

Bastrop Spring Restoration & Interpretive Boardwalk Initiative – Phase I

OVERVIEW

The City of Bastrop, along with local businesses and organizations, is working to make Bastrop and the Lost Pines Region a tourism destination. The city is currently building a convention center, new city hall, and renovating Chestnut and Main streets to attract visitors to Bastrop. The Bastrop History Museum will move into the current city hall located above Riverwalk Park. This provides an opportunity to connect visitors to our natural resources including the Colorado River, Bastrop Spring, Bastrop State Park, and our many other tourist destinations.

Environmental Stewardship has formed an ad hoc stakeholder group to plan and develop the Bastrop Springs Initiative. The group currently includes representatives from the following organizations:

- Bastrop Park Board
- Bastrop Park Department
- Bastrop County Historical Society
- Bastrop Historic Landmark Commission
- Bastrop Main Street
- Texas Parks and Wildlife Department
- Lost Pines Master Naturalists
- Sierra Club Lost Pines Conservation Committee
- The Rivers Studio, LLC (landscape architecture/environmental planning))
- Private Citizens
- Environmental Stewardship (organizer)

Working with the stakeholder group and The Rivers Studio LLC, initial concept designs have been developed and presented to the Bastrop Park Board with favorable response. Texas Parks and Wildlife Department has investigated and documented the spring site and has made initial recommendations on restoration of the native vegetation cover of the hillside where the spring emerges (see attachment).

Phase I – We are now ready to conduct workshops with a Parks Board-appointed task force and to develop more detailed concepts. Drawing upon the workshop and with City input, plans will be developed for restoring the spring, creating a small representative wetland area between the spring and the Colorado River, creating an attractive ecotourism-interpretive feature with falling water adjacent to the remnant historic spring, and for interpretive paths and a short boardwalk. Interpretive signage will be created and placed throughout the area to engage visitors with the history and ecological importance of the site.

During this phase the following actions will be taken:

1. Design, obtain cost estimates, and construct an historic landmark marker to display the City's traditional cast bronze landmark plaque.
2. Unveil plaque at ceremony with key officials and stakeholders,
3. Draw plan, obtain cost estimates, and undertake vegetation restoration on hillside terrace above spring,
4. Design restored wetland area below spring and obtain cost estimates for earthwork, weir construction, and plantings,
5. Design boardwalk and obtain cost estimates for construction,
6. Develop interpretive goals and objectives and obtain estimates for signage,
7. Present plans to Bastrop Park Board and City Council requesting approval to proceed with Phase II funding effort.
8. Raise funds for Phase II – Construction and planting of wetlands, ecotourism-interpretive feature at the historic spring, boardwalk and paths, and interpretive signage.

Phase II – Construction and planting of wetlands, ecotourism-interpretive feature at the historic spring, boardwalk and paths, and interpretive signage.

GOAL

To protect and restore Bastrop Springs and create an interpretive area that will serve to educate citizens and visitors about the importance of the springs to the history, culture, and ecology of the region.

The educational dimension will inform visitors about the importance of groundwater and surface water interaction and especially the importance of the Colorado River and Carrizo-Wilcox Aquifer to the Lost Pines Region (including the City of Bastrop and Bastrop County).



Spring along Riverwalk (left) and emeraina from PVC pipe to river (right)

DESCRIPTION OF PROJECT

Connectivity to the Museum, Main Street and the Chestnut Street Corridor

The Bastrop Springs Interpretive Area – The proposed Bastrop Springs educational features will further enhance the Bastrop Historical Museum & Visitor Center as a destination for visitors (shown in red). With the recent decision to relocate the museum and visitor center to the current City Hall site, the City has established a third anchor point to complement the Convention Center/City Hall and Library/Opera House anchor points in the Main-Chestnut street corridor. As envisioned, the Bastrop Springs (shown in blue) will provide educational enticements to/from the museum area.



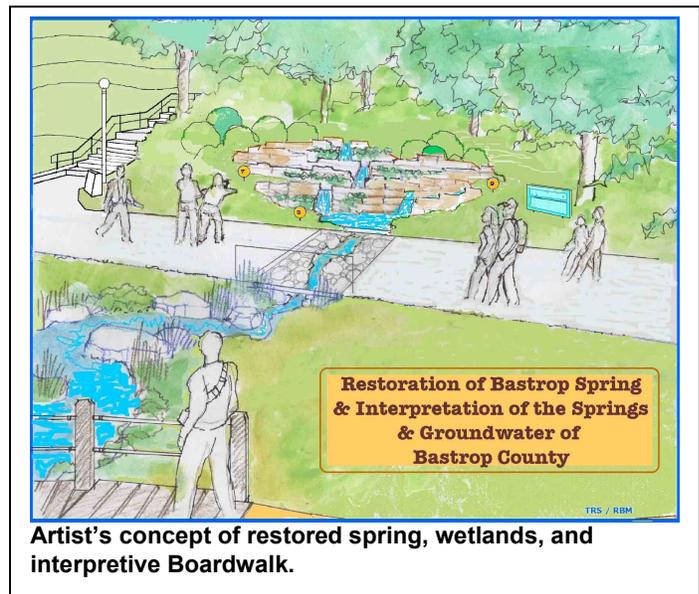
Future location of Bastrop Historical Museum (red), River overlook (green), and Bastrop Springs (blue)

