

Basalt outcrops are evident throughout the canyon.

### Stop 1

This location lies at the bottom of a large canyon formed by river and stream erosion. The bedrock in the area is basalt that once flowed as molten lava across this site about 16 million years ago. Outcrops of basalt are visible throughout this canyon.

### Stop 2

Lapwai Creek and the nearby Clearwater River made this area an important one for the Nez Perce for several millennia. Archaeological investigations have documented human occupation of this site as early as 11,000 years ago. Several factors made this site important: proximity to water and to aquatic food resources such as salmon; access to wood from trees growing along stream banks, as well as drift wood, in an area otherwise too arid for the growth of trees; relatively level terrain; and low elevation which made an ideal location for long-term habitation due to warmer temperatures, relatively low snow depths, and early availability of important plant foods the spring. Can you think of other reasons why this site was a good one for human habitation?

### Stop 3

Do you notice the trees and shrubs on your left along the creek bank? This trail follows what is known as a riparian area. "Riparian" simply refers to land along lakes, rivers, and streams. Riparian areas are especially important in arid and semi-arid climates such as this one, because the increased moisture in the ground allows plants to grow that otherwise could not survive in the area. Plants found in the riparian area are often very different than those found even a short distance away.

The trees and shrubs found in riparian areas are also important for animals that live in and around water. The woody vegetation shades the stream surface keeping it cooler in the sum-

Left to right:wild hyacinth, oregon grape, sticky purple geranium, and swale desert parsley.



mer. Cool water temperatures are optimum for salmon survival and reproduction.

This riparian area was once home to many native plants important to the Nez Perce for both food and fiber. Native plants still found in the area include arrowleaf balsamroot, chokecherry, golden currant, horsetail, serviceberry, sedges, willow, cottonwood, rushes, and yarrow.

## Stop 4

Lapwai Creek and its associated riparian area is important for wildlife. Beaver, river otter, and the western toad (a sensitive species) are all found in association with the creek. In addition, the riparian vegetation along the creek provides habitat for birds including warblers and sparrows. The number and species of birds change depending on the season.

Beavers are important agents of change along the creek. Their dam building alters stream flow patterns and provides habitat for aquatic species including fish. Their removal of trees along the creek thins out riparian vegetation and adds woody debris to the creek which can also provide habitat for fish species. Spotting beavers is difficult because they are largely nocturnal but look around for signs of their activity such as tree stumps and branches that show chew marks.

Take some time at this spot to sit and listen to the sounds around you. You might hear birds singing in the willows, field mice rustling in the grass, or water splashing over the rocks in the stream.

### Stop 5



Streams are dynamic; constantly changing their course and configuration. As you look across the stream from this spot you will notice an old stream hank and channel

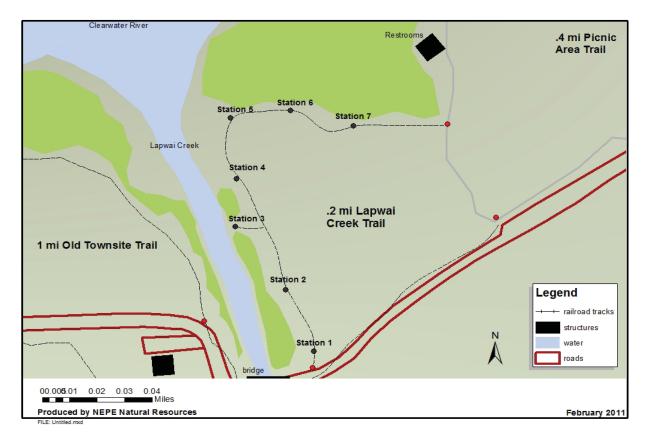
Evidence of beaver along Lapwai bank and channel. Creek. In the past 20 years,

the main channel has moved about 40 feet east to where it is now. Lapwai Creek under goes the most change during flood events when high water can cut new channels and the soil and debris carried by the flood water is deposited, creating new islands and bars. In 1996 Lapwai Creek flooded where you standing and deposited the cobblestones you see along the trail. Can you find evidence of recent high water events?

