

Idaho Environmental Forum's
7th Annual Boise River Conference
*Treasure Valley Water Future:
Choices and Tradeoffs*

"Choosing a Path
Toward Problem Resolution"



Dave Tuthill, PhD, PE

August 11, 2010





Outline

- Water problems loom in the Treasure Valley
- One example
- What we can do about it

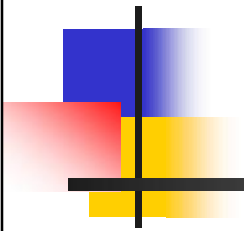


Prediction...

Relative to water delivery in the Treasure Valley...

Change

is coming
between now and 2020



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*

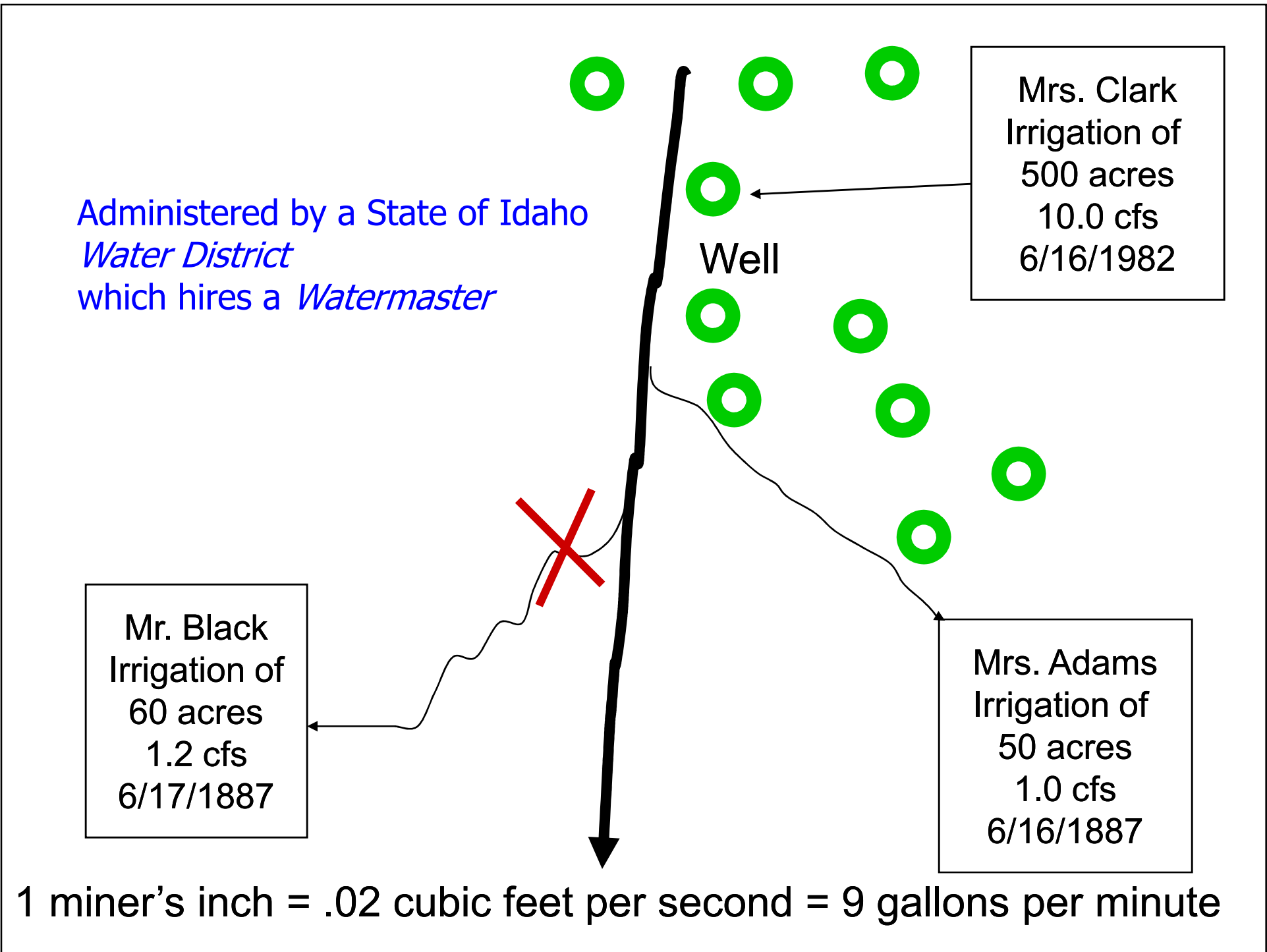
Mrs. Clark
Irrigation of
500 acres
10.0 cfs
6/16/1982