History Museum “River Room” - As envisioned, a future phase of the museum (red) would include a “River Room” with a view (window or balcony) overlooking the Colorado River. After learning historical aspects of the Colorado River at the museum, visitors would be invited to enjoy the river and learn more through an interpretive trail from the museum to the springs on the banks of the river.

River Overlook - A first stop would be an overlook site (shown in green) at the edge of the current parking lot located between the museum/visitor center and the riverwalk. This site would have signage pointing out features such as the lower Colorado River, Old Iron Bridge, Bastrop Springs, Fisherman’s Park,

Riverwalk, Bastrop State Park and Carrizo-Wilcox Aquifer, as well as other springs and important natural and cultural features in the area.

Bastrop Springs & Educational Interpretive Area – Down the steps from the River Overlook would be the restored Bastrop Springs and wetland area which would include a restored interpretive pier (existing), a new boardwalk over the wetlands/spring area, and a new down-river interpretive pier. The piers and boardwalk will have interpretive signage about the history of the springs and the river, their importance in the cultural development of Bastrop, and their importance in the ecology of the groundwater – river system. There would be benches where visitors, pedestrian walkers, and bicyclists could rest and enjoy while seeing, hearing and learning about the springs/wetland habitat.



Artist’s concept of restored spring, wetlands, and interpretive Boardwalk.

The spring interpretive area will be located along the current segment of the Riverwalk from the existing pier down river from the Old Iron Bridge, onward downriver for several hundred feet.

Bastrop Spring Historical Landmark Plaque

The Jane Hill Pape memorial plaque dedicating the Riverwalk trail is located on the left side of the stairway from downtown Bastrop and future site of the Bastrop History Museum. Phase 1 will include building a pedestal for the Bastrop Spring historical landmark plaque to be located adjacent to the spring somewhere on the right side of the stairway across from the Jane Hill Page memorial plaque.



A “recognition ceremony” to unveil the plaque will be used to kick-off the Phase I restoration work and bring local attention to the project. Participants in the ceremony will be representatives from the City of Bastrop, Bastrop Historical Landmark Commission, Bastrop Park Board, Bastrop Park Department, Texas Parks & Wildlife, stakeholders, and funding sources.

Re-vegetation of hillside terrace where Bastrop Spring emerges

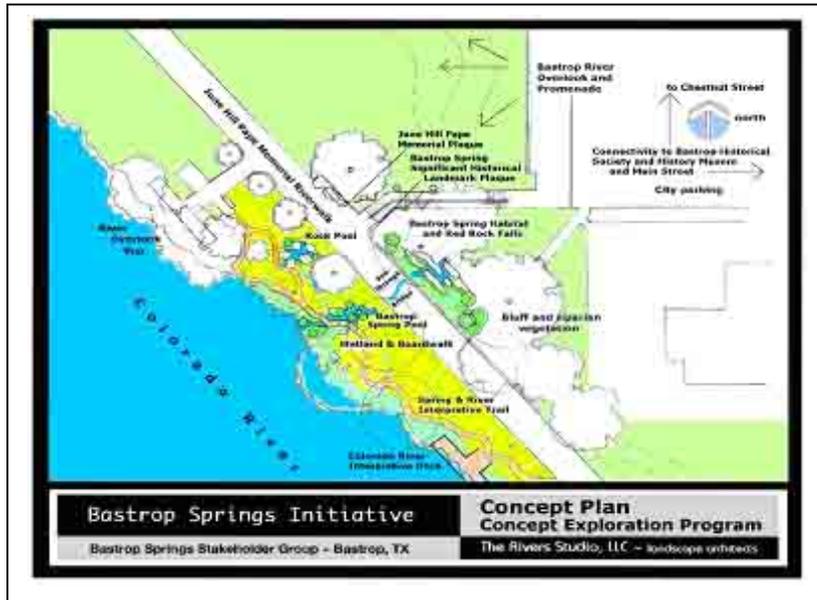


The hillside terrace above Bastrop Spring is currently over-run by non-native invasive species that choke the spring and decrease the water that is available for wetland habitat. As recommended by Texas Parks and Wildlife Department (and under their watchful eye) the invasive species will be removed and replaced with native plants that are characteristic spring plants found at Hoppy Springs, which is a similar seepage bog at Bastrop State Park (see Attachment 1).

