



Water Rights and the State Engineer's Administration of Produced Water in Colorado

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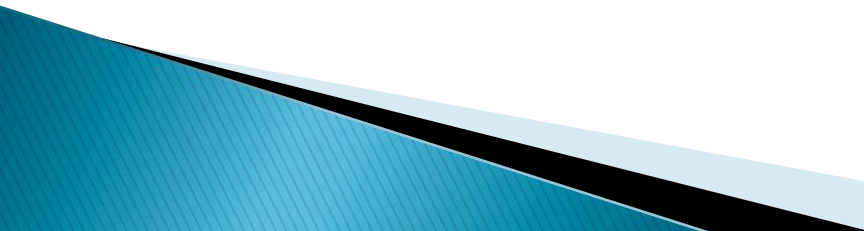
Discussion of Quantitative Injury to Water Right

- ***Energy production*** in Colorado meets
- ***Hydrogeology***, which creates
- A ***water rights*** issue, requiring a
- Difficult ***regulatory obligation***.

- The law provides for some ***discernment in administration***
- The situation led to a ***legislative effort*** allowing
- ***Efficient regulation***

Summary of Presentation

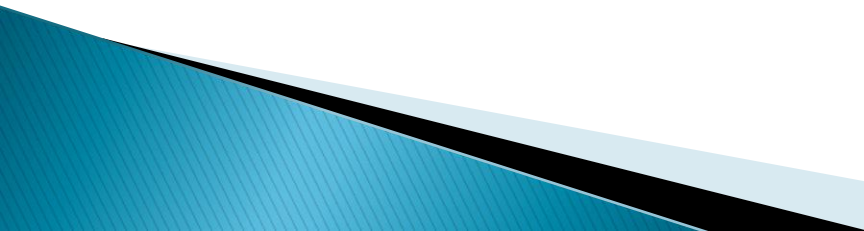
Discussion of Produced Water Administration –
Water Quantity

- Geologic Background used for Lay Persons, Education
 - Findings of the Colorado Supreme Court Case 07CA293, Vance v. Wolfe
 - Produced Nontributary Ground Water Rules
 - Well Permit Requirements
 - Water Administration Requirements
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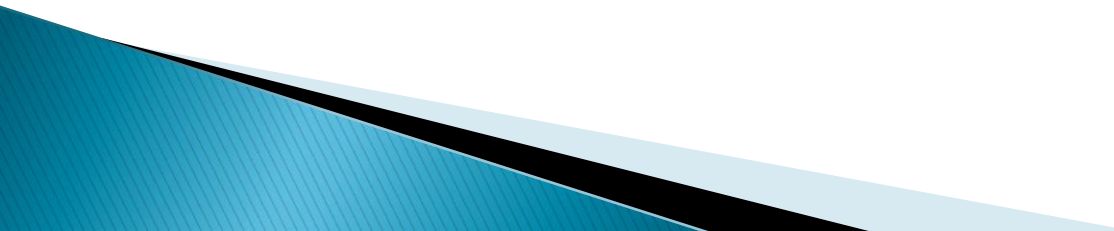
Discussion

Division of Water Resources, Who we are...

