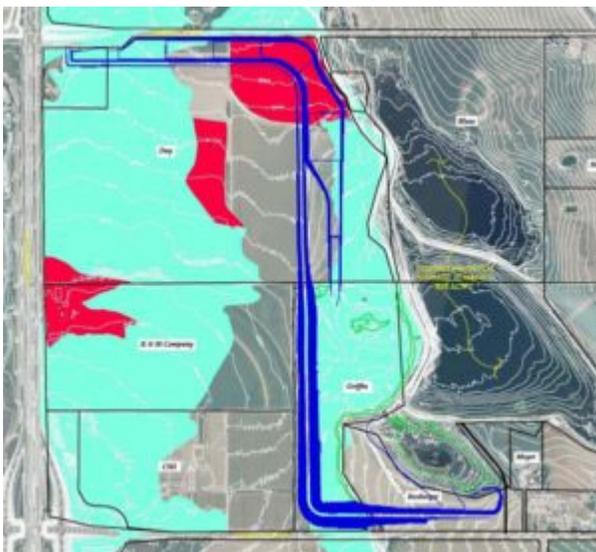


## **East Side Detention Facility**

This second regional improvement project identified in the Master Plan was originally called Edson Reservoir. This dry stormwater detention reservoir was preliminarily sized (660 to 990 ac-ft) and was cited in the Master Plan. When design efforts became more focused and detailed, subsequent to the Master Plan, this original site for improvement project facility proved to be unfeasible. This was due to the limited storage capacity and the fact that reservoir ponding would inundate seven existing home sites. As a result of this determination, a detailed Siting Study was completed by Ayres Associates (May 2010) to determine the most advantageous site for the relocation of Edson, taking into account flood reduction, cost, and constructability issues. This Siting Study evaluated over seven different sites for this facility. As a result of this study, additional discussions were held with Colorado State University Research Foundation (CSURF) about the ARDEC site (North of CR56) and with the City of Thornton regarding their site (south of CR56). When these discussions led to no feasible solutions, the Authority moved forward in evaluating the site immediately adjacent to the Gray Lakes Reservoirs, owned by the Lake Canal Reservoir Company. Eventually this site was deemed to be the most cost-effective solution and became the East Side Detention Facility (ESDF). After discussions with the State Engineer and the completion of a fatal flaw analysis, the Authority moved forward with final design and secured a loan with the Colorado Water Conservation Board. The results of this project—in addition to the [Coal Creek Flood Mitigation Facility](#) and other projects outlined below—reduced flood flows along Boxelder Creek south of County Road 50 all the way to the confluence of Boxelder Creek with the Cache la Poudre River. This affected significant areas of the FEMA-mapped [Boxelder Creek Floodplain \(A\)](#), including the Cooper Slough Basin west of I-25 and Boxelder Creek overflow along the east side of I-25 from County Road 50 through the Town of Timnath to the Poudre River. The project included:

1. Acquisition of necessary right-of-way and flood inundation easements.
2. A dam embankment.
3. Spillway and outlet works construction.



Proposed ESDF Grading

**Regional Benefits and Coordination with Other Projects:**

It should be noted that this project, along with the [Larimer-Weld Canal Crossing Structure \(LWCCS\)](#) was coordinated in tandem with two projects by the City of Fort Collins and the Town of Timnath which further reduced floodplain boundaries downstream. The construction of ESDF reduced the downstream flows in Boxelder Creek drastically from over 6,700cfs to less than 2,400cfs. This flow reduction allowed the City of Fort Collins and the Town of Timnath to consider “unplugging” two large box culverts at the crossing of I-25 and Boxelder Creek. Two of the four box culverts originally constructed at this location have been plugged since they were first built. When FEMA revised the floodplain mapping in this area, the resulting overflow from this blockage extended the floodplain south along the east side of I-25, flooding large sections of Timnath. Opening the two box culverts eliminates this overflow path. Projected flows on the west side of I-25 were reduced. This allowed the City of Fort Collins and the Town of Timnath to move forward in constructing conveyance improvements on West Prospect Road where Boxelder Creek flows under the roadway.

The Authority, the City of Fort Collins, and the Town of Timnath made joint submittals of the Conditional Letter of Map Revision (CLOMR) prior to construction of all these projects. With the completion of all these projects in 2016 the Letter of Map Revision (LOMR) process is now underway. With the completion of the LOMR, the [Post-Project Floodplain illustration](#) provides a general idea of the floodplain, which will be removed as a result of these projects.