



## STAKEHOLDER ENGAGEMENT COMMITTEE (SEC)

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Abridged Presentation: RETRIEVAL AND MAINTENANCE SHAFT SITING ANALYSIS  
Presented at the February 26, 2020 Meeting

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# Siting Analysis Methodology

- Methodology is broken out into criteria and sub-criteria
- Sub-criteria are assigned an Importance Factor to reflect their weighting
- Smaller overall footprint for maintenance/reception shafts provides more flexibility in siting
- Criteria are based generally on design and construction considerations, including existing land uses
  - The CEQA process will consider existing land uses in more detail, as well as additional environmental resources

Criterion	Importance Factor (I)	Sub-Criterion	Explanation of Ranking
Construction Considerations	NA	Access Suitability	Y: Site within 100 miles of existing road. N: Site >100 miles from existing road.
	5	Quality of Adjacent Road	5: Adjacent to road with high rating. 4: Adjacent to road with moderate rating. 3: Adjacent to road with low rating (50' adjacent to levee with existing paved road on crown). 1: No road adjacent to site.
	5	Access Constraints	5: Access for maintenance/reception shaft construction is achieved with modest improvements to existing roads and bridges. 1: Access for maintenance/reception shaft construction requires major improvement or construction to existing roads, bridges, or structures.
	5	Concrete Source	Evaluation considers travel distance from nearest concrete facility. On-site batch plant may be required for travel times greater than 1.5 hours. 4 = 1 to 2 hours drive time 3 = 2 to 3 hours drive time 2 = 3 to 4 hours drive time 1 = 4 to 5 hours drive time
	4	Condition of Existing Levees	5: Area that does not need to be protected by levees OR has an estimated <1% mean annual probability of failure per Delta Risk Management Strategy. 4: Area protected by levees rated as Very Low Vulnerability OR has an estimated 1-5% mean annual probability of failure per Delta Risk Management Strategy. 3: Area protected by levees rated as Low Vulnerability OR has an estimated 5-10% mean annual probability of failure per Delta Risk Management Strategy. 2: Area protected by levees rated as Moderate Vulnerability OR has an estimated 10-20% mean annual probability of failure per Delta Risk Management Strategy. 1: Area protected by levees rated as High Vulnerability OR has an estimated >20% mean annual probability of failure per Delta Risk Management Strategy.
Geotechnical/ Geological	5	Geologic Unit	5: Area contains predominantly favorable deposits (identified by existing geologic mapping (public, confidential deposits)). 3: Area contains both favorable and unfavorable deposits (identified by existing geologic mapping (public, confidential deposits)). 1: Area contains only unfavorable deposits (identified by existing geologic mapping (public, confidential deposits)).
	5	Peat Thickness	5: Area contains <5 feet of peat. 4: Area contains 5-10 feet of peat. 3: Area contains 10-20 feet of peat. 1: Area contains >20 feet of peat.
Property and Land Use	NA	Conservation Land, Refuge, Preserve, and Vernal Pool Critical Habitat	Y: Area is greater than 1/4 mile from land designated as conservation land, refuge, preserve, or vernal pool critical habitat. N: Area is within 1/4 mile of land noted above.
	3	Number of Land Owners	5: Area contains single land owner. 3: Area contains >1 land owner.
	3	Future Development	5: Area not within current sphere of influence for cities in Sacramento, San Joaquin and Contra Costa counties. 1: Significant portion of area within current sphere of influence for cities within the counties noted above.
	3	Farmland Designation	5: No Farmland Designation. 3: Prime Farmland, Unique Farmland, Farmland of Statewide Importance, Farmland of Local Importance. 1: Williamson Act Farmland Security Zone.
Existing Infrastructure	NA	Existing Houses, Schools, Hospitals	Y: Site greater than 1/4 mile from existing residential structures and 1/2 mile from existing schools or hospitals. N: Site within 1/4 mile of existing residential structures or within 1/2 mile of existing schools or hospitals.
	3	Existing Linear Infrastructure (Aqueducts, Electrical Transmission, Gas Pipelines)	5: Area does not cross any existing linear infrastructure. 3: Area is slightly impacted by linear infrastructure (two near boundaries or not affected majority of area). 1: Area bisected by existing linear infrastructure.
	2	Existing Water Supply Wells	5: No record of water supply wells within the area. 1: Presence of water supply wells within the area.
	3	Existing Structures (Barns, Sheds, Solar, etc.)	5: No existing structures or stippled metal building equipment within area. 1: Structures present within the area.
	3	Gas Wells or Gas Oil Production Fields	5: No active or abandoned oil production field or gas wells within area. 1: Presence of active or abandoned oil production field or gas wells within area.



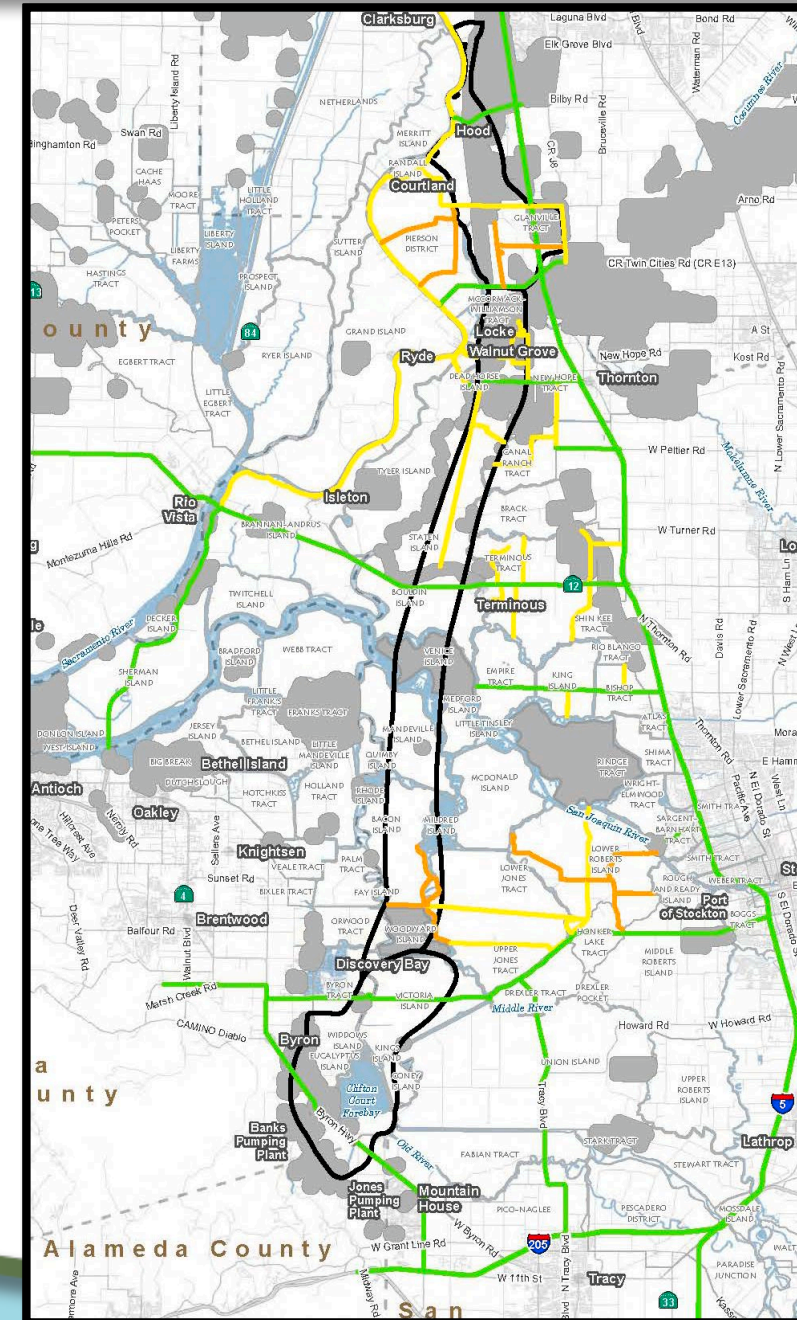
# Central Alignment

## • Maintenance/Reception Shaft Considerations:

- Within NOP Corridors
- Preferably within 1/8-mile of existing public road (outside grey areas)
- Greater than 1/4-mile from conservation land, refuges, preserves, and vernal pool critical habitat
- Greater than 1/4-mile from existing residential structures
- Greater than 1/2-mile from existing schools, hospitals
- 300-foot offset from existing levees