It may take several years for the restoration of the spring habitat to take hold and be effective in increasing the yield of the spring to the flow levels documented by Gunner M. Brune in his book Spring of Texas, first published in 1981.

The restored hillside terrace and spring will supply water to a restored wetland habitat between the current sidewalk and the river. Local accounts confirm that, prior to installing the concrete sidewalk, the area below the spring was a wetland habitat. In restoring the spring, a “bridge” feature will be developed to allow water to flow under the sidewalk and into the restored wetland habitat. Care will be taken to ensure the sidewalk remains accessible in accordance with the American Disability Act requirements and is safe for pedestrians, walkers, and joggers.

Restored wetlands habitat



Historically, the area shown in yellow on the drawing to the left was a wetlands habitat (per the previous landowner). The habitat was converted to Bermuda grass when the concrete sidewalk was installed. This area will be restored to a wetlands habitat with a pool of water containing fishes, frogs, insects, water plants, and other features typical of regional wetlands.

The boardwalk will meander through the wetlands area. Interpretive signs will educate visitors about the relationships between the spring, river, and groundwater aquifers.

A storm-water outfall just below the pier will provide an opportunity to educate visitors about the relationship between the river and non-point pollution runoff from city streets and parking areas.

The existing pier (up-river) will be reconditioned and used as an interpretive pier. An additional interpretive pier will be constructed down-river from the spring.

Construction & Maintenance – All aspects should be low maintenance and constructed of recycled plastic building materials which are durable under flood conditions with minimum maintenance to recover from flooding (not in floodway but in flood zone). Riparian zone should reduce /minimize mowing and trimming while broadening the river buffer zone

Key Participants

The following are key stakeholders who participated in the initial meetings to explore options and develop the project concept and scope:

Timothy Birdsong	Texas Parks & Wildlife Department
Gary Garrett	Texas Parks & Wildlife Department
Beth Bendik	Texas Parks & Wildlife Department
Jason Alfaro	City of Bastrop Park Department
Nancy Rabensburg	City of Bastrop Parks Board
Mary McMurrey	Bastrop County Historical Society
Frank Huffman	Bastrop County Historical Society
Susan Long	Historic Landmark Commission
Roy Mann	The River Studio LLC
Cheryl Madewell	Citizen
Gene Moulden	Citizen & Lost Pines Master Naturalists
Brenda DeSimone	Citizen & Lost Pines Master Naturalists
Carol Reidy	Citizen & Lost Pines Master Naturalists
Steve Box	Environmental Stewardship

Native Plant Species Recommendations For Re-vegetation of Bastrop Springs Habitat Texas Parks and Wildlife Department

The following native spring plants are recommended by Texas Parks and Wildlife Department for restoration of Bastrop Springs. These recommendations are based on characteristic spring plants found at Hoppy Springs, which is a similar seepage bog at Bastrop State Park.

<u>Scientific Name</u>	<u>Common Name</u>
Rhynchospora glomerata	clustered beaksedge
Eleocharis tortilis	twisted spikerush
Rhexia maraiana	Maryland meadowbeauty
Rhexia virginica	handsome Harry
Helianthus angustifolius	swamp sunflower or narrow-leave sunflower
Andropogon glomeratus	bushy bluestem
Andropogon virginicus	broomsedge bluestem
Boehmeria cylindrica	smallspike false nettle
Cyperus haspan	haspan flatsedge
Dichanthelium scabriusculum	woolly rosette grass
Dichanthelium scoparium	velvet panicum
Xyris jupicai	Richard's yelloweyed grass
Eleocharis quadrangulata	squarestem spikerush
Fuirena squarrosa	hairy umbrella-sedge
Habenaria repens	waterspider bog orchid
Hibiscus moscheutos ssp. lasiocarpus	swamp mallow
Hydrolea ovata	ovate false fiddleleaf
Hypericum mutilum	dwarf St. Johnswort
Juncus diffusissimus	slimpod rush
Juncus validus	roundhead rush
Lobelia puberula	downy lobelia
Lycopus rubellus	taperleaf water horehound
Mikania scandens	climbing hempvine
Myrica cerifera	wax myrtle
Osmunda cinnamomea	cinnamon fern
Osmunda regalis var. spectabilis	royal fern
Panicum hemitomon	maidencane
Panicum virgatum	switchgrass
Sacciolepis striata	American cupscale
Scleria reticularis	netted nutrush
Triadenum virginicum	Virginia marsh St. Johnswort
Woodwardia areolata	netted chainfern
Woodwardia virginica	Virginia chainfern

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