

# Sites Project Authority Wheeling Rate Study

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Reservoir Committee/Authority Board Meeting - December 20, 2024



**Water Resources  
Economics**

PROMOTING THE VALUE AND PRICE OF  
WATER SERVICE



# Agenda

- Wheeling rate study overview
- Preliminary methodology and results



# Wheeling Rate Study Overview

- Sites will utilize partner agencies' facilities to transport (i.e., “wheel”) water to and from Sites Reservoir
  - Partner agencies include:
    - Glenn-Colusa Irrigation District (GCID)
    - Tehama-Colusa Canal Authority (TCCA)
- A “wheeling rate study” is necessary to determine how Sites will fairly compensate partner agencies for use of facilities
- Study goal: Establish a wheeling rate methodology for each partner agency



# Wheeling Rate Study Status

- Study input provided by all three parties (GCID/ TCCA/ Sites)
- Preliminary wheeling rate models developed for GCID & TCCA
- Engagement:
  - 6 virtual meetings with all parties present (GCID/ TCCA/ Sites)
  - >10 additional virtual meetings with partner agencies and/or Sites
  - Presentation to Sites Reservoir Committee/Board Meeting on July 19th
  - Presentation to TCCA Board on Nov. 6<sup>th</sup>



# Draft Facilities Use Agreements Term Sheet

- Draft term sheets with partner agencies state the following:
  - Wheeling rates shall be based on the volume of water conveyed
  - Wheeling rates may recover both fixed and variable costs incurred by partner agencies (including additional costs resulting from winter diversions to Sites)
  - Sites may schedule and purchase its own power associated with wheeling deliveries
  - Capital improvement projects developed to serve Sites will be handled separately from the wheeling rate study



# Wheeling Rate Study Challenges

- Actual wheeling rates will not be effective until Sites is operational
- All preliminary wheeling rate calculations are “theoretical” rates (i.e., as if Sites were already operational)
- Difficult to understand how changes over the next 5-10 years may impact actual wheeling rates in the future
- Lack of availability of GCID Main Canal construction costs



# Wheeling Rate Methodology Process

1. Identify which partner facilities will be utilized by Sites
2. Understand how and when partner facilities will be utilized by Sites
3. Establish a wheeling rate methodology that accounts for both:
  - a) Operations & maintenance (O&M) costs
  - b) Capital repair & replacement (R&R) costs



# Sites' Use of Partner Agency Facilities

Sites Use of Partner Facilities	1. Diversions to Sites via TCCA	2. Releases from Sites via TCCA	3. Diversions to Sites via GCID
<b>TCCA Facilities</b>			
Red Bluff Pumping Plant and Fish Screen	X		
Tehama-Colusa Canal (upstream of Funks Reservoir)	X		
Tehama-Colusa Canal (downstream of Funks Reservoir)		X	
Funks Reservoir	X	X	
<b>GCID Facilities</b>			
Hamilton City Pumping Plant and Fish Screen			X
GCID Main Canal			X





# Sites' Use of Partner Agency Facilities (cont.)

- Sites will primarily divert during winter months when partner agency deliveries are low, but there may still be overlap
  - **Deliveries to partner agency customers will have priority over Sites**
- Sites' winter diversions are expected to result in higher canal maintenance costs:
  - Increased need for canal dredging (due to turbid winter diversions to Sites)
  - Smaller time window for winter canal maintenance
  - Increased weed abatement/regulatory compliance/etc.



# Wheeling Costs

- Sites would contribute to the following partner agency expenses:
  1. Existing operations & maintenance (O&M) expenses
  2. Existing capital repair & replacement (R&R) expenses
  3. Incremental O&M cost increases due to conveying Sites water (e.g., increased canal dredging)



