



CITY OF SAN ANTONIO

DEVELOPMENT SERVICES DEPARTMENT

1901 S. Alamo, San Antonio, TX 78204

ADMINISTRATIVE EXCEPTION/VARIANCE REQUEST APPLICATION

Project Name:	Water Resources Integration Program (WRIP) Phase 2 Project - WRIP PS Improvements, Segment 2C, and Segment 3
A/P # /PPR # /Plat #	2400168
Date:	June 18, 2020
Code Issue:	Removal of Tree Canopy and Heritage Trees within Environmental Sensitive Areas
Code Sections:	Article V - Division 5 - Section 35-523.H

Submitted By:	<input checked="" type="checkbox"/> Owner	<input type="checkbox"/> Owners Agent * (Requires notarized Letter of Agent)
Owners Name:	Nathan Virdell	
Company:	San Antonio Water System	
Address:	2800 US Highway 281 North	Zip Code: 78212
Tel #: 210-233-3135	Fax#	E-Mail: nathan.virdell@saws.org
Consultant:	Robert Jenkins	
Company:	Freese and Nichols, Inc.	
Address:	9601 McAllister Freeway, Suite 1008	Zip Code: 78216
Tel #: 210-298-3800	Fax#	E-Mail: rob.jenkins@freese.com
Signature:		

Additional Information – Subdivision Plat Variances & Time Extensions

- ☐ Time Extension ☐ Sidewalk ☐ Floodplain Permit ☐ Completeness Appeal
☒ Other _____
- City Council District _____ Ferguson Map Grid _____ Zoning District _____
- San Antonio City Limits ☒ Yes ☐ No
- Edwards Aquifer Recharge Zone? ☐ Yes ☒ No
- Previous/existing landfill? ☐ Yes ☒ No
- Parkland Greenbelts or open space? Floodplain? ☒ Yes ☐ No



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June 30, 2020

Variance Request Review
City of San Antonio
Development Services Department
1901 S. Alamo
San Antonio, TX 78204

Re: Water Resources Integration Program (WRIP) Phase 2 Projects: WRIP Pump Station Improvements, Segment 2C Pipeline, and Segment 3 Pipeline
UDC Code Section: Section 35-523

- ☐ Administrative Exception
- ☒ Environmental Variance
- ☐ Subdivision Platting Variance – Time Extension

Dear Development Services,

Please consider this letter a formal request for a variance from the requirements within the **City of San Antonio (CoSA) Unified Development Code (UDC) section 35-523(H) 100 Year Floodplain(s) and Environmentally Sensitive Areas** to mitigate for below the minimum preservation requirements on behalf of the San Antonio Water System (SAWS) for the WRIP Phase 2 Projects located in San Antonio, TX. SAWS has made considerable effort to comply with the ordinance, however meeting every preservation percentage in the ordinance will not be possible given the project's location and circumstances. As has been discussed with Mr. Charles Johnson, a CoSA representative in the Development Services Department, this letter is to specifically request a variance from having to meet the preservation percentages for the project areas within the 100-Year Floodplain(s) and Environmentally Sensitive Areas while maintaining the current preservation plans provided for the WRIP Phase 2 Projects.

SAWS is proposing the construction of three separate projects to deliver water from the SAWS Aquifer Storage and Recovery Facility (ASR), Local Carrizo, Expanded Carrizo and Brackish Desalination projects to new and existing facilities in western and northwestern Bexar County. The proposed projects are the WRIP Phase 2 Pump Station Improvements, the Segment 2C pipeline, and the Segment 3 pipeline. WRIP Phase 2 Pump Station Improvements consists of civil improvements to two existing pump stations, the Old Pearsall Road Pump Station and Anderson Pump Station, located at **6841 Old Pearsall Road, San Antonio TX 78252** and **5023 W. FM 1604 N., San Antonio TX 78253**, respectively. The Segment 2C and Segment 3 pipelines consist of a 48-inch water transmission line, constructed within 80-foot easements owned by SAWS, paralleling Loop 1604 on the western side of San Antonio. These pipelines hydraulically connect the Old Pearsall Road Pump Station to the Anderson Pump Station. The total project area is an estimated 266.6 acres.

On February 12, 2018 SAWS and WRIP Phase 2 design engineers, Civil Engineering Consultants and Tetra Tech, Inc., met with Charles Johnson and Mark Bird, CoSA City Arborist, to discuss the overall Tree Preservation Plan for the proposed projects. During the meeting, it was agreed that one Tree Preservation

Plan would be submitted for all Phase 2 Projects under the 2010 Tree Preservation Ordinance. Minutes for this meeting are attached for your reference.

SAWS must respond to rate payers and justify costs associated with construction and improvements to water and wastewater infrastructures. SAWS has worked diligently to keep this responsibility in mind while maintaining their efforts of meeting the UDC preservation requirements. This was done by working closely with design engineers to strategically locate borings in critical areas to preserve as many Heritage trees as possible.

