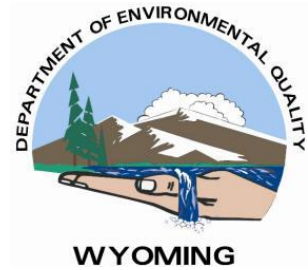




**Department of Environmental Quality  
Land Quality Division**



# **Wyoming Uranium Recovery Program Update**

**National Mining Association**

**June 12, 2022**

**Brandi O'Brien**

**Wyoming Department of Environmental Quality**

**Uranium Recovery Program Manager**



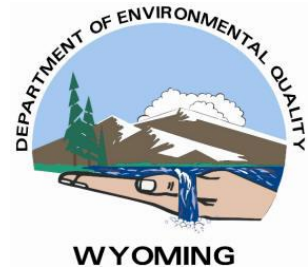
## Source Material Program



- ▶ LQD was directed by the Joint Committee on Minerals, Business and Economic Development to conduct a feasibility study in the spring 2022.
- ▶ The final study report was completed and provided to the Minerals Committee September 26, 2022.
- ▶ Draft legislation was sent to the NRC on December 22, 2022.
- ▶ NRC review was completed (no comments) on January 4, 2023.



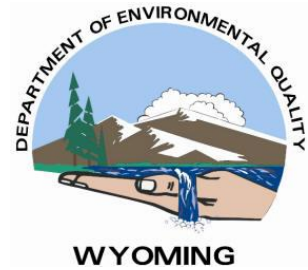
## Source Material Program



- ▶ HB0061 passed, amending Article 20 of the Environmental Quality Act.
  
- ▶ Added authority to pursue an agreement to regulate
  - “...source material recovered from any mineral resources processed primarily for purposes other than obtaining the source material content. For the purposes of this agreement, the term “mineral resources” means any host rock, ore, material or waste associated with mining or milling that contains a recoverable mineral.”



## Source Material Program



- ▶ Statute language was developed to be separate from existing URP language.
- ▶ HB0061 provided funding for 2 additional FTE and 50% of the URP manager's time to set up the program in 4 years.
  - Funding started April 1, 2023



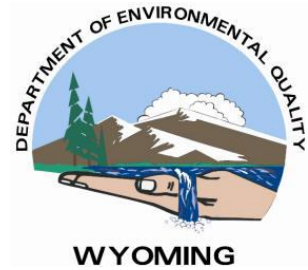
# Source Material Program Staffing



- ▶ Program Manager
  - 50% time during standup, 10% after standup
  
- ▶ 2 SMP Technical Employees
  - Health Physicists (ENNR11)
  
- ▶ 1 FTE LQD Staff
  - After standup.



# Source Material Program



- ▶ New SMP will be created
  - Separate set of rules from URP
  - Separate Guidance from URP
  - Expanded Training Requirements
    - Will meet URP training, but with additional requirements
- ▶ Will submit an application with the NRC to amend Wyoming's Agreement



