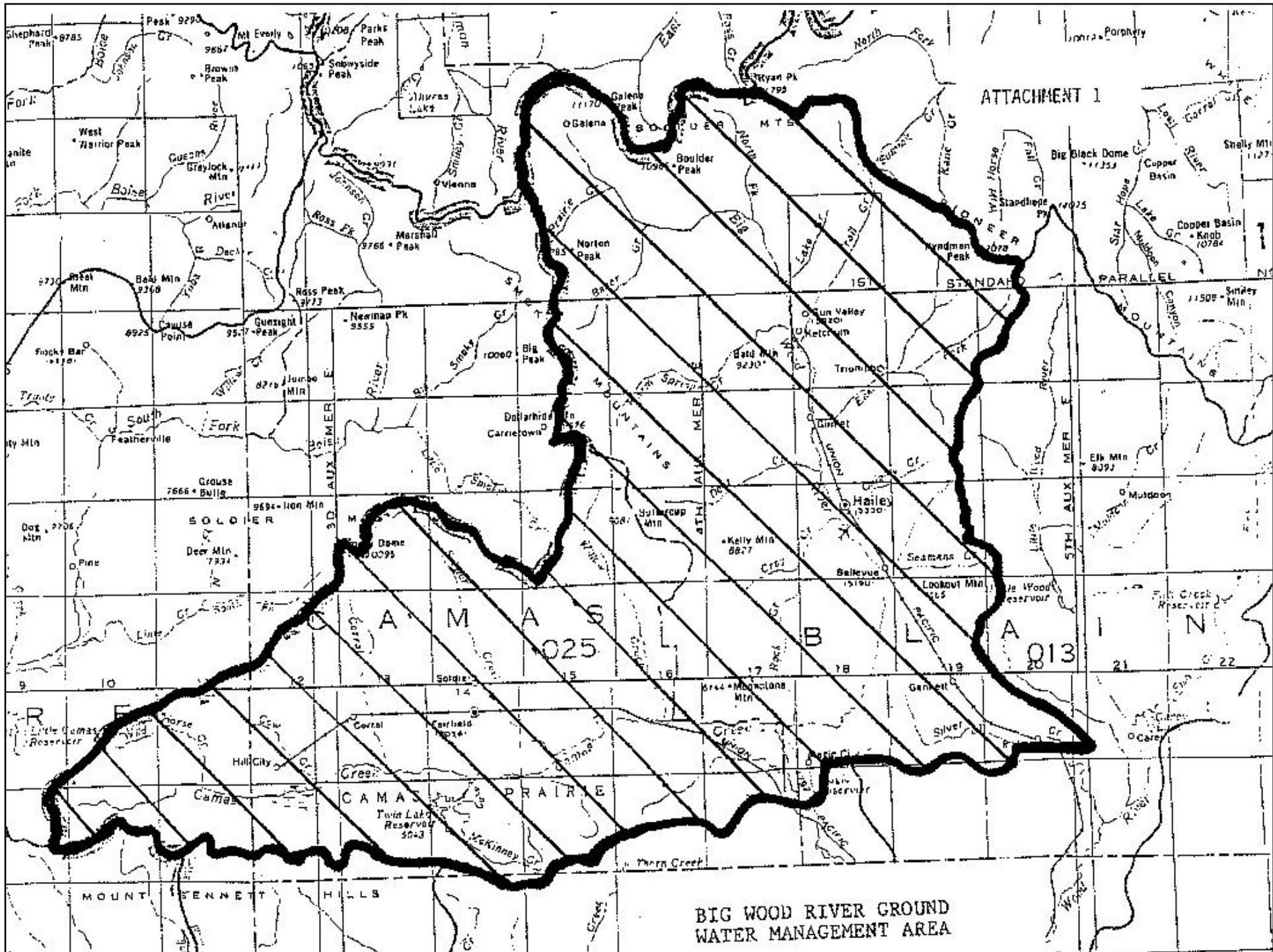
State Water Districts ~ Title 42, Chapter 6

Ground Water Management District ~ Title 42, Chapter 51

Ground Water District ~ Title 42, Chapter 52

Critical Ground Water Area ~ Title 42, Chapter 2, 42-233 (a)

Ground Water Management Area ~ Title, 42 Chapter 2 42-233 (b)





Summary

- The SRBA is nearing completion
- Conjunctive Administration is coming
- The Wood River Valley has an opportunity to *manage* change rather than to *respond* to a crisis
- More efficient results are achieved if a process is undertaken



