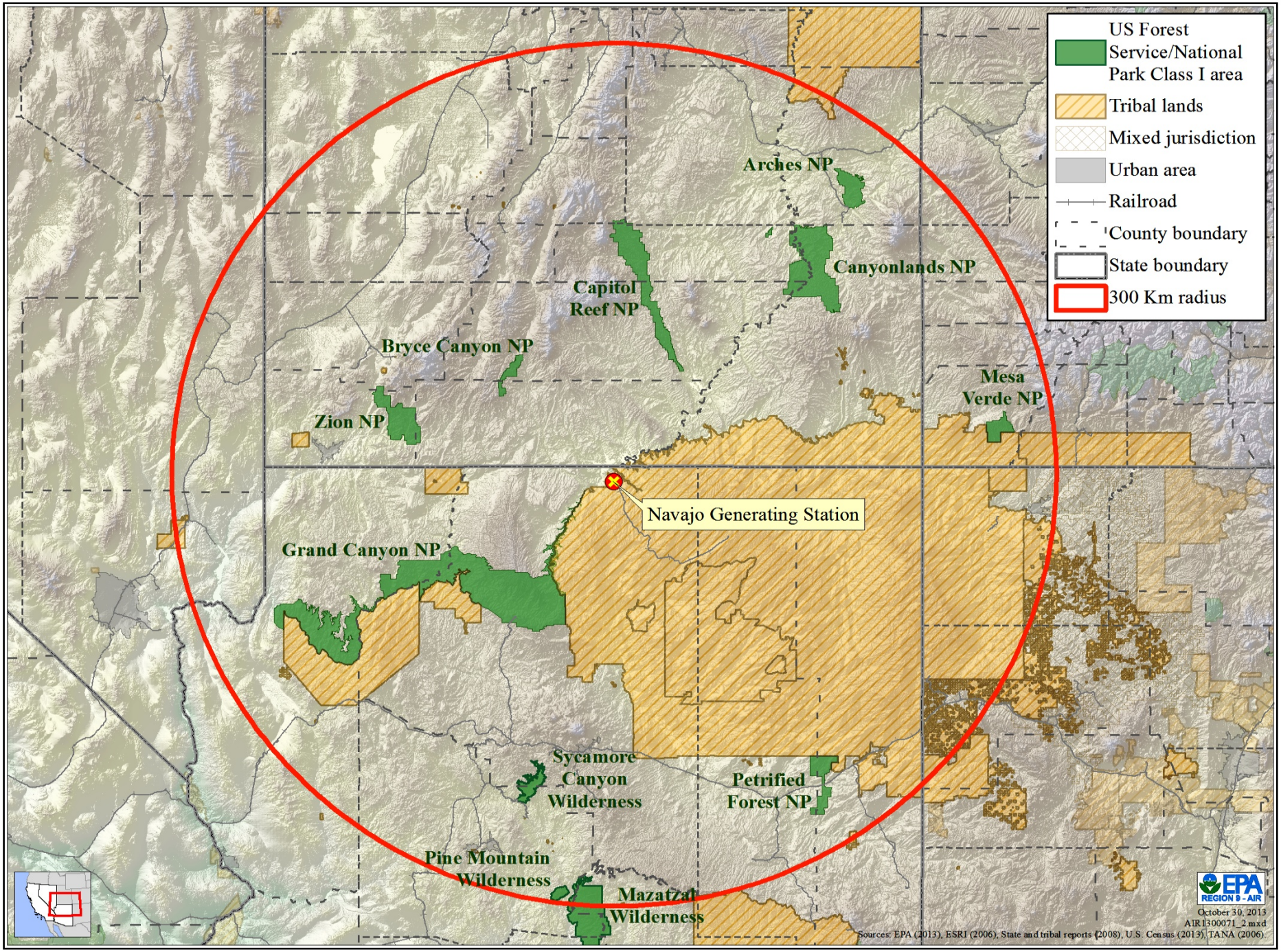
Overview of EPA Proposals for Navajo Generating Station

Plans to Reduce Emissions of Nitrogen Oxides to Improve Visibility at Federally Protected National Parks Affected by NGS

Location	Place	Date
LeChee, Navajo Nation	LeChee Chapter House	November 12, 2013 (AM)
Page, Arizona	Page High School	November 12, 2013 (PM)
Kykotsmovi, Hopi Tribe	Hopi Day School	November 13, 2013 (PM)
Phoenix, Arizona	Phoenix Convention Center	November 14, 2013 (PM)
Tucson, Arizona	Pima Community College – West Campus	November 15, 2013 (PM)

Why are we here today?

