



#### East Vine Box Culverts

Completed by the end of August 2005, six concrete box culverts were built and installed under East Vine Drive. A crane was used to lower the boxes from trucks into Dry Creek and maneuver them into place. Following construction of the culverts, the City Engineering Department rebuilt East Vine Drive and constructed intersection improvements.

#### Larimer County Canal Crossing

Improvements at this site will ensure that the canal banks do not breach and release water during major storm events.



# Dry Creek

## Drainage Improvement Project

Spring 2006

A periodic newsletter for property owners in the Dry Creek Floodplain

### Dry Creek Drainage Improvement Project Nearing Completion

#### What's Next?

When construction is complete on the Dry Creek Drainage Improvement Project, Fort Collins Utilities will take several steps needed to make changes to the Dry Creek floodplain in the city limits. Briefly, they are:

- Conduct a final field survey of project components;
- Develop a flow model to show how stormwater would flow in a large storm event given the new flood control measures; and
- Apply for a Letter of Mapping Revision (LOMR) from FEMA by the end of summer 2006.

It is expected that FEMA will approve the LOMR based on its earlier approval of the project and revise the floodplain map by the end of 2006. This will effectively remove North College Avenue from the Dry Creek floodplain.

For more information about the FEMA mapping process, visit [www.fema.gov/plan/prevent/fhm/index.shtm](http://www.fema.gov/plan/prevent/fhm/index.shtm).

#### The Project in Review

The goals of the Dry Creek Drainage Improvement Project are:

- to protect people and properties within the Dry Creek Basin, and
- to reduce or eliminate the FEMA regulatory floodplain for Dry Creek in the city limits.

The project consists of two major parts: stormwater detention and stormwater conveyance (moving the water).

Three areas to be used for stormwater detention include Douglas Reservoir and two recently constructed detention ponds, Flood Control Basins (FCB) 1 and 2. (Refer to project map on next page.)

The Larimer & Weld Canal will be utilized to carry the reduced flows from

Dry Creek to a diversion near Lindenmeier Lake. A new channel will be constructed from this diversion south under East Vine Drive and the Burlington Northern and Santa Fe railroad tracks where it will intercept Dry Creek.

Through an agreement with the Eaton Companies, the City will use Douglas Reservoir and the Larimer and Weld Canal for storage and transfer of water. As part of the agreement, the City will build a structure to transfer water from Water Supply Reservoir No. 4 to Terry Lake as well as construct minor upgrades to existing ditches.

See inside for a detailed project description and construction updates of the various project components.



#### Flood Control Basin 1 (FCB 1)

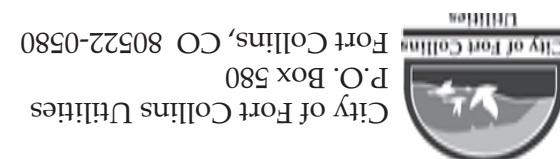
This dry detention pond south of County Road 58 was completed early this spring. FCB 1 is 22 feet high and 2,600 feet long. Over 65,000 cubic yards of fill and 1,000 cubic yards of concrete were used in the construction of the basin. To stabilize downstream of the spillway, over 19,000 square feet of special block mats were installed before placing the fill.

#### Questions or Comments?

Contact Fort Collins  
Utilities Project Manager

Dean Saye at  
(970) 221-6212  
or [dsaye@fcgov.com](mailto:dsaye@fcgov.com).

