



United States Nuclear Regulatory Commission

Protecting People and the Environment

Uranium Recovery Program Commission Meeting Glenn Tracy

**Deputy Executive Director for
Materials, Waste, Research, State,
Tribal, Compliance, Administration, and
Human Capital Programs**

November 29, 2016

NRC Panel will Address the Following Topics

- **Program activities and priorities**
- **Wyoming's draft request to become an Agreement State**
- **Licensing activities**
- **Section 106 and National Environmental Policy Act activities**
- **Oversight of operating sites**

Actively Managing the Uranium Recovery Program

- **Proactively responding to external factors**
- **Continuing significant international efforts**
- **Engaging with a broad array of stakeholders**
- **Committing to continuous improvement**



Office of Nuclear Material Safety and Safeguards

Marc Dapas, Director

Ensuring Safety of a Broad Range of Activities

- **Licensing of new facilities**
- **License renewals**
- **Oversight of operating facilities**

Addressing the Challenge of Responding to a Dynamic External Environment

- **Proactively planning our work**
- **Coordinating closely on oversight of an increased number of operating sites**
- **Preparing for the potential transfer of authority if Wyoming becomes an Agreement State**

Enhancing the Licensing Process to be more Efficient, Predictable, and Transparent

- **Initiating strategies to improve the license submittal quality**
- **Leveraging lessons learned and best practices from other offices to enhance the NRC's licensing process**
- **Improving the transparency and predictability in how fees are charged**



Division of Decommissioning, Uranium Recovery, and Waste Programs

Andrea Kock, Deputy Director

Supporting a Number of Uranium Recovery Program Priorities

1

Ensuring safety, security, and environmental protection associated with uranium recovery facility operations

2

Reviewing licensing applications for new facilities and expansions of existing facilities to ensure safety, security, and environmental protection

3

Supporting rulemaking and guidance development

Significant Support of our International Partners

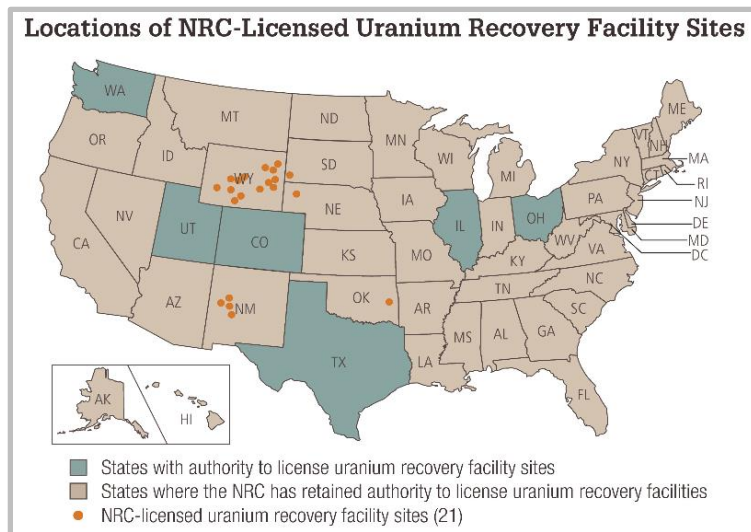


- **Hosted Australian Regulators to share inspection best practices**
- **Supported cooperative efforts through the Partnership for Uranium Recovery Regulation Initiative**
- **Participated in IAEA consultancies**
- **Conducted/participated in several international training workshops**

Demonstrating Continuous Improvement

- **Utilizing staff overages to attain a full complement of staff**
- **Identifying best practices related to licensing**
- **Improving transparency and predictability of fees**
- **Reevaluating the current licensing term**

