



Hornsby Bend Public Stakeholders Meeting October 11, 2022

Figure 1. Hornsby Bend Biosolids Management Plan overview of the 8 management areas.



1. Overview of the Hornsby Bend Plant and the CER
2. Background on the Tree Management Project
3. Progress of the Tree Management Project from 2016 – Present
4. Current Construction Projects at the Ponds - Review and Progress
5. Upcoming Construction Projects at Hornsby Bend



Hornsby Bend Biosolids Management Plant

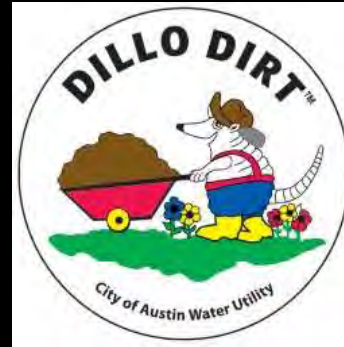
and

The Center for Environmental Research



Austin Water Hornsby Bend Biosolids Management Plant

Microbe “Farming” for Recycling - Working with Ecosystem Cycles

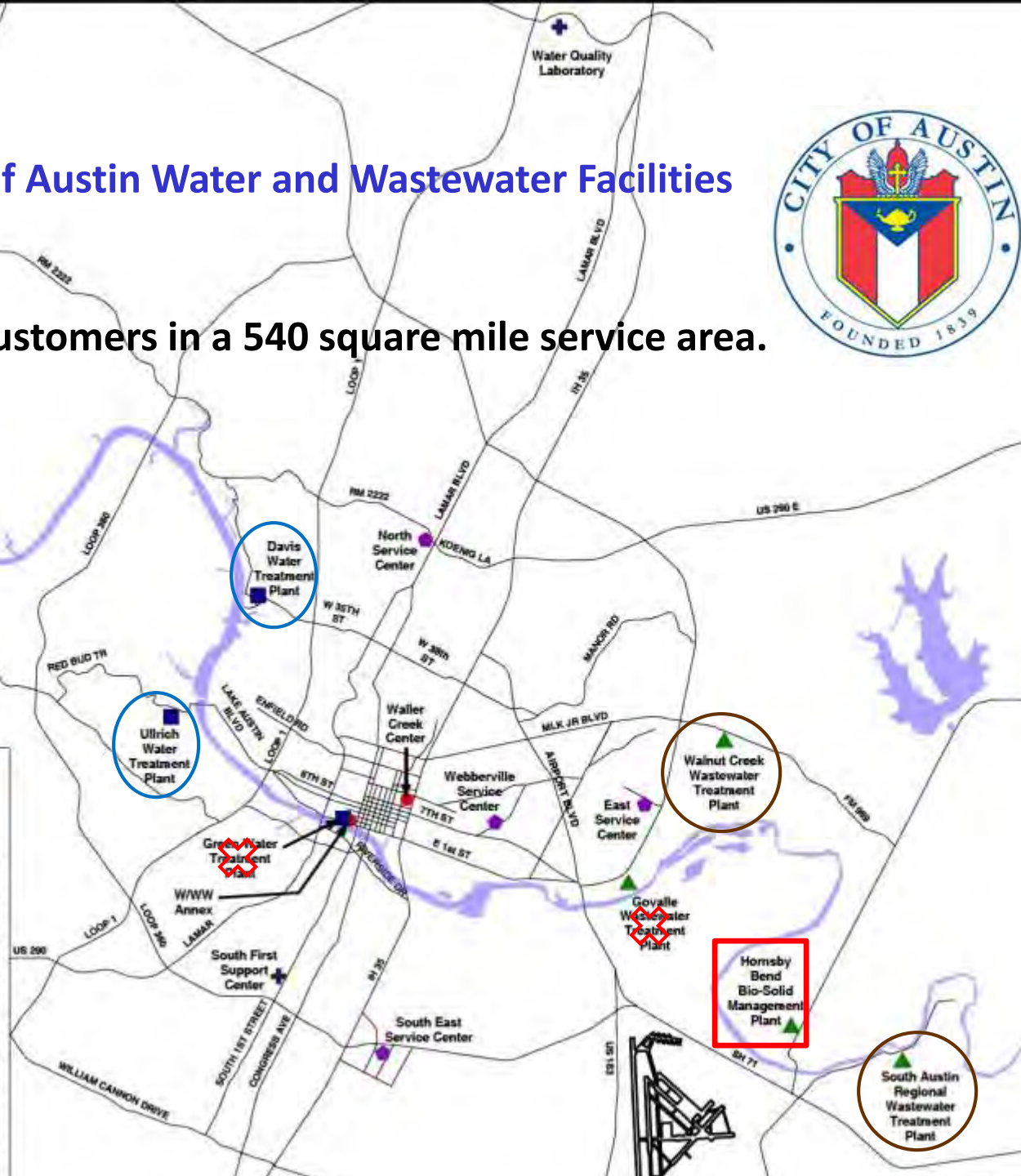


City of Austin Water and Wastewater Facilities



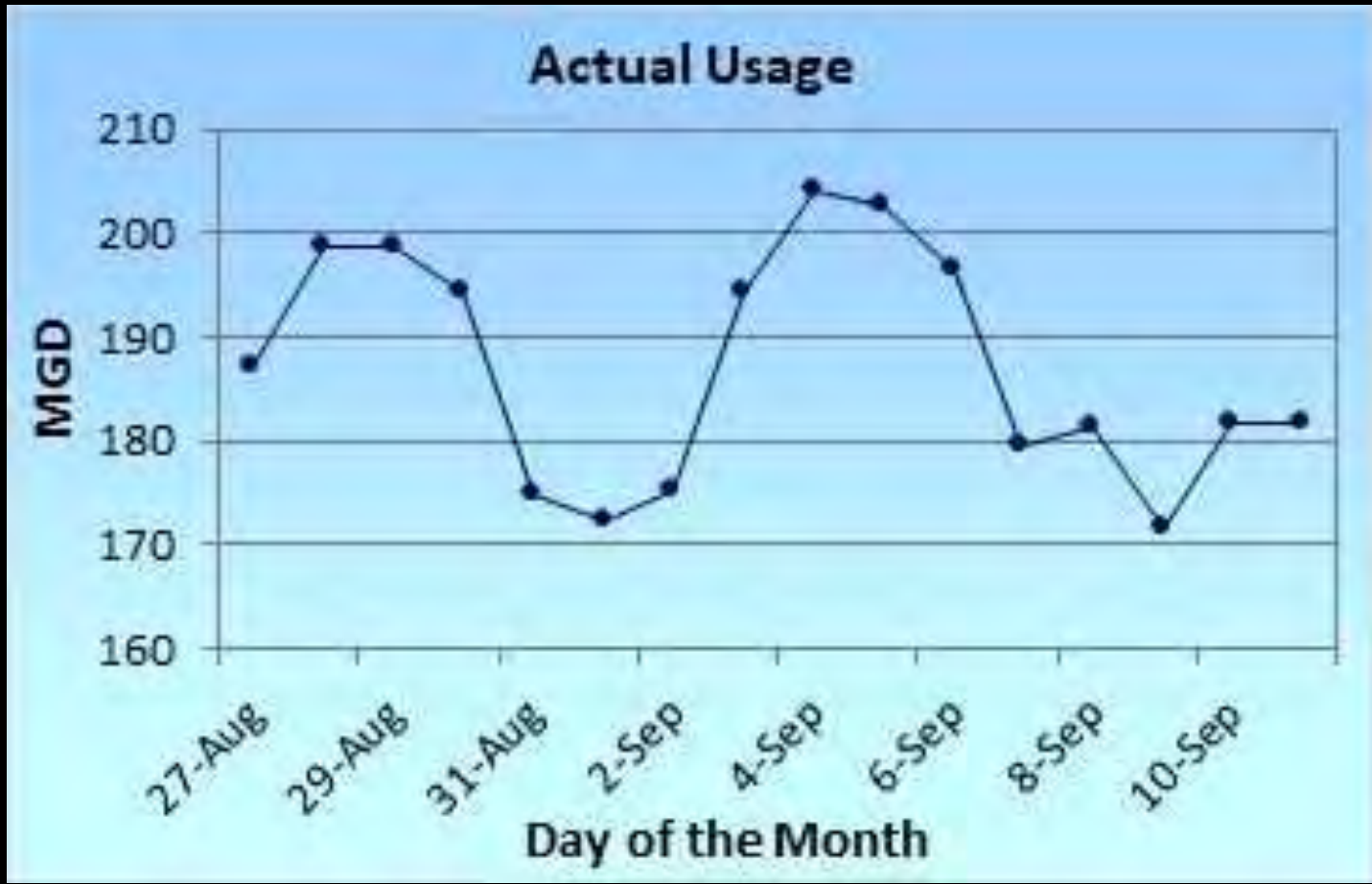
Handcox
WTP

Over 1 million customers in a 540 square mile service area.



Center for Environmental Research	2210 S. FM 973	972-1960
Davis Water Treatment Plant & Laboratory	3500 W. 35th Street	972-1700
East Service Center		972-1776
Govalle Wastewater Treatment Plant & Laboratory	6101 Harold Court	972-0700
	911 Linger Lane	385-9181
		385-7482
Green Water Treatment Plant	600 W. Cesar Chavez St.	972-1500
Hornsby Bend Bio-solid Management Plant		
North Service Center	2210 S. FM 973	972-1950
Records & Computer Mapping	801 West Koenig Lane	972-0850
South Austin Regional WW Treatment Plant	625 East 10th Street	972-1570
South East Service Center	13009 Fallwell Lane	972-0600
South First Support Center	3907 South Industrial Dr.	972-1110
Ulrich Water Treatment Plant	3616 South 1st Street	972-0501
Waller Creek Center	1000 Forest View Drive	972-1800
Walnut Creek WW Treatment Plant & Laboratory	625 East 10th Street	972-0101
	7113 East MLK Blvd.	972-1400
		972-1415
Water Quality Laboratory	14050 Summit Dr., #121	972-1450
Webberville Service Center	2600 Webberville Road	703-6600
Wildland Conservation District	8835 RR 630 South	269-6452

