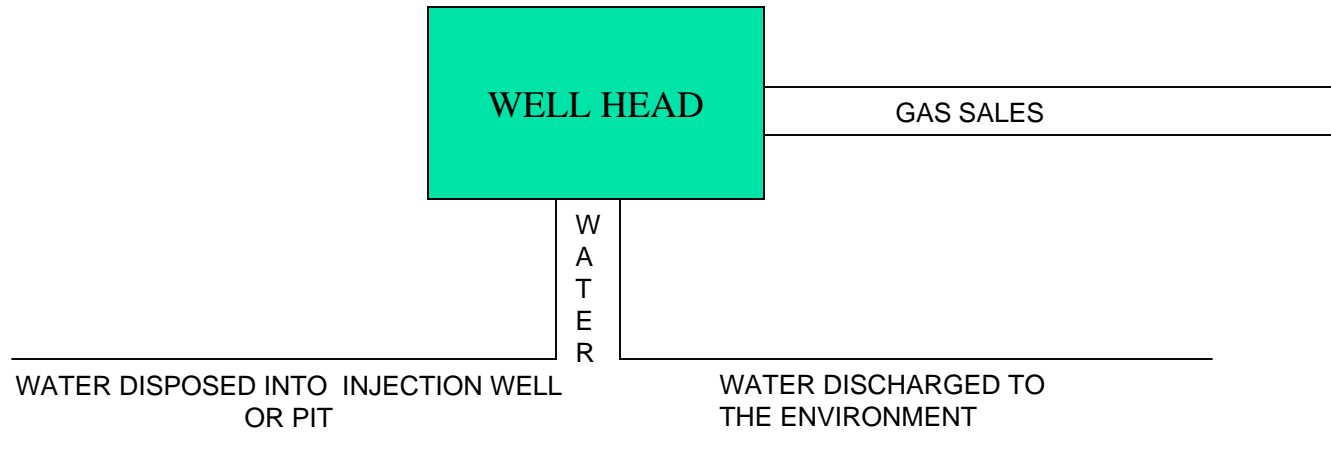


WHO REGULATES PRODUCED WATER?



THESE WATER DISPOSAL METHODS ARE UNDER THE JURISDICTION OF THE COLORADO OIL AND GAS CONSERVATION COMMISSION.

THIS METHOD OF WATER DISPOSAL IS UNDER THE JURISDICTION OF THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENTAL - WATER QUALITY CONTROL DIVISION FOR APPROVAL TO DISCHARGE WATER. AFTER THE WATER IS DISCHARGED IT IS UNDER THE JURISDICTION OF THE DEPARTMENT OF WATER RESOURCES FOR ISSUES CONCERNING WATER RIGHTS.



Methods of Use and Disposal

- COGCC Rule 907
 - Inject into a disposal well
 - Place in lined or unlined pit
 - Dispose at a commercial facility
 - Road spreading
 - Discharge into waters of the state
 - Reuse for recovery, recycling and drilling
 - Mitigation



Methods of Use and Disposal

- Types of Beneficial Uses
 - Irrigation
 - Municipal
 - Domestic
 - Stock watering
 - Minimum streamflows
 - Augmentation



CBM Water Rights and Ownership

- Doctrine of Prior Appropriation (First in time-first in right)
- CDWR has jurisdiction over administration of water – right of use
- Comply with the “Water Rights Acts”
 - Ground Water Management Act
 - Water Right and Determination and Administration Act



CBM Water Rights and Ownership

- Surface Water Discharge
 - Must comply with Water Rights Act
 - Must have intent to use
 - Must be diverted in priority
 - Must be beneficially used
 - Must not waste
 - Must prevent material injury to vested water rights



CBM Water Rights and Ownership

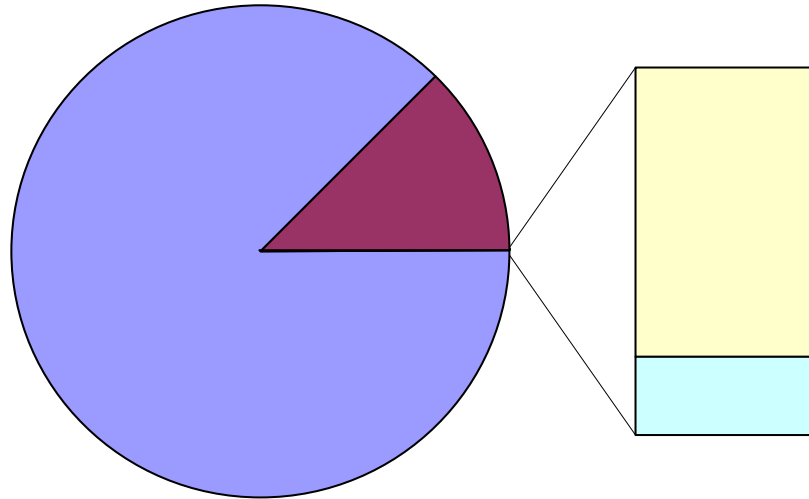
- Beneficial Use by Well-Nontributary
 - §37-90-137(7), CRS (2005)
 - No permit required unless beneficially used
 - Use not based on land ownership
 - Do not need to determine if unappropriated water is available
 - Must determine by modeling if nontributary



CBM Water Rights and Ownership

- Beneficial Use by Well-Tributary
 - §37-90-137(1) & (2), CRS (2005)
 - Permit required
 - Must determine if unappropriated water is available
 - Must prevent material injury to vested water rights (may require augmentation)

Distribution of Water



- All sources (16 MAF/yr)
- Ground water sources (2.3 MAF/yr)
- Non-CBM Wells (0.049 MAF/yr)
- CBM Wells (0.013 MAF/yr)



Conclusions

- Must comply with Water Rights Acts (subject to appropriation)
- Most basins over-appropriated
- Water quality
- Unreliable as long-term source
- Collaboration
- Educate and communicate