A site-specific SOS Amendment for the Eliza Spring Outlet Daylighting Project
Overview of Presentation

- USFWS permit information
- History of Eliza Spring Amphitheater
- Need for Daylighting Project
- Overview of Key Design Elements
- Public Outreach
- Project Timeline

Tonight:
- Seeking a recommendation for site-specific SOS amendment and associated variances
Habitat Conservation Plan
US Fish & Wildlife Service 10(a)1(B) permit

- Allows the City of Austin to keep Barton Springs Pool open for recreation despite it being endangered species habitat
- 20 year permit
- Formal agreement between Parks and Watershed
Eliza Spring Modifications

- Amphitheater built
- Outflow buried
- Concrete floor
- Salamander habitat

Buried 24” pipe
Why Daylighting?

- Need to replace failing buried pipe
  - Recreates historical waterway

- Part of the Barton Springs Salamander Habitat Conservation Plan
  - Increase salamander habitat and improve resiliency of species
Proposed Stream
Public Outreach

- **Public meetings:**
  - Nov 14, 2012
  - October 23, 2013
  - Nov 20, 2013
  - Dec 18, 2013
  - Feb 5, 2014
  - Mar 19, 2014
  - April 9, 2014
  - May 21, 2014

- **Parks Board**
  - April 22, 2014
  - Lands Facilities Feb 8, 2016

- **Joint Committee of the Parks Board and Environmental Commission:**
  - March 19, 2012
  - August 6, 2013
  - March 18, 2014
  - September 30, 2014
  - November 12, 2014
  - January 19, 2016

- **Memo to Council**
  - July 29, 2013

- **Codes & Ordinances**
  - April 21, 2015
Project Timeline

- **Current Processes**
  - Site plan in review
  - Finalize permitting with Tx Historic Comm, US Army Corps of Engineers, Tx Comm on Environmental Quality

- **SOS amendment/variances**
  - March 23 – Environmental Commission
  - April 19 - Codes and Ordinances Subcommittee
  - May 10 - Planning Commission
  - June 9 - City Council public hearing

- **Bidding April-May**
- **Construction Fall 2016-Spring 2017**
Exhibit B: New Channel, Storm Drain Redirection, and Structural Support

Legend

Eliza Spring
- proposed stream
- pipe to remove
- support wall

Storm Drain A
- proposed
- to remove

Storm Drain B
- proposed
- to remove
Care of Water

1. Contractor shall provide an excavation de-watering system that meets the performance requirements and design criteria of Specification 55130300. The system shall include measures to prevent the introduction of oxygen from ambient levels. Treatment of diverted water shall be necessary prior to discharge.

2. Refer to Specification 55130300 for pump intake requirements.

3. If approved, the Barton Springs Pool bypasses suspended solids or dissolved oxygen. Diversion of diverted water shall meet the performance requirements and design criteria of Specification 55130300. The system shall include measures to prevent the introduction of oxygen from ambient levels. Treatment of diverted water shall be necessary prior to discharge.

4. Refer to Specification 55130300 for pump intake requirements.

5. Contractor shall provide an excavation de-watering system that meets the performance requirements and design criteria of Specification 55130300. The system shall include measures to prevent the introduction of oxygen from ambient levels. Treatment of diverted water shall be necessary prior to discharge.

6. Refer to Specification 55130300 for pump intake requirements.

7. Contractor shall provide an excavation de-watering system that meets the performance requirements and design criteria of Specification 55130300. The system shall include measures to prevent the introduction of oxygen from ambient levels. Treatment of diverted water shall be necessary prior to discharge.

8. Refer to Specification 55130300 for pump intake requirements.
Stream Profile, Cross Sections
# Plant List

<table>
<thead>
<tr>
<th>Tag</th>
<th>Common Name</th>
<th>Botanical Name</th>
<th>Qty</th>
<th>Scheduled Size</th>
<th>Height</th>
<th>Spread</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCyp</td>
<td>Bald Cypress</td>
<td>Taxodium distichum</td>
<td>2</td>
<td>3&quot; caliper</td>
<td>15'</td>
<td>4'</td>
<td>western seed source</td>
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<tr>
<td>BTM</td>
<td>Big Tooth Maple</td>
<td>Acer grandidentatum</td>
<td>2</td>
<td>3&quot; caliper</td>
<td>12'</td>
<td>4'</td>
<td></td>
</tr>
<tr>
<td>BTM 1 gal</td>
<td>Big Tooth Maple 1 gal</td>
<td>Acer grandidentatum 1 gal</td>
<td>3</td>
<td>1 GAL</td>
<td>2'</td>
<td>1'</td>
<td></td>
</tr>
<tr>
<td>CBth</td>
<td>Carolina Buckthorn</td>
<td>Rhamnus caroliniana</td>
<td>3</td>
<td>5 gal</td>
<td>3'</td>
<td>3'</td>
<td></td>
</tr>
<tr>
<td>Ch Oak</td>
<td>Chingupin Oak</td>
<td>Quercus muhlenbergia</td>
<td>2</td>
<td>3&quot; caliper</td>
<td>15'</td>
<td>5'</td>
<td></td>
</tr>
<tr>
<td>Cotwood</td>
<td>Cottonwood</td>
<td>Populus deltoides</td>
<td>1</td>
<td>2&quot; caliper</td>
<td>10'</td>
<td>4'</td>
<td></td>
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<tr>
<td>GAsh</td>
<td>Green Ash</td>
<td>Fraxinus pennsylvanica</td>
<td>2</td>
<td>15 gal</td>
<td>5'</td>
<td>4'</td>
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<tr>
<td>RB Vib</td>
<td>Rusty Blackhaw Viburnum</td>
<td>Viburnum rufidulum</td>
<td>1</td>
<td>5 gal</td>
<td>5'</td>
<td>4'</td>
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<tr>
<td>TRBud</td>
<td>Texas redbud</td>
<td>Cercis canadensis var. texensis</td>
<td>2</td>
<td>45 gal</td>
<td>8'</td>
<td>3'</td>
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<tr>
<td>YH</td>
<td>Yaupon Holly</td>
<td>Ilex vomitoria</td>
<td>3</td>
<td>45 gal</td>
<td>6'</td>
<td>4'</td>
<td>female</td>
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## Shrubs, Grasses, Vines & Groundcover

