Ideas to Activate the San Lorenzo Riverway

Prepared by
City of Santa Cruz
San Lorenzo River Committee
Interpretive Plan Subcommittee

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Linda Stonier, National Park Service.
The San Lorenzo River flows through the heart and history of Santa Cruz.

In 2003, the City of Santa Cruz and the US Army Corps of Engineers completed work on several projects along the River from Highway 1 to the Monterey Bay. While the primary goal was to increase flood protection to the 100-year flood standard, these projects served two additional City goals for the River: to provide sufficient flow capacity to allow revegetation and habitat enhancement, and to create opportunities for re-integrating the River with the surrounding urban landscape.

Flood levees on both banks, originally installed following a devastating flood in 1955, were strengthened and raised. Four automobile bridges were rebuilt to increase seismic strength and to allow passage of higher flows.

The levee reconstruction project also improved the paved path system for pedestrians and cyclists along both sides of the River. To help naturalize and enhance habitat value on the new levees, the outside portions were planted with native trees, shrubs and grasses.

To provide a framework for further work on the River, the San Lorenzo Urban River Plan Task Force completed the San Lorenzo Urban River Plan, adopted by the City Council in 2003. The Urban River Plan includes the San Lorenzo River and Lagoon Enhancement Plan, a long-term program for restoring native plants and enhancing fish and wildlife habitat in and along the River. The Urban River Plan designated the levee trail system as the San Lorenzo Riverway and described it as “a recreation feature, an alternative transportation corridor, a fish and wildlife habitat and an amenity worthy of community support and involvement.”

The Urban River Plan also includes the Public Art Master Plan for the San Lorenzo Riverway, which expresses the intent to “create a unique sense of place, but not to compete with the River’s natural beauty or impede the functionality of the levee.”

The Process for this Report

The San Lorenzo River Committee was appointed by the Santa Cruz City Council in 2004 to oversee implementation of the San Lorenzo Urban River Plan. The River Committee set a high priority on increasing the Riverway’s appeal to residents and visitors, and encouraging appropriate use of the levees and the River environs. A three-member Interpretive Plan Subcommittee was appointed to develop a trail improvement program to address specific needs for signage, wayfinding, interpretation, and trail linkages. Subsequently, the City requested help from the Rivers, Trails and Conservation Assistance Program (RTCA) of the National Park Service. This report, “Ideas for Activation of the San Lorenzo Riverway”, summarizes the work of the Interpretive Plan Subcommittee.

At the beginning of its work the Interpretive Plan Subcommittee expressed the following desired outcomes for a San Lorenzo Riverway interpretive and wayfinding program:

- To promote an attitude of caring for the San Lorenzo River through enhanced access and awareness of its uniqueness and ecological fragility.
- To encourage positive interactions and discourage destructive or anti-social behavior.
- To increase opportunities on the Riverway for educating the community about the City’s natural and cultural history and resources. To provide schools with a new outdoor classroom for exploration and study that will in turn contribute to community understanding and stewardship.
- To generate positive community action on behalf of the River. To increase the willingness and ability of residents to be caretakers of this park and to protect its values.
- To enhance access to the Riverway for visitors, and promote connections from the beach and Boardwalk to downtown and upstream river areas. To increase the attractiveness of the Riverway as a destination for visitors.
- To foster alternative transportation modes and routes. To make the Riverway a useful choice for getting around town without a car, both for convenience and fun.
- To increase user safety and comfort on the Riverway, and to foster a livelier atmosphere welcoming to all segments of the community.
- To enhance effectiveness of signage about appropriate behavior on the Riverway through increased coordination between the Police Department and City departments with Riverway management responsibilities.
• To support resource management goals for the Riverway as a natural and beautiful public asset to protect and enjoy. To enhance community understanding of the City’s roles and responsibilities in maintaining the Riverway, as well as expectations for appropriate use.

• To create public understanding and support for the Riverway as a balance of flood protection and natural resource preservation.

Over the course of two years of work, the Interpretive Plan Subcommittee addressed each of these goals, seeking practical and affordable approaches to achieving them.

This report synthesizes the visions, observations, and suggestions gathered on walking tours, at public meetings, from previous San Lorenzo River plans, and from the experience of other interpretive trail projects. Four Riverway walks conducted by the Subcommittee and RTCA were key sources of inspiration and information for the project. These walks were attended by members of the River Committee, City department representatives with management, enforcement, and maintenance responsibilities, community residents with knowledge or stories to share, and planning consultants with interpretive expertise.

Existing Conditions

The Riverway path system follows both banks of the channelized river, passing under four vehicular bridges, for a total of five miles. For crossings, the path system utilizes the sidewalks of the vehicular bridges, one existing pedestrian bridge, a bicycle/pedestrian bridge near Highway 1 to be completed in 2008, and a bicycle/pedestrian path connected to the railroad trestle near the rivermouth. Taken together these improvements will comprise a new, complete loop trail system, much anticipated in the community.

The San Lorenzo Riverway provides many opportunities to explore and observe the dynamic environment of a coastal river system and wildlife corridor in the middle of an urban area. The Riverway bridges, artfully elegant architectural features in and of themselves, are excellent vantage points from which to observe seasonal changes in the River’s water flows, birds, and vegetation. All along the Riverway are expansive views of the central city's topography, including Beach Hill, Mission Hill, the Branciforte bluff, the UCSC campus, and the River’s mountainous watershed.

