Blanton & Associates, Inc.
ENVIRONMENTAL CONSULTING • PLANNING • PROJECT MANAGEMENT

Technical Memorandum

To: Nathan Pence, Executive Manager of Environmental Science
Guadalupe-Blanco River Authority (GBRA)

From: Don Blanton, Project Principal
Blanton & Associates, Inc. (B&A)

Velma R. Danielson, Project Director
B&A

Date: October 4, 2021

Re: **Guadalupe River Habitat Conservation Plan (GRHCP) Project Planning and Kickoff Meeting Summary – Overarching Project Goals and Key GRHCP Components**

On August 12, 2021, GBRA and the GRHCP Project Team held the GRHCP Project Planning and Kickoff Meeting, the focus of which was to establish a clear understanding of GBRA's overarching goals for the GRHCP and Incidental Take Permit (ITP) (collectively referred to as the project) and to establish a "home base" for guiding development of the GRHCP. A list of meeting attendees is provided as **Attachment A**. This memorandum summarizes the discussions during the meeting, outlines the overarching goals of the project based on those discussions, and establishes a "home base" for key project components. It is important to note that discussions regarding key issues were preliminary and exploratory, and no final decisions were made during the meeting. However, the "home base" established for each key project component will be used to focus efforts to develop the GRHCP and will be revisited periodically throughout project development.

Primary topics discussed during the meeting and summarized in this memorandum include:

1. Overarching Project Goals
2. Plan/Permit Area
3. Covered Activities
4. Covered Species
5. Conservation Measures
6. Second Party "Take" Concepts
7. Stakeholder Roles
8. Climate Change
9. Related Studies/Programs
10. Schedule
11. Next Steps

5 LAKEWAY CENTRE COURT, SUITE 200 • AUSTIN, TEXAS 78734
PHONE 512.264.1095 • FAX 512.264.1531

1. OVERARCHING PROJECT GOALS

During the meeting, GBRA and the GRHCP Project Team discussed the primary reasons GBRA is pursuing the project, current or future activities that GBRA foresees having the highest potential to impact federally listed threatened or endangered species (or species that may become listed), the species having the highest potential to be impacted by future activities, and other key components that will factor in the development of the GRHCP. GBRA emphasized rapid population growth in the basin, environmental regulations, and climate change, and their goal to reduce uncertainty. GBRA's primary considerations for pursuing the project include providing greater certainty in their ability to meet future water supply and wastewater treatment needs, while maintaining Endangered Species Act (ESA) compliance and providing protections for threatened and endangered species and Guadalupe River habitats, in an holistic manner. Specific GBRA project goals and priorities discussed during the meeting include:

a. Anticipated full use of water rights authorized to GBRA to address future population growth, water supply needs, and new water supplies.

b. Future increases in wastewater discharges and/or new wastewater discharges to address future population growth and wastewater treatment needs and the need for certainty in water quality standards for wastewater discharges.

c. Operations and maintenance of existing infrastructure and development of new projects and infrastructure.

d. Potential listing of mussel and/or salamander species present in the Guadalupe River basin as threatened or endangered under the ESA. (Note, on August 26, 2021, the U.S. Fish and Wildlife Service [USFWS] issued a proposed rule to list six mussel species and designated critical habitat under the ESA. Three of the species occur in the Guadalupe River basin.)

e. Opportunities to facilitate conservation and recovery (and address potential "take" from future activities, if needed) of whooping cranes (*Grus americana*).

f. Regional environmental leadership in the Guadalupe River basin with regard to ESA compliance and conservation efforts, including increasing endangered species awareness in the basin and providing opportunities to participate in the GRHCP with a unified approach.

The GRHCP Project Team will develop a list of topics for the potential GRHCP goals based upon the GBRA Board resolution for the HCP, initial Section 6 grant application, recent HCPs in the region, and the project goals stated above.

2. PLAN/PERMIT AREA

The following describes the preliminary permit area and plan area that were discussed during the meeting and will be evaluated and refined for development of the GRHCP. A revised map illustrating the preliminary plan/permit area is provided as **Attachment B**. The plan and permit areas are expected to encompass the *maximum* area, which may include areas outside the basin. However, during the development of the GRHCP, the plan and permit area will be evaluated. With this in mind, some portions

of the basin outside GBRA's District boundaries may ultimately be removed based on absence of major contributing streams, species habitats, and/or GBRA activities.

a. *Preliminary Permit Area* – The preliminary permit area for the GRHCP and ITP includes:

