

Comanche Peak Nuclear Power Plant (CPNPP)

First License Renewal (60 years) Application:
Environmental Pre-Application Submittal
Meeting

September 2021



Luminant

Opening Remarks and Introductions

Speakers

- Steven Sewell (Luminant)
- Todd Evans (Luminant)

Participants

- Randy Harding (Luminant)
- Stacy Burgess (Enercon)
- Rachel Turney-Work (Enercon)

Agenda

- General Information
- Introduction to CPNPP
- Key Discussion Topics
 - Methodology & Permits / Authorizations / Alternatives
 - Agency and Tribal Consultations
 - Groundwater Monitoring Program & ISFSI
 - Ecology
 - SAMA Update
- Lessons Learned
- Additional Topics
- Closing Remarks

General Information

- Project Team
 - Luminant LR project team
 - Luminant line organization subject matter experts
 - Luminant corporate (Vistra) environmental
 - ENERCON environmental team
- Project Team Experience
 - Luminant engaged in NEI License Renewal Environmental Task Force
 - Luminant conducted extensive LR Feasibility Study in 2019
 - Luminant attends LR related public meetings
 - Experienced Luminant technical personnel
 - Engaged resources with extensive LR experience – ENERCON

General Information (cont.)

- Building a high-quality Environmental Report
 - Review and address recent applicant RCIs, RAIs and Supplements (River Bend, Waterford, Turkey Point, Peach Bottom, Surry)
 - Monitoring on-going applicants (North Anna, Point Beach, Oconee, St Lucie)
 - Use of proven technical and administrative procedures informed by current regulatory guidance
 - Periodic process related check-ins
 - Industry Peer Review to be conducted prior to submittal
 - Lessons Learned
- Submittal Plan
 - On track for application submittal Oct-Dec 2022

General Information (cont.)

- CPNPP Units 1 and 2
 - Four Loop Westinghouse PWRs that are nearly identical
 - Located in north Texas, southwest of Dallas–Fort Worth

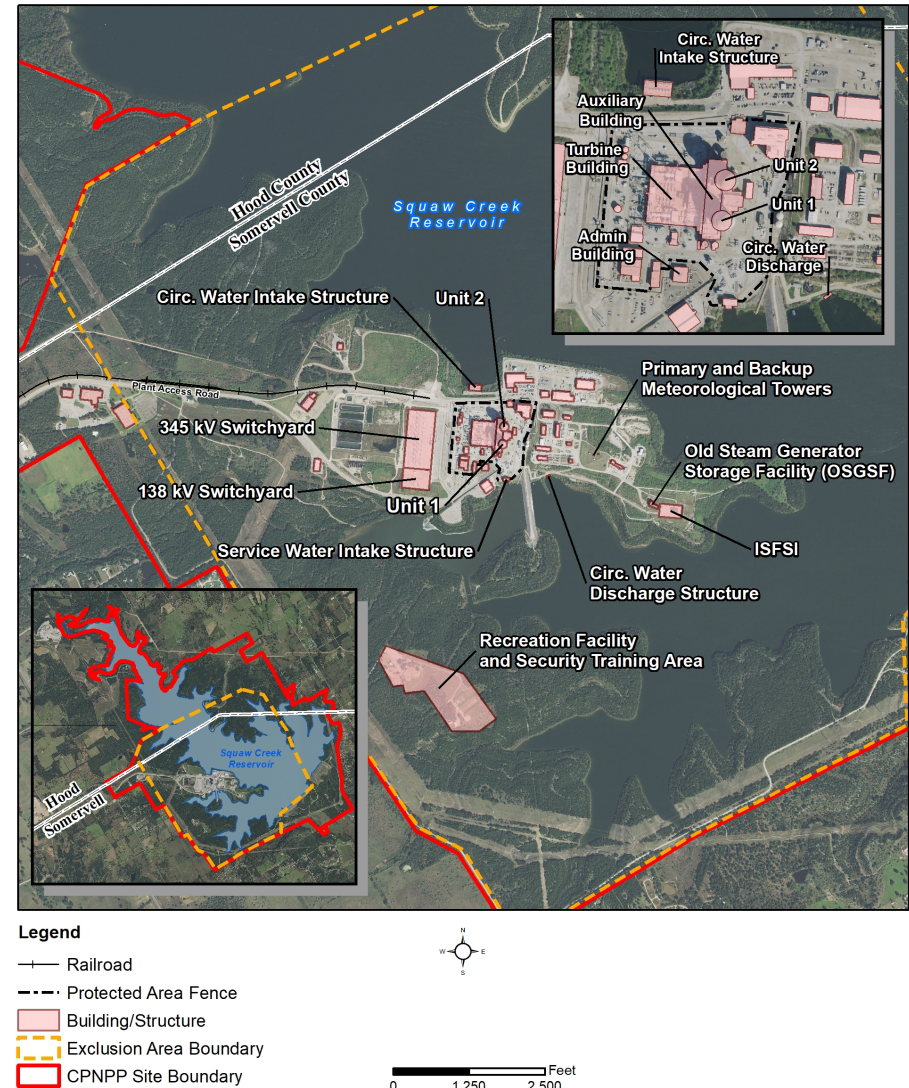
CPNPP Upgrade History	Unit 1	Unit 2
Initial License, 3411 MWt	1990	1993
Leading Edge Flow Meter Technology, 3458 MWt	2001	1999 / 2001
Stretch Power Uprate, 3612 MWt	2008	2008
SG & RVCH Replacements	2008	N/A
Current License Expiration Date	2/8/2030	2/2/2033