Department of Natural Resources Agencies

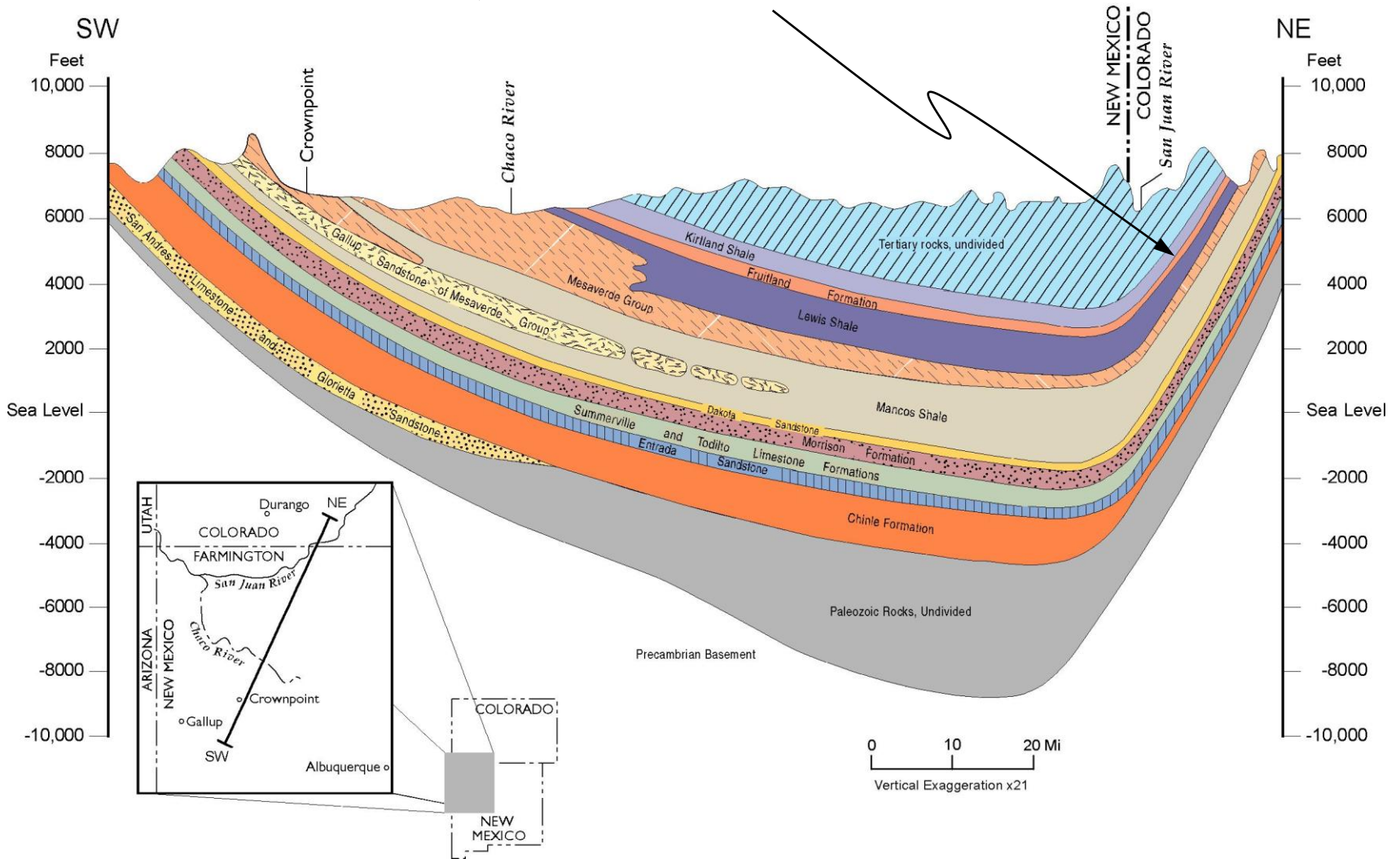
- ▶ **Water Resources**
 - ▶ Parks and Wildlife
 - ▶ Oil and Gas Conservation Commission
 - ▶ Geological Survey
 - ▶ Forestry
 - ▶ Water Conservation Board
 - ▶ Reclamation, Mining, and Safety
 - ▶ State Land Board
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Responsibilities

