



Columbia River Heritage Trail Concept Plan

June, 2000 • Morrow County, Oregon





Concept Plan

June, 2000

A cooperative effort of:

Morrow County

The City of Boardman

The U.S. Army Corps of Engineers

The U.S. Fish and Wildlife Service

Confederated Tribes of the Umatilla Indian Reservation

The City of Irrigon

The Port of Morrow

Boeing Agri-Industrial Company

Oregon Department of Fish and Wildlife

*Prepared with assistance from the
Rivers, Trails, and Conservation Assistance Program
of the National Park Service*

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Trail Sponsors

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Morrow County
City of Irrigon
City of Boardman
Port of Morrow
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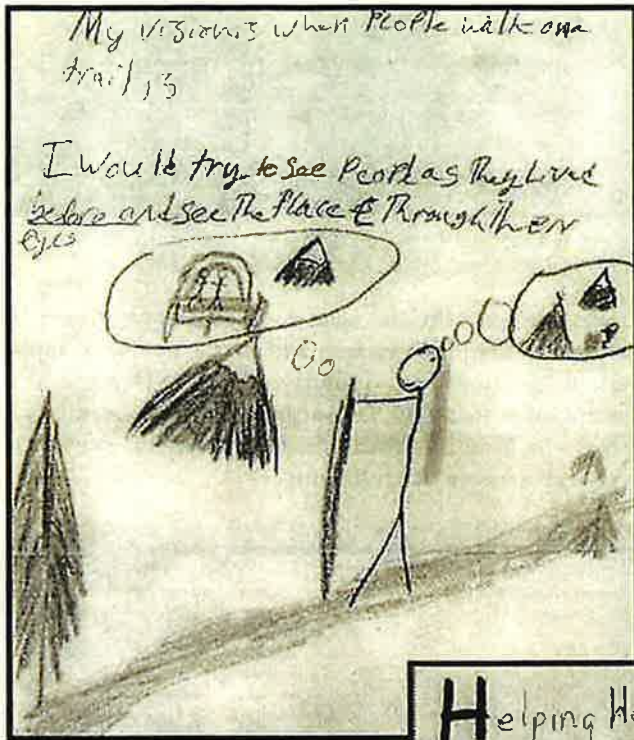
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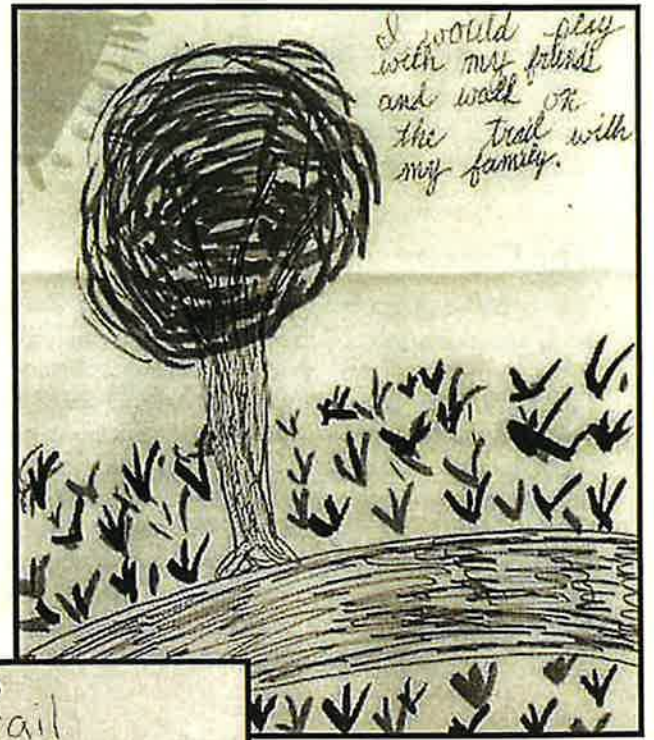
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Introduction: Local Voices/Voces Locales

The sketches and characterizations of the Morrow County Columbia River Heritage Trail collected here give shape and support to the long-standing dream of a trail in north Morrow County. "Local Voices" were solicited when the Draft Trail Concept Plan was unveiled at the first annual Morrow County Lewis and Clark Heritage Day. A \$25 honorarium was awarded to each of the three winning artists and writers.



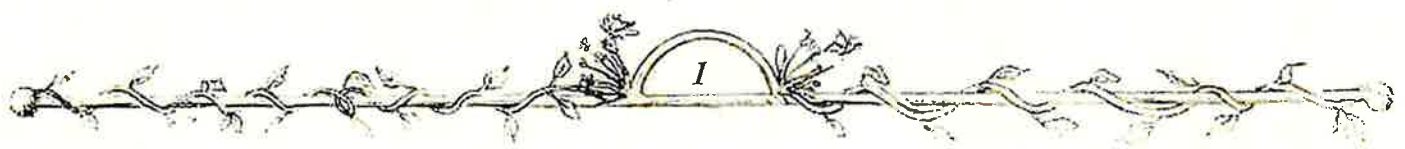
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Helping Hands **T**rail
Environmental **R**ides
 Enrichment
Restoration **A**nd
Interested **I**ndividual
 Individual
Teaching trail **L**earning
Awesome Awareness
Generational
Education

Tory Larsen, Irrigon



Project Summary

This plan presents a concept for the development and management of a public trail and the protection of the trail corridor along the Columbia River on Morrow County's northern border. The plan addresses the management of natural and cultural resources, visitor use and access, interpretation and other trail facilities. The major components of the plan are:

- * The *resources* and their *significance*.
- * The *vision and goals* for the heritage trail.
- * The *concept*, which is a detailed description of the recommended trail route, development strategies, and specific management actions.

The Concept

The overall concept is to build and manage a continuous trail, approximately 25 miles, for walkers, bicyclists and other non-motorized travelers and recreationists that loosely parallels the Columbia River and spans the full width of north Morrow County. It has been named a 'heritage trail' to embrace the potential the trail possesses to symbolize and honor the breadth and depth of past and present human activity in the region and to preserve and appreciate natural and cultural resources. It accomplishes this by traveling through a variety of natural and built landscapes, linking rural and urban environments, and protecting natural and cultural resources.

The Opportunity At Hand

The exciting news is that the Columbia River Heritage Trail can be designated and opened in a very basic form almost immediately. All of the land managers have agreed in principle to the trail concept and a route following existing paths could easily be identified, signed and opened to the public with a minimum of effort and expense. This basic trail route will still require extensive improvements over time, but the opportunities for later improvements will be greatly enhanced through the increased visibility and public support that is sure to follow the trail's opening.

Recommendations

Realizing the vision for the Heritage Trail will require the efforts of the entire community. To build and maintain the trail partnerships must be created between private cit-



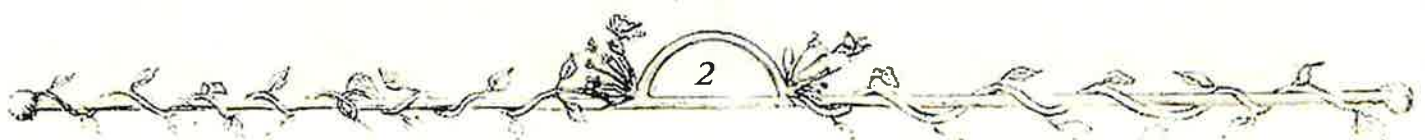
Figure 1. Community members had an opportunity to view the proposed trail route during the 1999 Heritage Day.

izens, elected officials, agencies and organizations. Also critical to the plan's success will be the ability of supporters to use innovative designs and take advantage of cost saving opportunities. This plan identifies several actions that will favor successful implementation. Key among these actions are the following:



Figure 2. Scene of the Columbia River and the Port of Morrow.

1. A formalized partnership among land managers must occur to create the management structure by which the trail can be developed and managed. This is best accomplished through a formal written document such as a cooperative agreement or a memorandum of understanding among partners.
2. A volunteer program needs to be designed and implemented. Key elements of such a program are a program



coordinator, project identification, volunteer training and volunteer recognition.

3. Creating a unique and recognizable identity for the trail is also necessary. This is accomplished by developing a logo, design standards, and interpretive program for the trail.

Background

This trail will follow the Columbia River, the most significant waterway in the Northwest. The area is rich in both natural and cultural resources which fed the spiritual and material lives of Native Americans for centuries, and continues to enrich our lives today. The area contains a national and state wildlife refuge, several Lewis and Clark historic sites, as well as agricultural and Port of Morrow industries. The land is under federal, state and/or local ownership, and all of the managing agencies have supported and collaborated in conducting this cooperative study and plan for a trail.

Years ago a group of citizens from both Morrow and Umatilla counties attempted to develop a trail paralleling the Columbia River from Hat Rock State Park (Umatilla County) to the City of Irrigon. The proposal involved gaining the use of an abandoned railroad right-of-way and never came to fruition. Current efforts to develop a trail system along the entire northern boundary of Morrow County are now focused on the ribbon of public land that borders the Columbia River.

This trail planning project is supported by other local and county planning initiatives, including: 1) the County Master Park Plan, which documents interest on the part of the County in enhancing park and recreational opportunities along the Columbia River (the County does not presently have any trail or park facilities on the river); and 2) the designation in 1999 of the Lewis and Clark



Figure 3. TAC meeting to discuss trail planning.



Figure 4. Trail reconnaissance walk through the Port.

National Historic Trail as one of sixteen "National Millennium Trails." With historic Lewis & Clark camp sites on the river in Morrow County, the County and the cities of Boardman and Irrigon are preparing for the mass of visitors that will travel through the area during the 2003-2006 bicentennial of the Lewis and Clark expedition. The citizens of Morrow County envision creating a trail that serves a model for other counties bordering the Columbia River who are considering similar heritage trail projects. This could someday result in a state-wide trail along the Columbia River that commemorates all aspects of community heritage, including the Lewis and Clark expedition.

The Planning Process

Morrow County requested technical assistance from the National Park Service's Rivers, Trails, and Conservation Assistance (RTCA) program to develop a concept plan for a trail system and related conservation improvements. Morrow County was selected and given assistance in 1998 and 1999.

A Trail Advisory Committee (TAC) was appointed by the Morrow County Court to work with the County's planning director and staff from the RTCA program. TAC members are representatives of the interests of the county, including community trail advocates, the cities of Boardman and Irrigon, the Irrigon and Boardman park districts, the Confederated Tribes of the Umatilla Indian Reservation, educators, all the managers of public lands bordering the river, the Port of Morrow, private business, the Hispanic community, the County Planning Commission, as well as local and regional residents.

Trail planning commenced by naming the trail and developing the Trail Vision. Planning continued with trail reconnaissance walks to identify a route, reviews of the natural and cultural resources in the area, ongoing discus-

sions with each of the agencies managing land in the proposed trail corridor, and regular meetings of the TAC to review and comment on the work as it progressed.

Outreach and Public Participation

The exciting news that a trail in northern Morrow County is being planned has been shared with the public in many ways. Public participation was initially encouraged by an open call for nominations for the Morrow County Court-appointed Trail Advisory Committee. The news media was continually kept informed about the proposal, its progress and was invited to all of the work sessions. A bilingual informational flyer and proposed trail map was mailed to all residents part way through the project. Public involvements was further solicited by open invitations to participate in projects sponsored by the Advisory Committee like the 1999 spring river cleanup and the first Annual Heritage Day. The Heritage Day Celebration included the Local Voices/Voces Locales contest and a pie baking contest, which was the first community fundraiser



Figure 5. "Local Voices" participants at the Heritage Day Celebration.

benefiting the Heritage Trail. The public's role will continue to grow as the plan is realized, contributing to local fundraising, trail construction and maintenance, and support programs such as education and guides.



Western meadowlark and prickly pear

*Resources in the
Corridor*

Resources in the Corridor

Natural and Biological Resources

Geology

Columbia River basalt underlies the study area, north Morrow County, which is the result of one of the largest basalt flows in the world. Formed by a series of immense lava flows that primarily occurred during the middle Miocene period, this formation covers over 80,000 square miles and ranges in total thickness to over 5000 feet. Its numerous individual flows range from 25 to 100 feet thick, and extend laterally for miles. Hundreds of basalt flows erupted during the few million years of volcanic activity in the flood basalt province, leaving the crust of the earth depressed and forming the Columbia River Basin.

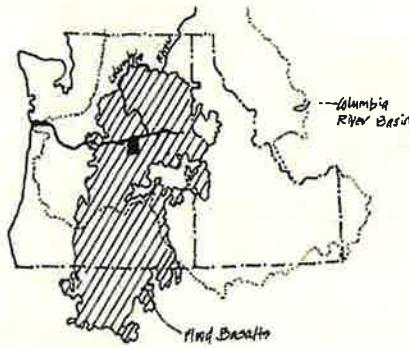


Figure 6. Flood basalt flows in the Columbia River Basin



Figure 8. Erratics - granite boulders moved by the floods from the Rocky Mountains.

The basalt from the massive parts of the flows is typically fine-grained, dark gray, and dense, while the basalt from the upper parts may be scoriaceous (cindery lava). The upper parts of the vertical flow are commonly shades of red and brown, due to oxidation and partial weathering. Columnar joints are the most distinctive formations resulting from the basalt flows. These columns are created as the lava cools and cracks like drying mud. Hat Rock and the Hermiston Butte are two local examples of this volcanic activity. A series of catastrophic floods, often called the Missoula Floods, dramatically shaped the geology of the four Pacific Northwest states during the last ice-age. Geologist J. Harlan Bretz, first proposed that floodwaters originating near present-day Missoula, Montana roared through this area at speeds



Figure 7. Columnar basalt - evidence of a volcanic past.

up to 50 miles per hour and at heights of 800 to 900 feet. These recurring floods carved and widened the bed of the Columbia River as it traveled toward the Pacific Ocean. Evidence of these floods comes from layers of coarse sand and gravel, intermixed with boulders, which have been rounded by the abrasive action of water. Many of these boulders are granite and originated as far away as the Rocky Mountains. Other evidence comes from the islands in the river, which were also deposited by these floods. The now submerged Sand Island, located in the vicinity of Irrigon, was the largest of these deposits. Regional landmarks such as Two Sisters and the Wallula Gap also offer physical testimonies to the shaping force of water.

Flora

The distribution of plants and animals is neither random nor uniform. Instead, each species is limited to specific habitats within a particular geographic range. Locally the physical environment determines plant habitats based on: the range of air temperature; the amount, type, and seasonal distribution of precipitation; the physical and chemical characteristics of the soil; and the effect of local topography on climate, soils, and drainage. Due to the variability of many of these factors, a variety of vegetation types are found in Morrow County. The most common vegetation types include shrub-steppe, bunchgrass prairie, and riparian (streamside).

Shrub-steppe vegetation includes plants that are adapted

to the conditions characteristic of the Columbia Plateau's dry and seasonally hot climate. This cover type is found throughout the area, but often its vegetation is sparse, due to the soil characteristics and water availability. Many of the slopes along the river where it occurs, are steep, have thin and coarse soils, and may be covered with talus. These conditions restrict the number and types of plants that can inhabit the area. The land becomes increasingly arid away from the river and cannot support abundant or diverse numbers of plant types other than shrub-steppe. Common shrubs of this cover type include gray rabbitbrush, sagebrush, bitterbrush, and greasewood. Other plants adapted to these conditions are a limited number of grasses, small flowering plants, and cacti. Trees are rare, except near a water source.

Bunchgrass prairie occurs in areas where deep deposits of loess (wind-deposited silt and sand) have accumulated on gentle slopes. Two of the common grasses found in this cover type are bluebunch wheatgrass and Idaho fescue. Prior to European settlement, the Columbia Plateau region supported vast areas of these natural grasslands, though now only remnants of this cover type still exist. The Columbia Basin's larger remaining tracts of native grasslands are located on the Boardman bombing range, the National Wildlife Refuge, and the state wildlife areas near Umatilla and at Willow Creek. Smaller patches are found scattered throughout Morrow County, many of which are located in areas managed by the Army Corps of Engineers or on land owned by the Nature Conservancy.

Riparian ecotones are zones adjacent to lake and river shorelines that are directly influenced by water. This creates soils, vegetation, and hydrology distinct from the pre-

dominant arid vegetation cover types of the Columbia Plateau. The soils found in riparian areas, for example, are water-saturated at least part of the growing season, and most plants are hydrophytic (water-loving) and are adapted

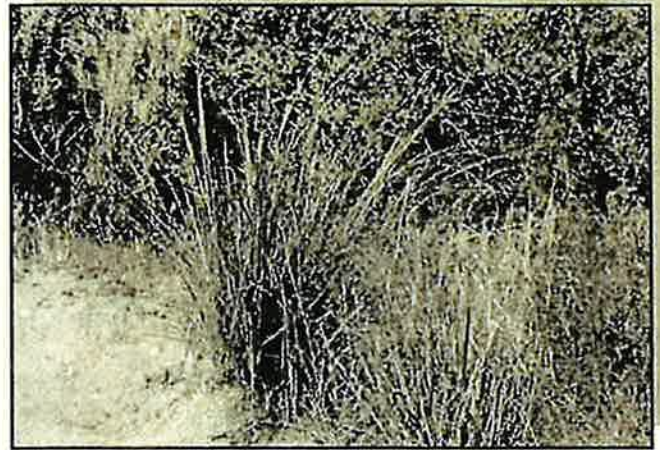


Figure 10. Native grass found on lands managed by the Army Corps of Engineers.

to and often require saturated conditions. Common riparian plants that are native to the area include black cottonwoods, willows, cattails, and rushes. Excellent examples of riparian cover type exist along the Columbia River in virtually all the management areas, particularly along the ponds, marshes, sloughs, and seasonal wetlands in the Umatilla National Wildlife Refuge and the wildlife area managed by the Oregon Department of Fish and Wildlife (ODFW).

Human activities, including irrigation and dam construction, have altered arid areas so that they can support plants with higher water requirements than native species, including crops of corn, wheat, and alfalfa. One result of these activities is the disappearance of natural wetlands in the area, which were flooded by reservoirs or converted to agricultural fields, and, the emergence of man made wetlands. Other impacts to the native vegetation come from range fires, land conversion, overgrazing by livestock, and the introduction of exotic plant species. Aggressive introduced plants, such as cheatgrass, knapweed, tum-



Figure 9. Shrub-steppe vegetation is common throughout Morrow County.



Figure 11. Riparian vegetation in the Umatilla Wildlife Refuge.

bleweed, and perennial pepperweed, are outcompeting the native bunchgrasses that were once common on these arid lands, and Russian olive threatens the native species in riparian areas. Like all places, the physical characteristics of the land and human actions shape the type of vegetation found in Morrow County.

Fauna

Animal habitats are governed directly by the types of food and cover that are available from different types of vegetation, and therefore indirectly governed by the factors that affect the distribu-



Figure 12. California gulls.

tion of plants. The diversity of plants and cover types located in Morrow County provide habitat for a variety of fish and wildlife. Because of the loss of wetlands and other natural habitats in this area, the Umatilla National Wildlife Refuge and the ODFW Wildlife Area are vital to migrating waterfowl, bald eagles, colonial nesting birds, and other migratory and resident birds. Over 190 bird species have been recorded in the area, including the following species of special interest: bald eagle (threatened), peregrine falcon (endangered), long-billed curlew, white pelican, osprey, and burrowing owl. The Columbia River provides extremely important habitat for the waterfowl of the Pacific Flyway. Its prominent water area, interspersed islands, and extensive agricultural lands, furnishes resting areas, nesting sites, shelter, and feeding grounds for large numbers of ducks and geese. In the Umatilla Refuge alone, over 400,000 ducks and 50,000 geese have been counted. Other migratory shore and water birds that use the area include ring-billed gulls, California gulls, and Caspian

terns. In the early fall, songbirds migrate through the area as they journey to their winter homes in Mexico and Central America. Game birds, such as California quail, ring-necked pheasant, and Hungarian partridges utilize the sagebrush habitats of the river and nearby irrigated farmlands. Talus slopes and vegetated canyons afford habitat for a significant chukar population, and provide nesting habitat for many of the river's raptors, including the red-tailed hawk, Swainson's hawk, golden eagle, great-horned owl, and others. Northern Harriers, burrowing owls, and short-eared owls nest in the area's open rangeland and marshy sites.



Figure 14. Red fox.

Many mammals also find suitable habitat in this region. A large mule deer herd resides on the Umatilla Wildlife Refuge and relies on the agricultural fields and native shrubs for food. Small numbers of pronghorn antelope are occasionally seen in the region. Predators that use the shoreline, stream bottom, and brush habitats include weasel, striped skunk, raccoon, coyote, mink, otter, muskrat, and beaver. Badgers are occasionally seen in the open range areas as well. The large number of rodents, reptiles, amphibians, and fishes provide an ample prey base for these predators.



Figure 13. Swainson's hawk.

This region serves as migration, feeding, spawning, and rearing areas for a variety of fish species, both native and introduced. Several trout species, salmonid species, walleye, largemouth and smallmouth bass, crappie, and sturgeon can be found in the Columbia River, wetlands, marshes, and/or ponds in the area.

Species at Risk

Species at risk are those populations that may become extinct if actions are not taken to reverse current trends. Loss of historic habitats in the Columbia Basin has led to the decline of many animal populations. Several bird species that were once widespread throughout the Columbia Plateau's grassland and shrub-steppe regions are now limited to remnant patches of habitat, including the Ferruginous hawk, Swainson's hawk, burrowing owl, and long-billed curlew. Other animal species have been adversely affected as well, such as the northern sagebrush

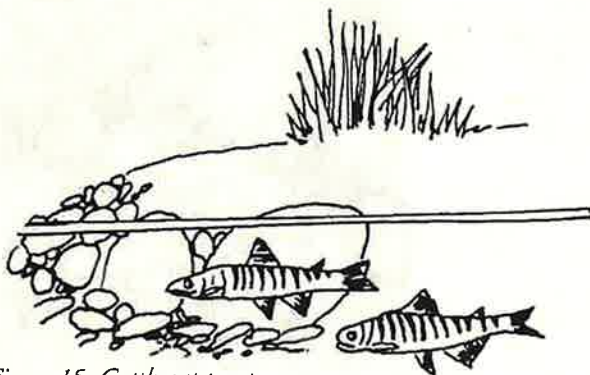
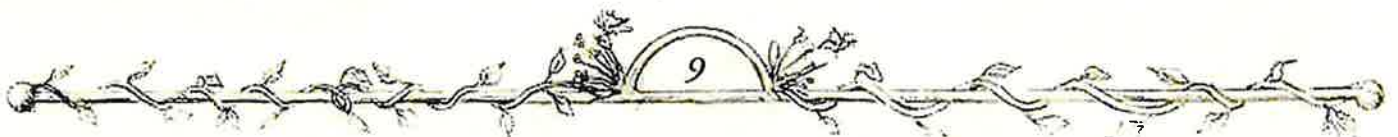


Figure 15. Cutthroat trout.



lizard, the Columbia spotted frog, and a number of bat populations, all of which are listed as "candidate" species due to declining population numbers. The Washington ground squirrel was listed by the State of Oregon as an endangered species. The grasshopper sparrow, also a grassland-dependent species, is State listed as "sensitive" and Federally listed as "species of concern" due to loss of habitat. The loss and conversion of much of the natural wetlands of the region make the remaining wetlands all the more important for the species that depend on them.

Because much of the remaining grassland, shrub-steppe, and riparian areas are located on publicly-owned land, future public/government management decisions and practices can have an instrumental role in preserving the remaining patches of native vegetation. The Umatilla National Wildlife Refuge, for instance, is attempting to eliminate Russian olive from the landscape and to restore the natural vegetation to the area. Non-profit organizations, too, play a role in preserving these ecosystems. The Nature Conservancy, for example, maintains several preserves in the region that support native grasslands, including the Lawrence Memorial Grasslands and Lindsey Prairie.

Dams and irrigation diversions have also dramatically altered habitat for aquatic species. The Columbia Basin historically supported diverse and abundant populations of salmon, but most stocks have been heavily depleted and a number of populations are now extinct. Several endangered salmon species still use this portion of the river as a migration corridor. For example, the Snake River spring chinook salmon, Snake River fall chinook salmon, and Snake River sockeye all pass through the region and are the focus of several efforts to assist them, including the construction of fish ladders at dams and the actions of fish hatcheries.

Riparian Functions and Values

Though riparian areas are a minor component of the landscape, they are extremely valuable. Some of their more important functions include providing habitat, improving water quality, and acting as shallow aquifers.

Riparian areas are more structurally diverse and productive than adjacent upland areas due to available water and nutrients. This high plant productivity provides food, water, cover, and shade for many animals. Muskrat, mink, beaver, and otter are among the mammals that are associated with riparian ecotones and rely on this habitat. Riparian vegetation influences several factors necessary for successful fish populations, such as moderating water temperatures and providing hiding and feeding opportunities. Wild and domestic grazing animals find high-quality for-

age in these areas, which is often not available in the drier locations of the landscape. Many species of waterfowl depend on riparian habitat, including loons, grebes, coots, and white pelicans. These corridors also serve as important migration routes for wildlife, particularly deer and birds.

The high plant productivity of riparian ecotones also improves water quality. As water flows through a mature and productive riparian zone, nutrients are removed. Bacterial activity is maximized here, and nutrients that can be eliminated by anaerobic bacteria to a gaseous by-product, such as nitrogen, are reduced. Other nutrients, such as heavy metals and phosphorous, are absorbed by the vegetation. These processes prevent a great deal of surface and sub-surface pollution from entering the river.

Another important role of this zone is to moderate the river's extreme low and high water levels that occur at different times of the year. The soils found in riparian areas have a rich organic content, due to the high levels of plant production, which has a tremendous capacity for near-surface water storage. Much surface runoff is retained by these soils before reaching the stream channel, which lessens the severity of flooding during the wet seasons. The water that is absorbed and stored in riparian areas is later slowly released to the river channel during low streamflows, which occur during the dry and hot periods of the year. By reducing the threat of flooding in the wet season and acting as natural reservoirs in times of drought, riparian zones modify the river's hydrologic flow in beneficial ways.

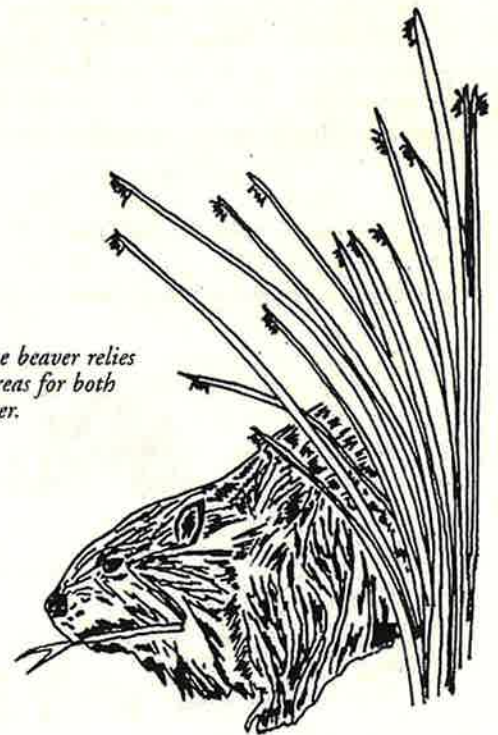


Figure 16. The beaver relies on riparian areas for both food and shelter.

Historical and Cultural Resources

Native American People

Prepared by the Confederated Tribes of the Umatilla Indian Reservation (CTUIR); Photographs courtesy of the CTUIR.

Archeological evidence is extremely useful for understanding early human settlement in the area. The best archaeological evidence indicates that by approximately 13,000 years ago people inhabited the Americas, though there may have been human settlement as early as 20,000 to 30,000 years ago. The evidence found in the Pacific Northwest consists of large caches of Clovis fluted spear points found near Wenatchee, Washington (on the northern Columbia Plateau), and at the Dietz Site in Oregon (on the Southern Columbia Plateau). Kennewick Man, called the "Ancient One" by Native Americans, was found 50 miles northeast of the Boardman-Irrigon area and radiocarbon dated to roughly 9,400 years ago. The people who lived along this portion of the Columbia River were part of an overall cultural group referred to as the Columbia Plateau Tradition.

Archaeologists divide the area's prehistory, or history before contact with Euro-Americans, into three periods that show a progression from a nomadic to a settlement way of life. During the beginning of the Early Period, from about 12,000 to 7,000 years ago, people used the large, fluted Clovis projectile points to hunt large game, such as mastodons, mammoths, and giant beavers. They also hunted deer and small game, and fished in the Columbia and other rivers. The people were nomadic during this time period, and moved in small groups to where food and other resources were readily available.



Figure 17. Atlatls, used for throwing spears

By the later portion of the Early Period, people living on the Plateau made long, narrow, willow-leaf shaped spear points archaeologists call Cascade points. These were fitted onto darts, which were thrown with the aid of spear throwers, or atlatls. Other stone tools became more diverse. These tools and animal bones show that the people fished and hunted bison, elk, deer, and antelope; snared birds, rabbits and rodents; and they also collected a large variety of plants, particularly the roots of desert-adapted plants.

The Middle Period, lasting from about 7,000 to 4,000

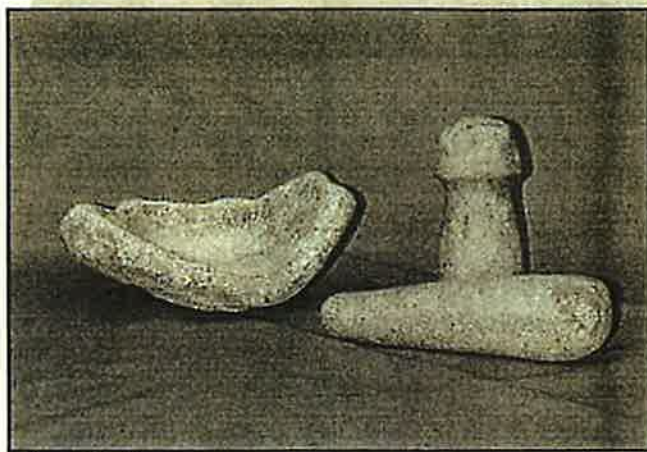


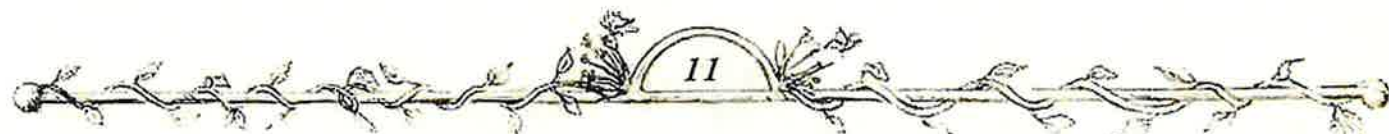
Figure 18. Stone mortar and pestles - used for grinding and pounding plants.