Introduction to CPNPP: Site

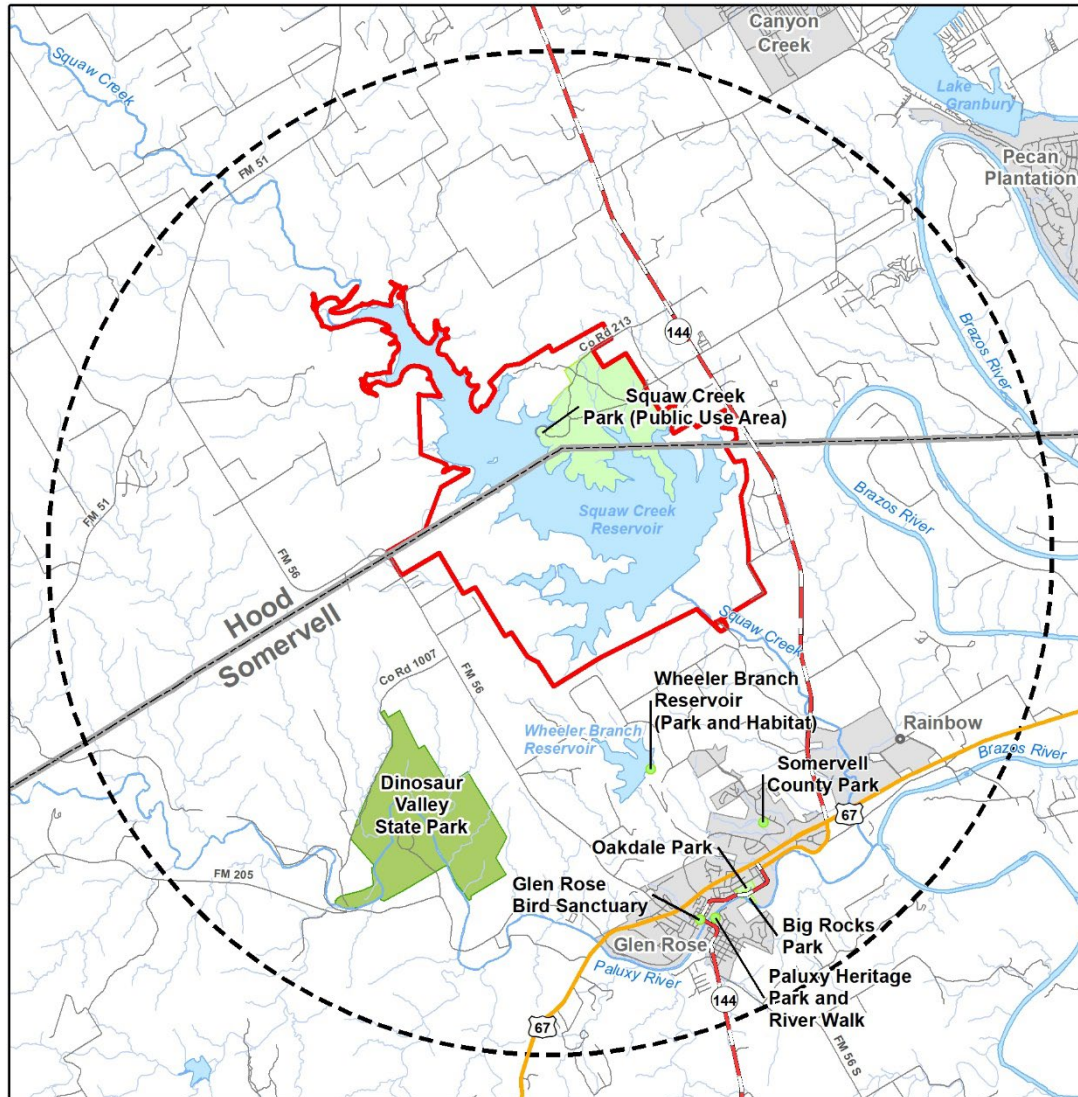


Introduction to CPNPP: Site

- CPNPP Site is about 7,700 acres and includes the Squaw Creek Reservoir
- Located in southern Hood and northern Somervell Counties, TX
- No ground disturbances or refurbishment activities planned as a result of License Renewal
- No planned changes in operations for the Period of Extended Operations