A stroll along the Riverway reveals the community life of several adjacent neighborhoods, commercial districts, public parks, and open spaces. Where the San Lorenzo meets the Monterey Bay, the Riverway leads to the exciting sights and sounds of the famous Santa Cruz Beach and Boardwalk. Many spots offer opportunities to recall the rich history of the River’s role in the community’s development.

The Riverway also offers a unique opportunity to learn about modern efforts to restore habitat value to a flood control project, and to see the relevance of this work to broader environmental restoration concepts and goals. From several vantage points on the Riverway visitors can see the installation, progress and benefits of restoration projects, and come to care about their success.

Unused Potential

Increased public access to the Riverway as a community amenity is a primary goal of both the Urban River Plan and the Public Art Master Plan. The Riverway is formally designated as a City park. Despite its potential, the Riverway is under-used in community life; residents familiar with the path system use it primarily as a way to get from one part of town to another on foot and bicycle, rather than as a place to linger, explore, or socialize.

There are a number of reasons the Riverway is a social void in the center of town. With few exceptions, there are no resting areas on the entire Riverway that would encourage people to stop. Basic amenities such as restrooms, lighting, and shade are missing. Such features are necessary to create a positive visitor experience by meeting basic needs for safety and comfort, especially in an urban environment.

Sections of the corridor are perceived as unsafe or neglected, stopping many people from enjoying the Riverway. Small beaches and secluded spots on the riverbank that might entice a visitor to sit at the River’s edge are instead uninviting because of litter, inappropriate public behavior, and the detritus of illegal camping.
A September 2005 inventory found 25 different sign types in the Riverway, all bewilderingly different in design and character, many old, faded and ineffectively located. While a few signs welcome people to the Riverway, most are prescriptive or regulatory in nature.

Some parks in the river corridor, including Mimi de Marta Park and Mike Fox Park, are oriented more to the street than to the Riverway. San Lorenzo Park has some connection to the River, but the benchlands are separated from the River by a dense bank of riparian vegetation; in the upper park, views of the confluence with Branciforte Creek are blocked by a large dumpster.

Today, the Riverway is an untapped community treasure. It is hoped that the ideas and recommendations in this report will help the community become more involved with the San Lorenzo - to begin discovering the many experiences it has to offer, and the many stories it has to tell. Following from the San Lorenzo Urban River Plan and the Public Art Master Plan, the purpose of developing an interpretive and wayfinding program for the San Lorenzo River is to engage current and potential Riverway users as stewards in transforming the Riverway into a vital, healthy, and beautiful riverside park.

Activating the Riverway

This report recommends an organized approach to activating the San Lorenzo Riverway. The ideas are divided into three components for parallel development: interpretation, wayfinding, and community engagement.

Interpretation Program

An interpretive program can enrich the Riverway user's experience and serve as an indirect management tool. For a river system now constrained to a narrow channel within its urbanized floodplain, interpretation must address more than the traditional “nature-walk” subject matter. The interpretive program recommended here encompasses themes of river ecology, community history, and flood-protection infrastructure. Interpretive elements will serve not only to inform and educate, but also to engender support for the City's habitat restoration goals and to reinforce behavioral standards to make the Riverway safe as well as beautiful.

Wayfinding and Orientation

As a linear park with five miles of pathways, seven bridges, and numerous access points, the Riverway needs a consistent system to guide travel, reveal points of interest, and point the way to adjacent destinations. The recommended orientation and wayfinding measures take into account the variety of reasons that residents and visitors have for using the Riverway.

Community Engagement

To succeed as park space, wildlife habitat, and urban infrastructure, the Riverway needs activity and community support. This report recommends community engagement strategies conceived to break out of the vicious circle in which barren levees lead to neglect and abandonment, leading to safety and maintenance issues, leading to further degradation. Implementing these strategies will create a sense of place befitting the Riverway's central location in Santa Cruz.
The San Lorenzo Riverway contains over five miles of paved path on both the east and west banks of the river as well as four auto bridges, two bike/pedestrian bridges, and one to be completed in 2008.
Themes for Interpretation

Interpretation provides ideas and narratives - stories - that allow visitors to learn, understand, and care about the environment. To give coherence to the countless intertwining stories that could be told about the River in Santa Cruz, the San Lorenzo Riverway interpretive program should be organized around a few themes.

The themes recommended here provide the framework for identifying those stories that will strongly resonate with people as they encounter elements of the interpretive system. Such stories succeed as interpretation when their subjects can be seen in the landscape, when they link with the other stories presented, and when they have broad human appeal.

This report assumes that interpretive elements will be added to the Riverway over time as funding and community interest allow. The recommended themes will guide the development of each element as the whole interpretive program grows.

The following sections discuss each Riverway theme, listing significant aspects that could be presented. Historical and scientific accuracy is an important part of interpretation; individual interpretive elements should be thoroughly researched before installation.

Today, the Riverway is an untapped community treasure. Developing an interpretive program will engage users as stewards in transforming the Riverway into a vital, healthy, and beautiful riverside park.

- Linda Stonier, National Park Service Rivers, Trails and Conservation Assistance Program

The River and the Community Through Time

The lower San Lorenzo River has attracted people to live near it for thousands of years, and powerfully influenced their livelihoods, customs, traditions and beliefs. By presenting the River’s part in human history, the interpretive system can reveal many facets of how landscapes shape, and are shaped by, human societies.

- Settlements and structures: A cross-cultural look at human settlements near the San Lorenzo over time shows differing attitudes and understandings about how people cope with the bounty and force of nature. Varying use of materials, from reeds to redwood to bricks and mortar to steel and concrete, affected how people inhabited the river environs.

