

MYSTIC SPRINGS MITIGATION SITE

2020 Annual Monitoring Report

USACE Permit No.: SAJ-2015-03537 (SP-MAO), issued 6/30/2016

Permittee: Florida Department of Transportation, District 3
C/o Colby Cleveland
1074 Highway 90
Chipley, FL 32428

Responsible Party for Monitoring: Northwest Florida Water Management District
81 Water Management Drive
Havana, FL 32333

Dates of Inspection: 9/29/2020

Synopsis:

Unfortunately, the 9/29/2020 inspection revealed survivorship and density of planted trees to be below the required performance standard of 400 trees per acre. Mortality was greatest among red maple, river birch, and Carolina ash, whereas planted bald cypress generally fared much better. Stress from extended flooding in 2019 during sapling stages likely accounts for the greater than expected mortality of planted trees. Supplemental plantings will occur in spring, 2021 to bring tree densities back to within permit conditions (exact mix of supplemental plantings of red maple, river birch, Carolina ash, and bald cypress to be determined in spring, 2021). Percent coverage of exotic and invasive species is within permit conditions.

Background:

The purpose of this project (Mystic Springs Mitigation Site) is to provide offsetting mitigation for 1.88 acres of impact (1.21 acres direct/permanent; 0.67 acres secondary) to freshwater palustrine wetlands (0.82 UMAM functional loss) associated with FDOT replacement and realignment of the CR 99 Pine Barren Creek Bridge in Escambia County, Florida. As required by Special Condition No. 8 of the USACE permit, mitigation has been implemented at the Mystic Springs site on NFWFMD lands along the Escambia River floodplain via planting forested wetland species on approximately 5.52 acres.

Mystic Springs Mitigation Site (30.8563° North, 87.3129° West), a sand pit excavated in the 1940s or early 1950s, is located adjacent to the public boat ramp (Mystic Springs Road) on the Escambia River approximately one mile east of US 29 and 1.5 miles southeast of McDavid, Florida. Foot access is possible at any time without prior notice.

In accordance with the restoration plan, 2,396 trees (447 red maple, 447 river birch, 224 Carolina ash, 1,278 bald cypress; each tree 4-5' tall) were planted at the mitigation area from April 25 – 28, 2017. Trees were planted in the plantable areas on 8' centers at a rate of 681 trees per acre.

Performance Standards:

- 400 hydrophytic trees per acre in a healthy and thriving condition.
- Nuisance vegetation $\leq 5\%$ cover per acre.
- Exotic vegetation $\leq 1\%$ cover per acre.

Monitoring Requirements:

- Inspection and photo-documentation of site.
- Frequency
 - “Time-Zero” monitoring (Spring, 2017).
 - Semi-annual monitoring (Fall, 2017; Spring and Fall, 2018).
 - Annual monitoring (Fall, 2019 – 2021).
- “Time-Zero” monitoring report to be submitted within 60 days of implementation of mitigation.
- Annual reports submitted to the USACE for duration of monitoring (2017 – 2021; semi-annual reports are to be combined into one annual report for submission).