### Legend

- High Road Access
- Moderate Road Access
- Low Road Access



**DCA**  
DELTA CONVEYANCE DESIGN  
& CONSTRUCTION AUTHORITY

STAKEHOLDER ENGAGEMENT  
COMMITTEE (SEC)

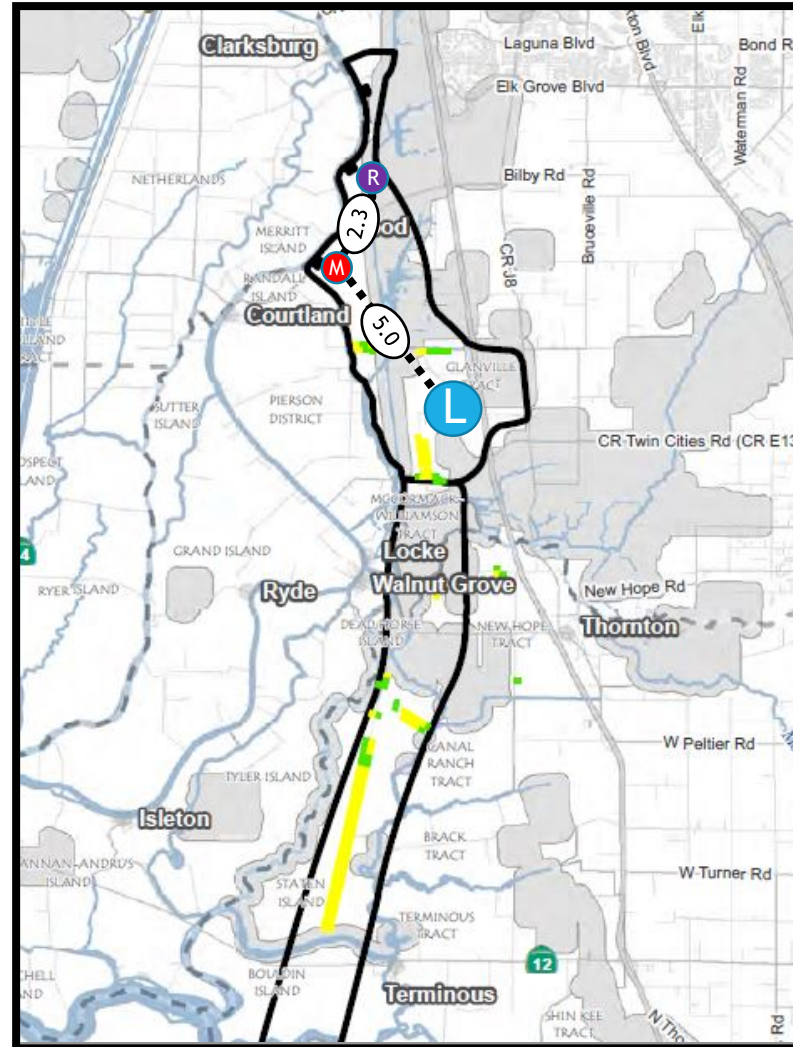
# Central Alignment - Maintenance/Reception Shaft Siting - Drive C/E-1a

