

New Mexico's Views on the Blue Ribbon Commission on America's Nuclear Future

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NEW MEXICO ENVIRONMENT DEPARTMENT**

Topical Workshop on the President's Blue Ribbon
Commission on America's Nuclear Future

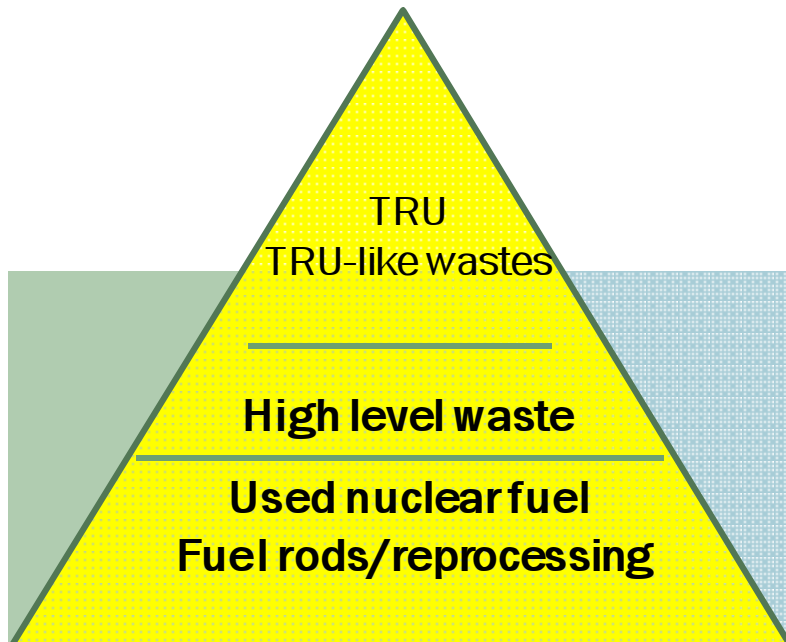
WM 2012 Symposia

Phoenix, AZ

March 1, 2012

Blue Ribbon Commission Report

- ✧ Acknowledges lessons from the WIPP project that lead to success
- ✧ Formulates key attributes for a new waste management strategy



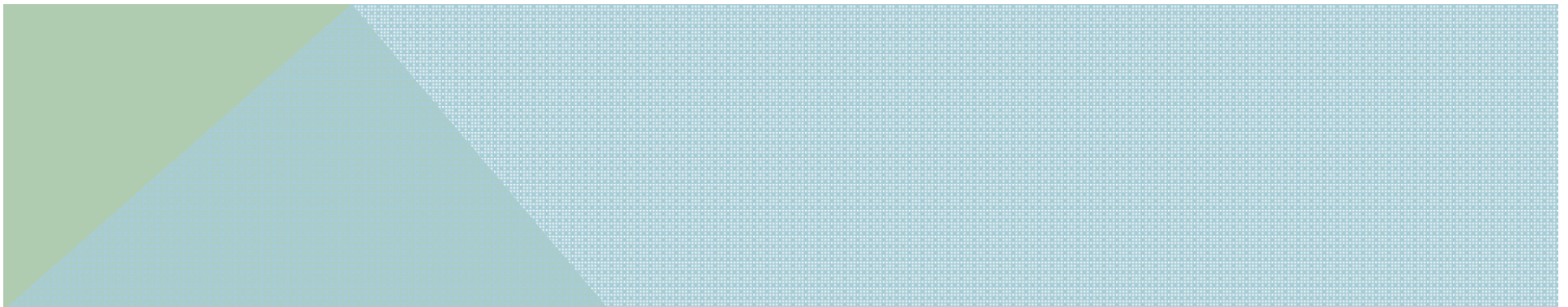
Blue Ribbon Commission on America's Nuclear Future visits WIPP in January 2011