- Landscape management: From the earliest human habitation, people have managed the landscape around the River through use of dams, fire, paving, drainage culverts, levees, and cultivated farms and orchards. Hunting, fishing, pasturing, and harvesting have altered food chains and species populations, thereby affecting ecosystems. Modes of transportation have shaped land use, location of development, population concentrations, and resource consumption.

- Attitudes toward wildlife: Hunting and fishing along the River were matters of survival for coastal Indians and early European settlers. With the growth of tourism as an attraction to the River, fishing became a recreational sport. As awareness grew of human damage to finite natural resources, the River’s fish and wildlife came to be treasured as symbols of hoped-for ecological recovery.

- Land as property: The River’s banks and wetlands were occupied as a commons by the Ohlone, fenced for livestock by the missionaries, and subdivided for private development by City founders. With private ownership giving monetary value to floodplain lands, the costs of flood protection became a civic burden justifying taxation. When the levees were built, redevelopment cleared Chinatown and reclaimed river islands and bottomlands as real estate. As floodway development restrictions were lifted after the levees were raised in 1999-2003, land near the River increased in value as the location for potential intensification of downtown expanding beyond its recovery from the Loma Prieta earthquake.

- The River as a wild area within the City: The Ohlone didn’t see the world divided between wild and domestic. In the Mission and Mexican periods of Santa Cruz, the River area separated the settlements of Santa Cruz and Villa Branciforte. Well into the Twentieth Century, much of the riverbanks were undeveloped and treated as wild, with campgrounds, nude...
beaches, and fishing holes throughout what is now the downtown area. The flood control project of the late 1950s “tamed” the River. The environmental movement of the late Twentieth Century re-asserted the wild character of the River as part of the broader Monterey Bay ecosystem. The idea of the river as a wild zone is evidenced today as the community grapples with camping and crime along the river. Glimpses of large river wildlife such as Great Blue Herons, Steelhead, and sea lions now make the River a spectator attraction as fears grow that the wild world is disappearing before us.

- **City life near the River**: The River has long been an attraction for boating, fishing, sightseeing. Public spectacles have been staged on the River, such as the Venetian Water Carnivals and opera performances on the former islands. Recent improvements to the Riverway bring it into focus for recreation, non-auto transportation, events, and public art.

- **The River as industrial resource**: While little evidence remains visible for interpretation, riverbank industrial uses shaped the San Lorenzo’s recent history, treating the River as resource for water, power, and waste removal. For about a century starting in the 1840s, the River upstream and downstream was one of the region’s primary economic assets. Rail lines and flumes brought logs down the valley, and the banks were home to lumber mills, a gunpowder mill, a paper mill, tanneries, and boatyards.

### The River in the Natural World

The Riverway is a place to observe and understand how every part of the environment is linked. Indeed, the interconnection between plants, animals and humans in the ecology of an urban river provides a story that leads to that of the wider world around us.

- **The movement of water**: River flows bring fresh water, sand, and nutrients to the ocean. Coastal wave action builds and removes beach sand with the changing seasons, closing and opening the estuarine lagoon. River flows are fed by many tributary creeks, most now obscured by culverts or contained in concrete channels. Street and storm drain runoff bring urban waste and chemicals to coastal waters, with ecological effects still incompletely understood.

### Migrations

- **Anadromous fish**: Spawning in the River return to lay eggs for the next generation. Migrating birds visit the River for food and shelter, some simply moving between the coast and local mountains, others traveling as far as Alaska or South America;
- **Geology and geomorphology**: Over time the River has shaped its watershed and floodplain. Some soils in the mountains succumb to erosion and others resist it, providing a mix of sand and gravel that builds up and scours out of the downtown channel. The large topographic forms of downtown Santa Cruz such as Mission Hill, Beach Hill, and San Lorenzo Point were shaped by the River over the centuries. Where the River meets the ocean was once a steep-sided coastal canyon that filled with sediment to become today’s floodplain.

### Local wildlife

- **Fish, amphibia, reptiles, small mammals, birds, insects, and micro-organisms**: Inhabit the lower River. Urbanization has affected local food chains. The “environment” doesn't stop at the city limits. Non-native species such as pigeons and feral cats now occupy niches in the River’s ecosystem.

### The River as industrial resource

- **River as resource**: While little evidence remains visible for interpretation, riverbank industrial uses shaped the San Lorenzo’s recent history, treating the River as resource for water, power, and waste removal. For about a century starting in the 1840s, the River upstream and downstream was one of the region’s primary economic assets. Rail lines and flumes brought logs down the valley, and the banks were home to lumber mills, a gunpowder mill, a paper mill, tanneries, and boatyards.

### Cycles and transitions

- **Rivers**: Flows fluctuate with wet and dry weather. The estuarine lagoon rises and falls, nurturing young fish when deep and hosting shorebirds when its sandbars are exposed. Aquatic and riparian wildlife and vegetation thrive, die, and return through annual and multi-year life cycles. Sediments from the upper watershed are deposited during low flows and degraded during storm flows.

### The Riverway as Urban Flood Infrastructure

The flood control project that created today’s Riverway represents an example of continuous human adaptation to the challenges of settling next to a river.

- **Living in the floodplain**: Rivers naturally overflow their normal banks every few years, depositing sediment and sometimes changing course within their floodplains. Flooding of human structures thus occurs because a floodplain settlement is, in effect, located within the River. Flooding became a haz-
ard to life and property in Santa Cruz as development spread across the San Lorenzo's coastal floodplain starting in the 1840s.