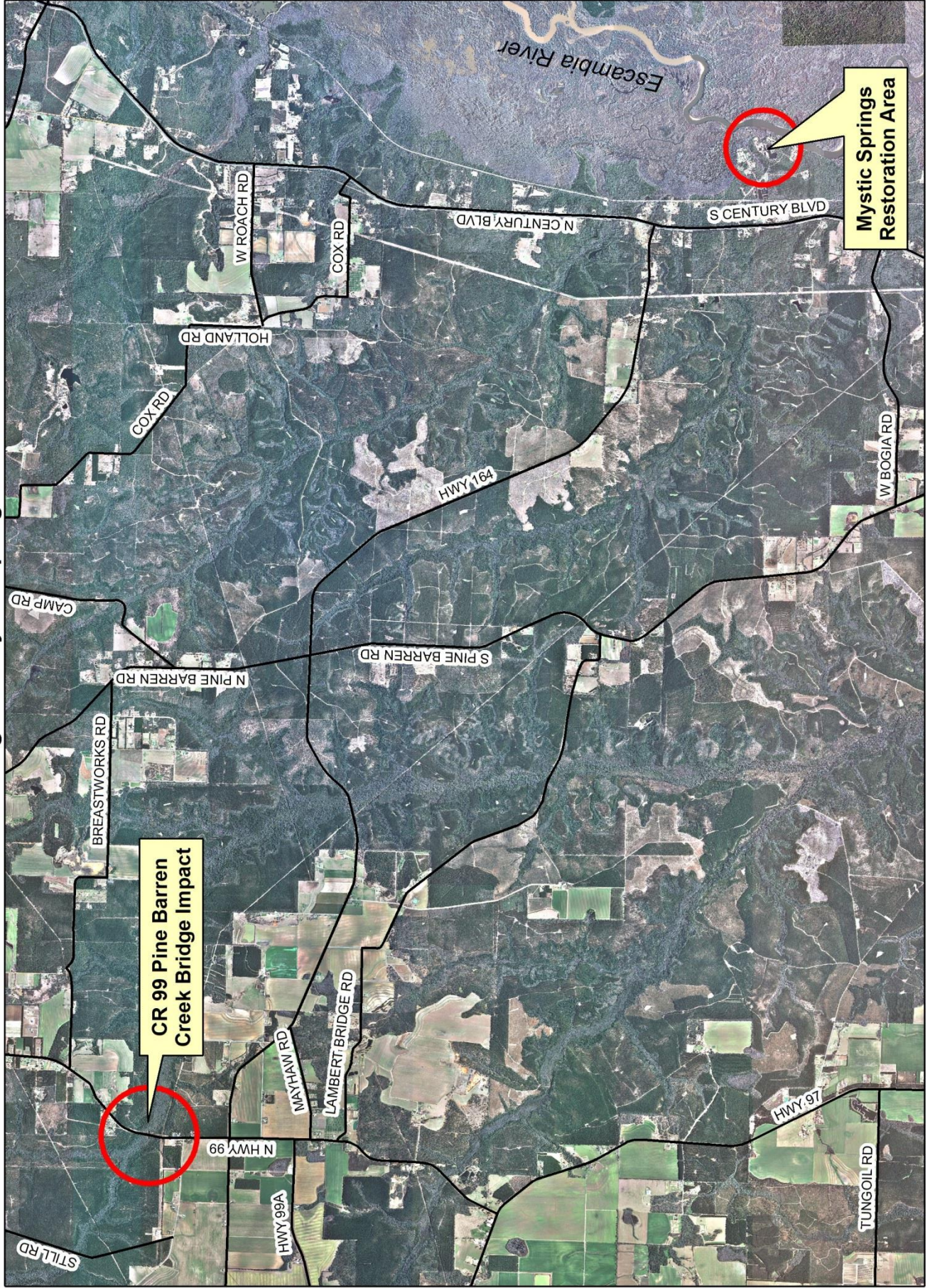
Conclusions:

The site inspection of 9/29/2020 revealed greater than expected mortality of planted trees. Whereas tree densities in past inspections exceeded permit requirements, supplemental plantings (anticipated for spring, 2021) will be necessary to bring densities back into compliance with permit conditions. Because supplemental plantings will be required, monitoring will be extended beyond 2021. Exotic and invasive vegetation coverage is within permit conditions.

All monitoring reports will be electronically submitted to the USACE and posted at:

<https://www.nfwwater.com/Water-Resources/Regional-Wetland-Mitigation-Program/Umbrella-Plan/NFWFMD-Mitigation-Sites/Pensacola-Watershed-Mitigation-Sites/Mystic-Springs/Monitoring-Reports>.

CR 99 Pine Barren Creek Bridge and Mystic Springs Restoration Area - 2013 DOQ



Mystic Springs Restoration Area - 2013 DOQ



0 250 500 Feet





Mystic Springs (9/29/2020)



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