BRC Meeting in Carlsbad NM in January 2011

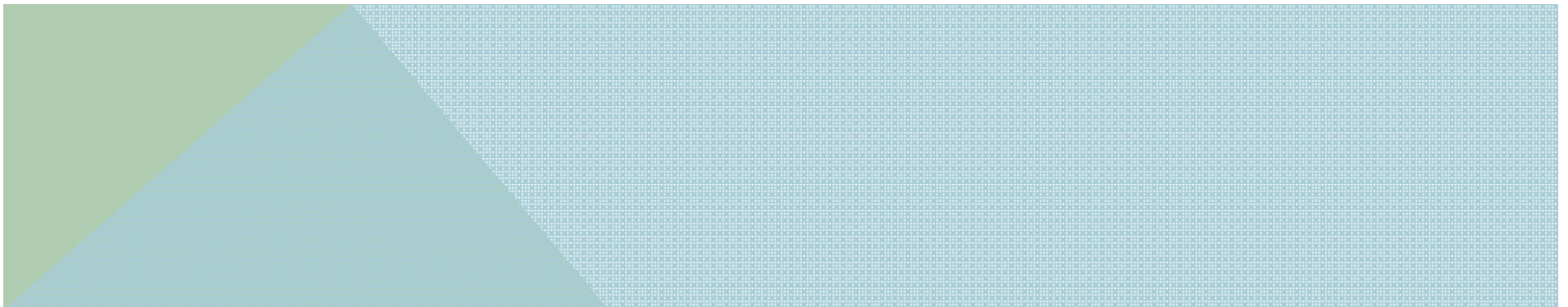
Panel: State of New Mexico Perspective

- WIPP Model Works
- Why WIPP is a Success
- Key Components of WIPP's Success
- Lessons Learned from WIPP
- A Process for Making Site Selection
- The Right Strategy for Future Success



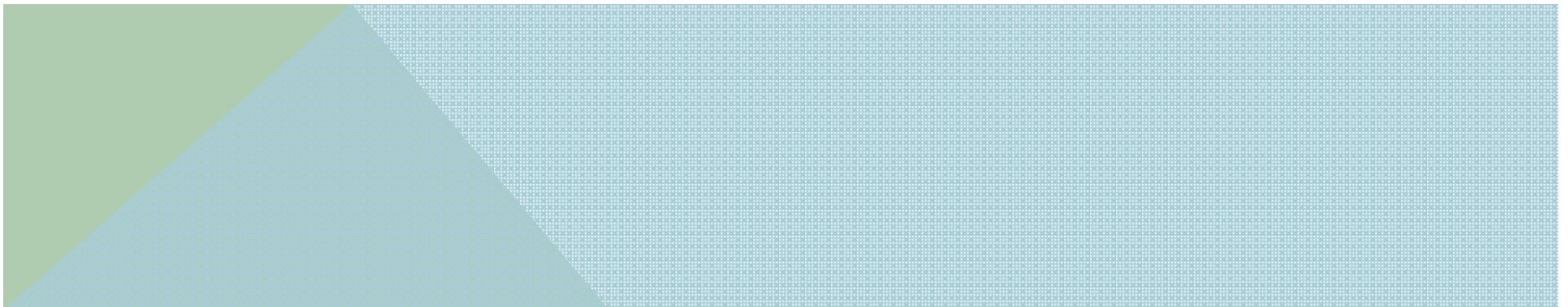
BRC Report

- Input from New Mexico was included in the Report
- The presentation today will focus on New Mexico's View on the following aspects of the Report
- Future Nuclear Waste Facilities
 - ✧ Overall strategy
 - ✧ Approach to siting
 - ✧ Consolidated interim storage
 - ✧ Deep geologic disposal



