



PUBLIC MEETING



DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE COMANCHE PEAK NUCLEAR POWER PLANT UNITS 3 & 4 COMBINED LICENSES APPLICATION

September 21, 2010
Glen Rose Expo Center

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Michael Willingham, Environmental Project Manager

Purposes of this meeting



- Describe the NRC's Environmental review process.
- Provide the environmental review schedule from today forward.
- Share NRC's preliminary recommendation with you.
- Describe how you can provide comments.
- **Listen to and gather your comments.**

U.S. Nuclear Regulatory Commission

- NRC's mission:
 - Protect public health and safety;
 - Promote common defense and security;
 - Protect the environment.
- The NRC is an independent agency.
- The NRC has over 30 years of experience regulating operating reactors and other civilian uses of nuclear materials.



Source: U.S. NRC



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Combined License

- Luminant Generation Company LLC (Luminant) applied for combined licenses (COLs) for two new nuclear units (Unit 3 & 4) at the Comanche Peak Nuclear Power Plant (CPNPP) site.
 - A combined license gives authorization to construct and operate a new nuclear unit.
 - Units 3 & 4, if approved, would be built adjacent to CPNPP Units 1 and 2.
 - There are two NRC reviews for the CPNPP, Units 3 & 4 COL application – safety and environmental.



Source: Luminant ER 2009

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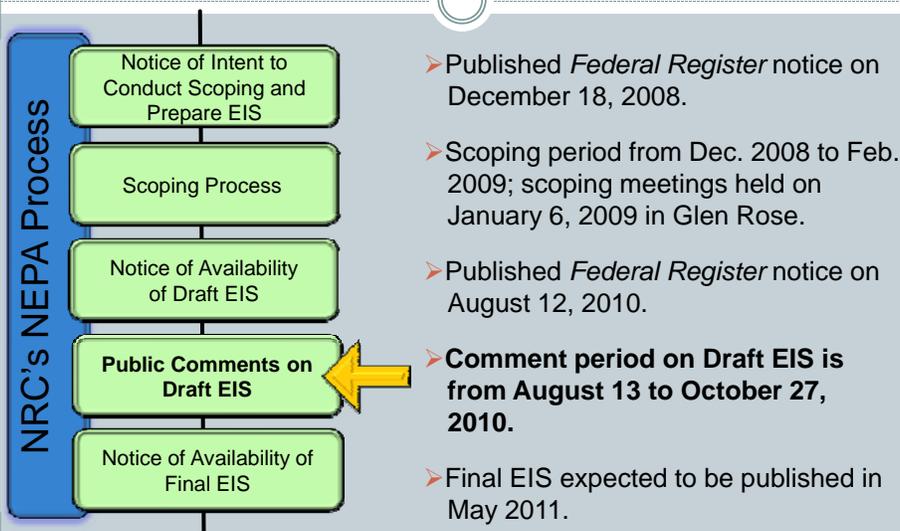
Environmental Review

- NRC is reviewing the combined license application and is the lead agency.
- The NRC is the lead agency on the environmental review and preparation of the EIS.
- U.S. Army Corps of Engineers, Fort Worth District is a cooperating agency on the environmental review and preparation of the EIS.
- The NRC and Corps staff make up the review team.



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Environmental Review Process & Schedule



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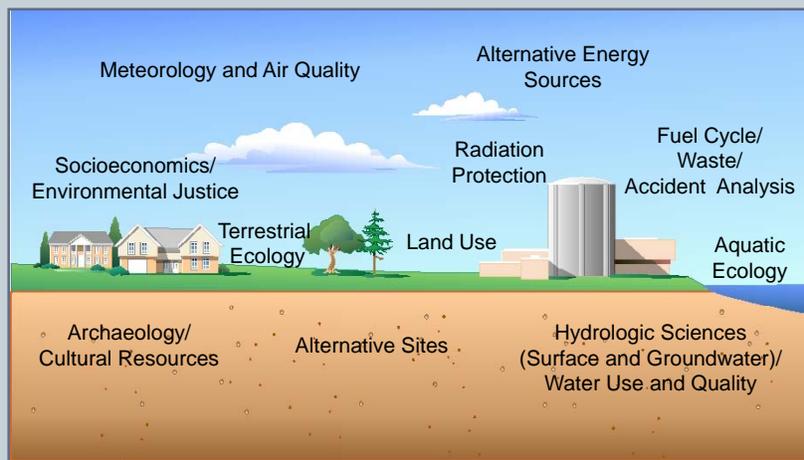
Organization of EIS