Austin's Water Production 170 - 210 MGD



Austin Wastewater System





Austin's Sewage Solids/Sludge – 1.5 MGD

Austin's Wastewater Production + 100 MGD

99.5% water

Walnut Creek Wastewater Treatment Plant



Hornsby Bend Biosolids Management Plant



South Austin Regional Wastewater Treatment Plant



1950



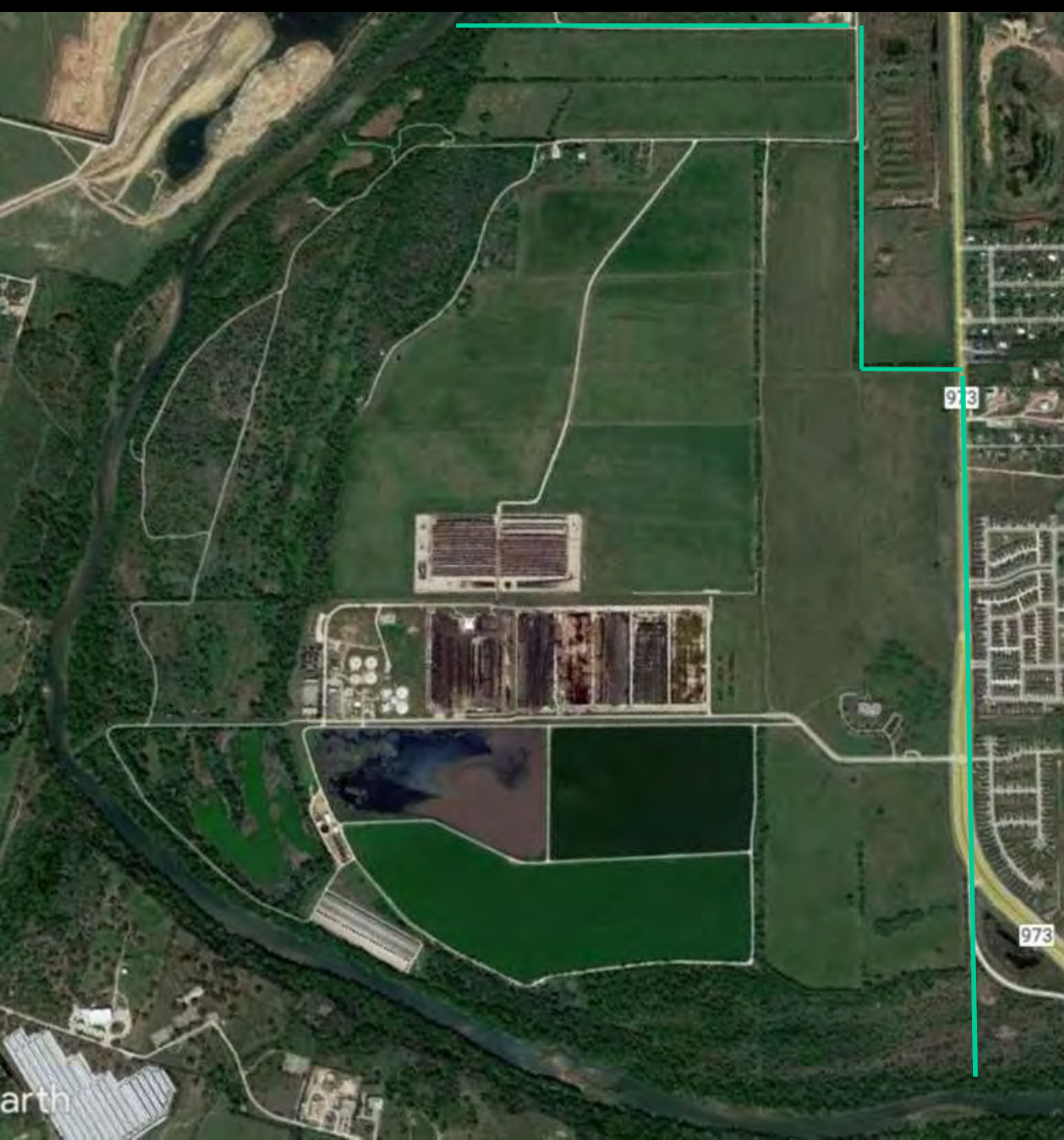
1964



1970



1985



Austin Water Hornsby Bend Biosolids Management Plant

1200 acres
3.5 miles of River
1.5 MGD



arth

Water - Treatment Ponds 185 acres

- Water moves by gravity
- Pond Ecosystem treats water
- All water recycled – no discharge to the river
- Water used to irrigate hay fields onsite



Solids – Anaerobic Digesters



- Habitat for anaerobic bacteria
- Heated to body temperature
- 95% pathogen reduction = Class B
- Approximately 25 days
- Treated sludge = biosolids
- By-product Biogases = **Brown Energy**
- CHP system – Combined Heat and Power 875 KW