- **Engineering a natural system:** The levees are artificial banks designed to contain high river flows, providing an example of the engineering approach to living with nature: we use large structures for protection rather than abandoning an area because of occasional natural hazards.

- **Costs and benefits:** The flood protection system can be seen as an economic calculation. Costs include levee construction and maintenance, lost habitat and beauty, and damage from the rare flood that exceeds the levees' capacity. Benefits include continued daily life and commerce in the floodplain, use and further development of private and public facilities, and enjoyment of a desirable coastal location.

- **Habitat restoration:** A new component of the San Lorenzo's flood infrastructure is the City’s attempt to enhance habitat values: over the years and decades an experiment will unfold as adaptive management of the flood control system tests various ways to use native vegetation, installations of logs and other simulated river features, and regulation of water levels, to bring back fish and wildlife populations.
Interpretive Opportunities by River Reach

Interpretive opportunities exist at sites on the Riverway where there are stories to tell. Especially in the early stages of development, interpretive elements should be located where infrastructure is available and Riverway visitors are most likely to encounter and be receptive to the information. Specific sites should be chosen where some feature - a scene, a building, an artifact - is visible in the landscape to help tell the story.

Interpretation in the urban Santa Cruz environment must acknowledge a wide range of users with diverse reasons for being on the Riverway. A strictly pedantic “dates and Latin names” approach will likely fail to gain the interest of many users. Interpretive elements should seek to remove, not reinforce, language and cultural barriers.

It is also important to consider where not to provide interpretive information, and to leave room for personal discovery and unmediated observation. For example, simply providing safe and comfortable seating at appropriate vantage points along the Riverway may enhance enjoyment of the ever-changing views of the Santa Cruz Mountains, the Santa Cruz cityscape, and the River itself.

The interpretive opportunities described here are grouped within the three main reaches of the River traversing the urbanized floodplain. Interpretive storylines are listed for each reach, recommended because they illustrate the broad Riverway interpretive themes, with the expectation that these will be elaborated and supplemented over time as the community engages with the evolving riverfront.

The San Lorenzo Urban River Plan designates several focus sites along the Riverway, defining them as “public spaces that create destinations or unique visitor experiences to increase awareness and appreciation of the Riverway.” One such location for each reach is recommended here as a primary focus site for wayfinding and interpretive installations.

Each primary focus site should have an overview display to orient the viewer in the context of the entire Riverway trail system. The overview could be a map or a birds-eye perspective of the Riverway, keyed to assist visitors in locating access points, amenities, and related destinations along and near the Riverway. Wayfinding elements between the primary focus sites should echo the names and symbols used in the overview, functioning as milestones and confidence markers for visitors unfamiliar with the Riverway. A printed version of the overview could be produced (see Activation Strategies).

The Riverine Reach

The Riverine Reach, from the Highway 1 Bridge to the riffle below the Water Street Bridge, is the last reach with predominantly fresh water as the River heads toward the ocean. It contains more riparian vegetation than the lower two reaches, and provides extensive nesting and feeding sites for resident and migratory birds. This reach is bordered on the west by the Gateway Shopping Center, the mixed-use Josephine Street neighborhood, an apartment complex built to connect with the Riverway, and the El Rio Mobile Home Park; on the east are a mixed-density residential neighborhood, a power substation, and the County jail.

The upstream end of the Riverway in this reach has suffered from under-use by the general public, partly because the paved Riverway paths on both sides of the River dead-end at the highway bridge. Use as a route to illegal campsites upstream reinforces a perception of neglect and social isolation. The recently added semi-circular plaza fronting on the Riverway adjacent to the Gateway Shopping Center has no amenities to encourage its use.

Significant city investment, planned at the time of this report, may provide both the means and the impetus to bring this area into broader public use. In particular, the new pedestrian/bicycle bridge just downstream of Highway 1 has the potential to substantially increase activity. The bridge will open a cross-town bicycle commute route, link neighborhoods on both sides of the River, and close the loop of the Riverway trail system at its upper end. Also planned are pathways leading to the River Street-Highway 1 intersection and under the highway bridge to the Tannery Arts Center being developed just upstream of Highway 1. Completion of these projects will put the Gateway Plaza at the intersection of trails used for shopping, commuting, neighborhood access, bird watching, recreation, and tourism.

Riverine Reach Focus Site: Gateway Plaza

The Gateway Plaza site offers spots for interpretive elements, art and performance space, and visitor orientation. Lighting and wayfinding elements should be designed to maximize safety and clarity of access and directions to other des-
Riverine Reach Interpretive Storylines:

- The morphology and special characteristics of the riverine reach, and its dynamic relationship to the mountainous watershed visible upstream from which flood waters, sediment, and debris come every winter.
- Use of the River and its banks for transport: Ohlone Indian trails between the coast and the foothills, crossings by Spanish explorers and missionaries, logging flumes, industrial waste, fords and bridges.
- Habitat values of the riverine reach: Why is this reach designated for minimal human impact in the streambed? What role does the denser vegetation play for fish and bird habitat?
- Bird life by the River: What birds can be seen here? Why is this habitat important to them? When are they here? Why is their presence important to us?
- The function and importance of aquatic habitat: How do streamside vegetation, shade, pools and riffles, and channel depth affect food chains, insect diversity, and fish passage? What fish and amphibia live in the River? How do their populations compare to historical times? What are some conflicts between the needs of people and wildlife, such as water levels and willow removal?
- Flood protection infrastructure: how does the straightened channel differ from the historic path of the River? How is the City attempting to enhance habitat within the channel while maintaining flood capacity?
- Seasonal cycles: water levels, fish migrations, bird nesting seasons.
- The historic design and expansion of the Water Street Bridge, and its recent replacement; the gauge on the bridge showing high water marks.