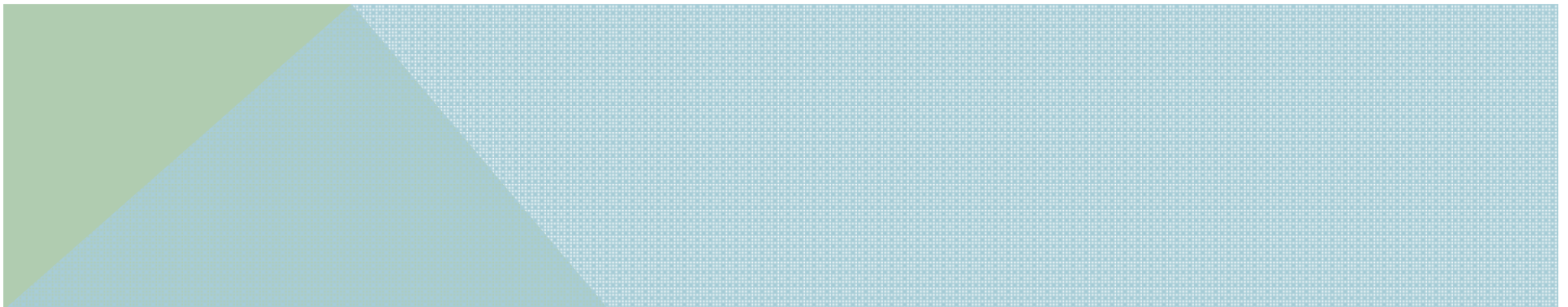
Overall Strategy

- Develop clear, but flexible, mission
- Implement adaptive, flexible, and forward-looking program
- Create one or more consolidated interim storage facilities
- Develop one or more permanent deep-geologic disposal facilities
- Support research and development
 - ✧ Nuclear energy technology
 - ✧ Interim storage
 - ✧ Permanent disposal
- Ensure adequate resources



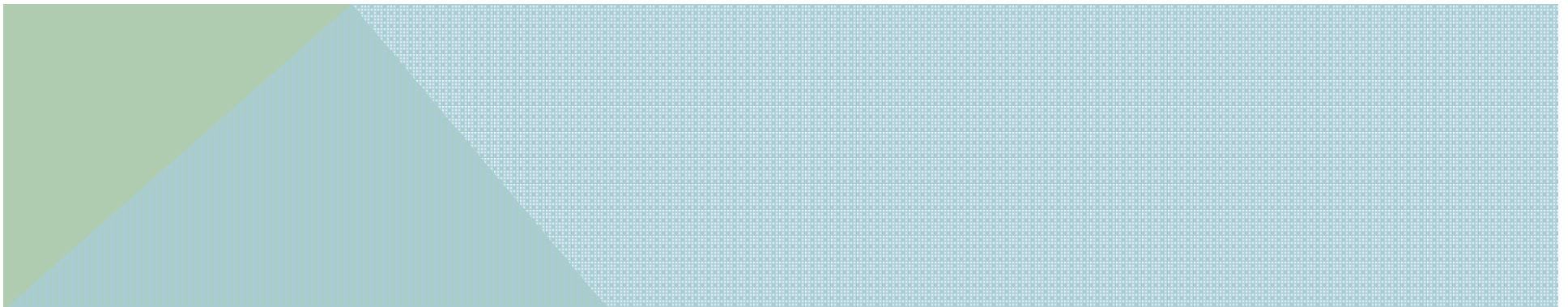
Components of the Strategy

- Transparency, communication and outreach
- Cooperation and consultation
- Science-based risk assessment
- Reasonable performance goals and milestones without inflexible deadlines
 - ✧ Yucca Mtn. overly prescriptive & rigid deadlines
- Cradle-to-grave considerations



