

The background features a dark blue field with a series of curved, glowing lines that create a sense of depth and movement. On the right side, these lines form a tunnel-like structure that recedes into the distance. A grid of fine, light blue lines is visible within this structure, adding a technical or digital feel to the design.

The Coeur d'Alene Tribe

BENEWAH MARKET ENERGY EFFICIENCY PROJECT
MAY 31, 2017

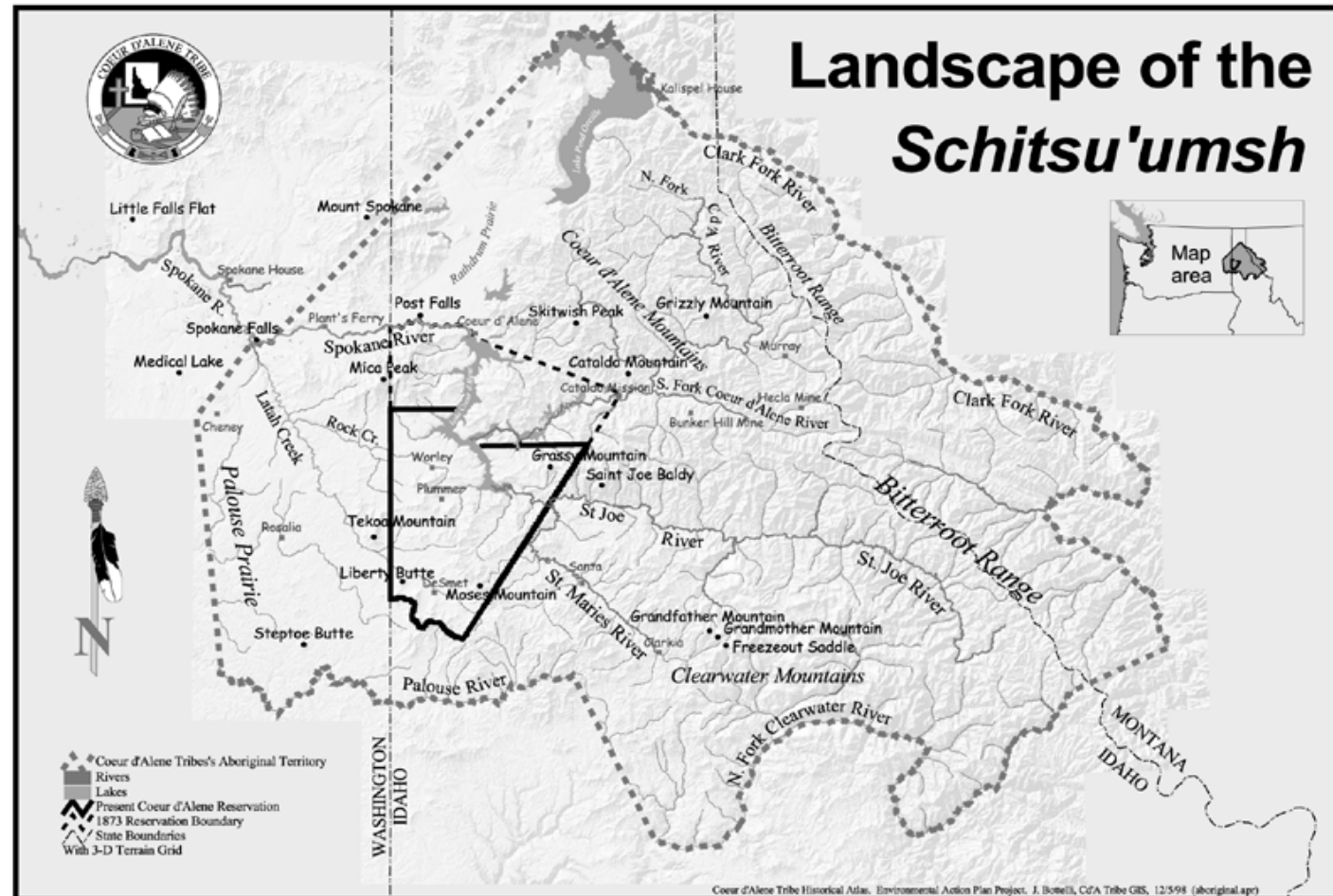
Outline

- Overview of the Coeur d'Alene Tribe
- Benewah Market Energy Efficiency Project
- Next Steps
- Lessons Learned
- Contact Information

