

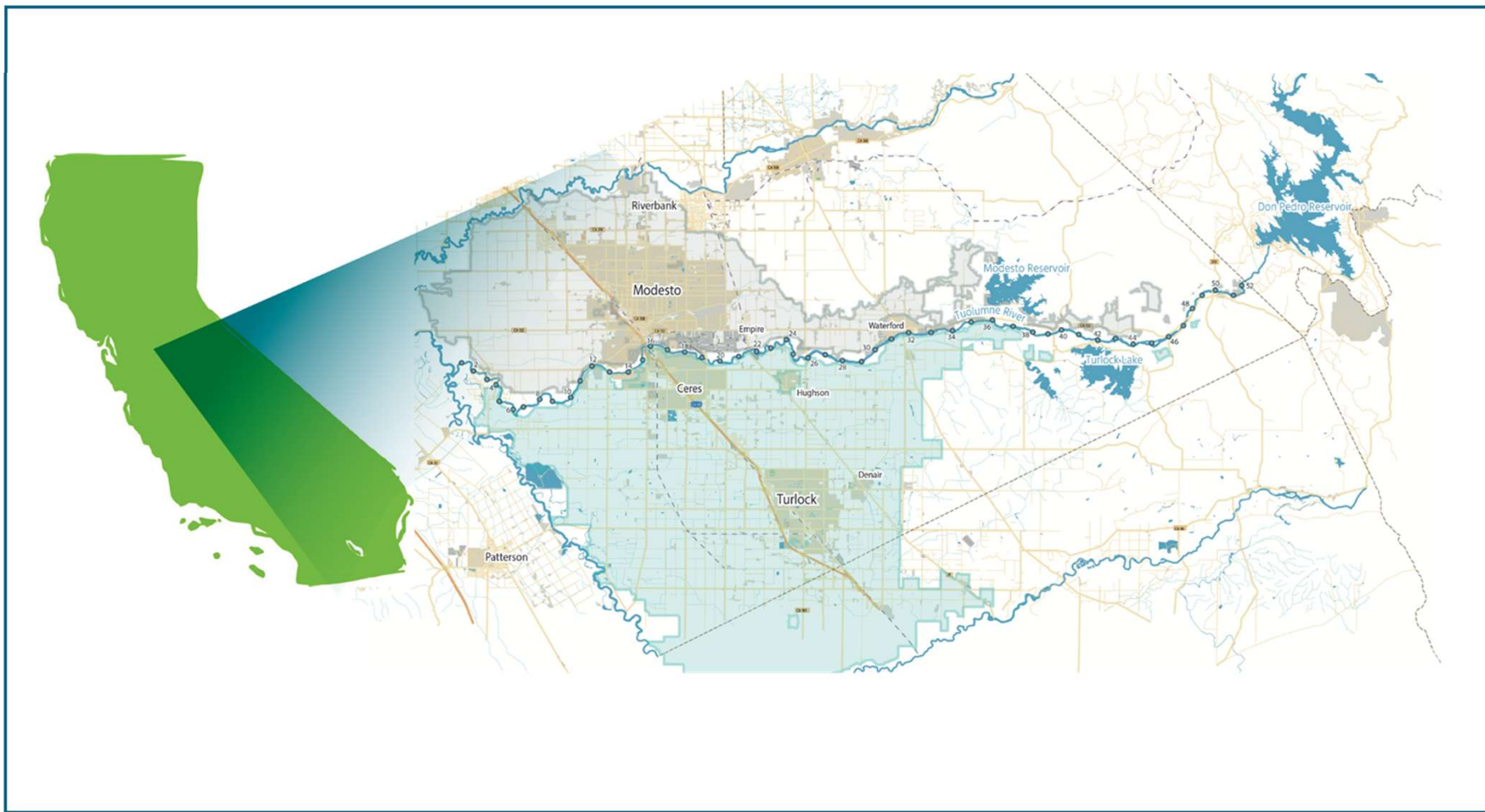


PROJECT NEXUS

WATER & ENERGY INTEGRATION FOR THE FUTURE



Turlock Irrigation District





TID Background



- Not part of the State or Federal water projects
- Tuolumne River Watershed
- TID provides irrigation water for 150,000 acres
- 250 miles of gravity-fed canals
- Almost 5,000 irrigation customers
- Average parcel size is 32 acres