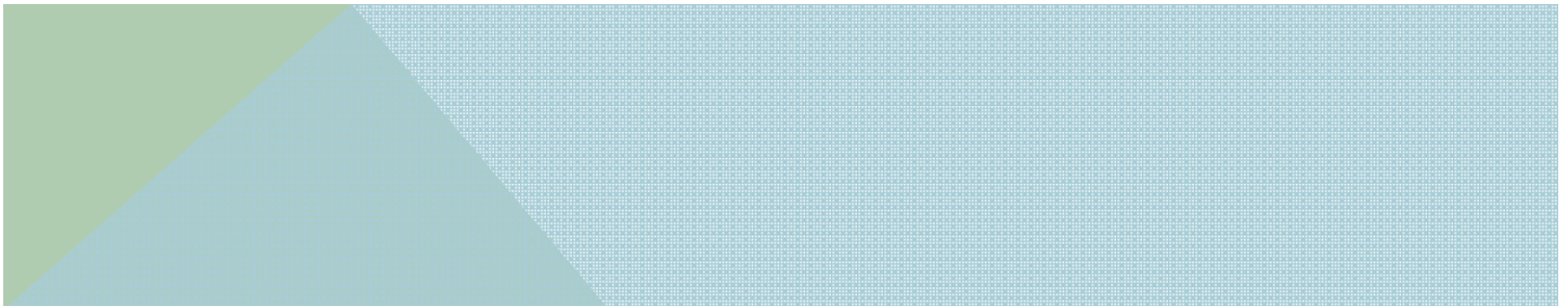
Key Requirements for Siting Success

- Safety and comprehensive protection of public health and environment
- Consent-based approach
 - ✧ Support of local communities, county, and state
 - ✧ Voluntary participation
 - ✧ Consensus building among interested parties
- Substantial incentive program for host entities
- Partnership agreements: federal/state/local
- Base decisions on sound science; much is already known



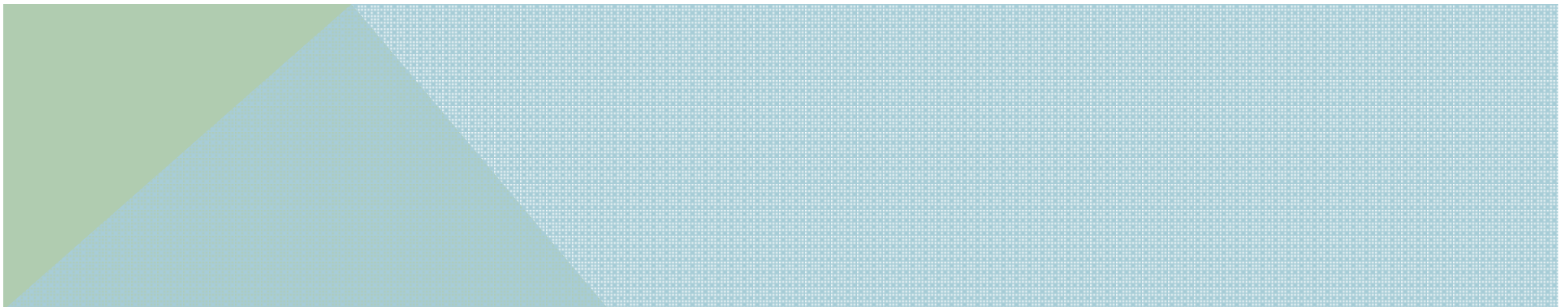
Approach to Siting Future Nuclear Waste Facilities

- Identify project requirements
 - ✧ Waste type, needed research; scientific parameters; water, air quality, land use, etc.
 - ✧ New regulatory standards
- Provide framework for joint regulatory management
 - ✧ Authority to States over aspects of regulation, permitting, and operations
 - ✧ Look at EPA paradigm for delegating programmatic regulatory authority to host State
- Yucca Mtn. proved that the “Federal Only” licensing approach is obsolete