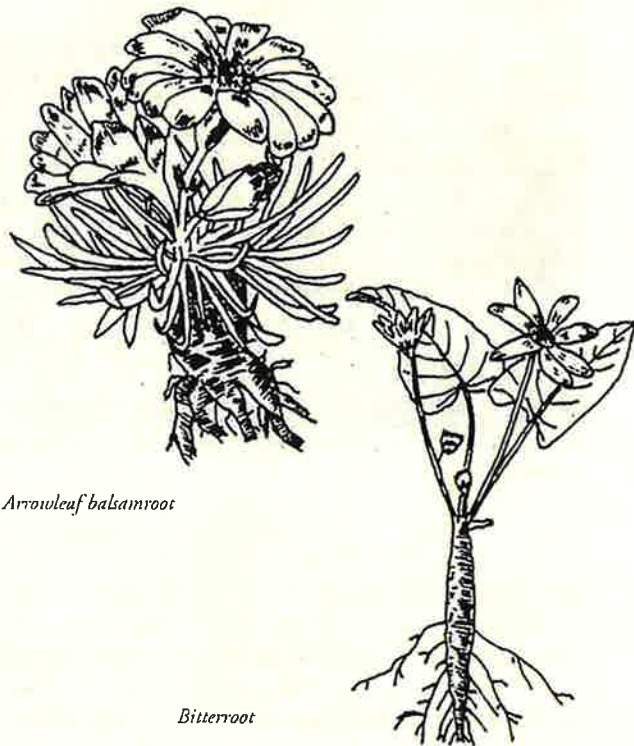
years ago, was a period of cultural change. People still hunted game and gathered plants, but grinding stones for grinding/pounding plants became larger, suggesting a stronger reliance on plants for sustenance. Some of the people began to live in semi-subterranean pit houses, particularly during the colder months of winter. These semi-permanent structures show that the people began to preserve foods, such as salmon, deer, and tubers, and to store this food for the winter months. During the Middle Period, the culture changed from the more general hunting, fishing, and collecting pattern of the Early Period to the later, more river-oriented life-ways of the Late Period.



Figure 19. Fish weights and arrowheads.

The Late Period began about 4,000 years ago, and ended with the introduction of the horse during the early 1700s. People of the Late Period lived in a manner similar to the Native Americans that Lewis and Clark visited along the river in 1805 and 1806. Life centered around small to





Arrowleaf balsamroot

Bitterroot

Figure 20. Plants collected in the spring months.

large villages of pithouses, which were occupied primarily during the cold months. Artifacts left behind by these people include larger numbers of net sinkers, suggesting that the people may have fished more intensively in the Columbia River. The many small, beautiful made arrowheads for which the area is famous were made during this period as well, and the bow-and-arrow came into common use as a hunting tool and general weapon.

During the Late Period and at Euro-American contact, villages were scattered along the main rivers of the Pacific Northwest. Favorite locations seem to have been confluences of two rivers. When spring came, many of the people moved away from the villages in small groups to hunt and collect the early plants, such as arrowleaf balsamroot (Indian celery) and bitterroot. As spring advanced, fishing for salmon and other anadromous and resident fish began. Berry collection and hunting were the primary activities in the fall. By early winter, the people returned to their villages. While they continued to hunt and fish during the winter, they also relied on dried and smoked salmon, jerked venison and elk meat, and dried root crops they had prepared in the earlier months.

As part of their yearly cycle, people congregated in large groups in areas with abundant resources, such as well-known river rapids and waterfalls. During these times they held feasts and ceremonies, traded foods and goods,

and socialized. News from near and far was shared, people who had passed away were remembered, and stories were told and repeated. Marriages may have been initiated or celebrated. Games were played and contests were fought (horse racing became a favorite after AD 1720). These large multi-tribal gatherings took place in well-known areas, such as Celilo Falls west of Boardman. Groups of people speaking different languages and even tribal enemies could meet at these gatherings because these areas were considered "neutral."

The people harvested what nature provided, and they lived in close harmony with nature. Their religion reflected this way of life. In their minds, the supernatural and natural were not separated. They were one, and religious ceremonies were a daily occurrence. This is still reflected in the thinking of present-day Native Americans. Nature is not divided into living and dead matter; instead, everything has a place, a function, and a design. Water, land, and air are life-sustaining allies; one should not foul or pollute them. Water sustains the things that grow on the earth. The earth provides food, medicines, and materials for shelter, tools, clothes, and wood for fire. The people are part of the earth, and the earth is part of them.

The horse was introduced on the Columbia Plateau in approximately 1720. This dramatically changed the range of movement of the people and the amounts of goods that could be transported. Semi-subterranean pithouses slowly gave way to mat-covered, above-ground lodges, possibly to reflect this more mobile way of life. Some tribes took to the horse more readily than others did. The Cayuse were excellent horsemen, and the Nez Perce started a new breed now called Appaloosa, after the Palouse Tribe. The Cayuse became well-known horse warriors, on par with those of the Great Plains and as good or better than any light cavalry in the world. After the acquisition of the

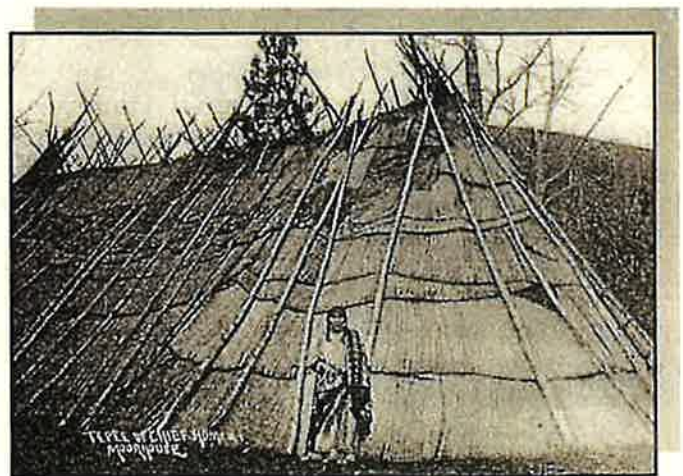


Figure 22. Tule mat long house, circa 1905.

horse, the Shoshone intensified their expansion to the north, which was begun at the Mojave Desert approximately 5,000 years ago. The Shoshone then became involved with the Columbia River tribes.

Native Americans Since Lewis and Clark

Lewis and Clark's Corp of Discovery opened up the Pacific Northwest for Euroamerican exploration, exploitation, and settlement. The Corps of Discovery was followed by other explorers who knowingly or inadvertently assessed the natural resources of the area. Fur traders searched for a supply of fur-bearing animals and for trade routes through the region without conflict, for two reasons. First, Native American tradition proscribed that all peoples shared the land and the riches on and in it, even though this sharing was couched in ritual. Second, these traders brought in many new items of great interest to the local people.

Along the way, Euroamerican contact resulted in the establishment of Christian (Protestant) missions in the Pacific Northwest. Marcus and Narcissa Whitman settled at Waiilatpa (the Waiilatpu, or Ryegrass People, lived at Waiilatpa), a Cayuse village along the Walla Walla River less than 45 miles east-northeast of Irrigon. At the same time the continuous influx of Euroamericans brought foreign diseases to the local population who had no immunity. In the traditional Native American world view, people, the natural world, the spirit world, and daily occurrences are intimately intertwined. Blaming the Whitmans for the devastations of disease and acting on this belief brought the original mission to an abrupt halt in 1847.

By the early 1850s the stream of settlers coming from the east reached, for the Native Americans, epic proportions. People came through this area to go to the Willamette Valley because of its fertile, well-watered lands. Officially, it is said that Indian unrest (i.e. the Whitman incident) caused nervousness among the immigrants to Oregon Territory, and the United States Government came to the local tribes to make peace and to allow settlement of the Pacific Northwest. Native Americans are of the opinion that the Treaty of 1855, signed between the U.S. Government and the local Peoples, served largely to legitimize the U.S. Government.

As a result of the Treaty of 1855, the Umatilla (the original inhabitants of both sides of the Columbia River from the Umatilla River on the Oregon side to Rock Creek on

the Washington side), the Cayuse, and the Walla Walla were restricted to the Umatilla Indian Reservation. The rest of their territory was ceded to the U.S. Government. However, the Tribes reserved a number of rights in and on ceded lands. These included the right to hunt, fish, collect plant foods and, as interpreted by the U.S. Supreme Court in recent years, all other rights that were not specifically signed away as part of the Treaty. Despite having a land base and retaining rights in the ceded area, it was no longer possible for Tribal members to make their living in the traditional way. Therefore, the U.S. Government agreed, as part of the Treaty, to support the Tribes in a number of ways.

The onslaught of the Umatilla's reserved lands and rights began almost immediately. First, the reservation was diminished by taking out the northwest corner so that the City of Pendleton could be established. The Act of March 3rd 1885 authorized individual allotments of 40 acres each to Tribal members on the Confederated Tribes of the Umatilla Indian Reservation and allowed for the government to sell of the surplus land. The Dawes Allotment Act of 1887 was the nationwide Act which set the policies and procedures to allot Tribal land. These acts resulted in the loss of at least half of the Umatilla Reservation.

Exercising Tribal treaty rights on ceded lands fared no better than trying to keep the land base guaranteed to the Native Americans as part of the Treaty. Tribal members were increasingly denied their rights off the reservation. By the 1950s, Native Americans that were caught hunting, fishing, or collecting plants off the reservation were fined, arrested, or both. Lawsuits concerning these rights were thrown out of court. Native Americans had few rights outside the reservation; in fact, they did not become U.S. citizens until 1924.

Since the Civil Rights movement of the 1960s, the tide has finally begun to turn in favor of the rights Native Americans lost during the last part of the 19th and the first part of the 20th Century. Native peoples are not gaining new rights; instead, they are able to reassert those traditional rights that they never relinquished. For example, agencies concerned with the operation of the lower Columbia River dams have provided Native American Tribes with rights along the lower Columbia, with a few in-lieu fishing sites. These sites replace traditional fishing areas that were flooded by the construction of the dams.

European Exploration and Settlement

Prepared by Don Eppenbach

European presence, exploration, and trading in the Pacific Northwest began with Spain, followed by Russia and England. Spanish artifacts, including a bayonet dating to the 1600's were found just south of Prineville in 1961 during the construction of Bowman Dam. There is evidence of Spanish gold mining operations lasting from three to five years at Silver Creek.

English exploration in this region began in 1778 with James Cook, who charted parts of the Oregon coast. The exotic animal fur species found here attracted the attention of the Western world, and coastal trade for sea otter drew the Boston seafaring men to the area shortly after the Revolutionary War. In 1787-88, Robert Gray and Jack Kendrick, commanding the vessels *Lady Washington* and *Columbia Rediviva* respectively, made the first American trading venture. On his second trip while commanding the *Columbia Rediviva*, Robert Gray discovered the mouth of the Columbia River, crossing the bar on May 11, 1792. Their predecessors in the fur trade had already introduced European diseases to the Native Americans throughout the Pacific Northwest, and these ailments had begun to exact their toll.



Figure 23. Dick Hensley told how trappers and mountain men dealt with the wilderness.

Lewis and Clark - the Corps of Discovery

Thomas Jefferson was elected the third President of the United States on March 4, 1801. At this time, France controlled a large portion of land west of the Mississippi River, as well as the port of New Orleans. Because of the United States' desire to control the Mississippi, Jefferson sought to purchase New Orleans. When France became embroiled in war, Napoleon offered to sell all of Louisiana and Jefferson readily agreed. Merriwether Lewis, Jefferson's secretary, was groomed for the task of leading a small group to explore and record the details of the purchase. Preparations included training in botany, medicine, surveying, astronomy, and biology. The party eventually included thirty-three men, one woman, and one newborn child.

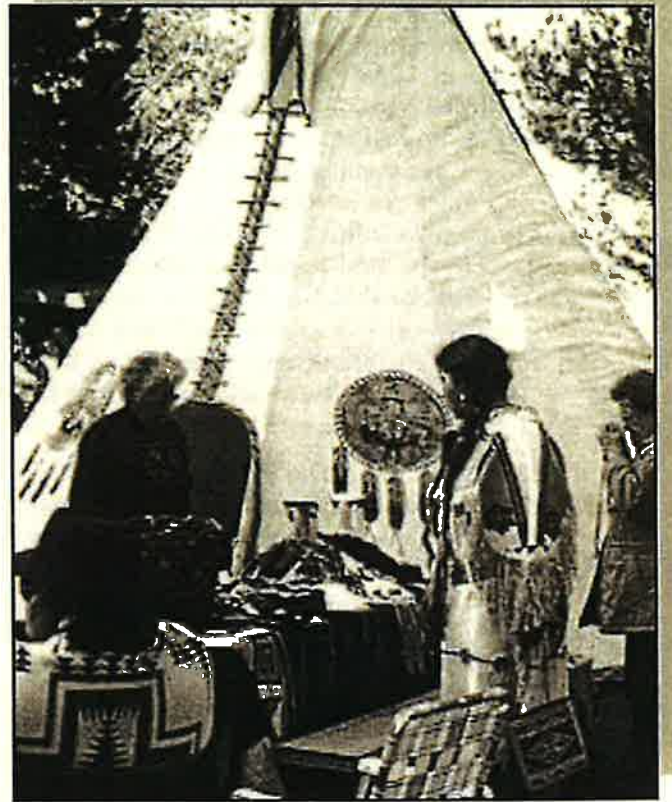


Figure 24 Cayuse Chief Jesse Jones of the Confederated Tribes of the Umatilla Indian Reservation displayed a teepee and other Native American artifacts and regalia.

With luck and the generosity of the Native Americans along the way, the Corps of Discovery journeyed up the Missouri River, crossed the Rocky Mountains, constructed dugout canoes on the Clearwater River in present day Idaho, and reached the confluence of the Snake and Columbia Rivers on October 18, 1805.

On October 19, 1805, the Corps of Discovery landed and



Figure 25. Irrigon and Boardman fourth-grade students wore hats and costumes of the 1800s.

spent the night on Sand Island, offshore from the present day Irrigon Marina Park. The diaries of Lewis and Clark mention the hospitality shown to them by the local people. Wood was in short supply along this section of the river and the local people, most likely members of the Umatilla tribe, brought wood for the group's use and were rewarded with music and dancing.

The next campsite was on October 20, 1805 at Crow Butte, located on the Washington side of the river. Not until the Rock Fort camp at The Dalles did the Lewis and Clark party again camp on the Oregon side of the Columbia River. On its return in late April of 1806, the expedition stayed on the north side of the river from Rock Fort to Wallula Gap.

The diaries of the expedition mention several other islands in the area of Morrow County that were visible from the shore and from points along this trail, such as Blalock Island, located east of Boardman.

Capitalizing on Natural Resources

Fur Trading

The first fur trading organization to establish a foothold in our area was the Pacific Fur Company of John Jacob

Astor. In 1809 he made preparations to establish a city and trading post at the mouth of the Columbia River, and put the plan into operation in 1811. During the same time period, Russian and English traders were moving into the area. The Russians failed, but the English Northwest Company and the Hudson Bay Company were successful in establishing dominance in the region.

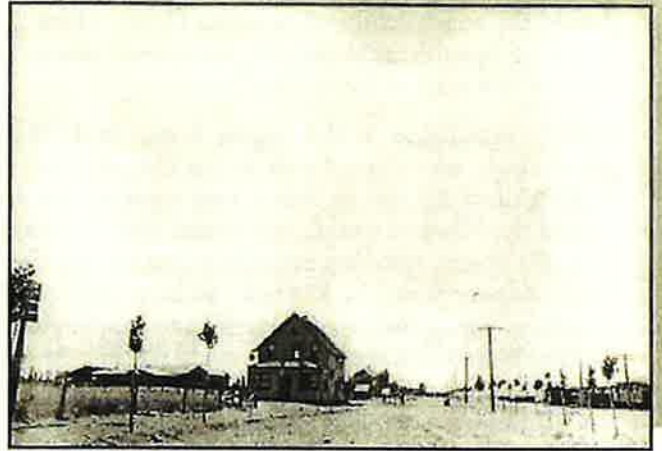


Figure 26. Early photo of Main Street, Irrigon (courtesy of Don Eppembach).

These companies, along with the American fur companies, decimated the populations of fur-bearing animals, which led to contention with the Native American Peoples.

Gold

Gold was discovered in Oregon, Idaho, and Montana in the early 1860's. As a consequence, Irrigon was established as "Grande Ronde Landing" by H&K Enterprises in the summer of 1861 to serve as a transportation point for the gold fields. Hill and Kane built a stable, store, and boat landing and offered assistance to anyone wanting to settle if they promised not to engage in anything that would compete with their company. As a result, several of the early settlers moved upstream approximately six miles and established their own community of Columbia (later called Umatilla Landing, and later still, Umatilla).



Figure 27. Cattle grazing on shrub-steppe vegetation.

Grazing

The land was first used for grazing, as large herds of cattle were brought in from Texas to be fattened-up for shipping to foreign markets by boat and by rail. Sheep were eventually introduced as well. The result of these high grazing pressures was the slow disappearance of the native bunchgrass forage, and sagebrush became the dominant vegetation type.

Irrigation and Agriculture

Irrigation made it possible to grow crops with higher water requirements than the native grasses. Because the average year allows approximately 200 frost free days, the crops were known as the “earliest in Oregon” and were marketed as such in the Portland markets. Fruit, truck garden produce, and melons were prime crops. Later,



Figure 28. Melon farming in Morrow County (courtesy of Don Eppenbach).

other crops were grown, including hay, alfalfa, and corn. Potatoes became the big crop of the 1950's when circle irrigation was introduced south of Boardman. Since then, strawberries, asparagus, field corn, peppers, grass seed, and numerous other irrigated crops have been profitably grown as well.

For several years South Korea had farming interests in the Irrigon-Boardman area and shipped out tons of corn by barge and ocean going vessels. Today crops still reach Asia and the Pacific Rim countries by the truck, rail and river transportation services available through the Port of Morrow.

Transportation

The rivers and streams were the first and most viable routes through Oregon. Trappers used the streams for plying their trade and the larger rivers to transport their

goods. The Native Americans had long used the rivers and large streams for transportation, and their horse trails often paralleled the rivers.

Immigrants traveling on the Oregon Trail also moved through the region in covered wagons. Some of these wagons were sent down the rivers by raft. When traveling on land, wagon trails required low, easy grades, and often could not follow the established horse trails. This led to the creation of new and wider trails along the rivers, except when heavy growth along the streams forced the road builders to seek the higher and more sparsely covered ridges. Steamboats made use of the rivers to the benefit of their owners. The Oregon Navigation Company, owned by Henry Villard, dominated the Columbia River from 1875 until he built a railroad and renamed the company the Oregon-Washington Railroad and Navigation Company. Since space was the premium, cargo on the river was shipped by the cubic foot, and tons of gold came down the river in Villard's vessels.

Henry Villard brought the first railroad through Morrow County in 1881. In 1883 the first intercontinental train passed along the Oregon Navigation and Railroad line, now a part of the Union Pacific rail line, and opened trade between Portland and the east coast. In the early 1950's, the rail line was relocated to serve Hinkle, Oregon, a terminal south of Hermiston. This moved the main rail line serving Irrigon to a route paralleling the interstate high-



Figure 29. Train passing through Morrow County.

way, about five miles south of Irrigon. Two possible transportation sources were then effectively removed from Irrigon's planning options: the railroad and the highway.

A ferryboat was operated by “Pappy” Holmes at a site below the present day Morrow County Grain Growers elevator, from 1920 until after the construction of the bridge at Umatilla in the 1950's. Umatilla County com-

missioners bought out the owners of the ferry service in 1956 to ensure that there would be no competition for their toll bridge.



Figure 30. Highway I-84.

The first major road construction began due to the efforts of Sam Hill (of Maryhill Museum fame). He convinced the State of Oregon that a highway should be built across the State, which would take advantage of the scenic possibilities of the Columbia Gorge and provide an additional link between eastern and western Oregon. The project was built through the Irrigon-Boardman area in 1921 and 22. This served as the main route to Portland until the interstate system was established in the 1950's, when Congress decided that a better road system was needed for military purposes. Highway 30 was placed parallel to the existing railroad tracks, which cut through the outskirts of Boardman and bypassed Irrigon. I-80, later changed to I-84, was a boon to the development of the Port of Morrow, which, unlike many other developing areas in eastern Oregon and Washington, could take advantage of the highway, rail and river navigation options of the area. The State's first highway rest stop still stands beside abandoned Highway 30, now a county road.

Dams and the Columbia River

The Columbia River is 1,214 miles long and drops 2,500 feet as it leaves its source in Canada and eventually spills into the Pacific Ocean. Historically, it was a river of extreme highs and lows, with sections of intimidating rapids. When the Corps of Discovery reached the Umatilla Rapids, for example, the river was shallow and swift and the crews had to "line" the canoes through these difficult passages. Later at Celilo Falls, the Corps "shot" a series of rapids that the local Native Americans considered non-navigable.

As the river became heavily traveled for commerce and

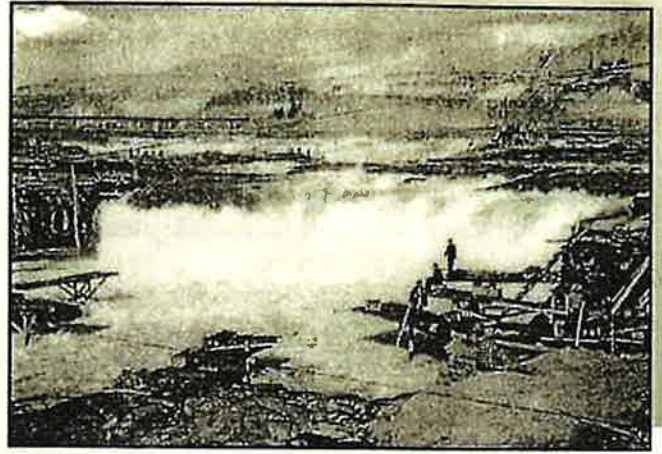


Figure 31. Celilo Falls prior to the construction of dams on the Columbia River. Courtesy of the CTUIR.

transportation, operators divided it into two sections: the lower and upper river. Captains of navigation companies, such as Villard's operation of the 19th century and the Tidewater and Shaver operation of the 20th century, were required to be certified as pilots on the upper river before they were allowed to take control of their vessels. In the days before the construction of the John Day and McNary Dams, the upper river was known as the "rock patch" and humbled many experienced pilots. The first major dam on the Columbia River was the Grand Coulee, completed in 1941, which was designed to provide power, irrigation, and flood control. This was followed by construction of several other dams, including the McNary Dam, near Morrow County, and the John Day Dam, located close to Rufus, Oregon. Today the Bonneville Power Administration distributes power generated by the river from 32 federal dams and 3 thermal generating plants along the Columbia River system.

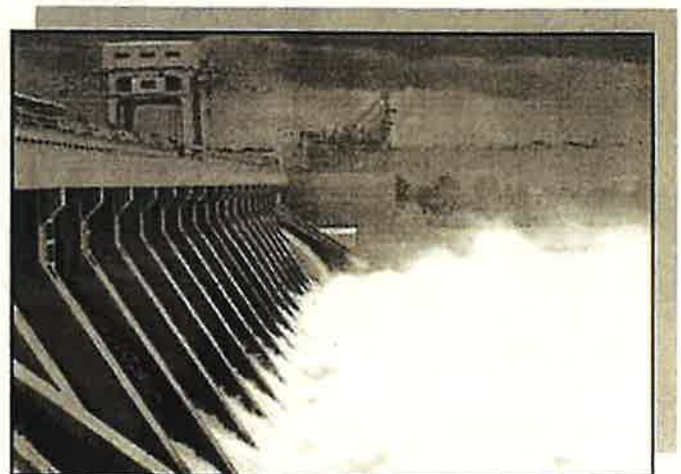


Figure 32. McNary Dam (courtesy of the Army Corps of Engineers, Portland District).

Harnessing the Columbia's energy transformed this relatively undeveloped area. Cheap hydroelectric power sparked the growth of towns and industry. Irrigon and Boardman, for example, received electricity from the Rural Electric Association member, the Umatilla Electric Cooperative Association, in 1940. Water pumped from reservoirs turned scrubland into farmland, and canals associated with the dams formed a highway for commerce in the Northwest. The need to utilize the river for navigation was a concern addressed by the construction of the lower dams. Today, more than 85% of the Northwest's grain exports move through the grain elevators on the lower Columbia.

Because dam construction destroyed much of the habitat located adjacent to the river, wildlife refuges were established by the States of Oregon and Washington and the federal government. These provide critical habitat needed by many species, particularly migratory wildfowl.

Military Activity

In 1940 construction began at the Umatilla Army Depot, two miles south of Irrigon. Pushed by the imminence of war, one thousand and one storage igloos were built here in a year's time. During its active years, which include World War II, Korea, Vietnam, and the Persian Gulf episode, the depot stored all types of munitions, including mustard and nerve gases. It also operated in the processing, renovation, and shipping of munitions by truck, rail, and water. The Irrigon Bomb Docks, between the Patterson elevator and the fish hatchery, was a major shipping point for bombs, shells, and small arms for two decades. Now the depot is being phased out, and all munitions except the chemical weapons have been relocated to other sites. Construction of a chemical agent incinerator is currently underway, and it is expected to begin the destruction of the stored material by the year 2001.

At the same time the depot was being constructed, work began on another military project southwest of Boardman. The Boardman Bombing Range was originally built by and for the U.S. Army and served as a training ground for both land and air forces during the 1940's and 1950's. In the early 1950's, it was taken over by the U.S. Air Force. By 1960 the U.S. Navy

had moved onto the range and, although it is now downsized, still serves as a training area for the Naval and Air Force Reserves.

Significance

Natural and cultural resources include the histories, events, and processes that shape the characteristics of an area and give it value and meaning; not just in revenue or economic benefits, but as unique and treasured features of our heritage.

An evaluation of the values of the natural and cultural resources of north Morrow County indicates three tiers of significance: national, regional and local. Following are the results of this evaluation, organized by level of significance.

Resources of National Significance

The Columbia River

The Columbia River is a nationally recognized resource, both materially and symbolically. Economic benefits from navigation, irrigation, flood control and power generation are only possible because of the river. The river is a nationally embraced symbol of our ability to capture and control our natural wealth and our romance with western expansion and opportunity. It provides habitat to thousands of species of plants and wildlife, some of which are listed on federal threatened and endangered species lists. The Columbia also serves as a migration corridor for a variety of animals, including mule deer, salmon, steelhead and a diverse range of migratory birds.

The Lewis and Clark Expedition

The story of the Lewis and Clark Expedition is a significant chapter in the history of the United States. The route of the Lewis and Clark party has been designated a National Historic Trail by Congress and includes the area of consideration for the Morrow County Columbia River Heritage Trail. In addition, the Lewis and Clark National Historical Trail was designated as one of sixteen 'National Millennium Trails' as part of a White House Millennium Council effort in 1999.



Figure 33. Irrigon bomb docks during WWII (courtesy of Barbara Bloodsworth).

Resources of Regional Significance

Columbia River Basalt

The basalt underlying the region is part of the flood basalt province that was created from one of the largest basalt flows in the world. These flows left a depression in the earth's crust and formed the Columbia River Basin. This is considered to be a regionally significant resource for its presence, magnitude and the compelling stories that can be told about the geologic events that shaped the region.

The Missoula Floods Story

The Missoula, or Ice Age, Floods had dramatic effect on the regional landscape, including carving and widening the bed of the Columbia River, depositing sand, gravel and boulders from as far away as the Rocky Mountains, and in shaping regional landforms such as Two Sisters and the Wallula Gap. This story about the flood events that so dramatically shaped the region is a regionally significant resource.

Bunchgrass Prairie

Some of the Columbia Basin's few and larger remaining tracts of native grasslands are located in the vicinity of the Morrow County Columbia River Heritage Trail. These tracts are considered significant because only remnants of this vegetation cover type still exist, and they provide necessary habitat to several declining populations of plant and animal species.

Wildlife Habitat

The wildlife habitat areas managed by the U.S. Fish and Wildlife Service and the Oregon Department of Fish and Wildlife are significant because of the loss of wetlands and other natural area habitats elsewhere in the region. Preservation and maintenance of these areas are important for wildlife, including many native and sensitive species and the migratory birds of the Pacific Flyway.

Native American People

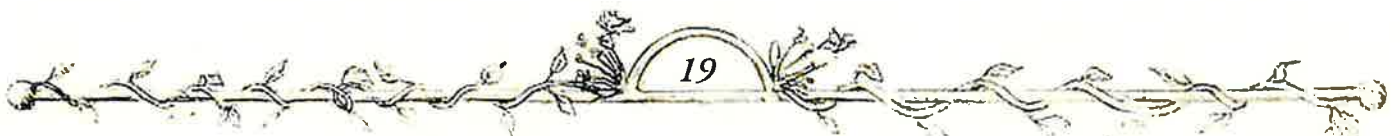
The history, culture and lifestyles of the Native Americans who inhabit lands throughout the Pacific Northwest are a regionally significant cultural resource. The People of the Columbia Plateau have a rich and unique heritage that encompasses all aspects of living, such as land use, trade, tools, recreation, customs and beliefs, that extends from at least 13,000 years ago to the present.

Industry

The industrial development of the Pacific Northwest is a regionally significant cultural resource. This includes such occurrences as harnessing the Columbia River for power generation and irrigation; the growth of local towns and industry; the Umatilla Army Depot construction and activity; and Old Highway 30, interstate development, and the operation of the first highway rest stop in the State.

Resources of Local Significance

All of the natural and cultural resources of north Morrow County are locally significant because they shape and define the heritage of the area. Choosing to name this project a 'heritage' trail was accomplished through a deliberate and thoughtful process of the Trail Advisory Committee. The word 'heritage' was selected because it refers to the entire legacy and timeline of natural history and human habitation of the region. This habitation was (and continues to be) dependent on the natural resources present in the area. The Advisory Committee envisions the trail being integrated into the communities and countryside of north Morrow County in such a way that honors past and present cultures while fostering understanding, appreciation, and stewardship for the natural and cultural resources of the land.





Burrowing owl

*Visions
and Goals*

Vision & Goals

Vision for the Trail

In the course of developing the Heritage Trail plan, the following vision and goal statements were developed by the Technical Advisory Committee to guide all aspects of the planning process.