- Chapter 1 – Introduction
- Chapter 2 – Affected Environment
- Chapter 3 – Site Layout and Plant Description
- Chapter 4 – Construction Impacts
- Chapter 5 – Operation Impacts
- Chapter 6 – Fuel Cycle, Transportation, and Decommissioning Impacts
- Chapter 7 – Cumulative Impacts
- Chapter 8 – Need for Power
- Chapter 9 – Environmental Impacts of Alternatives
- Chapter 10 – Conclusions and Recommendation

- Appendices A – M (Scoping Comments are in Appendix D)

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Resource Areas



Source U.S. NRC

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How Impacts are Quantified

NRC has established three levels of impact:

SMALL: Effect is not detectable, or so minor it will neither destabilize nor noticeably alter any important attribute of the resource.

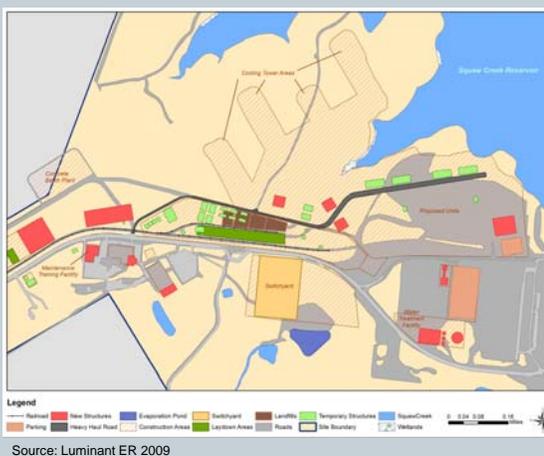
MODERATE: Effect is sufficient to alter noticeably, but not destabilize, important attributes of the resource.

LARGE: Effect is clearly noticeable and sufficient to destabilize important attributes of the resource.

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Land Use Impacts

- Approximately 675 acres of land disturbance onsite.
- Approximately 1,100 acres of new transmission line right-of-way.
- New pipeline located completely within existing 50-acre right-of-way.
- Concluded that land use impacts would be MODERATE.



Water Resources Impacts

- Analysis includes impacts on surface water and groundwater use and quality.
- The review team concludes impacts to surface water use would be MODERATE and water quality would be SMALL to MODERATE for operation. The impacts to groundwater for building and operating Units 3 and 4 would be SMALL.
 - Increase in surface water use from Lake Granbury as a result of operating two new nuclear units.
 - Luminant would comply with TCEQ state permit for discharge into the Brazos River and follow best management practices.



Source: Luminant ER 2009

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Ecological Impacts

- Evaluated impacts on birds, fish, wildlife, plants, and wetlands on the CPNPP site and vicinity.
 - The review team consulted with Texas Parks and Wildlife Department and U.S. Fish and Wildlife Service.
- The review team concluded that impacts to terrestrial ecology would be SMALL to MODERATE for building the proposed units and MODERATE for operations.
- The impacts to aquatic ecology would be SMALL for building and SMALL to MODERATE for operations.



