

# ART GRAVITY

and a  
SHOWER



Jeremy Geddes

Joe McGrane



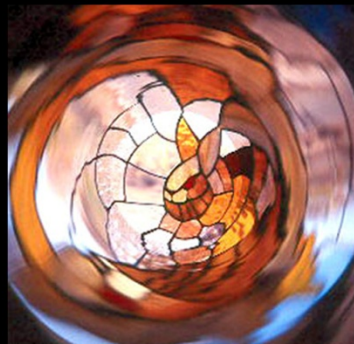
### Public Art:

- Adds value to a project
- Connects people to a place and each other.
- Makes something beautiful from nothing

Red Pony – English Ranch Park



100 Days of Summer – City Park Pool



Hidden Habitats – Nix Farm



Prairie Bouquet -  
Nix Farm



**“Water Washes the Earth”  
Joe McGrane**

**NO DUMPING**



**DRAINS TO RIVER**

**City of Fort Collins  
Art in Public Places  
2005**

DRAKE ROAD

SPRING CREEK

DUNBAR AVE

Image © 2012 GeoEye

Google





Light and Power



Sanitary Sewer



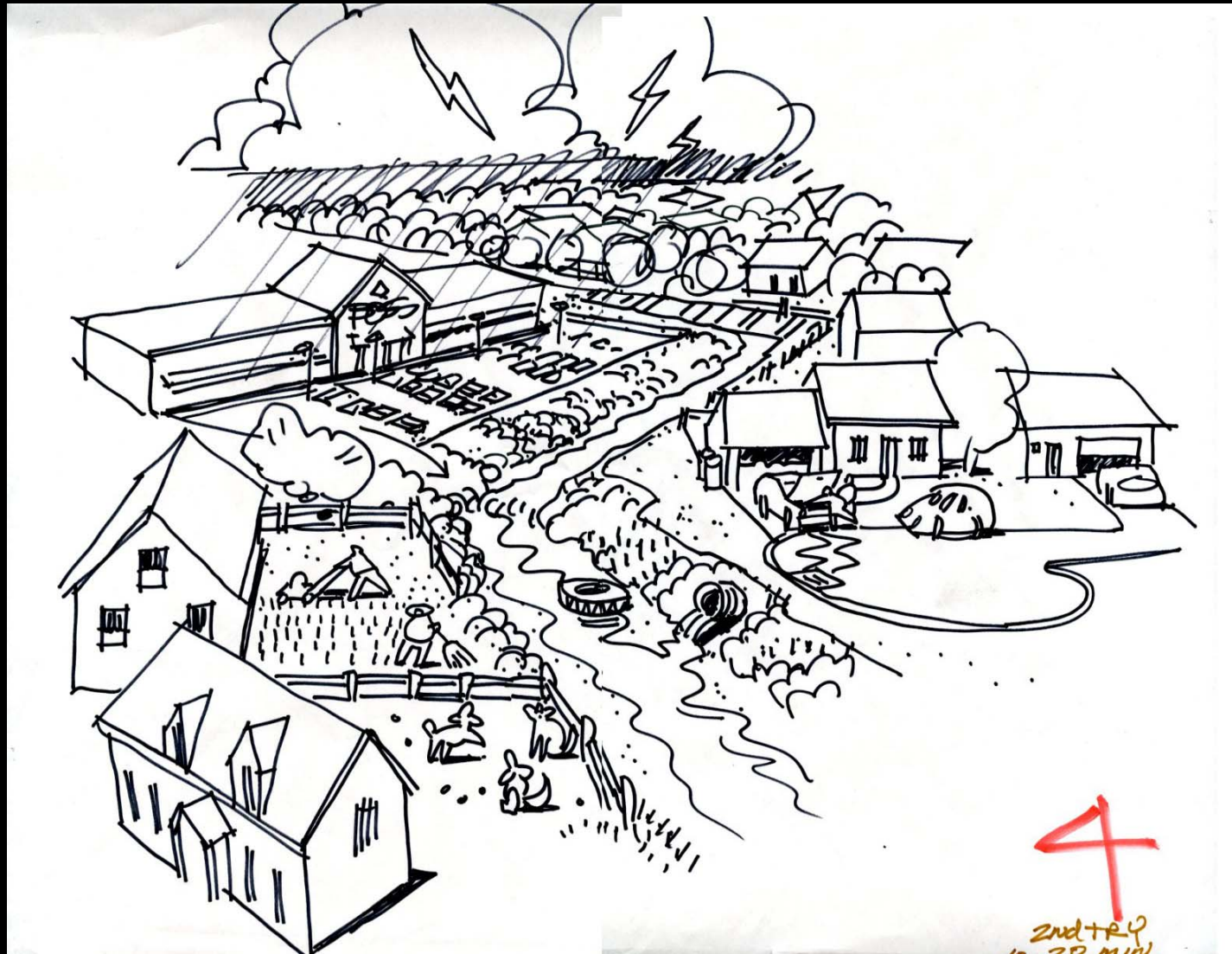
Water Supply



*Storm Water Management  
and  
Water Quality*







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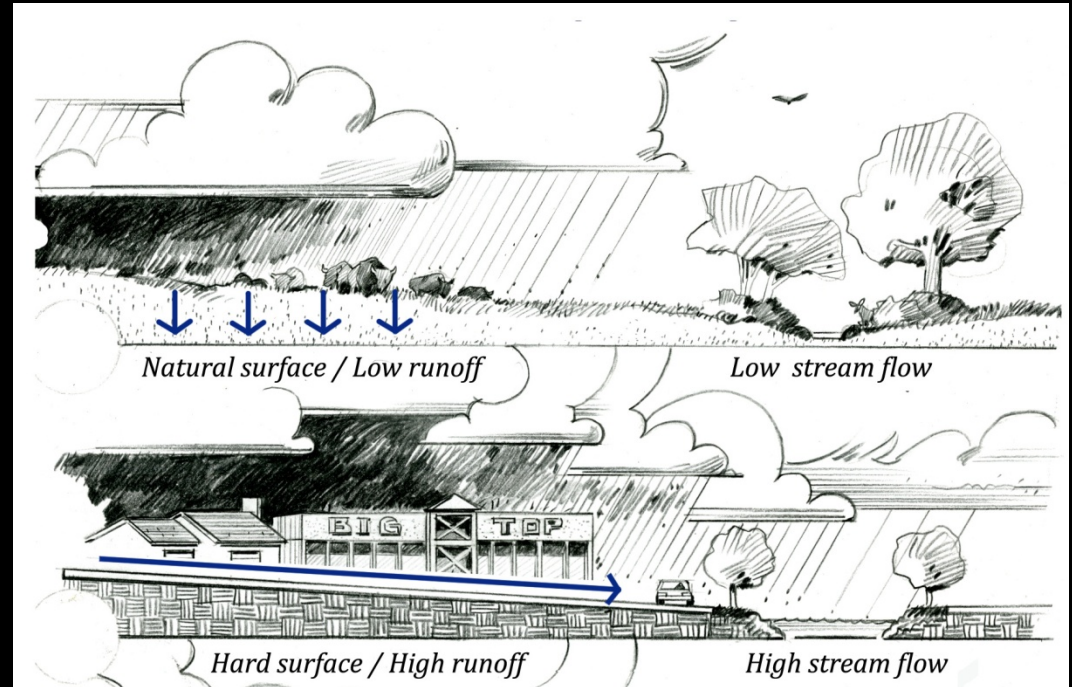
2nd try  
28/11/11

## THE ISSUE:

Development often increases the amount of impervious surface.