- To hear your comments on two EPA proposals requiring NGS to reduce emissions of nitrogen oxides (NO_x) and the visibility impairment it causes at National Parks and Wilderness Areas
- The purpose of this presentation is to briefly describe
  - What we proposed
  - Why we proposed it
  - How you can submit comments on these proposals


US Forest Service/National Park Class I area
Tribal lands
Mixed jurisdiction
Urban area
Railroad
County boundary
State boundary
300 Km radius
Arches NP
Canyonlands NP
Capitol Reef NP
Bryce Canyon NP
Zion NP
Mesa Verde NP
Navajo Generating Station
Grand Canyon NP
Sycamore Canyon Wilderness
Petrified Forest NP
Pine Mountain Wilderness
Mazatzal Wilderness
EPA REGION 9 - AIR
October 30, 2013
AIR1300071_2.mxd
Sources: EPA (2013), ESRI (2006), State and tribal reports (2008), U.S. Census (2013), TANA (2006).

Why are we evaluating NGS?

- Congress required EPA to improve visibility at National Parks and Wilderness Areas (Class I areas) – Regional Haze Program
- Large, old sources of air pollution that affect visibility in Class I areas must be evaluated to determine if new air pollution controls should be required (Best Available Retrofit Technology – BART)
- NGS affects visibility at 11 Class I areas, including Grand Canyon and Canyonlands National Parks and is subject to the BART requirement of the Regional Haze Program

How do we improve visibility?

- Air pollutants (for example, particles and gases like NO_x that form particles) cause regional haze
- By reducing emissions of air pollutants that cause haze, we can improve visibility
- The same pollutants that impair visibility are a concern for human health, therefore reducing haze also improves air quality
- In general, states evaluate whether new controls should be required for all facilities that are subject to BART requirement through State Implementation Plans
- The Navajo Nation EPA has not sought to develop a Tribal Implementation Plan for NGS, therefore EPA is developing a Federal Implementation Plan to implement BART

How is BART determined?

- BART is determined based on a 5-Factor analysis
- Factor 1 – How much would controls cost?
- Factor 2 – Are there energy, economic, or other environmental impacts of the controls?
- Factor 3 – What are the existing controls at the facility?
- Factor 4 – What is the remaining useful life of the facility?
- Factor 5 – What are the anticipated visibility improvements from adding controls?

EPA's Proposals

- Based on our BART analysis, EPA has proposed that new controls at NGS to reduce NO_x emissions:
  - are cost-effective,
  - and would reduce the visibility impairment caused by NGS at 11 Class I areas.
  - Please see poster for a more detailed discussion of our 5-factor analysis
- We also proposed two Alternatives that provide additional flexibility (Alternative 1 and an Alternative from the Technical Work Group on NGS) as "Better than BART"

Why can EPA Propose an Alternative?

- The Regional Haze Rule (RHR) requires either BART <u>or</u> an alternative measure that will achieve greater reasonable progress than BART (Alternatives must be better than BART)
- EPA is proposing to determine that Alternative 1 and the TWG Alternative will achieve greater emissions reductions than our BART proposal (both are better than BART)
- EPA is using our authority and discretion under the CAA and EPA regulations to extend the compliance timeframe for Alternatives to BART

1st Proposal (February 5, 2013)

- Proposed to require NGS to comply with an emission limit for nitrogen oxides (NO_x) of 0.055 lb/MMBtu within 5 years of final rule
- This limit can be met with selective catalytic reduction (SCR) in combination with low NO_x burners with separated over fire air (LNB/SOFA) installed and operated on all 3 units
- We also proposed an Alternative to BART (Alternative 1) that credits NGS for early installation of LNB/SOFA (in 2009-2011) and proposes flexibility in the compliance date (to 2021 – 2023)
- Total emissions reductions under Alternative 1 are greater than under our BART proposal (Better than BART)

2nd Proposal (October 22, 2013)

- Based on Alternative to BART put forth by the Technical Work Group on NGS (TWG Alternative)
- TWG Alternative sets a cap in total NO_x emissions over 2009-2044 and calls for closure of 1 unit by end of 2019 (or curtailment of electricity generation), and installation of SCR by end of 2030 on two units to meet limit of 0.07 lb/MMBtu
- Two current owners (Los Angeles Department of Water and Power and NV Energy) intend to divest from NGS by 2019 due to state law in CA and NV
- The 2009-2044 NO_x cap ensures total emissions from TWG Alternative are less than under BART (TWG Alternative is better than BART)

How can I comment?

- To make Oral Comments: Fill out a **Speaker Request Form** and put it in the **Speaker Box** at the Registration Table
- To make Written Comments:
  - Fill out a comment form and put it in the **Comment Box** at the Registration Table
  - Mail or e-mail comments to Anita Lee:
    - 75 Hawthorne Street; US EPA (Air-2); San Francisco, CA 94105
    - Email: r9ngsbart@epa.gov
- The Comment Period Ends January 6, 2014

What happens after January 6, 2014?

- EPA will review and consider all comments before making a final decision
- We will respond to all substantive comments in writing and incorporate any changes to the proposal as a result of comments in our final decision
- When we make a final decision, we will notify by email those individuals who registered on the Sign-in Sheets and provided an email address
- Documents will also be posted on the EPA Region 9 website and in our docket for this rulemaking