Preparing for the Potential Impact if Wyoming Becomes an Agreement State



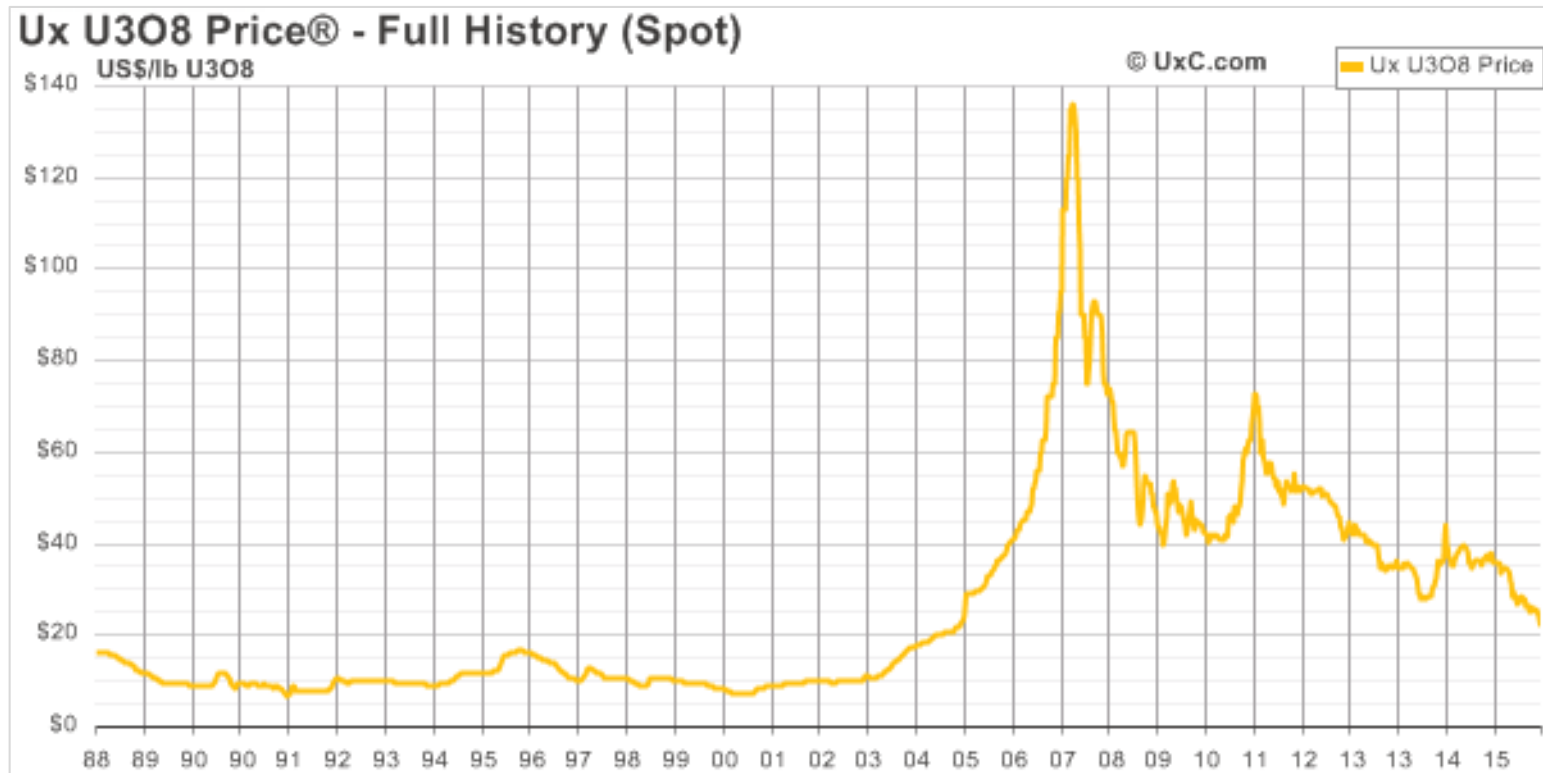
- **Planning for possible future program size and scope**
- **Established a transition team to evaluate the potential impacts and effectively manage any changes that occur**