The Transitional Reach

The Transitional Reach begins below the Water Street Bridge and extends to the Laurel Street Bridge. The designation of this reach reflects the change in vegetation and in-stream habitat where fresh river water meets brackish water brought upstream by tidal action and seasonal high waters of the estuarine lagoon. The commercial areas of the Galleria, River Walk Plaza (currently Trader Joe’s and Long’s Drugs), and Front Street form the western edge of this reach. Much of the eastern bank is along San Lorenzo Park, beyond which lies the University of California Santa Cruz (UCSC) student housing, condominiums, and a senior housing complex; Branciforte Creek enters the River between San Lorenzo Park and the Soquel Avenue Bridge; further downstream the Riverside Avenue neighborhood and Mimi de Marta Park about the east levee. A pedestrian bridge spans the River from San Lorenzo Park to the San Lorenzo Plaza.
the tree-lined riverbank, and is designed for inundation during high river flows. San Lorenzo Park has the only public restrooms along the Riverway.

**Transitional Reach Focus Site: San Lorenzo Park Pedestrian Bridge**

As a multi-use park that attracts both residents and visitors, San Lorenzo Park is a good location to introduce the Riverway experience. The heavily traveled pedestrian bridge provides optimal locations for interpretive and wayfinding elements. The bridge affords clear views of the river channel and benches below, the skyline of the downtown commercial core, and scenic upstream and downstream horizons. Ample room exists for interpretive elements near the bridge's eastern landing where the Riverway trail meets several paths used by park visitors, neighborhood residents, and workers in the County Governmental Center. Although the landing at the western end of the bridge is small, it is recommended as a key spot for wayfinding and public art.

![San Lorenzo Park Pedestrian Bridge, and west and east landings.](image)

**Transitional Reach Interpretive Storylines:**

- Watershed perspectives including impacts of high water and debris from upstream.
- Varieties in bird populations by time of day and season.
- Changes in vegetation as the water transitions from fresh to brackish. What are the implications of vegetation and salinity for in-stream habitat?
- Ohlone harvesting of river plants for food and shelter;
- Problems with non-native plants and the City's efforts to remove them from the River.
- History of the Soquel Avenue bridge at the site of King's Ford, a spur of the old “El Camino Real” from Mission days; the bridge's original form as a covered bridge so horses would cross; more recently, the bridge's partial collapse in the near-flood of 1982, and subsequent re-construction to accommodate higher flows.
- Why is San Lorenzo Park divided into two levels? The role and function of the benchlands, including the riparian corridor, as a floodplain remnant.
- Historic community life on the River: What was here before the land was “reclaimed” after the 1955 flood and subsequent flood control project? Farms, industrial sites, camping, Bull and Bear Arena, Midford Island with the Garibaldi Hotel and Chinatown.
  - The environmental protection rationale for areas that are closed to public access.
  - Flooding and high waters in 1862, the 1920s, the 1940s, 1955, and 1982.
  - Flooding and fishery issues of Branciforte Creek.

**The Estuarine Reach**

The Estuarine Reach extends from the Laurel Street Bridge to the rivermouth, flowing through two sharp bends in the area of the once-broad wetlands of the estuary. The thinly vegetated reach is transformed into a lagoon when the sandbar at the rivermouth closes in the dry season. The Estuarine Reach then becomes a nursery for young steelhead migrating out to sea from the watershed. Bordering this reach on the west are the recently re-built Beach Hill riverbend embankment and its walkway and plaza mini-park at Third Street, the Riverside Bridge entry to the beach commercial area, the Beach Flats neighborhood, and a large parking lot serving the historic Santa Cruz Beach Boardwalk. On the east the Riverway is bordered by Mike Fox Park and the new Ken Wormhoudt Skateboard Park; the rest of the Riverway is paralleled by San Lorenzo Boulevard, across which lie the Lower Ocean Street motel and residential districts and the Jessie Street Salt Marsh restoration area; at Ocean Street, the Riverway path joins East Cliff Drive, rising above steep cliffs that frame the east riverbank out to San Lorenzo Point on the Monterey Bay.

The Boardwalk's skyline is a prominent feature of the landscape from many community vantage points; from the low end of the Estuarine reach, the sights and sounds of the amusement park become dominant. The equally imposing structure of the railroad trestle spans the rivermouth adjacent to the Boardwalk.

**Estuarine Reach Focus Site: The Riverway at the Railroad Trestle**

The west bank Riverway ends at the railroad trestle, where the trail connects with a public beach access and the new Beach Street bike lanes. A popular walkway attached to the trestle is scheduled for improved access from the River-
way in 2008-09. Because of its intensive use by residents and visitors, this area is recommended as the primary focus site for the Estuarine Reach. The highest priority here should be development of orientation features that allow visitors to easily navigate to and from the Riverway, the Boardwalk, the beach, and across the trestle. Dedicating space to interpretation and wayfinding will enrich visitor experiences, enhance real and perceived public safety, and promote use of the Riverway trail system as a connection between the beach area and downtown Santa Cruz. Public restrooms should be added, accessible from the Riverway as well as from the beach and the Boardwalk parking lot.