These specific design measures were utilized to maximize tree preservation and environmental stewardship:

- SAWS will be boring approximately 778 linear feet to maximize tree preservation.
- SAWS elected to preserve 25% of the SAWS pipeline easements, therefore 20 feet of the 80 feet easements will be preserved.
- Cultural and archaeological resources and hazardous waste sites were also investigated and considered while establishing the alignment.
- Within Environmentally Sensitive and Floodplain Areas, SAWS will remove a total of 442 diameter inches of Heritage trees from a total of 1,504 diameter inches. A total of 1,058 diameter inches will be preserved for a total percentage of 71% preservation of Heritage Trees within Environmentally Sensitive and Floodplain Areas.
- SAWS will also utilize a native seed mix with drill seeding in all areas of excavation, as specified in the CoSA Items 516 Sodding or 520 Hydromulching Specifications.
- In addition to the native seeding placement, a minimum 85% establishment rate will be required for all Projects.
- SAWS will also preserve 8.7 acres of non-heritage tree canopy within the Temporary Construction Preservation Area.
- SAWS will revegetate approximately 118 acres.

In keeping with the spirit and intent of the preservation ordinance, SAWS has made a diligent effort with WRIP Phase 2 design engineers, Freese and Nichols, Inc., Tetra Tech, and Civil Engineering Consultants, to comply with the minimum preservation requirements for the 2010 Tree Preservation Ordinance within the 80-foot easement, as indicated on the WRIP Phase 2 Tree Preservation Plan. Although SAWS will have the right for ingress and egress to access the easements for operations and maintenance requirements, the hardships for complying totally with the minimum preservation requirements are:

- Property owners will be allowed to build or farm over the easement area as long as a permanent structure is not constructed over the easement. Without knowing the future plans for each of the easements, acquiring additional easement for tree preservation purposes poses a hardship to each property owner in developing their property in the future; and
- The WRIP Phase 2 Projects are unique to other public utility construction projects due to the pipe size, project length, and depths, which limits the amount of easement area to preserve trees. In addition to the large amount of space necessary for excavation, a significant amount of space is also needed for construction staging and mobility. It is also key to deliver water to our customers on a fast growing southwestern, western and northwestern Bexar County; and
- Planting of new trees within the easement area is impractical because trees cannot be placed in a location that will interfere with pipeline future operations and maintenance, and because the properties are rural with no access to irrigation for establishment and maintenance purposes. In addition, there is presently no obligation for landowners to preserve planted trees after construction.

The following tree table summarizes the preservation efforts of SAWS.

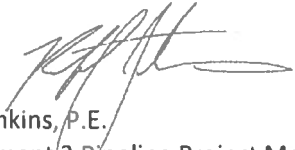
Table 1: Tree Preservation Summary

	Shade Value	Total Canopy Area (acre) / (Dia In)	% Required to be Preserved Excluding Heritage Trees	Percent Preserved	Area Required to be Mitigated (acre) / (Dia In)	Area to be Mitigated (3 Times for Heritage)	Diameter to be Mitigated / Preserved
Floodplain Canopy							
Heritage Tree	N/A	1222.0	100.0%	70.0%	366.6	1099.8	1099.8
Non-Heritage Tree	875.0	18.8	80.0%	36.6%	8.2	8.2	6801.0
Environmentally Sensitive Canopy							
Heritage Tree	N/A	282.0	100.0%	72.0%	79.0	237.0	237.0
Non-Heritage Tree	875.0	3.5	80.0%	25.7%	1.9	1.9	1567.3
Temporary Construction Preservation Area							
Non-Heritage Tree	875.0	8.7	0.0%	100.0%	0.0	0.0	7196.8
Total Mitigation Required (Dia In) =							2508.3

Mitigation is proposed to be met by reclaiming 118 acres of disturbed area with drill seeding native seed mix and 85% establishment and paying \$501,660 into the Tree Mitigation Fund.

In our professional opinion, the proposed variance request remains in harmony with the spirit and intent of the UDC as it will not adversely affect the health, safety, or welfare of the public. We have included the proposed Tree Preservation Plan for all WRIP Phase 2 Projects and supporting documentation for your review and consideration. We are requesting your approval of this variance request.