The *Morrow County Columbia River Heritage Trail* enriches the lives of residents and visitors and fosters a sense of community. This recreational trail allows people to know and experience the natural and cultural heritage, and the industrial/agricultural activities of the area.

The trail:

- is designed to be safe and accessible
- connects people and communities

- preserves, protects and promotes resources
- provides expanded opportunities for recreation for residents and visitors
- is an alternative transportation route for walkers, bicyclists, and other non-motorized users
- serves as an outdoor classroom for all to learn about the wealth of natural resources and the historic, cultural, and industrial activity in the area
- contributes to the health and wellness of residents, the quality of life, and the vitality and economy of Morrow County
- is the result of many partnerships and coordinated management

Management Goals and Objectives

In the course of developing this plan, the following goals and objectives were developed over time. These objectives may be expanded.

Goal 1. Expand Transportation Options

Objectives:

- Develop bicycle, walking and equestrian trails
- Establish a connection for communities along the river
- Promote links to neighboring communities in Morrow, Gilliam, and Umatilla Counties

Goal 2. Enhance Local and Natural History Education Opportunities

Objectives:

- Establish a walking self-guided identification tour for
 - a. Nature
 - b. History
 - c. Commercial/agriculture
 - d. Environmental/ecosystem
- Create an "outdoor classroom" with local schools
- Document local and natural history along the trail with interpretive panels

Goal 3. Provide a Variety of Recreational and Health Enhancement Activities

Objectives:

- Provide public access for non-motorized recreation trails.

- Establish exercise opportunities along the trail
- Provide an opportunity for recreational adventures
- Provide a place for serenity and meditation

Goal 4. Increase Community Involvement

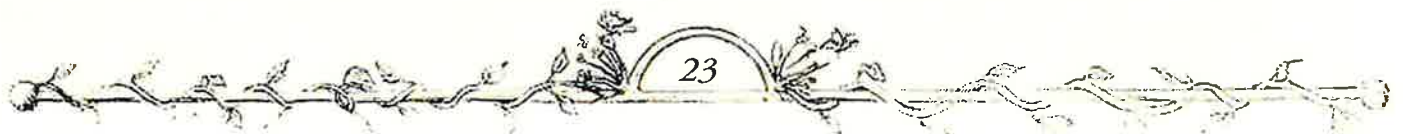
Objectives:

- Develop a community outreach program (youth groups, service clubs, schools, etc.)
- Publish a Heritage Trail newsletter
- Institute a speaker/program guest lecturer program
- Host annual cleanups
- Participate in annual trail-related Morrow County/Lewis & Clark Heritage Day
- Increase involvement of Hispanic residents and local Native Americans

Goal 5. Trail Stewardship

Objectives:

- Protect land and resources
- Promote stewardship thorough educational and interpretive opportunities
- Maximize opportunities for volunteers to help with trail construction and maintenance
- Institutionalize a trail organization
- Develop a Cooperative Management Agreement among public agencies
- Build financial resources by participating in fundraising events
- Seek individual and corporate sponsors and grants to offset local costs





Springtime blossoms

*Trail
Concept*

Trail Concept

Overall Concept

A trail in northern Morrow County has long been a dream of area residents and it will be realized with the development of the Morrow County Columbia River Heritage Trail. The Columbia River Heritage Trail will span the full width of Morrow County, approximately twenty-five miles, and is envisioned to eventually connect to a continuous river trail as adjacent counties and other communities along the Columbia River develop similar trails. The Heritage Trail will loosely parallel the Columbia River and travel through a variety of landscapes, from native steppe and riparian areas to groomed parks and the industrial bustle of the Port of Morrow. Throughout its length the trail will link key community activity centers such as schools, shopping areas, parks, and residential neighborhoods. The trail will provide another connection and transportation option between the cities of Boardman and Irrigon. The use of a limited palette of materials and furniture, consistent signage, and coordinated interpretive displays will give the Heritage Trail a recognizable identity and sense of order and safety. The promotion of the Columbia River Heritage Trail, and other places of interest to county residents and visitors, will be a coordinated effort between the county and participating cities, tourism committees and local chambers of commerce.

The remarkable wealth of opportunity for the proposed Heritage Trail exists because of the location and quantity of publicly-owned land and the cooperative spirit of community members and land managers. The trail brings together the physical resources with the civic and environmental motivations of 1) the Army Corps of Engineers, 2) Boeing Agri-Industrial Company, 3) the City of Boardman, 4) the City of Irrigon, 5) the Port of Morrow, 6) the U.S. Fish



Figure 34. Agricultural fields outside of Boardman.

& Wildlife Service, 7) the Oregon Department of Fish and Wildlife, 8) Morrow County, 9) the Confederated Tribes of the Umatilla Indian Reservation and the vision and energies of local citizens.

Further, as much of the proposed Heritage Trail already exists as social paths and pedestrian/bicycle lanes, a continuous trail can be opened early and economically. Simply by installing trail identity and information signs along an approved route of existing paths, and rudimentary improvements in the way of clearing or grading,

the "Morrow County Columbia River Heritage Trail" could be a reality. As monetary and volunteer resource are available in the future, other trail development can be undertaken to achieve the full vision of the Heritage Trail as a place for enjoyable, accessible, educational, and safe transportation and recreation.

Resource Protection, Recreation Access and Non-Motorized Transportation

Development of the trail supports a number of fundamental community and agency values, particularly resource conservation and non-motorized transportation and recreation. In the course of constructing and maintaining the Columbia River Heritage Trail, natural areas, like the Umatilla Wildlife Refuge, can be preserved, enhanced, and/or restored. The trail can also protect and preserve cultural artifacts or specific sites such as the historic highway rest stop and the "bomb dock." A primary goal for Heritage Trail development is to carefully design the pathway to prevent negative impacts to sensitive natural and/or cultural resources while providing access for the public. These two needs - preservation and access - need not conflict with each other, but rather can be mutually supportive. Many techniques exist to minimize negative



Figure 35. Historic highway rest stop.



impacts on resources while providing for public access and enjoyment. For example, trail development which avoids sensitive areas and chooses locations that can support trail activities and/or have already been disturbed can help protect local resources. Trail design may use elevated boardwalks to allow people to travel over wet areas with minimal impact on sensitive areas. The trail may also help to enhance or restore a resource such as wildlife habitat through such techniques as removal of invasive plants and replanting with native species. Cultural landmarks could also be preserved and adapted for modern use.

As the trail is developed section by section, residents will

have more choices of where and by what mode they meet, recreate, or commute. On designated sections people will be able to walk, run, bicycle, wheelchair, skate board, roller-skate or blade, skate-ski; or ride horseback. The Heritage Trail will provide many Morrow County residents "close to home" recreation when the trail is completed. At a minimum it will be possible to walk or bicycle from county line to county line. Sections of the trail accessible for other modes, especially wheelchair traffic and horseback riding, will be identified and signed. A daylight use, or dawn-to-dusk policy will govern use of the trail in all but the urban areas and where the trail follows public streets and highways.

Trail Sections

For ease in coordinating planning, construction, and maintenance, the Morrow County Columbia River Heritage Trail is divided into seven sections, defined geographically by the underlying land ownership or management jurisdictions:

Section	Owner/Manager
1a. Army Corps - West	Army Corps of Engineers (ACOE)
1b. Boeing/Agri-Industrial	State of Oregon/Boeing Agri-Industrial
2. Boardman	City of Boardman/City of Boardman & Morrow County
3. The Port	Port of Morrow/Port of Morrow & Morrow County
4. Federal Wildlife Refuge	ACOE/U.S. Fish & Wildlife Service, Umatilla Wildlife Refuge
5. Irrigon	ACOE/Irrigon [Marina] Park District and Fish Hatchery
6. State Wildlife Area	ACOE/Oregon Department of Fish & Wildlife

Horses will continue to be allowed on those public lands that currently permit them. However, horse use will be promoted only on one section of the Heritage Trail, (1a/1b) Army Corps - West/Boeing Agri-Industrial, as the other land managers all have concerns about the impacts of horse traffic on their sections of the trail.

Section 1a/1b: Army Corps of Engineers and Boeing/Agri-Industrial

Trail Interests & Objectives

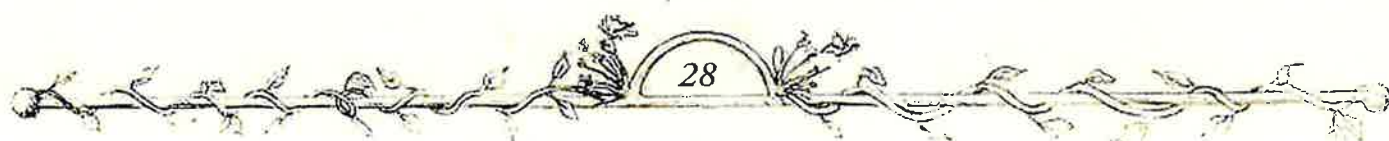
Army Corps of Engineers

The Army Corps of Engineers' objectives, described in the 1976 John Day Lock and Dam Master Plan, identify several primary uses of Army Corps lands, which include recreation and public access. Although the Corps' Master Plan does not specifically describe a trail, it does describe recreational opportunities along the mid-Columbia waterway that would be enhanced by a trail.

Boeing Agri-Industrial Company

The Boeing Company (now Boeing Agri-Industrial Company) signed a lease for the Boardman Space Age Industrial Park with the State of Oregon in 1963. Opening this section to public trail use is a departure from

past practices and represents another step in Boeing's efforts to contribute to the development of the local community. The company has concentrated on economic development on the site according to a "multiple use concept" developed at the request of the State in 1971, which includes aerospace research and agriculture development. While making a significant addition to the economy and tax structure, the company has attempted to contribute to the quality-of-life of the community in many ways. They hope that this trail will be another such a contribution, a cooperative effort among the company, its tenants, and the Oregon Department of Fish and Wildlife. This initiative has provided an excellent opportunity for hunters and fishermen to use various areas on the site for many years. This section of the Columbia River Heritage Trail will be an opportunity to experience an undeveloped area similar to that encountered by the pioneers. While there remains opportunities for future industrial development, the trail will be compatible with current uses.



The Columbia River Heritage Trail through Lands
Managed by Army Corps of Engineers and Boeing Agri-
Industrial Company

This section will be approximately 9-1/2 miles long and includes lands managed by both the Army Corps of Engineers and Boeing Agri-Industrial Company. These two sections are discussed together due to their similarity in current management goals and the uniformity of their landscapes. They connect Morrow County's west county line with the Tower Road interchange at Interstate 84.

The primary trail will follow the existing two-track trail, which was created by vehicle use during hunting seasons, and will be moderately improved as a compacted and hardened surface of natural materials, such as crushed rock or gravel and sand. By following the two-track, the trail will be located near and parallel to, the railroad right-of-way for most of its length. Compacting and hardening its surface will allow trail users to experience this rural area of Morrow County by foot, bike, and horseback, while discouraging individual trail-blazing across the easily disturbed open natural areas. Several spur trails exist off the two-track trail leading to the Columbia River and may be developed for river access.



Figure 36. Six-Mile - potential recreation area.

Phase One

From west to east, the Heritage Trail will begin at the Army Corps of Engineers' Park located near I-84 at the Three-Mile exit, which already offers parking and recreation. The trail will cross onto Boeing property within 1/2 mile and travel approximately 2-1/4 miles to Six-Mile, and then continue roughly 5 miles to Tower Road. It will then turn south, cross the Union Pacific Railroad tracks at the crossing signal, and connect with the Boardman trail section beginning at the Tower Road/I-84 interchange.

Several spur or loop trails may be developed from this primary trail. One may extend west from the Three-Mile Park across the area managed by the Army Corps of

Engineers to the county line between Gilliam and Morrow and return to the Park. This would complete the county line to county line vision of the Heritage Trail and serve as a connecting point for a future Columbia River trail through Gilliam County. Two additional spurs can



Figure 37. Tower Road - a possible trailhead.

easily be constructed in the eastern-most five miles of this trail section, where social paths to the Columbia River's edge have already been worn from two-track traffic.

Phase Two

The Heritage Trail would begin in Gilliam County at Exit 150. This is a logical point for connecting any future river trail between the two adjacent counties, as well as development of a trailhead and other recreation facilities. With organized parking and installation of basic equestrian facilities, horseback riders, for example, could shuttle between this beginning point and the trailheads at Three-



Figure 38. Spur trail from Three-Mile.

Mile or Tower Road. The trail would travel east from this point to Three-Mile, and continue as described in Phase One.

Additional spurs may be developed along this trail section for further access to desirable locations, such as access to the river or to scenic viewpoints.

Improvements Required

Because the Heritage Trail will follow an existing two-track trail that crosses lands managed by Army Corps of Engineers and Boeing Agri-Industrial, trail development can be relatively simple.

Trail Construction

Although the existing path has been well worn in most places by motor vehicle use, the soil is not compacted well enough for bicycle riding or pleasurable walking, and in some areas rutting and vegetation in the center of the trail make passage difficult. Minimal grading and use of hardeners or emulsifiers will provide a better surface for non-motorized trail recreation.

From Three-Mile west towards the county line, the trail will shift away from the two-track to the south, closer to the railroad track. This route is recommended to avoid conflict with the upcoming development of a Native American in-lieu fishing site at Three-Mile, when a parcel of land on the river is transferred to the Bureau of Indian Affairs.

Furniture and Other Amenities

Three-Mile and Tower Road, which are both easily accessed from the highway, are ideal locations to develop trailheads with parking and facilities needed for horse use (parking area for trailers, water troughs, hitching posts, and perhaps small corrals and manure bins). Toilets are necessary and potable water is desirable along the trail.

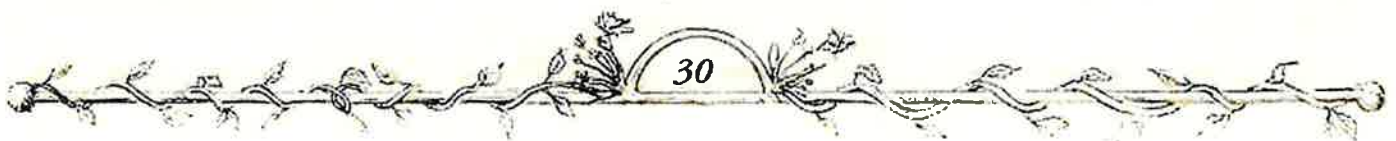
These could easily be made available at Three-Mile and Tower Road. Other considerations for making the trail more enjoyable include providing shade, picnic tables, and bike racks at trailheads and recreation areas. A minimal and early effort would be valuable towards controlling the spread of exotic plants, as several Russian olive trees and some spurge was found between Tower Road and Six-Mile.

Signage and Interpretation

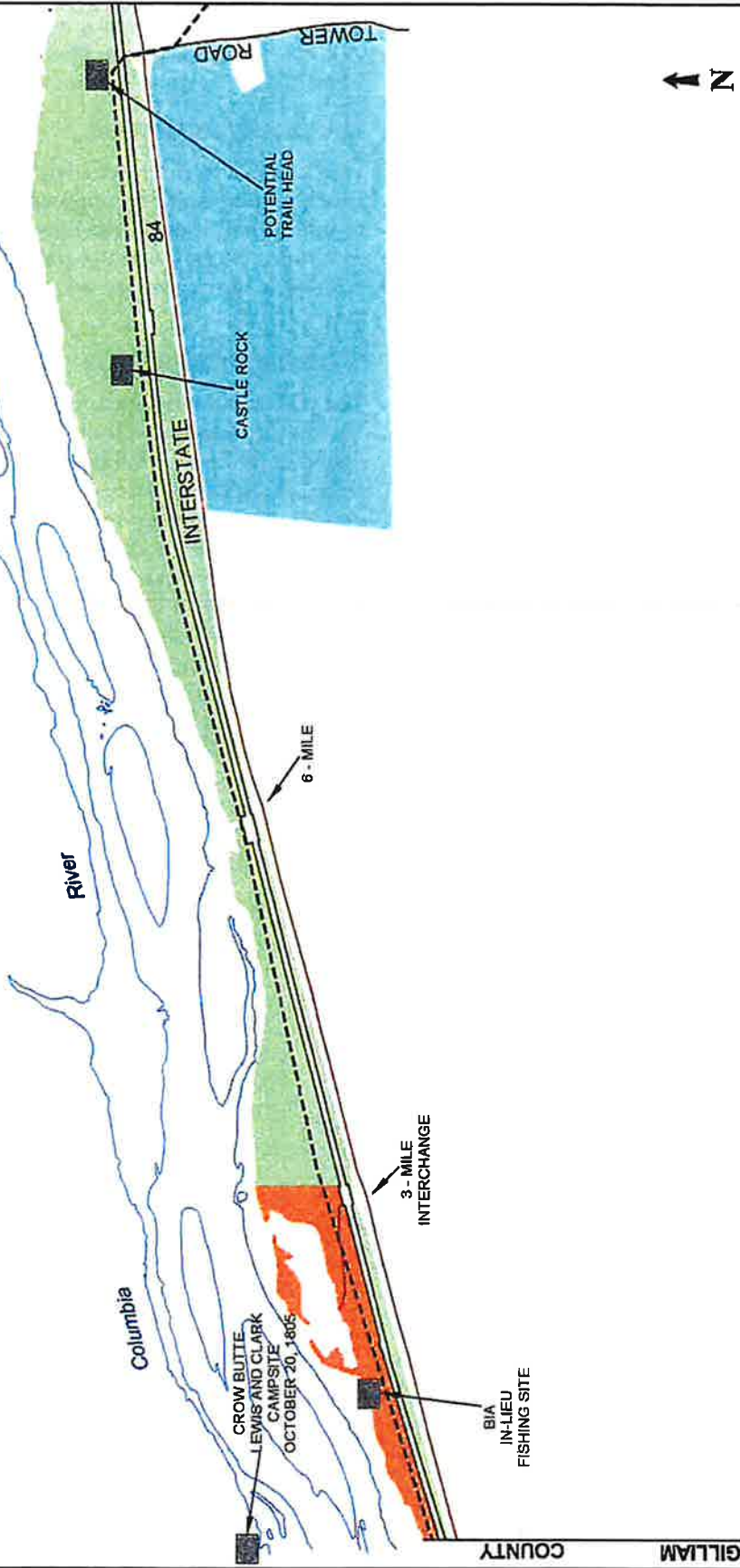
Besides thematic interpretive signs, signs for safety are also necessary. Signs will be important during hunting season to inform trail users of risks involved in using the trail at that time. A sign warning trail users about the railroad crossing is also necessary where Tower Road crosses the railroad tracks.

Controlling Motorized Use

The trail will not be open for motorized use (except during hunting season and for trail maintenance), and will be signed accordingly. While removable bollards could be placed at trailheads and access points to prevent motorized use during non-hunting periods, the concern was expressed that such controls would provoke vandalism because the area has been seen as "open" for decades. Instead, relying on signage, patrol/tickets, and heavy trail use are recommended as deterrents. Small pull-offs along the trail will provide parking for hunters during the times they are allowed motor access, keeping the trail open to shared use, even during hunting seasons.



Morrow County Columbia River Heritage Trail Section 1 Army Corps of Engineers/Boeing Agri-Industrial May 2000



- Cooperating Agencies/Land Managers**
- Army Corps of Engineers
 - Boeing Agri-Ind
 - ODFW
 - Port of Morrow
 - USFW Refuges

- Columbia River Heritage Trail (Existing)**
- Columbia River Heritage Trail (Proposed)
 - Public Road
 - Railroad R/W
 - Site



Date : 05/10/00

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Geographic Information Systems

Section II: The City of Boardman

Trail Interests & Objectives

The need to make an urban-rural link is common to small towns in eastern Oregon, where communities are defined much less by a political city boundary than by the general area. Once constructed, the Boardman section of trail will create a fully integrated urban-rural trail system in the Greater Boardman area. Due to the efforts of the City of Boardman, development of several sections of the Columbia River Heritage Trail within the city limits is scheduled to begin construction in the Spring of 2000. Completing this entire section in the near future is a realistic goal.

The Columbia River Heritage Trail through the City of Boardman

The Boardman trail section will be approximately 9 miles long and includes the area between the Tower Road Interchange at Interstate 84 on the west and the Port of Morrow on the east. The Boardman section will pass through the most densely populated portion of northern Morrow County, creating the opportunity to further link important community activity centers such as schools, shopping, parks, and residential neighborhoods. The Heritage Trail section through Boardman is envisioned to consist of a primary route with a number of secondary or connecting trails, creating the desired community network of foot and bike paths. The primary route will be hard surfaced to be wheelchair accessible and accommodate all non-motorized users (bicyclists, walkers, skaters, etc.), and will be signed as the "Morrow County Columbia River Heritage Trail." The secondary routes will be a combination of sidewalks, designated bike lanes and dirt footpaths.

Primary Route

Note: Many segments in the following description of the Heritage Trail provide a bikelfoot path on only one side or shoulder of the road. As roads are redeveloped and major improvements are undertaken, a minimum 2-foot shoulder on either side of the roadway should be developed.

From west to east, the Boardman trail segment will start on Tower Road at the I-84 overpass and travel south for approximately 200 yards along a paved bike lane on the east side of the road. At the intersection with Kunze Road, the trail will turn left (east) and continue approximately 2 miles as a paved bike lane along the north side of Kunze Road to the intersection with Toms Camp Road.



Figure 39. Tower Road.

At Toms Camp Road the trail will turn left (north) and continue along the east side of Toms Camp Road as a paved bike lane to the intersection with Wilson Road (approximately 1/2 mile). The trail will turn right (east) on Wilson and continue along the north side of the road approximately 2 miles as a paved bike lane to the intersection with Faler Road where it connects to the existing bike/ped path.

Continuing on Wilson Lane, the trail becomes more urban in nature at Paul Smith Road as it approaches the developed part of Boardman. From this point, the trail will consist of striped bike lanes on both sides of Wilson Road and will include improving the existing city bike/ped lane (located on the north side of Wilson Road) with a rounded curb and sidewalk on the north side of the street. The trail will continue in this fashion along Wilson Road to the intersection with Main Street (approximately one mile).



Figure 40. Northbound on Kunze.



Figure 41. Wilson Road.

At Main Street the trail will turn left (north) and continue on the west side of Main Street for approximately 3/4 of a mile to the I-84 interchange. The trail in this section will consist of a wide bike/foot path with trees planted to shade the trail and mirror the planting on the east side of the road, and continues the existing separation from the road with a grass median and low fence.

The trail will cross the I-84 overpass on Main Street on a striped walk/bikeway on the west side of the bridge.



Figure 42. Roundabout.

On the north side of I-84, sidewalks will be developed on both sides of Main Street to the intersection with Columbia Avenue. From Columbia Avenue, the trail will continue north approximately 3 miles as a striped walk/bikeway on the east side of Main Street as it passes over the railroad tracks.

On the north side of the railroad overpass, at the traffic

round-about, the trail will cross over Marine Drive as a striped walk/bikeway to connect to the existing asphalt path built through the Boardman Marina Park. From this point the Columbia River Heritage Trail turns east, continuing approximately 3/4 mile on the existing path to the Captain Al James Tugboat. This landmark represents the end of the primary route through the Boardman section and the beginning of the Port of Morrow section.

Secondary Routes

There is the potential to develop a number of secondary bike and pedestrian routes in Boardman. Secondary routes could diversify trail opportunities beyond what will be provided by the primary route being developed for the Heritage Trail

Improvements Required

Trail Crossings

Signage and striping will be required for crossings at Tower Road, Toms Camp Road, Wilson Road, and Marine Drive.

Overpasses

The railroad overpass in this section needs to be improved and is slated for re-construction in Spring 2000.

Surfacing for Pedestrians and Wheelchairs

This entire section will be surfaced with asphalt or another hard surface in order to accommodate wheelchairs and other non-motorized trail activities, such as cycling, walking, and rollerblading.

Furniture and Other Amenities

A plan with locations and models for furniture and other amenities, such as benches and bike racks, will be explored in a future planning stage or during engineering of new segments. There may be an opportunity in the future to extend access from the Heritage Trail to the I-84 rest stop at the end of Toms Camp Road, offering public toilets and pay phones.

Signs

Following the guidelines in this Plan, signs will be posted at each intersection. An informational kiosk is recommended in each urban area (the City of Boardman and the City of Irrigon) and it has been suggested that the "cross-roads" made between the Heritage Trail and each of the two marina parks may be the best locations.

Phases in Trail Development

Like all sections of the Heritage Trail, trail construction will occur as funding and labor is available. The City of Boardman has portions underway including the improvement to the railroad overpass and the bicycle/pedestrian plan and facilities through Main Street. A number of community trail projects could be undertaken immediately as volunteers and resources and materials are identified. Among them are:

Striping and stenciling of bike lanes throughout Boardman (The TAC or County should pursue the possibility of making equipment available to volunteers, including city, county, or state highway department equipment); and

Planting trees along the west side of the trail on Main Street, between Wilson and the I-84 overpass, following recommendations from the County Extension office for



Figure 43. Existing paved trail through Boardman Marina Park. species/variety that will not damage the trail surface due to shallow roots.

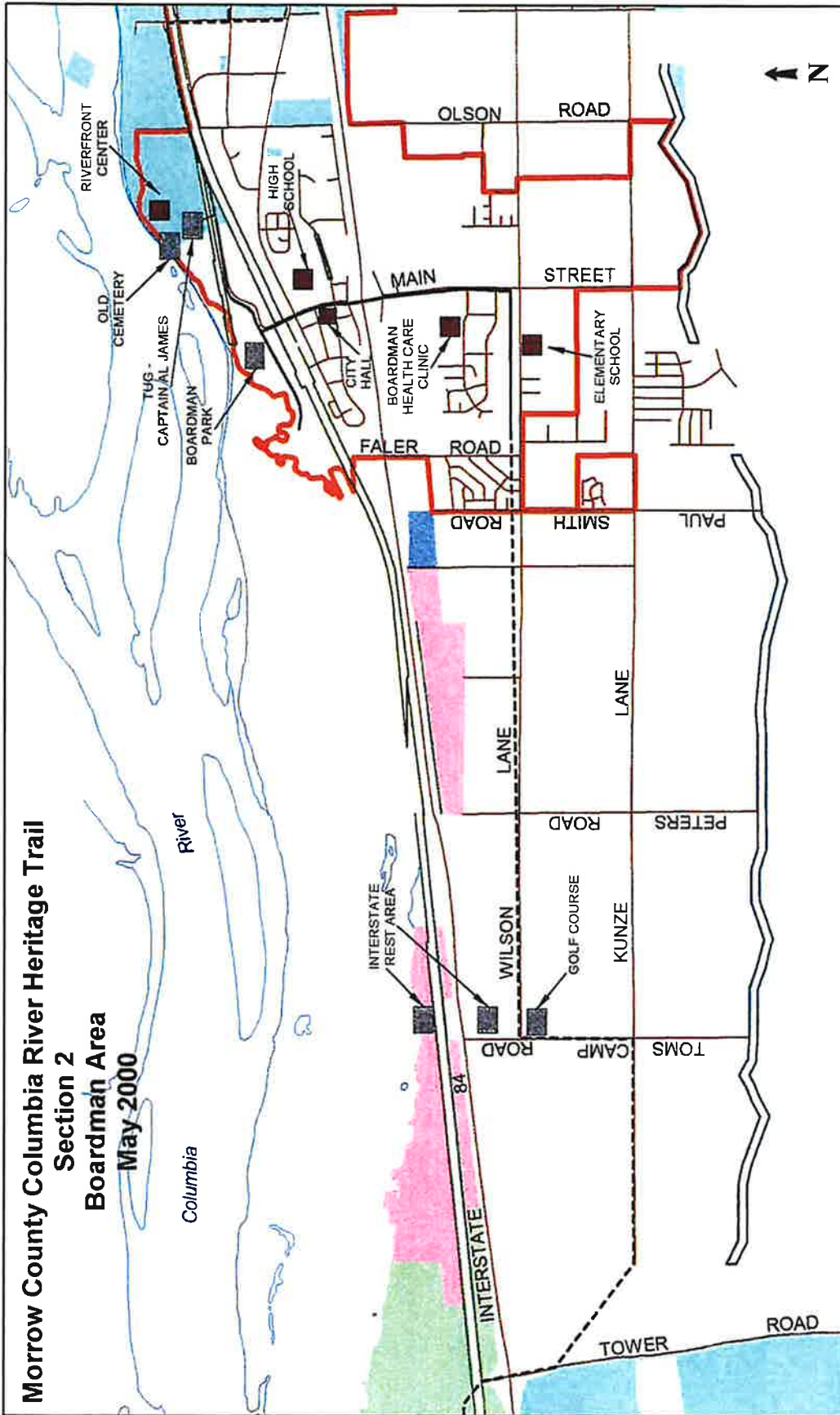
Morrow County Columbia River Heritage Trail

Section 2

Boardman Area

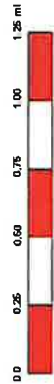
May 2000

Columbia River



- Cooperating Agencies/Land Managers**
- Army Corps of Engineers
 - Boardman City Limits
 - Boeing Agri-Ind
 - ODFW
 - Part of Morrow
 - USFW Refuges

- Columbia River Heritage Trail (Existing)
- Columbia River Heritage Trail (Proposed)
- West Extension Irrigation Canal
- Public Road
- Railroad R/W
- Building
- Site



Date : 05/10/00

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Geographic Information Systems

Section III: The Port of Morrow

Trail Interests & Objectives

While the Port of Morrow's task for the last forty years has been promoting economic development in Morrow County, improving the livability of the area for residents has become increasingly important. Projects in the last several years, such as planting trees, have been targeted to make the Port's Industrial Park more aesthetically pleasing. The Port has also continued the paved trail, which begins at the Marina Park, to wind its way to one of the only sandy beaches available along the Columbia River in Morrow County. The trail extension increases recreation opportunities for both local residents and visitors, and it is enjoyed by all age groups, from children on bicycles and roller blades to adults jogging and seniors on morning walks.

The Port of Morrow is committed to making additional improvements, not just for local residents, but to help attract businesses and employees to the area. The Port works closely with the Oregon Department of Fish and Wildlife to manage wildlife areas within the Port's boundaries. The Port is very interested in being an active participant in the development of the Heritage Trail.

The Columbia River Heritage Trail through the Port of Morrow

The "Port" trail section travels 4-1/4 miles and connects Boardman Marina Park on the west to the Umatilla



Figure 44. The Port trail segment passes by the Captain Al James tugboat.

