

Creek Buffer Restoration: Buttermilk Branch Greenbelt



Introduction: One mile from JJ Pickle Elementary School the headwaters of Buttermilk Creek are located in the heavily urbanized and fully built out region surrounding the intersection of HWY 290 and I-35. The headwaters have a very high percentage of impervious cover causing high flows in Buttermilk during rain events. In order to contain the high the stream the channel was increased in size. After modification of the stream channel the entire area within and surrounding this channel has been mowed preventing any new vegetation to establish. Through a joint effort between Austin’s Parks and Recreation (PARC) and Watershed Protection (WPD) departments, Buttermilk Branch Greenbelt has been selected as one of several parks with streams in need of riparian (streamside) restoration.

What is the long-term goal?

The goal is to establish a woody canopy with a more open understory within the corridor, with a diverse and dense ground cover. This condition will require approximately 10 to 20 years to establish.

Why is a streamside buffer important?

Establishing this buffer, with its mix of grasses, forbs/wildflowers, shrubs and trees, will allow for a variety of benefits to the park’s ecosystem, including:

- Filtering pollutants out of storm runoff before it reaches the creek
- Limiting erosion, protecting creek banks and keeping sediment out of the creek
- Providing shade and maintaining moderate water temperatures
- Providing habitat for a diverse group of animals, on land, air, and in the water

City of Austin Riparian Restoration

Management Approach:

- Establish a “no mow” area along the stream channel with a goal of a 50 foot riparian buffer (25 ft on each side of the creek). This is a flexible buffer, depending on trails, park infrastructure, access areas and/or view corridors.
- Allow for passive plant growth in entire buffer area, with additional active plantings where necessary, (native grass, wildflowers, and woody species) following site assessments. Planting activities will be coordinated by WPD, but will rely on stakeholder interest and involvement.
- Periodic trash clean-up, triggered by an agreed upon trash threshold, measured using the WPD Trash index score sheet and implemented by WPD (Field Operations-Easter Seals).
- Periodic “weed/invasive management” to address nuisance problems that may arise, based on stakeholder input and WPD site assessment, implemented by WPD (American Youth Works).
- Educational and demarcation signage where appropriate and/or requested (Collaboration between WPD, PARD and stakeholders).
- A mowed edge ~4’ along the edge of the trail on the creekside will be maintained.
- Adjacent to the schoolyard a wire rope fence will be used to delineate the no mowing zone. Mark three distinct areas within the unmowed zone to evaluate different types of restoration efforts; doing nothing, distributing seeds, or planting seedlings.

What should park users expect?

- As the plant community recovers from the mowing disturbance, some areas may have taller, much less manicured vegetation.
- The sidewalk will still have a mowed clearance next to the fence.
- Signs will be posted explaining the effort

When will this start?

- We would like to initiate this process at the beginning of the 2012 growing season.

Who will track progress and/or Success?

- WPD will evaluate changes over the next 3-5 years, as the vegetation transitions into more mature communities and implement a range of adaptive riparian restoration practices as needed.
- Volunteers monitoring is encouraged, particularly changes in bird or plant communities, and any other ecological measures of interest.

Statement of intent and responsibility with JJ Pickle Elementary School:

Watershed Protection Department with the City of Austin proposes to pay for and install additional fencing, signage, seeds, and plants for the above specified streamside location. This is a test/study plot to learn more about the natural process of allowing a heavily maintained piece of land to return to a natural state. This process will demonstrate changes in soil structure, competition between native and non-native plants, and successional stages of a plant community. The role of the JJ Pickle Elementary School will be to assist with plant identification records, routine trash clean-up within the site, and any other monitoring they desire.

Questions: Please contact Staryn Wagner, WPD, 974-2956, staryn.wagner@austintexas.gov

Website: <http://www.cityofaustin.org/watershed/creekside.htm>