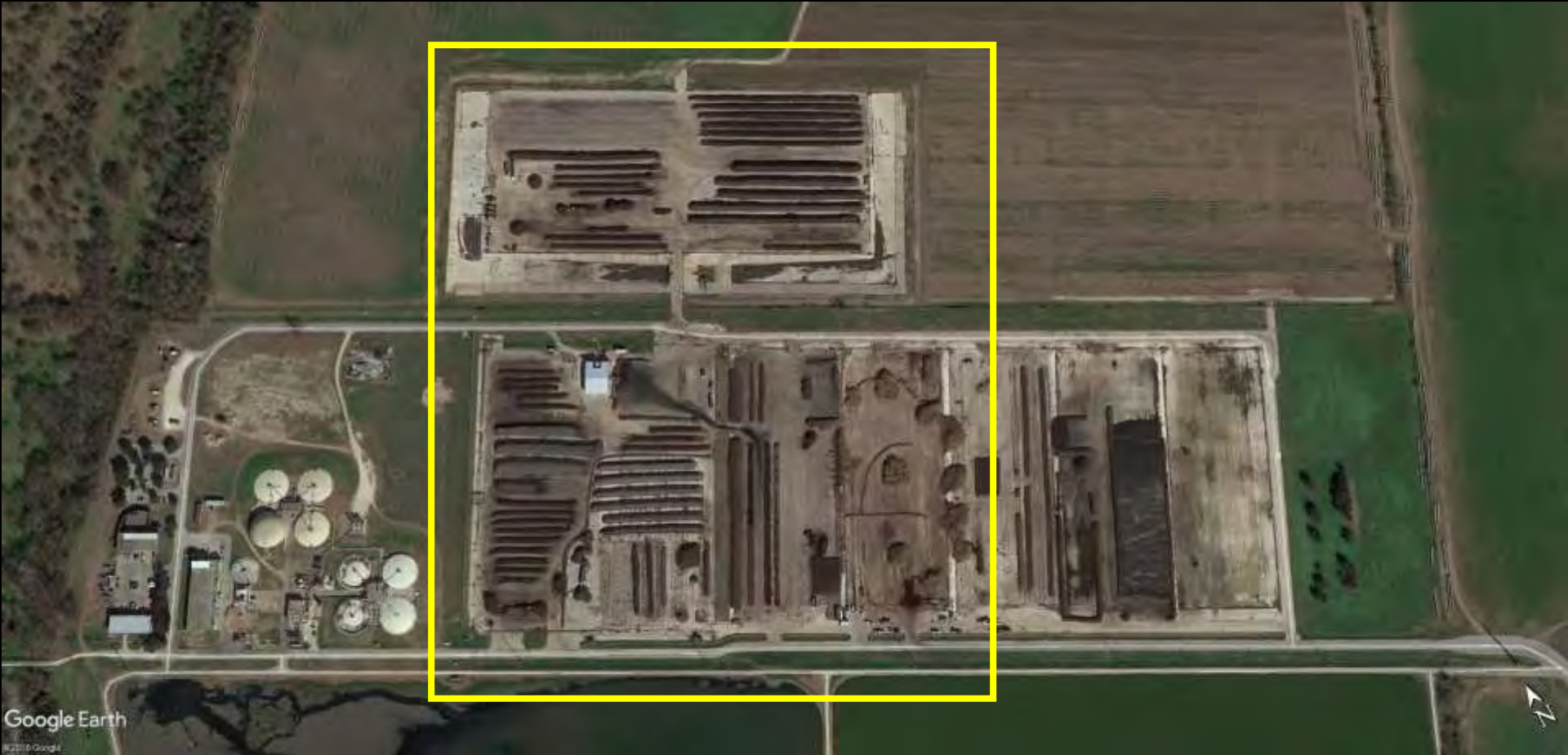


**Austin's Daily
Biosolids
Production**
50+ Dry Tons/Day



Belt Press
**Final Thickening
Before Recycling**





Biosolids and Yard Trimmings Recycling - Composting



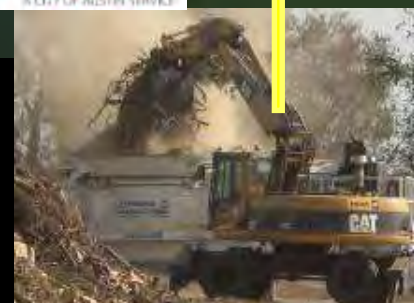
Composting

Biosolids

Yard Trimmings

~12% of Solid Waste

1987



Public Brush Dropoff

Monday - Saturday



CITY OF AUSTIN
HORNSBY BEND

CENTER FOR
ENVIRONMENTAL RESEARCH

WASTEWATER TREATMENT
FACILITY



Built in 1988



Center for Environmental Research at Hornsby Bend



Mission – A Partnership for Urban Ecology and Sustainability

- Community
- Education
- Research



Partners

- Austin Water
- The University of Texas
- Texas A&M University

Programs and Research Areas

- The Hornsby Bend Bird Observatory Program
- The Austin-Bastrop River Corridor Partnership
- The Lunchtime Lecture Series
- Urban Ecology
- Avian Ecology
- Hydrogeology
- Riparian Ecology



Research – Urban Ecology



Center for Environmental Research at Hornsby Bend



Urban Waste Recycling
Sustainable Agriculture

Avian Ecology

Hydrogeology

Riparian Ecology
Bottomland Biodiversity
Restoration and Management



HBBO Hornsby Bend Bird Observatory

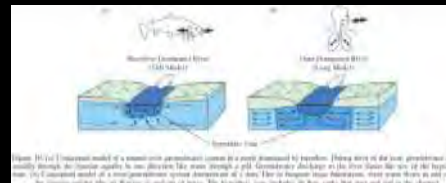
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The Hornsby Bend Bird Observatory is located near Austin, Texas at the scenic river valley of Hornsby Bend. It is a unique natural area, and the only place in the Austin area where you can see the Hornsby Bend. Hornsby Bend is a unique natural area, and the only place in the Austin area where you can see the Hornsby Bend. Hornsby Bend is a unique natural area, and the only place in the Austin area where you can see the Hornsby Bend.