**Source Material Program (SMP)**  
+  
**Uranium Recovery Program (URP)**  
=  
**SMURP**

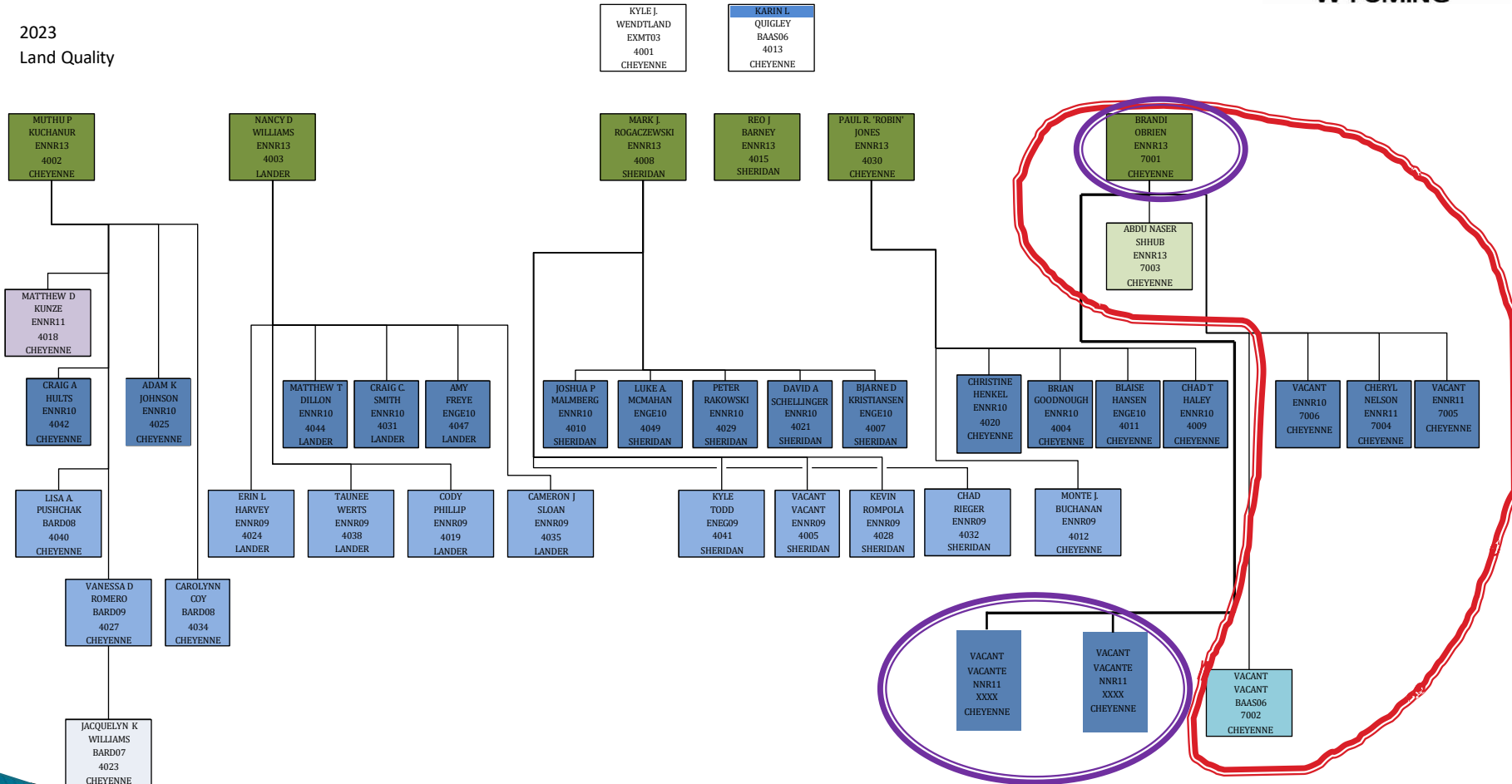




WYOMING

# LQD & SMURP

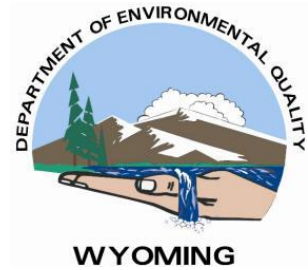
2023  
Land Quality







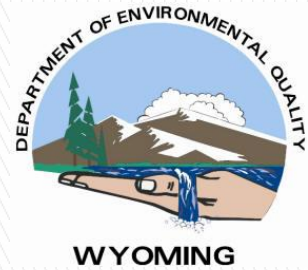
# Uranium Recovery Program



- 5 URP Technical Employees
  - Brandi O'Brien, Uranium Recovery Program Manager
  - Cherrie Nelson, Health Physicist
  - Dr. Abdu Naser Shhub, Senior Health Physicist (in training)
  - Senior Hydrologist/Geochemist (vacant)
  - Geologist (vacant)
- 3 FTE LQD Staff
- 3 Other URP Supported Positions
  - Administrative Assistant (Shared position with LQD)
  - Assistant Attorney General for the URP (vacant)
  - Cheryl Lobb, Paralegal