## Maintenance/Reception Siting Study Legend

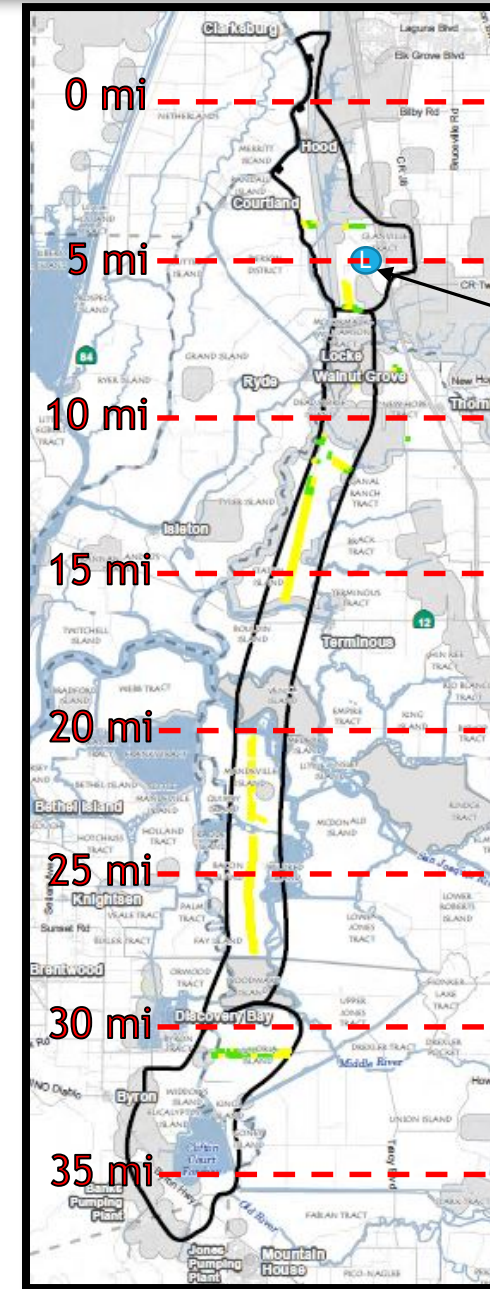
- Favorable
- Acceptable

## Shaft Legend

- L Launch
- M Maintenance
- R Reception



Site A to Intakes 5 & 3



Potential Launch  
Shaft Location



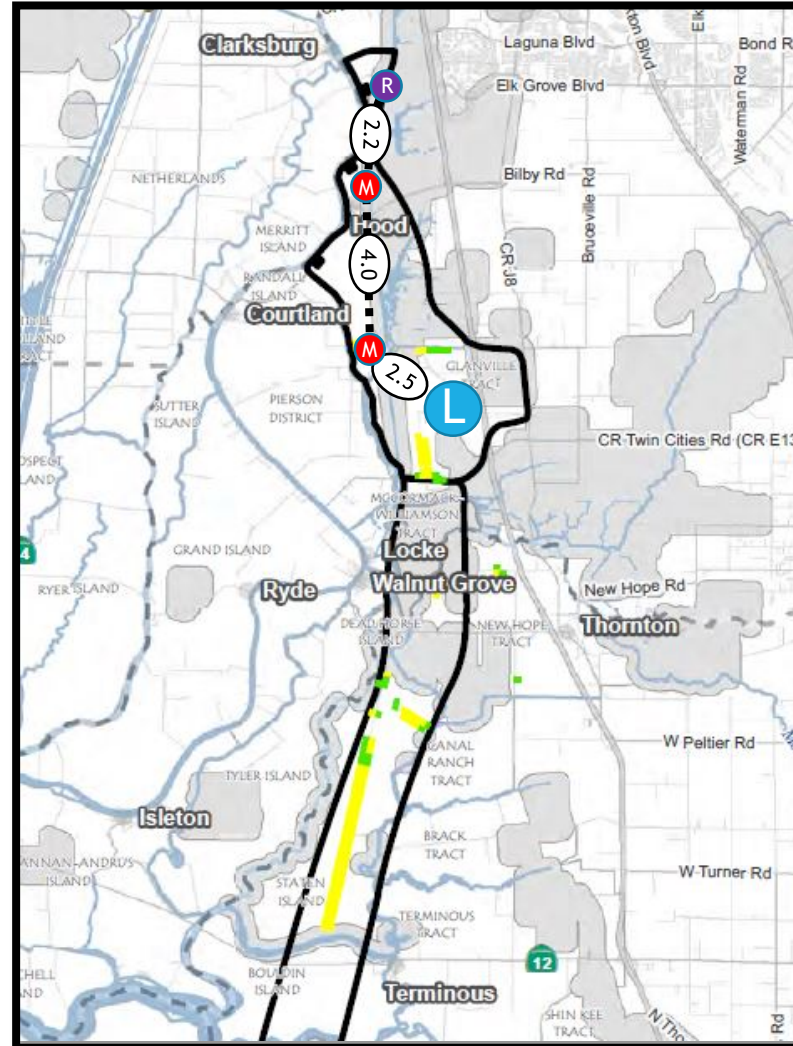
# Central Alignment - Maintenance/Reception Shaft Siting - Drive C/E-1b

## Maintenance/Reception Siting Study Legend

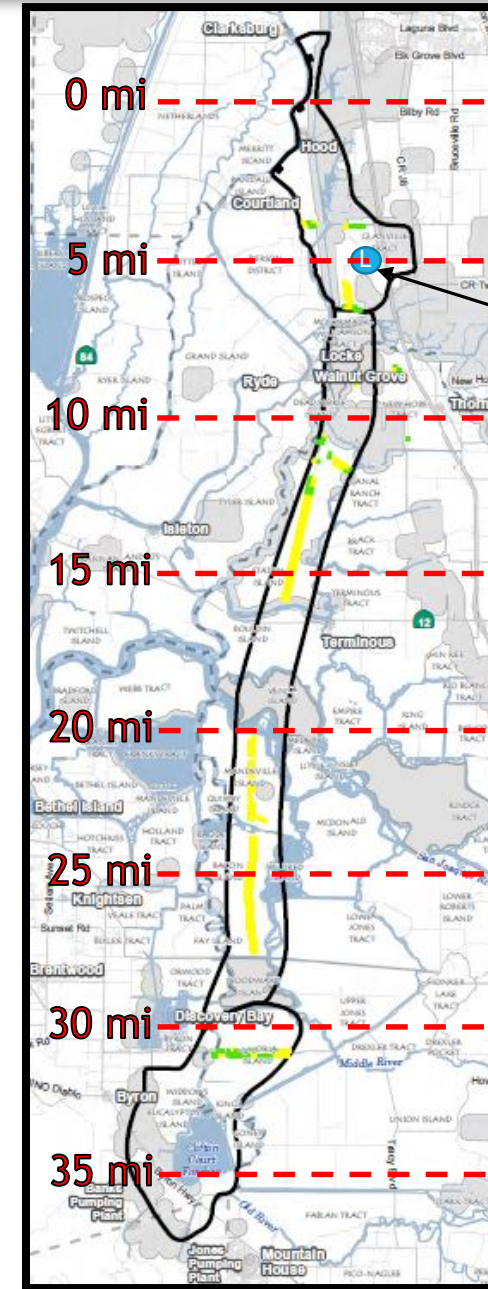
- Favorable
- Acceptable

## Shaft Legend

- L Launch
- M Maintenance
- R Reception



Site A to Intakes 3 & 2



Potential Launch  
Shaft Location

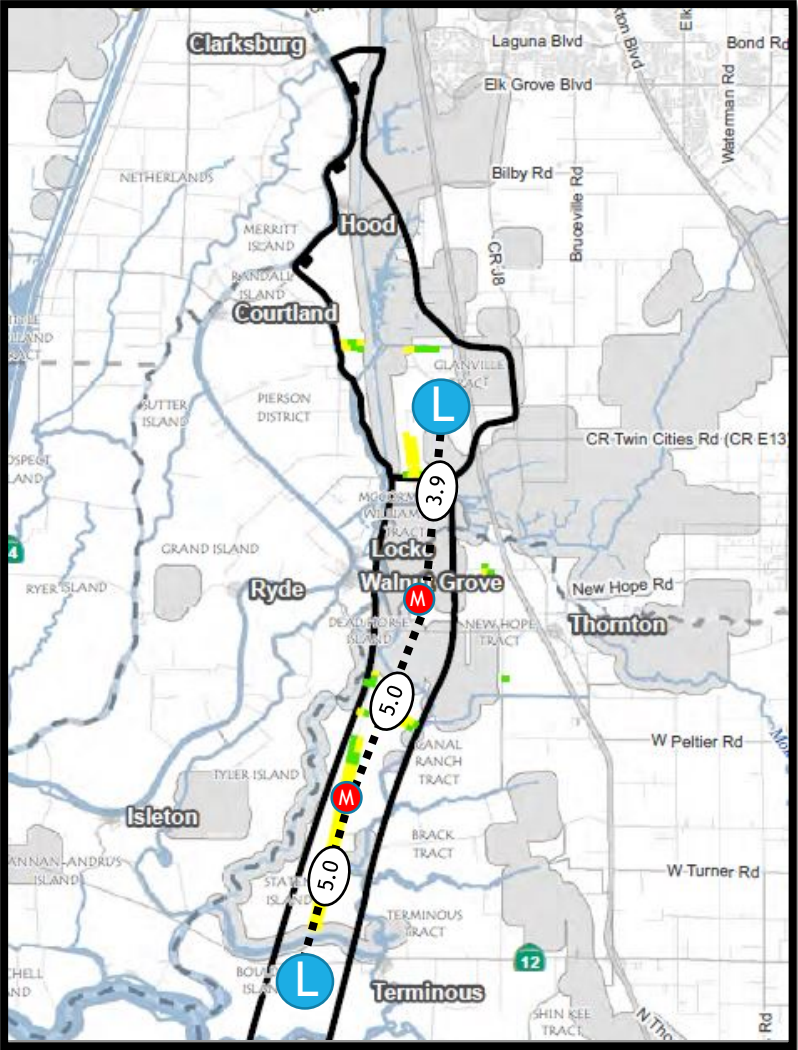
# Central Alignment - Maintenance/Reception Shaft Siting - Drive C-2