   - the entirety of 10 counties within GBRA's District boundaries: Kendall, Comal, Hays, Guadalupe, Caldwell, Gonzales, DeWitt, Victoria, Refugio, and Calhoun; and
   - the Guadalupe River basin within counties that are outside of GBRA's District boundaries (12 counties), as appropriate: Real, Kerr, Gillespie, Bandera, Blanco, Travis, Bastrop, Fayette, Wilson, Karnes, Lavaca, and Goliad. (Note, some of these areas may ultimately be removed from the permit area based on absence of major contributing streams, species habitats, and/or GBRA activities).

b. *Preliminary Plan Area* – The preliminary plan area for the GRHCP includes the permit area, as well as the northern portion of Aransas County, north of Aransas and Copano Bays (see **Attachment B**). GBRA's existing and anticipated future operations do not include any areas in Aransas County, but the northern portion of Aransas County contains the Aransas National Wildlife Refuge and surrounding lands that provide potential conservation/mitigation opportunities for the whooping crane.

3. COVERED ACTIVITIES

Discussions of covered activities during the meeting were brief because a separate one-day workshop will be held by GBRA and the GRHCP Team to discuss GBRA's existing and future operations, which will inform the covered activities for the GRHCP. Another separate half-day workshop will be held to discuss potential second party "take" stakeholders and activities. (Note, subsequent to the meeting, these workshops have been scheduled for October 18-19, 2021, respectively). During the meeting, the following specific items were discussed:

a. Activities to add to the preliminary list of potential covered activities provided in the GRHCP scope of work include GBRA's diversion/canal system in the Lower Guadalupe Basin (near the coast), mid-basin, lower basin and groundwater water supply projects, and invasive species management.

b. As much as possible, the GRHCP should provide flexibility in covering future projects that may not be foreseen at this time, as long as we can identify likely project footprints (general locations) and potential impacts to the covered species.

c. Initially, potential covered activities will be segregated to the finest level possible and evaluated individually. Similar activities and/or activities with similar impacts may ultimately be grouped into categories.

d. GBRA will provide GIS files with locations of their existing facilities and operations (GBRA provided GIS files on August 20, 2021).

GBRA's existing and future operations, as well as potential second party activities, will be discussed in more detail during the upcoming workshops.

4. COVERED SPECIES

Discussions of covered species during the meeting were also brief because a preliminary list of potential covered species was previously developed during preparation of the GRHCP scope of work, and that list will continue to be evaluated as the GRHCP Project Team compiles more information on GBRA's operations, other covered activities, and species distributions and habitats. During the meeting, the following specific items were discussed:

a. Mussels, salamanders, and whooping crane are the anticipated focal species for the GRHCP.

b. Species covered by the Edwards Aquifer Habitat Conservation Plan (EAHCP) may be included if GBRA's activities may result in "take" of those species.

c. Coverage of salamander species in the Blanco River watershed will depend on GBRA's anticipated activities there over the next 50 years, as well as activities of potential second party "take" stakeholders.

d. The monarch butterfly (*Danaus plexippus*), a candidate for federal listing, should be added to the list of potential covered species, and the American eel (*Anguilla rostrata*), Guadalupe bass (*Micropterus treculii*), Alligator Gar (*Atractosteus spatula*), and Cagle's map turtle (*Graptemys caglei*) may become priority species.

5. CONSERVATION MEASURES

The following potential conservation measures were discussed during the meeting:

a. Use of return flows from wastewater treatment plants.

b. Implementation of water quality treatment standards that are above and beyond Texas Commission on Environmental Quality (TCEQ) treatment standards.

c. Improvements in use of the natural system to enhance water supply and water quality.

d. Use of land and infrastructure around the existing dams and restoration of the Guadalupe River in these areas.

e. Habitat protection and/or restoration on GBRA properties.

f. Conservation measures related to golden-cheeked warbler (*Setophaga chrysoparia*) habitat restrictions and construction timing.

g. Education and outreach programs, including one to inform developers of best management practices (BMPs) for wastewater discharges.[1]

[1] This conservation measure could be expanded to include possible design restrictions for developers participating in the GRHCP to improve water quality discharges into the Guadalupe River.

h. Invasive species (e.g., zebra mussels) management and education programs.

i. Wetland restoration projects and other conservation measures for the Mid-Basin, Lower Basin, and Carrizo-Wilcox projects.

j. Improvements in diversion and canal systems operations and maintenance, including water efficiency improvements.

k. Water use efficiency programs (e.g., leak detection).

l. Implementation of other water supply/pumping BMPs that protect species and/or habitats.

m. Species and habitat applied research and monitoring.

