CHEHALIS RIVER BASIN FLOOD DAMAGE REDUCTION PROJECT NEPA DRAFT EIS OVERVIEW

September 30, 2020
Chehalis Basin Board Meeting
US Army Corps of Engineers

US Army Corps of Engineers®

PRESENTATION OBJECTIVE

Provide information about the draft environmental review.

Options for providing public comment on the Draft EIS will be covered at the end of the presentation.

APPLICANT'S PROPOSED PROJECT

PROPOSED PROJECT

The Applicant's proposal:

- Construct a flood retention facility that would temporarily store floodwaters from the Willapa Hills
- Improve the levee at the Chehalis-Centralia Airport

PURPOSE AND NEED

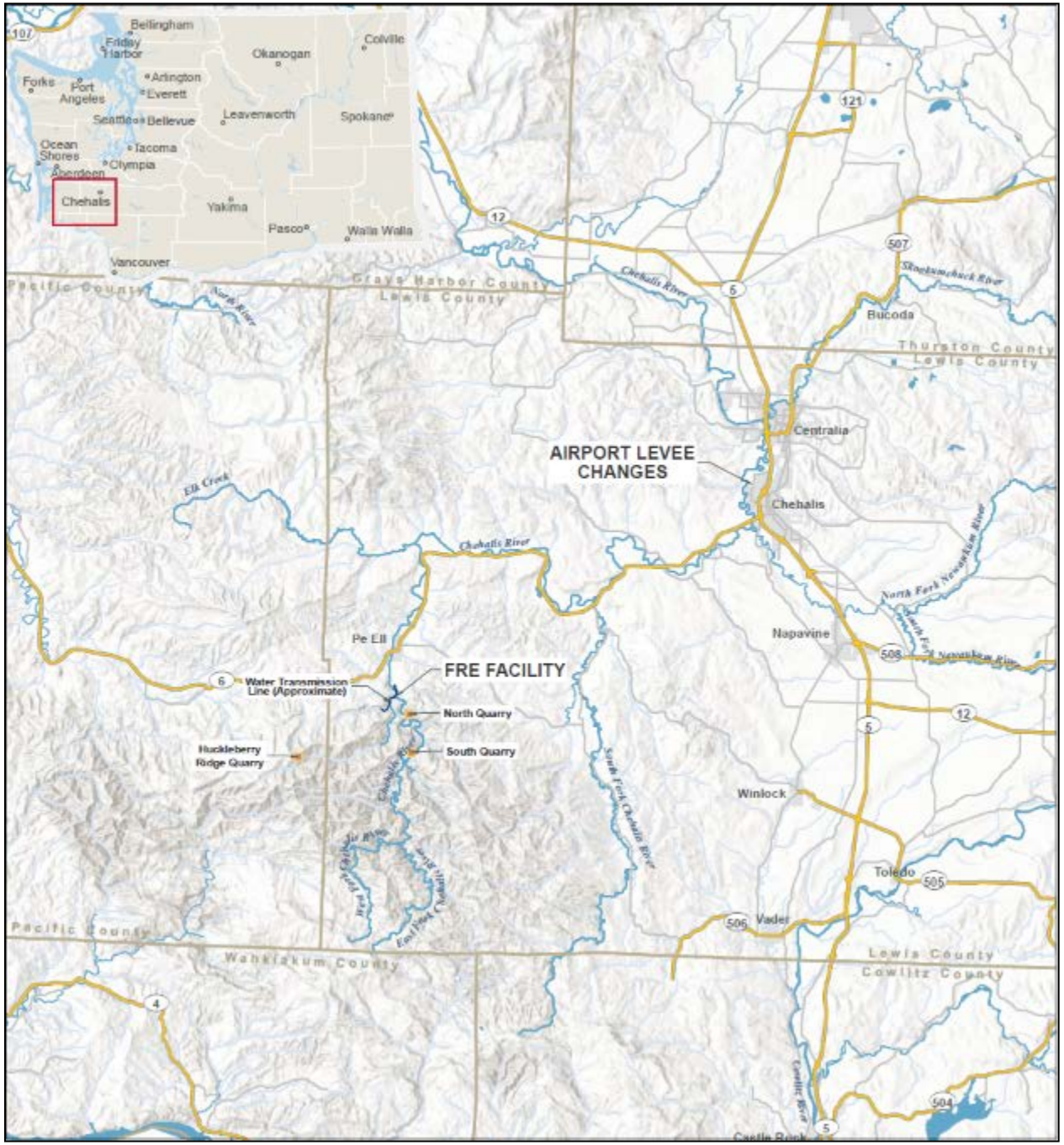
Purpose

- Reduce the risk of flood damage in the Chehalis and Centralia area from catastrophic flooding.