This means that when it rains there is:

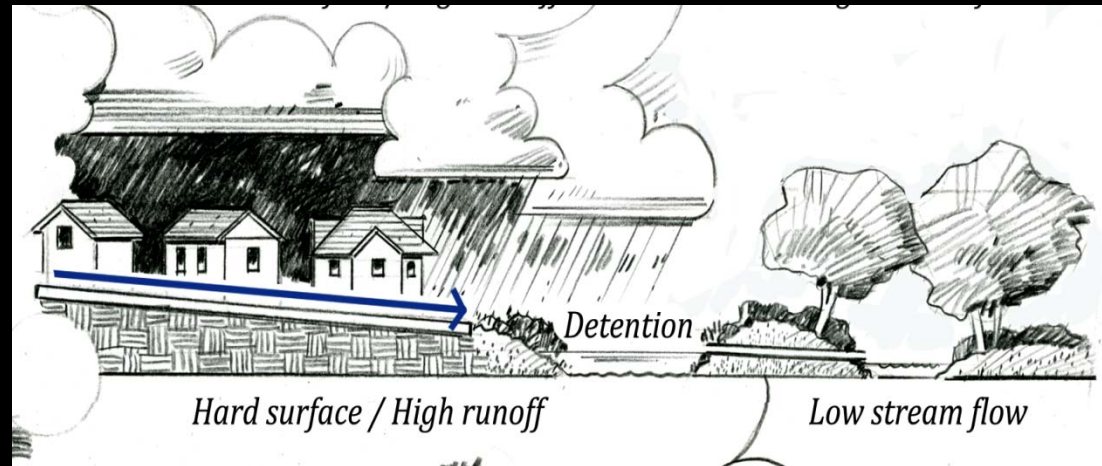
- Less infiltration , more runoff



- More runoff, higher velocity, more erosion, sedimentation, and down cutting. Greater loss of property and habitat, surface and groundwater contamination. Gravity run amuck

## Engineering Strategies:

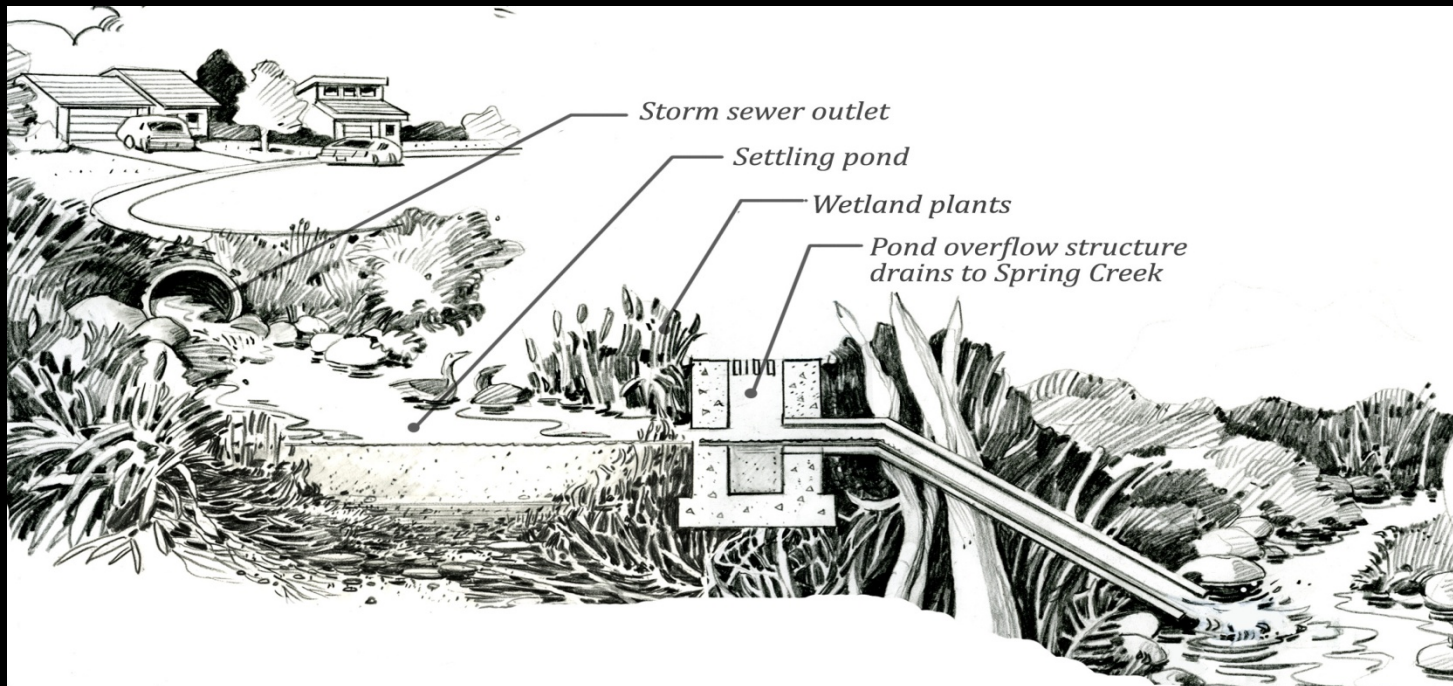
- Honor the pull of gravity by restoring the water cycle. Create space for water movement and infiltration (Spring Creek)
- Deal with water quantity and quality at the source (high end). Expense grows as water flows down the line.
- Use small upstream detention ponds to reduce peak stream volumes.