HBBO Activities:
 - Bird Banding
 - Field Research
 - Education
 - Conservation
 - Restoration
 - Management
 - Research
 - Interpretation
 - Outreach
 - Fundraising
 - Volunteer
 - Support

HBBO Address:
 10000 N. Loop West, Suite 1000
 Austin, TX 78753
 Phone: 512-452-1234
 Email: info@hbbo.org

HBBO Website:
 www.hbbo.org

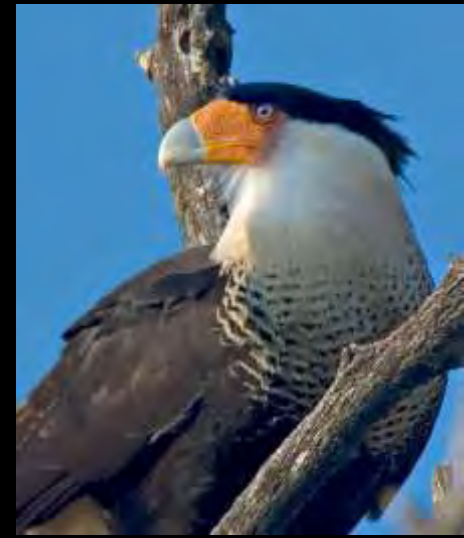


Research - Avian Ecology

Center for
Environmental
Research at Hornsby Bend



Hornsby Bend Bird Observatory Program



Citizen Science and Education



- Monthly Bird Survey
- Monthly Birding Fieldtrip
- Nesting Bird Monitoring
- Workshops and Classes



HBBO Website – www.hornsbybend.org



50 YEARS OF BIRDING

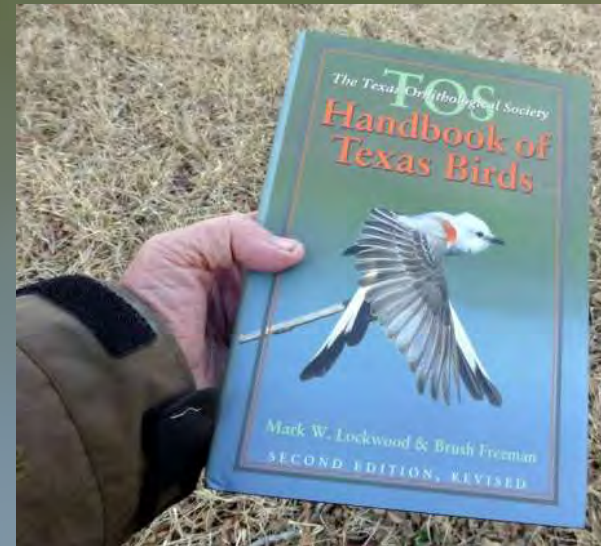


VERONICA CRISP ©2009

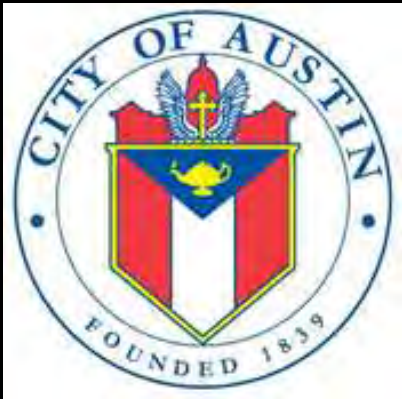
AUSTIN TEXAS
Hornsby Bend
1959 2009

Community





Greg Lasley, Photographer



Center for  Environmental Research at Hornsby Bend

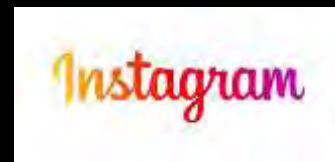


Center for Environmental Research at Hornsby Bend



CER Monthly Activities at Hornsby Bend

Join us – free events – all are invited!



1st Saturday of Every Month – ABRC Partnership River Monitoring Trip

All day – only experienced paddlers [meet at CER 8am] MUST Provide your own boat

2nd Saturday of Every Month – HBBO Bird Survey

7am-11am and 4pm-dark [meet at CER parking lot] For experienced birders

3rd Saturday of Every Month – Travis Audubon Society/HBBO Birding Field Trip

7:30am-11am [meet at CER parking lot] Great for beginning birders and FREE!