## Maintenance/Reception Siting Study Legend

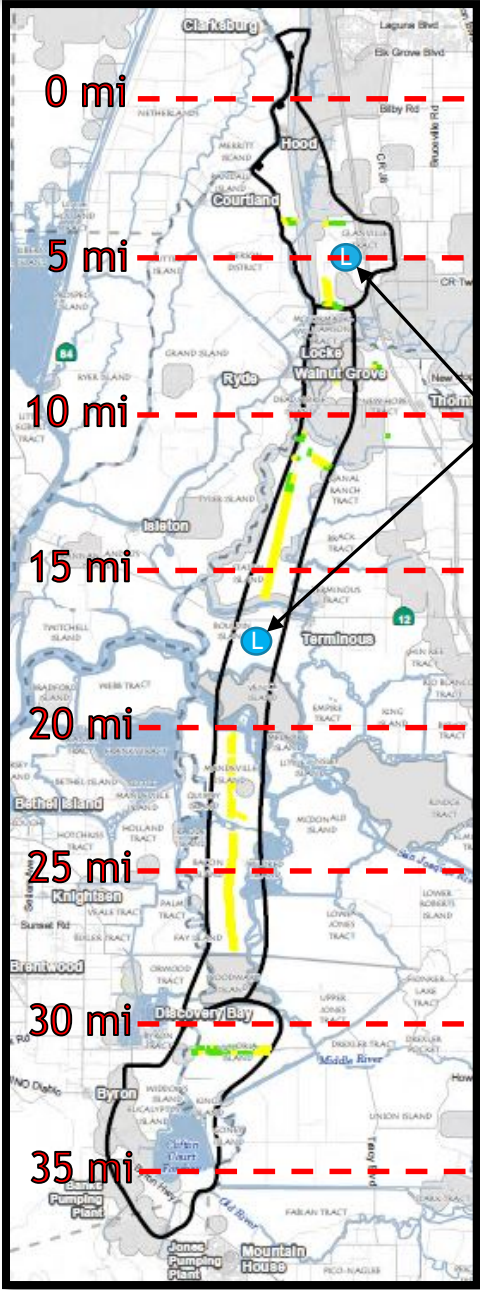
- Favorable
- Acceptable

## Shaft Legend

- L Launch
- M Maintenance
- R Reception



Site A to B & Site B to A



Potential Launch  
Shaft Locations



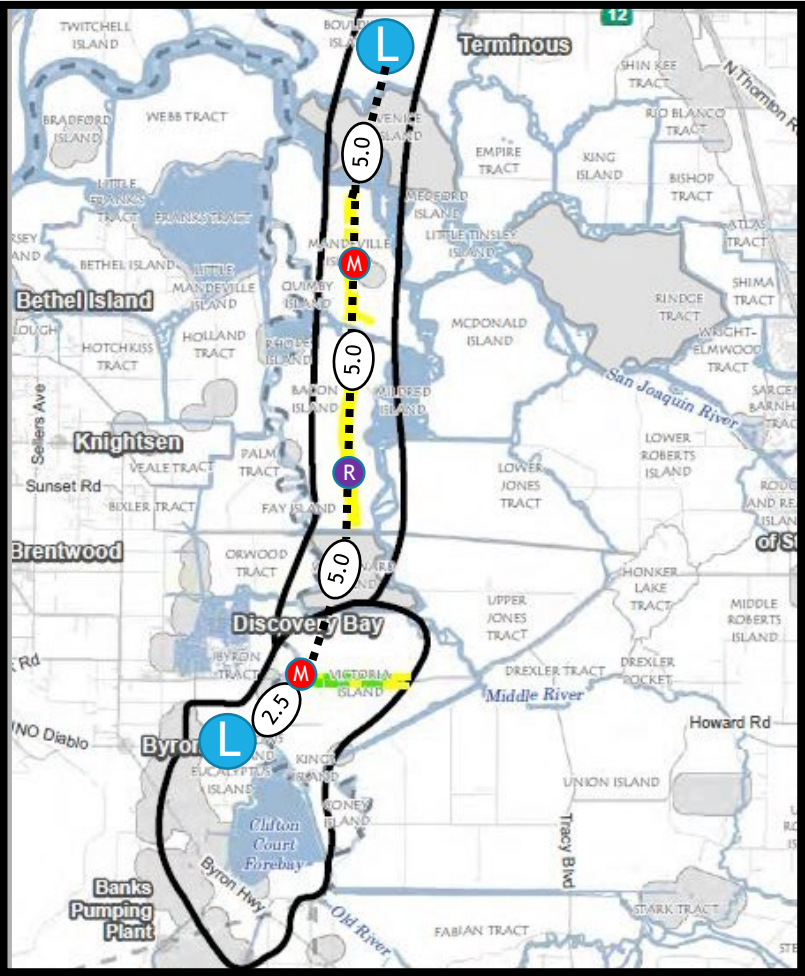
# Central Alignment - Maintenance/Reception Shaft Siting - Drives C-3 and C-4

