TCCA – Sites Reservoir Project RDEIR/SDEIS

Preliminary Environmental Effects Related to TCCA Facilities

July 1, 2021

Sites

Agenda

- Provide Second Briefing on Preliminary Findings Related to TCCA Facilities – Non-Biological Resources
  - General Overview of the RDEIR/SDEIS Contents
  - Preliminary Environmental Effects Related to TCCA Facilities Other than Biological Resources
  - Other Related Topics
    - Renewable, Carbon-free Power
    - Net Zero Greenhouse Gas Emissions
    - Funks and Stone Corral Creek Releases

RDEIR/SDEIS Contents

- 34 Chapters and 50 Appendices
  - Introductory Chapters
    - Ch. 1 - Introduction
    - Ch. 2 - Project Description and Alternatives
    - Ch. 3 - Approach to Environmental Analysis
    - Ch. 4 - Regulatory and other Approvals
  - Resources Area Chapters
    - Ch. 5 to Ch. 32
  - Closing Chapters
    - Ch. 33 - Consultation and Coordination; List of Preparers
    - Ch. 34 - EIR/EIS Document Distribution

RDEIR/SDEIS Resource Analysis Chapters

Ch. 5 - Surface Water Resources
Ch. 6 - Surface Water Quality
Ch. 7 - Fluvial Geomorphology
Ch. 8 - Groundwater Resources
Ch. 9 - Vegetation and Wetlands
Ch. 10 - Wildlife Resources
Ch. 11- Aquatic Resources
Ch. 12 - Geology and Soils
Ch. 13 - Minerals
Ch. 14 - Land Use
Ch. 15 - Agricultural Resources
Ch. 16 - Recreation
Ch. 17 - Energy
Ch. 18 - Navigation, Transportation and Traffic

RDEIR/SDEIS Resource Analysis Chapters (cont)

Ch. 19 - Noise
Ch. 20 - Air Quality
Ch. 21 - Greenhouse Gases
Ch. 22 - Cultural Resources
Ch. 23 - Tribal Cultural Resources
Ch. 24 - Visual Resources
Ch. 25 - Population and Housing
Ch. 26 - Public Services and Utilities
Ch. 27 - Public Health and Environmental Hazards
Ch. 28 - Climate Change
Ch. 29 - Indian Trust Assets
Ch. 30 - Socioeconomics and Environmental Justice
Ch. 31 - Cumulative Impacts
Ch. 32 - Other Required Analyses (includes Growth Inducement)

Environmental Effects Related to TCCA Facilities

- Biological Effects Previously Discussed
  - Vegetation and Wetlands
  - Wildlife Resources
- Non-Biological Effects Associated with TCCA Facilities
  - Surface Water Quality
  - Groundwater Resources
  - Geology and Soils
  - Energy
  - Noise
  - Navigation, Traffic and Transportation
  - Cultural Resources
  - Tribal Cultural Resources
  - Visual Resources
  - Wildfire

Surface Water Quality

- Surface Water Quality – Less than Significant
  - Dredging would result in the short-term resuspension of sediment in the water column, which would temporarily increase turbidity.
  - Dredged Material Management BMP requires chemical characterization of Funks Reservoir sediment prior to dredging, and design and operation of settling/dewatering basins and dredged material storage areas to avoid adverse effects on surface water and groundwater quality.
- Will be targeting release temperatures suitable for rice
- Worked with UC Davis Extension on mercury and arsenic and don't see any concerns for rice
- Variable I/O Tower intake levels will allow flexibility to adjust temperature and avoid water quality issues (HABs, high level of metals, etc)

Groundwater Resources

- Effect Determinations Related to Funks Reservoir
  - Groundwater quality would not be adversely affected due to reduced seepage and percolation from the drained reservoir because this is a temporary activity and soil permeability is low in the area.
  - Dewatering required to dredge Funks Reservoir would not result in a substantial decrease in groundwater levels or substantial interference with groundwater recharge.
  - The onsite wastewater disposal system at the Funks PGP maintenance and storage building would not result in a violation of wastewater discharge requirements or otherwise substantial degrade groundwater quality

Geology and Soils

- Geology and Soils – Less than Significant
  - Red Bluff Diversion, Funks Reservoir, and proposed Funks PGP and pipelines would not be affected by surface fault rupture because no known active faults are present in the vicinity.
  - Construction of buildings and pipelines at Funks Reservoir would not cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction.
  - Releases that enter Funks Reservoir and are conveyed to the TC Canal would not cause substantial erosion because the canal is concrete-lined.
  - Facilities constructed on expansive soils in the vicinity of Funks Reservoir would be designed to withstand the effects of soil expansion, consistent with California Building Standards Code requirements and other design and construction requirements.
  - Funks Reservoir and proposed pipelines are not in areas sensitive to paleontological resources.

Energy

- Energy – Less than Significant
  - The pumps used for the Funks PGP would have a rated pump efficiency of 89%; electrical equipment, including pumping and generation equipment, and electrical equipment in buildings and other facilities would be designed and operated to conform to energy efficiency standards. Construction and operation impacts would be less than significant.