These and other conservation measures will be further developed and evaluated as development of the GRHCP progresses.

6. SECOND PARTY "TAKE" CONCEPTS

The fundamental premise guiding a second party "take" coverage program is to provide for an efficient, coordinated, and unified approach to achieve ESA compliance by extending the "take" authorization of GBRA's ITP to "second parties" who may have a need for "take" authorization for their activities. GBRA believes that incorporating a second party "take" program into the project provides an opportunity for GBRA to lead by example and to allow GBRA customers to become partners as second party stakeholders.

During the meeting, the primary mechanism discussed for a second party "take" program was a Certificate of Inclusion. Using this approach, GBRA would establish a Certificate of Inclusion process through which second party stakeholders could obtain "take" coverage under GBRA's GRHCP and ITP. Under this mechanism, second party stakeholders would pay a fee based on calculated "take." Fees would be pooled and would help implement habitat conservation measures established in the GRHCP. Participation could be organized by industry type and/or impact type. Under this scenario, the GRHCP would need to analyze the effects of all potential activities that may be covered by the Certificate of Inclusion program. The amount of "take" authorization available to this program would be determined by a combination of 1) which partners express strong interest now in participating in the GRHCP, 2) an estimate of the partners likely to be become interested later, and 3) the amount of "take" authorization that is feasible to offer based on species rarity and mitigation opportunities.

GBRA and the GRHCP Project Team also discussed the possibility of GBRA establishing a mitigation bank (conservation bank), which the USFWS has encouraged for protection of the whooping crane and other avian species. Under this scenario, GBRA's users and other possible stakeholders would be responsible for their own HCP/ITP processes (or other ESA consultations) and could purchase mitigation bank credits as a conservation measure within those processes. Establishing a mitigation bank would require significant up-front capital, with no guarantees that the mitigation bank would be fully used. In addition, this mechanism by itself is not a true second party "take" mechanism, as users of the mitigation bank would need to complete their own ESA-compliance processes; as such, it only provides some streamlining of ESA compliance for GBRA users and other potential stakeholders.

Under both scenarios above, GBRA would be the sole permittee on the ITP. GBRA and the GRHCP Project Team will continue evaluating these concepts, as well as other true second party "take" mechanisms, considering the interest of potential stakeholders in obtaining "take" coverage and the benefits and challenges of each option (or combination of options). GBRA and the GRHCP Project Team will obtain input from a second party stakeholder work group and the USFWS.

7. POTENTIAL STAKEHOLDERS AND ROLES

As the list of potential stakeholders and framework for stakeholder involvement are developed for the project, three potential stakeholder categories will be considered, as identified during the meeting:

a. Public stakeholders – this category would include individuals and groups for the purpose of sharing general project information and obtaining periodic input.

b. Second party "take" stakeholder work group – this category would include potential stakeholders that may desire to participate in the second party "take" program and would be invited to provide periodic input on program development.

c. Technical advisory group – this category would be a group of experts representing various perspectives to be convened on an as-needed basis to review scientific data and information being considered to develop the GRHCP.

GBRA and the GRHCP Project Team will evaluate various models for the GRHCP stakeholder process. Clear communication to the stakeholder groups will be emphasized to ensure that each group understands its roles and input in the GRHCP process.

8. CLIMATE CHANGE

The GRHCP should rely on existing, generally accepted climate change models to estimate how climate change may affect water quantity and quality, both with and without GBRA's activities.

9. RELATED STUDIES/PROGRAMS

GBRA summarized ten ongoing, recently completed, or planned biological and water quality studies that involve the Guadalupe River basin, are related to aspects of the GRHCP, and may inform development of the GRHCP. These include:

a. five studies on mussel habitat/distribution, general conservation planning, community assemblage, and/or toxicity tolerances;

b. two studies on salamander classification and distribution in the Upper Guadalupe River Basin;

c. a whooping crane land prioritization study on the Texas coast (completed in 2021);

d. a nitrogen and phosphorus baseline study in the Upper Guadalupe River Basin; and

e. an ecological relationship study in the Guadalupe River delta.

As the results of these studies become available, they will be reviewed and incorporated as applicable into the development of the GRHCP.

10. SCHEDULE

The GRHCP Project Team presented a high-level overview of a preliminary project schedule. Overall, completion of the GRHCP and issuance of the ITP are anticipated to take approximately five years (end of June 2026). The final GRHCP would be completed in approximately four and one-half years (end of December 2025), and the ITP would be issued by USFWS up to six months afterward. Although GBRA and the GRHCP Project Team previously proposed a three-year schedule, both parties agreed that a five-year timeline is more reasonable based on GBRA's desired stakeholder involvement, second party "take" authorization, and the general complexity of the project.

