Lower Mokelumne River Project

FERC Project No. 2916

Technical Work Group (TWG) Meetings
Wildlife, Botanical, and
Rare/Threatened/Endangered Resources
June 25, 2025

EBMUD

Kleinschmidt

AGENDA

- **Welcome and Introductions**
- **Brief Project and Process Overview**
- **Identify Potential Studies**
- **Q&A and Feedback**
- **Action Items, Schedule and Next Steps**

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Welcome & Introductions

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Lower Mokelumne Relicensing Team

Project Management Team

Priya Jain

Brad Ledesma

Joe Tam

Sabrina Cheng

Karen Donovan

Resource Leads

Michelle Workman

Casey Del Real

James Jones

Consultant Team

Kleinschmidt
Shannon Luoma

Fatima Oswald

Olivia Smith

JNA
Janelle Nolan
Robyn Smith

Facilitator
Marie Rainwater

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Meeting Purpose and Objectives

- Ensure EBMUD is aware of relicensing participants interests and objectives as they prepare their draft study plans for inclusion in the PAD

- Receive feedback on potential study plans

Lower Mokelumne River (FERC Project No. 2916) Project Overview

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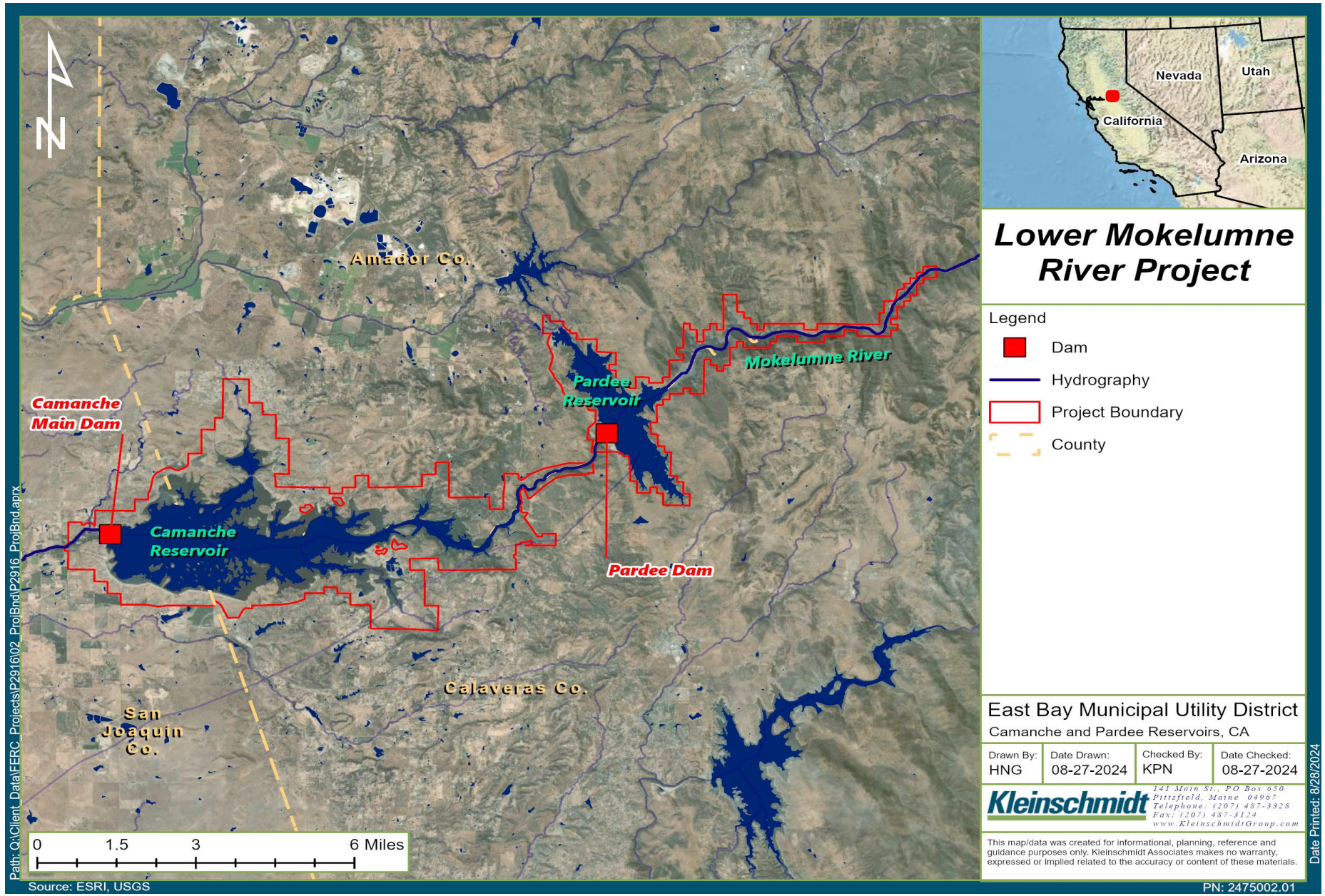
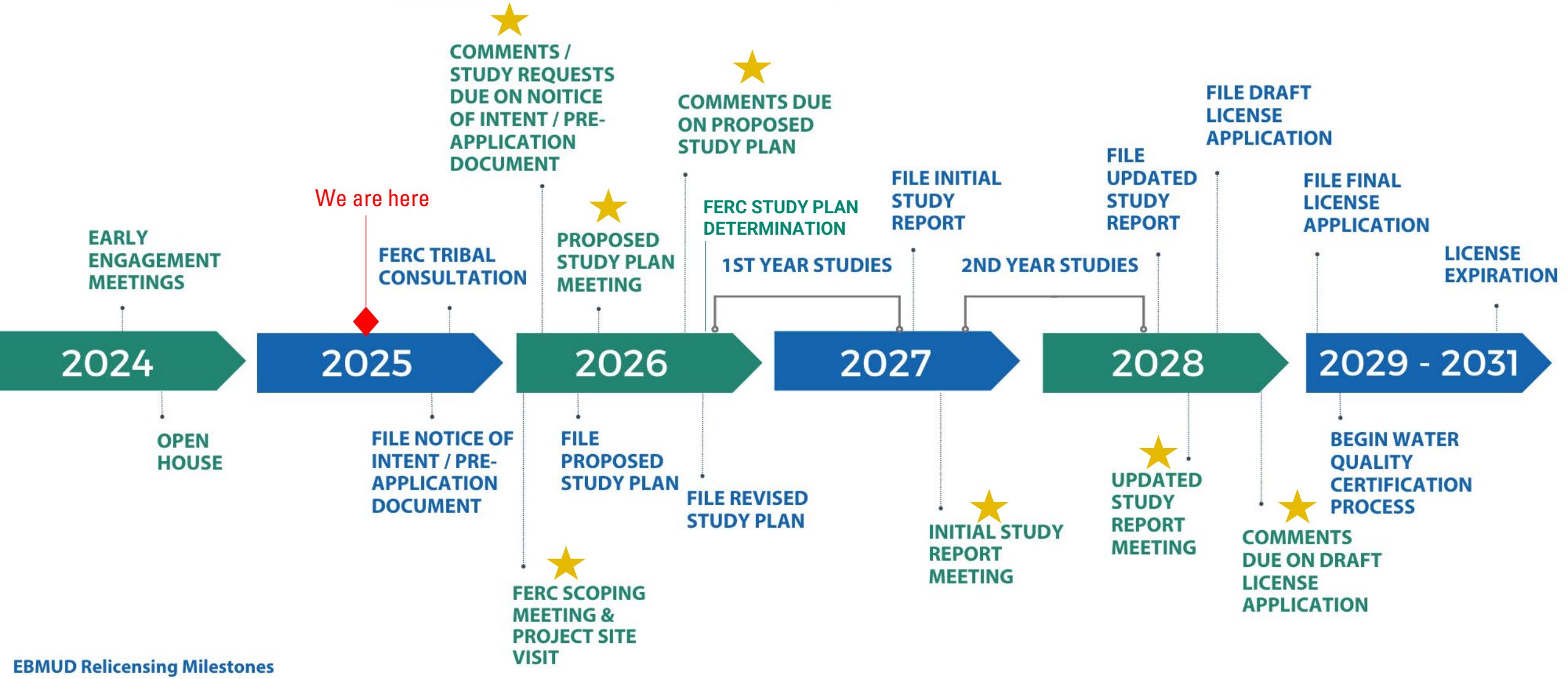
Lower Mokelumne River (P-2916) River Project