Overview of the Coeur d'Alene Tribe

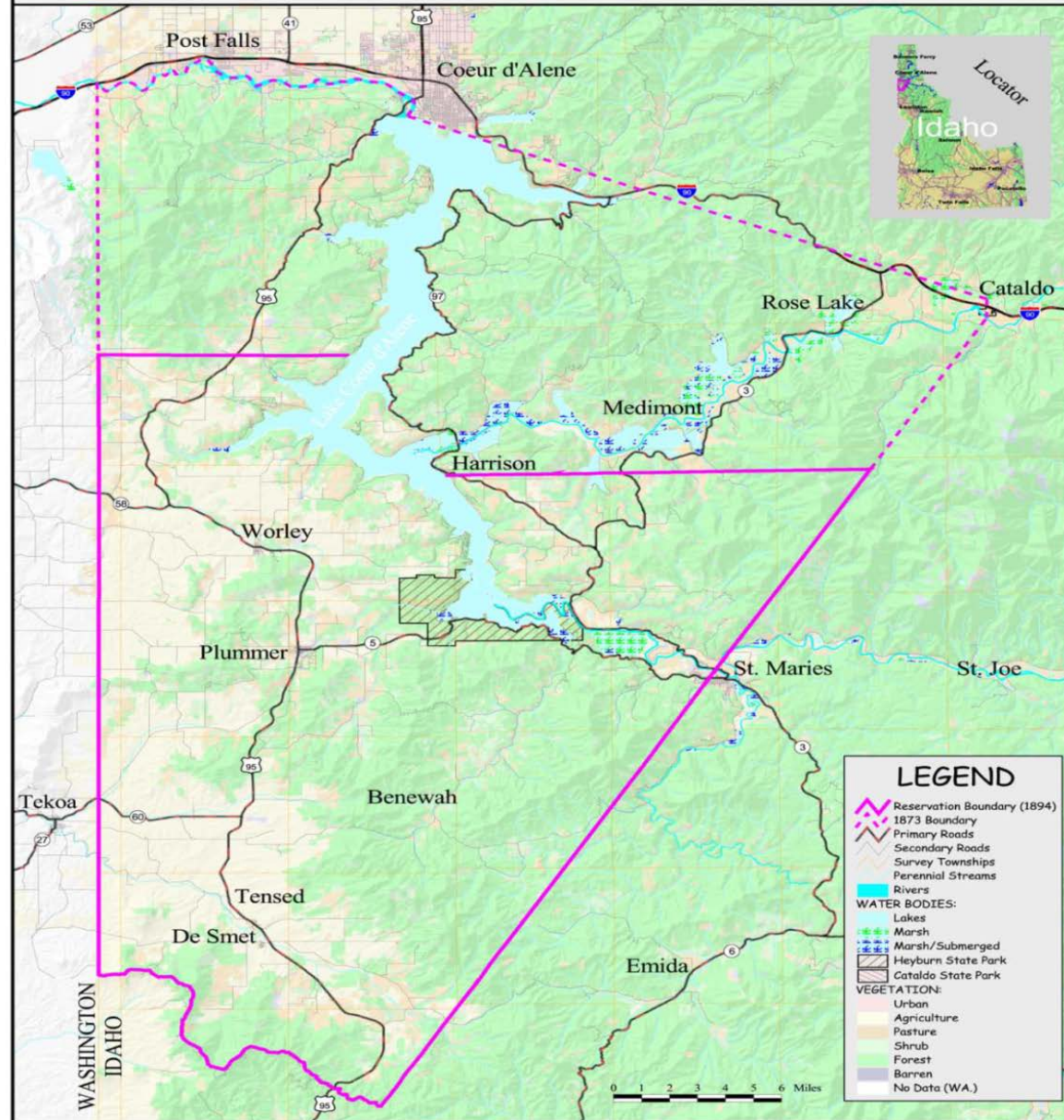
- The Coeur d'Alene Reservation is approximately 334,000 acres, not including Tribal submerged lands.
- Aboriginal territory = more than 5 million acres.
- 6,760 residents according to the 2010 Census.
- Tribal enrollment is ~2,361 and growing (June 2013).
- Tribe relies on forestry, agriculture, gaming, etc. in the current economy.
- Tribe continues traditional subsistence activities such as fishing, hunting and gathering foods and medicine.

Coeur d'Alene Tribal Map of Aboriginal Territory and Present Reservation Boundary





Coeur d'Alene Reservation



History of the Natural Resource Department

- In 1992, the Tribal Natural Resource Department was established as a stand-alone Department
- Currently, there are 12 programs in the NR Department: Air Quality, *Environmental Programs Office*, Culture, Fisheries, Forestry/Fire, Land Services, Language, Pesticides Circuit Rider, Tribal Historic Properties Office, Wildlife, and Language.
- The Environmental Programs Office in the NR Department is administering the energy efficiency work

Prior Work: Energy Efficiency & Conservation Block Grant Funding

- June 2012 – The Tribe completed an Energy Efficiency Assessment Report working with McKinstry, Inc. for Coeur d'Alene Tribal government buildings. Energy conservation measures identified in 34 buildings evaluated included:
 - HVAC – Economizers, Programmable Thermostats, Heat Recovery, Heat Pump
 - Lighting Retrofits – Fluorescent, LED
 - Envelope Sealing and Insulation

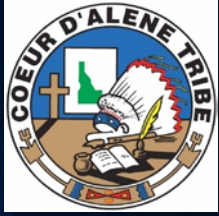
Prior Work: Energy Efficiency & Conservation Block Grant Funding

