

FAIRGROUNDS PARK

Loveland, Colorado

Project Purpose

- To provide a landscape irrigation system for a new community park and sports complex that also services an existing park and ball-field irrigation system. The park site is bisected by a river.
- *Intent:* To utilize two separate, alternative water sources as effectively as possible.



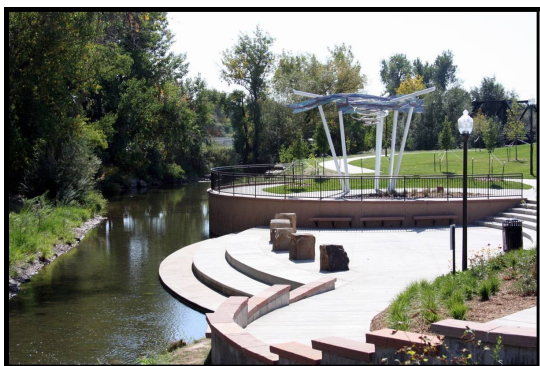
Special Factors

- Irrigation mainline attached to existing bridge structure to reduce environmental impact on river.
- A 1,300-GPM pump station incorporates a variable frequency drive to adjust pump speed for constant discharge pressure and to help conserve electrical resources.
- Subsurface irrigation system is utilized for small sections of turf:
 - Reduces potential for overhead-irrigation water waste;
 - Removes play hazards and vandalism opportunities.
- Gravity-fed transfer pipeline to route water from an adjacent irrigation ditch to modified alluvial well pond. Water is then pumped from the well pond to service the irrigation system.
- Efforts made to ensure that raw water usage was legally available to be used on the expanded site. Irrigation Consultant/Engineer currently providing support for augmentation plan to be declared in Colorado Division I Water Court.

Role of Irrigation Consultant

The Irrigation Consultant provided:

- Water-supply alternatives and secondary water-supply plan.
- Improved capacity of an existing alluvial well pond.
- Secondary water-delivery system from an adjacent irrigation ditch to the existing well pond.
- Pressure and flow demands through intake piping, a redesigned irrigation pump station, and a wet well.
- Piping connections between the existing irrigation system and the new pump station.
- An irrigation system design for the new park complex east and west of the Big Thompson River.
- Subsurface irrigation for uniquely shaped turf sections.



Significance

- Project developed to convert sparsely utilized property into a community park and sports-complex facility.
- Primary water source is an existing alluvial well pond located onsite, while secondary source is ditch water supplied by the Big Thompson River.
- Site amenities are located on both sides of the river, so a mainline was designed over the river utilizing the existing bridge structure.
- The water supply and augmentation plan has resulted in significant annual savings for the City of Loveland.