Special Operations & Engineering Workgroup

June 10, 2026

Sites

Agenda

1.1 – Budgetary Considerations for the Lower CBD within Baseline Report

Engineering and Construction Manager’s Report

Agenda Item 1.1

Budgetary Considerations for the Lower CBD within Baseline Report

Rob Natoli

Downstream Evaluations to be done before Investor Commitment

- Achieve a **Letter of Mutual Understanding** that:
  - Is signed by willing parties, Authority included
  - Identifies anticipated project operations,
  - Documents existing concerns that will need to be addressed in final agreements,
  - Establishes a non-binding commitment to work cooperatively to execute final agreements on a schedule that aligns with project implementation
- **Finalize a tech memo** that lays out the scope, schedule , and budget for extending the Dunnigan Pipeline to the River to represent the contingency plan.
- **Develop itemized cost estimate** for CBD improvements rather than using a contingency (refined)
- Enter into an **Operations Services Agreement with RD108** for operations of the Lower Colusa Basin Drain System (incl. Dunnigan Pipeline, Upper/Middle/Lower Reaches, KLOG) and **include an estimate of $5-15 per acre foot in updated plan of finance for this service**
- **Add assumption for losses** in CBD to operations model
- **Verify that modeled local facility capacity** is adequate and understand opportunities for increased capacity at times to accommodate planned Sites releases

Letter of Mutual Understanding (LOMU)

- LOMU Signed by RD 108, Colusa Basin Drainage District, and Knights Landing Ridge Cut
- Separate MOU terms substantially agreed to between Sites and Colusa Basin Mutual Water Company
- No Landowner LOMU signatures, but all major agencies for Lower CBD have agreements with Sites

Tech Memo for Scope, Schedule, and Budget for Extending the Pipeline to the Sacramento River

- Draft TM provided by Jacobs, reviewed by Sites Team, and currently being Finalized
- Will be attached to Baseline Report Appendix and provide the scope, schedule, and budget items associated with the contingency plan of a pipeline to the river
- Tech Memo Title: Conveyance Capacity TM

Itemized Cost Estimate for Lower CBD

- Flowage Agreements
- KLOG Improvements
- Wallace Weir Improvements

Flowage Agreements

Impacted CBD Length (miles)	Average CBD Width (ft)	Total Area for CBD Flowage (Acres)	Fully Loaded Cost/acre*	Total Cost Estimate
25	100	300	$15,000	$4.5m

*Includes costs for survey, execution, and development of the flowage agreements. Actual value per acre of flowage agreement expected to be lower than $15,000 and be based on property assessment and flowage easement details

KLOG, Wallace Weir, and Other Miscellaneous CBD Improvements

- Improvements to KLOG stage gages for flow measurement
- KLOG Flap Gate monitoring
- Improvement and adjustment of Wallace Weir stage gages
- Site security improvements
- Localized drainage improvements, as needed

**May be completed through RD 108 Operations Agreement*

Total Lower Colusa Basin Drain Itemized Costs

Description	Cost
Flowage Agreements	$4,500,000
KLOG, Wallace Weir and Miscellaneous improvements	$2,000,000
Totals	$6,500,000

These itemized capital costs do not impact the $6.2b – $6.8b (2024 dollars) management budget or the $7.5b governance budget

RD 108 Operations Agreement

- Meeting with RD 108 on May 26th to review Operations Agreement
- RD 108 comments on updated draft are pending
- Scope of O&M support detailed on the Lower CBD annualized costs slide to follow

Annual Costs: Operations and Maintenance

- Read flow meters / check installation on pumps taking water out of the CBD from Balsdon Weir to KLOG
- Oversight/coordination/management support of Colusa Basin Drain operations and maintenance in conjunction with Sites project
- Maintenance Activities: Weed abatement, Lower CBD access and facility maintenance, minor improvement projects
- Cost assumptions include payment for 2-3 full time employees, equipment costs, and contingency
- New O&M work not included in previous plan of finance

Lower CBD Losses

Loss Sources
Evapotranspiration of vegetation within the CBD
Measurement limitations
Unauthorized take
Seepage through west berm
Overflow onto adjacent lands
Start up filling of Lower CBD
Into Ground seepage in CBD/KLRC

The only measurable water loss in the CBD is the filling of the channel (CBD and KLRC) from empty which is about 2,600 ac-ft. The KLOG structure at the downstream end must maintain the setpoint to keep a set pool in the CBD per the Hershey Agreement. In a critically dry year the CBD/KLRC can be dry. Project water must fill the CBD/KLRC up to this setpoint before the KLOG gates will begin to open, allowing water to flow to the Sacramento River. Other losses are uncertain.

Experienced In Critically Dry Years Only

Missed Opportunity Costs

- Missed Opportunities where Project water cannot be discharged into CBD occur when:
  - Flap Gate Closures on the downstream side of the KLOG structure when Sacramento River is High (this could occur during operational window during a Wet water year)
  - There is existing high flow during rice field drainage season (end of August and early September) and project flow cannot fit in the conveyance capacity of the CBD.

Total Lower Colusa Basin Drain Itemized Annual Costs

Items included in Annual Costs
O&M Costs
1% Water Losses
Critically Dry Year Additional Losses
Missed Opportunity Costs

At an average annual flow through Lower CBD of 138,000 AF/year, **the total conveyance cost for the Lower CBD is estimated to be $33/AF and covers the list of items above. This is the recommended value to carry in the Plan of Finance.**

Lower CBD Losses Not Included in the Operations Model

- Losses for Lower CBD are not incorporated into the Operations Model due to:
  - Water losses are unknown and iterative exercise to determine
  - Sites Storage Partners are already addressing losses through carriage water considerations
  - CVP/SWP/Sites Ops Agreement identifies an approach for these losses that is challenging to model
  - Putting these into the model may have longer-term implications
- Costs captured in annual Lower CBD $/AF costs that are proposed to be included in the Plan of Finance

Lower CBD Modeled Capacity

- Current estimate of the Lower CBD channel capacity is 1,500-1,600 cfs based on modeling to date
  - Lower CBD flows are in the 0 – 1,000 cfs range during April 1 through November 30 (outside of rice drainage spikes and spring/fall storms)
- Need for additional flow/stage monitoring and cross sections to calibrate/refine model and verify the model results
- Additional Conveyance Note: Capacity analyses of the TC canal and GCID canal are included in the Conveyance Capacity TM

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Baseline Report Cost Considerations

- Lower CBD included in Baseline. Aligns with project CEQA/NEPA and permitting and has been shown to be feasible.
- Pipeline to River scope, schedule, and budget information will be included in the attachment Conveyance Capacity TM
- No change proposed to management budget/governance budget due to Lower CBD
- Plan of Finance will incorporate the $33/AF conveyance costs

Engineering and Construction Manager's Report

JP Robinette

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- Future Topics

Questions?

Sites

Thank you!

Upcoming Meetings:

Reservoir Committee and Authority Board:
Friday July 24 – 9 am to 12 pm

O&E Workgroup:
Wednesday July 8 – 1:30 to 3:30 pm