# Proposed Wheeling Rate Methodology

Wheeling Rate Component	TCCA Wheeling Rate Methodology	GCID Wheeling Rate Methodology
1. Fair Share of existing O&M	TCCA's 2024 budget was evaluated to identify existing O&M expenses in which Sites would share	GCID's existing wheeling rate for deliveries to National Wildlife Refuges was modified based on Sites' proportional use of the system
2. Fair share of existing capital R&R	TCCA's facilities/infrastructure were evaluated to estimate annualized capital R&R in which Sites would share	GCID's existing wheeling rate for deliveries to National Wildlife Refuges was modified based on Sites' proportional use of the system
3. Incremental O&M cost increases due to Sites	Sites to fund a reserve held by TCCA to cover additional canal dredging/other cost increases due to Sites	Sites to fund a reserve held by GCID to cover additional canal dredging/other cost increases due to Sites



# Proposed Wheeling Rate Structure

- Proposed Sites wheeling rate structure:
  - 1) Existing O&M and capital R&R components:
    - Levelized payments based on assumed average diversions to and releases from Sites (with potential for adjustments at the end of each 5-year period or sooner)
  - 2) Incremental cost increases recovered via Sites' funding of new reserve



# Proposed “Credit” Methodology

- Proposed “credits” system assumes Sites will:
  - Divert 100,000 AFY via GCID
  - Divert 150,000 AFY via TCCA
  - Release 250,000 AFY via TCCA
- Actual diversions/releases may vary considerably from annual “credits”
- Unused “credits” can be carried over to future years
  - Provides predictability of revenue for partner agencies and cost for Sites
- Potential adjustment of credits may be needed after 5 years



# Sample Wheeling Payments to TCCA

- Existing O&M and capital R&R: Based on credits for 150,000 AFY in diversions & 250,000 AFY in releases
- Incremental Costs:  
Dedicated reserve held by TCCA to be replenished by Sites when drawn upon to cover additional canal dredging costs, etc.

	<i>Annual Cost Escalation</i>					
		4.5%	4.5%	4.5%	4.5%	
<b>Description</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>	<b>5-Year Total</b>
<b>Sites Diversions</b>						
Existing O&M	\$364,793	\$381,209	\$398,363	\$416,290	\$435,023	<b>\$1,995,677</b>
Existing Capital R&R	\$776,264	\$811,196	\$847,700	\$885,846	\$925,709	<b>\$4,246,716</b>
Incremental Costs	TBD	TBD	TBD	TBD	TBD	TBD
<b>Subtotal</b>	<b>\$1,141,057</b>	<b>\$1,192,405</b>	<b>\$1,246,063</b>	<b>\$1,302,136</b>	<b>\$1,360,732</b>	<b>\$6,242,393</b>
<b>Sites Releases</b>						
Existing O&M	\$304,638	\$318,347	\$332,673	\$347,643	\$363,287	<b>\$1,666,588</b>
Existing Capital R&R	\$121,118	\$126,568	\$132,263	\$138,215	\$144,435	<b>\$662,599</b>
Incremental Costs	TBD	TBD	TBD	TBD	TBD	TBD
<b>Subtotal</b>	<b>\$425,756</b>	<b>\$444,915</b>	<b>\$464,936</b>	<b>\$485,858</b>	<b>\$507,722</b>	<b>\$2,329,187</b>
<b>Total</b>	<b>TBD</b>	<b>TBD</b>	<b>TBD</b>	<b>TBD</b>	<b>TBD</b>	<b>TBD</b>



# Sample Wheeling Payments to GCID

- Existing O&M and capital R&R: Based on credited diversions of 100,000 AFY
- Incremental Costs: Dedicated reserve held by GCID to be replenished by Sites when drawn upon to cover additional canal dredging costs, etc.

	<i>Annual Cost Escalation</i>					
		4.5%	4.5%	4.5%	4.5%	
Description	Year 1	Year 2	Year 3	Year 4	Year 5	5-Year Total
Existing O&M and Capital R&R	\$2,564,936	\$2,680,358	\$2,800,974	\$2,927,018	\$3,058,733	<b>\$14,032,018</b>
Incremental Costs	TBD	TBD	TBD	TBD	TBD	TBD
<b>Total Wheeling Payment</b>	<b>TBD</b>	<b>TBD</b>	<b>TBD</b>	<b>TBD</b>	<b>TBD</b>	<b>TBD</b>



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