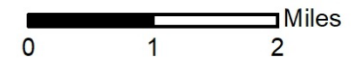
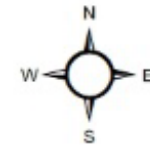


Introduction to CPNPP: 6-Mile Vicinity

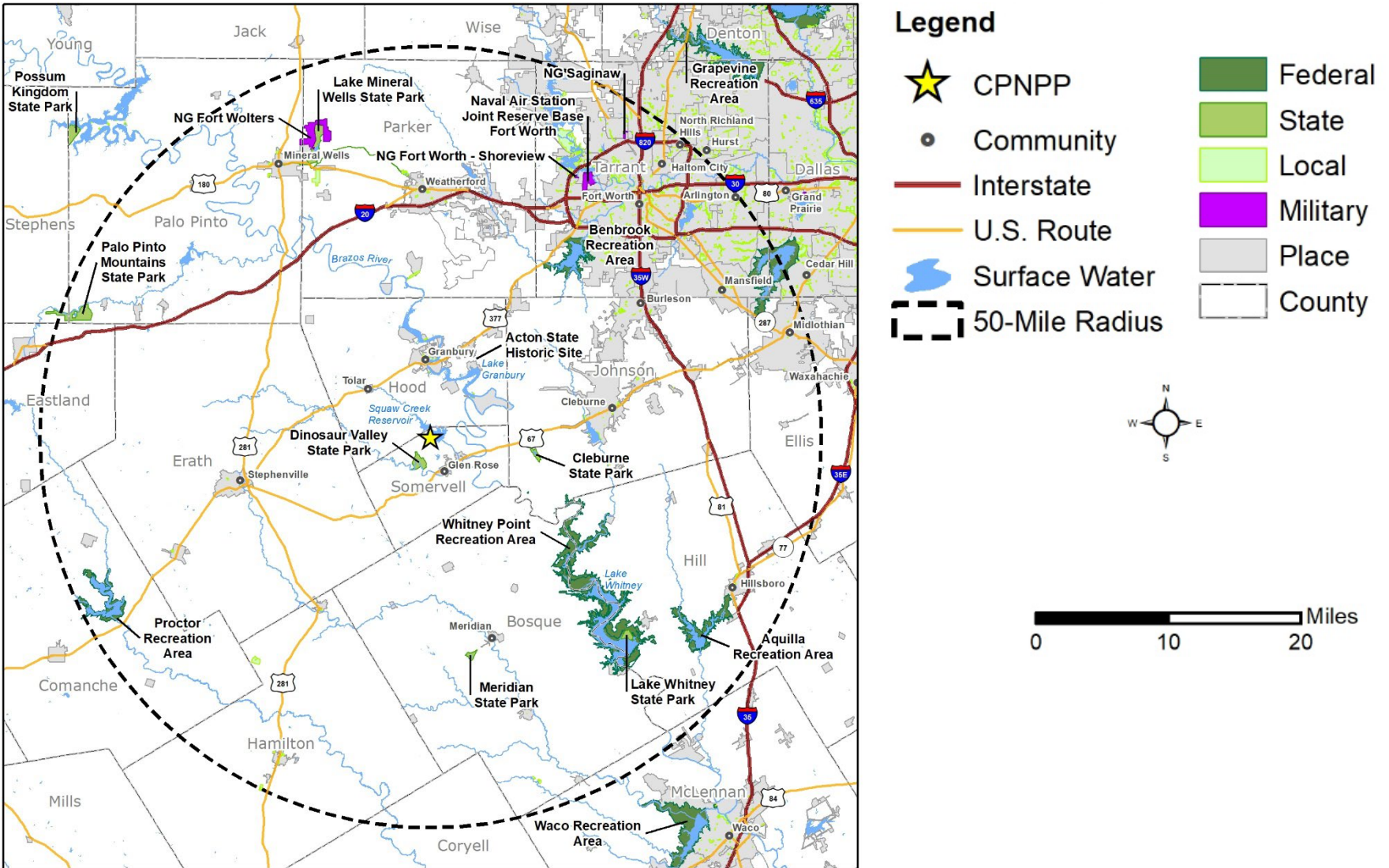


Legend

- Community
- State Highway
- U.S. Route
- Local Road
- CPNPP Site Boundary
- 6-Mile Radius
- Surface Water
- State
- Local
- Place
- County