Sincerely,



Robert Jenkins, P.E.
WRIP Segment 3 Pipeline Project Manager

cc: Vicente Garza, P.E.
SAWS WRIP Phase 2 Project Manager

Signature and Title Block of Applicant

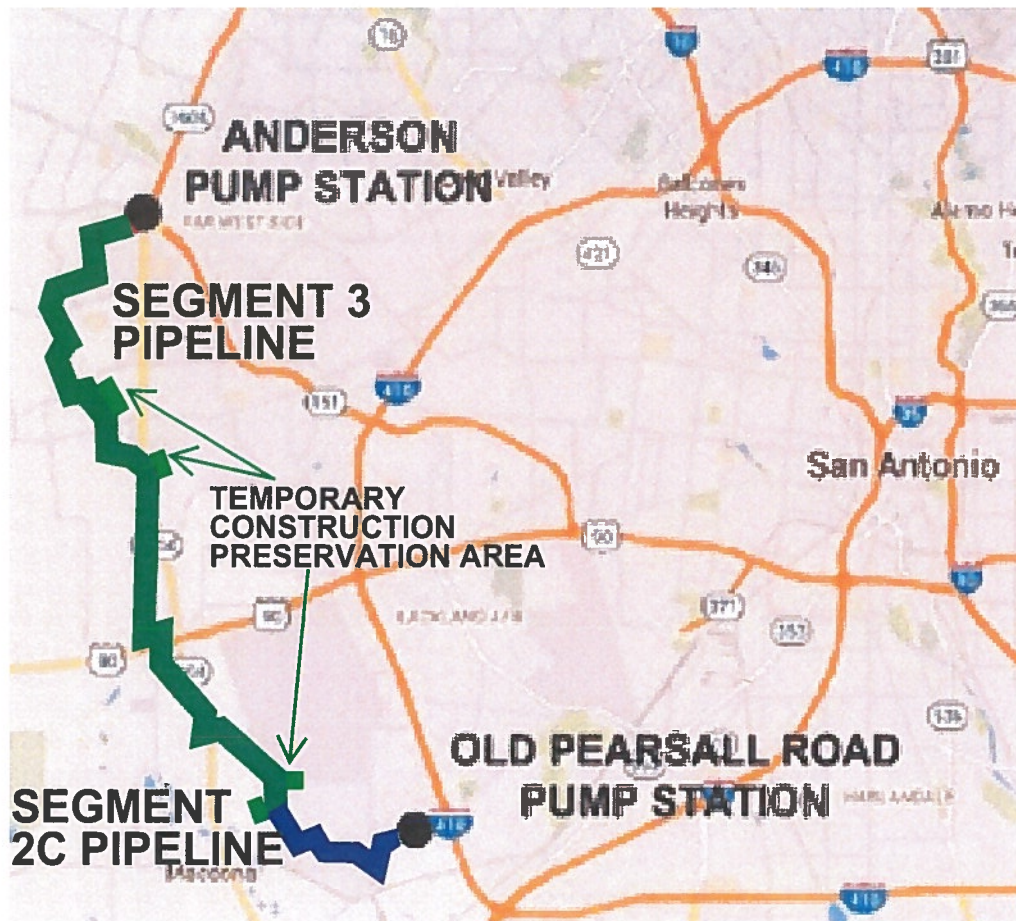
Signature of Owner (if applicable)

For Office Use Only:		AEVR #:	_____	Date Received:	_____
<u>DSD – Director Official Action:</u>					
<input type="checkbox"/>	APPROVED	<input type="checkbox"/>	APPROVED W/ COMMENTS	<input type="checkbox"/>	DENIED
Signature:		_____		Date:	_____
Printed Name:		_____		Title:	_____
Comments:		_____ _____ _____			

Attachments:

CoSA Tree Permit Review Meeting Minutes
Segment 2C Pipeline Tree Preservation Plan
Segment 3 Pipeline Tree Preservation Plan
Old Pearsall Road Pump Station Tree Preservation Plan
Anderson Pump Station Tree Preservation Plan
WRIP Phase 2 Segment 2C, Segment 3 Pipeline, and Pump Station Improvements Tree Preservation Specifications

SAWS WRIP Phase 2 Projects: WRIP Pump Station Improvements, Segment 2C Pipeline, and Segment 3 Pipeline





CITY OF SAN ANTONIO

DEVELOPMENT SERVICES DEPARTMENT

VARIANCE REQUEST ANALYSIS

TPV 20-048

Project:	SAWS Water Resources Integration Program (WRIP) Phase 2
Address:	North/South Pipeline and Pump Station West of Loop 1604
A/P #/PPR #/Plat#:	A/P #2400168
VR Submittal Date:	June 25, 2020
VR Submitted by:	Mr. Robert Jenkins with Freeze and Nichols Inc., on behalf of Mr. Nathan Virdell of the San Antonio Water System
Issue:	Below 80% Tree Stand and 100 % Heritage tree preservation within 100-year Floodplain and Environmentally Sensitive Areas (2010 Ordinance)
Code Sections:	Unified Development Code (UDC), Section 35-523 (h).
By:	Herminio Griego, Assistant City Arborist

The Development Services Department (DSD) reviewed the information presented in Mr. Robert Jenkins letter dated June 30, 2020.