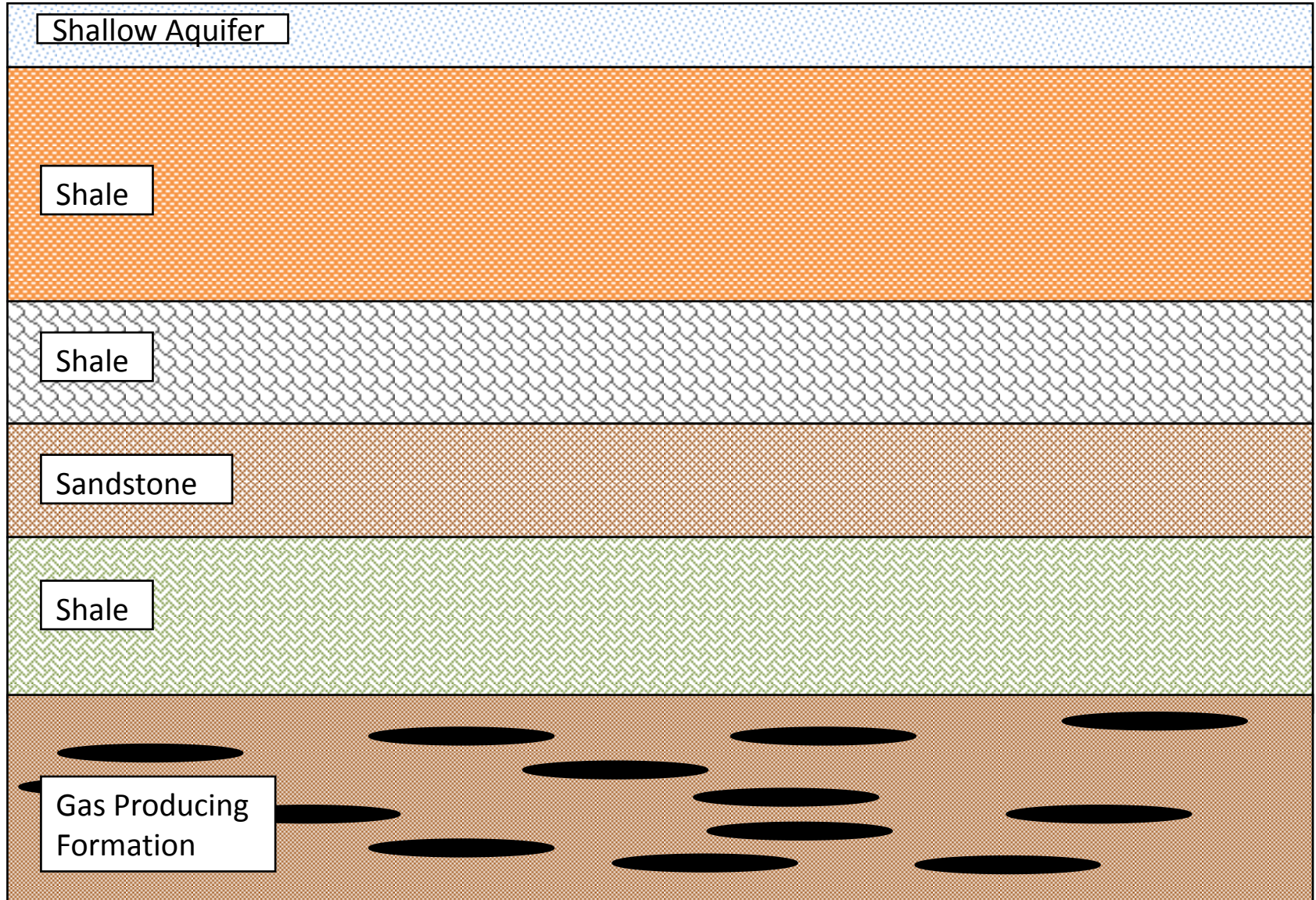
- ▶ **Water Administration**
 - ▶ Dam Safety
 - ▶ **Water Well Permitting**
 - ▶ Interstate Compacts
 - ▶ Hydrographic Program
 - ▶ Public Information Services
 - ▶ Additional Program Activities
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Geologic Perspective