11. NEXT STEPS

Below is a summary of the GRHCP Project Team's action items:

a. Prepare the draft technical memorandum summarizing project goals and discussion from August 12th planning meeting;
b. Update the preliminary plan/permit area map (see **Attachment B**);
c. Update the preliminary list of potential covered species;
d. Update the list of potential covered activities in preparation for the upcoming workshops;
e. Review GBRA's GIS files and begin mapping GBRA's facilities and activities in preparation for the upcoming workshops;
f. Update the preliminary schedule and provide to GBRA for review;
g. Continue identifying potential second party stakeholders and other stakeholder groups;
h. Begin compiling information on potential covered activities and covered species; and
i. Schedule HCP/GRHCP training for GBRA board and staff (Note, the GRHCP Project Team is scheduled to present to the GBRA Board on November 17, 2021).

If you have any questions or would like to discuss, please let us know.

Attachments:

Attachment A List of Meeting Attendees
Attachment B Preliminary Plan/Permit Area Map

Attachment A

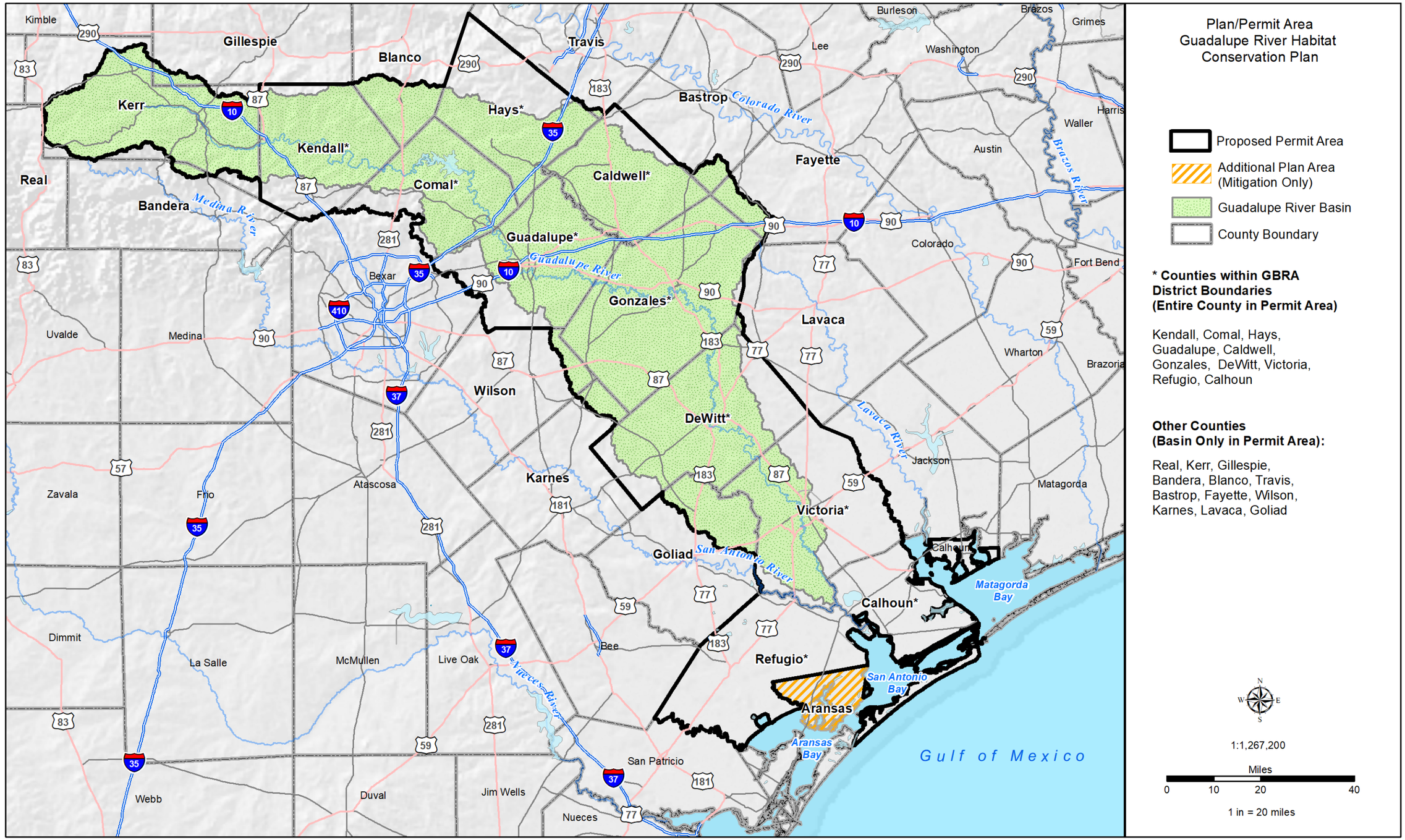
List of Meeting Attendees

Guadalupe River Habitat Conservation Plan Project Planning and Kick Off Meeting Attendees August 12, 2021		
Name	**Organization**	**Title**
Darrell Nichols	GBRA	Senior Deputy General Manager
Jonathan Stinson	GBRA	Deputy General Manager
Nathan Pence	GBRA	Executive Manager of Environmental Science and Community Affairs
Chad Norris	GBRA	Deputy Executive Manager of Environmental Science and Community Affairs
Lee Gudgell	GBRA	Aquatic Biologist
Charlie Hickman	GBRA	Executive Manager of Engineering
Brian Perkins	GBRA	Senior Water Resource Engineer
Tommy Hill	GBRA	Senior Advisor to the General Manager
Mysti Downing	GBRA	GIS Analyst
Jana Gray	GBRA	Water Quality Technician/HCP Coordinator
Mary Newman	GBRA	Administrative Assistant
Don Blanton	B&A Team	Project Principal, B&A
Velma Danielson	B&A Team	Project Director, B&A