Last Saturday of Every Month – Ecological Literacy Day

9am-1pm [meet at CER] Dress for outdoor work and bring food to share for lunch

3 times Every Month – Lunchtime Lecture Series

Free monthly public lecture NOON to 1pm at 3 different locations

Hornsby Bend is open

7 Days a week

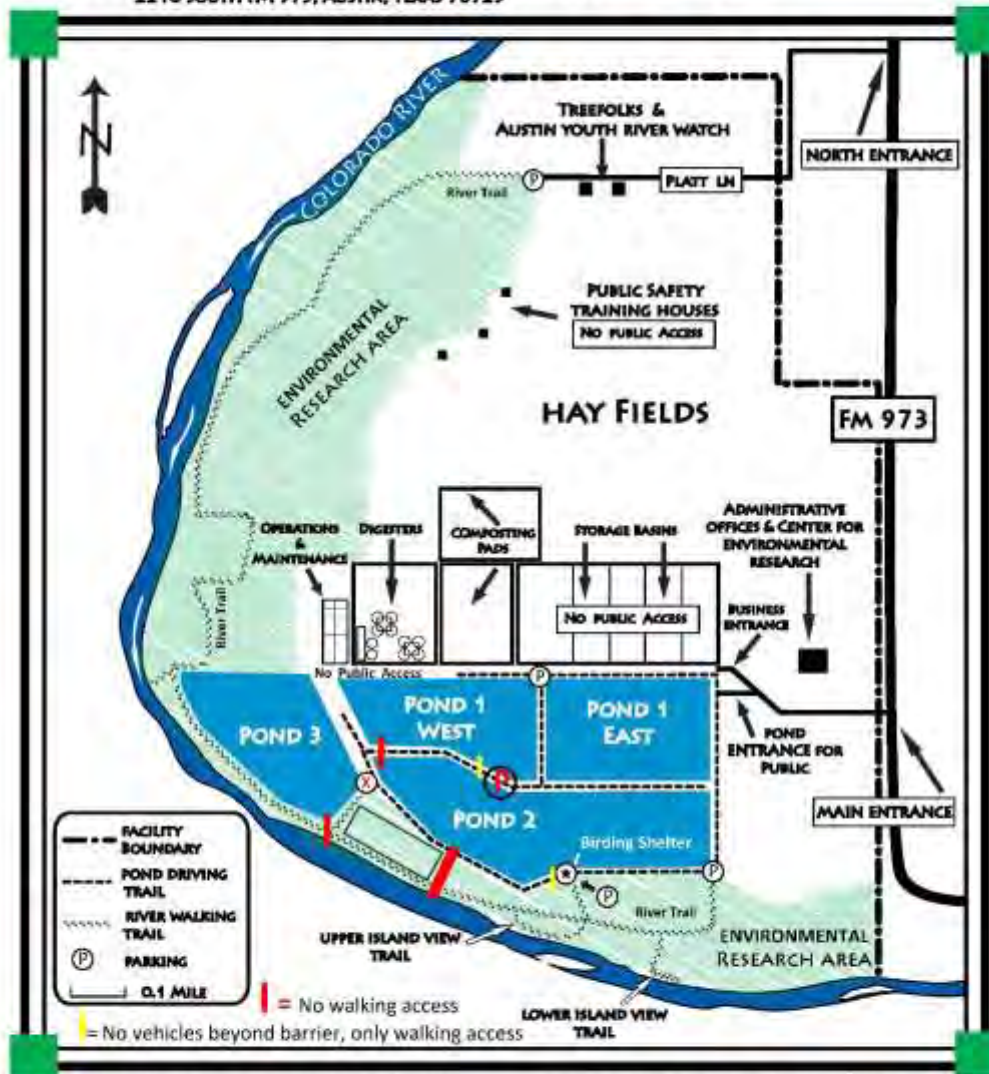
Dawn to Dark



HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT



FACILITY OPEN TO THE PUBLIC DAWN TO DARK EVERY DAY OF THE WEEK
2210 SOUTH FM 973, AUSTIN, TEXAS 78725



For more information contact the Austin Water-CER 512-972-1960

Dillo Dirt and Hornsby Bend Plant - www.austintexas.gov/water
Center for Environmental Research (CER) - www.austintexas.gov/cer
CER Hornsby Bend Bird Observatory program - www.hornsbybend.org