Example: Northern San Juan Basin, Fruitland Formation

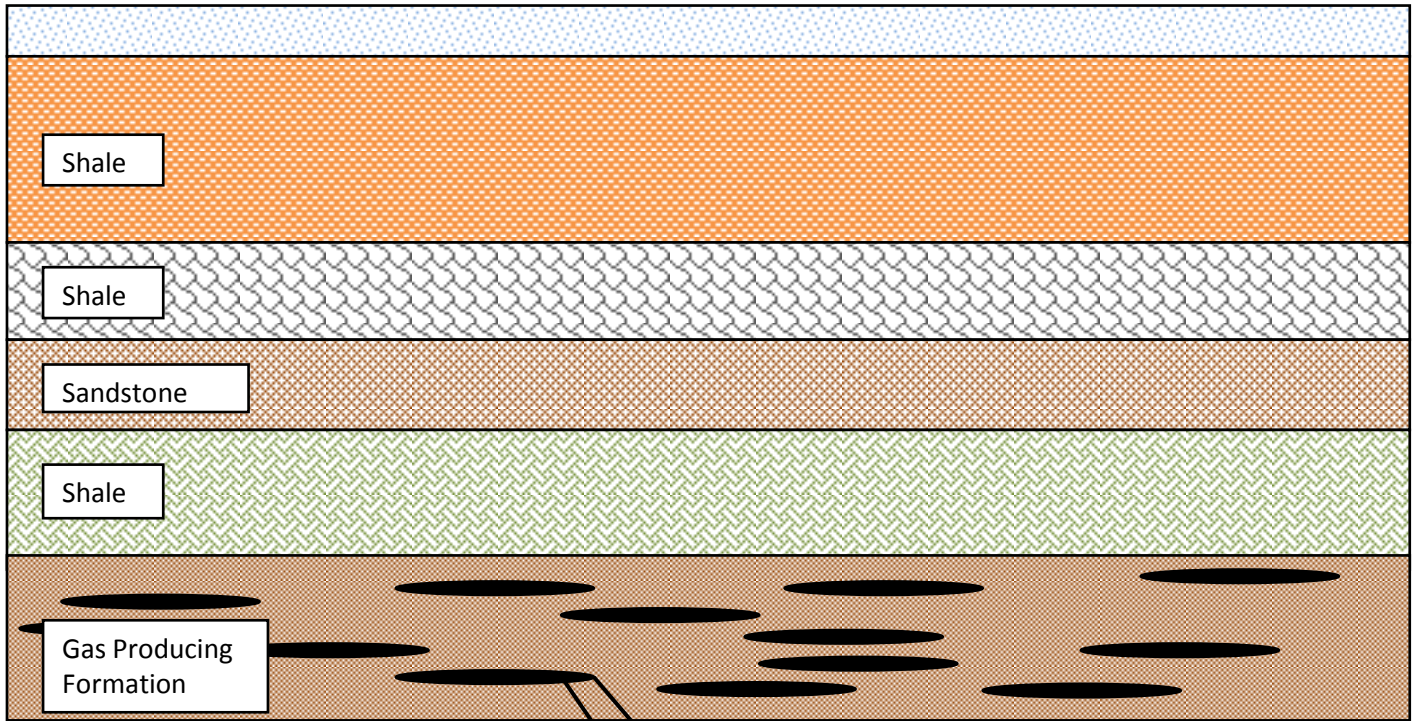


Idealized Cross Section showing Geologic Features and Gas Producing Formation

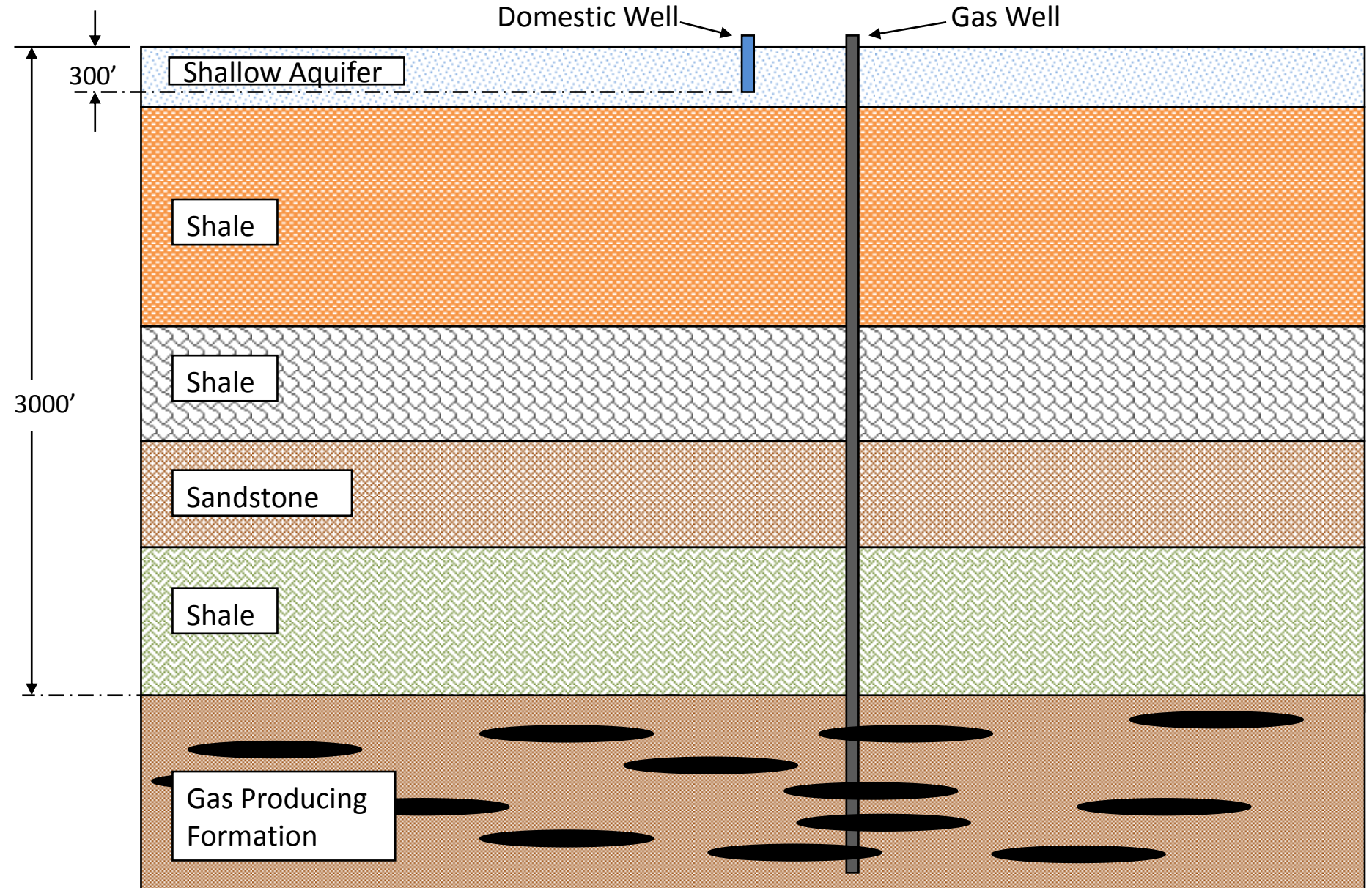


Coal Seam in Geologic Cross-Section





Example of Gas Well to Water Well Isolation



Findings of the Colorado
Supreme Court Case
07CA293, Vance v. Wolfe

Vance v. Simpson (Division 7 Water Court)

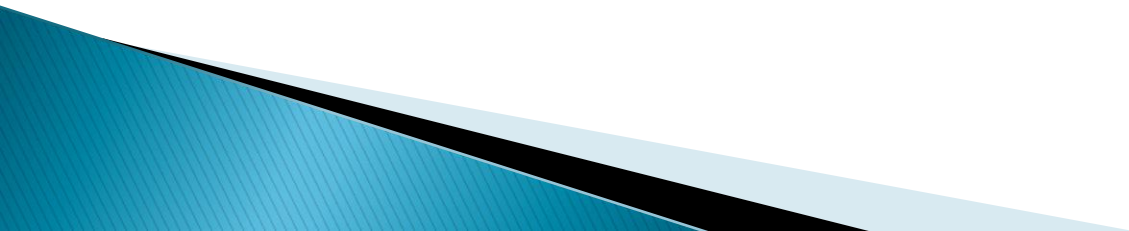
- ▶ State Engineer (in addition to COGCC) has authority over produced water from oil and gas wells.
- ▶ State Engineer has to presume withdrawal of tributary ground water by oil and gas wells injures water users, and take appropriate steps to prevent injury.
- ▶ Removal of produced water by CBM wells is “beneficial use” of water and requires a water well permit from the State Engineer.

What does Vance v. Wolfe mean?

Findings of the Water Court affirmed by the Supreme Court