# URP Qualification



- ▶ Background on Uranium Recovery
  - ▶ Code of Federal Regulations
  - ▶ Wyoming State Statutes and Rules and Regulations
  - ▶ Federal and State Regulatory Guidance
  - ▶ Site Familiarization Visit
  - ▶ NRC Management Directives
  - ▶ Directed Review of Selected Uranium Licensing Casework
  - ▶ Formal Training
- ▶ Background on Uranium Recovery
  - ▶ Code of Federal Regulations
  - ▶ Wyoming State Statutes and Rules and Regulations
  - ▶ Federal and State Regulatory Guidance
  - ▶ NRC and URP Inspection Manual
  - ▶ Industry Codes and Standards
  - ▶ Inspection Accompaniments
  - ▶ NRC Management Directives
  - ▶ Review of Significant Events at Uranium Recovery Facilities
  - ▶ Formal Training

Project Manager/  
Technical Reviewer

Inspector

≈ 1.5 years to complete



# Current Licensees



## Conventional Mill/Tailings

- Anadarko Bear Creek
- ExxonMobil Highland
- Orano LuckyMc
- Umetco Gas Hills
- Pathfinder Shirley Basin North
- Kennecott Sweetwater
- WNI Split Rock

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## In-situ Recovery

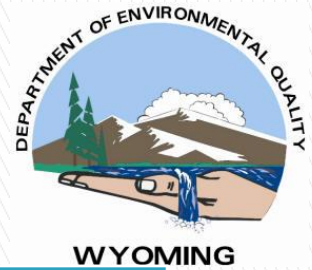
- UR-Energy Lost Creek
- AUC Reno Creek
- Cameco Smith Ranch/Highland
- UEC Uranium Corp. Willow Creek
- Strata Ross
- Energy Fuels Nichols Ranch
- UEC Wyoming Corp. Moore Ranch\*
- UEC Uranium Corp. Ludeman\*
- Pathfinder Shirley Basin ISR\*

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\* Not Yet Constructed



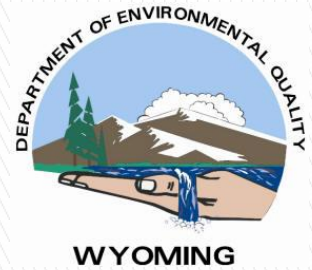
# Licensing Actions Completed



Facility	Action
Moore Ranch	License Renewal
Reno Creek	Expansion (out for signature)
Willow Creek	Name Change
Moore Ranch	Name Change
Strata Ross	Pond Amendment
Strata Ross	DAC Amendment
Strata Ross	Designee Amendment
Split Rock	GW Compliance Monitoring Program
Cameco	Change in ALARA Submittal Date
Willow Creek	Completion Review Report for M1-9
Multiple	Delay of Decommissioning Requests
Multiple	Reduced Operations Requests



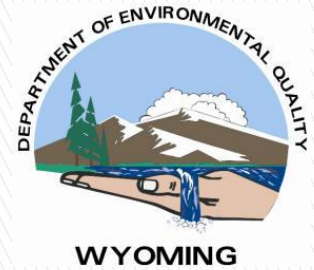
# Current Licensing Actions



Facility	Action
Bear Creek	Completion Review Report
ExxonMobil Highland	ACL Pit Lake
Sweetwater Mill	Public Dose Amendment
Nichols Ranch	License Renewal
Lost Creek	License Renewal
Sweetwater Mill	Request to Modify Groundwater Protection Standards
Sweetwater Mill	RSO Amendment
Strata Ross	Kendrick Amendment
Cameco	Brown Ranch Tract Amendment
Willow Creek	License Renewal



# Draft Guidance



- **Radon Public Dose Guidance**
  - Comments received from Industry
- **Environmental Monitoring Guidance**
  - (Update to Reg Guide 4.14)
  - NRC comments will be incorporate as necessary
  - Once radon guidance in finalized, this guidance will become priority



# Questions?



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[deq.wyoming.gov/land-quality/uranium/](http://deq.wyoming.gov/land-quality/uranium/)