National Wildlife Refuge on the east. This is the only heavy industrial section on the Heritage Trail, offering trail users the opportunity to safely pass and view barge and truck export traffic and other port activity. The primary trail will be hard surfaced to accommodate all (wheelchairs, bicycles, skates, skate boards, etc.), while some side and spur trails may be soft surfaced for foot traffic only.

From west to east, the Port trail segment starts at the dry-docked Captain Al James, the last tugboat built for the "rock patch" (the upper river). The trail will pick up from the end of the existing paved path and cross Marine Drive, traveling approximately 1 mile with a paved path; on the south side, a rounded curb and trees on the south side to shade the trail.

At Ullman Street, the Heritage Trail will turn right (south), cross the railway overpass on a walk/bikeway extended on the right (west) side, and continue approximately 1/5 mile to Industrial Way. A paved bike lane on the road shoulder, a hard-surfaced foot path above the curb and a continuation of the signature street trees, will mark this section.

Phase I

The trail will continue 1/2 mile to Columbia Boulevard, using the same layout and materials (bike lane, a separate hard surfaced foot path, shade trees), where it will turn left



Figure 45. Ullman Street railroad overpass.



Figure 46. Columbia Avenue.



Figure 47. Messner pond.

(east) and travel 3/4 mile to the East Columbia Avenue Overpass. Approximately 1-1/2 miles of paved shoulders for bike lanes are now available between the two overpasses on Ullman Avenue and East Columbia Avenue following the recent reconstruction of these roads.

After the East Columbia Avenue Overpass the trail becomes more rural in character. From here it will no longer have a curb separating the foot and bike traffic nor street trees, but rather a paved shoulder striped and marked. The trail will continue in this fashion for 2-3/4 miles to the western boundary of the Umatilla National Wildlife Refuge.

Phase II

At Industrial Way, the trail will turn left (east) where the combined hard-surfaced bike and footpath will resume along the north side of the street. Just past the Portland General Electric cogeneration plant at the transmission tower, a short (1-1/4 miles) trail will provide an accessible



Figure 48. East Columbia Avenue railroad overpass

footpath and approximately 200 feet of boardwalks through and around Messner Pond. At the east end of the pond the trail will intersect with East Columbia Avenue. Phase II construction will replace the East Columbia Avenue leg developed as a temporary route in Phase I. While East Columbia Avenue will still serve as a bicycle route, it will no longer be signed as the Morrow County Columbia River Heritage Trail. The trail will cross the overpass with a separated facility, similar to the one crossing Ullman Avenue.



Figure 49. Elevated viewpoint of the Columbia River from a future spur trail.

Phase III

A 3/4 mile spur trail offering an elevated viewpoint of the Port and shipping activity on the Columbia River is proposed between the east side of the East Columbia Avenue Overpass and the river.

Improvements Required

Complete development of the Heritage Trail through the Port is relatively easy as some of the projects are simple improvements to recent roadwork, the area is easily accessed for construction, and the length or amount of new work is proportionally small.

Bike Lanes, Curbing and Footpaths, and Street Trees

Like the Boardman section, a number of smaller scale trail projects can be undertaken immediately by community volunteers:

1. Striping and stenciling of bike lanes on the Phase I - Ullman Street/Columbia Boulevard areas;
2. Continuing the planting of the Port's signature trees along Marine Drive, Ullman Street, and Columbia Boulevard.

Approximately 1-1/2 miles of paved shoulders for bike lanes are now available between the two overpasses on Ullman Avenue and East Columbia Avenue following the recent reconstruction of these roads.

The existing improved sections of Ullman Avenue and East Columbia Lane, approximately 1-1/2 miles in length, will need an asphalt path constructed in order to accommodate pedestrians.

Where the road has not been improved, limited widening and/or shoulder paving will be needed. From the East Columbia Avenue Overpass to the Umatilla Wildlife Refuge, the road will need improvements on both sides to provide a continuous bike lane, as well as striping/stenciling. Also, on Marine Drive, 3/4 mile of rounded curb and hardened foot/bike paths will need construction to fully develop this section.

Extending the planting of street trees further along Marine Drive, and then to Ullman, Columbia Avenue, and along East Columbia Avenue to the East Columbia Avenue Overpass, can almost instantly create a sense of sequence and place for the Port district and the Columbia River Heritage Trail. The choice of distinctive street trees and ground covers, too, can reinforce this, by helping distinguish the Port trail section from the City of Boardman or the City of Irrigon trail sections.

Trail Crossings

Three street crossings are needed: on Marine Drive and on Industrial Way in Phase I, and on Ullman Avenue in Phase II. Crossings will need Heritage Trail signage and warnings to drivers in the form of signage and striping.

Overpasses

Two railway overpasses, Ullman Avenue and East Columbia Avenue, are almost too narrow to accommodate two-way truck traffic, let alone shared motorized and non-motorized traffic. Improvements to the overpasses will need to provide a trail crossing, whether a separated platform cantilevered or otherwise suspended from the existing overpass or a new, separate structure.

Surfacing for Pedestrians and Wheelchairs

Primary trail access in the Port section of the Heritage



Figure 50. E. Columbia Ave. Overpass. Improvements will be needed to provide a safer trail crossing.

Trail is provided for foot, wheelchair, and where appropriate, other non-motorized wheeled traffic, which requires a firm surface. Several inexpensive alternatives are available and applicable for all except some side and spur trails, specifically asphalt, reactivated asphalt tailings, or modified emulsion.

The trails in wet areas or over ponds will need boardwalks and may not be appropriate for wheeled traffic such as bicycles and skates.

The Port has offered to provide in-kind services to help with grading/surfacing for the Messner Pond Loop and with the boardwalks

Furniture and Other Amenities

Public restrooms and phones are available during business hours at the Port of Morrow office.

A comprehensive plan for furniture and other amenities will be developed for this section, as others, to identify locations for bike racks and benches, such as intersections with limited access, viewpoints, and resting spots.

Signage and Interpretation

Trail signage will be installed following the guidelines in this Plan, and interpretive materials will be developed in cooperation with the Port of Morrow that will include specifics about Port and industrial activities in this section of the Heritage Trail.

Phases in Trail Development

Trail construction in the Port, as previously described in phase I, II, and III will occur as funding and in kind support is available.

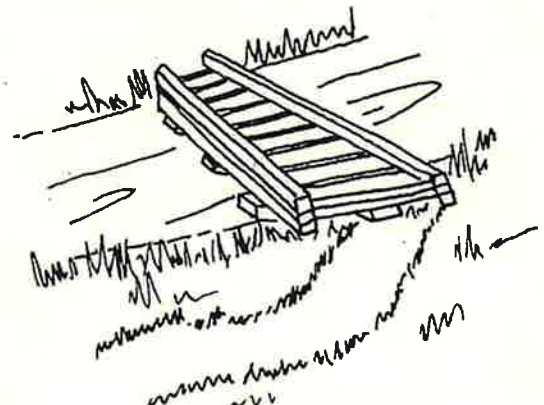
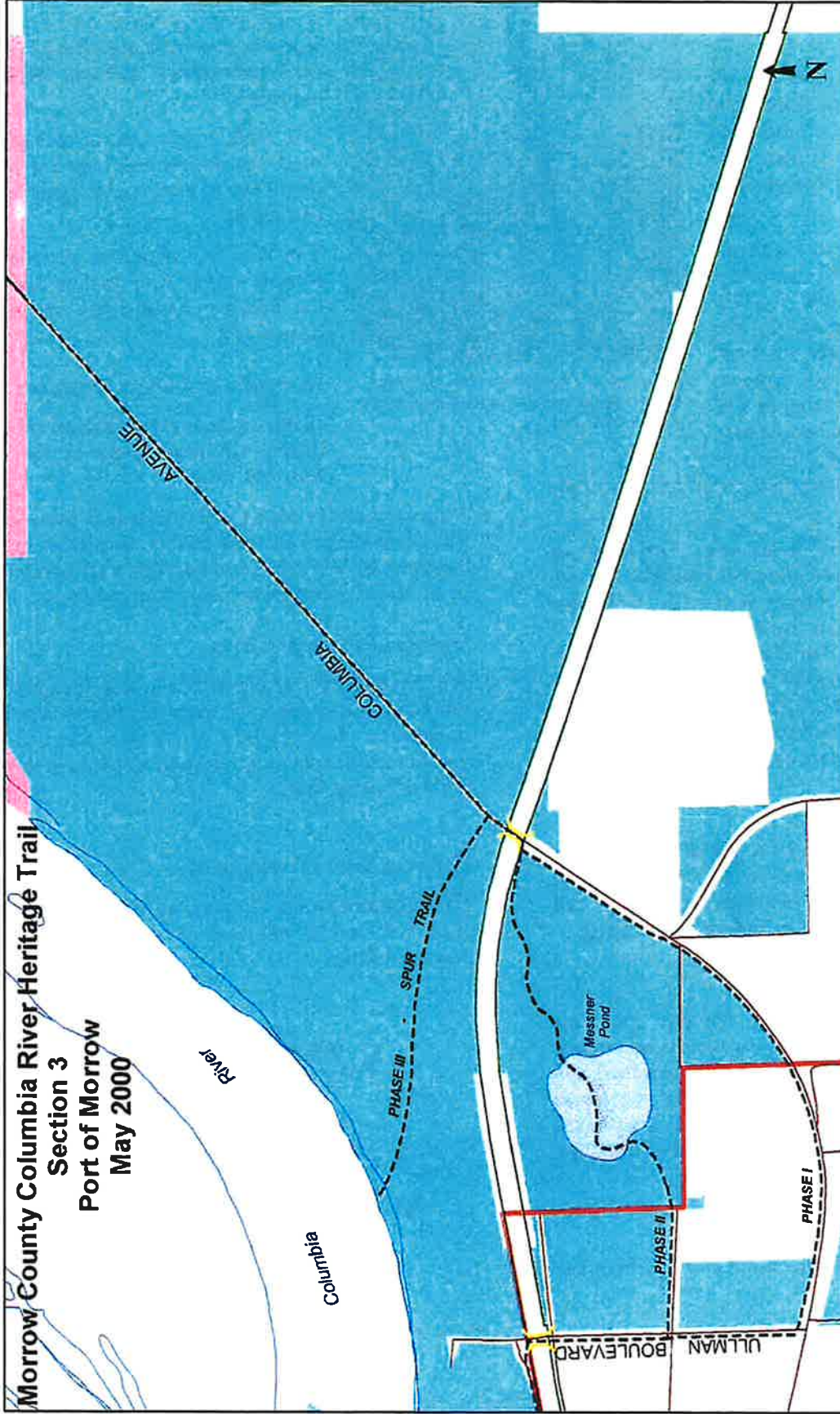


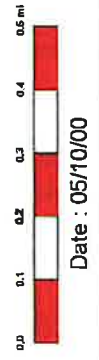
Figure 51. Example of a boardwalk

**Morrow County Columbia River Heritage Trail
Section 3
Port of Morrow
May 2000**



- Cooperating Agencies/Land Managers**
- Army Corps of Engineers
 - Boardman City Limits
 - Boeing Agri-Ind
 - ODFW
 - Port of Morrow
 - USFW Refuges

- Columbia River Heritage Trail (Existing)**
- Columbia River Heritage Trail (Existing)
 - Columbia River Heritage Trail (Proposed)
 - Public Road
 - Railroad RW
 - Overpass



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Section IV: Umatilla Wildlife Refuge

Trail Interests & Objectives

The mission of the National Wildlife Refuge System is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.

National Wildlife Refuge System
Improvement Act of 1997

In 1997, President Clinton signed the National Wildlife Refuge System Improvement Act, giving the Refuge System, for the first time, legislation that provides a mission for the System and clear standards for its management, use, planning, and growth. Within the framework of the Act, the Refuge System is to provide for defined priority public uses: hunting, fishing, photography, wildlife observation, interpretation, and education. These recreation uses, however, can only be incorporated if they are determined to be compatible with the overall System objective, which is to protect and enhance wildlife and habitat.

The goal of the Umatilla National Wildlife Refuge (NWR) in collaborating on the Heritage Trail is to offer an outstanding wildlife experience, a sense of belonging for those who live near the Umatilla NWR as well as for the one-time visitor, and a memorable link in the county-wide Heritage Trail. Refuge managers, however, have some concerns over the potential impacts to wildlife and user conflicts that could occur by opening a through-trail to foot and bicycle use. In addressing these concerns and implementing fair and adequate restrictions, the chosen trail route will provide trail users with a safe, enjoyable, and high quality recreation experience, and provide the communities on either side of the refuge with the integral link needed to reach their goal of developing a continuous non-motorized transportation route between Boardman and Irrigon.



Figure 52. Old highway – asphalt surface exists for the proposed trail.

The Columbia River Heritage Trail through Umatilla National Wildlife Refuge

The Umatilla NWR section of the Heritage Trail links the Port of Morrow section on the west with the Irrigon section on the east. The trail traverses the Refuge via Old Highway 730 and connects the boundary of the NWR's McCormack Unit with Patterson Ferry Road. This section is approximately 3 miles long and gives access to primary wildlife viewing areas. The majority of the trail will be made of the old highway's asphalt roadbed with a few sections of gravel where the trail connects to or coincides with the Refuge Auto Tour Route.

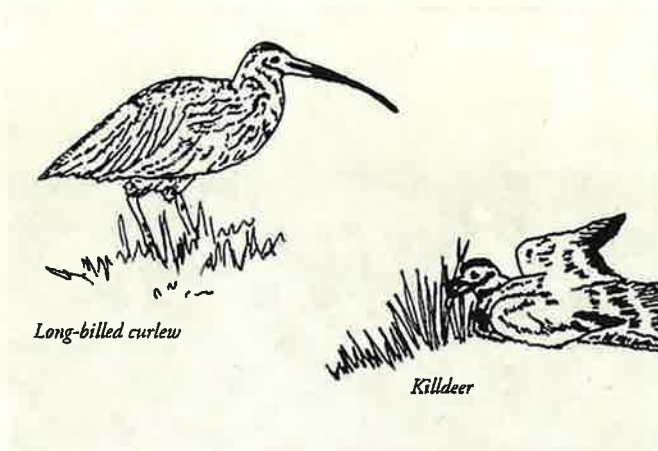
On the western boundary of the McCormack Unit, the trail will travel 1-1/3 miles on the historic old highway, an asphalt surface. The trail will then leave the roadbed and travel a short section, 1/5 mile on a sand/gravel trail, to connect with the graveled Refuge Auto Tour Route for 1/2 mile, before connecting with the old roadbed.

The trail will continue along the old highway roadbed 1/2 mile, to a 300 yard sand/gravel trail to reach Patterson Ferry Road at a point just south of Columbia Lane.

This section of the Heritage Trail will be available to both pedestrian and bicycle traffic, though road bikes with thin tires will find it difficult, if not impossible, to negotiate over the gravel sections. Bicyclists will not be able to travel through the refuge from one end to the other without crossing gravel.



Figure 53. Proposed gravel segment of the Heritage Trail.



Long-billed curlew

Killdeer

Figure 54. Ground nesting birds found in the refuge.

These sections, however, are relatively short and it will be simple to dismount and walk a street bicycle in these sections.

The asphalt sections of the trail are old and the surrounding vegetation is encroaching on the roadbed in several places. Some surface work on the road will need to be done in order to maintain a quality trail, but overall this section will be easy to repair and maintain. Pedestrians will find this trail easy and enjoyable.

Conflicts and Concerns

The primary mission of the Refuge is the protection and enhancement of wildlife and habitat. The refuge serves as a resting and nesting area for a wide variety of migratory birds, and depending on the season, one will find a variety of birds using the refuge for food and shelter throughout the year.

The nesting season is a crucial time for all species of birds on the Refuge. It is during this time that breeding adults are establishing and defending territories, as well as defending and protecting their young from predation. The added stress of human intrusion will often cause adults to abandon nest sites at crucial times, leading to poor nest success. Many species of birds on the refuge are ground nesters, and some species, like long-billed curlews and killdeer, will often nest close to roads and trails. This is the primary reason the USFW did not want to encourage equestrian use within the Refuge. Because of potential impacts to wildlife, refuge managers must evaluate the effects that other public trail use has on wildlife as well, and address the possibility of seasonal closures for bicycles and pedestrians.

Regulations on Use

Access on the Heritage Trail through the refuge will be restricted to pedestrians and bicycles only. Trail users will be required to stay on the trail and/or in other designated public-use areas. Since the trail puts people in close proximity to the refuge ponds, sloughs, and fields where the wildlife is most visible, this restriction should not hinder anyone's ability to see wildlife. Horseback riders will continue to be allowed access to the refuge only along the 4-mile Auto Tour Route because of the potential impact to ground nesting birds and the sage-steppe habitat.

The potential exists for conflict between different user groups, specifically hunters and non-hunters. The Heritage Trail will put these groups in close proximity to



Figure 55. Mike's Lookout gives excellent views of the refuge's landscape.

each other during waterfowl hunting season. The refuge is open to controlled, permit hunting three days of the week between the months of October through January each year. Refuge managers will monitor this potential conflict in terms of visitor safety and, if necessary, implement seasonal closures on the Heritage Trail.

Currently, the refuge is open to the public during daylight hours. These same hours of visitation will apply to the Heritage Trail. No one is allowed on the refuge after dark.

Signage and Interpretation

The refuge will inform the public about access to the Heritage Trail by posting signs indicating visiting hours, public trail routes, and permanent/seasonal closures. Signage will be needed to notify Heritage Trail users about refuge rules and why respecting them is so important (e.g. staying ON the trail to protect ground-nesting birds and



Figure 56. Sign informing visitors of wildlife needs.

plants). In coordination with the Heritage Trail sign guidelines and the planning and advisory committees, the refuge will post the Heritage Trail's signature logo with that of the National Wildlife Refuge (at points where the trail enters the Refuge and at appropriate intersections on the trail for directional purposes) and collaborate on any interpretive signs that may be developed along the Heritage Trail.

Furniture and Amenities

There is a restroom (pit toilet) located at the parking lot on Patterson Ferry Road. No potable water is available on the refuge and trail users should be encouraged to carry plenty of water with them during warm weather.

Removable bollards or pedestrian/bicycle turnstiles or gates will be needed at several points, including at the west and east maintenance-access gates where the Heritage Trail enters the refuge and where the trail joins/leaves the Auto Tour Loop.

Historic Preservation

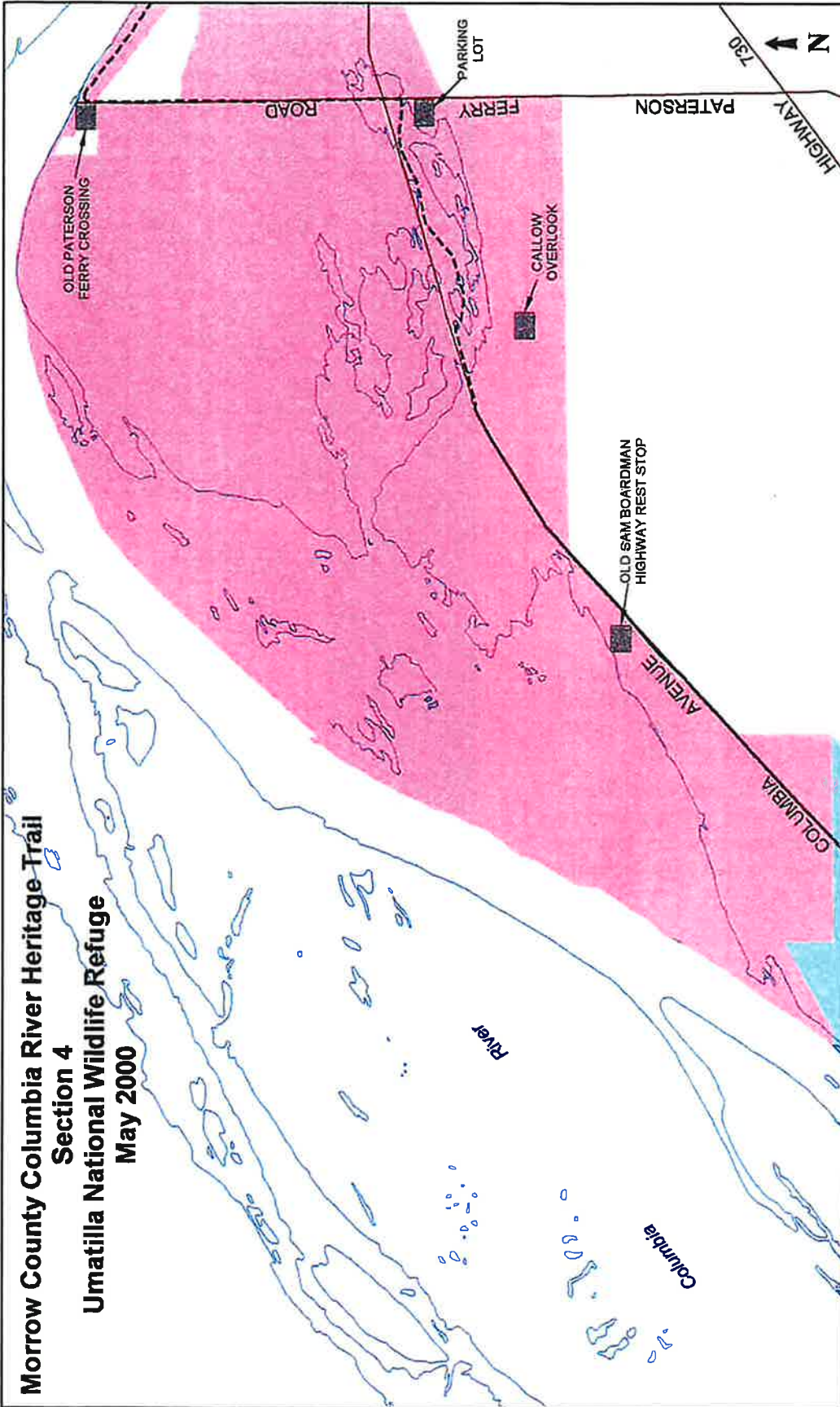
Collaboration will be needed in the protection and preservation of the historic highway rest stop (pump house). The historic structure, built around 1921-22 as the first highway rest stop in Oregon, is located on Refuge lands but is outside of the gated/fenced area. Preservation of the rest stop and the potential re-use of the structure may require relocation of the pump house, historic designation, an architectural survey along with protective and restorative measures. Grant monies are available to assist with surveys, preservation plans, and nominations to the National Register of Historic Places (refer to the Funding Section, Historic preservation grants).



Figure 57. Historic highway rest stop

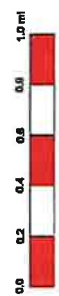


**Morrow County Columbia River Heritage Trail
Section 4
Umatilla National Wildlife Refuge
May 2000**



- Cooperating Agencies/Land Managers**
- Army Corps of Engineers
 - Boeing Agri-Ind
 - ODFW
 - Port of Morrow
 - USFW Refuges

- Columbia River Heritage Trail (Existing)
- Columbia River Heritage Trail (Proposed)
- Public Road
- Site



Date : 05/10/00

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Geographic Information Systems

Section V: The City of Irrigon

Trail Interests and Objectives

The development of this section of the trail will result in an important link between the City of Irrigon, the Umatilla Wildlife Refuge, and the Irrigon Wildlife Area. While the character of the City of Irrigon is typical of a small rural town, it has a defined urban growth boundary that represents the border between urban, more dense development and rural, farm areas. This section of trail is an opportunity to link the urban and rural areas and bridge the distance between urban and rural residents with a continuous trail, while providing recreation, commuting, and outdoor education.

The Morrow County Columbia River Heritage Trail in the Irrigon Area

This approximate 6-mile section of the Heritage Trail connects the Umatilla Wildlife Refuge on the west to the Irrigon Marina Park and the Oregon Department of Fish and Wildlife Area (ODFW) on the east. The Irrigon section will be located primarily adjacent to the Columbia River, and will travel through agricultural and wildlife areas, give access to the Irrigon and Umatilla Fish Hatcheries, and provide a link to the more urban area around Irrigon Marina Park. This route will be hard-surfaced to accommodate all non-motorized users. Additional opportunities exist for loop and spur trails along certain roadways as well. While the Heritage Trail will not permit equestrians, existing horseback riding on the informal paths will be compatible with the trail and is encouraged.

Primary Route

The western-most end of the Irrigon trail segment will connect with the Umatilla National Wildlife Refuge segment on Patterson Ferry Road, at a point approximately 50 feet south of Columbia Lane/Old Highway 730. The trail will be constructed on the west side of Patterson Ferry Road as a separate, 8-foot wide asphalt path for both bicycles and pedestrians, continuing 1-1/2 miles north to the Columbia River. Until funding is available, in the interim, this segment of trail along Patterson Ferry Road will be identified by a striped, one-foot paved shoulder.

At the end of Patterson Ferry Road, the Heritage trail will cross Riverview Lane and connect to an abandoned roadway, which has an asphalt surface. The trail will follow this sinuous roadway east along the Columbia River shoreline to its endpoint near the fish hatchery.



Figure 58. Trail segment passes by the historic Bomb Dock site.

From the end of the old asphalt roadway, a new trail segment will be constructed along the flat, upper bluff area and continue approximately 3/4 of a mile. It will pass along the north side of the the Irrigon and Umatilla Fish Hatcheries and connect to an old dirt farm road.

The trail will continue along the farm road until it intersects with the unimproved right-of-way of Eighth Street West. It will continue east, generally following the existing social path, approximately 3 miles to Irrigon Marina Park. The trail will pass through the Irrigon Marina Park to the western boundary of the Oregon Department of Fish and Wildlife area.

Secondary Routes

There are several sandy beaches along the shoreline that provide opportunities for day use and picnicking. Consideration in the future should be given to improving and signing appropriate side paths that lead to the shore. Formalizing selected side paths and restoring closed



Figure 59. Existing farm road.

paths will help prevent loss of vegetation and erosion caused by informal social paths that now lead to the beaches or that may be worn in the future. The County and City Transportation Plans also envision several spur and loop ped/bike routes along the county and city roadways in Irrigon that will connect to the Columbia River Heritage Trail.

Concerns

The rich cultural and archeological history of the Native American People calls for special care during design, construction, and maintenance of the Heritage Trail along the Columbia River. On the recommendation of the Confederated Tribes of the Umatilla Indian Reservation (CTUIR), the trail will be located 20 to 30 meters from the river's high water mark to avoid disturbance of sensitive cultural resources. Also, wherever possible, the trail will follow existing social paths to avoid any additional disturbance.

The portion of the trail between the Irrigon Marina Park and the ODFW Irrigon Wildlife Area will pass to the north of several homes. While the proximity of the trail could be a concern to these residents, there is sufficient space in this section to allow a buffer between the trail and both the shoreline and the residences, and therefore reduce any trail disturbance to both wildlife and homeowners.

Land Acquisition/Management and Trail Construction Considerations

Several land managers will be involved in development of the Irrigon Heritage Trail segment. Patterson Ferry Road is a 60 foot right-of-way owned by Morrow County, while the Army Corps owns the remainder of and the trail will cross. The Heritage Trail Committee will need to obtain formal permission and recognition of the trail and its alignment from the Army Corps. Consideration of and cooperation with the hatcheries is also necessary to support their management issues and concerns. Finally, there will be collaboration with the Irrigon Park District during design, engineering and management of the trail through the Irrigon Marina Park.

Improvements Required

Though development of the Heritage trail through the Irrigon area will require relatively easy trail construction and road improvements, this section does require the most extensive work of all the trail components.

Road Improvements, Bike Lanes, Trail Construction

Most of the route will require construction of an 8-foot asphalt trail, including the 1-1/2 mile trail along Patterson Ferry Road to Riverview Lane.

New trail development, including grading and surface improvements, will be undertaken from the end of the "abandoned" paved roadway near the hatcheries to connect with and continue along the existing dirt road. This approximate 2 miles of trail should be easy to construct as it is located on relatively flat ground.

From the west boundary of the fish hatchery property to Eighth Street West, approximately one mile of trail will be constructed. This section will require minimal leveling and earthwork, according to the Public Works Director. The exact alignment of this portion of the trail will be determined by final engineering.

The 2 miles from Eighth Street West to the Irrigon Marina Park will require more extensive earth and leveling work for trail building.

Trail Crossings

A safety crossing will be striped and signed across Patterson Ferry Road, between the Heritage Trail and the gravel road leading to Kathy's Pond.

Furniture and Other Amenities

The Irrigon Hatchery has restroom facilities open to the public during business hours. A small trailhead/parking area could be developed at the end of Eighth Street West, when the street-end, riverfront area is redesigned for day-uses. Not only could this provide additional restroom facilities, but it could also help prevent overnight camping, which is prohibited on the ACOE land.

Signage and Interpretation

Like all other trail segments, the Irrigon section will follow the Sign and Interpretive plans developed for the Heritage Trail. This section is rich in historic and contemporary activities for interpretation, including, for example:

- The army bomb docks
- The old European cemetery and grove
- Traditional Native American life in the area and uses of the river
- The Irrigon and Umatilla Fish Hatcheries: 1) the two outfalls from the hatchery provide excellent views of



the river and offer fishing holes; 2) the hatcheries and the significance of the McNary and John Day Dams; and 3) the hatcheries currently provide visitor information programs.