Alicia Reinmund-Martinez	B&A Team	Assistant Project Director, B&A
Jason Schindler	B&A Team	Technical Project Director, B&A
Daniel Large	B&A Team	Project Specialist, B&A
Clif Ladd	B&A Team	HCP Project Manager, B&A
Suzanne Schwartz	B&A Team	Private facilitation consultant
Kirk Kennedy	B&A Team	Hydrologic modeling, KRC Consulting
Mike Gershon	B&A Team	ESA Legal Resource, LGRT, P.C.
Cecilia Green[1]	B&A Team	Senior Advisor, B&A
David Zippin[1]	B&A Team	Senior Advisor and QA/QC Review, ICF
Paola Bernazzani[1]	B&A Team	Deputy HCP Project Manager, ICF
Charles Randklev[1]	B&A Team	Mussels expert, TAMU NRI
Rohit Goswami[1]	B&A Team	Water quality modeling, WSP USA
Hova Woods[1,2]	B&A Team[2]	NEPA Project Manager, ICF[2]
Kim Johnson[1,2]	B&A Team[2]	Deputy NEPA Project Manager, B&A[2]
Jenise Scherff[1,2]	B&A Team[2]	NEPA QA/QC Review, B&A[2]

[1] Attended meeting online via Microsoft Teams
[2] Left meeting after introductions

Attachment B

Preliminary Plan/Permit Area Map


Plan/Permit Area
Guadalupe River Habitat
Conservation Plan
Proposed Permit Area
Additional Plan Area
(Mitigation Only)
Guadalupe River Basin
County Boundary
* Counties within GBRA
District Boundaries
(Entire County in Permit Area)
Kendall, Comal, Hays,
Guadalupe, Caldwell,
Gonzales, DeWitt, Victoria,
Refugio, Calhoun
Other Counties
(Basin Only in Permit Area):
Real, Kerr, Gillespie,
Bandera, Blanco, Travis,
Bastrop, Fayette, Wilson,
Karnes, Lavaca, Goliad
1:1,267,200
Miles
0 10 20 40
1 in = 20 miles
Kimble
Gillespie
Blanco
Travis
Burleson
Brazos
Grimes
Lee
Washington
Kerr
Hays*
Bastrop
Colorado River
Harris
Waller
Austin
Kendall*
Fayette
Real
Caldwell*
Comal*
Bandera
Medina River
Brazos River
Guadalupe*
Colorado
Fort Bend
Guadalupe River
Bexar
Gonzales*
Lavaca
Uvalde
Medina
Wharton
Brazoria
Wilson
DeWitt*
Lavaca River
Jackson
Zavala
Frio
Atascosa
Karnes
Matagorda
Victoria*
Goliad
San Antonio River
Calhoun
Matagorda Bay
Calhoun*
Dimmit
La Salle
McMullen
Live Oak
Nueces River
Bee
Refugio*
San Antonio Bay
Aransas
Aransas Bay
Gulf of Mexico
Webb
Duval
Jim Wells
San Patricio
Nueces