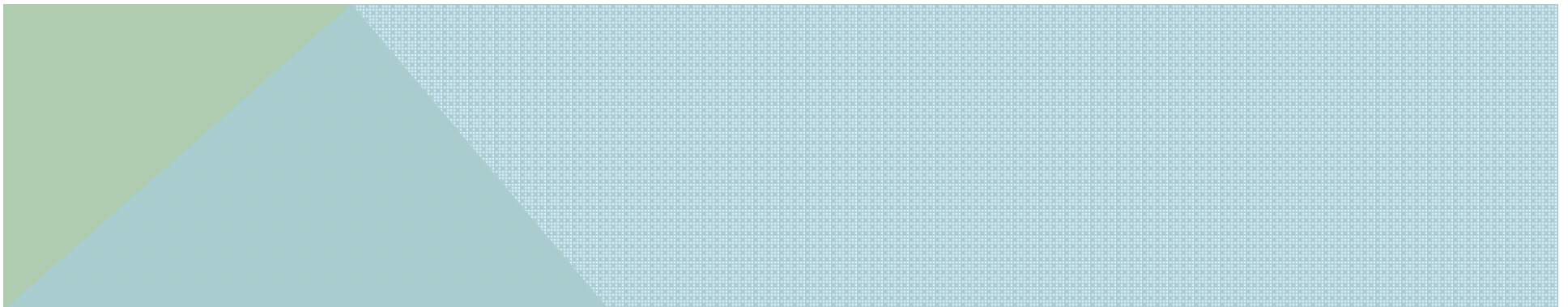
Consolidated Interim Storage Facilities

- Locate interim storage site(s)
 - ✧ before permanent disposal site(s) identified
 - ✧ in areas likely to be suitable for disposal
- Do something! This part is not very complicated, and it would help the waste generators almost immediately



Geologic Disposal Facilities

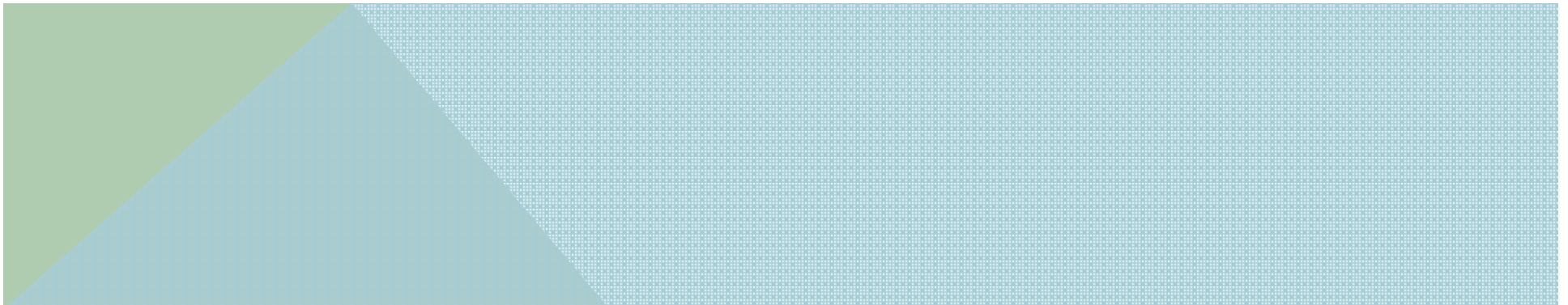
- Scientifically preferred approach for permanent isolation
- Site consideration
 - ✧ Availability of multi-disciplinary workforce
 - ✧ Suitable infrastructure: roads, transportation, utilities, etc.
- Implement regardless of fate of Yucca Mountain
 - ✧ New approach will likely deliver useable solutions quicker than attempts to backfit Yucca Mountain