**Division of Decommissioning,
Uranium Recovery, and Waste
Programs
Uranium Recovery Licensing
Branch**

Bill vonTill, Chief

Responding with Agility to External Factors



Source: The Ux Consulting Company, LLC, <http://www.uxc.com>

Providing Oversight of 10 Uranium Recovery Facilities

Facility	Type	Location	Status
Cameco Smith Ranch	ISR	WY	Operating
Cameco Crow Butte	ISR	NE	Operating
Uranium One Willow Creek	ISR	WY	Operating
Ur Energy Lost Creek	ISR	WY	Operating
Uranerz Nichols Ranch	ISR	WY	Operating
Strata Ross	ISR	WY	Operating
Kennecott Sweetwater	Conv.	WY	Constructed and in Standby
Hydro Resources Crownpoint	ISR	NM	Licensed but not Constructed
Uranium One Moore Ranch	ISR	WY	Licensed but not Constructed
Powertech Dewey Burdock	ISR	SD	Licensed but not Constructed

Typical ISR Facility

Wellfield



Cameco Smith Ranch Facility,
Powder River Basin, WY

Processing Plant



Nichols Ranch Central
Processing Plant, Powder River
Basin, WY

Making Progress on Major Uranium Recovery Applications

Facility	Action Type	Location
AUC Reno Creek	New Application	WY
Cameco Smith Ranch	License Renewal	WY
Uranerz Jane Dough	Expansion	WY
Kennecott Sweetwater	License Renewal	WY
Uranium One Ludeman	Expansion	WY
Strata Kendrick	Expansion	WY
Cameco Crow Butte Marsland	Expansion	NE

Coordinating on EPA Rulemaking Activities



- **40 CFR Part 192 - Health and Environmental Protection Standards for Uranium and Thorium Mill Tailings**
- **40 CFR 61, Subpart W - National Emission Standards for Hazardous Air Pollutants (NESHAP) for Radon Emissions from Operating Uranium Mill Tailings**

Continuing to Communicate on Radiation Protection Requirements

- **Held 2014 radon workshop**
- **Participated in annual NMA uranium recovery workshop**
- **Held 2016 public meeting on radiation protection**
- **Planning 2017 radiation protection workshop**

Collaboratively Engaging Native American Tribes through Workshops

Topics

- **Uranium Recovery**
- **NEPA**
- **Tribal Consultation under Section 106 of the NHPA**
- **Health Physics**

Attending Tribes

- **Salish**
- **Koontenai**
- **Northern Arapaho**
- **Eastern Shoshone**
- **Navajo Nation**
- **Multiple Sioux Tribes**

Successful Completion of a Number of Licensing Actions

5

Major Licensing Actions

- Two new facility license
- One expansion
- Two renewals

3

New Facilities Commenced Operations

60

Minor Licensing Actions

- Surety Reviews
- Amendments
- Relief Requests
- Transfers of Control
- Routine Actions
- Pre-operational Verifications
- Wellfield Packages

Addressing Challenges within the Uranium Recovery Program

- **Predicting the timing of licensing actions and operations**
- **Appropriately resourcing the program based on the uncertainties**
- **Preparing for the potential transfer of authority to the State of Wyoming**



Division of Fuel Cycle Safety, Safeguards, and Environmental Review Environmental Review Branch

Diana Diaz-Toro, Project Manager

Complying with the National Environmental Policy Act & National Historic Preservation Act