- Reduce impervious surfaces (roads, roofs)

## More:

- Incorporate settling ponds at storm sewer outlets to filter contaminants



- Cultivate a low maintenance, native landscape aesthetic
- Integrate solutions with transportation, open space, amenities, and habitat

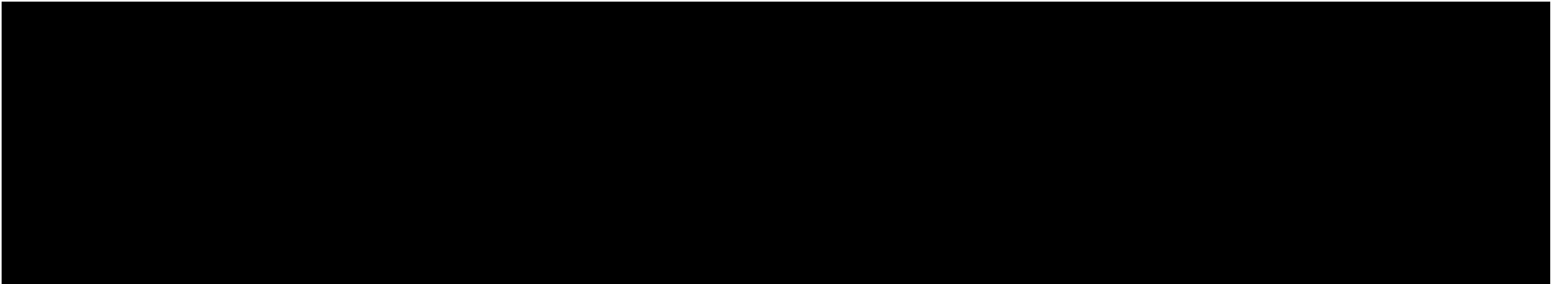
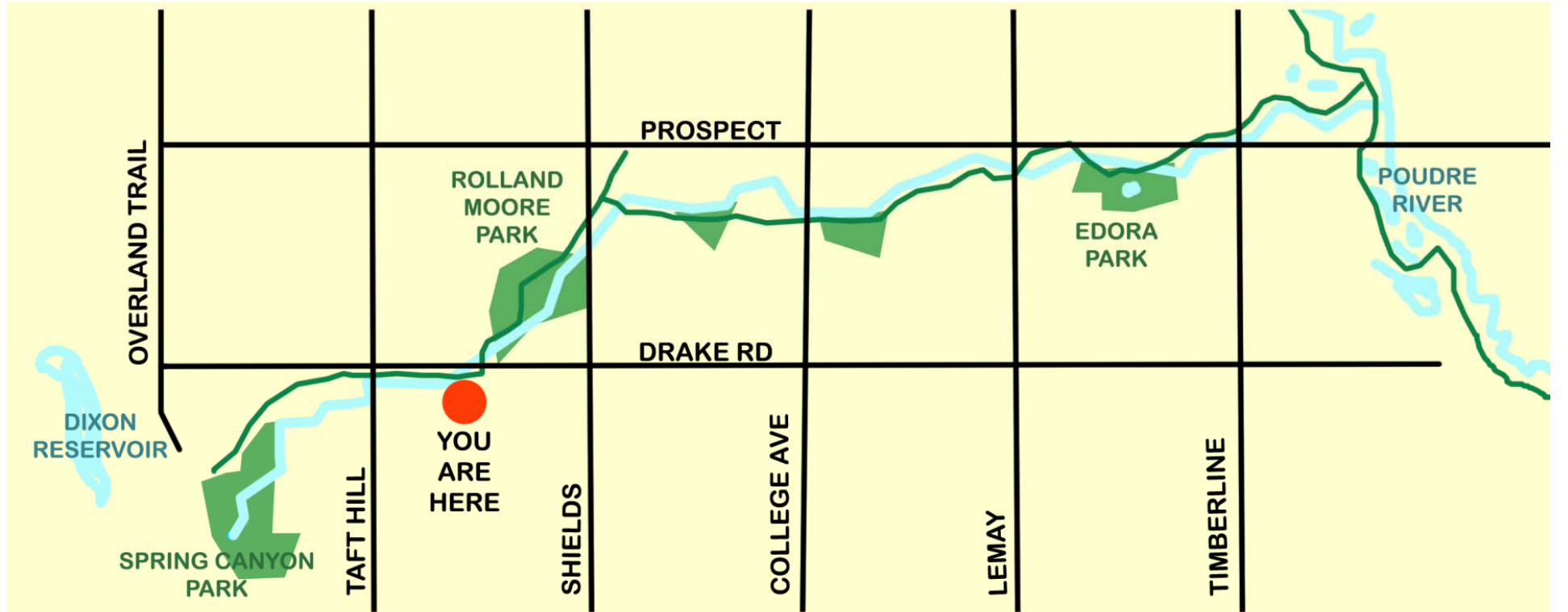


## Home owner strategies to encourage water infiltration and reduce runoff:

- Rooftop gardens
- Dense plantings of trees and shrubs
- Terraced rain gardens
- Use more permeable pavements

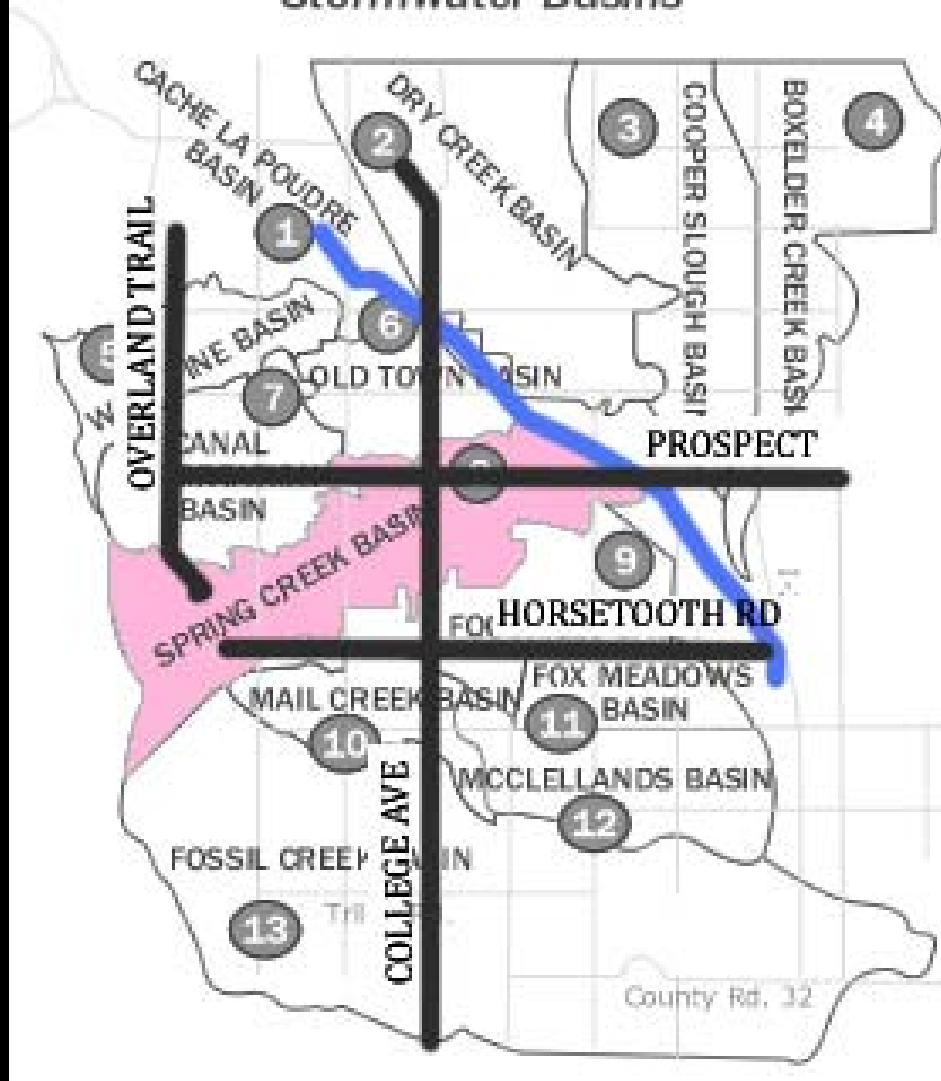
## Improve water quality:

- Use Organic Fertilizers on your lawn and garden. Don't overspray.
- Use a car wash. Don't wash it at home.
- Clean up spills before they reach the gutter
- Repair car leaks – gas, oil, brake fluid, antifreeze
- Pick up after your pet, even in winter
- Compost lawn trimming and leaves



# CITY OF FORT COLLINS

## Stormwater Basins





**Drake Bridge  
(upstream)  
July 29, 1997**

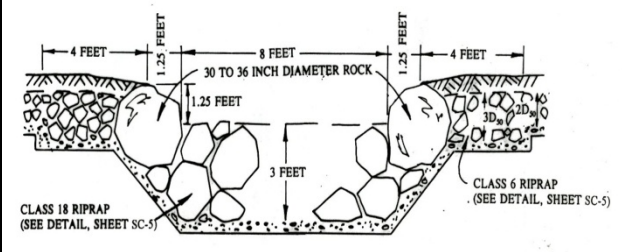
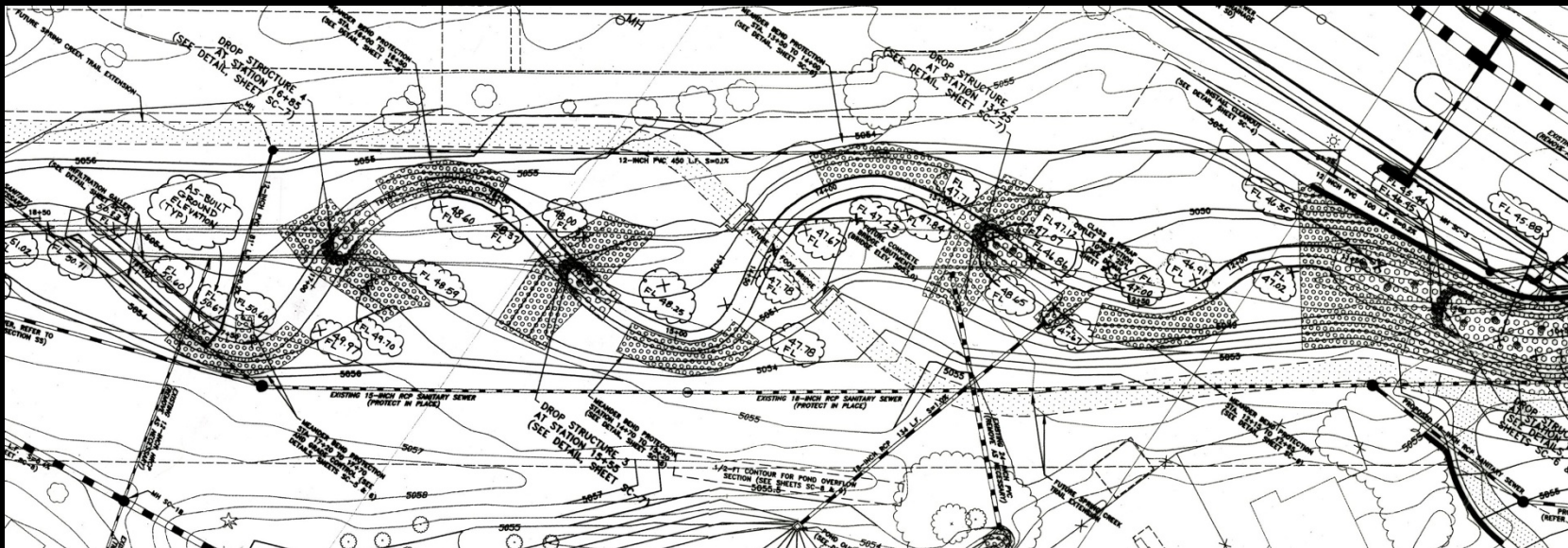