PUBLIC RESTROOMS IN THE CENTER FOR ENVIRONMENTAL RESEARCH

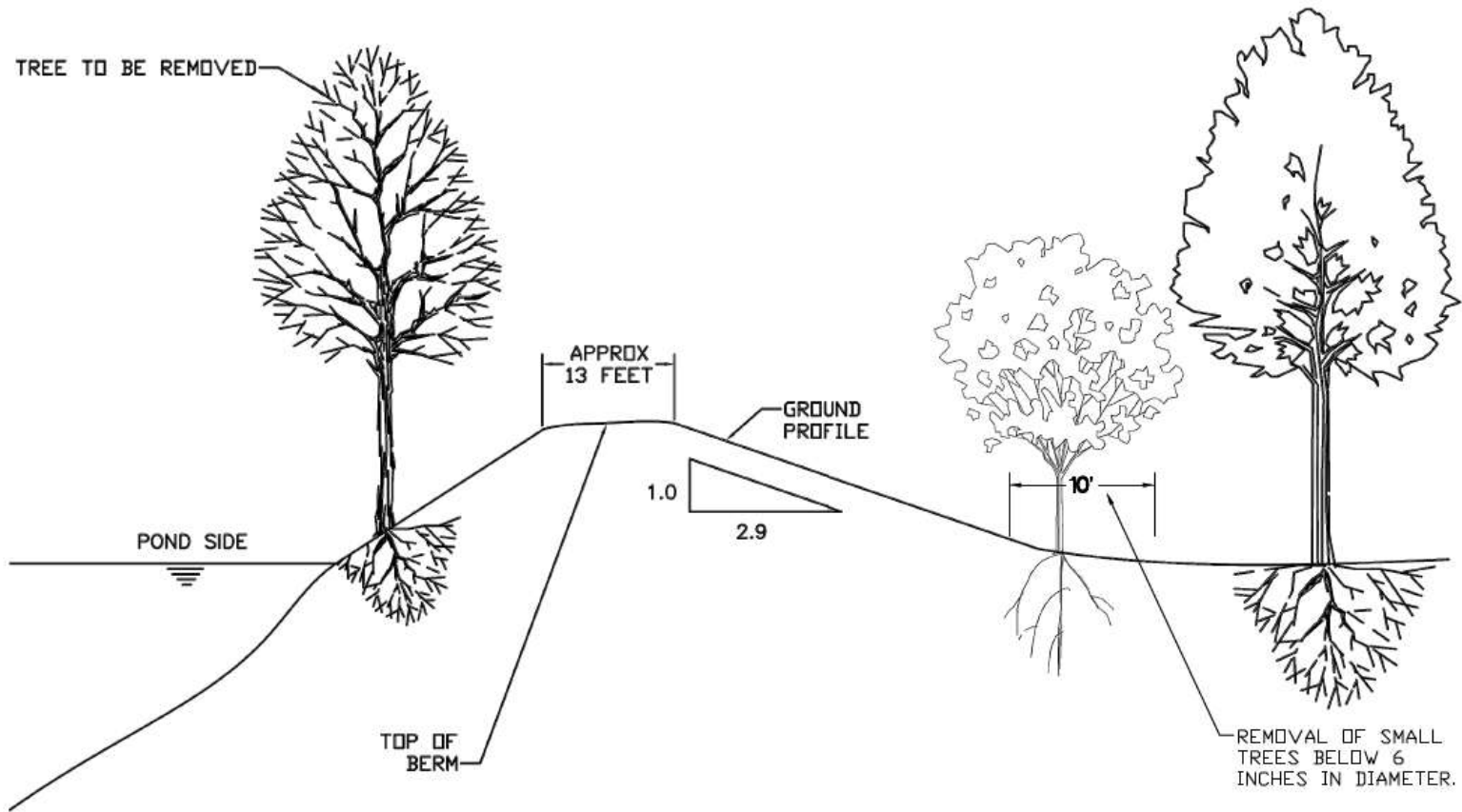
CER on Facebook - <https://www.facebook.com/austinwatercer>
CER on Instagram - <https://www.instagram.com/austinwatercer/>
Hornsby Bend on Facebook - <https://www.facebook.com/hornsbybend>

Background on the Tree Management Project



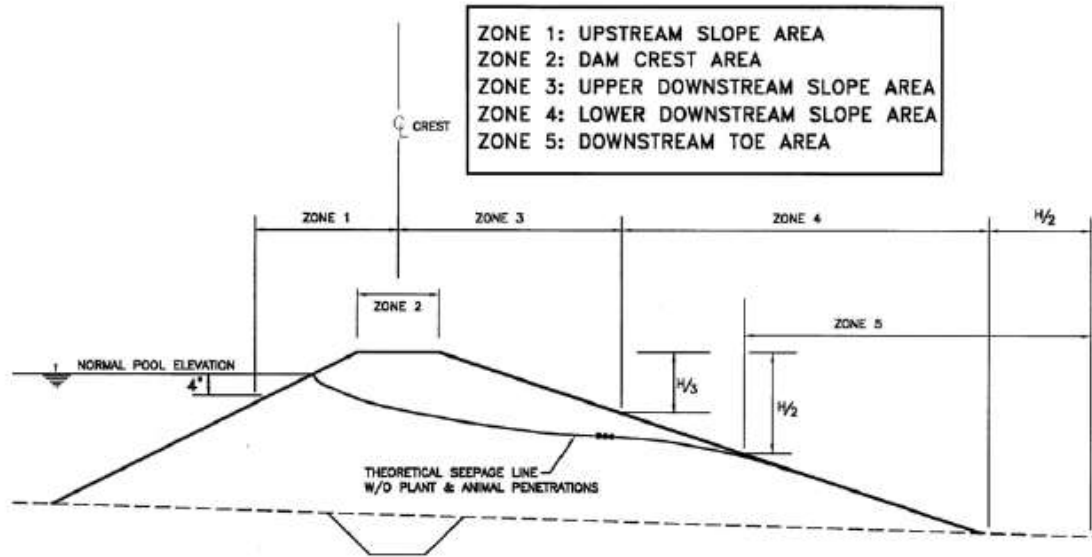


Reasons for Tree Removal



Hornsby Bend Biosolids Management Plant
Typical Berm Cross Section

1. Thin trees 6-inch trunk diameter or less
2. Remove damaged or diseased trees and rebuild embankment
3. Mow embankments and over time remove all trees
4. All work between September 15 to March 15 – Bird Nesting Season