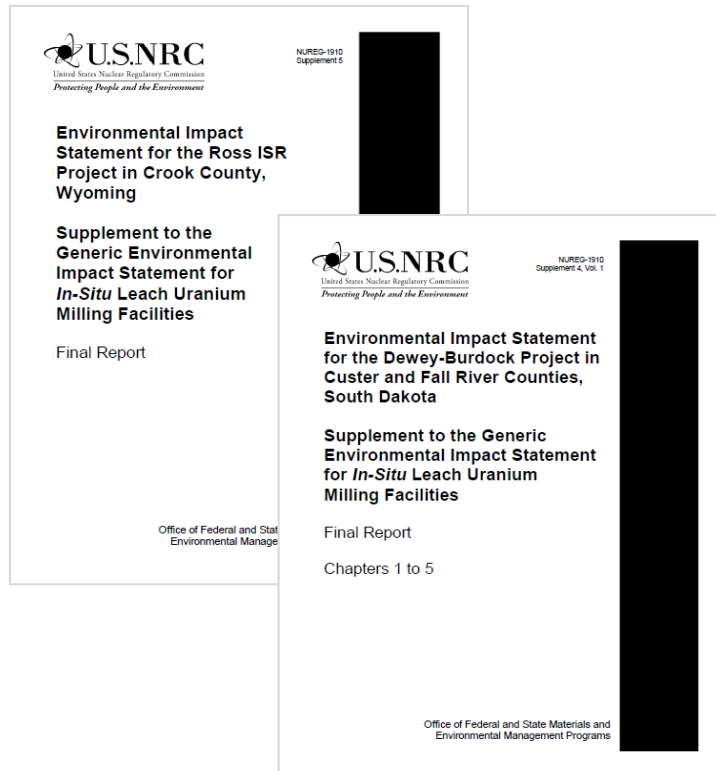
National Environmental Policy Act of 1969

- **Requires consideration of the environmental effects of agencies' actions in their decision-making and to make the information publically available**

Section 106 of the National Historic Preservation Act

- **Requires consideration of the effects of agencies' actions on historic properties in consultation with interested parties**
- **Meets the reasonable and good faith standard for identification**
- **Must be completed prior to making the licensing decision**

Completion of Several NEPA and NHPA Section 106 Reviews



**PROGRAMMATIC AGREEMENT
REGARDING
THE STRATA ENERGY, INC. ROSS IN
SITU URANIUM RECOVERY PROJECT
IN CROOK COUNTY, WYOMING**

April 2014

Continuing to Progress on NEPA Environmental Reviews

2

Supplemental Environmental Impact Statements for ISR Facilities

3

Environmental Assessments for ISR Expansions

1

Environmental Assessment for ISR License Renewal

Continuing to Enhance our NEPA Environmental Reviews

- **Proactively reached out to the Environmental Protection Agency**
- **Implementing the Memorandum of Understanding with the Bureau of Land Management**
- **Exploring additional opportunities**

Addressing Challenges in NHPA Section 106 Reviews

- **NRC's efforts and activities in support of Section 106 review have grown**
- **Complexity of Section 106 consultations can vary**
 - **Number of consulting parties**
 - **Location of the proposed facility**
 - **Identifying historic properties and determining eligibility**

Proactively Working to Enhance Our Section 106 Review Process

- **Increased tribal outreach**
- **Developed staff draft guidance on conducting the Section 106 process for uranium recovery facilities**
- **Partnered with the Advisory Council on Historic Preservation**



Division of Nuclear Materials Safety Region IV

Mark Shaffer, Director

Maintaining a Dynamic Inspection Program

- **Close coordination with NMSS for Master Inspection Plan**
- **Adjustments made based on operating status of facilities**

Maintaining an Appropriate Focus on Safety

- **Radiation Protection**
- **Environmental Monitoring**
- **Packaging and Transportation**
- **Event Response**

Ensuring Safety at Operating Sites: Inspections

Fiscal Year	Inspections
2016	9
2015	4
2014	8
2013	8

Ensuring Safety at Operating Sites: Enforcement

Fiscal Year	Violations	Non-Cited
2016	7	3
2015	2	1
2014	6	0
2013	3	1

Uranium One Takes Corrective Actions to Address Drum Pressurization Event



Ion-exchange Columns at a Central Processing Plant



Well Piping Manifolds in a Wellfield Header House



Preparing for the Future

- **Support for Wyoming for the potential transfer of authority**
- **Fungibility through cross training**