Golden-cheeked warbler
Source: U.S. FWS



Black-capped vireo
Source: U.S. FWS

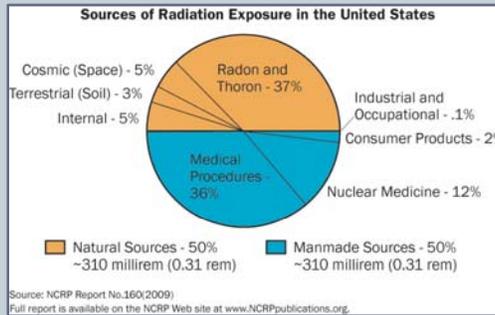


Texas Horned Lizard
Source: U.S. FWS

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Radiological Impacts

- Includes impacts on construction workers, members of the public, and plant workers.



- Doses to workers would be **SMALL** and below regulatory limits.
- Doses to members of the public from construction and operation would be **SMALL** and below regulatory limits.

Socioeconomics and Environmental Justice

- Socioeconomics includes impacts on taxes, housing, education, traffic, and public services.
 - The review team found that adverse impacts would be **SMALL** to **MODERATE** for building and **SMALL** to **MODERATE** for operation.
 - Beneficial impacts would be **SMALL** to **LARGE** for both building and operation.
 - Most impacts are in Somervell and Hood Counties.
- Environmental justice review focuses on low-income and minority populations.
 - Minority and low-income populations would not be disproportionately effected during building or operation of Units 3 and 4.



Somervell County Court House
Source: PNNL



Big Rocks Park
Source: PNNL

Cultural and Historic Resources



Source: PNNL

- Cultural and Historic Resources includes impacts on historic archaeological and architectural properties or sites.
 - The building activities associated with the proposed new units are not expected to noticeably affect historic and cultural resources.

- The review team found that the impacts for cultural resources would be **SMALL** for building and operating Units 3 and 4.



Source: PNNL

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Cumulative Impacts

- Cumulative impacts include the impacts from the proposed action (Units 3 and 4) with other past, present, and reasonably foreseeable future actions.
 - Examples of other actions considered include:
 - CPNPP Units 1 and 2;
 - Southwest to Northeast Rail Corridor; and
 - New water treatment facility for the City of Granbury.
- Cumulative adverse impacts ranged from **SMALL** to **MODERATE**. Cumulative tax impacts would be beneficial **LARGE** with most impacts in Somervell and Hood Counties.

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Need for Power

- NRC staff relied upon:
 - The Electric Reliability Council of Texas (ERCOT) data, assessments, reports and analyses.
 - Review Teams independent analysis
- NRC staff determined that, collectively, ERCOT's data, assessments, reports and analyses were sufficiently systematic, comprehensive, subject to confirmation, and responsive to forecasting uncertainty to serve the needs of the NRC.
- Based on its analysis, NRC staff concluded that there is a need for new baseload generating capacity in the ERCOT Region by 2019 in excess of the planned output of Units 3 and 4.



Source: TXU Corp 2006

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Alternatives

- Alternative Energy
 - None of the feasible baseload alternatives would be environmentally preferable.
- Alternative Sites
 - The CPNPP site was compared to 3 alternative sites.
 - Analysis showed none of the alternative sites would be environmentally preferable to the CPNPP site.
- Alternative System Designs
 - No alternative cooling system would be environmentally preferable to the proposed design.



Source: NREL



Source: ORNL



Source: U.S. DOE



Source: ORNL



Source: ORNL

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Preliminary Recommendation

- The NRC staff's preliminary recommendation to the Commission is that the combined licenses be issued.
 - Based on Luminant's Environmental Report; consultation with Federal, State, Tribal, and local agencies; the staff's independent review; public comments; and assessments summarized in the EIS.
 - None of the feasible alternative energy sources evaluated would be environmentally preferable.
 - None of the alternative sites would be environmentally preferable to the CPNPP site.

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Access to the Draft EIS



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www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1943



Somervell County Library
 108 Allen Drive
 Glen Rose, Texas

Hood County Library
 222 North Travis Street
 Granbury, Texas

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Submitting Comments on Draft EIS



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<http://www.nrc.gov/public-involve/doc-comment/form.html>



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COMMENTS ARE DUE BY October 27, 2010

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