*The Riverway-Trestle Focus Site; beach access to the left.*

**Estuarine Reach Interpretive Storylines:**

- River hydrology and morphology, the seasonal formation of the sandbar and lagoon, and the Jessie Street Salt Marsh restoration project;
- The role of the River in the Monterey Bay ecosystem, including fish migrations and water quality;
- The natural history of the estuary’s wetlands, their destruction for agriculture and then urban development, and continuing drainage and flooding problems;
- Opera Island, a vegetated sandbar replaced by the parking lot when the 1959 flood levees were built, in an area that has been the subject of a decades-long dispute over public versus private ownership;
- The Venetian Water Carnivals as an example of use of the River for celebrations and tourist promotions;
- The many uses of the rivermouth between the beach sand dunes and San Lorenzo Point, including Ohlone abalone fishing, one of the first boat-building yards in California, tourism and tent cabins, the first Hawaiian surfing in North America, the first local sewage outfall, and safety and habitat issues next to today’s popular beach;
  - The history of the railroad and its trestles;
  - The history of the Boardwalk;
  - Reconstruction of the Beach Hill riverbend embankment combining flood protection, fish habitat enhancement, and a walkway linking beach neighborhoods and downtown.
Orientation and Wayfinding Strategies

The San Lorenzo Urban River Plan calls for directional and orientation signs. Wayfinding and orientation elements enable people to find their way to, from, and along the Riverway; to feel more comfortable and safe in the environment; and to have confidence that they can navigate back to their starting points. A good wayfinding system helps users find bicycle and foot travel more accessible and attractive, and assures those needing handicapped access that they won’t be blocked or stranded.

With completion of the 2008 pedestrian/bicycle bridge near Highway 1, the idea of the Riverway as a complete loop will be helpful for conceptualizing the orientation and wayfinding system. The value of the loop concept is the opportunity it provides to establish the Riverway itself as an “experience” and also to facilitate its use as a transportation alternative.

The wayfinding system should identify key access points to the loop that are also destinations in their own right. Also important are access points leading to and from other community destinations such as downtown and the beach, as well as the small street-end and informal access ramps reaching the levee trail at many points along its length.

A System to Guide and Welcome

Produce a Riverway Orientation Map

Develop a “Bird’s Eye View” orientation map of the Riverway using a 3-dimensional graphic approach, i.e. one that provides perspective, so that landmark features such as bridges, buildings, parks, and the arrangement of access points onto the Riverway, are recognizable almost at a glance. This map should be made available both on the Riverway at key destination locations, and on paper for distribution to visitors who want to carry it with them.

Maintain Accessibility

The City’s commitment to accessibility should be maintained by employing wayfinding and orientation elements usable by persons in wheelchairs, children, and persons with limited eyesight or physical agility.

Develop a Riverway Symbol Hierarchy

Develop a symbol hierarchy for access, orientation and wayfinding information, with the goal of easy, convenient, and safe navigation for Riverway users. The symbol hierarchy should provide a communication strategy for displaying the necessary type and amount of information at the appropriate location, covering subjects such as:

- location within the overall Riverway loop;
- destinations, mileage, and directional signs;
- services and public amenities;
- safety information (callbox locations, bicycle speed limits);
- Riverway etiquette (trespass, litter, noise);
- regulatory or resource management messages;
- Riverway branding and credits for funders.

Assemble a List of Related Destinations

Develop a list of significant existing and planned community sites and facilities to tie into the Riverway, including bicycle routes, City parks, public restrooms, Tannery Art Center, Downtown, City Hall, the Civic Auditorium, the downtown Library, the Boardwalk, and new Monterey Bay Marine Sanctuary Visitor Center, and include these destinations in the access, orientation and wayfinding hierarchy described above.

Adopt a Riverway Identifier

To add stronger identity to the Riverway, the City should consider “branding” for the Riverway by having a fish or bird mascot or graphic image logo; such an identifier could be utilized in publicity, printed material, and signage.

Include the Riverway in Promotional Materials

Work with the Downtown Commission and Convention and Visitors’ Bureau to include the Riverway on maps, signs and promotional materials. Work with the Regional Transportation Commission to include the Riverway as part of the countywide cycling and trails networks. Work with the Parks Commission to develop a map and brochure similar to those available for other City parks.

Incorporate Local and World Languages

For safety and a sense of welcome, the wayfinding system should use the predominant local languages, English and Spanish. A range of world languages could be used in directional guides at the primary focus sites recommended in this report, starting with the site near the beach and Boardwalk.

Install Electronic Signage

Take advantage of future citywide access to the Internet via WiFi and GPS-enabled cell phones to create electronic signage for directions and interpretation.

Design Considerations

Traditional signs on upright metal poles can be a simple and cost-effective way to provide information if they can be located in the right place and vandalism is not an issue. However, many other media strategies are available. The Public Art Plan for the San Lorenzo Riverway, for example, recommends limiting the number of signs on the Riverway, and using some other distinctive approaches for connecting people to place. Whatever designs are used, maintenance and operations factors such as weathering and graffiti control need to be considered.

Use a variety of ways to present information

- Employ graphic devices such as signs, symbols, pavement treatments, artwork, or other elements.
- Install artwork on bridge lookouts and railings or extending out beyond railings.
- Embed or draw written or graphic information on the pathway itself (e.g. Buster Simpson’s Riverway “Scroll”).
• Use historic photographs to take visitors back in time along the Riverway.

**Develop a unified design concept for presenting information**

• Develop a unifying, visually attractive design concept for the Riverway’s access, orientation and wayfinding hierarchy.
  • Create an iconic and evocative public art feature, or series of features, along the Riverway.
  • Consider incorporating elements that may be visible from other locations in the City.
  • Integrate lighting or sound to communicate interpretive themes.