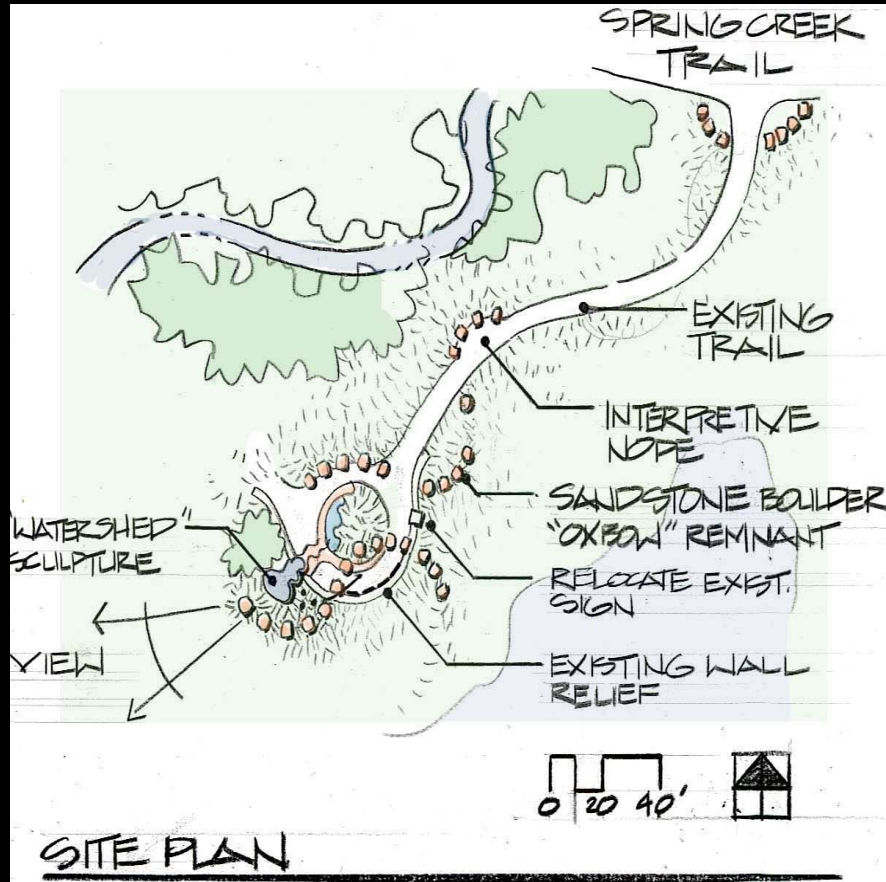


Pre-flood



New and improved

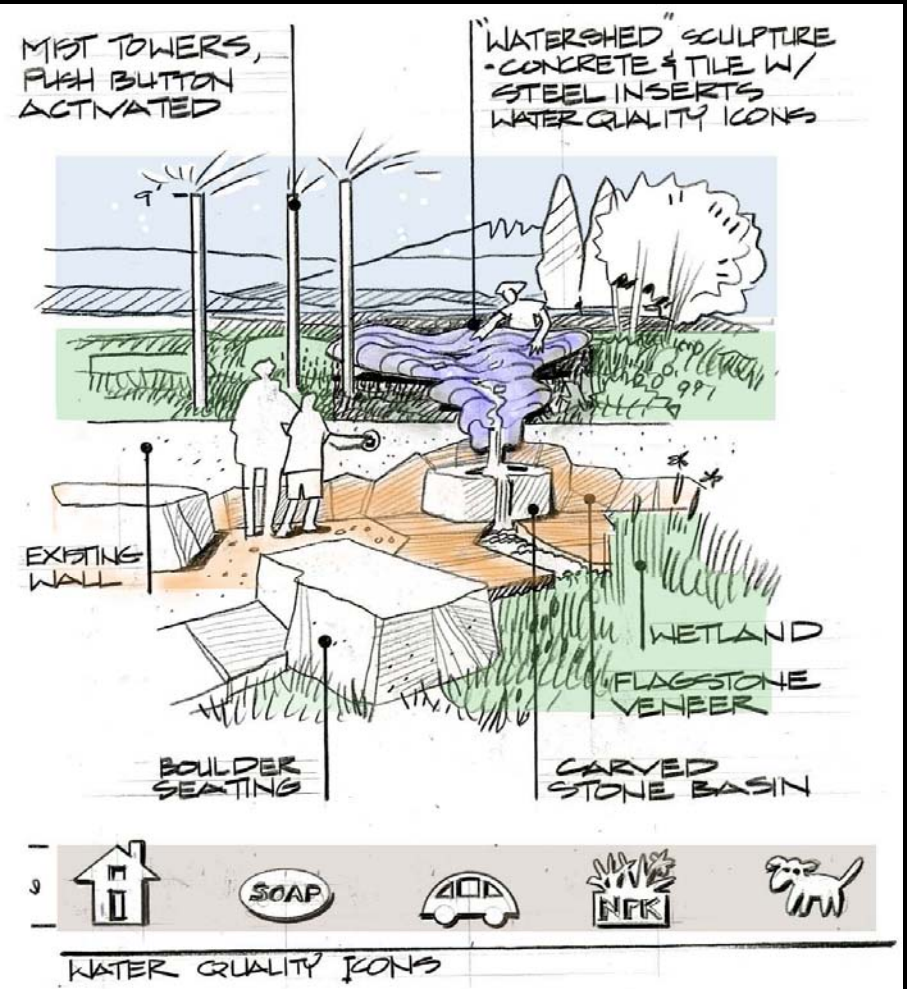




## Water Washes the Earth

Joe McGrane