Well

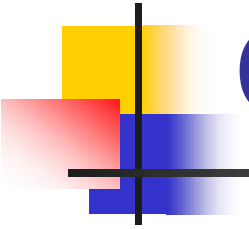
Mr. Black
Irrigation of
60 acres
1.2 cfs
6/17/1887

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



Surface Water Evolutionary Cycle – Boise River



Addition of Storage – 1900's – 1960's

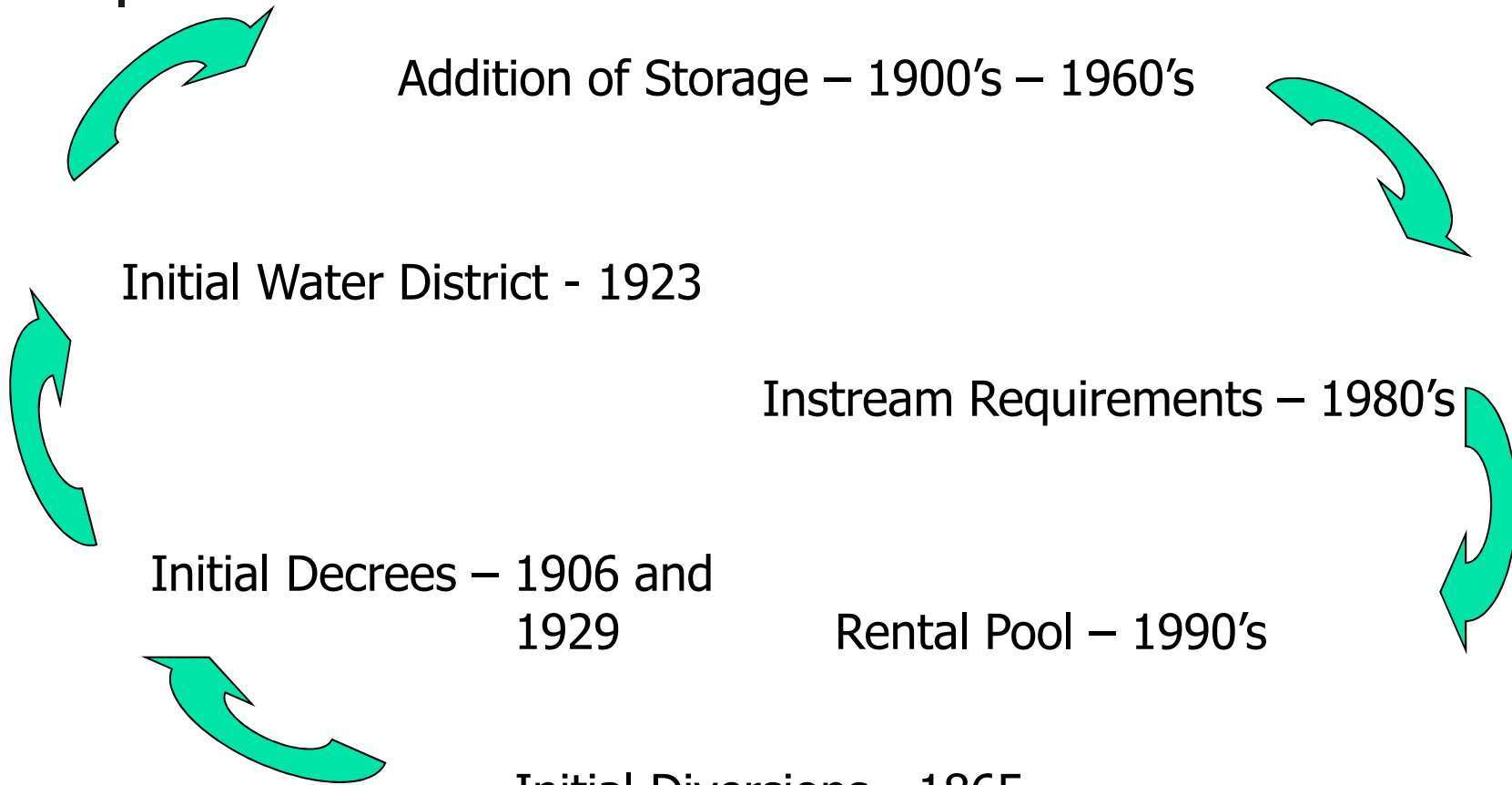
Initial Water District - 1923

Instream Requirements – 1980's

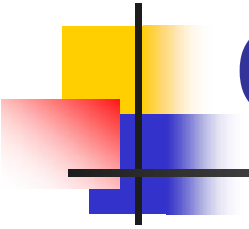
Initial Decrees – 1906 and
1929

Rental Pool – 1990's

Initial Diversions - 1865



Ground Water Evolutionary Cycle – Boise River Basin

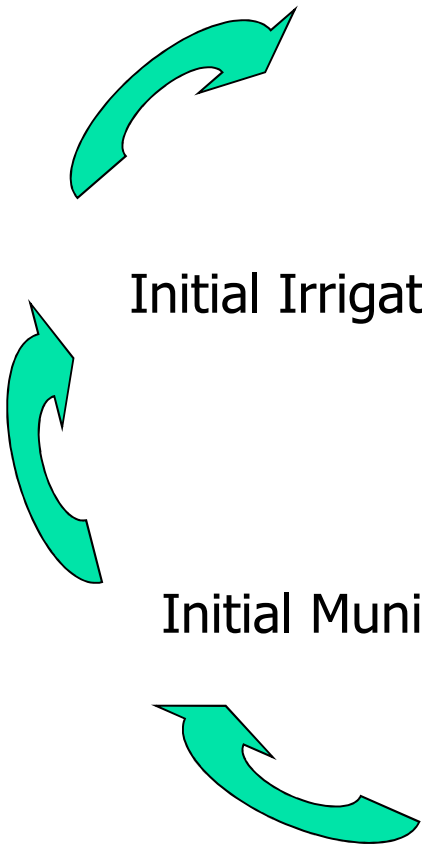


Surge of Supplemental Wells – 1977

Initial Irrigation Wells – 1940's

Initial Municipal Wells – 1890's

Initial Domestic Wells – 1860's



Implementation of Conjunctive Administration



Fewer than 100 recommendations
Are unresolved




Recommended water rights in Basin 63:
13,000+ domestics
6,000+ non-domestics



Snake River Basin Adjudication initiated in 1987

Creation of water rights from surface water