**Develop plans for installing, updating, and maintaining information elements**

• Install information system elements to optimize their communication effectiveness and aesthetic contribution to the landscape.
  • Minimize the intrusion of signage on the visitor’s experience.
  • Secure information system elements to the extent possible from vandalism or theft.
  • Incorporate accessibility standards in designs of wayfinding and interpretive elements.
  • Consider placing signs at nodes in clusters, rather than spreading them out along the Riverway.

• Keep information “fresh”, perhaps designating certain locations for revolving exhibits or community-involvement projects.

**Use existing bridge structures and access ramps**

• Present interpretation, wayfinding information and public art utilizing existing structures.
  • Put the street names on all bridge abutments adjacent to the Riverway.
  • Create murals on the bridge abutments facing the Riverway (e.g. story of the life cycle of steelhead).
  • Use graphics like the giant flood gauges recommended by Buster Simpson, possibly complemented by historic photos in the Riverway, to tell the story of living in the floodplain.
  • Locate interpretive and wayfinding information, especially “confidence markers”, on the bridge lookouts.
  • Interpret modern flood control and river restoration themes where levee re-vegetation is visible along access ramps.

Wayfinding and interpretive design examples from other cities (see references).
Affirmative steps must be taken to bring the community back to the River. For decades the City’s stretch of the River has received attention mainly in negative terms, as flood danger and ecological loss, as back alley to downtown and adjacent neighborhoods, and as a haven for illegal camping, substance abuse, and anti-social behavior. As the central open space of Santa Cruz, as well as the site of substantial City investment in infrastructure, water quality and habitat enhancement, the Riverway must regain a positive role in community life.

The interpretation and wayfinding components recommended in this report will only be visible and useful to people who choose to come to the Riverway. Activities and destinations must therefore exist to attract an “audience” – people who use the Riverway for recreation, exploration, education, and transportation. Greater community presence will also increase the sense of safety along the Riverway.

The following are suggestions for activities that are enjoyable to many segments of the community, that are educational about river-related natural and cultural heritage, that are appropriate to the City’s goals for habitat enhancement, and that are supportive of Riverway maintenance and improvement.

Enhance Riverway Destinations

Enhance key gateways and destinations on the Riverway to provide positive experiences.

The fundamental approach recommended in the San Lorenzo Urban River Plan is the creation of “destinations” that provide unique visitor experiences and opportunities for integrating the Riverway into its surrounding neighborhoods and downtown Santa Cruz, and connecting it to other trails, open space, and natural features of the River’s watershed. This approach is expected to increase and encourage appropriate use of the corridor, creating a true community amenity while reducing anti-social behavior, maintenance burdens and policing problems.

Several key locations have the potential to help activate the Riverway by attracting visitors and engaging their interest with activities and information. Increased marketing of these areas both on the Riverway and off will be helpful, but to gain an attractive sense of place these spots will have to meet essential visitor needs for safety, comfort, and knowledge of where they are.

Riverway users should have access to food, places to rest, and to restroom facilities. Visitors from outside Santa Cruz in particular will want orientation to their location on the Riverway as a whole.

Develop Public Art

The entire Riverway corridor is a locale in which public art may enhance the Riverway’s sense of place, aesthetic appearance, and value for community education, artistic development, and civic pride.

Artist Buster Simpson described the following impetus for his 2002 Public Art Master Plan for the San Lorenzo Riverway: “The levee is the single most dominant man-made element in Santa Cruz, although it has yet to realize its potential as a key urban amenity. The San Lorenzo River is the reason for the city’s location; however the River has yet to become re-established within its channelized predicament caused by the growth of the city. Artists, as creative thinkers, can provide important contributions that would be as poetic as they are pragmatic... The desired outcome... is to incorporate public art into the overall site and selected structures to enhance public awareness of the River, encourage appropriate use of the Riverway, interpret the social and ecological histories of the River, and illuminate its present-day role as a multifaceted community resource.”

- Begin implementing concepts and policies of the Public Art Master Plan of the City’s adopted Urban River Plan. The River Committee should, in cooperation with the City’s Art Commission and the Public Art Committee, review the recommendations including the “Riverway Scroll” project, “Watershed and Floodplain Awareness” markings, sandstone “Saltates” and “Willow Harvest Festival” suggestions for suitability and feasibility on the Riverway.
- Recruit artists to interact with natural resource specialists, historians, educators, students, recreational users and other members of the community to inspire and solicit specific public art projects and to evaluate suitable locations for their implementation.
- Engage artists and the public in artistic expressions that will create a unique sense of place, enhance public awareness of the River, encourage appropriate use, and represent the community’s river-related natural and cultural history.
- Re-examine the Riverway lighting scheme in consideration of recommendations in the Public Art Master Plan.

Enhance the Riverway’s Sense of Historic Place

Connect the Riverway with the history of the area and the adjacent neighborhoods by presenting the “river through time” at each stage of human habitation. The University of California Santa Cruz oral history project, the Museum of Art and History, commercial photographic archives, and local historians should be consulted for relevant materials and information.

- Re-introduce historic riverbank locations in path markers along the Riverway.
- Identify and evoke Ohlone, Spanish, Yankee, Italian, and Chinese settlements along the River using images from old photographs, maps, and illustrations.
- Describe the origins of local, unique, historic, and descriptive names of places along or visible from the Riverway.