Phases in Trail Development

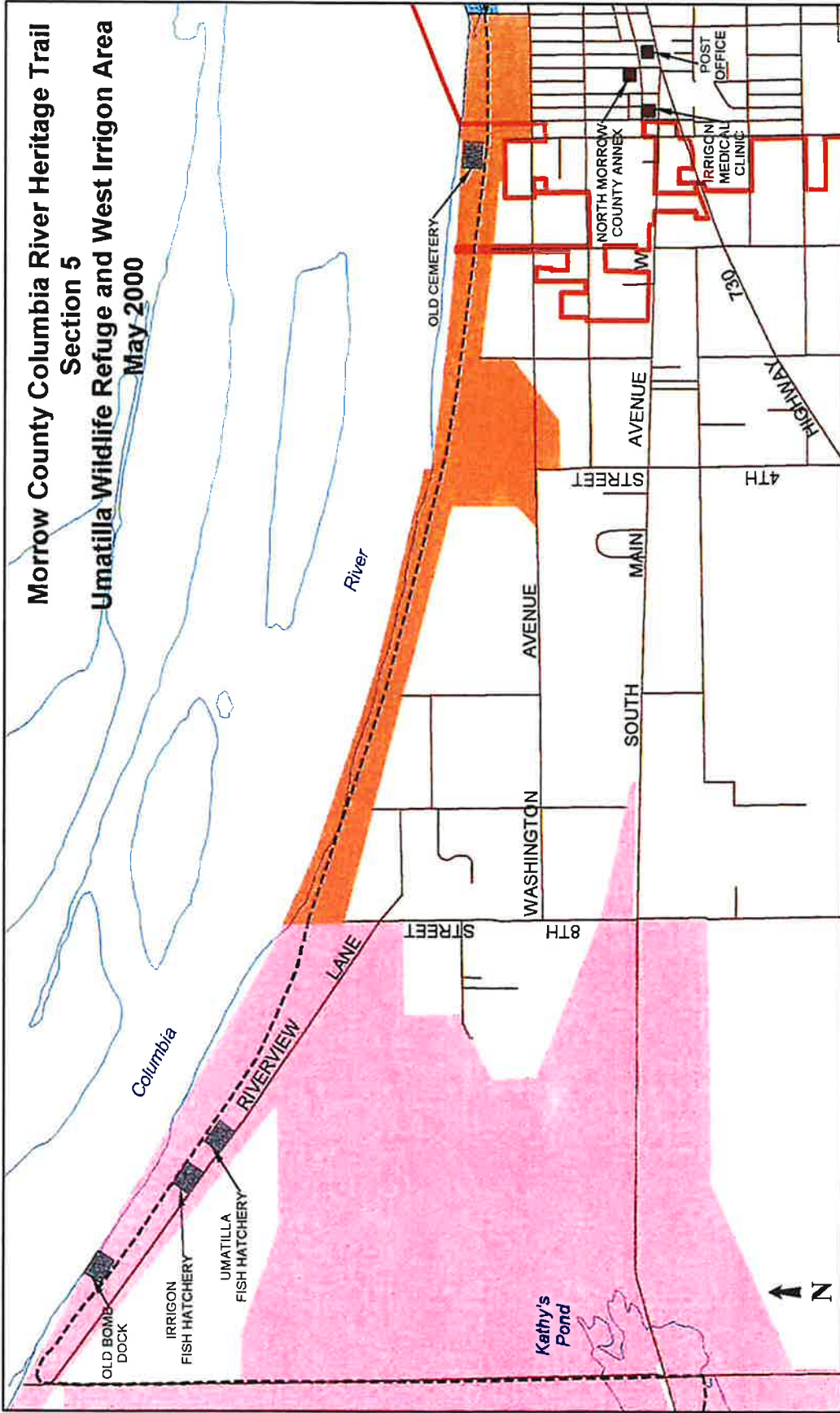
Priorities in trail development are first the primary trail, and secondly the spur and loop trails.

There are a number of trail projects that can be undertaken by community volunteers in this segment of the Columbia River Heritage Trail in coordination with the

County. Local businesses may donate equipment, expert labor, and/or supplies needed to do heavy trail construction, such as grading, compaction, or laying ballast. Smaller-scale trail building efforts are excellent projects for local youth groups or scouts, a school or class project, a church group, or court ordered juvenile or adult community service. These include stabilizing and revegetating the shoulders of the old Bomb Dock or the eroded riverbank at the Eight Street West street-end; planting the specified buffer between the residences, the trail, and the Columbia River on the east end of Irrigon; or installing Heritage Trail signs along the trail.



**Morrow County Columbia River Heritage Trail
Section 5
Umatilla Wildlife Refuge and West Irrigon Area
May 2000**



Cooperating Agencies/Land Managers

- Army Corps of Engineers
- Boeing Agri-Ind
- Irrigon City Limits
- ODFW
- Port of Morrow
- USFW Refuges

Columbia River Heritage Trail (Existing)

- Existing Trail
- Proposed Trail

Columbia River Heritage Trail (Proposed)

- Public Road
- Building
- Site

Scale: 0.0 0.1 0.2 0.3 0.4 0.5 mi

Date: 05/10/00



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Section VI: Oregon State Wildlife Area

Trail Interests and Objectives

The Oregon Department of Fish and Wildlife (ODFW) has managed the Irrigon Wildlife Area in Morrow County since November 1971 and in adjacent Umatilla County since May 1977, under lease from the US Army Corps of Engineers. The Army Corps purchased these properties, which had been in private ownership and used as grazing lands, as part of the John Day Dam Project. This land is managed primarily for wildlife and for wildlife-oriented recreation.

The Morrow County Columbia River Heritage Trail on the Irrigon Wildlife Area

The ODFW Irrigon Wildlife Area section of the Columbia River Heritage Trail unites the City of Irrigon section to the west and the city of Umatilla to the east. This trail section is approximately 7-1/2 miles in length and affords wildlife viewing, native plant communities, and unique and uncommon wildlife species. A concept that has been discussed in the past is the development of a "wildlife and habitat points of interest signage" along the trail as an educational tool for area grade schools. This section of the trail is well-suited for this type of signage.



Figure 60. Existing footpath through the Wildlife Area.

Phase I

Only minor improvements will be required for Phase I use of the trail. During Phase I, the Heritage Trail will utilize the primary existing footpath established by hunters, anglers and other recreationalists in the Irrigon Wildlife Area. The trail will connect at the fence on the west boundary and continue east to the Morrow/Umatilla county line. At the county line, it is hoped in the future that the trail will continue east to the City of Umatilla.

Generally, the alignment of the trail will be halfway between Highway 730 and the shoreline of the Columbia River. The loose, sandy trail is unstable and erodable consequently it is meant only for foot traffic. The trail will not preclude, however, existing horseback riding within the Wildlife Area.

Phase II

Between Highway 730 and the southern boundary of the Irrigon Wildlife Area is a railroad bed that travels between the Umatilla River and the City of Irrigon. This would be an ideal alignment for the Heritage Trail with an improved surface, especially since the trail in the Wildlife Area will not be improved beyond its current level (sand surface). This option will be costly, as portions of the railroad grade are missing and/or partially covered by water. However, this needs to be explored as a viable option as it would extend access to wheelchairs and bicycles alike between Irrigon and the county line. Completion of phase II will also require collaboration with private landowners who own the last 3/4 mile of rail bed. Obtaining an easement or outright purchase of land are two possibilities which should be discussed in the future with those private landowners.

An alternative phasing option is a combination of the above two options, where portions of Phase II could be developed as funds become available.

Conflicts and Concerns

The concerns of the Wildlife Area are similar to those in the USFW Umatilla Refuge. The Wildlife Area serves as a resting and nesting area for many species of migratory birds, and depending on the season, a variety of birds use the Wildlife Area for food and shelter. The nesting season is a critical time for all bird species inhabiting the area, and the added stress of human intrusion may cause adults to abandon nest sites, leading to poor nest success. Because of this, ODFW Wildlife Area managers will mon-



Figure 61. Foot trail that could be developed into a spur for the Heritage Trail.

itor trail use for numbers and conduct, and may need to consider seasonal closures or additional signage.

During the past 28 years, recreationalists have created and established many foot trails throughout the Irrigon Wildlife Area, most running parallel with the Columbia River and Highway 730. Some of these trails could be designated as spur or loop trails to the primary Heritage Trail. There is a potential for conflict during hunting season between hunters and trail users, and this will need monitoring and may require seasonal trail closures.

Regulations on Use

Public use is expected to increase once the Heritage Trail is developed. Trail users will be required to stay on and not stray off the Heritage Trail and/or other designated public use areas throughout the Wildlife Area. The trail puts people in close proximity to the Columbia River, and several ponds and bird nesting areas, so this restriction should not hinder anyone's ability to see wildlife or the river. While it will not be advertised or promoted, horseback riders will continue to be allowed access to the wildlife area on existing social paths, in order to limit possible damage to nesting and other wildlife habitat. In keeping with the intent and design of the Wildlife Area, there will be no or only minimal trail development, except for possibly widening the trail where needed and identifying the trail with Heritage Trail markers. Once Phase II development is complete, the trail will be accessible to pedestrian, wheelchair and bicycle traffic. The existing Phase I trail will be restricted to foot and equestrian traffic.

Because of seasonal safety concerns for Heritage Trail users during the Wildlife Area's fall and winter pheasant, quail and waterfowl hunting, it may be necessary to close the Heritage Trail in the Wildlife Area between October 1 and December 31 of each year. It is also necessary to use appropriate and specific signs at trail access points informing trail users and hunters alike of the potential conflicts and safety guidelines for sharing the Wildlife Area.

Improvements Required

Phase I Heritage Trail development will require only minor improvements, specifically widening certain sections of the existing primary trail. ODFW has suggested that ODFW and/or volunteers under their supervision can undertake this. Also, following the signage standards that will be developed as a result of this plan, Columbia River Heritage Trail markers will be placed along the route and at boundaries and access points for the Irrigon Wildlife Area.

Phase II will require extensive design and construction, and possibly easements, to shift the Heritage Trail south

from the Wildlife Area to the old railroad right of way. Several sections of the old railbed are now submerged and will require boardwalks, like those proposed by the Port to cross Messner Pond, to continue the trail across these wetland areas. This phase will provide the wheelchair access and hardened surface and 8-foot width defined as the standard for the Heritage Trail in all sections except the wildlife refuges and areas. Also, additional signage will be needed on the pre-existing Phase I trail to limit it to foot traffic.

Signage and Interpretation

ODFW will inform the public about access to the Irrigon Wildlife Area and the Heritage Trail by posting signs indicating visiting hours, primary and secondary trail routes, and seasonal/permanent closures. Signage will be needed, too, to notify visitors about Wildlife Area rules, and why respecting them is important (staying on the trail to protect ground-nesting birds and plants, consequences of violating rules, etc.). In coordination with the Heritage Trail planning and advisory committees, the Wildlife Area will post the Heritage Trail's signature logo with that of the ODFW Wildlife Area at intervals defined in the Sign Plan. ODFW and the Trail Committee will also collaborate on any interpretative signs and materials that may be developed for the Wildlife Area section of the Heritage Trail.

Furniture and Other Amenities

There is currently a parking area just off Highway 730 approximately two miles east of Irrigon and consideration should be given to making minor improvements to the parking area. For Phase I, improvements should include Heritage Trail trailhead signage, regrading and gravel to protect the parking area from further erosion, and trash receptacles. In Phase II, the surface of the parking area should be consistent with similar trailheads and consistent with the level of trail use the parking area must support, which may require an asphalt surface. No public restroom is available on the Irrigon Wildlife Area, so visitors will need to be informed to rely on toilets available at Irrigon Marina Park.



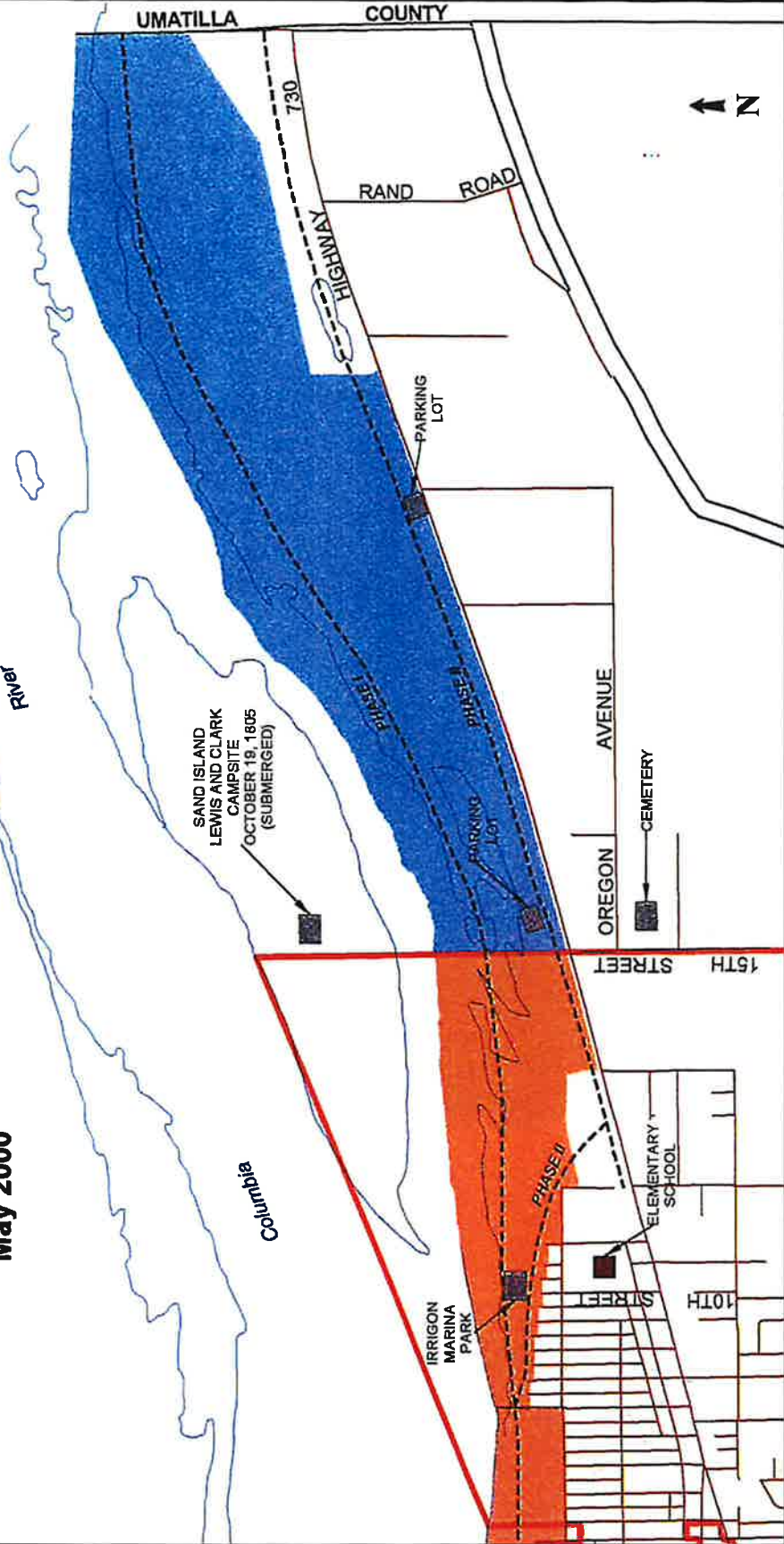
Figure 60. Existing footpath through the Wildlife Area.

Morrow County Columbia River Heritage Trail

Section 6

Irrigon Marina Park to Irrigon Wildlife Area

May 2000



Cooperating Agencies/Land Managers

- Army Corps of Engineers
- Boeing Agri-Ind
- Irrigon City Limits
- ODFW
- Port of Morrow
- USFW Refuges

Trail Status

- Columbia River Heritage Trail (Existing)
- Columbia River Heritage Trail (Proposed)

Other Features


- Public Road
- Building
- Site

Scale: 0.0 0.1 0.2 0.3 0.4 0.5 mi

Date: 05/10/00

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Geographic Information Systems



Mule deer

*Trail
Guidelines*

Trail Guidelines

Morrow County's Columbia River Heritage Trail will follow the Columbia River and travel through a wonderful variety of natural and built places. For the Heritage Trail to offer a distinct, memorable experience it will need a recognizable identity. The trail must also be safe and functional, and compliment the different landscapes through which it travels. This can be achieved through an organized system of design, materials, signage, and furniture.

The guidelines outlined here are a starting point. Several more detailed plans, such as Trail Development and Interpretation/Education, will need to be created to organize and specify signage and comprehensive detail elements.

General Guidelines

A number of general guidelines are recommended below and apply equally to all trail segments.

Trail Planning

- Trail development - including the design, funding, construction, and maintenance of the Heritage Trail - will be done collaboratively by the cooperating and affected land managers, property owners, and tribes.

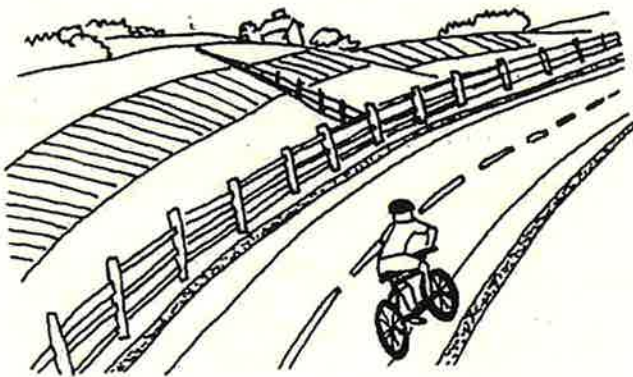


Figure 63. Paved 2' rural road shoulders with buffers.

- Trail development guidelines, expanding on the minimal standards that are outlined in this section, will be created to: 1) detail the design, the palette of materials, signage, specific furniture, and support facilities such as trail information kiosks, benches, shade structures or trees, phone, water, etc.; and 2) locate amenities.



Figure 64. 8' dedicated trail with buffers in urban areas

- It is important that the Heritage Trail's "sense of place" be maintained or enhanced by choosing complimentary materials, colors, and forms, as well as sympathetic and appropriate sites along the trail for signage, furniture and other facilities.
- Everyone wants the trail to be - in use and perception - safe, orderly, and functional. Safety is influenced by physical design and maintenance; by access points, as well as the modes of use or the trail; volunteer/paid patrols, and public information. A clear sense of order will not only orient us when we are on the trail, but will also help make the place and experience comprehensible in terms of predictability, well-placed surprises, knowing our relative location and direction, and the sequence and relationship of different areas. And finally, the trail must be functional, serving the local needs for non-motorized transportation and recreation, while giving as much access as possible to trail users regardless of physical, mental, or sensory abilities.

Accessibility

The trail will be accessible, wherever possible, for trail users of all abilities and disabilities. People with limitations that require the assistance of a wheelchair, a walker, or a cane, will be most comfortable on the "urban" trail segments where an asphalt surface is planned. All applicable laws governing the design and construction of public facilities, including the Americans with Disabilities Act (ADA), will be followed.

The Architectural and Transportation Barriers Compliance Board is responsible for developing and adopting uniform federal accessibility standards. Since passage of the ADA, an advisory committee has been working to develop recommendations to the Board for



Figure 65. 8' rural trail

making recreation facilities and outdoor developed areas, including paths and trails, accessible to, and usable by, individuals with disabilities. At this date, the Board has not adopted the recreation standards. Until final standards are available it is recommended that the advisory committee report, Recommendations for Accessibility Guidelines: Recreational Facilities and Outdoor Developed Areas (July 1994), be used as a common-sense guide for addressing accessibility in trail design and construction. While no standard has been developed specifically for recreation, existing guidelines for public facilities such as parking areas, restrooms, entrances and access routes do exist and must be followed.

Trail Design

- The Heritage Trail will be a single, primary route with spur and loop trails.
- The trail will seek to follow existing social paths and two-tracks as much as possible in an effort to avoid disturbing additional land in the corridor. Following existing routes may make it possible to open a continuous trail sooner, as existing paths can be used with interim signage and improvements, and in the long term reduce the costs of trail construction in some segments. Wherever possible, the trail will be at least 20-30 meters from the edge of the river, as recommended by the Confederated Tribes of the Umatilla Indian Reservation.

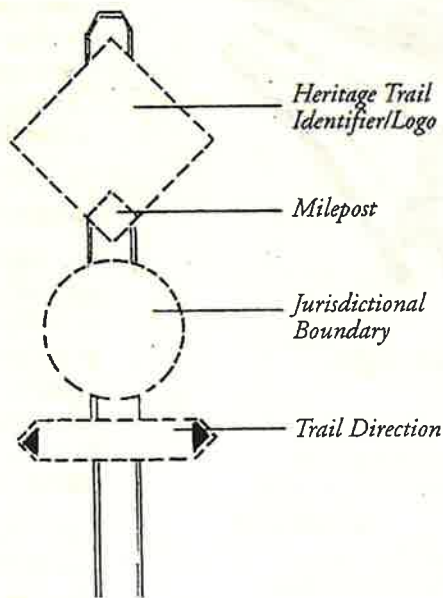


Figure 66. Example of basic trail sign

Primary Trail Guidelines

Desired Widths

- 2' rural road shoulders, both sides, in compliance with Oregon Rural Road standards.
- 8' dedicated trails in "urban" areas, where r.o.w. is available (City of Boardman/Tower Road to City of Irrigon/Twelfth Street).
- 8' dedicated trails in rural segments (west Morrow County line to Tower Road; USFW Umatilla Wildlife Refuge where not already paved; through the ODFW Wildlife Area).

Surfacing

- Paved rural road shoulders.
- Asphalt on dedicated trails in "urban" areas.
- Stabilized surface on dedicated trails in rural segments. (The typically soft, sandy soils in the trail corridor cause people to leave the trail for a firmer tread, which in turn causes damage to stabilizing vegetation and new erosion. Stabilizing and/or hardening the trail surface, therefore, serves to encourage trail users to stay ON the trail where the footing is firm.)

Signage

A Sign Plan will be developed detailing trail identity, general information and trail etiquette and rules, and directional signs.

- Trail Identifier: The "Columbia River Heritage Trail," in name and a graphic logo, will be posted at jurisdictional boundaries (see bullet) and at 1 mile intervals between the jurisdictional points.
- Milepost: Mileage posted at 1 mile intervals, starting with "0" at the Morrow/Umatilla county line and increasing as one travels west, following the river's flow, to the Morrow/Gilliam county line.
- Jurisdictional Boundary signs: to identify the sponsoring juris-

diction (the Army Corps of Engineering, for example), and will be located 100 yards inside the exiting boundary (“Thanks for visiting the . . .”) and 100 yards before the entrance (“Welcome to the . . .”).

- **Transition Points (access and intersections):** Directional signage to inform trail user about the location of the trail will be posted. For example, at a “T” intersection, a directional arrow may be needed to inform the traveler that the trail turns right, left, or continues in both directions. Additional directional and distance information can also be part of this element to provide important information for orientation, such as “>to Irrigon” or “<2 miles to Marina Park.”
- **General Information:** Basic trail information will be needed at trailheads and primary trail facilities, such as the Boardman and Irrigon Marina Parks. This will include an overall Heritage Trail map noting locations of restrooms, phones, parking, water, Visitor Information Centers, etc.; hours that the trail is open; modes and accessibility; and mileage (this may be designed to be an element of the trail identifiers).
- **Trail Etiquette:** General guidance about using and sharing the trail (Stay on Trail, Pets on Leash, Pack it in/Pack it out) will be provided at the same locations as general information and other locations (maybe at jurisdictional boundaries) as appropriate.
- **Trail Rules and Regulations:** Rules and regulations, such as the designated trail speed limit, will be posted at the same locations as general information and at other locations as necessary. Some rules will vary depending on the specific jurisdiction (e.g. seasonal restrictions to protect wildlife on the refuge, or the regulated hunting season with guidance about using the Heritage Trail later in the day and at one’s



Figure 67. Trail sign from Row River Trail near Cottage Grove, Oregon.



Figure 68. Bollard placed to prevent motorized access.

own risk).

Other Considerations

On the Boeing Agri-Industrial Company segment, the trail will be located upland to reduce potential seasonal conflicts with open (no permit required) hunting.

A trail separated from motorized or horseback traffic may be necessary for the following reasons: 1) Design or physical constraints (for example, the two overpasses in the Port section); 2) the independent objectives of the land managers and owners (e.g. Marine Drive, also in the Port); or 3) in response to trail monitoring (e.g. on the Boeing Agri-Industrial segment where seasonally there will be motorized, ped/bike, and horseback users on the Heritage Trail).

Spur and Connecting Trail Guidelines

The same general, width, surfacing, and signage standards outlined above for the primary trail applies to spur and connecting trails.

Support Facilities

Interpretation/Education

An interpretive plan that builds on the foundation provided in this Concept Plan will be developed before the Trail Committee undertakes production and installation of interpretive displays. Also, in collaboration with the local school district and other community and regional programs, an educational program will be developed that takes advantage of opportunities the trail presents to develop outdoor environmental and cultural learning programs and to promote health and wellness.

Trailheads

As each section of the trail is designed and constructed, needed facilities and their locations will be planned in

coordination with the development plans for the other trail segments and the land managers/owners. A preliminary list of the elements for consideration at trailheads includes parking, hitching posts, bollards, bike racks, toilets or porta-potties, potable water and phones.

Furniture

Like trailheads, trail furnishings will be an element in the comprehensive trail development planning. Trail furnishings that will be needed include waste receptacles, bike racks, benches, shade structures and trees, removable bollards (some will be needed at the end of 8th Street and on the refuge), and possibly trail map/info dispensers.

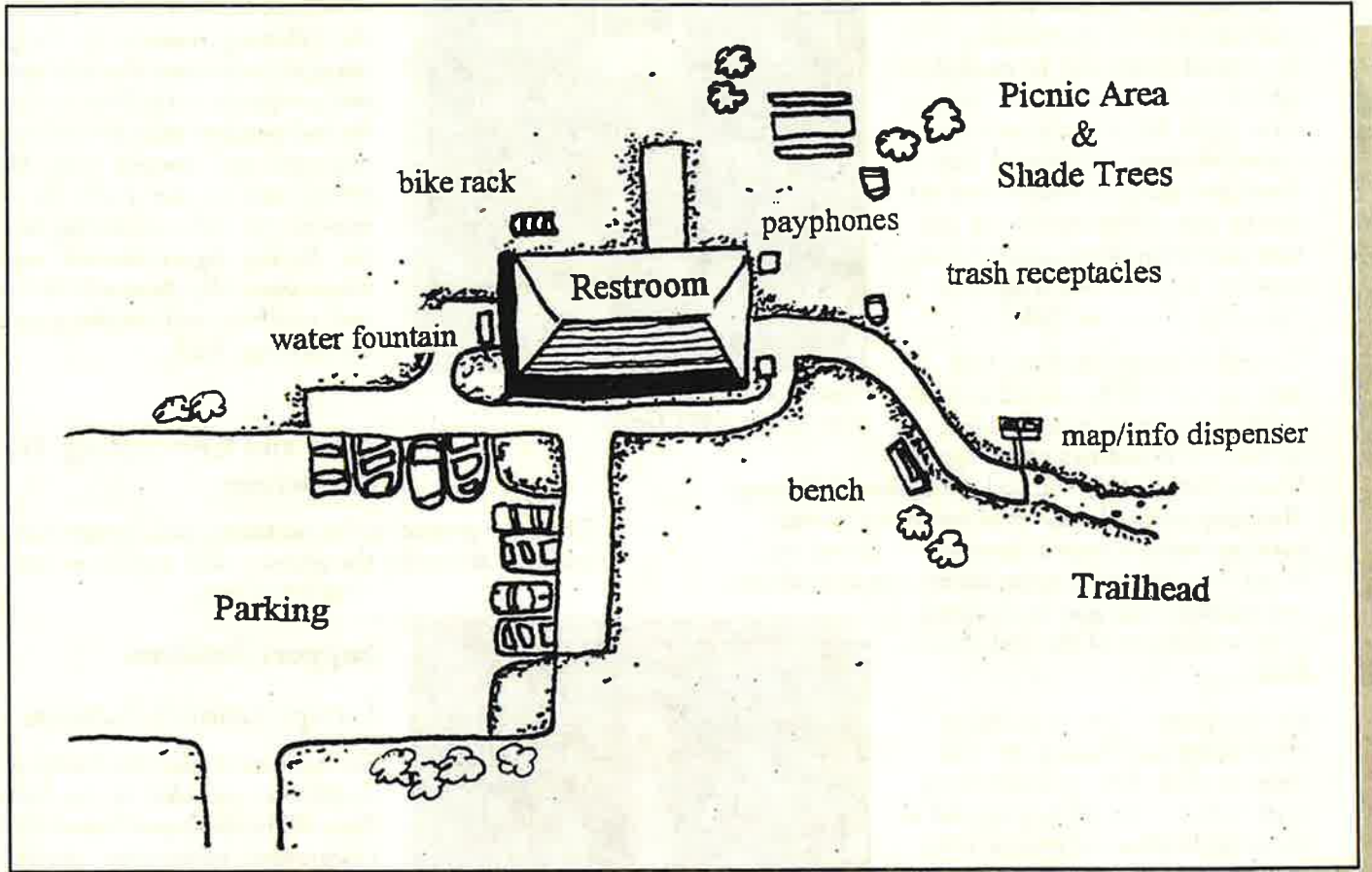


Figure 69. Example of trailhead design and layout.



Mallard duck

*Management, Development,
and Operations*

Management, Development and Operations

Management

The Morrow County Columbia River Heritage Trail (MCCR) is envisioned to be a continuous pathway for walkers, bicyclists, and other non-motorized travelers and recreationists that loosely parallels the Columbia River in north Morrow County. The land on which the trail will be located is primarily in public ownership, with management by the Army Corps of Engineers, Boeing Agri-Industrial Company, the cities of Irrigon and Boardman, the Port of Morrow, the United States Fish and Wildlife Service, the Oregon State Department of Fish and Wildlife, Boardman Park District, Irrigon Park District, and Morrow County. It is crucial that these agencies and industries work together in a cohesive and coordinated manner in the design, development and management of the trail to achieve the vision of the MCCR Heritage Trail.

Cooperative Agreement

It is strongly recommended that all ten management entities enter into a formal 'Cooperative Agreement' or 'Memorandum of Understanding' to sanction the partnership and clarify roles, responsibilities and functions. This is an effective way to build partnerships among public agencies, businesses, and non-profit groups that share common goals. At a minimum, the agreement should include declarative statements about each participant's interest and/or reason for participating in the partnership, outline the shared mission and responsibilities of each participant, and state the intent to work together in a cooperative manner to achieve common trail goals. The agreement may also establish a trail committee, identify a lead manager, and define the role of subcommittees, maintenance activities, and volunteer programs. See Appendix II for a sample agreement.

Partnerships

Creating and formalizing a management partnership will enable all of the land managers to coordinate their individual and collective actions in response to the Concept Plan and the wide variety of projects necessary to design, build and maintain the Heritage Trail. The partnership will insure a consistent approach and will prevent duplicate or conflicting efforts. The partners will all use standards adopted for the trail for signs, materials, colors, amenities and interpretation that will give a unified, recognizable and "seamless" identity to all segments of the Heritage Trail.



Figure 70. Managers collaborating on trail alignment.

Lead Manager

A designated lead manager is desirable for the trail partnership to function as smoothly as possible. The principle function of the lead manager is to communicate the vision of the Heritage Trail and spur action on the part of all of its partners to make that vision become reality. One responsibility, for example, will be to coordinate trail projects and address any concerns of the partners or the public. The lead manager may also work to acquire the funds needed for implementation and maintenance of the trail, as well as encourage other community and civic groups to participate in trail work.