Potential Composition of an Advisory Committee

County

Municipalities

**Canal
Company**

**Ground Water
Irrigator**

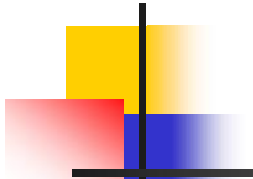
Domestic User

**Conservation
Group**

**Technical
Support**

**Administrative
Support**

**State and Federal
Agencies**



Idaho Water Engineering

Water Solutions



Water Rights



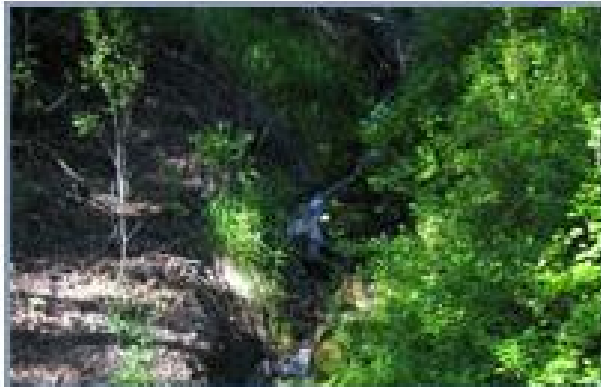
Water Delivery



Data Compilation



Expert Testimony



Stream Channel Protection



GIS Application Development



Idaho Water Engineering Technical Team

Lee Brown
Hydrogeology &
Water Quality

Ernie Carlsen
Water Rights
Analysis

Stan Clark
Water Resource
Development

John Lindgren
Modeling

Dave Tuthill
Water Resource
Engineering

Tony Morse
GIS Application
Development

Erv Ballou
Stream Channel
Protection

Lee Peterson
Water Rights
Acquisition

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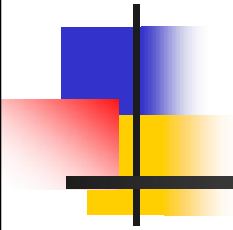
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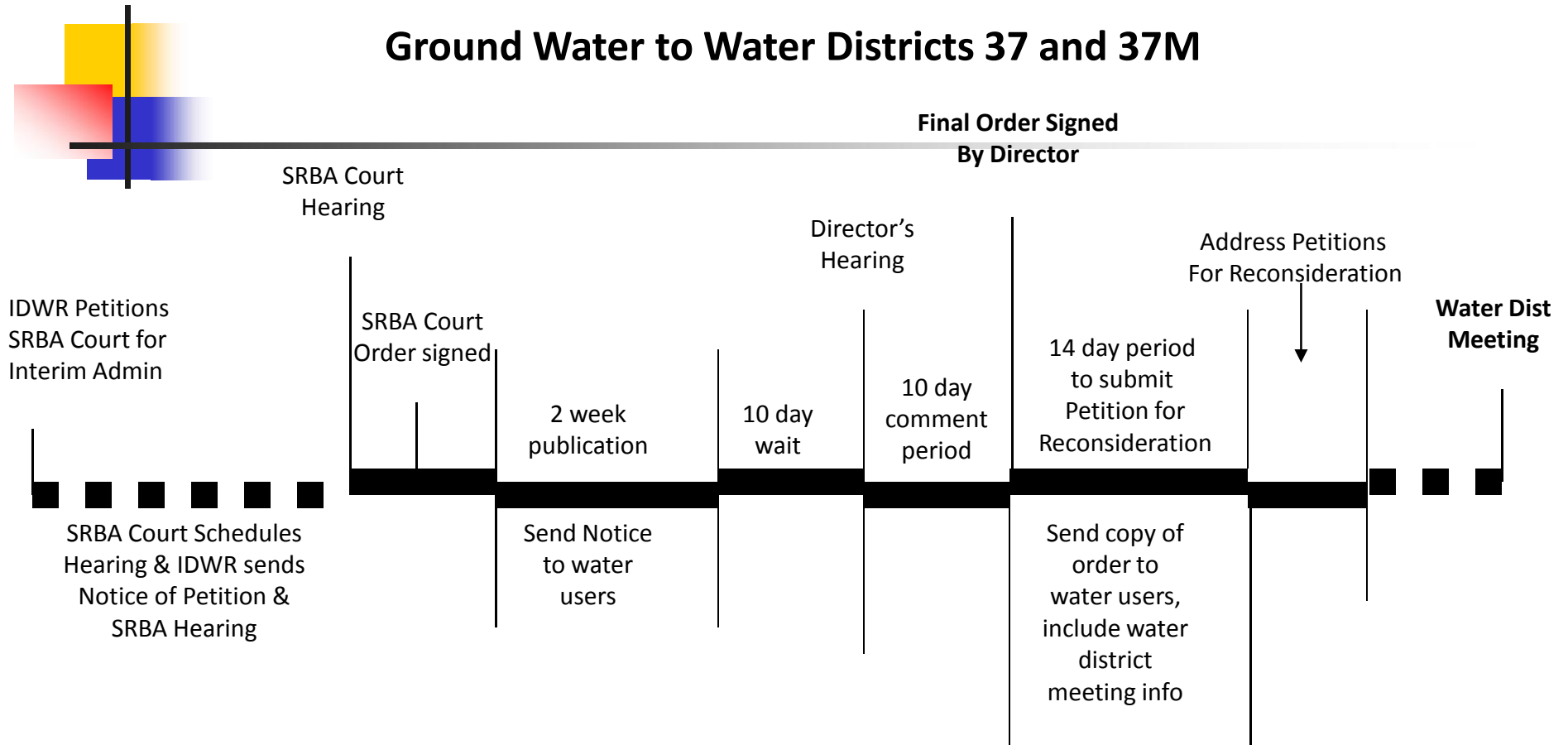


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Potential Sequence for Adding Ground Water to Water Districts 37 and 37M



Time required is about 6 months if there are no major delays