## Maintenance/Reception Siting Study Legend

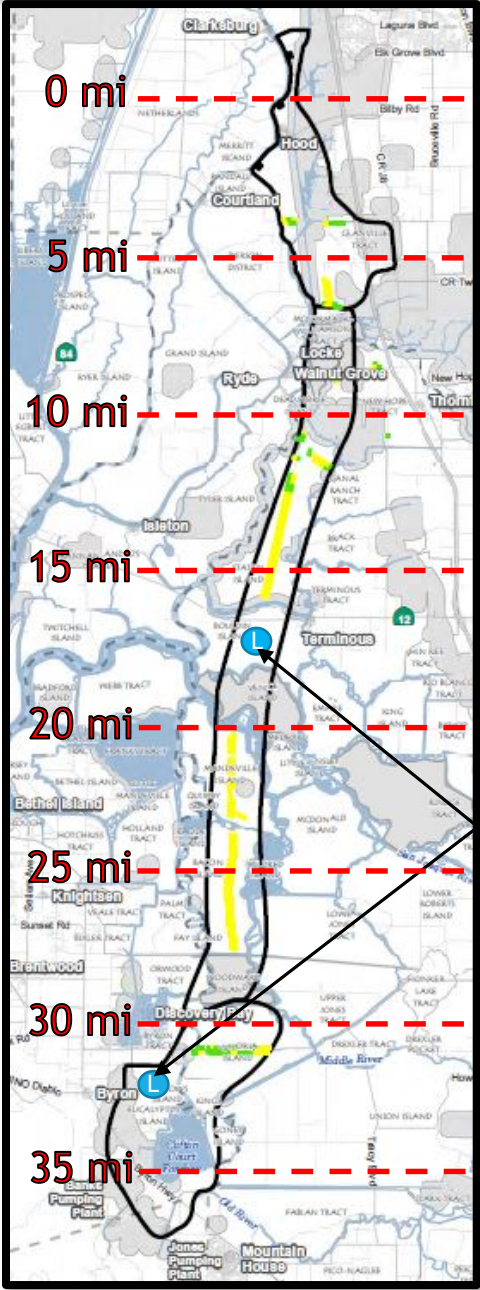
- Favorable
- Acceptable

## Shaft Legend

- L Launch
- M Maintenance
- R Reception



Southern Forebay & Site B to Bacon Island



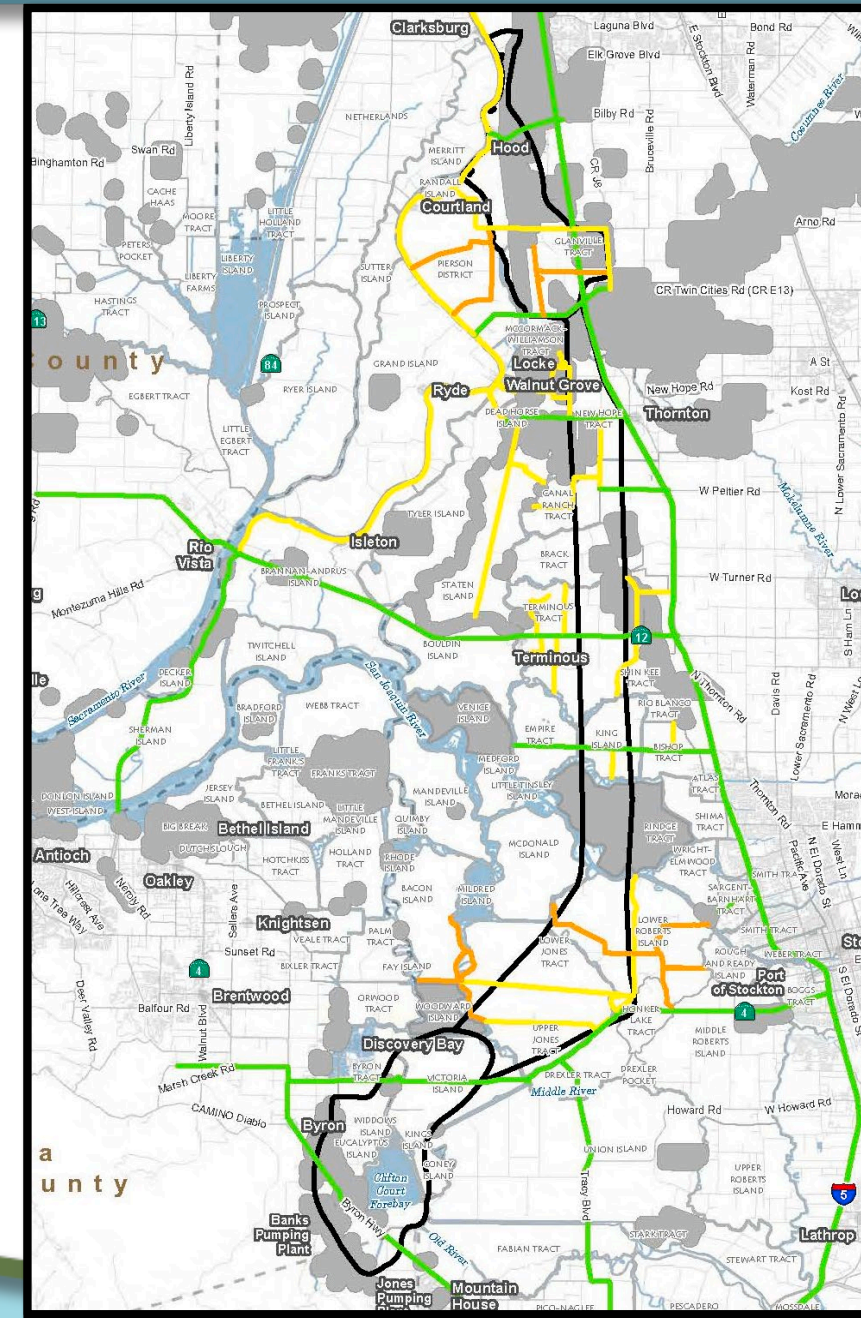
Potential Launch Shaft Locations

# Eastern Alignment

- Maintenance/Reception Shaft Considerations:
  - Within NOP Corridors
  - Preferably within 1/8-mile of existing public road (outside of grey areas)
  - Greater than 1/4-mile from conservation land, refuges, preserves, and vernal pool critical habitat
  - Greater than 1/4-mile from existing residential structures
  - Greater than 1/2-mile from existing schools, hospitals
  - 300-foot offset from existing levees

## Legend

- High Road Access
- Moderate Road Access
- Low Road Access





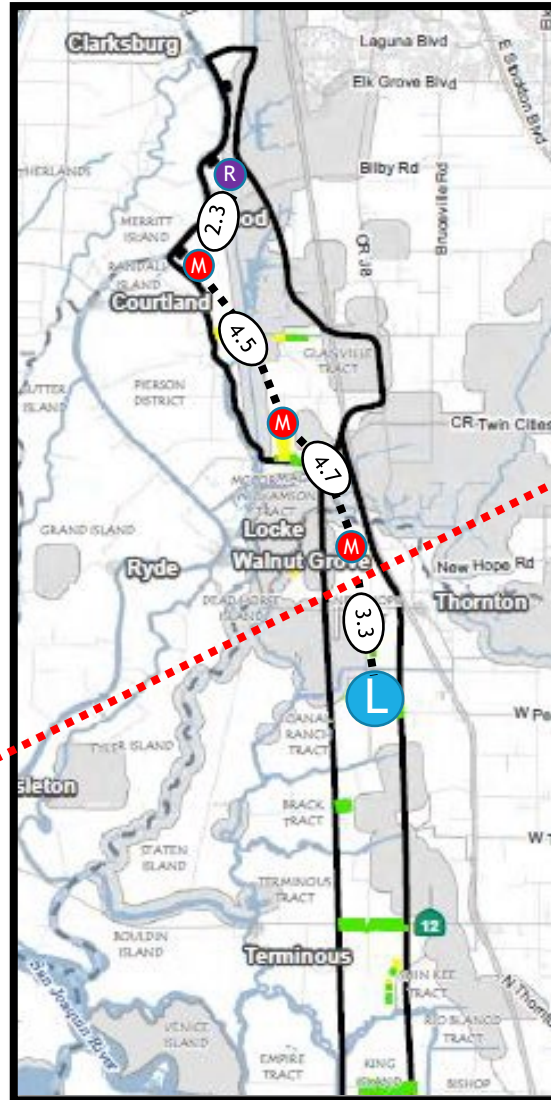
# Eastern Alignment -Maintenance/Reception Shaft Siting - Drive E-1c