#### Stop 6

Water quality and fish are important and related aspects of Lapwai Creek. Fish populations are generally dependent on good water quality. There is currently a National Park Service program in place to regularly monitor the water quality of Lapwai Creek and detect any changes from year to year. This monitoring program will provide managers with information that can be used to address water quality issues.

The fish resources of Lapwai Creek have been important to the Nez Perce for millennia. Lapwai Creek is home to both anadromous (fish that migrate to the ocean before returning to spawn) and resident fish. Anadromous species include Snake River steelhead, Snake River fall chinook salmon and recently reintroduced



coho salmon. Steelhead and fall Chinook are considered threatened under the Endangered Species Act. Resident species include rainbow trout, suckers, and northern pike minnow among others.

The Nez Perce tribe is involved in a program to reestablish a coho salmon run in the creek. Coho salmon were eliminated in Lapwai Creek in the early twentieth century due to a dam on the Clearwater River. In the fall of 2010 tribal fisheries staff counted 384 adult coho returning to the creek as a result of their efforts.

In the spring and fall, right from this trail, you have a chance to see salmon swimming upstream in Lapwai Creek. Check with park rangers to see when the runs are likely to occur.

# Stop 7

A major land management concern for the park as well as much of the surrounding region is the presence of nonnative plant species. Some of these plants are aggressive and may injure or cause damage to the interests of agriculture, irrigation, navigation, natural resources, public health, or the environment.

The park is currently working on eradicating nonnative weeds, like thistles, knapweed, poison hemlock, and knotweed that you may see along the trail, and introducing native species. The task is particularly difficult in areas like this near the creek, as flooding brings weed seeds downstream from higher up in the basin. Seeds may also be dispersed through the air, the gut of animals, and by hitch-hiking on an animal's fur or a person's clothing. As a visitor, it is important for you to check your clothes and belongings to make sure no seeds come into or out of the park. In this way, you're doing your part to stop the spread of nonnative plants.

## Stop 8

Two important Nez Perce food plants found in this area are serviceberry and chokecherry. Serviceberries were the most important fruit for the Nez Perce and were especially important stored and used in the winter. Fruits were dried and eaten individually like raisins or were crushed and formed into cakes or loaves for storage. The serviceberry was the focus of the Nez Perce First Fruits Ceremony which was celebrated upon the ripening of the earlier serviceberries found in the lower canyons, such as this area. Chokecherries are commonly found along streams, and were eaten fresh as well as dried and stored for winter use.

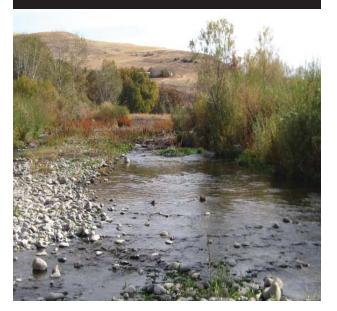
Sedges were used for making cordage (twine or rope). Willow was also used to make cordage (as well as cooking baskets). And cottonwood, which is found abundantly here, was used by the Nez Perce for making saddle frames. You can see items made with these local plants in the exhibits at the visitor center. But these are not lost arts. Many Nez Perce still make traditional crafts with local plants.

#### Natural cordage used for fishing.



Lapwai Creek Trail Spalding Nez Perce NHP





# Welcome!

The trail begins upstream from Lapwai Creek's confluence (where one river or stream empties into another) with the Clearwater River. At an elevation of about 800 feet the creek traverses ancient stream deposits that have been laid down by floods over the last several thousand years.

The Lapwai Creek watershed (land area that drains into the creek) is about 267 square miles in size with its headwaters at an elevation of 4,800 feet. Most of the land in the watershed is used for agriculture and is distributed among many different landowners, including private, state, tribal, and federal.