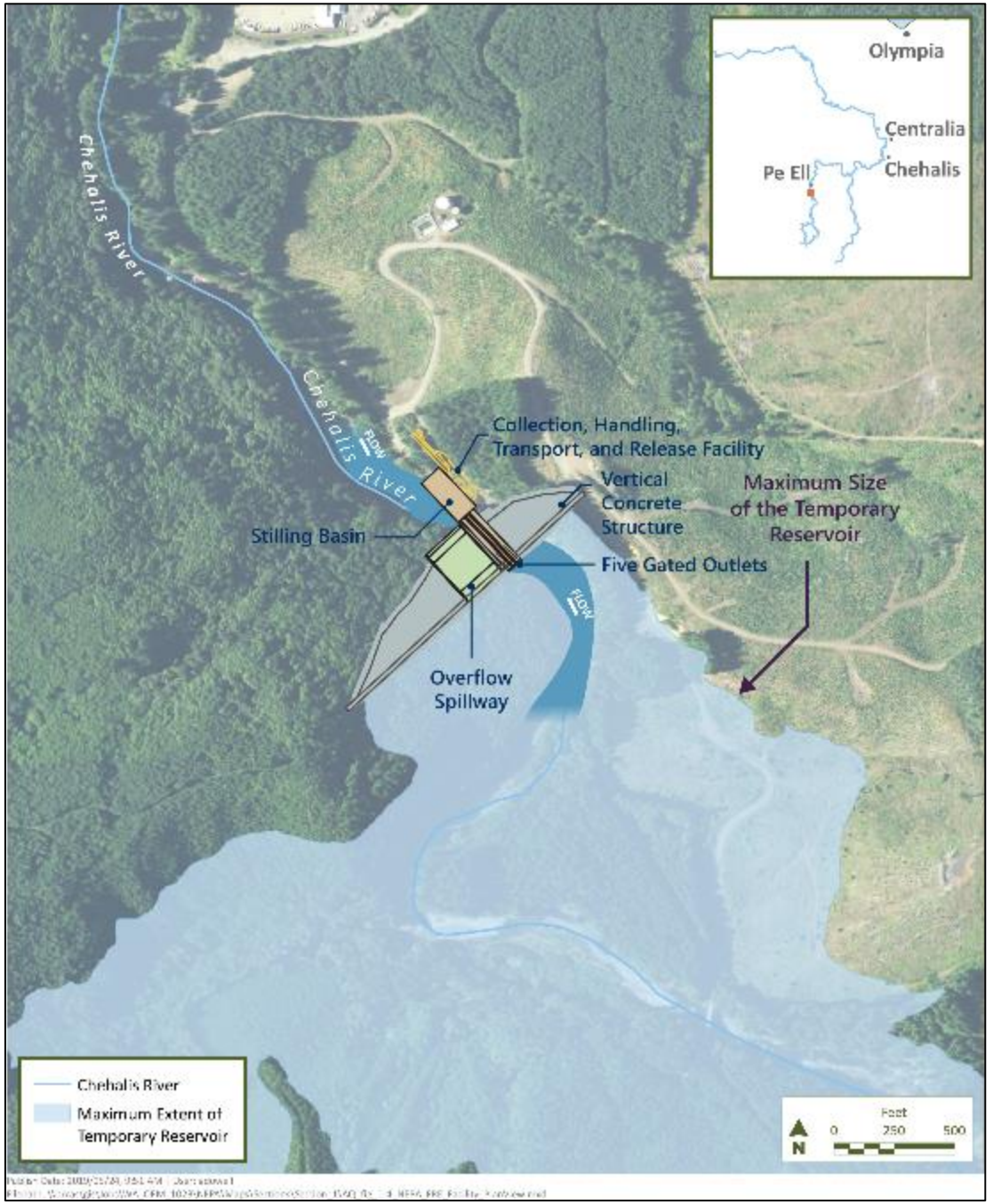
Need

- Major flood damage, transportation delays, and high economic costs in the Chehalis Basin