and ground water



Basin poised for
Implementation of
Conjunctive
Administration



Additional Drivers of Change

- Increasing urbanization
- Increased recognition of instream values
- Water needs for energy production and mining
- Impacts of climate change?
- A need to coordinate land use planning with water use planning



How Water Professionals can Deal with Water Management Change

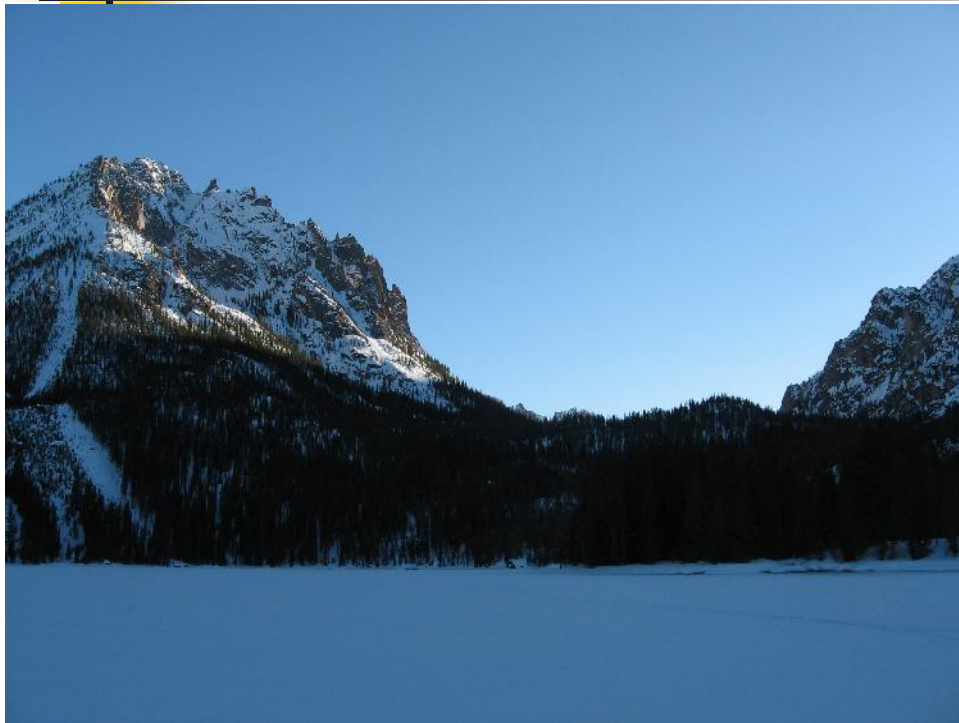
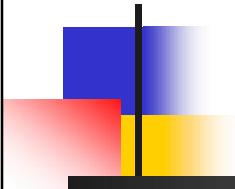
1. Recognize that conjunctive administration and other changes are coming
2. Stay abreast of technology
3. Measure, model, improve understanding
4. Conserve
5. and.. most importantly...



...seek to develop partnerships in
problem solving before the fight
is on.

Examples:

1. IEF Water Forums
2. Treasure Valley CAMP
3. City water planning workshops
4. Meetings between surface water users and ground water users



208-378-1513
Website:
Idahowaterengineering.com
Email:
info@idahowaterengineering.com