Link Waste Characteristics to Functional Disposition Path

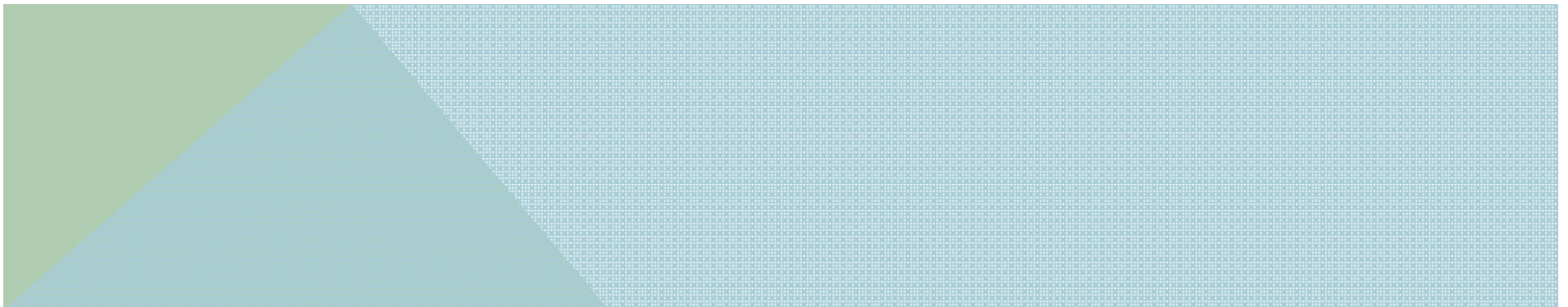
- Identify waste type
 - ✧ Military vs. civilian waste
 - ✧ Used nuclear fuel (resource)
 - ✧ High-level waste (HLW)
- Identify path for disposition
 - ✧ Interim or temporary storage
 - ✧ Surface storage
 - ✧ Deep-geologic disposal facility

Physical Compatibility and Long Term Stability of Wastes Are More Important Than Origin



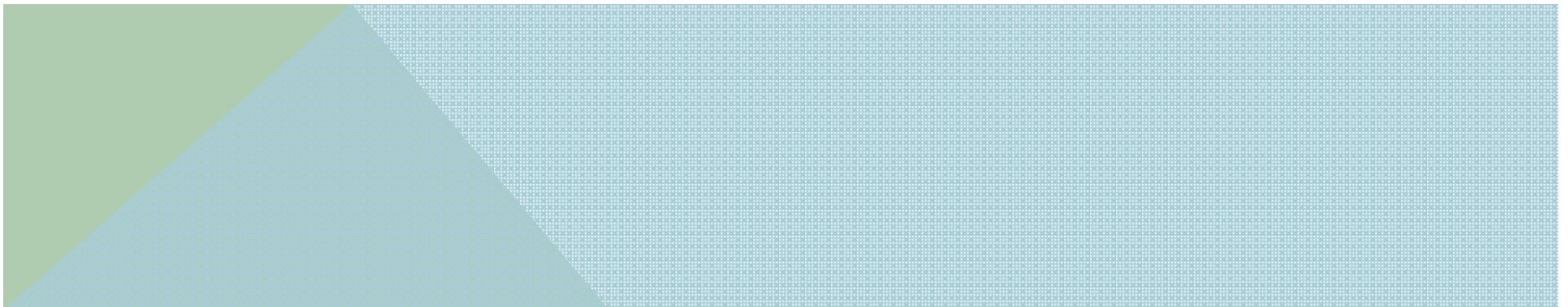
Meeting Tomorrow's Challenges

- Acquire swift congressional action
- Allocate adequate resources
- Evaluate suitability of multiple sites for proposed nuclear projects
 - ✧ Eliminate the stove-piped concept of “Orphan Waste Streams”
 - ✧ Resolve issue on commingling defense and civilian waste: decoupling does not mean leaving commercial waste behind



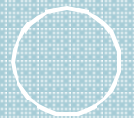
Requirements for Future Consideration by New Mexico

- Protection of our citizens (workers and the public) and the environment
 - ✧ Assessment of the existing valid scientific investigations and technical data
 - ✧ Evaluation of economic and social impacts
 - ✧ Science-based risk assessments and a new set of regulatory standards
 - ✧ Extensive monitoring: air, water, soil, people
- For WIPP Site: modification of the Land Withdrawal Act
- Thermal studies in WIPP's salt beds to assist in a national strategy for management of high-level wastes and spent fuel