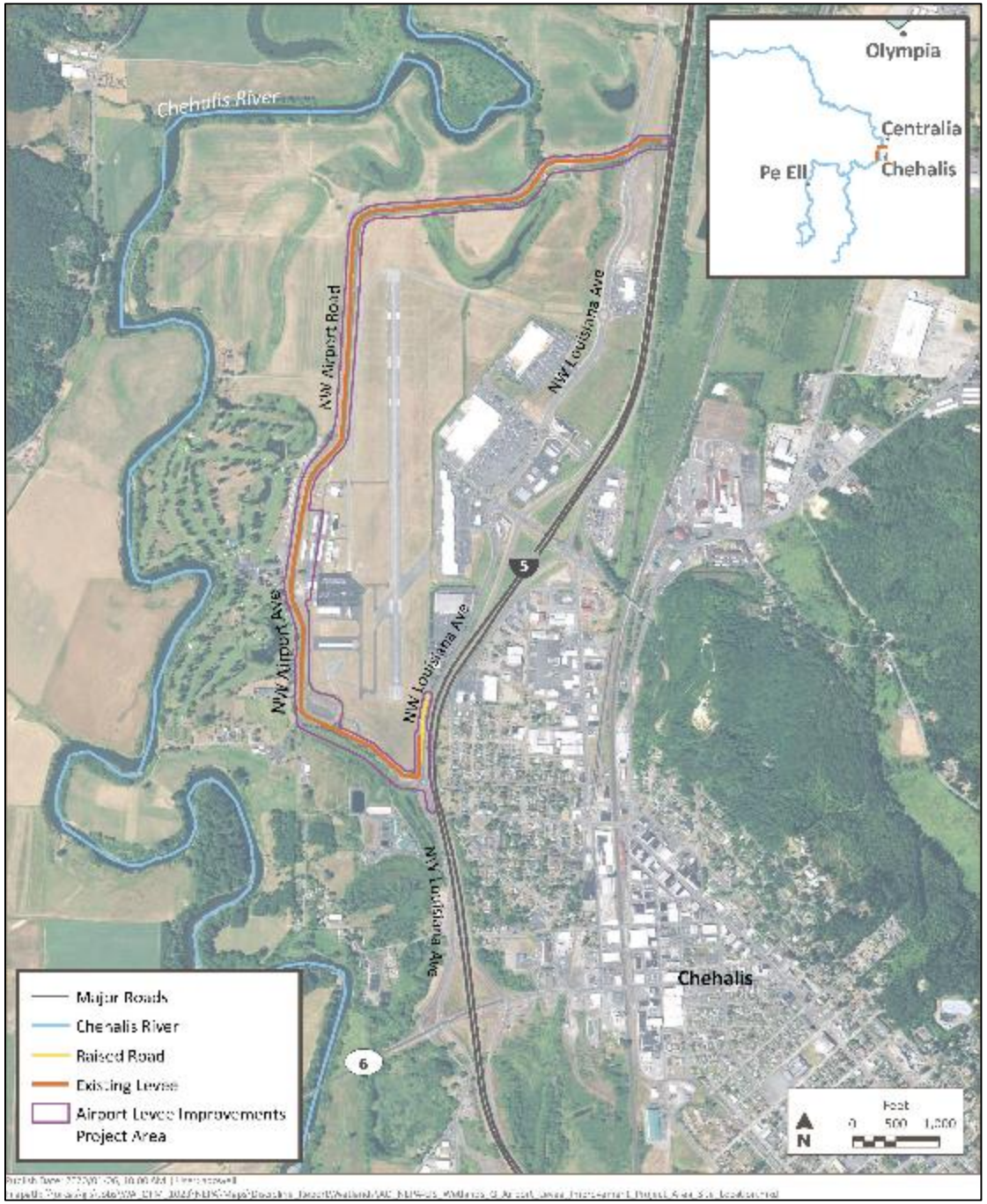
PROJECT ELEMENTS



FLOOD RETENTION FACILITY



AIRPORT LEVEE IMPROVEMENTS



NEPA EIS PROCESS

NEPA AND THE NEPA EIS

Applicant is requesting a Department of the Army permit

NEPA requires federal agencies to consider environmental impacts as part of permitting

