

BIG DRY CREEK AT 104TH AVE TO SHERIDAN BLVD

Category G - Water Resources

Executive Summary

Problem

Westminster City Park serves as the community's hub for major events, recreation, commuting, and outdoor gathering. Big Dry Creek had spent decades in hydraulic and ecological decline. Suburban development, channel straightening, and past infrastructure modifications simplified the creek, accelerated flows, increased sediment loading, and disconnected the channel from its historic floodplain. In the 1990s, constriction to accommodate an irrigation reclamation pond and a water-quality retention pond removed stream length and limited the corridor's ability to dissipate energy during high-flow events. Accelerated creek erosion placed the Big Dry Creek at significant risk, requiring a coordinated water resources solution to protect critical infrastructure, restore stream stability, and improve water quality.

Solution

Olsson developed a process-based stream restoration strategy focused on restoring the natural functions of Big Dry Creek. The project was coordinated with the Big Dry Creek Interceptor Sewer upgrade, delivering restoration right after infrastructure improvements through a sequenced construction effort that minimized disturbance and protected the newly upgraded sewer from ongoing channel degradation.

The design reshaped 3,850 linear feet of channel to restore sinuosity, reconnect the creek to its historic floodplain, and

allow high flows to dissipate energy more naturally. Riffle-pool sequences and bioengineered banks replaced hardened, simplified channel conditions, creating a more resilient stream system capable of supporting long-term stability. Five vegetated water-quality ponds were incorporated to intercept and treat neighborhood runoff before it reached the creek, strengthening both stormwater performance and ecological function.

The project paired natural resource improvements with community amenities, adding a 9,428-linear-foot trail system, riparian boardwalk, half-mile Pollinator Flyway garden corridor, and outdoor classroom. A restored floodplain and channel system now safely conveys flows and protects critical infrastructure, while a Lower Area Master Plan provides a framework for future creek crossings and park development through the strategic reuse of excavation materials. Today, Big Dry Creek is a resilient, self-sustaining riparian corridor that provides Westminster residents with a vibrant, sustainable public space.