REMEDIAL DAM REPAIR ZONES

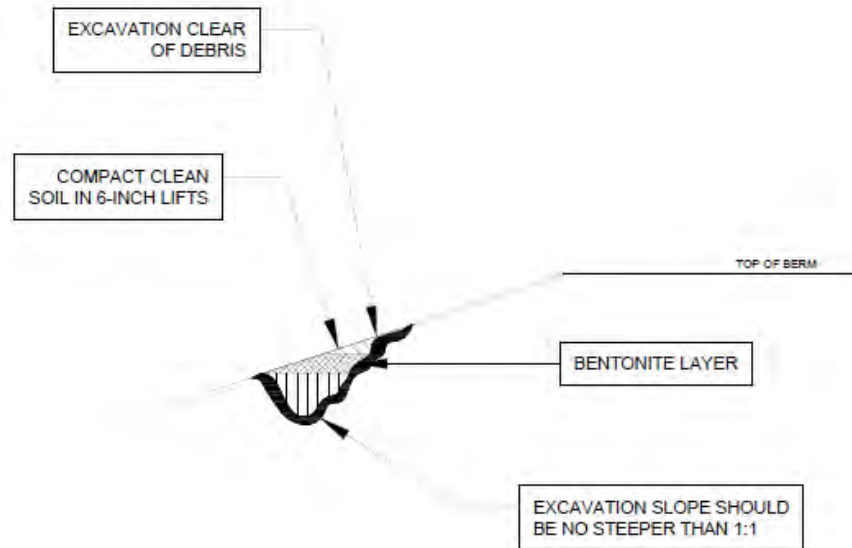


Figure 1. Hornsby Bend Biosolids Management Plan overview of the 8 management areas.



Progress of the Tree Management Project from 2016 – Present



Figure 1. Hornsby Bend Biosolids Management Plan overview of the 8 management areas.



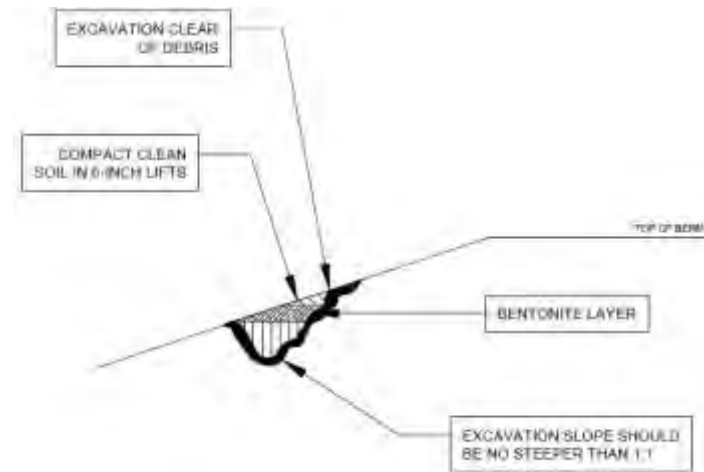


2016-17
Area 4
Before and During Work





Area 4 Stump Removal





2016 Pond 2 Area 1
Before Work





2016-17 Area 1 During Work





2016-17
Area 1
After
Clearing



2016-17 Area 5 - Pond 1 East
Riprap and repaving
Bank Stabilization for eastern bank



2016-17 Area 5 Pond 1 East - Bank Stabilization with riprap

BEFORE



AFTER





2017-18
Storm Damage
Presidents Day February 2017
and Hurricane Harvey August 2017

Figure 1. Hornsby Bend Biosolids Management Plan overview of the 8 management areas.



2017-18
Work Areas

Clear Storm Damage Area 1 and Elsewhere
Thin Small Trees in Area 2



Area 2 August 2017 Before Clearing



Area 2 February 2018 During Clearing





2018-19
Area 3 and 4
Fall and Winter Work
Cutting new young trees



Area 1 and 2
2018-19 Fall and Winter Work
Removed damaged trees

2019-20 Area 5

Mowing and Small Tree Cutting



North Area 5 – Pond 1 East



South Area 5 - Pond 2



**Pond 2
BEFORE**



**Pond 2
AFTER**

2020-21

COVID

2021-22
Mowing and
Small Tree
Cutting
Removal of
Damaged
And
Dying
Trees
Areas 1-5





2022-23
Mowing and Small Tree Cutting
Areas 1-5



Current Construction Projects at the Ponds - Review and Progress





Public Access Restrictions and Construction Projects

Construction Projects at Ponds

- Sidestream Plant Rebuild
- New Transfer/Irrigation Pump Station
- SAR Transfer Water Pipeline

Side Stream Plant Project – Finished





Side Stream Plant Rebuild
Began March 11 2019



Side Stream Plant

Chimney Swift Roost Structure will be preserved



New Side Stream Plant October 2022
Chimney Swift Roost Structure preserved



Side Stream Plant Rebuild 2019-2022



Building Austin!

**HORNSBY BEND TRANSFER PUMP STATION
AND IRRIGATION SYSTEM**

PROJECT ID: 3164.070

call 727.279.0475

Replace Old Irrigation Pump Station with New Transfer Pump Station

Demolition of Old Greenhouse Building



Demolition of Old Greenhouse Building



Demolition of Old Greenhouse Building



Demolition of Old Greenhouse Building



Demolition of Old Greenhouse Building



Revegetation and Reopening of
River Trail for Public Access



New Transfer Pump Station Location





New Center Pivot Irrigators for Hay Fields



Upcoming Construction Projects at Hornsby Bend





Applause!

Questions?



Questions?