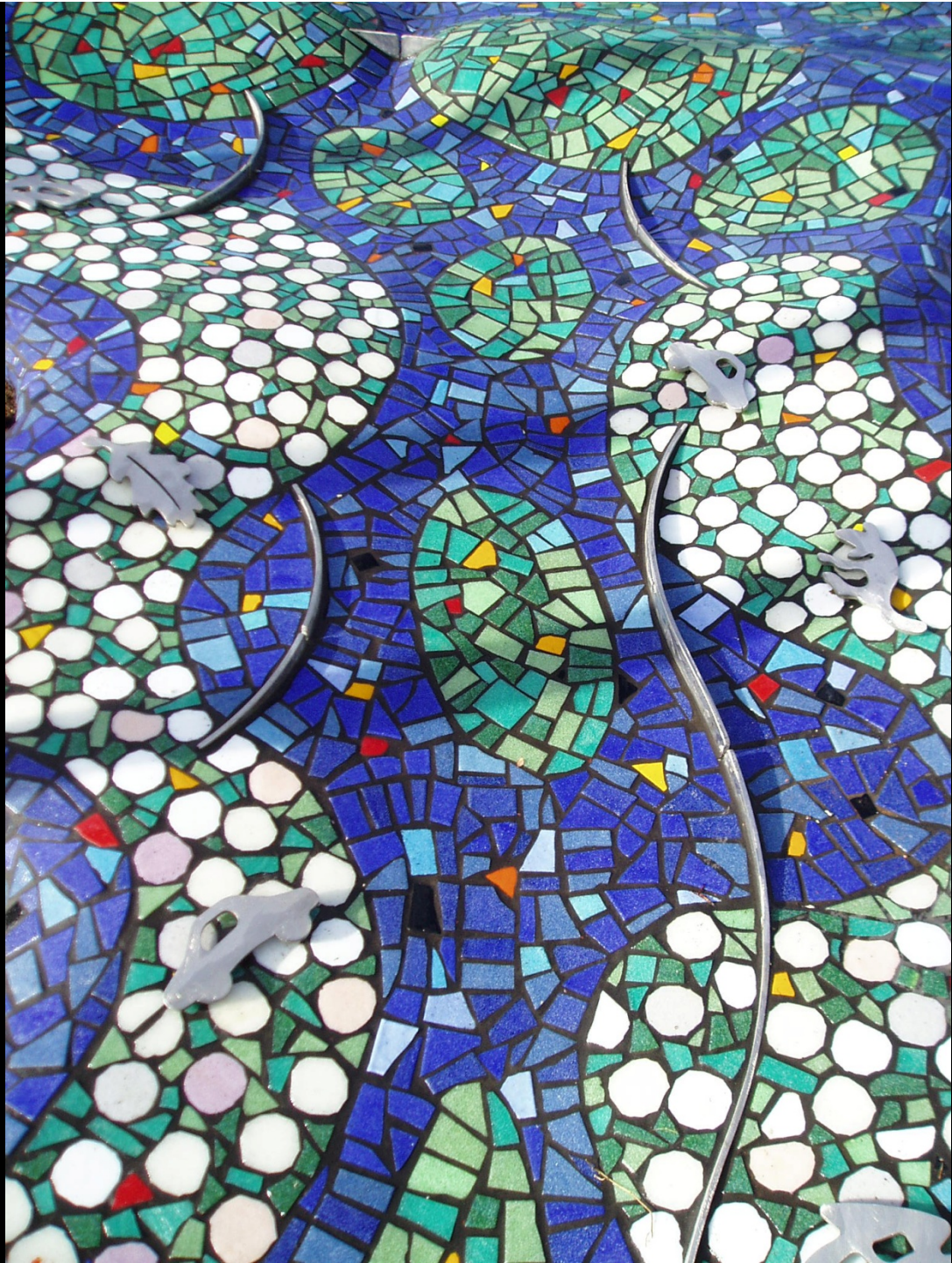
June 2004



"WATER WASHES THE EARTH"  
JOE MCGRANE  
JUNE 2004











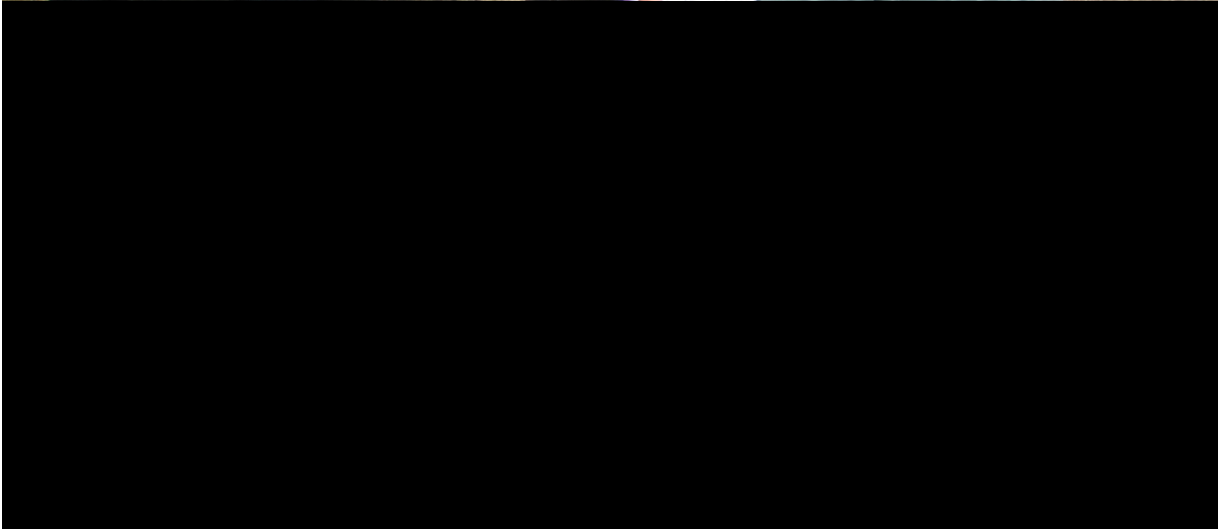
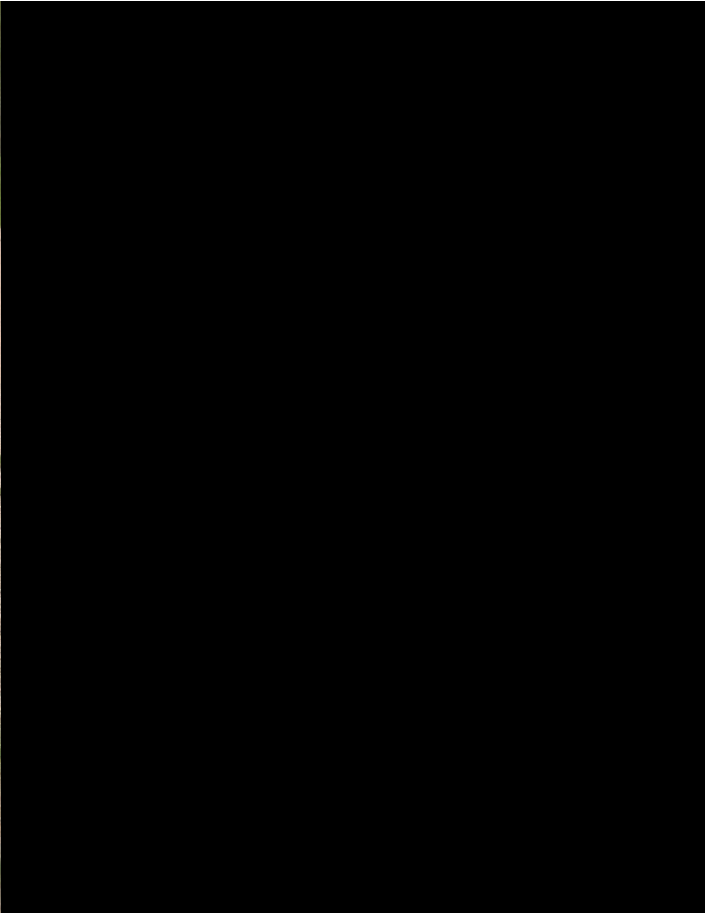