RETURN SERVICE REQUESTED

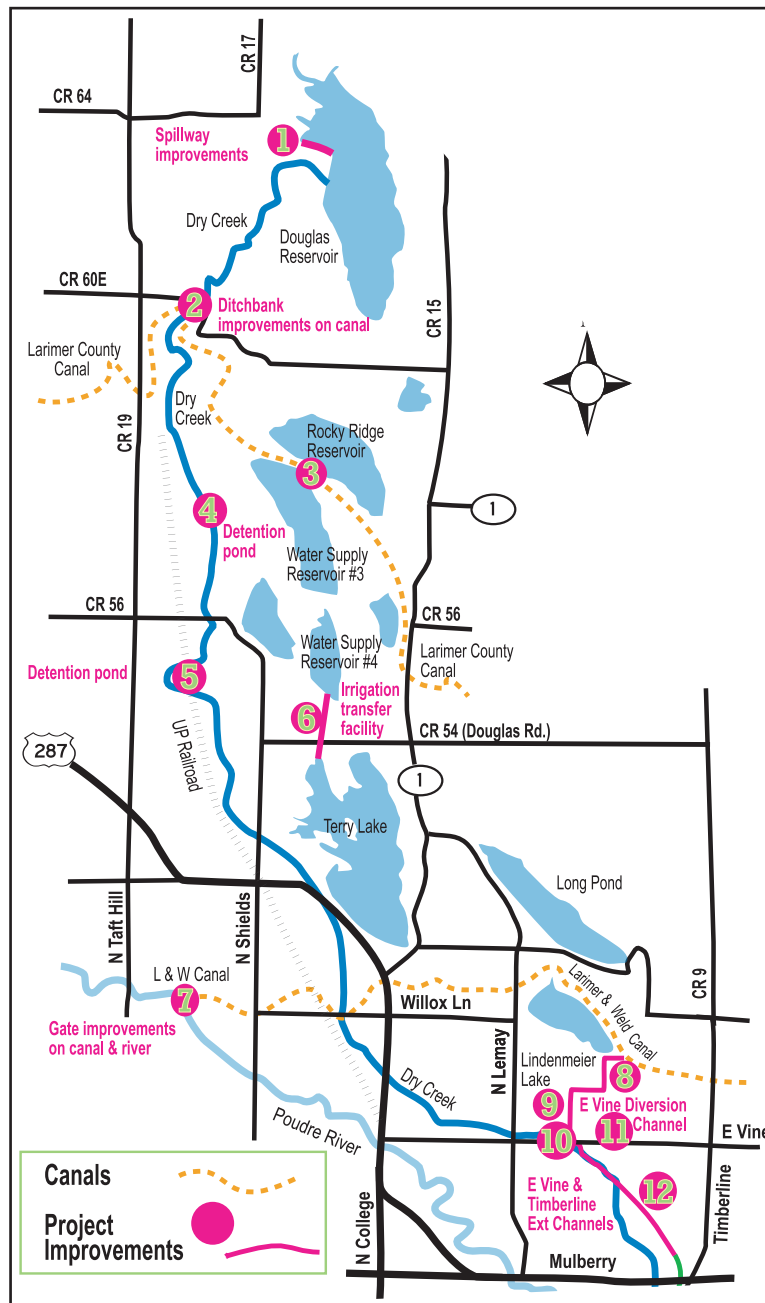


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Dry Creek  
Drainage Improvement Project



## Project Site Map



### Terry Lake Irrigation Pipeline & Structures

Special mats were temporarily installed to allow workers and heavy equipment access to the construction site through wetlands without damaging the surrounding vegetation.



### Water Supply Reservoir #3 Structure and Gate

This structure will help the irrigation company manage and distribute irrigation water.

## The 12 Components of the Dry Creek Project

### 1 Douglas Reservoir Spillway Modifications

The reservoir will be used to store stormwater in a 100-year storm event. Concrete work was completed in the fall. (See photo at bottom right, next page.) A fuseplug (an erodible dam designed to release water at a controlled rate if overtopped) will be constructed in the existing spillway. Currently under construction, it should be completed by mid-May.

### 2 Larimer County Canal Crossing

Ditchbank improvements at this critical conveyance will ensure that the canal doesn't breach and release water. The ditchbanks were raised and reseeded on the downstream bank of the Larimer County Canal. Installation of the concrete overflow structure was completed in early spring of 2006. (See photo on back page.)

### 3 Water Supply Reservoir #3 Structure and Gate

To help distribute irrigation water, a tilting weir gate was installed for the irrigation company. This work is substantially complete. (See photo at top of page.)

### 4 & 5 Flood Control Basins (FCB) 1 and 2

These two dry detention ponds were completed by early spring 2006. (See photos on front page and upper right, next page.) Both were constructed to hold water during a major storm event and allow for controlled release of stormwater into Dry Creek.

### 6 Terry Lake Irrigation Pipeline & Structures

A flow-measuring structure, 2,000 feet of pipeline, a channel and outlet structure into Terry Lake and site restoration, including patching the road, was completed by the end of April. (See photo at left.) The improvements will allow for conveyance of irrigation water from Water Supply Reservoir No. 4 to Terry Lake.

### 7 Larimer and Weld Canal SCADA

A computerized control system, or SCADA, will be installed together with gate improvements and flow sensors. This system is designed to shut the gates in the irrigation canal in the event of a major storm. Completion is scheduled for the end of May 2006.

### 8 East Vine Diversion

A structure was built in the Larimer & Weld Canal to allow additional stormwater flows to be diverted back into Dry Creek without damage to the canal. Work to extend the channel will be a future project. The concrete weir and wasteway were poured on the canal and work on the dissipation structure and channel is in progress.

### 9 Lake Canal Modifications

An existing structure will be modified to transfer water under Lake Canal. Changes to the waterline were not needed as the existing lake channel could be reused. Construction work is scheduled for May 2006.

### 10 Burlington Northern Sante Fe Railroad Crossing

The contract is signed with the railroad company who will build a bridge under the railroad tracks near East Vine Drive at the intersection of Dry Creek. It will be built in preparation for a future channel that will go under the bridge.

### 11 East Vine Box culverts

Construction of six concrete box culverts at the crossing of Dry Creek and East Vine Drive was completed by the end of August 2005. (See photos on back page.)

### 12 East Vine & Timberline Extension Channels

This future project includes building channels to convey stormwater under the railroad tracks to the existing channel at Timberline Road and Lincoln Street.

### Douglas Reservoir Spillway Modifications

The concrete work shown at the north end of Douglas Reservoir was completed last fall. The fuseplug (an erodible dam designed to release water at a controlled rate if overtopped) is currently under construction (inset photos).



### Flood Control Basin 2 (FCB 2)

The second dry detention pond, approximately 10 surface acres, was completed early this spring. About 60,000 cubic yards of material were excavated (over 4,000 semi truckloads) and the material was used to construct FCB 1 (photo on front page).