Trail Protection

Virtually all the land proposed for the Heritage Trail is public land; no acquisitions are foreseen and cooperative agreements will ensure the trail's existence in the future. It is understood that each managing agency has its own mission, and that development and management of the trail will not conflict or compete with these missions. The Umatilla Wildlife Refuge, for instance, will not be asked to manage for recreation first rather than for wildlife habitat. Nor would the Port of Morrow be asked to manage first for the trail ahead of Port business.

Development

Moving from the vision and concept of the Morrow County Columbia River Heritage Trail to the reality of a physical path following the river will involve a number of steps and resources:

Funding

Securing funding for materials, equipment and labor is perhaps the first and most crucial requirement. As funding becomes available from grants, local revenues, private donations, and community fundraisers, work on the trail will proceed. Refer to the 'Funding' chapter for more information and potential sources.

Design and Engineering

Consultation with a landscape architect or engineer may be needed on sections of the trail to determine the best location and development techniques based on soil, topography, and other conditions. This may be useful, for instance, in determining whether the trail should travel around or over marshy locations or steep or easily eroded areas. A well-designed and built trail will decrease the future costs for maintenance and repair.

Compliance and Permitting

The MCCR Heritage Trail will be designed and built in compliance with federal, state, and local regulations. It is important to recognize that these rules are in place for good cause, to protect the public interest in fundamental rights to clean air, water, a healthy environment and protection of a shared cultural heritage. A number of evaluations will be to be occur, such as environmental and cultural resource reviews, before any ground disturbing activities occur. These will be undertaken not only because it is required by law (Section 106 of the National Historic Preservation), but also to insure that the natural and cultural resources along the Columbia River are not threatened or impaired by the trail or trail users. Cooperating land managers, the Trail Advisory Committee, the Confederated Tribes of the Umatilla Indian Reservation will lend their expertise and consult with other trail interests in the effort to develop the best trail in the spirit of the guiding regulations.

Labor

Trail construction, too, will proceed as labor is available. Recruiting local volunteers, individuals, civic groups,

youth groups, and court ordered community service to help build and maintain the trail is a desirable option. This not only can get the trail built; but it can also give participants a sense of community, pride, and a role in stewardship. In-kind, non-financial, donations from trail partners are welcome and can be used for trail construction. Some land managers may be able or prefer to construct the Heritage Trail independently on their own lands. Oregon Department of Fish and Wildlife, for example, may develop the MCCR Heritage Trail across the Wildlife Area with their own resources and personnel. The designated lead manager will have the responsibility for coordination, and guiding the majority of trail building.

Liability

Oregon law protects landowners from liability arising out of the use of their land for recreational purposes as long as the owner does not charge a fee for permission to use the land. The various public and industrial land managers forming the MCCR Heritage Trail partnership will be allowing the public free trail access to portions of their lands for recreational purposes. These landowners are not liable for any personal injury, death, or property damage that may occur on their property. See Appendix III for ORS 105.672-699: Public Use of Lands.

Implementation Schedule

Because of limited human and financial resources, it is unlikely the entire 25+ mile Heritage Trail will be built all at once. It is more likely the trail will be developed in phases as opportunities and resources become available. The following phasing sequence reflects the priorities set for the MCCR Heritage Trail:



Figure 71. Phase One: Basic trail and information signage.

Phase One: Basic Trail Route Development

A basic, continuous trail, from county line to county line, can be provided very early on with volunteer labor simply by installing 'Morrow County Columbia River Heritage Trail' signs along the route and performing minimal clearing and grading. Subsequently, the asphalt sections that will be located in the more developed, or "urban" segments of the trail (through the cities of Boardman and Irrigon and through the Port of Morrow) would be constructed. Other work that may be necessary will be to reinforce or 'harden' the surface on non-paved, erodable segments through the more rural sections (Boeing Agri-Industrial lands, several Army Corps of Engineers properties, and ODFW managed areas) to complete Phase I. Minimal signage is acceptable in Phase One to identify the trail route and to credit the participating agency or business on each section.



Figure 72. Phase Two: Trail amenities.



Figure 73. Phase Three: Interpretation.

Phase Two: Trail Amenities

Trail amenities include trailheads and parking, trash receptacles, bike racks, information and regulatory signs, shade trees and landscaping, benches, picnic tables, etc. Providing such trail amenities will make the Heritage Trail a more pleasant and convenient experience for residents and visitors and will provide character and identity for the trail.

Phase Three: Interpretation

Interpretation refers to a program designed to provide informative and educational material regarding the area's natural, cultural, and industrial resources. This information can be presented in a variety of media such as trail-side signs and displays, brochures, guided walks and talks, web sites, audio tours, and information kiosks. Interpretation will help trail users understand and appreciate the MCCR Heritage Trail and the land through which it travels.

Operations

Maintenance

The Heritage Trail is not intended to be a high-maintenance facility, and minimal, regular work should be expected to maintain it. During seasons of high use, some tasks will be needed at more frequent intervals, such as trash collection and disposal. Other maintenance requirements, including trail surface and sign repair may only need to be done every few years. Damage from unpredictable natural events, such as flash floods or fire, will require repairs and restoration as they occur. Establishing and funding a maintenance budget, including an emergency fund for unusual occurrences is appropriate. While

maintenance and upkeep of a trail is not extensive, it does require the coordinated efforts of both the partnership of land managers and community volunteers, and calls on the sense of stewardship on the part of trail users.

Land Managers

The designated 'lead' agency will have the responsibility of coordinating maintenance for the MCCR Heritage Trail. Individual land managers who form the partnership will take responsibility for their particular segment of the trail (unless otherwise stated in the cooperative agreement). On the Umatilla Wildlife Refuge, for example, the

USFWS has said they will take responsibility for controlling vegetation encroaching the trail. The lead manager, however, will oversee and coordinate trail maintenance. A yearly evaluation of the trail's condition by this manager and trail partners will help identify new and/or larger concerns. To better coordinate maintenance and to help determine what actions are necessary, a subcommittee dedicated to maintenance would be useful.

Volunteers

Individuals, community organizations, corporations and businesses may carry out many of the tasks required for both construction and on-going maintenance of the Heritage Trail. Volunteer sources include youth groups, boy and girl scouts, historical societies and art groups, senior citizens, chambers of commerce, service organizations, church groups, corporate and/or employee service clubs, as well as juveniles and adults required to perform community service work. Volunteers may:

- Adopt a section of the trail and take responsibility for litter patrol, monitoring, and specified light maintenance
- Help install and maintain trail amenities, such as benches, picnic tables, and signs
- Rally for annual events, such as river clean-up or vegetation control around "Earth Day" and "National Trails Day," or as part of Oregon's SOLV (Stop Oregon Litter & Vandalism) program.
- To use volunteer assistance most effectively, it is suggested that a volunteer program be established consisting of four components: 1) oversight; 2) task identification; 3) training and recruitment; and 4) rewards.

Oversight

A volunteer subcommittee and/or a volunteer coordinator position is needed to oversee the entire volunteer program. Different methods should be explored for creating the coordinator position, such as expanding the Public Works Department by a half-time position, accepting "loaned staff" from a corporate sponsor or non-profit organization, and fundraising to support the position. If funds are simply not available to make this a salaried position, offering it as an internship for a college student or as a volunteer position itself are also options.

Task Identification

The volunteer coordinator and/or subcommittee, working with the lead manager, will determine what tasks in the trail development and maintenance plans can be undertaken by volunteers. By knowing in advance what trail work needs to be completed in the short and long term, and what labor, time, and skill are required, volunteers can be used most effectively. The volunteer coordinator will also insure that all trail work follows established trail standards, such as construction techniques or colors and materials used, to achieve a consistent look and feel on all sections of the trail. Some ways to achieve this include:

- Maintain an on-going and prioritized list of projects needing attention
- Develop job descriptions
- Give specific and clearly defined tasks - volunteers need to know what is expected of them and how to carry out the work
- Delegate a leader for the task if a number of people are involved in the trail project - volunteers will then know who to ask if they have questions



Figure 74. Volunteers at the 1999 river clean-up.



Figure 75. Volunteers on litter patrol

Recruitment and Training

The volunteer coordinator will also be responsible for recruiting volunteers and organizing training for them. This includes all training that will help volunteers be knowledgeable about the trail and prepared for their role, including:

- Instruction for volunteers on the resources of the MCCR Heritage Trail, both natural and cultural, and how they can help protect these resources
- Programs instructing volunteers on appropriate trail use - why visitors, for example, must stay on the trail, not litter, and avoid disturbing wildlife
- Training on how to properly and safely use the tools necessary for trail construction and maintenance
- Training on safety and what actions to take in an emergency, such as who to contact, first aid and CPR procedures

Rewards

It is important to celebrate achievements and reward people for their hard work and commitment. Appreciation can be shown to volunteers for their time and energies dedicated to the trail with:

- A fun and caring attitude – this attracts and keeps volunteers, and includes simple acts like providing refreshments and snacks for work groups
- Certificates to acknowledge their contribution
- Training - not only helps them to do their best job for the Heritage Trail but can give them skills and experience to take with them

- Mementos - gifts from water bottles to baseball caps or t-shirts are another way to say “thank you”
- Parties - picnics or barbecues, annually or after a task has been completed, are good occasions for celebrating a job well-done

Stewardship

People will come to the Morrow County Columbia River Heritage Trail to learn about the area, for recreation, or to travel between the local towns in a tranquil, safe, and appealing environment. Generally, trail users are respectful of private property and have a personal commitment to keeping trails clean, safe and peaceful. Individuals can be encouraged to help monitor the condition of the trail and participate in its upkeep, from notifying the lead manager if there are concerns to picking up litter themselves. Encouraging people to participate as volunteers in the day to day operation of the trail will contribute to the stewardship of the trail by residents in local communities.

Law Enforcement and Emergency Response

The Morrow County Columbia River Heritage Trail lies within the jurisdiction of the Morrow County Sheriff Department, which will regularly monitor the trail with drive-by surveillance and trailhead checks as part of routine patrols. Several of the public land managers, including the US Fish and Wildlife Service and the Army Corps of Engineers, also have law enforcement officers and deputies who will continue their present level of monitoring and response actions.

Among the most effective ways, however, to oversee the trail is through a volunteer trail steward program. Trail stewards can serve as law enforcement’s eyes and ears while



Figure 76. Refreshments after a long day.



Figure 77. Bandannas and other mementos were given to "Local Voices" participants.

helping to inform the public about trail policies, and assisting with other duties, such as maintenance, interpretation and community outreach. Trail stewards would not have responsibility for actual law enforcement, but could receive special training from local law enforcement officials to clarify their role and responsibility. They could work on foot or bicycle and could be provided with special vests or jackets for easy identification. CPR and first aid training may also be provided to trail stewards so they can give assistance to people in need.

Unfortunately, serious accidents or health problems can occur anywhere, including on a community trail. For this reason it is important that emergency vehicles have access to the Heritage Trail. It is likely, however, that motorized vehicle access to the trail will be restricted at points where the trail intersects road corridors through the use of removable vertical post barriers (called bollards). Law enforcement and other emergency personnel will need to be provided with a standardized key to all removable bollards so they can access the trail in emergency situations.

Resource Protection

The Morrow County Columbia River Heritage Trail travels through and accesses important resources, both natural and cultural, that need protection. This is the responsibility of everyone, from the public land manager to the individual hiker or bicyclist. Public land managers will continue to insure resource protection through their ongoing management policies and operations. Education and training will help trail users be responsible stewards

and to be mindful of their impacts on the land. Signage, brochures, lecture series, and classroom activities are just a few ways of informing the public about the area's fragile and special resources, and what they can do to preserve them.

Trail development can also serve as a tool managing agencies can use to help protect, conserve and manage resources. The trail can direct people where land managers want people to go and limit their access to more sensitive areas. The trail can help control unauthorized access to the river and give managing agencies the opportunity to conduct restoration projects in areas where trampling or erosion from illegal camping and picnicking has occurred over the years. The simple fact of a managed 'presence' by land managing agencies and trail users will deter significant amounts of unauthorized and illicit behavior.

The management partnership for the MCCR Heritage Trail will also play a significant role in the protection of natural and cultural resources. The partnership model will enhance awareness and create opportunities for collectively protecting resources throughout the corridor, not just within each agencies' boundaries. For example, the



Figure 78. A University of Washington field trip to learn about the geologic resources of the Columbia Basin.

type of training and collaboration that the Confederated Tribes of the Umatilla Indian Reservation currently provides for local law enforcement officers on the protection of cultural resources and the requirements of the Native American Graves Protection and Repatriation Act (NAG-PRA) can be extended to more partners and broadened to other management issues.



Woodhouse toad

*Interpretation
and Education*

Interpretation and Education

Interpretation assists in discovery, helps us understand our surroundings and our history and to find meaning in our experiences. Interpretation can be accomplished by a variety of methods and activities such as signs, kiosks, guided trail tours and self-guided walks. Interpretation is more than just information and data; it reveals the beauty and wonder, the inspiration and meaning, that lies behind what the visitor perceives with their senses. Using such tools as analogies, pictures, and parables, interpretation relates the unfamiliar to the familiar, and takes the visitor beyond the observed fact to recognize the significance of places and events and our shared and divergent roots in history, science, and nature.

For interpretation to be effective, it is organized around selected themes, has a coordinated and recognizable design and is detailed appropriately for the chosen sites, media, and activities. In order to achieve this for the

Morrow County Columbia River Heritage Trail, it will be necessary in the future to develop an interpretation and education plan. Using a common design and consistent palette of colors and materials will assure that trail users recognize the Heritage Trail without reading a word. Developing a primary theme for this will be important. It will connect all the individual components, illuminates the important features or events in the area and guides the selection of specific subject matter. The primary theme is a framework within which the many place- and time- specific stories of north Morrow County can be told.

The following suggested theme, sample stories, and the interpretation and education sections are far more detailed than normally found in a Concept Plan, but is not a complete interpretive plan. It is provided here as a starting point, a foundation, to be followed by subsequent development of comprehensive interpretation and education plans involving more research and review.

Primary Theme: The Place, Its People, and Their Interaction

The primary theme for the Morrow County Columbia River Heritage Trail will be "A Special Place and Its People." Exploring the Columbia River and its surrounding lands by way of the Heritage Trail makes it possible to tell stories of our past, present, and future. These stories reflect both the uniqueness and importance of this area by telling about it as a place, about the people who live here, and also about the interaction between the place and the people.

The Place

North Morrow County on the Columbia River is not just its physical location on a map; it includes all the components that make up the ecological and geological characteristics of the area. This area might be divided into three distinct topics: the River, the uplands, and the interface between the two, the riparian area. Within these three topics, stories of the habitat, flora, fauna, and geology of each area can be told.

The River

The Columbia River plays an enormous role in defining and shaping the landscape through which it flows. It also supports a variety of plant and animal species. Possible subjects to explore in an interpretive framework include:

- Salmon and other species dependent on the Columbia River - these stories might include life histories, habitat

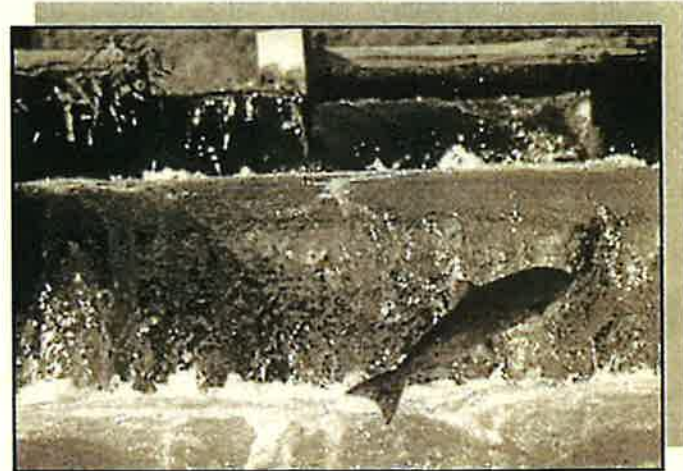


Figure 79. Chinook salmon (courtesy of the Corps of Engineers, Portland District).

requirements, current threats/issues facing a particular species

- The geologic history of the River: the Missoula Floods (for example, how landmarks such as the large boulders seen in the area were carried far distances), how the River shaped the landscape
- Physical characteristics of the river - such as controlled and seasonal depth, temperature, length, and other features that would help visitors understand its value and uniqueness
- The effects of the area's moderate climate and low elevation (300') on vegetation and wildlife.



The Uplands

Upland from the River the distinctive shrub-steppe vegetation and bunchgrass prairies provide an opportunities to explore the plants and animals in this ecozone. Possible stories are:

- How the physical environment limits plants and animals to those that can live in poorly developed soils and with limited moisture.
- Explorations of what shrub-steppe or bunchgrass prairie is - what plant species are likely to be seen, how they are adapted to arid conditions
- What animals make their home in seasonally dry and hot environments and their adaptations
- How the Columbia River basalt was formed, its characteristics and distinctive land forms

The River's Edge

The area between the Columbia River and the uplands, the river's edge, is referred to as a riparian area. Riparian areas are extremely important for many reasons, and these reasons can be the source of interpretive stories:

- Definition of what a riparian area is, and how it differs from both the river and the upland area
- Plants found in these areas, such as willows, rushes, and cattails; what habitat they provide and how they are threatened, for example, by introduced species or changes in water elevation
- How animals rely on riparian areas - its importance to waterfowl, fish species, and many mammals and invertebrates
- How riparian areas act to improve water quality

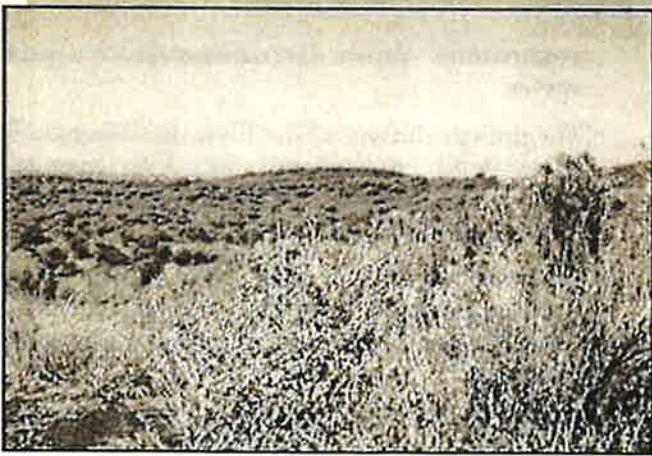


Figure 80. Common shrub-steppe plant.

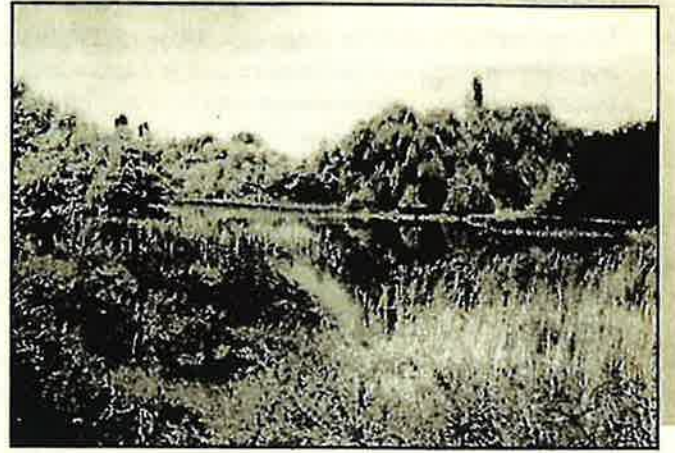


Figure 81. Riparian area located in the ODFW section.

- How the riparian zone moderates the river's extreme low and high water levels that occur at different times of the year.

The People

The people who live or have lived in Morrow County come from diverse heritages, including Native American, European, and Hispanic. The combination and interactions of these groups create a rich and varied culture for both residents of the area and visitors. Historical accounts, legends, personal anecdotes, poetry, and the visual arts might be used to investigate their stories. There are many common threads to the stories of each group, which include:

Settlement and Ways of Life

Settlement and ways of life stories tell why people came to



Figure 82. Turn of the century photograph of Irrigon (courtesy of Don Eppenbach).

this area, where they came from and what customs and traditions they brought, and why they stayed. Examples of stories are:

- Native American settlement in the area; adaptations to and use of nature such as early semi-subterranean pit houses and later above ground, mat-covered structures
- Stories of European exploration, including Lewis and Clark and the Oregon Trail
- The Chinese who labored on railroad construction, in mines and in the fishing industry. How and by whom the cities in North Morrow County were founded
- Reasons people moved to the area, such as for industrial and agricultural opportunities



Figure 83. Cinco de Mayo celebration (courtesy of Martin Monte de Oca).

- How people of all ethnic backgrounds support themselves through work (domestic and for commerce), how they play and relax, and how they interact as families and as a community.
- Myths, traditions, and customs are numerous among the diverse people that live in this area and can be recounted.
- Historical accounts can portray common and influential people and events that have shaped life in Morrow County.

Changes, Growth, and Disruptions

Change has come to the area, often precipitated by outside influences. Topics that might be explored are:

- How the introduction of the horse, around AD 1720,



Figure 84. Fishing on land managed by the Army Corps. (courtesy of the Army Corps of Engineers, Portland District).

changed the lives of the Umatilla and other Native Americans.

- How the waves of migration of people from other areas affected the current residents along the Columbia River in north Morrow County, and how the residents responded to newcomers and differences in languages, foods, and traditions.
- Families and whole towns were relocated when highways and dams were built; dam construction and the subsequent rise in the level of the river required the City of Boardman to relocate to higher ground and necessitated a fish hatchery.
- Comparisons between the natural, historic river actions and appearance and the controlled, engineered river can be described and illustrated.



Figure 85. Children in traditional Mexican dress (courtesy of Martin Monte de Oca).

Transportation

Many modes of transportation have been used by people throughout the history of the area's settlement, increasing freedom for, and imposing constraints on, the people living here:

- Foot and horse travel - once trails following the river banks and those heading inland could only travel by foot or horseback; now such travel has become common preferences for recreation.
- Boating - many kinds of crafts have been used for transport up and down the river over the centuries, including canoes, rafts, ferries, motorized boats, ships, barges and tugs.
- Railroad - the building of the railroad changed many aspects of life in north Morrow County, such as by making the area more accessible to global markets, and making it easier to ship large quantities of goods to and from the region.

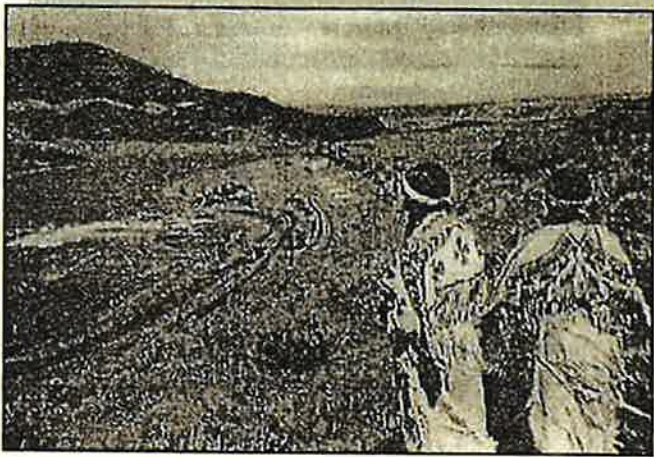


Figure 86. Two Native Americans watch Celilo Falls being flooded in the 1950s (courtesy of the CTJIR).

- Highways - the highway has further connected Morrow County to the region and the rest of the country, making it more convenient and accessible for residents, visitors, commerce and to transport goods.

The Interaction of Place and People

The place of Morrow County, including its natural characteristics, has given opportunities and set limits on human activity in the area. Native Americans, Europeans and Hispanics have all responded to these options and problems; sometimes in similar ways and sometimes in not so similar ways. In turn, their activities have also



Figure 87. Train and community event in Irrigon, turn of the century (courtesy of Don Eppembach).

altered and shaped both the landscape and the river.

Traditional Land Use

The physical characteristics of North Morrow County have often determined how people can live and use the land. Examples of possible themes include:

- The Native Americans' reliance on the land and natural materials - hunting and gathering food available seasonally, using animal bones and hard stones for tools and semi-subterranean pit houses and mat-covered long houses.
- European settlement - the challenge of navigating the powerful Columbia River; the influence of water on where people could settle and what crops they could grow; native vegetation, particularly bunchgrasses, offered good grazing, and how grazing in turn has affected the landscape.



Figure 88. Farming in Morrow County at the turn of the century (courtesy of Don Eppembach).

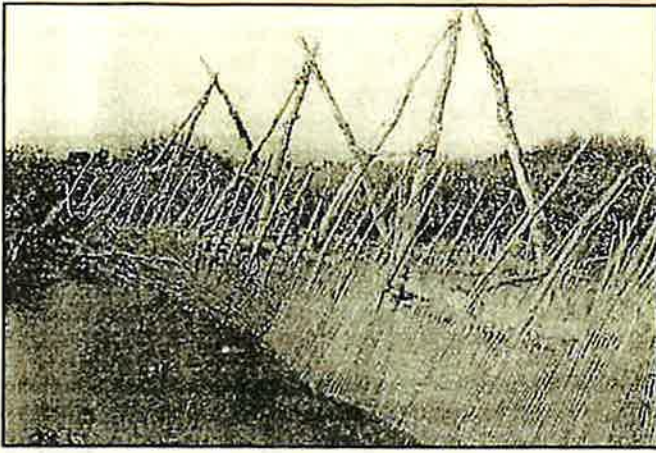


Figure 89. Fishing weir (courtesy of the CTUIR).



Figure 90. The Port of Morrow.

Technological Advances

People have found ways to overcome some of the natural obstacles imposed by this environment, and human technological advances have altered the environment. For example:

- Technology timelines can illustrate how tools and peoples' lives have changed over time: the evolution from large, clovis projectile points used to hunt large game to the bow and arrow and a diverse array of tools such as net sinkers and weirs for fishing; how agriculture has evolved from dryland to irrigated farming, affording more food to be grown than was possible without supplemental water and to grow species that have higher water requirements.
- Changes in how we manage our lands - the introduction of non-native species, such as Russian olive, for windbreaks and to stabilize disturbed soils, and how these introductions have affected, and in some cases overtaken, native species.
- Dams produce hydroelectric power for the region. They also make the Columbia River more readily navigable, control local flooding, and influence the natural landscape and pattern of settlement and industry.

Industry

The Columbia River, as well as other physical characteristics of the land, provide opportunities for commerce and industry - all tied to the river: Stories from the past and present might be:

- Historic tribal commerce at the river's confluences.
- The Port of Morrow: how water depth and low turbulence have led to the development of the Port in Boardman, its purpose, the places regionally and globally that it serves, its importance to the local community and region, and the specific industries located in the Port.
- Agriculture: with irrigation, farmers in North Morrow County grow many crops, due to the relatively flat land, a long growing season, and loose soils of the area.
- Boeing: how it came to the area and what opportunities it is realizing on the land and in the region; contributions the company's local work has made to the area, region, state, country and world.
- Power generation from dams and coal-fired plants.
- New industries and businesses moving into the area, such as Wal-Mart and Tillamook Cheese: their histories and what has brought them to the area.
- The railroad: Union Pacific Railroad, part of which follows Old Highway 30.



Figure 91. A wayside exhibit on the Umatilla Wildlife Refuge.

Interpretive Methods

Many interpretive methods are useful for learning about the landscape, the local culture, and the history of the area. Signs and wayside exhibits may be used to interpret an individual site and share its stories. They can also be used to link several sites together, such as those located along a self-guided walk. They may be educational and provide facts about concrete objects, processes, or occurrences. Signs and wayside exhibits can also be used to interpret a site or occurrence by explaining its significance or importance. Though these methods rarely provide extensive and detailed information, they can provoke visitors to want to learn more. Books, slide programs, and guided interpreter programs are a few options for providing more information to interested visitors. A web-site on the World Wide Web is another effective way of making interpretive materials available to the public.

Using a variety of interpretive methods expands the ways to explore and understand the world around us, and supports different learning styles, ability, impairment and languages. Providing audio tapes or stations is one alternative to the visual experience of the trail, offering the calls of birds about wildlife or a story about a historical occurrence or custom. Signs or audio stops along the trail can be used to highlight olfactory points, such as the smell of mint that comes from crushed sagebrush or to identify aromas coming from nearby industries, such as onions or potatoes. Tactile displays, including Braille and sculpture, give yet another medium for learning. Displays of cultural relics left in place, such as an old tractor or wagon wheel, may make interpretation of a historical site even more intriguing. By providing different ways to experience and perceive each site, a greater number of people will be able to more fully enjoy and appreciate the trail.

Site Selection

The success of interpretive efforts are strongly influenced by the sites employed. Therefore, planners must select sites whose natural and historic features evoke interest or questions, and stimulate curiosity in the visitor. Good sites will insure that there is a compelling story to justify an interpretive stop. By planning and coordinating location sites, the trail's theme can be fully explored without becoming visually cluttered.

To select the best sites, to keep the number of sites at an appropriate level, and insure good site development and effective interpretation, several questions should be considered:

- What are the best sites for telling the selected stories?
- How many visitors will be come to this location? Why are they there? How long are they likely to stay?
- Will sensitive natural and cultural resources be affected by attracting visitors to the site?
- Can it be made unobtrusive, and still clearly show what is being interpreted?
- What construction is involved - will it require a side trail, a roadside pulloff, the selective clearing of a vista, or access for special or large equipment?
- How accessible is the site?
- Are there any safety hazards?
- How stable is the site - does the soil have a potential for erosion; is there adequate space for a sign or kiosk and for visitors to gather?
- What is the budget and what alternatives and partners are available?

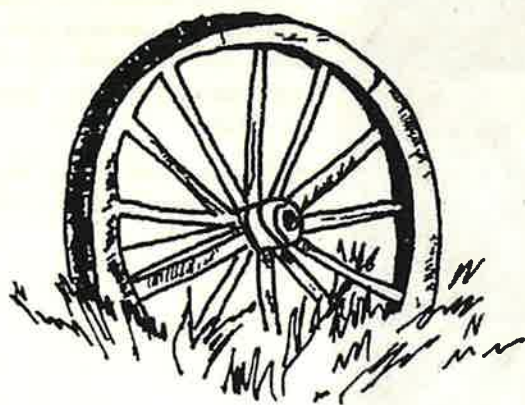


Figure 92. Example of an *in situ* display.

These questions will help select sites that will enliven the trail's interpretive and educational themes most effectively, as well as compliment the landscape.

Design Basics

The purpose of interpretive methods, particularly signs, trail panels, and wayside exhibits, is to enhance a visitors' experience of a site and to introduce its stories. In order for these interpretative methods to be most effective, their design should be unified, uncluttered, and compatible with the site.