<table>
<thead>
<tr>
<th>Tag</th>
<th>Common Name</th>
<th>Botanical Name</th>
<th>Qty</th>
<th>Scheduled Size</th>
<th>Height</th>
<th>Spread</th>
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</thead>
<tbody>
<tr>
<td>LMhly</td>
<td>Big Muhly</td>
<td>Muhlenber gia Lindheimer</td>
<td>5</td>
<td>5 gal</td>
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<tr>
<td>BCcherry</td>
<td>Dwarf Barbados cherry</td>
<td>Maaphigia glabra nana</td>
<td>1</td>
<td>1 gal</td>
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<tr>
<td>GRMist</td>
<td>Gregg's Mistflower</td>
<td>Conoclinium greggi</td>
<td>2</td>
<td>1 gal</td>
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<tr>
<td>ISO</td>
<td>Inland Sea Oats</td>
<td>Chasmanthium latifolium</td>
<td>13</td>
<td>1 gal</td>
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<td>Mist</td>
<td>Mistflower</td>
<td>Ageratina havanaensis</td>
<td>7</td>
<td>1 gal</td>
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<tr>
<td>Pito</td>
<td>Palmetto</td>
<td>Sabal minor</td>
<td>1</td>
<td>45 gal</td>
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<tr>
<td>TCcap</td>
<td>Turk's Cap</td>
<td>Malvaviscus drummondii</td>
<td>3</td>
<td>1 gal</td>
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<td></td>
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<tr>
<td>CHoney</td>
<td>Coral Honeysuckle</td>
<td>Lonicera sempervivens</td>
<td>6</td>
<td>1 gal</td>
<td></td>
<td></td>
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<tr>
<td>Crossv</td>
<td>Crossvine</td>
<td>Bignonia capreolata</td>
<td>5</td>
<td>5 gal</td>
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<td></td>
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<tr>
<td>VaCr</td>
<td>Virginia Creeper</td>
<td>Parthenocissus quinquefolia</td>
<td>1</td>
<td>1 gal</td>
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<td></td>
</tr>
<tr>
<td>Total</td>
<td>Total</td>
<td></td>
<td>65</td>
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## Tree Mitigation

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<tbody>
<tr>
<td>X</td>
<td>8A</td>
<td>Elm</td>
<td>6&quot; multi</td>
<td>Yes</td>
<td>1</td>
<td></td>
<td>6</td>
</tr>
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<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6.00</td>
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</tbody>
</table>
Floodplain modifications in the critical water quality zone must restore floodplain health to support natural functions and processes as prescribed in the floodplain modification criteria in the Environmental Criteria Manual.

- Project results in equal or better water quality with current landscaping plan because functional assessment is “good or better”
Natural Habitat

Upper Barton Spring

Hays County Water Quality Protection Lands
Impacts of Riparian Health on Salamanders

  - Takeaway 1: “Protect riparian and critical upland habitat with native vegetation to protect streams.”
  - Takeaway 2: “Revegetate and restore riparian and terrestrial environments around streams.”

  - Takeaway: The more trees present, the more likely we will close canopy gaps and help facilitate salamander movement
§ 25-8-515 - NO EXEMPTIONS, SPECIAL EXCEPTIONS, WAIVERS OR VARIANCES.

- The requirements of this article are not subject to the exemptions, special exceptions, waivers, or variances allowed by Article 1 (General Provisions). Adjustments to the application of this article to a specific project may be granted only as set out in Section 25-8-518 (Limited Adjustment To Resolve Possible Conflicts With Other Laws) below.
25-8-514: Limits impervious cover in Barton Springs Zone, no increase in pollutant loadings

- The “site” exceeds allowable impervious cover
- Modification of the “site” requires the full “site” to be brought into compliance with current code
  - Outside the scope of the daylighting project

Project results in equal or better water quality:
  - Project does not increase pollutant loadings, does increase salamander habitat and improves existing floodplain function
**25-8-281**: Construction within buffer zone of a critical environmental feature prohibited

Project does not impair function of the Critical Environmental Feature

- Spring water diverted around construction
- No materials can enter water
- Salamander biologists inspect area to move salamanders prior to dewatering
- Salamander biologists present for all work in habitat
- Compliant with Habitat Conservation Plan requirements
25-8-341: Cut may not exceed four feet of depth

Project results in equal or better water quality:
- Erosion controls during construction
- Salamander biologist oversight throughout project
- Area to be stabilized after construction
- Area revegetated consistent with Watershed Protection Ordinance
- Improving floodplain function over existing conditions
- Suspended solids removal from water prior to discharge
Grading Overview
Contact:

Donelle Robinson
Donelle.Robinson@austintexas.gov
512-974-1242

austintexas.gov/department/eliza-spring-daylighting