RELICENSING SCHEDULE

Lower Mokelumne River Project, FERC No. 2916



EBMUD Relicensing Milestones

Interested Parties Involvement Opportunities

★ Comment Opportunities (not all are shown)

Why Conduct Studies?

- The Proposed Study Plan (PSP) is a FERC requirement under the ILP
- Provide FERC the necessary information to conduct their analysis
- Identify pertinent & potential Project issues
- Lay groundwork for future license conditions & PM&Es

18 CFR § 5.11 Potential Applicant's proposed study plan and study plan meetings.

(a) Within 45 days following the deadline for filing of comments on the pre-application document, including information and study requests, the potential applicant must file with the Commission a proposed study plan.

FERC's 7 Study Guide Criteria

1- Goals & Objectives

2&3 - Relevant Resource Management Goals & Public Interest Considerations

4 - Existing Information & Need for Additional Information

5 - Project Nexus

6 - Proposed Methodology

7 - Level of Effort & Costs

Potential Study – Botanical Resources Study

Goals & Objectives

- Document California Wildlife Habitat Relationship (CWHR) habitats and sensitive natural communities adjacent to Project facilities.
- Document special-status plant, lichen, and moss populations adjacent to Project facilities.
- Document NNIPs adjacent to Project facilities.

Potential Methodology: CWHR Habitats and Sensitive Natural Communities:

- Develop habitat maps based on CWHR descriptions.
- Verify accuracy of data and update habitats using recent aerial photos.
- Conduct ground-truthing of habitats surrounding Project facilities concentrating on areas where concerns about habitat identification and boundaries arise.
- Develop a GIS map of habitats and sensitive natural communities and overlay information on Project facilities.

Potential Study – Botanical Resources Study

Potential Methodology Special-status Plants:

- Identify and map known occurrences of special-status plants within the study area.
- Develop list of species potentially occurring in the Project area based on literature review and agency consultation.
- Conduct focused surveys according to the *Protocols for Surveying and Evaluation Impacts to Special Status native Plant Populations and Sensitive Natural Communities* (CDFW 2018).
  - Timing of surveys will be verified based on reference population monitoring.
- Develop GIS Map of special-status plant populations and overlay information on Project facilities.
- Prepare CNDDB forms for all populations identified.

Potential Study – Botanical Resources Study

Potential Methodology Non-Native Invasive Plants (NNIPs):

- Identify and map known occurrences of NNIPs within the study area.
- Develop list of priority NNIPs in consultation with agencies.
- Conduct focused NNIP surveys in conjunction with special-status plant surveys.
- Develop GIS Map of NNIPs and overlay information on Project facilities.

Q&A and Feedback

Potential Study – Wildlife Resources Study

Goals & Objectives:

- Identify special-status wildlife species potentially occurring in CWHR habitats documented as part of Botanical Resources Study Plan.
- Map potential habitat for monarch butterfly (i.e., milkweed) in conjunction with special-status plant surveys completed as part of the Botanical Resources Study Plan.
- Document bat roosts present on Project facilities and identify bat species present.

Potential Study – Wildlife Resources Study

Potential Methodology Special-status Wildlife Surveys

- Identify and map known occurrences of special-status wildlife in the study area.
- Identify special-status wildlife species potentially occurring in CWHR habitats mapped as part of the Botanical Resources Study Plan.
- Conduct wildlife reconnaissance survey in conjunction with special-status plant surveys.
- Prepare CNDDB forms for special-status species observed.
- Record incidental observations of special-status wildlife during all field surveys conducted in support of relicensing.