Unity

The development of a common and consistent visual design that is recognizable as one system creates a sense of unity among the sites and various interpretative method. Uniformity in colors, text style and size and the use of a common grid system help achieve this.

Color

Using a consistent color palette throughout the system of signs and exhibits unifies and organizes the interpretative program. Color can also be used to send a particular message to visitors. A splash of color on a neutral background, for example, commands attention. Using colors that strongly contrast help to emphasize a message. Neutral colors may more effectively complement the surrounding landscape.

Text Style and Sizes

Consistent use of the same text style, or font, and sizes also provides a sense of unity to signs and wayside exhibits. Typography should be chosen that will hold the readers' attention without distracting them from the message. Choose a font that is readable, such as Times or Helvetica. Avoid a script font except in the case of the signature main title, the use of all caps or hyphenation, and do not mix font styles beyond main titles and block text. Flush left/ragged right margins are easier to read than ragged left/flush right or centered type. The choice of type size is related to the reading distance, reading height, and the relative importance of the information. All type sizes must meet legibility requirements for the visually impaired. Examples of fonts and sizes used by the National Park Service on National Scenic and Historic are shown on the following page.

A Grid System

A grid serves as a common and flexible framework for design, holding page elements together in an orderly manner. A grid is a series of intersecting horizontal and vertical lines that frame different areas of the display. These spaces are then used to plan where text and illustrations will be positioned. The National Park Service, for example, uses the grid shown on page 92 for interpretive panels on the Mormon Pioneer National Historic Trail.

Basic Guidelines

Other tips to consider when developing interpretive signs and kiosks are:

- Provide enough graphics to support the subject.
- Remember not to overload the panels.
- Each panel should tell one story.
- Keep it visually simple and uncluttered.
- Make the story brief and the presentation simple. Visitors want to experience the site, and they will ignore long, complex messages.
- A good graphic can often tell a detailed story or convey a complicated process more effectively than text.
- Graphics add interest and variety to interpretive materials.
- Lines of text should be kept short, and maintaining open "white" space at the margins helps make a sign readable.

Compatibility

Interpretive methods should compliment and enhance the experience of a site, not detract from it. Colors and materials should be chosen that blend with and compliment the landscape. Structures, such as kiosks, should be placed where they do not dominate the landscape or obstruct a view.



Figure 93. Informative interpretive panels in Irrigon's Marina Park.

Typography Sample

Main Title

96 point Helvetica Neue #75
Bold or ITC Century Book.
Flush left, ragged right, upper
and lower case, all on one
line, maximum of 4 words,
white or black

Sa
Sar

Main Text

36 point ITC Century Book,
38 point leading (for upright
panels use 40 point type
with 44 point leading). Flush
left, ragged right, upper and
lower case, no hyphenation,
two columns wide, maximum
line length of 67 picas,
white or black

Sample
Book w
right. U

One col
picas. W
betwee

Subtitle

36 point Helvetica Neue #55
Roman, #75 Bold or Helvetica
Black. Flush left, ragged
right, upper and lower case,
white or black

Sample
Sample
Sampl

Secondary Text

24 point ITC Century Book,
26 point leading (for upright
panels use 28 point type
with 30 point leading). Flush
left, ragged right, upper and
lower case, no hyphenation,
one column wide, maximum
line length of 32 picas,
white or black

Sample seco
24 point ITC
point leading
right. Upper
hyphenation

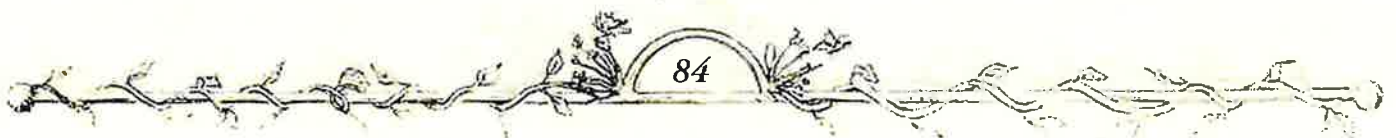
One column
length of 32
Insert one li
paragraphs.
paragraphs.

Caption

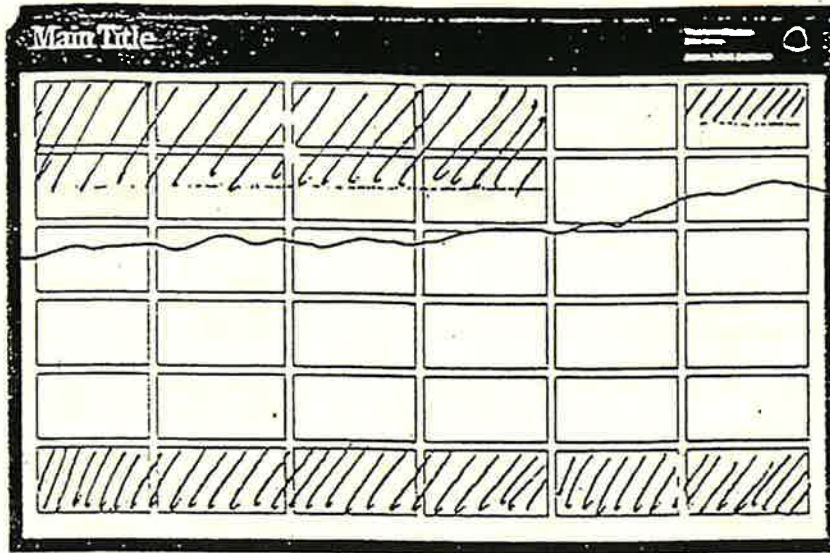
24 point ITC Century Book
italic, 26 point leading
(for upright panels use
28 point type with 30 point
leading). Flush left, ragged
right, upper and lower case,
no hyphenation, one column
wide, maximum line length
of 32 picas, white or black

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ITC Century
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length of 32
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paragraphs.
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Sample Grid

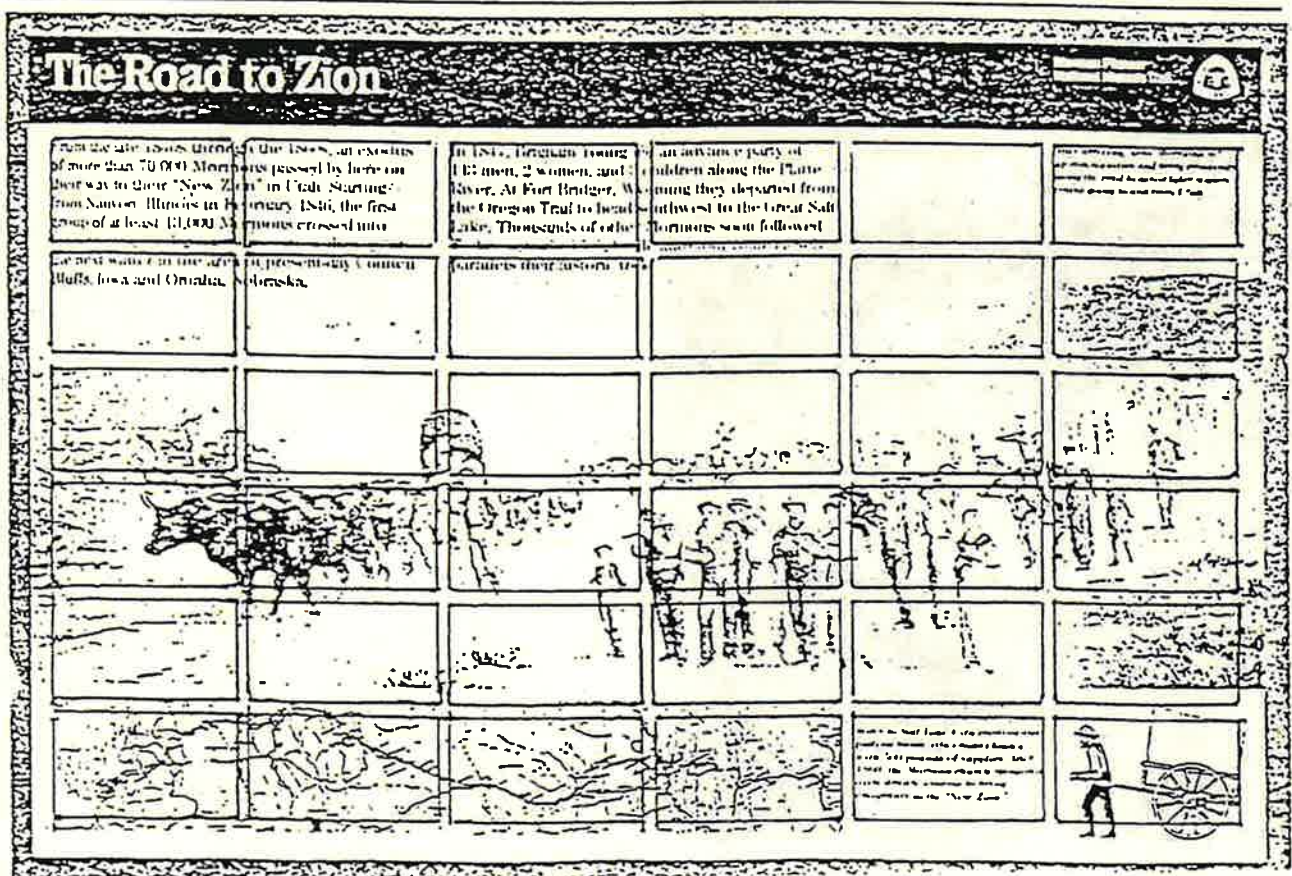


National Park Service designers use this grid as an underlying organizational structure for various exhibits. Related grids have been developed by the National Park Service for different panel sizes.

Sample Design Comprehensive

Titles, text, pictures, maps, and captions are laid out within the structure of the grid.

Notice the horizontal and vertical alignments. The vertical columns of the grid are strictly observed. Several new horizontal alignments are established to accommodate the proportions of pictorial elements.



Materials Used for Signs

Sign panels can be created from an array of materials. Each material can be attractive and vibrant, offers variations in color, illumination, texture and shape. While durability and aesthetics are two primary criteria, choosing the best material for interpretive methods is also based on budget, color and graphic needs, long-term maintenance requirements and vandalism risk. The most commonly used materials include:

Fiberglass Embedment

This method allows full-color reproduction, which is useful when detailed graphics are needed, such as wayside exhibits and trail interpretation. While manufacturers use UV resistant materials, the colors in this material are prone to fading and yellowing over time and can be scratched, which may require more frequent maintenance and replacement than other materials available and siting in more controlled and/or shaded areas. An advantage is that once the original design and layout is complete, multiple, duplicate panels can be ordered at very little addi-



Figure 95. Panel explaining riparian functions in the Umatilla Wildlife Refuge.

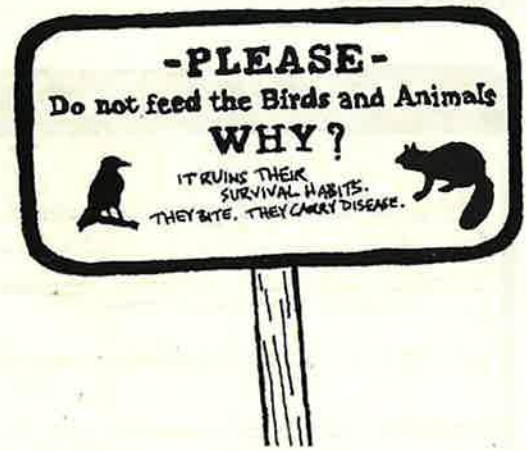


Figure 94. Commonly seen example of an environmental education sign.

tional cost so that replacement panels are on hand when needed.

Digital Print

This method uses computer-generated images, and is emerging as a good choice for outdoor exhibits. They can be initially less expensive than fiberglass or porcelain, and are faster to alter and reproduce when they are replaced. They are comparatively durable, and the relative low cost can make replacement affordable.

Porcelain Enamel

This material is excellent for reproducing sharp, full-color photographs and fine line art. Its vivid colors do not fade, it requires little maintenance, and is the most durable. It is however, more expensive than the other choices.

Environmental Stewardship Education

Environmental education consists not only of the facts about the natural world, but also provides interesting information on human impacts as well as the use and protection of our natural surroundings as well. Signs, trail panels, brochures, and other interpretive methods are all useful for conveying this information. Basic examples of environmental education seen along trails and in parks include explanations of why visitors must stay on designated trails and why they should not feed the wildlife.

Examples of environmental education already exist on some proposed segments of the Morrow County Columbia River Heritage Trail. In the Umatilla National Wildlife Refuge, for instance, trail panels not only provide descriptions of native plant species, but also inform the public about why it is important to protect these species and how this can be achieved. The panels go on to describe replanting efforts and removal of aggressive exotic plant species. A brochure is available at the Irrigon Hatchery that explains the operation of the hatchery, contains detailed information about the life cycle of steelhead salmon, and explains why it is important to prevent the extinction of this species. Environmental education can be used on other segments of the trail to inform visitors about the significance of their surroundings and how these qualities can be best preserved.

Curriculum Guides

Working with the local school district and with parent/teacher associations, curriculum guides for the Morrow County Columbia River Heritage Trail can be developed for all grade levels. These guides can be used to reinforce classroom learning, field experiences and to generate enthusiasm about the natural and cultural resources of the area. Significantly, the guides can also encourage students and their families to become attentive stewards of the land and the community.

Activities can be designed that are appropriate for a variety of subjects, such as music, art, science, and social studies. Story telling and songs, for example, might be used to explore the local history of the area. Possibilities include stories about Native American Indian customs and the journey of Lewis and Clark. Students might also build models of barges to learn about the industrial heritage of the area. Coloring and activity books encourage students to learn more about native flora and fauna or the geological and political events that shaped the region. The rich and diverse natural, cultural, and industrial resources of the area provide many possibilities for educators to make learning a fun and exciting experience in the "outdoor classroom" of the Columbia River Heritage Trail.

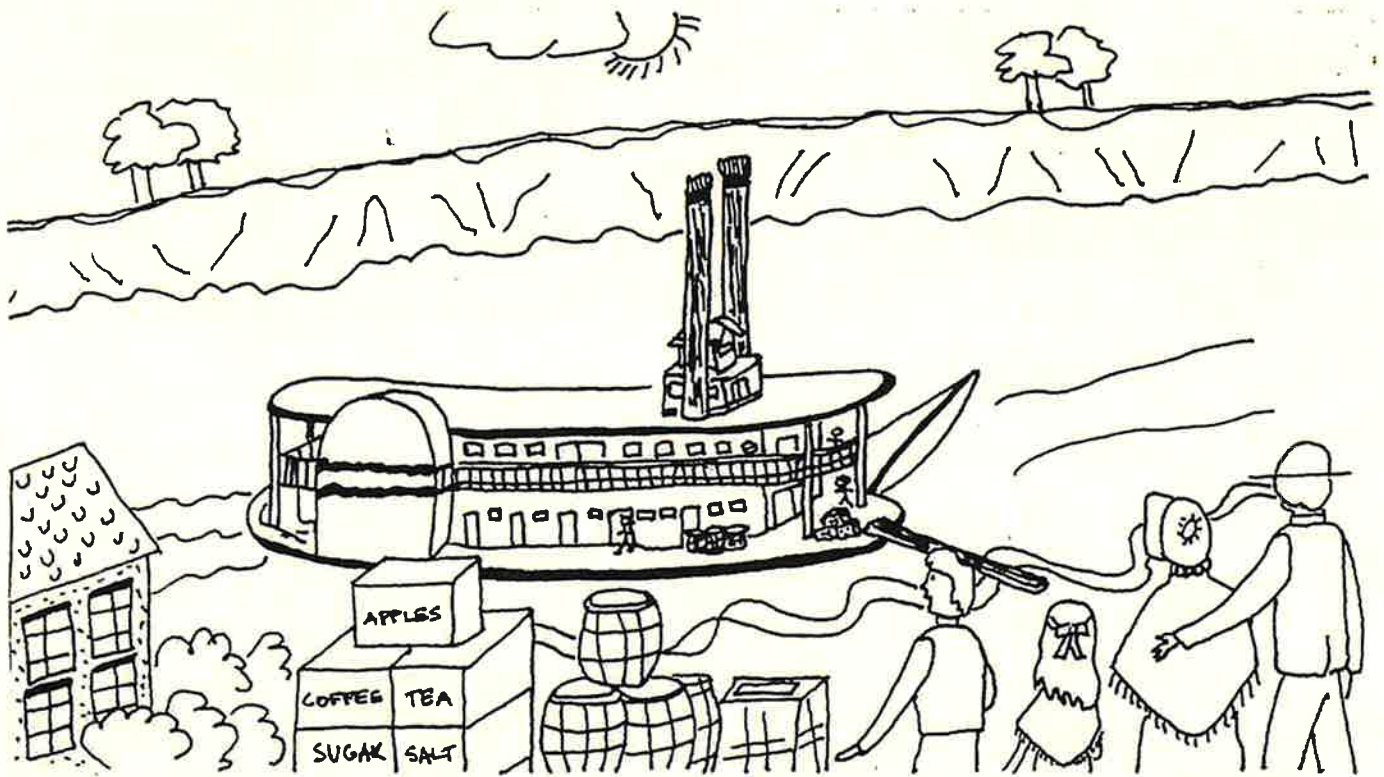


Figure 96. Coloring book activities help students learn about local history and nature.

Funding

Funding

Financing a trail project of this magnitude will require fundraising from a combination of federal, state and private grant programs, community fundraising, and creative non-monetary support. Most grant programs are established for specific purposes (e.g., recreation, environmental restoration, transportation, health and fitness, education, and science) and the challenge is to identify and match potential funding sources to individual components of the trail project.

Following is information on some of the better known grant programs that can assist in trail development.

Federal

TEA-21

The most significant source of money for the Morrow County Columbia River Heritage Trail is contained in the Transportation Equity Act for the 21st Century (TEA-21). The U.S. Congress passed TEA-21 legislation in 1998, thereby authorizing highway, safety, transit and other surface transportation programs for the next six years. Total TEA-21 funding is approximately \$198 billion. This is an important potential funding source because the legislation includes funding for initiatives that protect and enhance communities and the natural environment as it provides for the nation's transportation needs. These "enhancement" activities include the provision of facilities for bicycles and pedestrians as an integral part of a community transportation system.

TEA-21 contains several different designations of money for specific program areas. The allocation for transportation enhancements is the Surface Transportation Program (STP), which was funded at \$33.3 billion over six years. STP makes money available to state and local communities for a broad range of transportation activities and includes a mandatory ten percent set-aside for transportation enhancement activities (\$3.33 billion). Clearly this is a significant source of funding for bicycle and pedestrian facilities. It has already had profound benefits for communities across the country and its potential cannot be understated.

Contact: Federal Aid Specialist
Oregon Department of Transportation,
Region 5
3012 Island Avenue
La Grande, OR 97850
(541) 963-4972

Another program of interest in TEA-21 is the Recreational Trails Program that provides funding for construction and maintenance of both motorized and non-motorized trails. States must establish a recreational trails advisory committee that represents motorized and non-motorized user groups to assist in developing criteria for awarding and distributing these funds. Of funds distributed to a state, 30 percent must be used for motorized use, 30 percent for nonmotorized use, and 40 percent must be used for diverse trail uses of any combination.

Contact: Sean Loughran
Oregon Parks and Recreation Department
1115 Commercial Street, NE
Salem, OR 97310-1001
(503) 378-4168, ext. 246

Historic Landscape Initiative

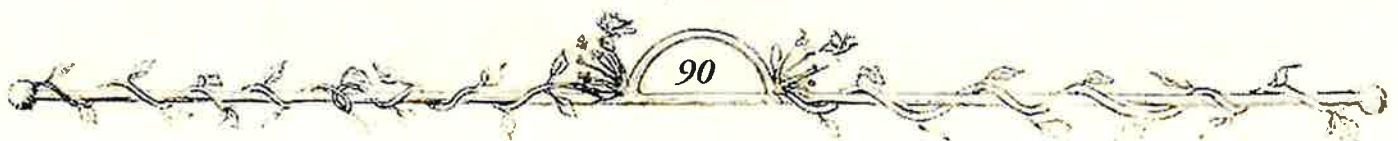
The Historic Landscape Initiative promotes responsible preservation practices that protect historic landscapes, including farms, parks, gardens, rural villages and industrial sites. Preserving these landscapes provides scenic, economic, ecological, social, recreational, and educational opportunities to understand ourselves as a nation. The program provides technical assistance, workshops, and publications to professional planners, landscape architects, historic property managers, homeowners, academics, and students to help communities preserve historical landscapes.

Contact: Charles Birnbaum
National Park Service
Heritage Preservation Services, NC330
1849 C Street NW
Washington, DC 20240
(202) 343-9597

Preserving and Restoring Historic Buildings

The National Park Service produces a variety of educational materials on preserving and restoring historic buildings. It makes available in-depth source books, case studies, videos, grant information, and internet web pages based on nationally recognized standards and guidelines.

Contact: Sharon Park
National Park Service
Heritage Preservation Services, NC330
1849 C Street NW
Washington, DC 20240
(202) 343-9584



State

Land and Water Conservation Fund

The Land and Water Conservation Fund (L&WCF) was enacted by the U.S. Congress in 1964 for grants to state and local governments for land acquisition and/or development of outdoor recreation areas and facilities. The program is managed by the National Park Service but administered in each state through a governor-appointed state agency responsible to the National Park Service (a federally funded/state administered program). L&WCF grants require a 50% match from state or local funds. Eligible applicants include cities, counties, and recreation and park districts authorized to provide public park and recreation facilities. Areas funded through L&WCF grant assistance are required to be dedicated in perpetuity for public recreation use. In Oregon, the L&WCF is managed by the Oregon Parks and Recreation Department.

Contact: Marilyn Lippincott
Oregon Parks and Recreation Department
1115 Commercial Street, NE
Salem, OR 97310-1001
(503) 378-4168, ext. 241

Oregon State Lottery

Oregon voters passed an initiative in the fall of 1998 authorizing a percentage of state lottery money to be dedicated to an acquisition and development grant program for parks and recreation purposes. The program will be administered by the Oregon Parks and Recreation Department, which expects to launch it in the spring of the year 2000.

Contact: Marilyn Lippincott, Oregon Parks and Recreation Department
1115 Commercial Street, NE
Salem, OR 97310-1001
(503) 378-4168, ext. 241

Oregon Bicycle and Pedestrian Program

1% of state gas taxes are set aside in a fund for projects benefiting non-motorized bicycle and pedestrian projects in Oregon. See 'Oregon Bicycle and Pedestrian Plan' for detailed information on guidelines and criteria for accessing these funds.

Contact: Michael Ronkin, Manager
Oregon Bicycle and Pedestrian Program
Oregon Department of Transportation
Room 210 Transportation Building
Salem, Oregon 97310
(503) 378-3433

Historic Preservation Fund Grants

The Historic Preservation Fund provides matching federal fund grants to state funds to encourage private and non-federal investment in historic preservation nationwide. Funds are used to support surveys, comprehensive historic preservation plans, restoration projects, and nominations to the National Register of Historic Places. Similar to the Land and Water Conservation Fund (see above), the program is managed by the National Park Service but administered in each state through a governor-appointed state agency. Funding decisions in Oregon are made by the State Historic Preservation Office (SHPO).

Contact: Liz Carter
Oregon State Historical Preservation Office
State Parks and Recreation Department
1115 Commercial Street NE
Salem, Oregon 97310-1001
(503) 378-5001, ext. 229

Private and Foundations

The Phillips Petroleum Environmental Partnership Awards program gives grants between \$500-\$5,000 to community organizations doing environmental projects like stream restorations. Grants tend to be given to educational projects with schools or groups working with schools. Matching funds are required. Contact: Patricia Marshall, (918) 661-5139.

Coors Pure Water 2000 provides non-profit groups nationwide with small grants for water quality improvement projects such as river cleanups, restoration projects and educational programs. Contact: Dave Taylor, (800) 642-6116.

The Brainerd Foundation awards grants for projects that build citizen support for environmental protection and have the potential to influence public policy. These grants are awarded to incorporated 501(c)(3) organizations only. Contact: (206) 448-7222, info@brainerd.org.

The Harder Foundation funds environmental action projects in support of habitat protection, especially prime habitat areas facing immediate threats on public lands when they are of regional biological significance. Forty percent of their grants are made to grantees in the states of Washington and Oregon. Write for "Guidelines for Grant Proposals." Contact: Del Langbauer (253) 593-2121, HARDERFNDN@aol.com.

The Give to the Earth Foundation funds a variety of small environmental projects. Applicant organizations must have minimal administrative overhead, and results must be tangible. Typical grant size is \$2,500. Contact: Ellen



Liberatori, (800) 933-9628.

The Bullitt Foundation gives grants to a variety of environmental projects in the Pacific Northwest. Contact: Emory Bundy, (206) 343-0807.

The Wilburforce Foundation funds wildlife and habitat protection and environmental education projects. Contact: Timothy Greyhavens, (206) 286-4554.

The Kodak American Greenways Awards Program provides small grants (from \$500 to \$2,500) for greenway and trail projects throughout America. Contact: Denise Swol at The Conservation Fund, (703) 525-6300 or dswol@conservationfund.org.

The Bikes Belong Coalition awards grants of up to \$10,000 each to assist local organizations, agencies, and citizens in developing bicycle facilities projects that will be funded by TEA-21, the Transportation Equity Act for the 21st Century. Contact: Bikes Belong Coalition, (617) 734-2800 or mail@bikesbelong.org.

In-Kind Contributions

Many grant programs require a local match to help demonstrate the community's commitment to the project. Often this 'match' requirement can be met with what is referred to as an 'in-kind' contribution. In-kind contributions are non-monetary donations of labor, equipment and materials to the overall cost of completing a project that can be translated to a dollar value used to meet the matching requirement. Volunteer labor for tasks such as clearing, grading, and construction can go a long way towards meeting local match requirements when applying for grants.

Non-Monetary Sources of Assistance

Volunteers

Individuals, community organizations, corporations and businesses may volunteer for many of the tasks required for development and maintenance of the trail. A few possible volunteer sources include youth groups such as the boy and girl scouts; historical societies; the arts community; senior citizen groups; service clubs and organizations (e.g., Rotary, Lions, Kiwanis); church groups; and business and/or employee associations. High school and college students seeking internships with recreation or conservation projects may be recruited, too. Reference the earlier 'Operations' chapter pertaining to volunteers for ideas regarding establishing a volunteer program.



Figure 97. SOLV Heritage Trail cleanup volunteers.

Youth Conservation Corps

Youth corps work groups can provide assistance either free of charge or at significantly reduced costs and can support a variety of labor-intensive projects such as trail construction, streambank restoration, habitat improvement, and tree planting.

Prison Crews/Juvenile and Adult Offenders

Prison crews and juvenile and adult offenders required to perform community service are another potential source of assistance for Heritage Trail projects at significantly reduced costs. This can be a win/win situation because many social workers believe that positive work experiences involving conservation and recreation projects play an important role in juvenile rehabilitation programs.

Community Fundraising and Donations

Fundraising

Service clubs and organizations can be encouraged to organize and conduct a wide range of activities to generate revenue for construction and maintenance. Car washes, bake sales, rummage sales, are all possibilities. One idea for an organization, like a scout troop, is a 'Recycle for the Trail' project: collection boxes are conveniently located throughout town and at trail heads encouraging people to donate their recycled cans and bottles to the trail. The organization would regularly collect contributions and deposit the proceeds into an account set up to support trail construction and maintenance.



Figure 98. Money donated for pie slices generated funds for the trail at the annual Heritage Day.

Donations

Donations are often a big part of funding a trail project. Combined individual and corporate sponsors can potentially contribute thousands of dollars through direct contributions, endowments, or employee challenge/match programs, or donations of necessary construction materials and maintenance supplies.

Information Sources

The best source of information for all federal grant pro-

grams is a publication called the "Catalog of Federal Domestic Assistance." The catalog is a compendium of federal programs, projects, services, and activities that provide assistance or benefits to the American public. It contains information on programs administered by various departments and establishments of the federal government organized by agency, function, subject, and applicant eligibility. The catalog is available at most libraries and is sold on a subscription basis by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

The 1996-97 Pacific Northwest Grantmakers Forum Member Directory lists more than fifty major foundations in the Pacific Northwest. It is available from the Forum at (206) 624-9899, or you can contact a local or regional public library.

The National Small Flows Clearinghouse operates a computer bulletin board that lists grant and loan opportunities, and provides information on funding alternatives, highlights of successful funding methods, and referrals to financing experts. Contact: Brad Maust, (800) 624-8301.

The 'Trails and Greenways Clearinghouse' provides technical assistance and information about creating trails and greenways. The clearinghouse is jointly sponsored by the 'Rails-to-Trails Conservancy' and 'The Conservation Fund'. Contact Betsy Goodrich, Manager, Trails and Greenways Clearinghouse, 1100 17th Street, NW, 10th Floor, Washington, DC, 20036. Call: (202) 974-5123. www.trailsandgreenways.org.

*Appendix I:
Summary of Related Planning Documents*

Summary of plans and documents related to, and supportive of, the Morrow County Heritage Trail

“BOARDMAN PARK DEVELOPMENT PLAN,” 1996

The plan was developed by the Boardman Park & Recreation District as a tool for guiding decisions regarding the future use and development of the existing park facilities and adjacent undeveloped land within the Park boundaries. A trail is designated throughout the park, from the west boundary to the east boundary at the Port of Morrow property. Development of the [asphalt] trail was completed in the summer of 1998. Another facility, a pedestrian/bikeway over the railroad bridge is also included in the plan, and will provide a southerly link to downtown Boardman.

CITY OF BOARDMAN “COMMUNITY STRATEGIC PLAN,” March 1998

The “Community Strategic Plan” was prepared by a group of community residents, with assistance of the Morrow County Economic Development Coordinator and a private consultant. The Plan includes a vision statement, a SWOT (strength, weakness, opportunities and talent) analysis, mission statement, and a set of projects intended to implement the stated goals. Two goals in particular relate to the Morrow County Columbia River Heritage Trail. One goal is to “fully develop the Tourism and Recreation Potential of the Boardman community,” with the companion strategy to “develop and expand community oriented recreational facilities,” including an outdoor recreation development program. Another goal, to “promote and foster a high quality of life,” also includes an outdoor recreation program as a strategy for achieving the goal.

