## Ecology O

### **Ecology Brief**

Shoal Creek is a dynamic natural waterway that provides valuable habitat to Austin's plants and animals, even in the midst of downtown Austin. However, these communities are threatened by invasive plant and animal species from Asia and Europe, which threaten habitat by out-competing native species. Restoring the shoreline by removing invasive species is a valuable strategy in maintaining this habitat. Planting native species in all landscaped areas in the watershed provides habitat for the birds and other wildlife that depend on these plants for food and shelter.

### **Key Questions:**

Discuss with your group if you see a diversity of plants along the shoreline. Do you spot any of the invasive plants on this list?

What are some ways in which your design can provide multiple benefits to both human and natural communities?

### **Some Invasive Plants and Animals**



**Giant Reed** 



Chinaberry



Asian Ladybeetle



Bamboo

### **Some Native Plants and Animals**



Turkscap



Common Slider



Pecan



American Beautyberry

# 2 History of Displacement

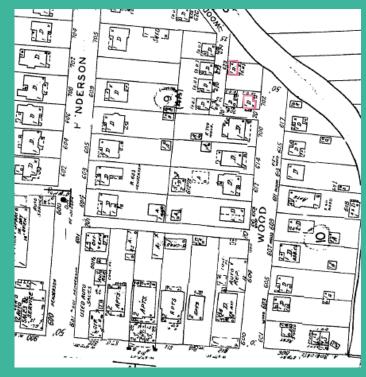
Shoal Creek was a settling point for freed ex-slaves after the Civil War. Freedmen lived all over Austin but violence and a desire for independence pushed them to build communities in less desirable locations, like the banks of Shoal Creek, where flooding and dumping was common. Freedmen communities along Shoal Creek, likely including the Wood St area, were formed in 1870. The earliest inhabitants of this settlement worked as laborers, porters, truckers, yardmen, and cooks. In the 1920s African-Americans migrated to East Austin in part due to segregationist deed restrictions and racist city planning practices. East Austin offered larger homes and segregated amenities (schools,

702 Wood Street (right) and 623 Wood Street (right) and, both of which were demolished in 2014.

parks, libraries, etc.). Concurrently, the Wood St area shifted to a Mexican-American community in the late 1920s. The occupations of these included tire repairman, delivery boys, laborers, meat cutters, drivers, carpenters, and other construction workers, such as Gregory Vasquez, who owned both 702 and 623 Wood Street houses from the 1950s until very recently. His two homes were demolished in 2014.

**Key Question** 

Consider implications of urban development and its relationship to displacement. How can your design honor the history of this space?



1935 Sanbourn Map of Wood Street

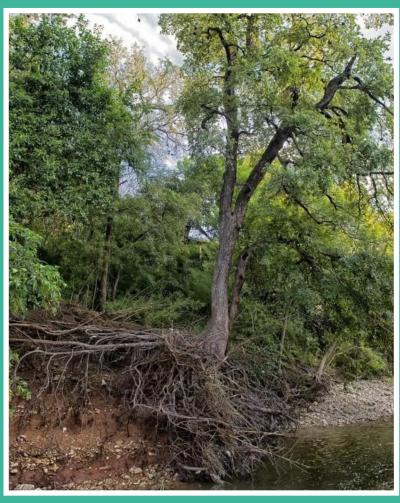
### J. Urban Watershed

The Shoal Creek watershed is a highly urbanized area of Austin. The Shoal Creek watershed is only 13 square miles but it's population is expected to reach over 78,000 by 2030 and 54% is already surfaced in impervious cover. The majority of development within the watershed took place before the adoption of environmental protection regulations. Fifty-six percent of development in the watershed was built before the adoption of drainage regulations in 1974, and 71% was constructed before the adoption of water quality regulations in 1991. The increases in population density and impervious cover result in more frequent flooding, degradation of water quality, diminished groundwater and spring flow, and loss of habitat and safe recreation areas.

### Key Question

In what ways with your design improve water quality, flooding, spring flow, and erosion within the Shoal Creek Watershed?

What elements will your design include that will inspire others to seek practices that do the same?



This cedar elm was once rooted in the bank back from the creek. Erosion has undercut the bank and is about to topple the tree. Accelerated erosion of the creek banks is directly related to the volume and velocity of the stormwater the creek is now being asked to carry.



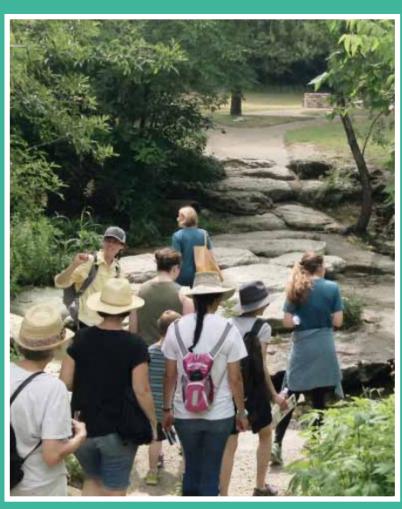
House Park Stadium was underwater on Memorial Day 2015, the site of a dramatic rescue. Austin's emergency responders successfully saved a man, clinging to the stadium fence.

## Accessibility .

"Universal Design" is the design of a place so that it can be accessed and used by all people regardless of their age, size, ability, or disability. Right now there are many access points to the Shoal Creek Trail and parts of the trail itself that are not accessible to those in a wheelchair, including this stair access. Universal Design goes beyond physical disability and encourages design that makes all gender, races, and cultural backgrounds feel welcomed in public spaces.

### Key Question

How can your design be accessible and welcoming to those with a broad range of abilities, identities, and backgrounds?



The Shoal Creek Trail crossing at Seiders Springs has a challenging "Rock-Hop Bridge" that is not accessible to all



The existing trail up to West 6th Street does not meet the standards of the American Disabilities Act, meaning that it is inaccessible for those using wheelchairs.

# Benefits of Green Space

Urban greenspaces provide a diversity of benefits to the communities they serve. Some of these include:

### 1. Community Building

People gather at parks for events, volunteer days, festivals, or just to relax. When parks get designed, communities have direct input in the design process. This process results in engaged residents that feel better connected to their communities.

### 2. Arts + Culture

Parks can be a place to educate communities about the history of the places where they live, and also a place for performance and public art.



"Yippee Ka Yay," by artist Patrick Dougherty stands in Pease Park along Shoal Creek. Art in parks is a way for all to experience art with a low barrier to access.

## 3. Ecosystem and Human Health Parks provide free places to exercise, and the trees and plans in parks filter and our air and water. They also provide habitat for

Key Questions

animals.

How do you connect to outdoor public spaces? What do you see as the unseen potential of parks and green space in Austin?



Park stewardship activities, such as picking up trash, helps neighbors get to know each other and feel connected to their communities.