## Maintenance/Reception Siting Study Legend

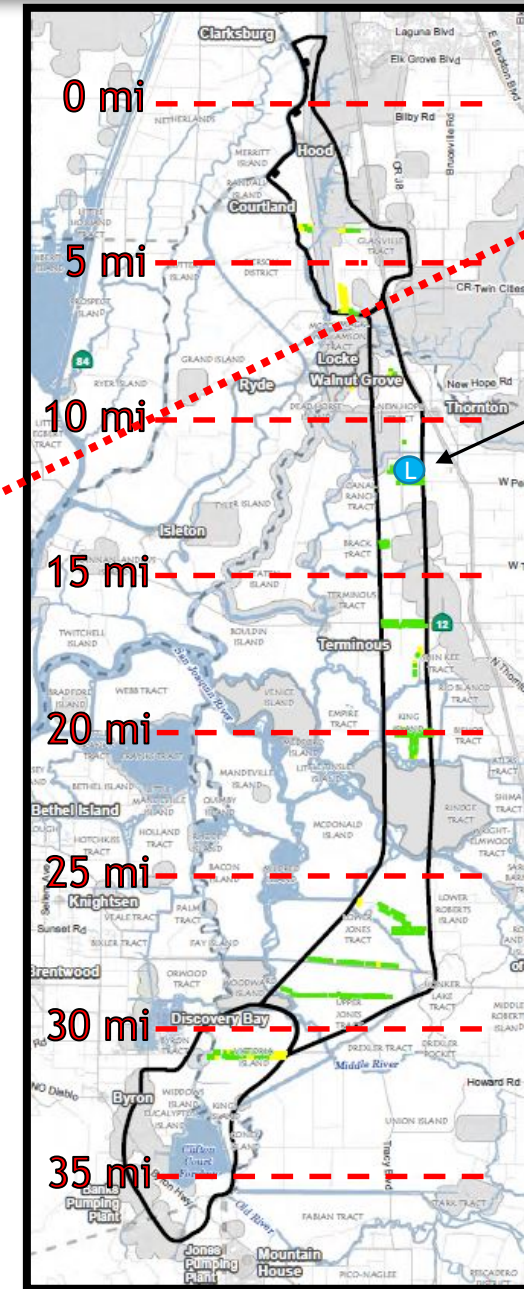
- Favorable
- Acceptable

## Shaft Legend

- L Launch
- M Maintenance
- R Reception



Eastern Site A to Intakes 5 & 3



Potential Launch  
Shaft Locations

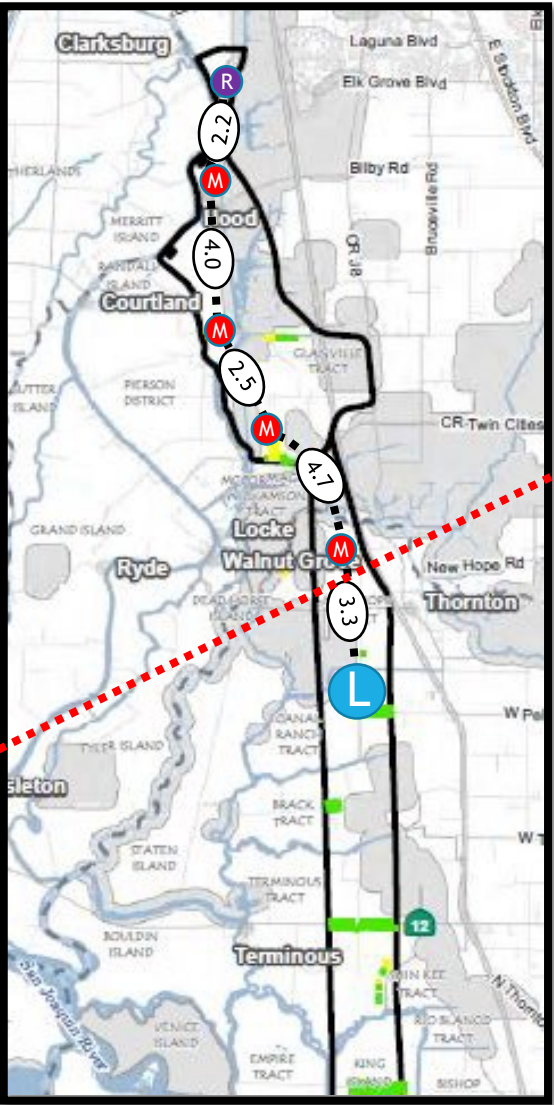
# Eastern Alignment -Maintenance/Reception Shaft Siting - Drive E-1d

Maintenance/Reception  
Siting Study Legend

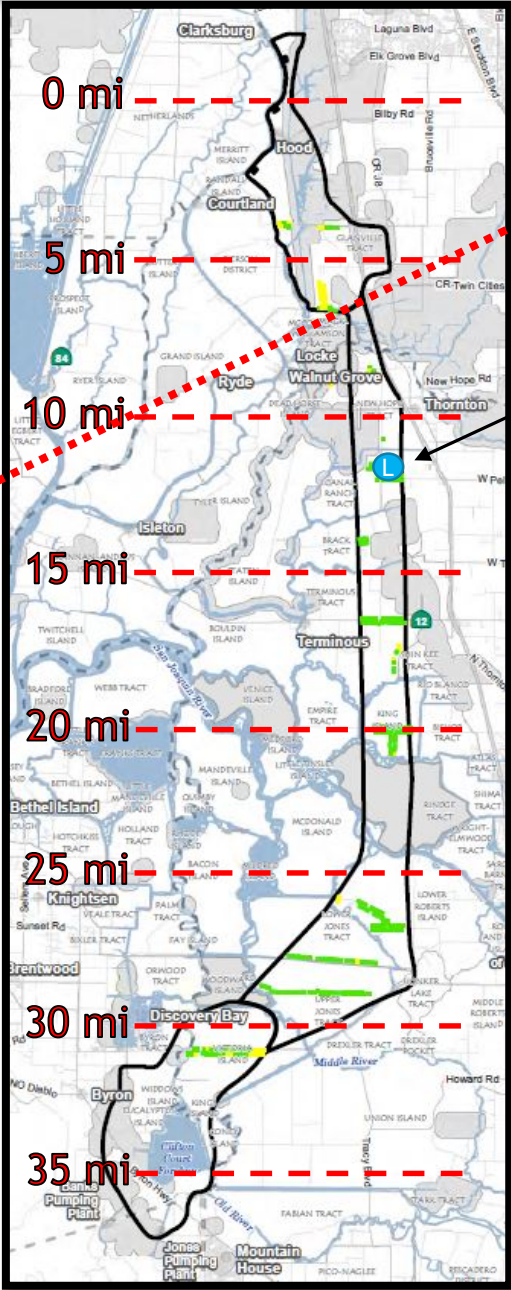
- Favorable
- Acceptable

Shaft Legend

- Launch
- Maintenance
- Reception



Eastern Site A to Intakes 3 & 2



Potential Launch  
Shaft Locations



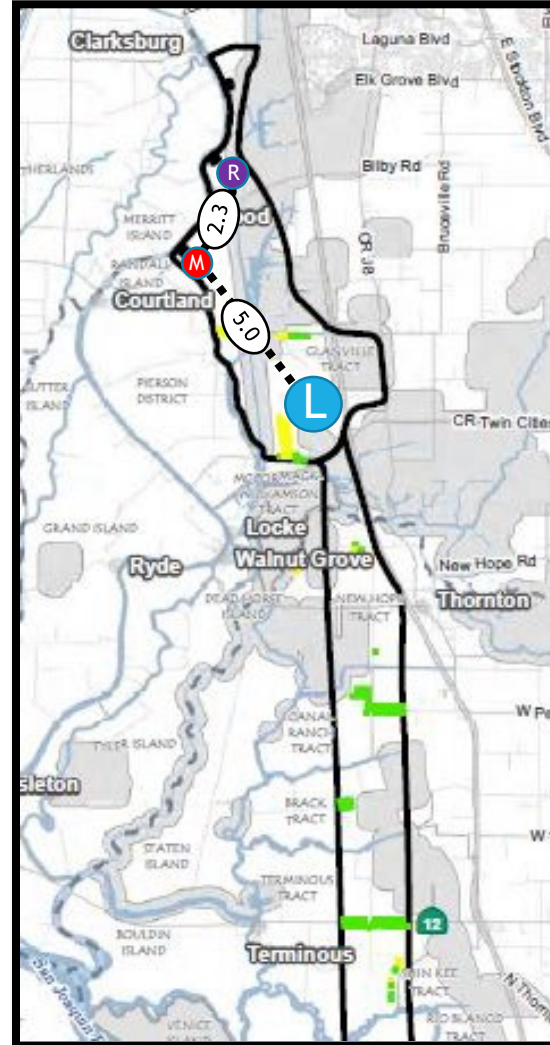
# Eastern Alignment - Maintenance/Reception Shaft Siting - Drive C/E-1a