Specific projects include the Boardman Community Development Program. Phase II of the Program includes the development of a Transportation System Plan (TSP) for the city and urban growth area. The TSP will include a bicycle and pedestrian facility that will provide links to the proposed Heritage Trail. A Street Improvement Program including improvements to the overpass to Marine Drive is another related project in the Strategic Plan. The Outdoor Recreation Development Program specifically lists the Lewis & Clark Trail, the earlier name of the Morrow County Heritage Trail. The plan describes generally the multi-community effort currently underway to plan for and develop the Morrow County Columbia River Heritage Trail.

CITY OF BOARDMAN “TRANSPORTA- TION SYSTEM PLAN”

The TSP includes plans for “alternative modes” of trans-

portation, including bicycle and pedestrian facilities. The City facilities may provide links or even actual segments of the Heritage Trail.

MORROW COUNTY TRANSPORTA- TION SYSTEM PLAN (TSP)

The Morrow County TSP is a comprehensive plan including all transportation systems (road, rail, air, transmission, bicycle & pedestrian, and other alternative modes) in the County. The TSP calls for improved pedestrian and bicycle and pedestrian facilities on county roads as well as the development of dedicated bicycle/pedestrian pathways. The Heritage Trail is one of two bicycle/pedestrian pathways. The plan proposes the path be located along the Columbia River between Boardman and Irrigon, and possibly along the entire northern border of the county.

“MORROW COUNTY PARKS MASTER PLAN - 1998-2018,” December 1997

The Morrow County Parks Master Plan was developed for the County by a private consultant and a citizens advisory committee. The plan describes the existing two county parks, Cutsforth and Anson Wright and identifies specific improvements for each. The plan also identifies other Parks and Park Districts in the County and includes a comprehensive marketing strategies for all parks and recreation opportunities in the County. Chapter 8 of the plan describes alternative sites and options for future facilities. Development of a “Lewis & Clark Trail” along the northern section of the county is listed (page 72), as are hiking and biking trails (page 75), including a specific recommendation to pursue the development of a concept plan for a “Lewis & Clark/Columbia River Trail system.” The final Chapter is a list of action items grouped into three categories, Immediate Action, Intermediate Actions, and Long Range Actions. Two projects included among immediate action items include development of a concept plan for the Columbia River/Lewis & Clark Trail and to pursue funding for conducting a feasibility study for the Columbia River/Lewis & Clark Trail. The category of Intermediate Actions includes as an objective the pursuit of funding to develop the Columbia River/Lewis & Clark Trail.

PORT OF MORROW “STRATEGIC BUSINESS PLAN”

The Business Plan is a five-element business development strategy. Although the Business Plan does not specifically mention the Heritage Trail, three of the strategies appear to compliment the Heritage Trail Project, including, Tourism



and Recreation Support, Community and Economic Development Support and Industrial Properties Development. The Port of Morrow's 3,000-acre industrial park at Boardman is located along the Columbia River and will be an important segment of the Heritage Trail. Goal 4 is to "Support development of the tourism and recreation potential of the region," with the supporting strategy to "Establish facilities to develop the tourism, recreation, and convention potential of the port's waterfront properties." The Development Action Plan includes similar goals to support tourism, recreation and community economic development.

U.S. FISH & WILDLIFE NATIONAL WILDLIFE SYSTEM IMPROVEMENT ACT OF 1997

Public Law 105-57-October 9, 1997

The act amends "the National Wildlife Refuge System Administration Act of 1966 to improve the management of the National Wildlife Refuge system." The act finds in Section 2(7) that, "On March 25, 1996, the President issued Executive Order 12996, which recognized "compatible wildlife-dependent recreational uses involving hunting, fishing, wildlife observation and photography, and environmental education and interpretation as priority uses of the Refuge System." This provision appears to support the idea of a trail system within the Umatilla Wildlife Refuge, provided the trail is compatible with wildlife management.

U.S. FISH & WILDLIFE DRAFT PUBLIC USE MANAGEMENT DEVELOPMENT PLAN

Umatilla National Wildlife Refuge, August 1992.

United States Department of the Interior, Fish and Wildlife Service, Umatilla, Oregon. The Plan includes objectives and strategies for wildlife and non-wildlife activities within the refuge, which appear to be compatible with the Heritage Trail project.

CITY OF IRRIGON, COMMUNITY STRATEGIC PLAN

The "Community Strategic Plan" was prepared by a group of community residents, with assistance of the Morrow County Economic Development Coordinator and a private consultant. The plan includes a vision statement, a SWOT

(strength, weakness, opportunities and talent) analysis, mission statement, a set of projects intended to implement the stated goals. The Irrigon Strategic Plan also includes a very informative history of Irrigon. Two goals in particular relate to the Morrow County Heritage Trail. One goal is to "promote community improvement and business activity through improved infrastructure," and the strategy includes the Lewis and Clark Trail Program as a project. Another goal, "Promote and Support Improved Public Safety," includes a bike/walk path system. The implementation schedule includes the subject Heritage Trail project, although the plan reference is the Lewis & Clark Trail Program.

CITY OF IRRIGON COMMUNITY ACTION PLAN

Same as the Strategic Plan with appendix.

CITY OF IRRIGON, "SIDEWALK, BIKEWAY AND HANDICAP ACCESS STUDY" 1993

The plan includes streets and bike/ped facilities within the city limits. The facilities could provide a link or an actual segment of the Heritage Trail. Bike/ped facilities have never been constructed. The study will likely be updated with the development of the Irrigon TSP. (Plans include maps of proposed trail locations?)

CITY OF IRRIGON, TRANSPORTATION SYSTEM PLAN

See description of the Boardman TSP.

"JOHN DAY LOCK AND DAM MASTER PLAN"

Lake Umatilla, Columbia River, July 1976, U.S. Army Engineer District, Corps of Engineers, Portland, Oregon.

The master plan includes a comprehensive inventory of resources, physical plan of development, description of coordination agencies, operations management, etc. The master plan covers Lake Umatilla which extends from John Day Lock and Dam upstream 76 miles to McNary Lock and Dam. The John Day Lock and Dam Project, or project as it is called in the plan, includes 21 existing and proposed recreation developments.

*Appendix II:
A Sample Cooperative Agreement*

AGREEMENT FOR SHARING MAINTENANCE AND OPERATION
COSTS, AND IMPLEMENTING OPERATIONAL PROCEDURES
FOR THE PALOUSE TRAIL

SAMPLE

RECITALS

THIS AGREEMENT is entered into by the City of Pullman, a municipal corporation of the State of Washington (hereinafter referred to as "Pullman"); City of Moscow, a municipal corporation of the State of Idaho (hereinafter referred to as "Moscow"); Whitman County, Washington, a municipal corporation of the State of Washington (hereinafter referred to as the "County"); Washington State University, an institution of higher education of the State of Washington (hereinafter referred to as "WSU"); and the University of Idaho, a state educational institution and body politic of the State of Idaho (hereinafter referred to as "UI") and hereinafter jointly referred to as the "Entities".

WHEREAS, the "Entities" believe that the establishment and availability of a diversified mix of facilities for outdoor recreation within their respective, adjoining, and neighboring jurisdictions provide an attractive enhancement to living in the Palouse region; and,

WHEREAS, multiple types of outdoor recreation can be enjoyed by participants on paths and trails established and designated for appropriate outdoor recreational uses; and,

WHEREAS, the "Entities" desire to the extent possible and appropriate to coordinate the establishment, governance, use, and maintenance of an integrated outdoor recreational trail within and between their respective jurisdictions; and,

WHEREAS, the Palouse Trail (hereinafter referred to as the "Trail") is in the process of being secured as a portion of a railroad right of way corridor being secured under a "Rail Banking Contract" entered into by "Pullman", "Moscow", and "County", and the Palouse River Railroad Company, a copy of which is Attachment "A" to this Agreement; and,

WHEREAS, it is contemplated that development of the "Trail" begin in 1997, and that the "Trail" will include a 10 to 12 foot wide path between City Playfield in Pullman and Line Street in Moscow, and will be approximately 7.45 miles in length; and,

WHEREAS, the "Trail" will require an on-going operation and maintenance effort to assure a positive image and recreation experience to "Trail" users, adjacent neighbors and businesses, and residents of the area; and,

WHEREAS, the "Entities" desire that the "Trail" facility be operated and maintained on a consistent basis to satisfy "Trail" users of the region, and to protect both the natural environment and the "Trail" facilities; and,

WHEREAS, the location of "Trail" between the cities of Pullman and Moscow and connecting with "WSU" and "UI" will provide a separate and alternative transportation route, as well as a recreational path for all residents thus making a shared financing arrangement advisable for the operation and maintenance of the "Trail"; and,

WHEREAS, it is anticipated that activities inherent in and associated with the existence of "WSU" and "UI" will generate a majority of the transportation and recreational usage of the "Trail"; and, "WSU" and "UI" consider the "Trail" appropriate and consistent with university goals and missions and will participate in sharing the cost of operating and maintaining the "Trail" facility; and,

WHEREAS, pursuant to the provisions of Sections 35A.67.010 and 36.68.090 of the Revised Code of Washington, "Pullman" and "County" are authorized to enter into an agreement with each other and with "Moscow", "WSU", and "UI" to share the costs of operating and maintaining the "Trail" facility; and,

WHEREAS, pursuant to the provisions of Sections 50-301, 50-303, and 50-322, Idaho Code, "Moscow" is authorized to enter into

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an agreement with "Pullman", "County", "WSU", and "UI" to share the costs of operating and maintaining the "Trail" facility; and,

WHEREAS, pursuant to the provisions of Section 28B.30.150 of the Revised Code of Washington, "WSU" may enter into contracts to provide services for university purposes such as providing for the availability of services which are consistent with the mission of "WSU"; and,

WHEREAS, pursuant to the provisions of Sections 33-2804 and 33-2806, Idaho Code, "UI" may enter into contracts to provide services for university purposes such as providing for the availability of services which are consistent with the mission of "UI"; and,

WHEREAS, operation and maintenance of the area of the "Trail" which lies in Whitman County and which connects the cities and universities is critical to ensure the viability of the "Trail"; and,

WHEREAS, it now seems appropriate, desirable, and in the public interest to form and empower an intergovernmental advisory committee consisting of representatives of the "Entities" to work jointly and cooperatively on issues and problems inherent in the establishment, governance, use, operation, and maintenance of an integrated outdoor recreational trail within and between their respective jurisdictions; now, therefore,

IT IS HEREBY AGREED between the parties hereto being now "Pullman", "Moscow", "County", "WSU", and "UI" as follows:

OPERATIVE PROVISIONS

1. Definitions.

1.1 As used in this Agreement the following words shall have the following meanings:

1.1.1 "capital assets" means those assets resulting from the expenditure of capital costs as defined in 1.1.2.

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1.1.2

"capital costs" means those initial costs associated with the design and construction of capital improvements to the "Trail" such as, but not limited to: the construction and surfacing of trail bed; rest facilities; water and sanitation facilities; signage; lighting; fencing; barriers; landscaping; and bridge removal, replacement or construction.

1.1.3

"Entity" or "Entities" means either the city of Pullman, the city of Moscow, Whitman County, Washington State University, the University of Idaho, or any combination thereof as the context of the usage of the term indicates.

1.1.4

"jurisdictional boundary" means the physical portion of the "Trail" (as defined in Attachment "A") which lies within the geographical and political boundary of an "Entity" which is "Pullman", "Moscow", and "County" respectively.

1.1.5

"maintenance and operation costs" means the costs of maintaining and operating the assets of the "Trail" to a level of condition acceptable for the uses of the "Trail".

1.1.6

"member" means the representative of an "Entity" representing that "Entity" on the Palouse Trail Committee (PTC).

1.1.7

"Trail" means improvements and facilities to be constructed, maintained, and operated under the terms of this Agreement within the railroad right-of-way, as well as the entire railroad right-of-way formerly controlled by the Palouse River Railroad Company from City

SAMPLE

Playfield in Pullman to Line Street in Moscow as illustrated in Attachment "B" and the additional segments as shown in Attachment "B". Connections of paths or recreational trails with the "Trail" outside the area illustrated in Attachment "B" are not a part of the "Trail" which is the subject of this Agreement. Connections of paths or recreational trails which are located in the railroad right-of-way secured under Attachment "A" are a part of the "Trail" and are the responsibility of the jurisdictional entity on whose property they exist.

2. Establishment of Palouse Trail Committee.

2.1 Committee Established. In order to carry out the purposes of this Agreement, the "Entities" hereby establish a committee to be known as the Palouse Trail Committee (PTC). This Agreement does not create a new legal or administrative entity. Property provided by the "Entities" to accomplish maintenance and operation services to the "Trail" shall remain the property of the "Entity" providing the property.

2.2 Membership. The PTC shall consist of five members with one member representing each of the following Entities: the City of Pullman, Washington; the City of Moscow, Idaho; the County of Whitman, Washington; the University of Idaho; and Washington State University.

2.3 Purposes. The purposes of the PTC are to:

2.3.1 the extent possible and appropriate coordinate the planning, establishment, governance, use, operation, and maintenance of paths within their respective jurisdictions into a

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recreational trail among and between the "Entities".

2.3.2 inform and advise the "Entities" on problems and issues of mutual interest concerning the establishment, governance, use, operation, and maintenance of paths within each jurisdiction which are planned to be or are a part of the system of paths within each jurisdiction which paths as a whole form a recreational trail integrated within and among the "Entities".

2.3.3 encourage and receive input and funding from and work with citizens and citizen groups in the planning, establishment, governance, use, and maintenance of an integrated recreational trail system.

2.3.4 act as liaison with other governmental agencies or any private entity or person in the planning, establishment, governance, use, operation, and maintenance of paths within each "Entity's" jurisdiction which paths as a whole form a recreational trail integrated within and among the "Entities".

2.4 Powers. The PTC shall have the power to:

2.4.1 collect and disseminate information.

2.4.2 allocate expenditures of money contributed to the Palouse Trail Fund referred to in 5.1 by the "Entities" and other sources to carry forth the purposes of this Agreement with priority given to maintaining a connecting path between the corporate limits of Moscow, Idaho and Pullman, Washington.

SAMPLE

- 2.4.3 recommend one of the "Entities" or other designee as a depository for money contributed in accordance with 2.4.2 to the Palouse Trail Fund established pursuant to 5.1 and for the administration thereof.
- 2.4.4 recommend contracts for services, and the hiring of personnel who will serve at the pleasure of, and whose duties will be determined by, the "Entity" or "Entities" assuming the obligation to contract or hire.
- 2.4.5 promulgate standards of construction, maintenance, and operation of the "Trail" to assure consistency of service and use among all "Entities" within their respective jurisdictional boundaries.
- 2.4.6 recommend that appropriate grants and other funding opportunities be applied for, and if received assist in the administering of grants or awards.
- 2.4.7 undertake fund-raising activities determined to be appropriate by the PTC.
- 2.4.8 if the PTC determines it appropriate to establish a budget, it shall be established in sufficient time to allow each "Entity" to include its contribution in its budget for the ensuing operating year, if it chooses to do so.
- 2.4.9 Annual Report. The PTC shall report on its activities to each "Entity" on an annual basis by February 15th for the prior year.
- 2.4.10 By-Laws. The PTC may adopt, amend, or repeal by-laws, in whole or in part which are

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consistent with the terms and conditions of this Agreement, by a majority vote at any regular or special meeting of the PTC. A majority vote for the purposes of adopting, amending, or repealing by-laws means a majority of all members of the PTC and not a majority of a quorum.

2.4.11 Provided, however, that in carrying out the powers set forth in 2.4.1, 2.4.2, 2.4.3, 2.4.4, 2.4.5, 2.4.6, 2.4.7, and 2.4.8 the PTC shall not have the power to obligate any "Entity" or "Entities" in matters of policy, administration, or finance; such obligations if undertaken by an "Entity" or "Entities" shall be the sole decision and obligation of the "Entity" or "Entities" undertaking the obligation.

2.5 PTC Officers and Voting.

2.5.1 One member shall serve as Chairperson, one member shall serve as Vice Chairperson, and one member shall serve as Secretary. One member may serve as Treasurer and the office of Treasurer may be combined with the office of Secretary if the PTC so chooses.

2.5.2 Each member of the PTC shall have one (1) vote. In the event of a tie vote, the issue shall fail.

2.5.3 The "Entities" may designate alternate members in a manner considered appropriate by the designating "Entity". In the event that an appointed member of the PTC will be unable to attend a meeting of the PTC, the "Entity" represented by that appointed member may be

SAMPLE

represented by the alternate member. Alternate members representing absent appointed members shall have the same privileges as appointed members; provided, however, that no "Entity" shall have more than one vote on the business coming before the PTC.

2.6 Meetings, Election of Officers, and Quorum.

- 2.6.1 The PTC shall hold meetings at such times and places as set forth in its by-laws.
- 2.6.2 The PTC shall annually elect its officers as set forth in its by-laws.
- 2.6.3 The quorum necessary for the PTC to transact business or elect officers shall be constituted when at least four members or their alternates are present at the meeting.

2.7 Withdrawal, Dissolution, and Disbursement of Funds.

- 2.7.1 Any "Entity" may automatically withdraw from the PTC by submitting a written statement to the remaining "Entities" setting forth its intent to withdraw at least sixty (60) calendar days prior to the effective date of its withdrawal; provided, however, that any funds contributed by the "Entity" shall not be returned.
- 2.7.2 The PTC may be dissolved by written agreement approved by a majority of the "Entities"; or, by the withdrawal of three of the participating "Entities".
- 2.7.3 Any unobligated money remaining at the time of dissolution shall be returned to the "Entities" in the proportion to the amount of

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money each "Entity" had contributed to the PTC budget prior to the dissolution.

2.8 Real Property. The PTC may neither acquire nor hold real property.

3. Relationships among the "Entities".

3.1 Ownership and control. Ownership of the right to the use of the railroad right-of-way is defined in the Railbanking Contract (Attachment "A") and is vested in "County", "Pullman", and "Moscow" according to that Contract. "Entities" with ownership interests shall have exclusive control of the design, construction, furnishing, maintenance, and operation of that part of the "Trail" within the railroad right-of-way in their respective jurisdictional boundaries consistent with the standards promulgated by the PTC. These "Entities" are "County", "Pullman", and "Moscow".

3.2 Maintenance and operation. Maintenance and operation decisions pertaining to the "Trail" within the railroad right-of-way and in their respective jurisdictional boundaries, including decisions regarding maintenance and operation budget control, shall be made by the "Entities" having ownership and control ("County", "Pullman", and "Moscow") in consultation with "WSU" and "UI" each of which shall contribute financially to the payment of maintenance and operation costs. Consultation shall occur through the deliberations of the PTC.

3.3 Future capital expenditures. From time to time there may be the need to expend funds for (such things as bridge maintenance or replacement, path reconstruction, or renovation) "capital costs" that exceed the amount available from annual contributions. In these cases, each "Entity" may be approached with a request from the

SAMPLE

PTC for additional contributions and may participate on a case-by-case basis.

4. Responsibilities of the "Entities".

4.1 Construction, operation, and maintenance costs.

"Pullman", "Moscow", and "County" shall be responsible for the payment of the construction, operation, and maintenance costs of the capital assets of the "Trail" located within the railroad right-of-way and in their respective jurisdictional boundaries. Such costs may be offset by the allocation by the PTC of contributions to the Palouse Trail Fund referred to in 5.1. Each "Entity" may apply annually to the PTC for monies from the Palouse Trail Fund to be spent in that "Entity's" jurisdiction for the benefit of the "Trail". Priority for expenditures from this fund shall be given to maintenance and operation of the area of the "Trail" between the City of Pullman, Washington and the City of Moscow, Idaho corporate city limits to standards promulgated by the PTC and approved by the PTC.

4.2 Law enforcement, emergency services. "Pullman", "Moscow", and "County" shall be responsible for providing law enforcement and emergency services within their respective jurisdictional boundaries in the manner and to the extent deemed necessary by such "Entity".

5. Financing.

5.1 Fund established. There shall be established a fund to be known as the Palouse Trail Fund, or by some similar designation (hereinafter referred to as the "Fund"), which shall be administered by an "Entity" or other designee as approved by the PTC, with oversight by the PTC and subjected to state audit, until otherwise changed by agreement of the PTC and the "Entity" assuming this

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administrative responsibility. Any "Entity" shall also have the right to audit the "Fund".

5.2 Purpose of "Fund". The purpose of the "Fund" is that it be a source for the receipt of funding for the payment of costs consistent with the provisions of 4.1 of this Agreement.

5.3 Contributions to "Fund". Each "Entity" shall contribute each calendar year by February 15th of each year an equal amount, as recommended by the PTC, to the "Fund". The obligation of each "Entity" to contribute its share to the "Fund" shall be, in the sole discretion of each contributing "Entity", subject to the availability of adequate financial resources for this contribution. Any "Entity" not making its full requested annual contribution or not making a contribution at least equal to the other "Entities'" equal share contributed shall not be entitled to vote in the affairs of the PTC for that period. The PTC may receive contributions from sources other than the "Entities" and deposit them in the "Fund".

5.4 Disbursements from "Fund". The governmental "Entity" administering the "Fund" shall make disbursements from the "Fund" only as authorized by the PTC. Unrestricted and restricted donations to the "Fund" from sources other than the "Entities" or to and through an "Entity" for credit to the "Fund" shall be authorized by the PTC for disbursement in accordance with the donor's wishes where practicable and consistent with the purposes of this Agreement and in accordance with applicable law. The balance in the "Fund" need not be expended each calendar year and may accumulate for future expenditures consistent with the purpose of the "Fund" as set forth in 5.2 of this Agreement, or a donor's wishes.

SAMPLE

5.5 Anticipated "Entity" contributions. For the first calendar year or any part thereof in which the "Trail" or any portion thereof operates within any jurisdictional boundary after the securing of the "Trail" as provided for in Attachment "A", each "Entity" will contribute to the "Fund" the anticipated sum of \$7,500.00. It is further anticipated that thereafter the equal share annual contribution of each "Entity" will not be less than \$7,500.00 and the amount of such equal share contributions shall be recommended by the PTC in sufficient time to allow each "Entity" to budget its contribution if, in its sole discretion, it chooses to do so.

6. Defense of claims.

6.1 "County", "Pullman", or "Moscow" shall be fully and solely responsible for the defense and payment of all claims for damage or injuries which (a) arise out of the construction, maintenance, operation or use of the "Trail", and (b) occur within their respective jurisdictional boundaries as defined in 1.1.4 of this Agreement. No other "Entity" shall have any responsibility for any such claim, but shall instead look to the responsible "Entity" to handle and dispose of the claim as it may deem appropriate. These provisions, however, shall not apply to the extent that any such claim arises from the negligence of any other "Entity" (including specifically but not limited to "WSU" and "UI"). In such case, the negligent "Entity" shall be responsible to the full extent of its negligence.

Nothing in this Agreement shall expose an Idaho "Entity" to liability greater than the limits of the Idaho Tort-Claims Act (Title-6, Chapter 9 Idaho Code), or the Recreational Trespass Act (Title 36, Chapter 16 Idaho

Summit

Code) as now stated or later amended, or any other Idaho law intended to limit the liability of an Idaho public entity.

Nothing in this Agreement shall expose a Washington "Entity" to liability limited by Sections 4.24.200 and 4.24.210 of the Revised Code of Washington as now stated or later amended, or any other Washington law intended to limit the liability of a Washington "Entity".

7. Effective date and Termination.

7.1 Effective date. This Agreement shall be effective when the last signatory approves or ratifies and executes this Agreement.

7.2 Termination. Once effective, this Agreement shall remain effective until: (i) the Rail banking Contract between "Pullman", "Moscow", "County", and Palouse River Railroad Company is terminated; or, (ii) by agreement or action of the parties as provided in 2.7.2.

IN WITNESS WHEREOF, the parties to this Agreement have caused it to be executed to be effective as set forth in 7.1, and each signatory represents that he or she is authorized to sign this Agreement.

CITY OF PULLMAN, a municipal corporation of the State of Washington

By *[Signature]*
Mayor

Date: 3/12/97

ATTEST: *[Signature]*
Finance Director

CITY OF MOSCOW, a municipal corporation of the State of Idaho

By *[Signature]*
Mayor

Date: 2/24/97

ATTEST: *[Signature]*
Clerk



SAMPLE

WASHINGTON STATE UNIVERSITY,
an institution of higher
education of the State of
Washington

By [Signature]
Vice President for Business
Affairs

Date: 2/27/97

UNIVERSITY OF IDAHO, an
institution of higher education
in the State of Idaho

By [Signature]
Vice President for
Finance and Administration

Date: 2/26/97

WHITMAN COUNTY, a municipal
corporation of the State
of Washington

By [Signature]
Commissioner

By [Signature]
Commissioner

By [Signature]
Commissioner

Date: 3/10/97

Approved as to Form:

[Signature]
Pullman City Attorney

[Signature]
Assistant Attorney General
representing Washington State
University

[Signature]
Whitman County Prosecuting
Attorney

ATTEST: [Signature]
Clerk of the Board

[Signature]
Moscow City Attorney

[Signature]
Attorney for the Regents of
the University of Idaho

Appendix III:
Liability - ORS 105.672-699

ORS 105.672 to 105.699[~]

Public Use of Lands

105.672 Definitions for ORS 105.672 to 105.696. As used in ORS 105.672 to 105.696:

(1) "Charge" means the admission price or fee asked by any owner in return for permission to enter or go upon the owner's land.

(2) "Harvest" has that meaning given in ORS 164.813.

(3) "Land" includes all real property, whether publicly or privately owned.

(4) "Owner" means the possessor of any interest in any land, including but not limited to possession of a fee title. "Owner" includes a tenant, lessee, occupant or other person in possession of the land.

(5) "Recreational purposes" includes, but is not limited to, outdoor activities such as hunting, fishing, swimming, boating, camping, picnicking, hiking, nature study, outdoor educational activities, water skiing, winter sports, viewing or enjoying historical, archaeological, scenic or scientific sites or volunteering for any public purpose project.

(6) "Special forest products" has that meaning given in ORS 164.813.

(7) "Woodcutting" means the cutting or removal of wood from land by an individual who has obtained permission from the owner of the land to cut or remove wood. [1995 c.456 §1]

105.673 [1971 c.780 §5; 1987 c.708 §4; repealed by 1995 c.456 §9]

105.676 Public policy. The Legislative Assembly hereby declares it is the public policy of the State of Oregon to encourage owners of land to make their land available to the public for recreational purposes, for woodcutting and for the harvest of special forest products by limiting their liability toward persons entering thereon for such purposes and by protecting their interests in their land from the extinguishment of any such interest or the acquisition by the public of any right to use or continue the use of such land for

recreational purposes, woodcutting or the harvest of special forest products. [1995 c.456 §2]

105.677 [1973 c.732 §2; repealed by 1995 c.456 §9]

105.680. [1971 c.780 §6; repealed by 1995 c.456 §9]

105.682 Liabilities of owner of land used by public for recreational purposes, woodcutting or harvest of special forest products. (1) Except as provided by subsection (2) of this section, and subject to the provisions of ORS 105.688, an owner of land is not liable in contract or tort for any personal injury, death or property damage that arises out of the use of the land for recreational purposes, woodcutting or the harvest of special forest products when the owner of land either directly or indirectly permits any person to use the land for recreational purposes, woodcutting or the harvest of special forest products. The limitation on liability provided by this section applies if the principal purpose for entry upon the land is for recreational purposes, woodcutting or the harvest of special forest products, and is not affected if the injury, death or damage occurs while the person entering land is engaging in activities other than the use of the land for recreational purposes, woodcutting or the harvest of special forest products.

(2) This section does not limit the liability of an owner of land for intentional injury or damage to a person coming onto land for recreational purposes, woodcutting or the harvest of special forest products. [1995 c.456 §3]

105.685 [1979 c.434 §1; 1985 c.375 §1; repealed by 1995 c.456 §9]

105.687 [1979 c.434 §2; repealed by 1995 c.456 §9]

105.688 Applicability of immunities from liability for owner of land; restrictions. (1) Except as specifically provided in ORS 105.672 to 105.696, the immunities provided by ORS 105.682 apply to:

(a) All public and private lands, including but not limited to lands adjacent or contiguous to any bodies

of water, watercourses or the ocean shore as defined by ORS 390.605;

(b) All roads, bodies of water, watercourses, rights of way, buildings, fixtures and structures on the lands described in paragraph (a) of this subsection; and

(c) All machinery or equipment on the lands described in paragraph (a) of this subsection.

(2) The immunities provided by ORS 105.682 apply only if:

(a) The owner makes no charge for permission to use the land; or

(b) The owner charges no more than \$20 per cord for permission to use the land for woodcutting. [1995 c.456 §4]

105.689 [1979 c.434 §3; repealed by 1995 c.456 §9]

105.691 [1979 c.434 §4; repealed by 1995 c.456 §9]

105.692 No right to continued use of land if owner of land permits use of land; no presumption of dedication or other rights. (1) An owner of land who either directly or indirectly permits any person to use the land for recreational purposes, woodcutting or the harvest of special forest products does not give that person or any other person a right to continued use of the land for those purposes without the consent of the owner.

(2) The fact that an owner of land allows the public to use the land for recreational purposes, woodcutting or the harvest of special forest products without posting, fencing or otherwise restricting use of the land does not raise a presumption that the landowner intended to dedicate or otherwise give over to the public the right to continued use of the land.

(3) Nothing in this section shall be construed to diminish or divert any public right to use land for recreational purposes acquired by dedication, prescription, grant, custom or otherwise existing before October 5, 1973.

(4) Nothing in this section shall be construed to diminish or divert any public right to use land for woodcutting acquired by dedication, prescription, grant, custom or otherwise existing before October 3, 1979. [1995 c.456 §5]

105.693 [1979 c.434 §5; repealed by 1995 c.456 §9]

105.695 [1979 c.434 §6; repealed by 1995 c.456 §9]

105.696 No duty of care or liability created; exercise of care still required of person using land. ORS 105.672 to 105.696 do not:

(1) Create a duty of care or basis for liability for personal injury, death or property damage resulting from the use of land for recreational purposes, for woodcutting or for the harvest of special forest products.

(2) Relieve a person using the land of another for recreational purposes, woodcutting or the harvest of special forest products from any obligation that the person has to exercise care in use of the land in the activities of the person or from the legal consequences of failure of the person to exercise that care. [1995 c.456 §6]

105.697 [1979 c.434 §7; repealed by 1995 c.456 §9]

105.699 Rules applicable to state lands. The State Forester, under the general supervision of the State Board of Forestry, may adopt any rules considered necessary for the administration of the provisions of ORS 105.672 to 105.696 on state land. [1979 c.434 §8; 1995 c.456 §7]