- ▶ Potential for State Engineer to issue many water well permits
- ▶ Potential for State Engineer to curtail wells due to possible injury to surface water rights

Summary of HB 09-1303



HB 09-1303

Background

- ▶ SEO worked with industry and Colorado Water Congress to draft legislation during 2009 session
- ▶ HB-1303 signed into law on June 2, 2009

HB 09-1303

- ▶ *HB 09-1303 allowed a reasonable period of delay before administration*
- ▶ *HB 09-1303 provides for rulemaking by the State Engineer*

HB 09-1303

HB 09-1303 provides for rulemaking by the State Engineer

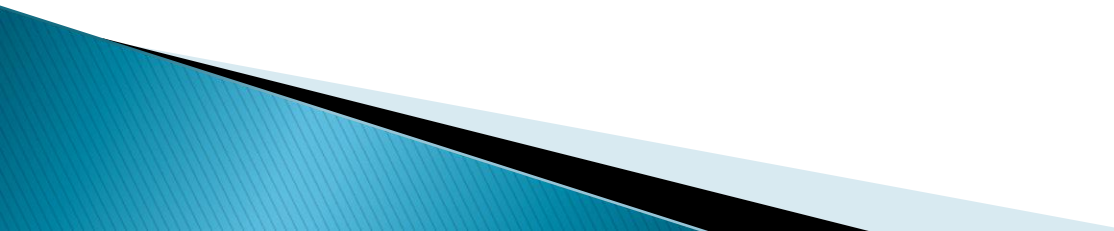
- ▶ HB 09-1303 provides that the State Engineer may adopt rules to assist in the process for determining that ground water meets the definition of *nontributary*.
- ▶ **Scope of rulemaking**
 - Identify methodologies, assumptions, accepted values, definitions, etc.
 - Consider proposals for nontributary determinations for formations that have, or will have oil and gas production