Introduction to CPNPP: 50-Mile Region



Key Discussion Topics: Methodology & Permits / Authorizations / Alternatives

- Methodology
 - Regulatory
 - Standard Practices
 - Incorporate by Reference
- Permits / Authorizations
 - Coastal Zone Management Act
 - Texas Pollutant Discharge Elimination System Permit
 - Clean Water Act 401 Certification
- Alternatives Analysis
 - Advanced Light Water Reactor Nuclear Alternative
 - Small Modular Reactor Nuclear Alternative
 - Natural Gas Combined Cycle Alternative
 - Combination Alternative (Natural Gas, Solar, and Wind)

Key Topic Discussions: Agency and Tribal Consultations

- Initiated agency consultations early in the ER development
- Agencies
 - Texas Commission on Environmental Quality
 - Texas General Land Office
 - Texas Historical Commission
 - Texas Parks and Wildlife Department
 - US Fish and Wildlife Service
 - Texas Department of State Health Services
- Letters sent to 20 different Tribes
- Letters sent to other agencies and stakeholders to inform them about the License Extension

Key Discussion Topics: Groundwater Monitoring Program and ISFSI

- Groundwater Protection Program
 - CPNPP implemented a groundwater protection program in 2008
 - Well water samples below lower limit of discrimination (2,000 pCi/L)
- ISFSI
 - Current onsite ISFSI pad can accommodate 40 years of operation
 - Potential ISFSI expansion cannot be determined at this time and Luminant is not considering expansion

Key Discussion Topics: Ecology

- Threatened and Endangered Species
 - No federally listed species known to exist at CPNPP site nor along in-scope transmission line ROWs
 - Five species federally protected under Endangered Species Act (ESA) that have probability of occurring within the 6-mile radius
 - Nine state-listed species listed as potentially occurring in Hood and Somervell counties
- Essential Fish Habitat (EFH)
 - No EFH is located within the vicinity of CPNPP, nor were any EFH areas protected from fishing
 - No habitat areas of particular concern (HAPCs) are located within the 6-mile vicinity of CPNPP

Key Discussion Topics: SAMA Update

- SAMDA analysis performed in 1989 as part of the initial licensing of the plant
- SAMA analysis for CPNPP will be performed using the methodology documented in NEI 17-04, Revision 1
- The results of this analysis will be detailed in the SAMA Basis Document and summarized in the ER

Lessons Learned

- Incorporate lessons learned from previously submitted ER & SAMA analyses into the CPNPP ER and basis documents
 - SAMA Evaluations
 - Agency Consultations
- Review and incorporate applicable information into CPNPP LR ER based on previously submitted LR and SLR ER RAIs (e.g. River Bend, Waterford, Turkey Point, Surry, Point Beach)
- Engagement in NEI License Renewal Environmental Task Force
- Industry peer review provides useful feedback to refine the ER
- Allocate sufficient time to test IT resources and resolve issues (e.g., access to e-Portal)
- Receiving and responding to environmental audit information needs prior to audit to allow time for NRC review prior to audit sessions
- The most recent 5 years of data, available at the time of development, is included in the environmental report

Additional Topics

- Any foreseeable future aspect the staff sees that may need to be addressed by Luminant
- Other issues or updates

Closing Remarks

CPNPP application will be consistent with industry practices and lessons learned from recent LR/SLRs and meet NRC requirements

Luminant will submit a high-quality application that can support an 18 month staff review

CPNPP application is on track to be submitted to the NRC in October to December 2022

LR Environmental Report Pre-Submittal Meeting

References

1. NUREG/BR-0184, “Regulatory Analysis Technical Evaluation Handbook,” U.S. Nuclear Regulatory Commission, 1997 (ML111290858).
2. NUREG-1555, *Standard Review Plan for Environmental Reviews for Nuclear Power Plants*, Supplement 1, *Operating License Renewal, Final Report*, Revision 1 – June 2013, Sections 5.1 and 5.2 (ML13106A246).
3. Comanche Peak Steam Electric Plant Letter No. TXX-89720, “Severe Accident Mitigation Design Alternatives (SAMDA),” September 22, 1989 (ML20248D047).
4. NEI 17-04, Revision 1, “Model SLR New and Significant Assessment Approach for SAMA,” August 2019 (ML19316C718).
5. U.S. NRC, “Interim Endorsement of NEI 17-04, “Model SLR [Subsequent or Second License Renewal] New and Significant Assessment Approach For SAMA, Revision 1,” Letter from Anna Bradford, Director Division of New and Renewed Licenses Office of NRR to Chris Earls, Senior Director Regulatory Affairs, NEI, December 11, 2019 (ML19323E740).
6. RG 4.2, Supplement 1, Revision 1, “Preparation of Environmental Reports For Nuclear Power Plant License Renewal Applications” June 2013 (ML13067A354).
7. Environmental Review for Renewal of Nuclear Power Plant Operating Licenses, 61 Fed. Reg. 28,467, 28,481 (June 5, 1996).