Expand Visibility in the Media

- Write a series of articles about current and historic life on the Riverway, such as “things to see” or “the way it was.”
- Widely publish notices of events, walks, and improvements or enhancements of Riverway access for the public.
Support Educational Activities

- Conduct guided “Riverway Walks” and follow-up discussions on topics such as water quality for people and wildlife; re-establishing native plant communities; wildlife living in the River downtown; urban design and architectural opportunities along the Riverway; the effects of poverty on the River. The Natural History Museum is a natural partner for these walks.
- Establish commercially guided interpretive non-powered boat tours on topics including ecology, geomorphology and history (as is feasible - this would require a City ordinance to allow boating on the San Lorenzo.)
- Develop an enticing “Seasonal Guide to the Riverway,” a booklet or brochure that helps visitors to observe, understand and appreciate seasonal changes in wildlife, vegetation, and morphology of the river channel itself.
- Invite school and college science classes to study river ecology in an ongoing program similar to the Watershed Academy at San Lorenzo Valley High School.

Enhance Recreational Opportunities

- Sponsor regular themed races (running, walking, skating, costumed, relay, hybrid human powered vehicles) on the Riverway; invite community-based business sponsorship; raise funds among participants for additional Riverway improvements.
- Encourage use of the Riverway for individual and group exercise and fitness programs, by providing mileage markers, par course stations, and sites for rest and stretching.
- Encourage bicycle bell program to prevent bicyclist/pedestrian conflicts. Work with community groups to sell or give away bells.
- Establish and improve seasonal access to changing public beaches along the Riverway (this might require a City ordinance to allow water contact with the River). Investigate the possibility of seasonal footbridges at appropriate locations.
- Establish limited access for personal kayaking and canoeing in the River (again this would require a change of a City ordinance prohibiting boating).
- Establish a seasonal trail in the tree line at the toe of the levee along an appropriate section of the Riverway if possible, while avoiding environmental conflicts.

Organize Clean-ups, Gardens, and Landscape Projects

- Sponsor regular river clean-ups to remove litter and graffiti; encourage co-sponsorship by community organizations, merchants associations and neighborhood groups. Revive the previous adopt-a-riverbank program.
- Consider doing educational clean-ups that focus on particular problems such as small pieces of plastic and the birds and fish that might eat them.
- Involve the public in invasive plant control and other landscape-assistance programs.
- Coordinate with the Police Department, the new Park Enforcement Team and local schools to conduct river clean-ups for required community service projects; include “story-telling” component to engage participants’ interest and add a scientific/interpretative facet.
- Investigate the possibility of community gardens and landscape projects adjacent to the Riverway, in locations such as Mimi di Marta Park or un-landscaped areas of the Riverway. A similar project has been done along Branciforte Creek at Market and Water Streets.

Encourage Events and Festivals

- Facilitate public and private sponsorship of singular, periodic or annual events and festivals such as a revival of the old Venetian Water Carnival or adding a new Willow Harvest Festival that might include draft-horse vegetation removal as a spectator event. Requiring “horse diapers” (as done for street carriage rides) can add a water-quality message.
- Organize annual or seasonal bird counts or events, possibly coordinating with the Monterey Bay Birding Festival and the Audubon Christmas Bird Count, to help familiarize community members with the San Lorenzo’s bird populations and habitats.
- Coordinate events with other agencies such as the State Parks Department and the Monterey Bay National marine Sanctuary.
- Extend current Downtown events to the Riverway.

Allow Vending Opportunities

- Consider revising City ordinances prohibiting vending along the Riverway to allow vending carts to sell snacks, sunscreen, hats, etc. in selected locations.
- Designate locations along the Riverway for seasonal commercial uses such as bicycle rentals.
- Encourage pedi-cab operators to establish routes that include the Riverway.

Secure Riverway Funding

- Work with existing nonprofit organizations or establish a new non-profit to sponsor and raise funds for projects on the Riverway.
- Establish a River Trust Fund. Solicit public contributions for specific elements of this Plan. Consider adding earmarks for interpretation to River related work contracts, similar to the “2% for public art program” in place for City capital improvement projects.
- Encourage the downtown business community to view the Riverway as a significant economic asset worthy of financial support, and to consider Riverway enhancements in downtown economic planning and development activities.
- Consider establishment of a special assessment district funded from increased tax valuations resulting from improved attractiveness of Riverway properties.
- Identify projects to be supported by community groups with interest in aspects of the River, such as historic and cultural societies, bird and fishing clubs, and surfing, cycling, conservation and clean-up organizations.
- Apply for outside funding sources such as state bond funds and foundation grants.
Conclusion

This report, *Ideas to Activate the San Lorenzo Riverway*, outlines recommendations to promote appropriate community access to, awareness of, and appreciation for the significant natural and cultural features of the San Lorenzo River corridor. It contains proposals for a coordinated system of wayfinding signage and a variety of interpretive design elements and community-related infrastructure that can draw people to the Riverway.

Interpretation along the Riverway will provide benefits for the River by enhancing its stewardship; for visitors by adding to their enjoyment, and for the community by promoting a unique Santa Cruz natural site. Community engagement in this process is vital and necessary. To this end, *Ideas to Activate the San Lorenzo Riverway* was developed from the participation of community members in several community “walking workshops” and input from several City departments.

*Ideas to Activate the San Lorenzo Riverway* conveys the importance of a unified framework for design implementation, as well as for directional, regulatory, and interpretative signage. The recommendations in this document will serve as a blueprint to guide cohesive development of ongoing wayfinding and interpretation plans for the San Lorenzo Riverway.

Welcome to the San Lorenzo Riverway!

References

**Plans and Studies:**


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**Additional References:**