## Maintenance/Reception Siting Study Legend

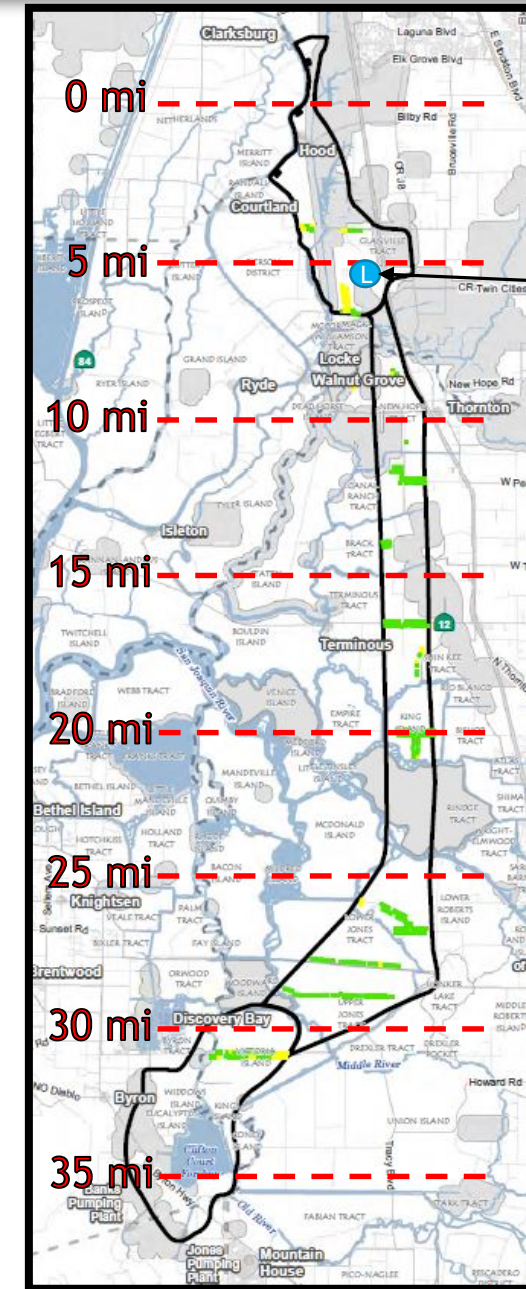
- Favorable
- Acceptable

## Shaft Legend

- L Launch
- M Maintenance
- R Reception



Central Site A to Intakes 5 & 3



Potential Launch  
Shaft Location

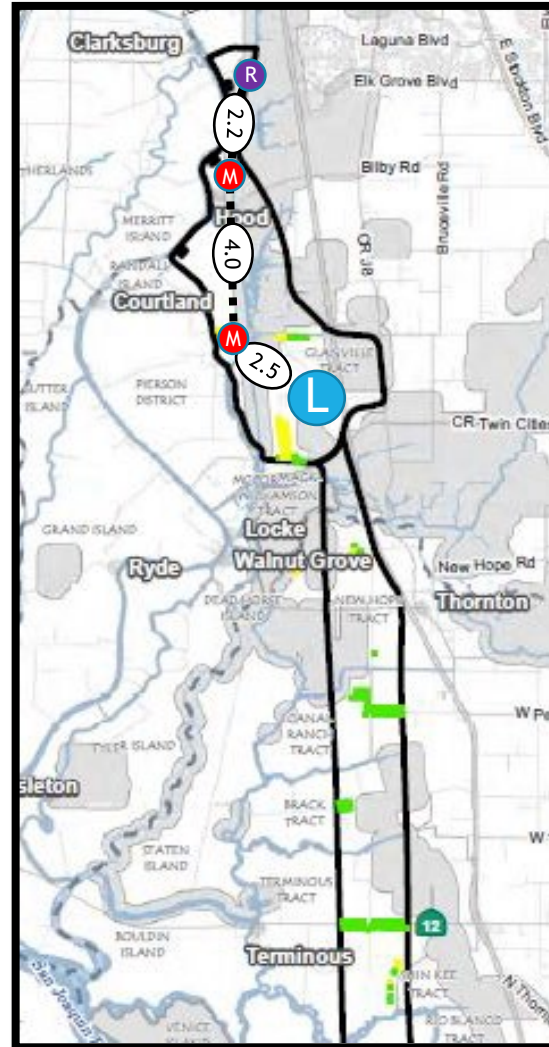
# Eastern Alignment - Maintenance/Reception Shaft Siting - Drive C/E-1b

## Maintenance/Reception Siting Study Legend

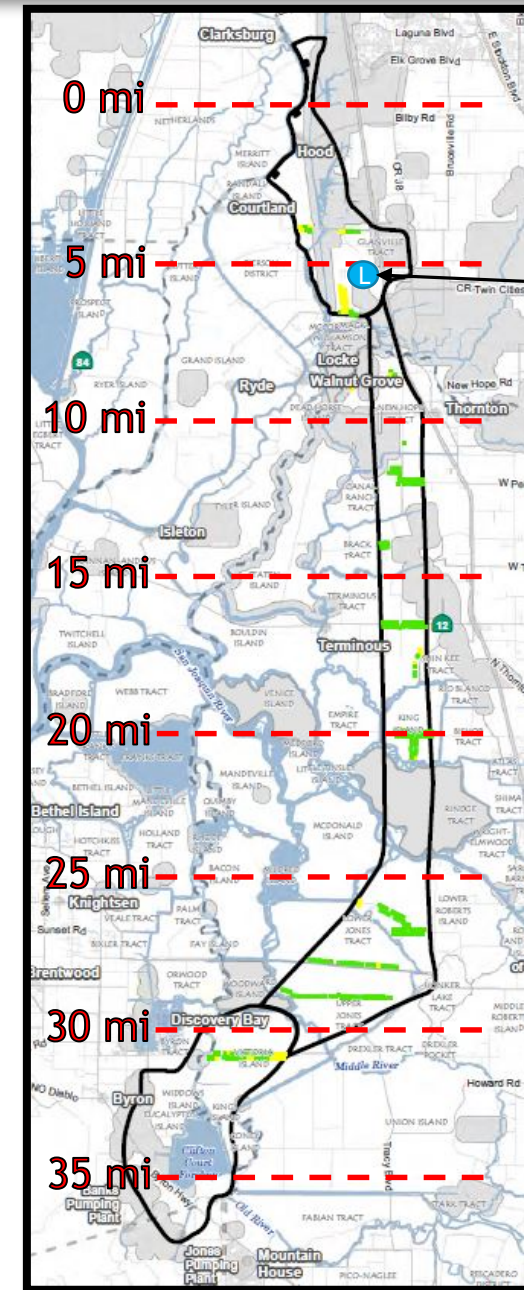
- Favorable
- Acceptable

## Shaft Legend

- L Launch
- M Maintenance
- R Reception



Central Site A to Intakes 3 & 2



Potential Launch Shaft Location



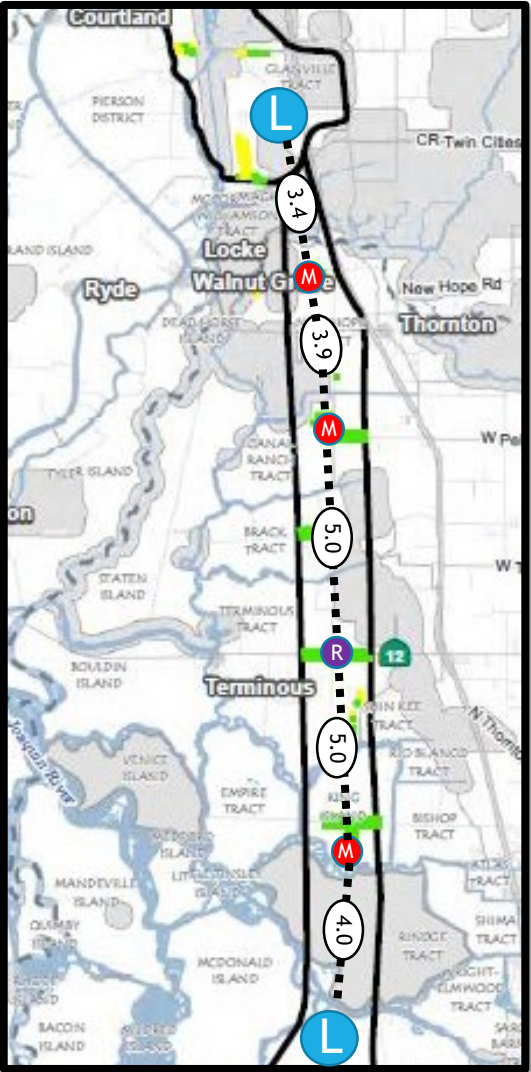
# Eastern Alignment -Maintenance/Reception Shaft Siting - Drive E-2 and E-3