TID Background



- Started providing electricity in 1923
- 662 square-mile service territory
- TID provides electricity to 100,000 accounts
- Diversified portfolio, including natural gas, wind, solar, large and small hydro and geothermal



UC Merced Study



Solar Photovoltaic Energy Generation on Aqueducts of California

SOLAR AQUAGRID FEASIBILITY STUDY™

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MAY 2016

nature sustainability

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Volume 4 Issue 7, July 2021



Energy–water synergies

Estimates of the water savings and financial benefits of covering canals with solar panels are rare. McKuin and colleagues find that in the case of California's canal network, evaporation savings could be substantial and the financial benefits could outweigh the costs of the cable-support structures required to span the canals.

See [McKuin et al.](#)



Project Location – Site 1

Ceres Innovation Center

- Ceres Main Canal/Upper Lateral 3
- Combined 8,000 linear feet
- 20 to 25-feet wide
 - Narrow-span canal
- Combined estimated 3 MW power generation
- Proximity to existing electrical feeder
- Construction to be coordinated with the Ceres Main Reservoir



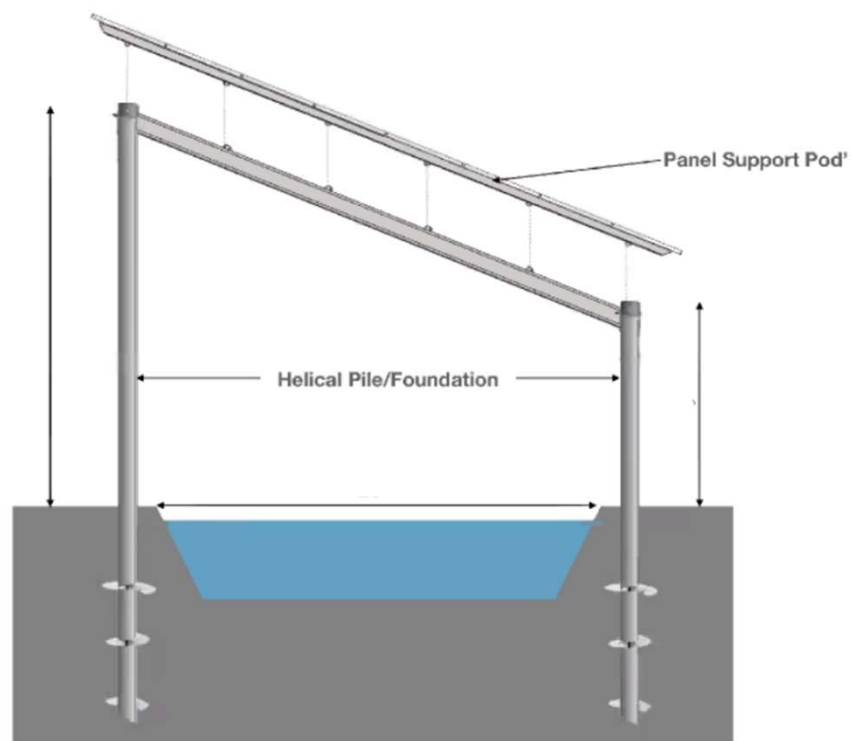


WATER & POWER

Sealing Central Colorado's Project 133

Conceptual Design

Narrow-span Canal





Ceres Innovation Center- Rendering





Project Location – Site 2

Main Canal

- Approximately 500 linear feet
- 110-feet wide
 - Wide-span canal
- Estimated 1 MW power generation
- Proximity to existing electrical feeder
- Few construction constraints
- Scalability





Conceptual Design





WATER & POWER

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[TID.org/ProjectNexus](https://tid.org/ProjectNexus)



TID Water & Power
Podcast

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