Glenn Tracy

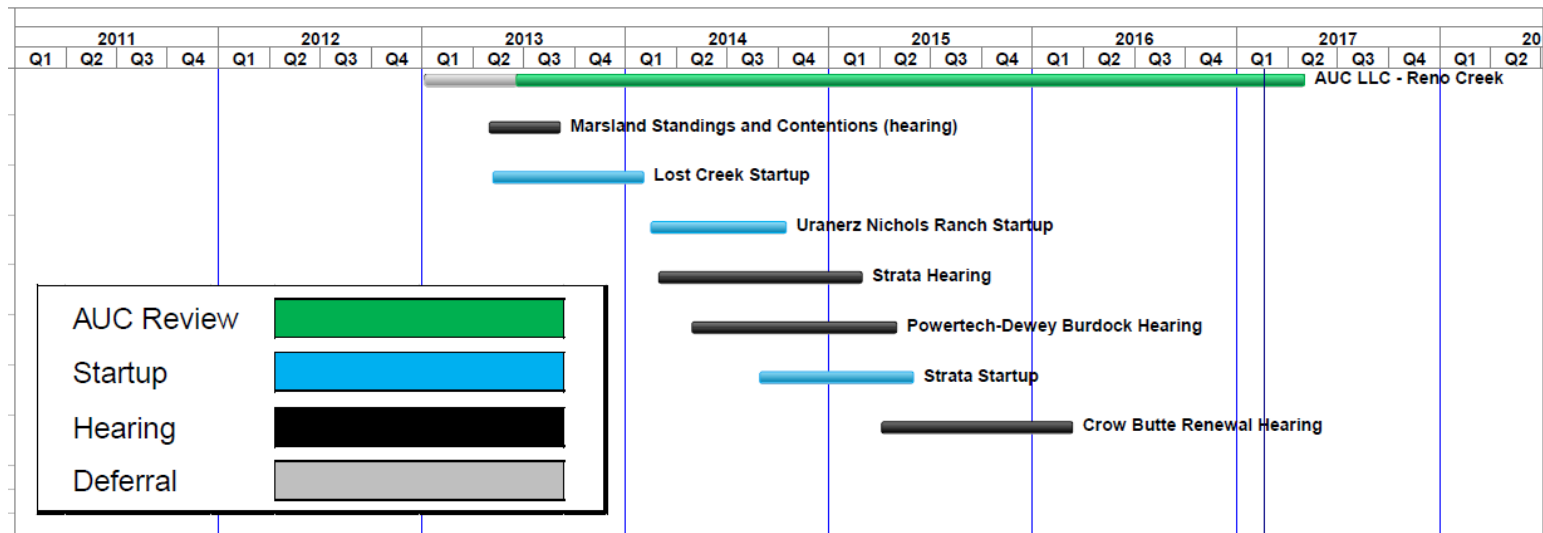
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List of Acronyms