No permit decisions can be made until after the environmental review process is complete

NEPA EIS

The NEPA EIS:

- Considers the Applicant's proposed project and feasible alternatives that would achieve the project purpose and need
- Evaluates impacts using quantitative and qualitative analysis
- Has a scope of review determined by the extent of federal control and responsibility over the project
- Supports Corps decision whether to approve, approve with modifications or conditions, or deny the permit application

NEPA EIS ALTERNATIVES

Alternatives screening process

- Two-stage process based on project objectives
- Considered 61 possible alternatives

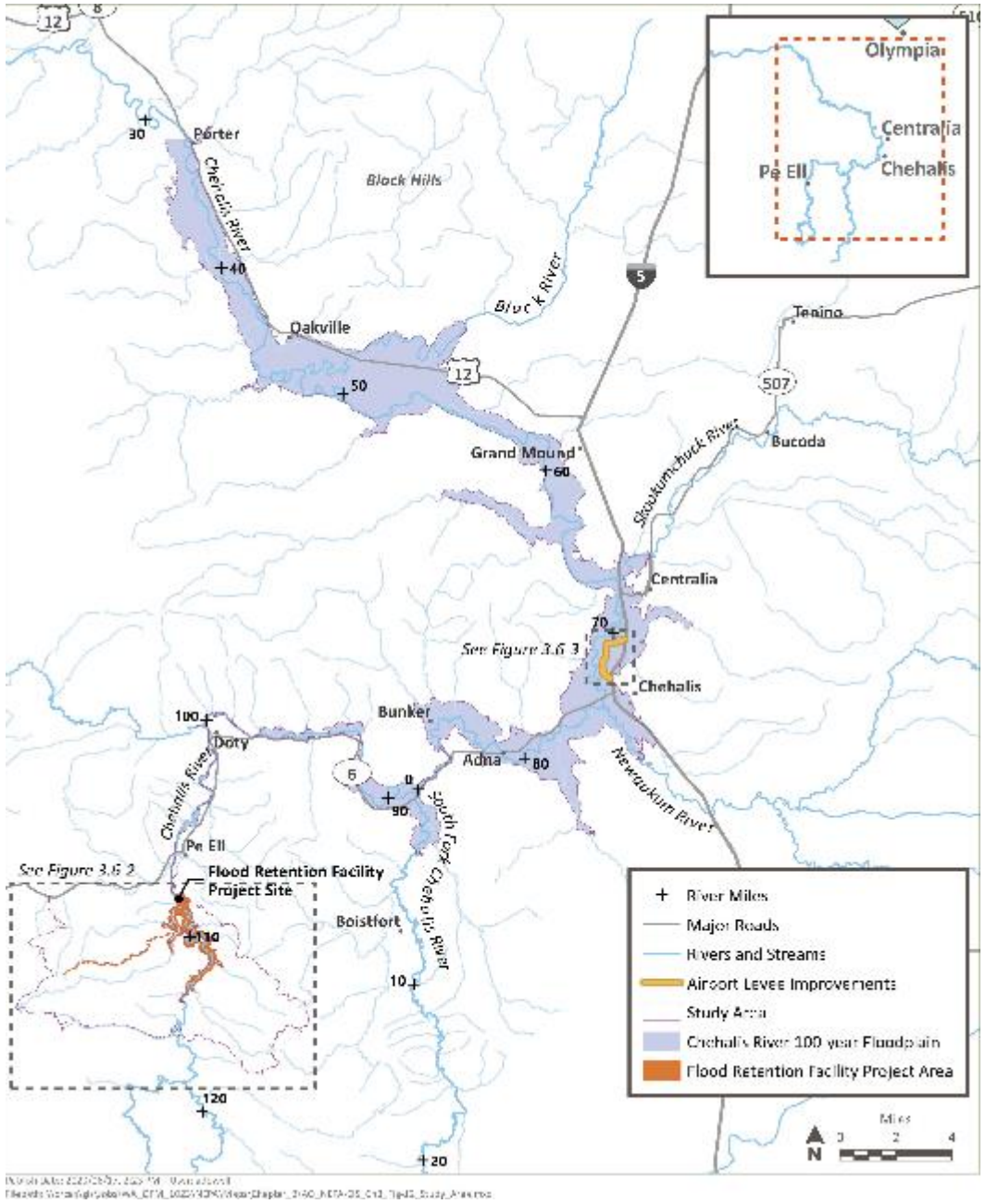
Three alternatives carried forward:

- No Action Alternative
  - No flood retention facility or Airport Levee Improvements
- Alternative 1 (Applicant's proposal)
  - Flood retention facility with potential for future expansion (FRE Facility)
  - Airport Levee Improvements
- Alternative 2
  - Flood retention facility without potential for future expansion (FRO Facility)
  - Airport Levee Improvements

EIS STUDY AREA

Three-part study area:

- Flood retention facility project area
- Airport Levee Improvements project area
- Chehalis River 100-year floodplain area (RM 114 to RM 33)



PROBABLE ADVERSE IMPACTS AND MITIGATION

EIS ANALYSIS

- Water quantity and quality
- Geology and geologic hazards
- Geomorphology
- Wetlands and other waters
- Aquatic species and habitat
- Terrestrial species and habitat
- Air quality
- Visual quality
- Noise and vibration
- Land use
- Recreation
- Cultural resources
- Transportation
- Public services and utilities
- Environmental health and safety
- Socioeconomics
- Environmental justice

EIS ANALYSIS

Three main flood scenarios

- Major flood (7-year)
- Catastrophic flood (100-year)
- Back-to-back flood for aquatic resources (major flood one year; catastrophic the next year)

Modeling done for water resources, geomorphology, fish, air quality, noise, and socioeconomics

Construction: 2025 to 2030
Operation: 2030 to 2080

CONSTRUCTION IMPACTS

Flood retention facility project area

- Extensive earthwork and some blasting
- Loss of aquatic habitat
- Blocked fish passage
- Pre-construction vegetation management

Airport Levee Improvements project area

- Earthwork
- Construction activity
- Potential impacts on wetlands

HIGH IMPACTS FROM CONSTRUCTION

Resource Area	Primary cause(s) of High Impact
Water quality	Temperature
Geomorphology	Sediment and large woody material
Wetlands and other waters	Category II wetlands and streams
Aquatic species and habitat	Salmon and lamprey
Terrestrial species and habitat	Marbled murrelet and Western toad
Recreation	Access/opportunities
Cultural resources	Archaeological resources and Traditional Cultural Properties
Socioeconomics	Ecosystem services
Environmental justice	Natural resources

OPERATION IMPACTS

Flood retention facility project area

- Flooding in the temporary reservoir (about every 7 years)
- Permanent changes to riparian vegetation and riverbed
- Permanent changes to water quality

Airport Levee Improvements project area

- Minimal changes compared to existing conditions

Chehalis River 100-Year floodplain area

- Reduced flooding (about every 7 years)
- Permanent changes to riverbed
- Permanent changes to water quality

HIGH IMPACTS FROM OPERATION

Resource Area	Primary cause(s) of High Impacts
Water quality	Temperature
Geology and geologic hazards	Soil erosion and earthquake risk
Geomorphology	Sediment and large woody material
Aquatic species and habitat	Salmon and lamprey
Terrestrial species and habitat	Amphibians
Recreation	Access/opportunities
Cultural resources	Archaeological resources and Traditional Cultural Properties
Socioeconomics	Ecosystem services
Environmental justice	Natural resources

ALTERNATIVE 2 IMPACTS

Construction impacts would be lower than Alternative 1

- Flood retention facility base would be smaller
- Construction period would be shorter

Operational impacts would be the same as Alternative 1

MITIGATION

Important aspect of and informed by environmental review

Draft EIS includes Applicant-proposed measures and Conceptual Framework

Final EIS will include updated potential mitigation based on:

- Continued evaluation by the Corps
- Coordination with the Applicant
- Consultation with tribes and resource agencies
- Comments on the Draft EIS

PUBLIC INPUT

Access Draft EIS and more information:
https://chehalisbasinstrategy.com/eis/nepa-process/

Comment period: September 18 through November 17

Provide comments:

- Online
- By phone
- By email
- By mail
- At one of two public meetings: October 8 or 14