HB 09-1303

HB 09-1303 provides for rulemaking by the State Engineer

- ▶ If the State Engineer can determine which wells produce nontributary ground water, regulation of those wells is reduced or eliminated

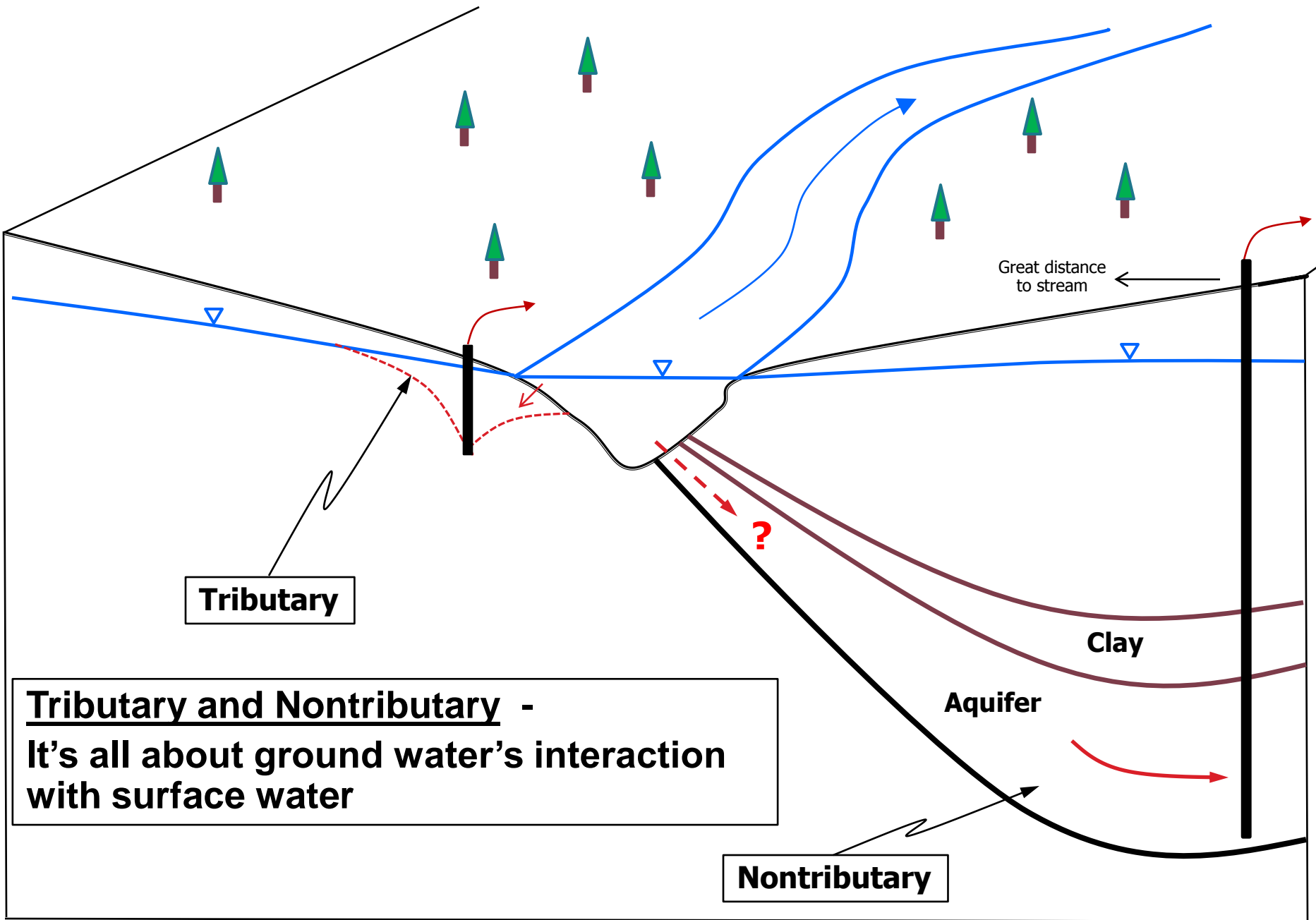
Why the Focus on Nontributary Ground Water?