The Unified Development Code (UDC) – Article V, Section 35-523 (h), 100-Year Floodplain(s) and Environmentally Sensitive Areas states that, “Significant trees shall be preserved at eighty (80) percent preservation within both the 100-year floodplains and environmentally sensitive areas. Heritage trees shall be preserved at one-hundred (100) percent preservation within the 100-year floodplains and environmentally sensitive areas. Mitigation shall be prohibited in floodplains and environmentally sensitive area except when a variance is granted by the Planning Commission.”

The applicant is requesting an Environmental Variance to mitigate for the removal of tree stand delineated trees and heritage trees in the Environmentally Sensitive Areas (ESA) and floodplain in excess of 80% minimum preservation of tree stand and 100% minimum preservation of heritage trees in place under the 2010 Tree Preservation Ordinance for development of the San Antonio Water Systems Water Resource Integration Program (WRIP) Phase 2 project (the Project). DSD staff does agree with the applicant’s request to mitigate via enhanced revegetation and payment into the Tree Mitigation Fund for tree stand determined to be below 80% tree stand preservation and 100% heritage tree preservation in the ESA and floodplain for the following reasons:

Existing site conditions – The Project includes three projects that encompasses 266.6 acres and is designed to deliver water from the SAWS Aquifer and Storage Facility (ASR), Local Carrizo, Expanded Carrizo and Brackish Desalination operations to new and existing facilities in western Bexar County. The Project will accomplish this with Anderson and Old Pearsall pump station improvements, and installation of the Segment 2C and the Segment 3 pipelines. The Segment 2C and Segment 3 pipelines are 48 inches in diameter and will be constructed in an 80-foot SAWS owned easement paralleling Loop 1604 (see attached figure). The design incorporated the following activities to minimize tree impacts and enhance reclamation efforts:

- 1) Boring 778 linear feet in strategic areas to maximize heritage tree preservation;
- 2) Reducing the working area in the 80-foot easement to 60 feet. This effort preserved 25% of the easement and the collocated canopy and heritage trees;
- 3) The Project will also save an additional 8.7 acres (equivalent to 7,196.8 inches) of tree stand in temporary construction preservation areas;
- 4) Reclaiming 118 acres of disturbed areas by drill seeding native seed mix and ensuring 85% establishment.
- 5) Incorporating cultural and archeological resources and hazardous waste investigations;

Overall the Project will preserve:

- 1) 1,058 of 1,504 heritage tree inches for a combined ESA and floodplain preservation of 71%, and
- 2) 7.78 of 22.3 tree stand acres for a combined ESA and floodplain tree stand preservation of 34.9%.

The preservation, removal and mitigation details are presented below.

	Shade Value	Total Canopy Area (acre) / (Dia In)	% Required to be Preserved Excluding Heritage Trees	Percent Preserved	Area Required to be Mitigated (acre) / (Dia In)	Area to be Mitigated (3 Times for Heritage)	Diameter to be Mitigated / Preserved
Floodplain Canopy							
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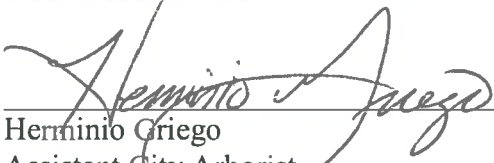
Tree mitigation and canopy diversity – The applicant proposes to meet the ESA and Floodplain Tree Stand Delineation mitigation requirements as follows:

1. Reducing the construction width within the permanent easement from 80 feet to 60 feet to minimize tree impacts;


2. Boring 778 linear feet of waterline to save additional heritage trees;
3. Saving an additional 8.7 acres (equivalent to 7,196.8 inches) of tree stand in temporary construction preservation areas;
4. Reclaiming 118 acres of disturbed areas by drill seeding native seed mix and ensuring 85% establishment.
5. Mitigation Evaluation:
 - a. Total mitigation = 2,508 equivalent inches.
 - b. Mitigation balance for items 1, 2, 3, and 4 above = 1,254 equivalent inches
 - c. Tree Mitigation Fund Payment = 1,254 inches @ \$200.00 per inch = \$250,830.00

DSD staff supports the applicant's Variance request to fall below 80% Tree Stand and 100% Heritage Tree requirements in the ESA and floodplain based on the conditions of the site, the need to improve San Antonio's water delivery systems and payment to the Tree Mitigation Fund. The proposed Variance Request meets the intent and spirit of the Tree Ordinance therefore, staff recommends approval.

RECOMMENDATION: Approval of Variance Request


Herminio Griego
Assistant City Arborist
DSD – Land Development – Tree Preservation

6/30/2020
Date


Stephen Stokinger, P.E.
Development Services Engineer
DSD – Land Development - Engineering

2020/06/30
Date

I have reviewed the Variance Request and concur with the recommendation.


Melissa Ramirez
Assistant Director
DSD – Land Development

July 1, 2020
Date