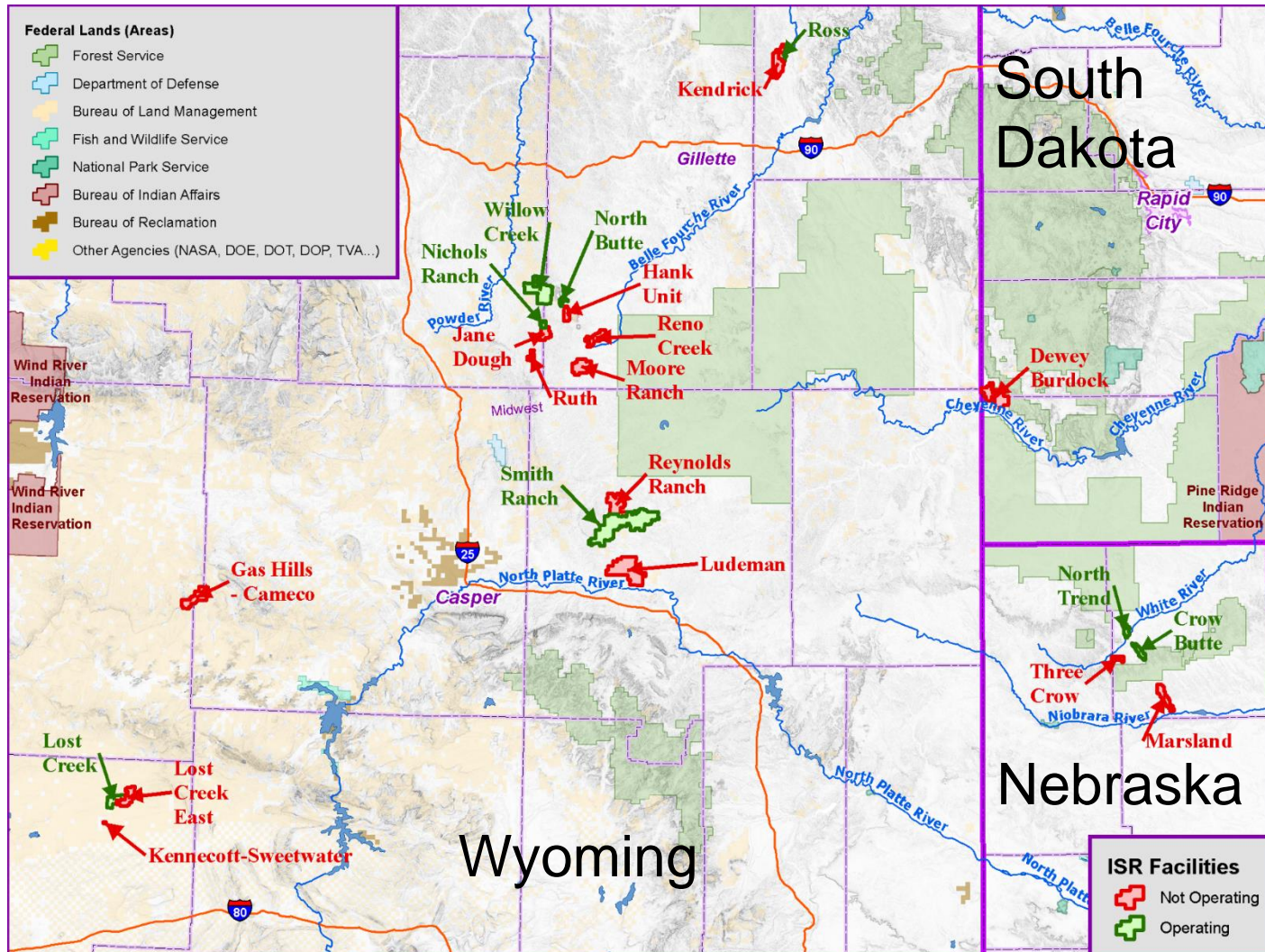
- **ACHP - Advisory Council on Historic Preservation**
- **BLM - Bureau of Land Management**
- **CFR – Code of Federal Regulations**
- **EA – Environmental Assessment**
- **EPA – Environmental Protection Agency**
- **GEIS – Generic Environmental Impact Statement**
- **IAEA – International Atomic Energy Agency**
- **ISR – In Situ Recovery**
- **NE - Nebraska**
- **NEPA – National Environmental Protection Act**
- **NESHAP – National Emission Standards for Hazardous Air Pollutants**
- **NHPA – National Historic Preservation Act**
- **NM – New Mexico**
- **NMA - National Mining Association**
- **NRC – Nuclear Regulatory Commission**
- **OMB – Office of Management and Budget**
- **PA – Programmatic Agreement**
- **PURR- Partnership for Uranium Recovery Regulation**
- **SD – South Dakota**
- **SER – Safety Evaluation Report**
- **SEIS – Supplemental Environmental Impact Statement**
- **WY - Wyoming**

