



## MEMORANDUM

**To:** CCBWQA Board of Directors  
**CC:** Jane Clary, Wright Water Engineers, CCBWQA Technical Manager  
**From:** Elysa Loewen, Pollution Abatement Project Manager  
**Date:** July 17, 2025  
**Subject:** East Shade Shelter Stabilization Project – Project Summary

### Project Background:

The East Shade Shelter stabilization project is located along East CCSP Road in the Cherry Creek State Park approximately ¼ mile from the East Boat Ramp and just south of the Smoky Hill Trail. The project area is isolated to the north portion of the East Shade Structures (See Figures 1 & 2). This project was identified as a pollution abatement project in 2014. RESPEC was selected as the design consultant for the project in May 2021 which included both the East Shade Shelter (Phase III) and Tower Loop (Phase II). In 2022, the Tower Loop Phase II Project was reprioritized and moved to the future funding date of 2032; and the East Shade Shelter Stabilization project moved forward.

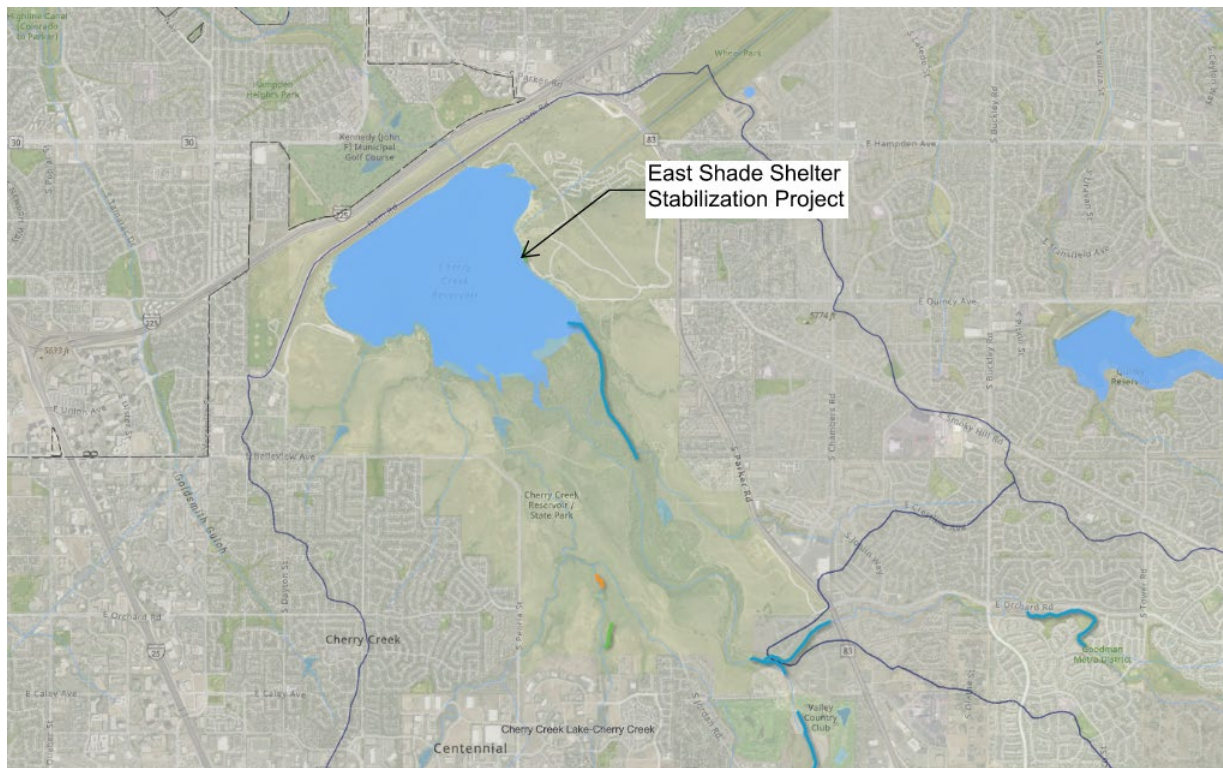


Figure 1: Project Vicinity Map (1 of 2)



Figure 2: Project Vicinity Map (2 of 2)

### **Existing Conditions**

Water quality issues associated with the existing conditions of the project area included shoreline erosion and instability (due to ice and wave action over time), pedestrian sites use erosion, runoff erosion and concentrated flows. Figures 3 – 5 show the existing conditions and examples of the erosion prior to the restoration efforts at the project site.



Figure 3: Vertical Cut Bank (North Project Area)



*Figure 4: Vertical Cut Bank (South Project Area)*



*Figure 5: Pedestrian Site Use Erosion*

## Design Approach

The goals of the project were as follows:

- Improve the water quality at the project site through shoreline/bank stabilization through restorative measures and improved vegetation cover.
- Minimize the risk of waves, ice and surface runoff and erosion caused by pedestrian traffic by stabilizing banks with riprap (fieldstone), soil riprap, grouted boulder walls where needed.
- Isolating pedestrian access to designated areas and preserving native vegetation.
- Use of natural materials that require minimized maintenance

*Soil riprap*

*Riprap & Boulders*

*Native vegetation*

*Willow Stakes*

## Construction

Construction on the East Shade Shelter Project began on February 24, 2025, and the project was completed by June 24, 2025, by 53 Corporation LLC.

## Funding

The project was funded by CCBWQA with cost sharing from CPW, the summary of total project funding as authorized and expected at the end of the project is summarized below:

<b>Total Project Expenditures:</b>	<b>Authorized</b>	<b>Total Projected</b>
Design and Construction Support Services	= \$196,661.96	\$196,661.96
Construction*	= \$389,691.30	\$320,305.00
CPW Reimbursement/Cost Share	= (\$133,000)	(\$133,000)
<b>Total CCBWQA Project Contribution (%)</b>	<b>=\$453,353.26 (77%)</b>	<b>\$383,966.96 (74%)</b>

\*Includes 30% contingency and GESC Fee reimbursement

## Water Quality Benefits

The proposed shoreline stabilization benefits the water quality in Cherry Creek Reservoir by reducing bank erosion which immobilizes phosphorus in the adjacent soils. It is estimated that this 400-foot long-stabilization project will immobilize an estimated 45 pounds of phosphorus annually.

## Summary

**Water Quality Benefit of Phosphorous reduction** ≈ 45 pounds of phosphorus per year

**Total Project Cost** = \$516,966.96

**Authority's Share** = \$383,966.96

**Engineer:** RESPEC

**Contractor:** 53 Corporation, LLC

**Enclosure: Post Project Photos**



*Figure 6: East Shade Shelter Project South Bank - Post Project*



*Figure 7: East Shade Shelter Project at North Staircase*



Figure 8: East Shade Shelter Project at North Staircase Looking South - Post Project