Tributary versus Nontributary *Ground Water*

Nontributary ground water

- ▶ Some ground water is so isolated from surface water that the impact of its withdrawal has minimal effect on surface water.
- ▶ Colorado statute acknowledges this type of ground water with the term “*nontributary*” and states a quantitative standard.
- ▶ In this way, it differs from all other ground water in the state which is presumed to be connected to surface water, or “*tributary*”



Tributary

**Tributary and Nontributary -
It's all about ground water's interaction
with surface water**

Nontributary

Great distance
to stream ←

Clay

Aquifer

?

Produced Nontributary Ground Water Law

1985 Law (SB5)

- ▶ Allows nontributary water withdrawal when mining minerals
- ▶ Premised on incidental withdrawal (dewatering of a geologic formation)
 - This necessarily limits the amount that can be withdrawn
 - This necessarily limits the duration

Produced Nontributary Ground Water Law

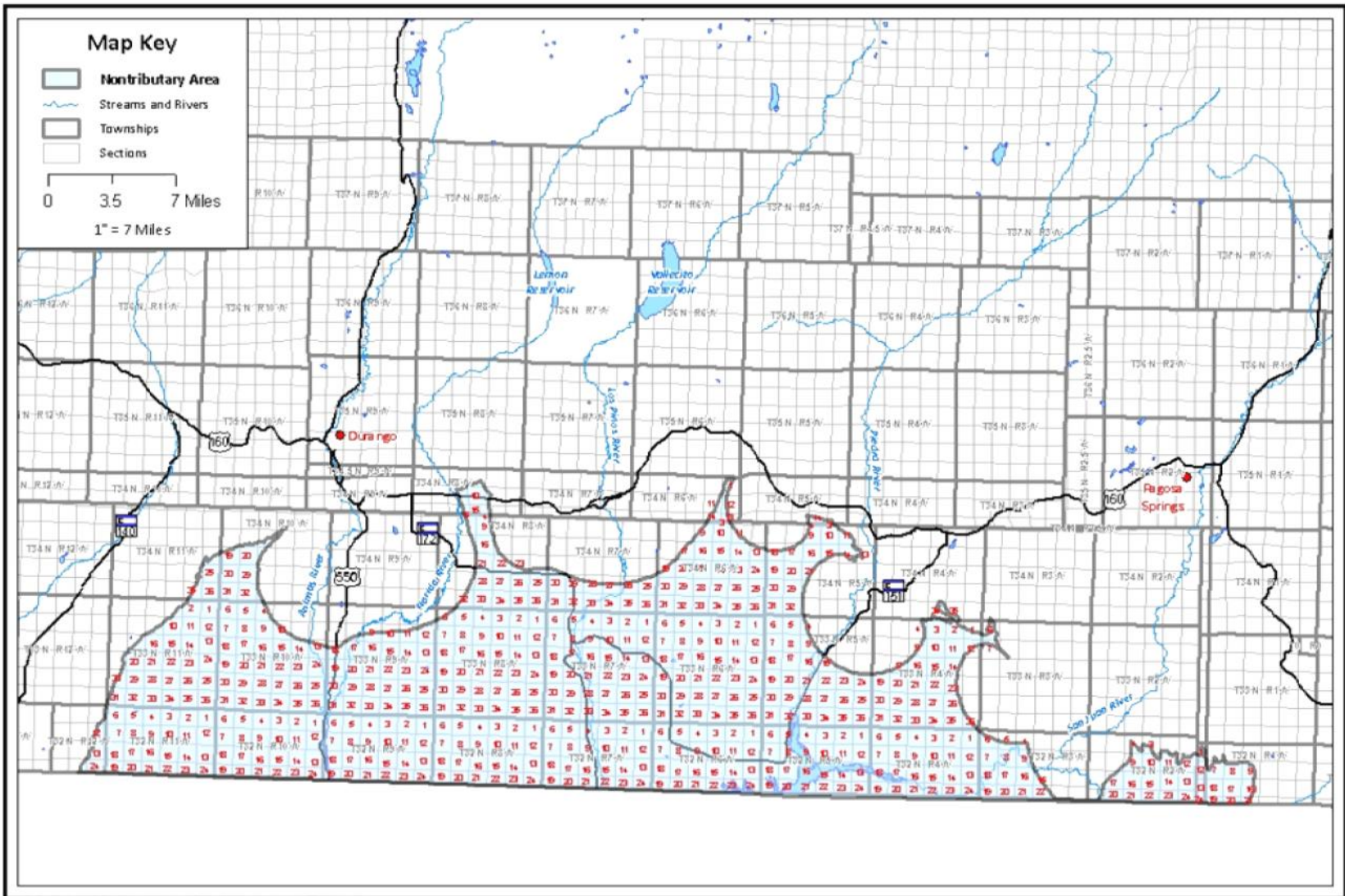
Therefore, a determination of nontributary is desirable because:

- ▶ No water well permit will be required in many situations
- ▶ No administration under the prior appropriation system
 - No substitute water supply plan or augmentation plan required

RULES AND REGULATIONS FOR THE DETERMINATION OF
THE NONTRIBUTARY NATURE OF GROUND WATER
PRODUCED THROUGH WELLS IN CONJUNCTION WITH
THE MINING OF MINERALS

“PRODUCED NONTRIBUTARY GROUND WATER RULES”

2 CCR 402-17



© 2008 BY C. TEXAS ENGINEERING, INC. TOWN AND RANGE BOUNDARIES FROM THE 1911 MAP

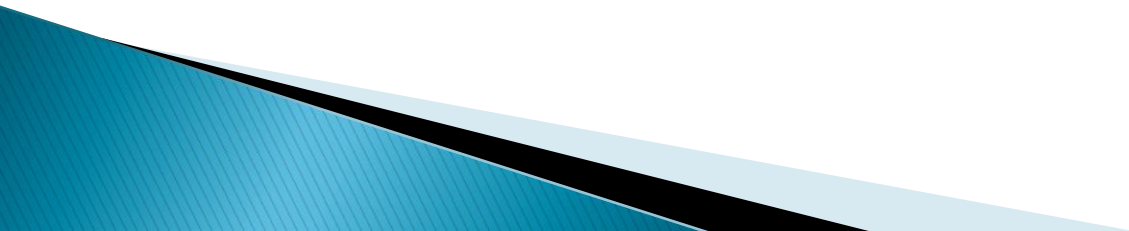


State of Colorado – Division of Water Resources
 Produced Nontributary Ground Water Rules; 2 CCR 402-17
 Nontributary Ground Water in the Northern San Juan Basin
 Fruitland Formation

Map
 A-2

Well Permit Requirements

Water Administration Requirements



Well Permit and Administration Requirements

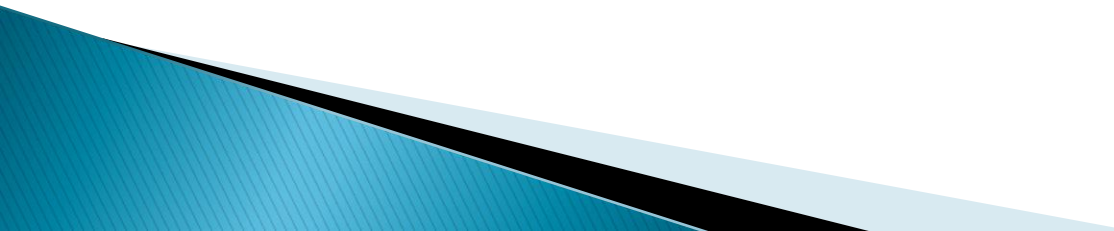
Beneficial Use ?		
	Tributary	Nontributary
CBM	Permit ?	Permit ?
	Replace ?	Replace ?
Non-CBM	Permit ?	Permit ?
	Replace ?	Replace ?

Well Permit Requirements

SB10-165

- Enacted a new statutory provision that nontributary, non-CBM wells do not require permitting if produced water is for mining purposes (injection, evaporation, percolation, disposal, road spreading, well construction, equipment washing, discharge, etc.)

What's happening now?

- ▶ The State Engineer's staff issued well permits for approximately 5,600 CBM wells
 - ▶ Oil and gas operators have filed applications in water court to obtain judicial approval of augmentation plans and water rights for their appropriations of water
 - ▶ Oil and gas operators have filed substitute water supply plan applications with the State Engineer
- 

What's happening now?

- ▶ Water users filed a lawsuit against the State Engineer
 - Find that State Engineer did not have authority
 - Find that there were procedural issues
 - Determine the effect of rules in water court
- ▶ Division HB11-1286
 - Clarify authority of State Engineer
 - Clarify the effect of the Rules in limited cases
 - Signed by the Governor on May 4, 2011

What's happening now?

- ▶ Division 1 Judge Rules on Lawsuit
 - September 8, 2011
 - Affirmed the State Engineer's authority
 - Found no procedural issues
 - Clarified the effect of rules in court
 - One basin specific determination still to be settled
- ▶ Division 7 judge's ruling
 - May 27, 2011, Judge Lyman rules that the court has no jurisdiction to rule on operator's claims for nontributary ground water

Questions?

