

# BLUE LAKE RANCHERIA

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[www.bluelakerancheria-nsn.gov](http://www.bluelakerancheria-nsn.gov)



## REQUEST FOR PROPOSAL (RFP) Engineering and Implementation Services for 2.5GHz Radio Deployment

**Issued By:** Blue Lake Rancheria (BLR)

**Date Issued:** 11<sup>th</sup> March 2025

**Proposal Due Date:** 10<sup>th</sup> April 2025, 5pm PST

### 1. Introduction

BLR is seeking proposals from qualified vendors to provide engineering and implementation services for a 2.5GHz radio deployment. The project will comply with all federal laws and Federal Communications Commission (FCC) regulations, ensuring appropriate signal levels at property boundaries. The deployment is structured into two phases: Engineering and Equipment Specification (Phase 1) and Implementation (Phase 2), with Phase 2 contingent upon internal and agency environmental review and approval.

### 2. Scope of Work

The selected vendor will be responsible for all aspects of the engineering, design, and implementation of the 2.5GHz radio network. This includes spectrum planning, RF engineering, equipment recommendations, network deployment, and performance optimization.

#### 2.1 License Band Description

BLR is licensed for the following spectrum within the 2.5GHz band. The selected vendor must ensure compliance with FCC licensing requirements and coordinate spectrum usage to prevent interference with existing users.

- A1: 002502.00000-002507.50000 MHz
- A2: 002507.50000-002513.00000 MHz
- A3: 002513.00000-002518.50000 MHz
- B1: 002518.50000-002524.00000 MHz
- B2: 002524.00000-002529.50000 MHz
- B3: 002529.50000-002535.00000 MHz
- C1: 002535.00000-002540.50000 MHz
- C2: 002540.50000-002546.00000 MHz
- C3: 002546.00000-002551.50000 MHz

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- D1: 002551.50000-002557.00000 MHz
- D2: 002557.00000-002562.50000 MHz
- D3: 002562.50000-002568.00000 MHz
- JA1: 002568.00000-002568.33333 MHz
- JA2: 002568.33333-002568.66666 MHz
- JA3: 002568.66666-002569.00000 MHz
- JB1: 002569.00000-002569.33333 MHz
- JB2: 002569.33333-002569.66666 MHz
- JB3: 002569.66666-002570.00000 MHz
- JC1: 002570.00000-002570.33333 MHz
- JC2: 002570.33333-002570.66666 MHz
- JC3: 002570.66666-002571.00000 MHz
- JD1: 002571.00000-002571.33333 MHz
- JD2: 002571.33333-002571.66666 MHz
- JD3: 002571.66666-002572.00000 MHz
- A4: 002572.00000-002578.00000 MHz
- B4: 002578.00000-002584.00000 MHz
- C4: 002584.00000-002590.00000 MHz
- D4: 002590.00000-002596.00000 MHz
- G4: 002596.00000-002602.00000 MHz

**FCC First Deployment Guideline:** The initial build-out of the 2.5GHz network must adhere to FCC guidelines and meet the deployment milestone by **2025-07-25** to ensure compliance with licensing requirements.

## 2.2 License Area Description

The licensed area includes the Blue Lake Rancheria Off-Reservation Trust area located in Blue Lake, CA. The Geographic Service Area has Authorization Type: TPW and Market: TL0321. Buildings within this area may provide mounting locations for aerials to support deployment. Vendors should reference external documentation, including maps and site plans, to ensure appropriate planning and compliance with deployment requirements.

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Map shows the boundary of the licensed area:



## Phase 1: Engineering and Equipment Specification

The vendor will provide comprehensive engineering services, including:

- Conducting a site survey and RF propagation study to determine optimal antenna placement.
- Ensuring compliance with FCC 47 CFR Part 27 regulations, including power output and boundary signal levels.
- Developing an engineering design that includes network architecture, antenna placement, and backhaul requirements.
- Providing detailed drawings and documentation for regulatory approvals.
- Supporting the environmental review process by providing necessary documentation for permitting and approvals.
- Producing a 5-year and 10-year hardware replacement cycle plan, detailing expected equipment lifespan, upgrade recommendations, and cost projections.

## Phase 2: Implementation

Phase 2 will only commence following successful completion of internal and agency environmental reviews and approval. The vendor will be responsible for:

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- Procuring and staging all required equipment per the approved Bill of Materials (BOM).
- Assisting and advising in the installation of the 2.5GHz radio network, including antennas, base stations, and associated networking hardware, while taking responsibility for configuration and network implementation.
- Conducting post-deployment testing to validate performance against design specifications.
- Optimizing network performance to ensure minimal interference and regulatory compliance.
- Providing training for BLR personnel on network operation and maintenance.
- Submitting final documentation, including as-built diagrams and performance validation reports.

## 3. Compliance Requirements

The selected vendor must ensure:

- Adherence to all applicable federal, state, and local laws and regulations.
- Compliance with FCC rules, specifically 47 CFR Part 27, governing 2.5GHz spectrum use.
- RF signal levels at property boundaries compliance with FCC and industry best practices.
- Provide information for and receive input from BLR's Environmental Protection Agency's Environmental Assessment process to ensure compliance with the National Environmental Policy Act (NEPA) and any required environmental assessments or reviews.
- Relevant licensing information and interactive map can be located on the FCC's Universal Licensing System (ULS) online database by searching for Call Sign WRNM246 or by direct link: <https://wireless2.fcc.gov/UlsApp/UlsSearch/license.jsp?licKey=4479604>

## 4. Budget Constraints

- The project is a fixed-price contract not to exceed **\$50,000**.
- The BOM for deployment must not exceed **\$41,800**.

## 5. Proposal Submission Requirements

Qualified vendors are invited to submit a proposal including:

1. **Company Background and Experience:** Summary of experience with similar projects, particularly in 2.5GHz radio deployments.
2. **Approach and Methodology:** Description of how the vendor will complete the engineering and implementation phases while ensuring compliance.
3. **Project Timeline:** A detailed schedule, including milestones and estimated completion dates for each phase.
4. **Team Qualifications:** Resumes of key personnel involved in the project.
5. **Cost Proposal:** A fixed-price bid with a breakdown of costs for each phase.

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6. **Bill of Materials (BOM):** A detailed list of materials required for deployment, with associated costs.
7. **References:** At least three references from past clients with similar project requirements.

## 6. Evaluation Criteria

Proposals will be evaluated based on the following criteria:

- Technical capability and approach (30%)
- Compliance with regulatory requirements (20%)
- Experience with similar deployments (20%)
- Cost-effectiveness (20%)
- Proposed project timeline (10%)

## 7. Submission Deadline

All proposals must be submitted by 10<sup>th</sup> April 2025, 5pm PST to: [rfp@bluelakerancheria-nsn.gov](mailto:rfp@bluelakerancheria-nsn.gov)

## 8. Terms and Conditions

- BLR reserves the right to reject any or all proposals.
- Any costs incurred in the preparation of the proposal are the responsibility of the bidder.
- The selected vendor must comply with all federal and Tribal regulations applicable to this project.
- Where applicable all work must occur at prevailing wage.

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For further inquiries regarding this RFP, please contact: [rfpinquiries@bluelakerancheria-nsn.gov](mailto:rfpinquiries@bluelakerancheria-nsn.gov)