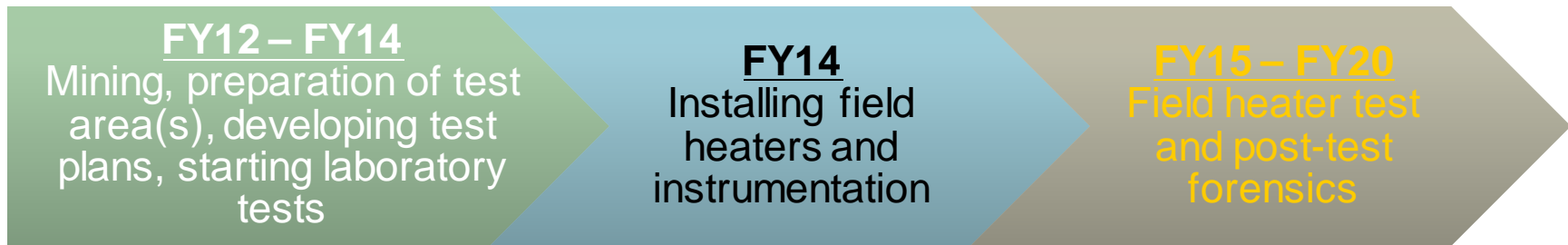


Salt Disposal Investigations (SDI) to Study Effects of Heat on Salt

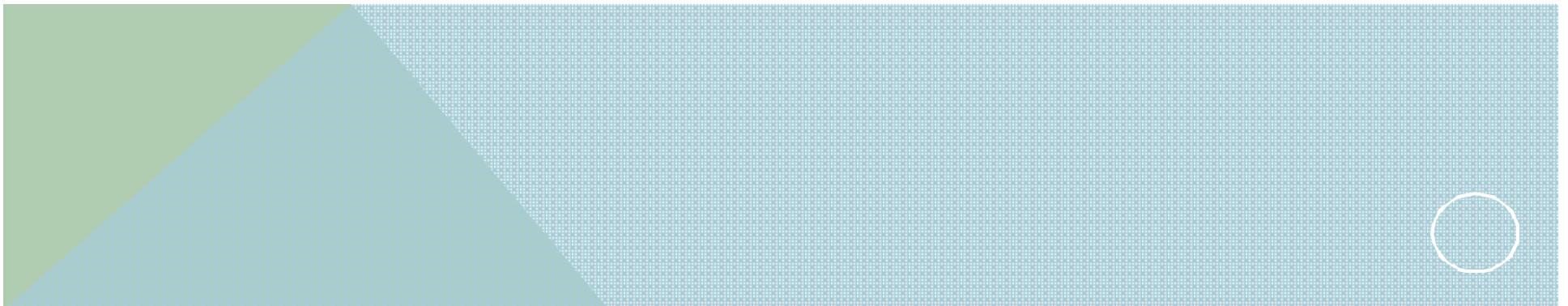
- **Location:** Proposed SDI project is for testing and experimentation at WIPP
- **Purpose:** Investigate use of salt formations for disposal of thermally elevated waste types
- **Involves:** Data compilation, laboratory and field testing
- **Status:** Mining in experimental area began Dec. 1, 2011 and will be completed in 2014



SDI Timeline and Expected Results



Expected Results: Will expand knowledge, could confirm earlier studies regarding some aspects of heat effects on salt, and will provide foundation for future salt repositories for heat-generating nuclear waste.