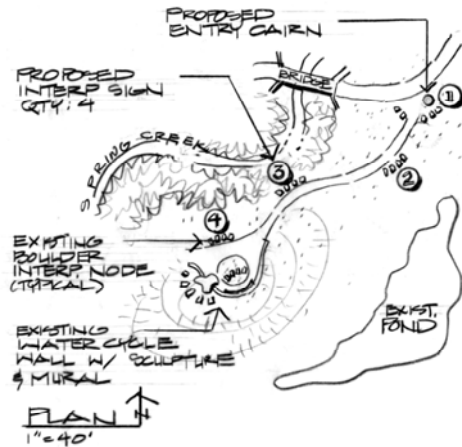






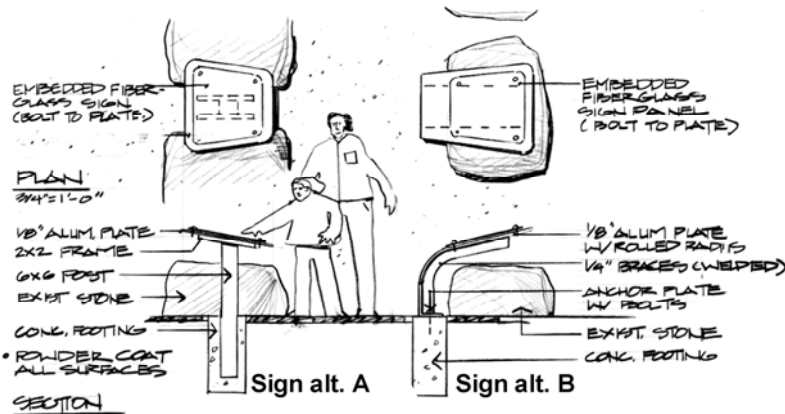
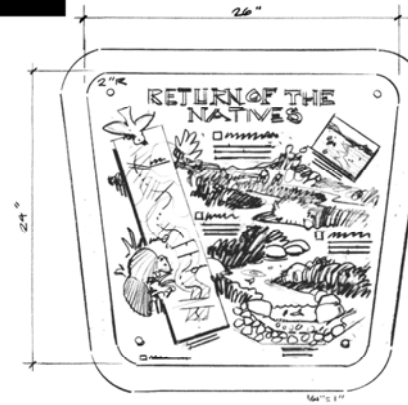






**THEMES:**

- ① SPRING CREEK HISTORY
  - FLOOD 1997
  - FC UTILITIES MGMT OBJECTIVES
- ② WATER QUALITY
  - RUNOFF/CONTAMINANTS
  - STRATEGIES - INFILTRATION EDUCATION
- ③ DESIGN/ENGINEERING
  - HABITAT
  - RECREATION
- ④ STORM WATER MGMT.
  - WATERSHED
  - VOLUMES & FLOWS
  - DETENTION / INFILTRATION



Proposal for:  
**Interpretive Signs and Trail Cairns**  
The Water Cycle Wall on Spring Creek

Joe McGrane  
April 2010











# Bugs, Birds, Beavers and Bicycles

Many creatures live and travel along the Spring Creek corridor.

**F**oxes, raccoons, muskrats, beavers, butterflies, herons, garter snakes, leopard frogs, minnows, mayflies, mosquitoes, robins and redwinged blackbirds are just a few of the creatures that make this creek their home. The winding channel is designed to move water slowly with pools, falls and riffles that create a variety of streamside habitats. Willows and cottonwoods are planted to shade the banks and help keep them from eroding.

From the foothills to the Poudre River, Spring Creek traverses the City. It is a transportation corridor for both people and animals.

City of Fort Collins  
Utilities

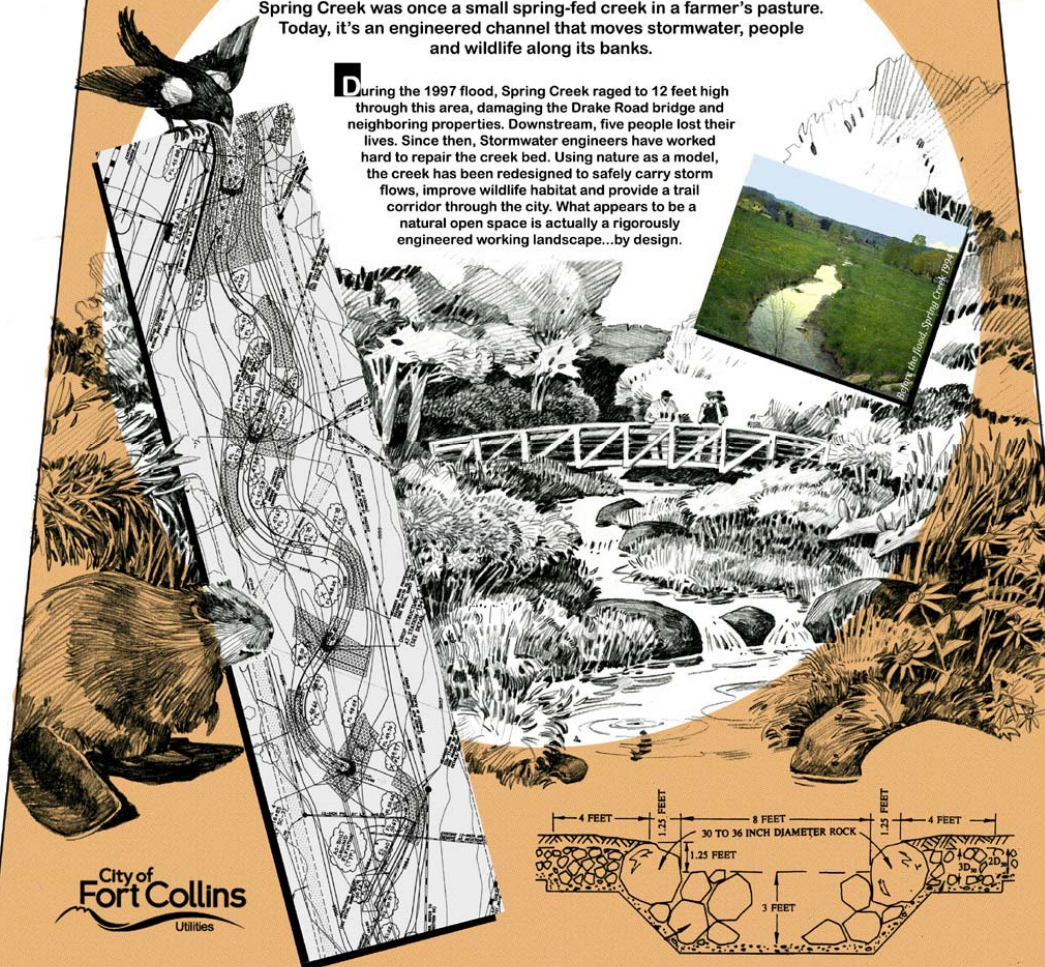
panel 3

# Spring Creek

## Supernatural by design

Spring Creek was once a small spring-fed creek in a farmer's pasture. Today, it's an engineered channel that moves stormwater, people and wildlife along its banks.

**D**uring the 1997 flood, Spring Creek raged to 12 feet high through this area, damaging the Drake Road bridge and neighboring properties. Downstream, five people lost their lives. Since then, Stormwater engineers have worked hard to repair the creek bed. Using nature as a model, the creek has been redesigned to safely carry storm flows, improve wildlife habitat and provide a trail corridor through the city. What appears to be a natural open space is actually a rigorously engineered working landscape...by design.