Noise

- Noise – Less than Significant
  - Construction noise associated with Funks Reservoir, Funks PGP, and Funks pipelines is unlikely to be noticeable above ambient sound levels by sensitive receptors because they are located more than 1 mile away from the noise-generating activity.
  - For the same reason, operational noise associated with pumping is also unlikely to be noticeable.

Navigation, Traffic and Transportation

- Navigation, Traffic and Transportation – Less Than Significant
  - Anticipated vehicle trips related to construction at the RBPP would be limited to 2 employee and 4 haul truck trips per day; no additional operation and maintenance traffic is expected since the RBPP operations and maintenance plan would be integrated into the existing plans at that location.
  - No navigational impacts would occur because construction and operations activities at the RBPP would not occur within a navigable waterway.
  - Construction at Funks Reservoir and associated PGP would result in 400 employee and 418 haul trips per day - all study roadway segments are projected to operate at LOS C or better during the peak construction period resulting in no adverse impacts.

Cultural Resources

- Cultural Resources – Significant and Unavoidable
  - The Central Valley Project (CVP) Historic District includes the Red Bluff Diversion Dam, Tehama Colusa (TC) Canal, Tehama Colusa Intertie, and Funks Reservoir. Funks Reservoir would be dredged and new structures constructed at the reservoir location, potentially causing a substantial adverse change in the significance of a historical resource.
  - Operations would not change the historical significance of the CVP historical resources because these resources would continue to operate as they currently do.
  - Known cultural resources occur in the vicinity of Funks Reservoir and could be encountered during constructive associated with all Project facilities.

Tribal Cultural Resources

- Tribal Cultural Resources – Significant and Unavoidable
  - Tribal Cultural Resources are assumed to occur in the vicinity of Funks Reservoir and other TCCA facilities that could be affected during Project construction. Efforts will be made to avoid and/or minimize effects.

Visual Resources

- Visual Resources – Less than Significant
  - Construction of facilities at Funks Reservoir would not be visible because public access to the reservoir is and would continue to be restricted.
  - Changes at the RBPP would not be visible to degrade the existing visual character or quality of public views of the site and its surroundings or to affect highly sensitive viewers

Wildfire

- Wildfire – Less than Significant
  - Construction and operation of new infrastructure, such as roads, transmission lines, and substations, would not exacerbate fire risk. Incorporation of BMPs in construction and management plans would alert both construction and operation workers to potential ignitable materials and prepare the construction site by implementing required fire suppression procedures and tools.

Other Related Topics – Renewable, Carbon Free Power

- Targets of purchasing Project's operations power needs from renewable, carbon-free sources :
  - At least 60% from the start of operations to 2045
  - Starting in 2045, of 100%
- Does not apply to
  - Any operational power needs attributable to Reclamation's participation, including the conveyance and pumping of Incremental Level 4 Refuge water supply
  - Any non-Project power needs (TCCA regular power)

Other Related Topics – Funks and Stone Corral Creek Releases

- Fish and Game Code 5937

  The owner of any dam shall allow sufficient water at all times to pass through a fishway, or in the absence of a fishway, allow sufficient water to pass over, around or through the dam, to keep in good condition any fish that may be planted or exist below the dam. During the minimum flow of water in any river or stream, permission may be granted by the department to the owner of any dam to allow sufficient water to pass through a culvert, waste gate, or over or around the dam, to keep in good condition any fish that may be planted or exist below the dam, when, in the judgment of the department, it is impracticable or detrimental to the owner to pass the water through the fishway.

Other Related Topics – Funks and Stone Corral Creek Releases (cont)

- Funks Creek from Golden Gate Dam to Funks Reservoir
- Not sufficient information on flows, fisheries, habitat to determine releases
- Addressing through:
  - Design currently includes release from 0 to 100 cfs
    - Will be refined in the future based on study below
  - Study effort on fish assemblage, channel capacity, existing habitat to determine future releases
    - Planned for Amendment 3 to refine design ASAP
    - Would prepare Funks and Stone Corral Creeks Ops Plan post study
- Releases made in consideration of Projects flood control benefits and TC Canal operations

TCCA Approval for Release of the RDEIR?

- 2.5. GCID and TCCA Operations: The Authority Members anticipate that the Sites Reservoir Project will be within or adjacent to GCID and/or TCCA districts with at least a portion of the conveyance of water into the reservoir to be accomplished by wheeling water through GCID's Main Canal and/or the Tehama-Colusa Canal. The Authority shall not have the power, except with the express written consent of GCID and/or TCCA, depending on which facilities are at issue, to enter into any agreements or otherwise take any action that will, directly or indirectly, decrease, restrict, or in any manner alter, modify or limit water rights, water supplies or contractual entitlements to water of GCID and/or TCCA (and, in the case of TCCA, the water agencies it serves) or the operations of their facilities or any facilities they operate under contract.
- Approval needed? If so, what does this look like?

Questions

Sites


Sites