## Maintenance/Reception Siting Study Legend

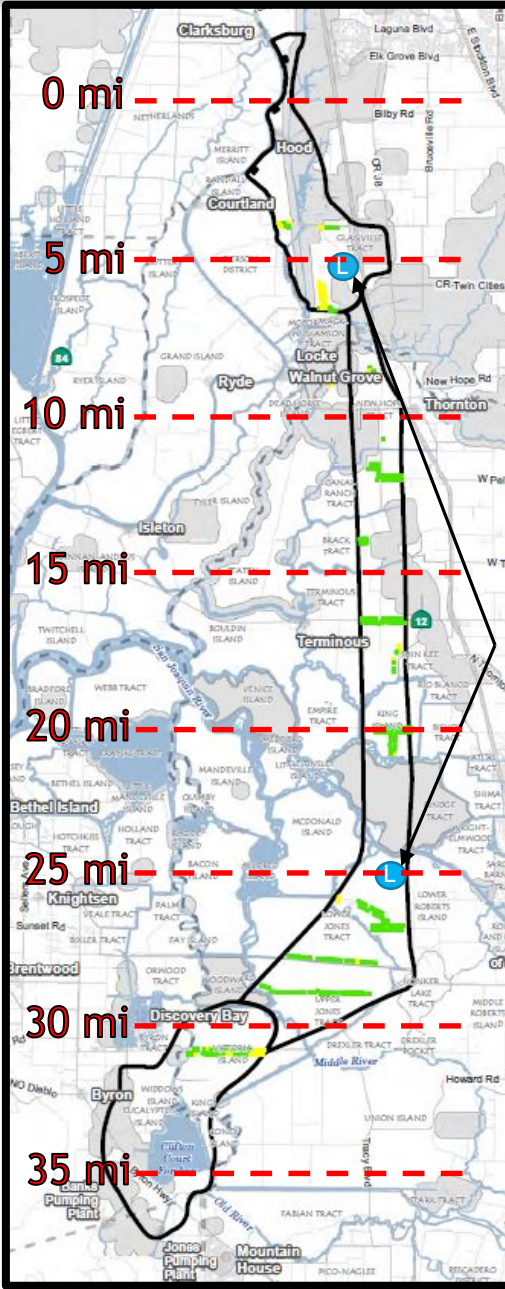
- Favorable
- Acceptable

## Shaft Legend

- L Launch
- M Maintenance
- R Reception



Central Site A & Site B to Hwy. 12



Potential Launch  
Shaft Locations

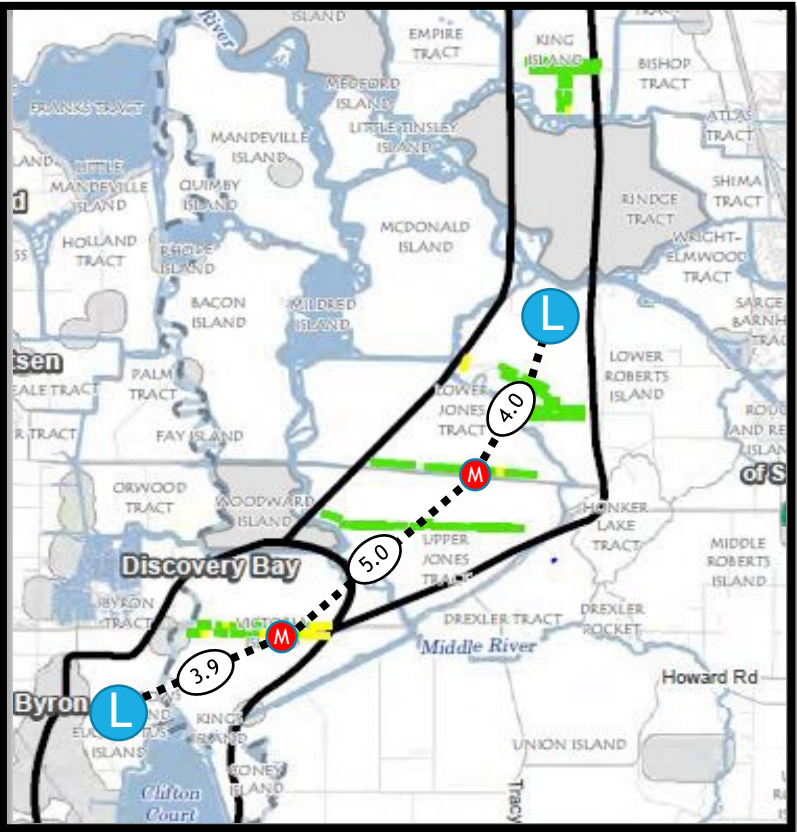
# Eastern Alignment - Maintenance/Reception Shaft Siting - Drive E-4

## Maintenance/Reception Siting Study Legend

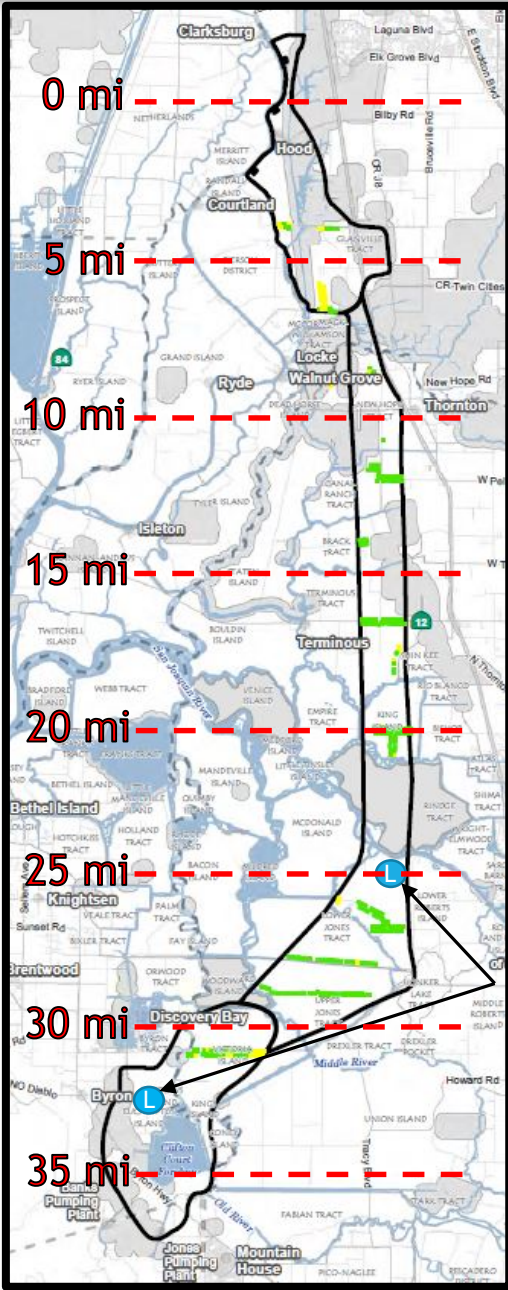
- Favorable
- Acceptable

## Shaft Legend

- L Launch
- M Maintenance
- R Reception



Southern Forebay to Site B



Potential Launch Shaft Locations