Backup Slides

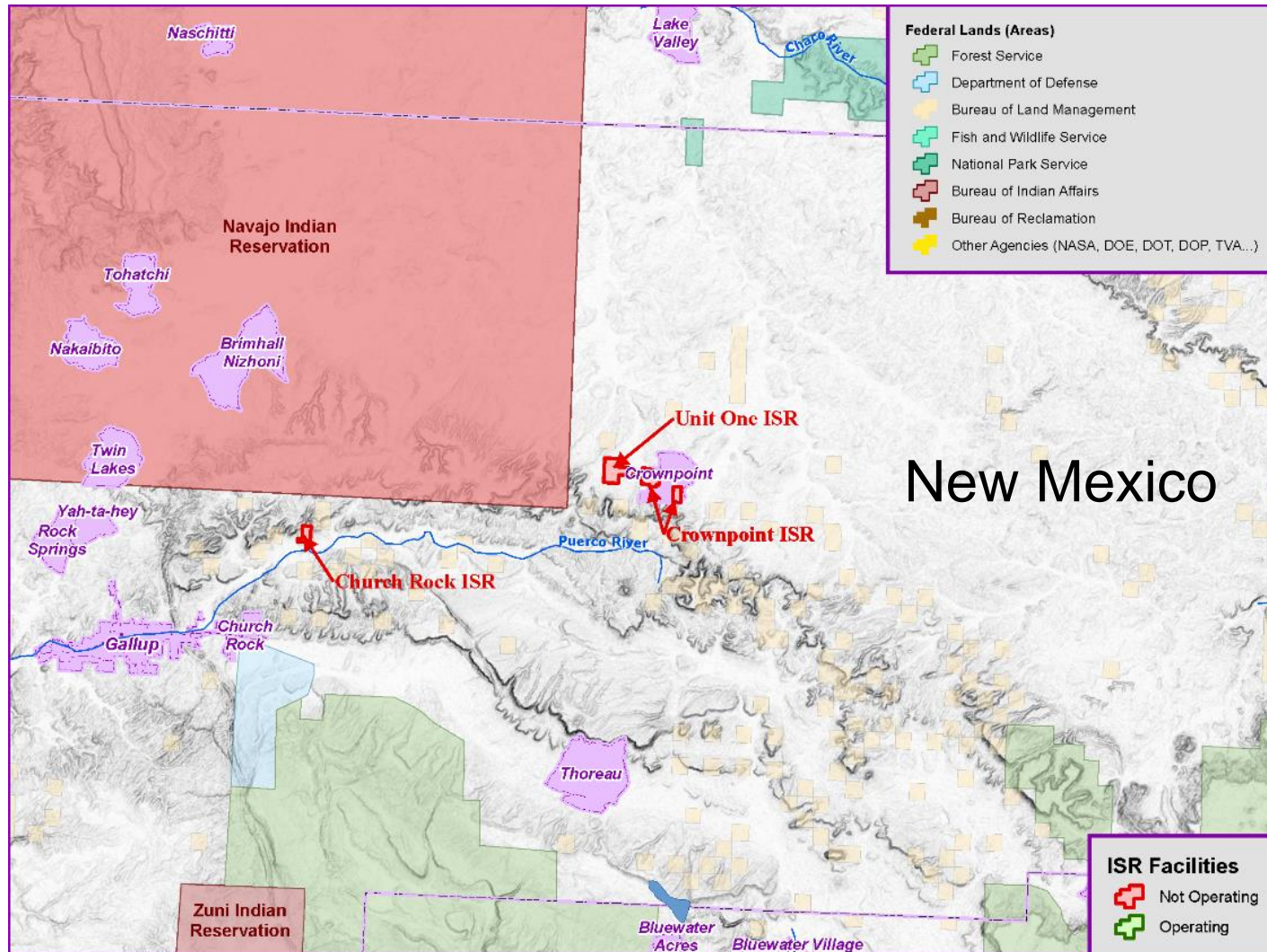
The AUC Reno Creek Review Timeline



Facility Locations



Facility Locations



In Situ Recovery Process