- June 2012 – The Tribe also completed an Energy Efficiency & Conservation Strategy (EE&CS)
- McKinstry's energy audits were generally at ASHRAE Level 1
 - (ASHRAE: American Society of Heating, Refrigerating and Air-Conditioning Engineers)

Prior Work: Energy Efficiency Feasibility Study (EEFS)

- The Tribe applied for and was awarded a U.S. Department of Energy, Energy Efficiency and Deployment in Indian Country grant in 2011 to conduct an EE Feasibility Study on all Tribal buildings
- Procured an energy consultant firm to perform in depth energy assessments:





Coeur d'Alene Tribe, Plummer, ID

Bonneville Power Administration (BPA), Spokane, WA



City of Plummer, ID

Partnerships

Clearwater Power, Plummer, ID



Ourevolution Energy & Engineering, Arcata, CA

Kootenai Electric Cooperative, Hayden, ID



Prior Work: Energy Efficiency Feasibility Study (EEFS)

- Completed Energy Assessment Field Work
 - 36 Tribal Buildings Evaluated (October 29 – November 9, 2012)
 - Level 3 ASHRAE energy audits (investment grade)
- Completed Energy Assessment Feasibility Study
 - Completed draft for review in November 2013
 - Completed final draft report in November 2014
 - Closed out the DOE grant in December 2014

Energy Efficiency Feasibility Study

- Report Format
 - 6 Main Sections
 - Executive Summary
 - Field Energy Assessment Initial Findings Report
 - Utility Billing Analyses Report
 - Energy Conservation Measures Prioritization Report
 - Potential Funding Sources and Strategies for ECM Implementation
 - Appendices

Benewah Market Energy Efficiency Project

- Teaming Up
 - The Environmental Programs Office
 - The Tribal Development Corporation
- In 2013 applied for The Tribal Renewable Energy and Energy Efficiency Deployment Assistance grant
 - Using the energy audits that the Tribe completed in the EECBG and the EEFS reports

Coeur d'Alene Tribe Benewah Market

- Plummer, ID
- Approximately 16,000 square feet
- Addition Completed in the 1980's



Benewah Market Energy Efficiency Project

- Benewah Market EE Project Goals:
 - Goal 1: Increase energy efficiency and reduce energy costs
 - Goal 2: Increase health and safety of the food that are sold
 - Goal 3: Decrease operations and maintenance costs
 - Goal 4: Increase the economic viability

Benewah Market Energy Efficiency Project

- The Benewah Market EE Project has:
 - Reduce the total volume and thermal capacity of refrigeration and freezer cases on the sales floor
 - Replace the existing aging floor cases with high efficiency cases with doors (where applicable) and integrated controls
 - Replace the existing 16 individual compressors for the refrigeration cases and walk-ins

Benewah Market Energy Efficiency Project

- The Benewah Market EE Project has:
 - Replace the existing roof top condensers
 - Replace 15 evaporators in the walk-in coolers and freezers with high efficiency units equipped with electronically commutated motors and integrated control features
 - Replace and reconfigure refrigerant lines

Benewah Market Energy Efficiency Project

- The Benewah Market EE Project is projected to:
 - Save at least 30.8% of the total energy used at the Market
 - Save at least \$16,065 per year in energy costs to the Market

Creating the “New” Benewah Market

- The new energy efficient refrigeration and freezer cases are a part of a larger strategy to improve the overall function and appearance of the Benewah Market
- Store Remodel
 - Worked with Design Firm to create a new look – Industrial Theme
 - Entire Interior remodel
 - Focus on changing Bakery and Deli
 - New Outdoor Sign with Digital Reader board
 - Focus on Food & Native American Heritage

The "New" Benewah Market



New Cases & Freezers

- Lower operating costs
- Lower maintenance cost
 - Internally & Externally
- Improve Perception of overall store
- Improvement in Food Quality
- Tribal Pride in Store & Community
- Community Support & Appreciation
- Increase store Sales



Deli Remodel

- New Counters, Repaint w/ laminate paneling & Flooring



Produce Department Remodel



B Street Bakery



Outdoor Digital Sign & Artwork

- Native American Artist – Smoker Marchand



What's Next ?

- Energy Measurement period for one year
 - Necessary for DOE and BPA to determine size of energy rebate
- Completing remodel of market
 - Floors, paint ceiling, signage, & other design elements
- Replace lighting with LED
 - BPA provided a lighting model - \$8,400 in savings
 - 70% rebate on lighting and install
 - Provided other energy saving measures

Lessons Learned

- Sometimes your first bid is the best and lowest
 - Learned a lot about an industry, technology and refrigeration
- Securing the commitment for energy incentives can be challenging
- Amazing how fast time moves

Contact Information

- If you would like more information or to discuss anything further, please contact:
- James Alexie, CEO of CDA Tribe Development Corporation

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Thank you for your time today