Potential Study – Wildlife Resources Study

Potential Methodology Monarch Butterfly Habitat**:**

- Document the location of monarch butterfly habitat (i.e., milkweed) in conjunction with special-status plant surveys conducted as part of the Botanical Resources Study Plan.
- Develop a map and table identifying the location of milkweed in the study area and overlay on Project facilities.

Potential Study – Wildlife Resources Study

Potential Methodology (cont.):

Special-status Bat Roost Surveys

Facility Assessment

- Conduct initial desktop assessment of Project facilities to determine their potential to support bat roosts.
- Conduct preliminary visual assessment of Project facilities during wildlife reconnaissance surveys to determine the potential to support bat roosts.
- Develop list of Project facilities potentially supporting bat roosts (by facility type).

Roost Survey

- Conduct visual roost survey at Project facilities identified as potentially supporting roosting bats.
- If bat roosts are present but the species cannot be determined visually, collect guano for DNA sampling.
- Develop a map and table documenting the location of bat roosts and species present.

Potential Study – Wildlife Resources Study

Potential Methodology (cont.):

Special-status Bat Roost Surveys

Guano DNA Sampling

- Collect DNA samples at roost sites where fresh guano is available and bat species cannot be determined visually during roost survey.
- Compare DNA sequences to species-specific genetic markers developed by Walker et al. 2016 and further verify by comparison to samples at the National Center of Biotechnology Information DNA Sequence Database.
- Develop a map and table identifying the location of guano DNA sampling and species present.

Q&A and Feedback

Potential Study – Wetlands, Riparian, and Littoral Habitat Study

Goals & Objectives:

- Document Waters of the U.S./State and riparian habitats adjacent to Project facilities and Project-affected reaches.
- Determine the relationship between riparian habitats and flow conditions in Project-affected reaches.

Potential Methodology:

Preliminary Mapping of Jurisdictional Waters of the U.S./State and Riparian Habitat

- Develop preliminary maps of jurisdictional Waters of the U.S./State and riparian habitat based on NWI mapping.
- Verify the accuracy of data and update information using recent aerial photos.

Ground-truthing/Field Verification

Jurisdictional Waters of the U.S./State

- Conduct ground-truthing concentrating in areas where questions on classification or boundaries arise from review of aerial photographs.
- Develop GIS map of and overlay information Project facilities.

Potential Study – Wetlands, Riparian, and Littoral Habitat Study

Potential Methodology (cont.):

Ground-truthing Field Verification

Riparian

- Map the extent of riparian habitat along Project-affected reaches using a combination of high-resolution aerial imagery and field observation at riparian cross-sections.
- Develop a GIS map of riparian habitat along Project-affected reaches.

Characterize Relationship of Riparian to Flow Conditions

- Establish cross-sections at representative location along Project-affected reaches:
  - Characterize riparian and substrate along the length of each cross-section.
  - Develop stage-discharge relationships over a range of flows (high to low).
- Develop a summary of the relationship between existing inundation characteristics and the distribution of dominant riparian species in Project-affected reaches.
- Compare and contrast existing Project and without Project hydrology in relation to riparian recruitment and maintenance in Project-affected reaches.

Q&A and Feedback

Action Items & Next Steps

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Next Steps

July 2– Relicensing Team will distribute draft potential study plan outlines to attendees

July 11 – Interested Parties submit feedback on study plans via email

Next meeting: July 31, 9:00 – 11:00 a.m.

Stay Informed

- Lower Mokelumne Website: EBMUD.com/MokRelicense
- Email: MokRelicense@ebmud.com
- Jason Zhou, EBMUD: 510-287-0263
- FERC e-Subscription (docket number “P-2916”) at www.ferc.gov
  - Formal Relicensing begins October 2025 with EBMUD submittal of the Pre-Application Document (PAD)

Thank you!

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