DESIGN REFINEMENTS PROPOSED

To Minimize Impacts, Improve Performance and Reduce Costs

Design improvements are being proposed to minimize impacts of the WaterFix project on local communities and the environment. The proposed changes build on past modifications that significantly reduced the project's footprint and costs. The new optimizations also seek to minimize impacts on environmental resources in the Delta, including wetlands and other water resources.

The proposed optimizations will be subject to environmental review as a part of the forthcoming Supplemental Environmental Impact Report expected in Summer 2018.

KEY BENEFITS OF THE NEWLY PROPOSED OPTIMIZATIONS

- Significantly reduces wetland impacts
- Reduces impacts to salmon and smelt at the Clifton Court Forebay
- Reduces the number of power poles and lines required which improves aesthetics, reduces impacts to birds, and minimizes the need for power facilities near the town of Courtland, while also eliminating the need to relocate large 230 kV and 500 kV transmission lines
- Consolidates the reusable tunnel material (RTM) footprint to minimize impacts to Stone Lakes Wildlife Refuge and nearby agricultural lands
- Reduces potential impacts to the town of Hood and a residential neighborhood on Kings Island

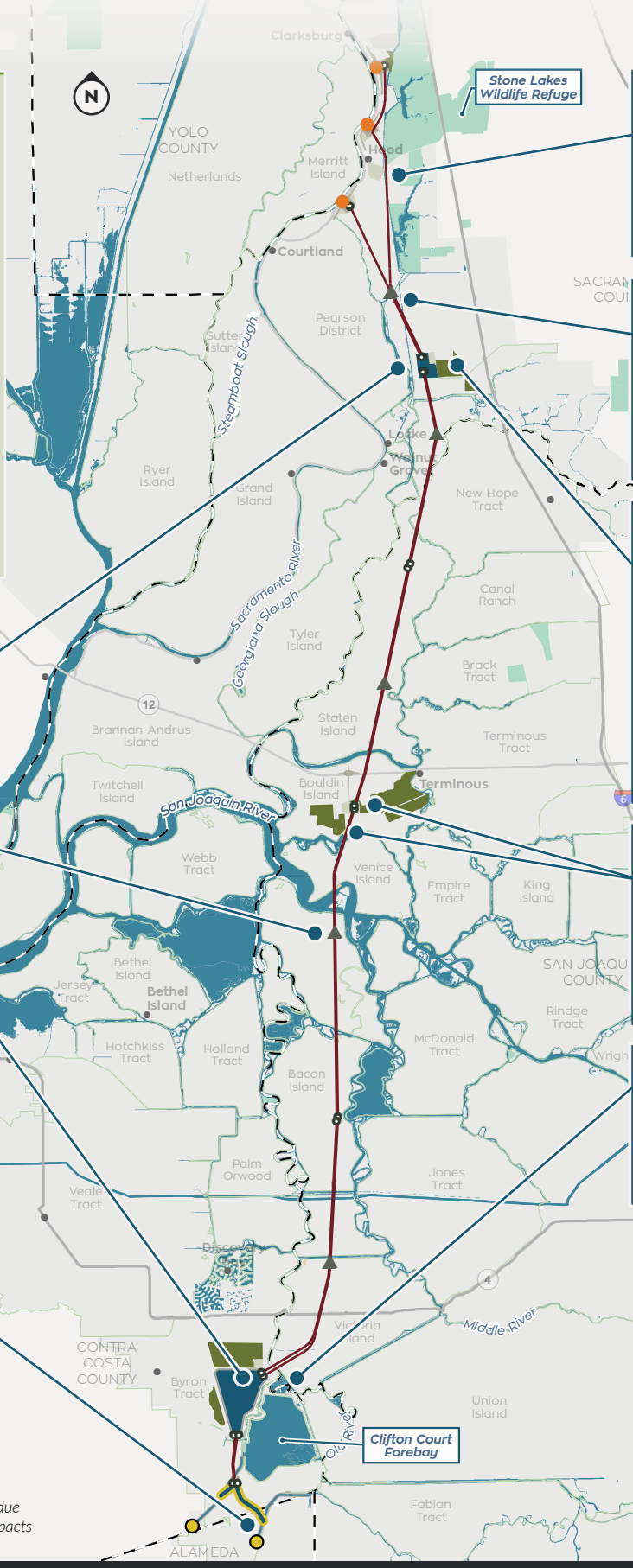
DESIGN REFINEMENTS & PROPOSED MODIFICATIONS

WaterFix will reduce permanent impacts to Delta wetlands by

MORE THAN **500** ACRES

And reduce temporary impacts to wetlands by

2,000 ACRES



Move the north tunnel alignment to the east, just outside the town of Hood instead of directly below it

BENEFITS: *Reduces potential impacts to the town of Hood*

Move power line alignment to use SMUD's existing transmission corridor*

BENEFITS: *Fewer powerlines required, improves aesthetics, reduces impact to birds, reduces need for large substation near the town of Courtland*

Consolidate the Reusable Tunnel Material (RTM) footprint near the Intermediate Forebay into a single site

BENEFITS: *Reduces impacts to Stone Lakes Wildlife Refuge, wetlands, and nearby agricultural activities; reduces construction impacts caused by truck traffic and improves operational efficiency; wetland impacts reduced by more than 50 acres*

Eliminate barge landing at Snodgrass Slough

BENEFITS: *Reduces barge traffic in the northern portion of the Delta; reduces impacts to wetlands*

Move a shaft site on Mandeville Island

BENEFITS: *Avoids wetlands*

Eliminate the Clifton Court Forebay modifications by moving the terminus of the main tunnels and forebay to a new location

BENEFITS: *Reduces impacts to wetlands, salmon, and smelt; improves construction access; reduces permanent impacts to wetlands by 270 acres and temporary impacts to wetlands by over 1,900 acres*

Eliminate the need to relocate a 500 kV and 230 kV transmission line from the Tracy substation

BENEFITS: *Reduces wetland impacts and eliminates unnecessary costs*

Optimize Bouldin Island activities by relocating shaft site, RTM, and barge landing

BENEFITS: *Reduces wetlands impacts by over 100 acres on Bouldin Island; reduces potential impacts to Delta navigation and recreation opportunities*

Move a pumping plant away from Kings Island

BENEFITS: *Reduces impacts to a residential neighborhood on Kings Island; reduces impacts to wetlands*

MAP LEGEND

- Forebay
- Reusable Tunnel Material Area
- Main Tunnels
- Main Construction Shaft
- Ventilation/Access Shaft
- Intake
- New canals
- Existing CVP and SWP pumps
- County Lines

** Previously implemented, not subject to further environmental review*

*** Map includes proposed footprint modifications due to ongoing optimization of the design to reduce impacts*