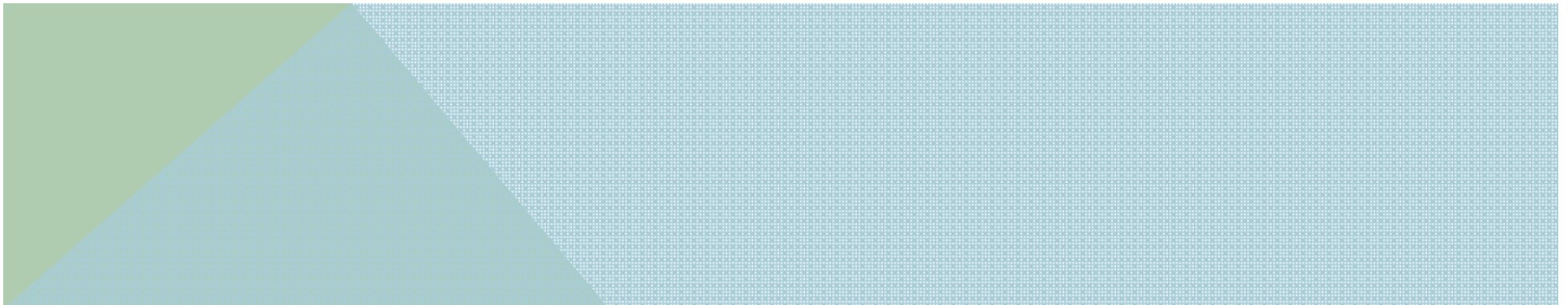


Data and Sound Science

“One accurate measurement is worth a thousand expert opinions”

– Rear Admiral Grace Murray Hopper (9 Dec 1906 to 1 Jan 1992)

As a Pioneer Computer Programmer and co-inventor of COBOL, she was known as the Grandma COBOL, Grand Lady of Software, and Amazing Grace



WIPP Transportation Exhibit Opens

- National Museum of Nuclear Science & History permanent exhibit in Albuquerque
- Opening date: Nov. 5, 2011



Conclusions

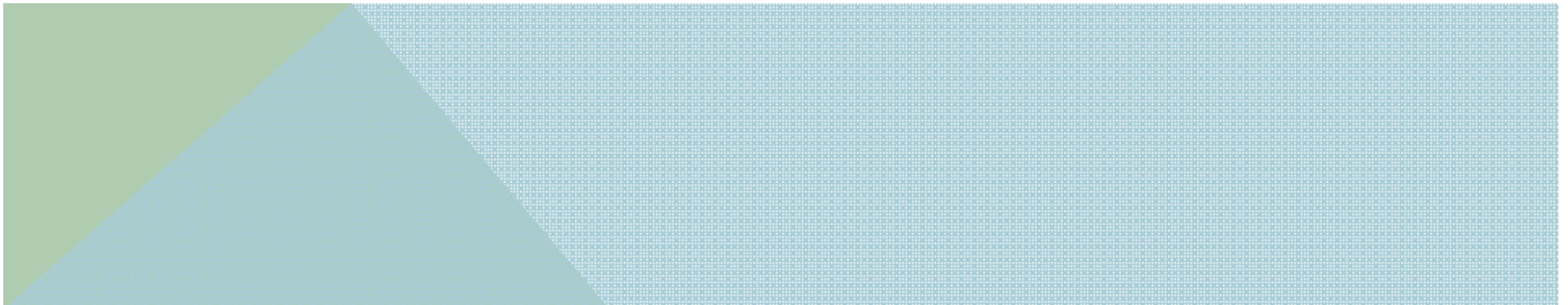
- WIPP's success and lessons learned offer model for America's nuclear future
- Nuclear disposal missions beyond WIPP require science-based judgment for State consideration
- What we look for today and into the future: safety, compliance, good corporate citizens, and potential for sustainable economic growth in New Mexico



Prompt Action is Required

“I knew somewhere
Amid all this distraction
Was a little less talk
And a lot more action”*

*recorded by philosopher and country music singer Toby Keith
(November 1993), written by Keith Hinton and Jimmy Alan Stewart



Thank You