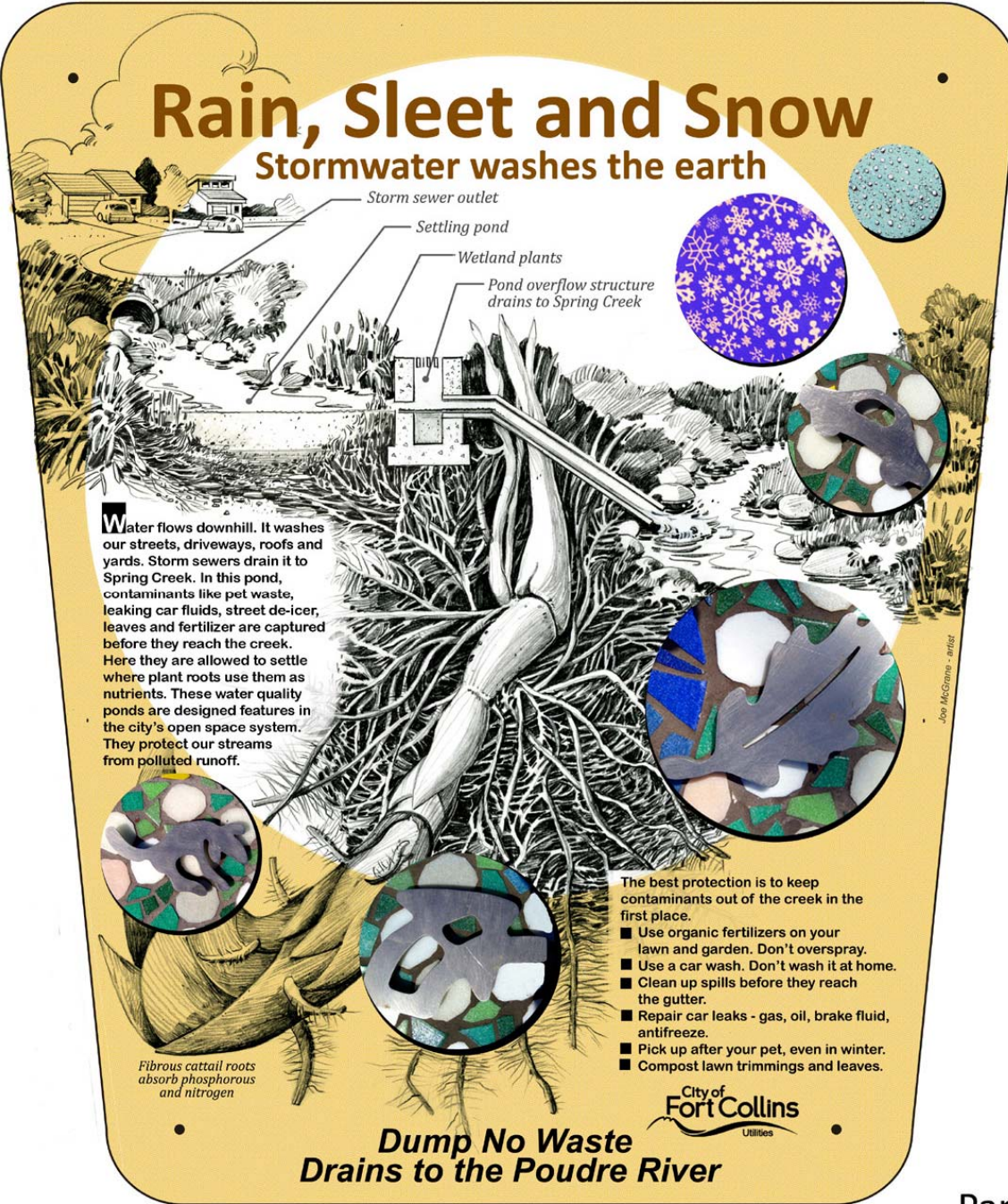


City of  
**Fort Collins**  
Utilities

Fort Collins Utilities Stormwater Program and Art In Public Places have created a short interpretive trail leading west to the "Water Cycle Wall." The trail and wall are designed to highlight the natural and cultural forces that play out in many of our city's open space corridors between the land, water, people and other living things.

# Rain, Sleet and Snow

## Stormwater washes the earth



**W**ater flows downhill. It washes our streets, driveways, roofs and yards. Storm sewers drain it to Spring Creek. In this pond, contaminants like pet waste, leaking car fluids, street de-icer, leaves and fertilizer are captured before they reach the creek. Here they are allowed to settle where plant roots use them as nutrients. These water quality ponds are designed features in the city's open space system. They protect our streams from polluted runoff.

*Fibrous cattail roots absorb phosphorous and nitrogen*

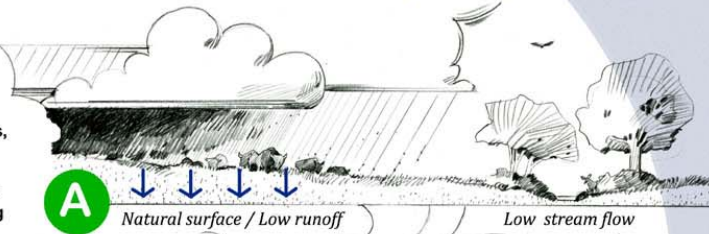
- The best protection is to keep contaminants out of the creek in the first place.
- Use organic fertilizers on your lawn and garden. Don't overspray.
  - Use a car wash. Don't wash it at home.
  - Clean up spills before they reach the gutter.
  - Repair car leaks - gas, oil, brake fluid, antifreeze.
  - Pick up after your pet, even in winter.
  - Compost lawn trimmings and leaves.

**Dump No Waste  
Drains to the Poudre River**



# A Landscape Approach to flood control and water quality

**B**efore paved roads, cars, and houses, water soaked into the earth where it fell. Now 80% of the developed area that drains into Spring Creek is paved or roofed. When it rains, water flows quickly to the creek. In a short time, runoff from the foothills combines with roof drains and street gutters to create potentially large flood volumes. Property damage and erosion can occur. Utility Stormwater engineers have reduced this hazard by placing check dams and small dry ponds along the drainages leading to the creek. During storms, these detention ponds temporarily fill with water, releasing it into the creek over a longer period of time.



Rooftop gardens, dense plantings of trees, shrubs and ground covers, permeable pavements and terraced rain gardens are all ways we can encourage water infiltration and reduce runoff from our properties.

