



Cypress Creek Greenway

Trails Master Plan

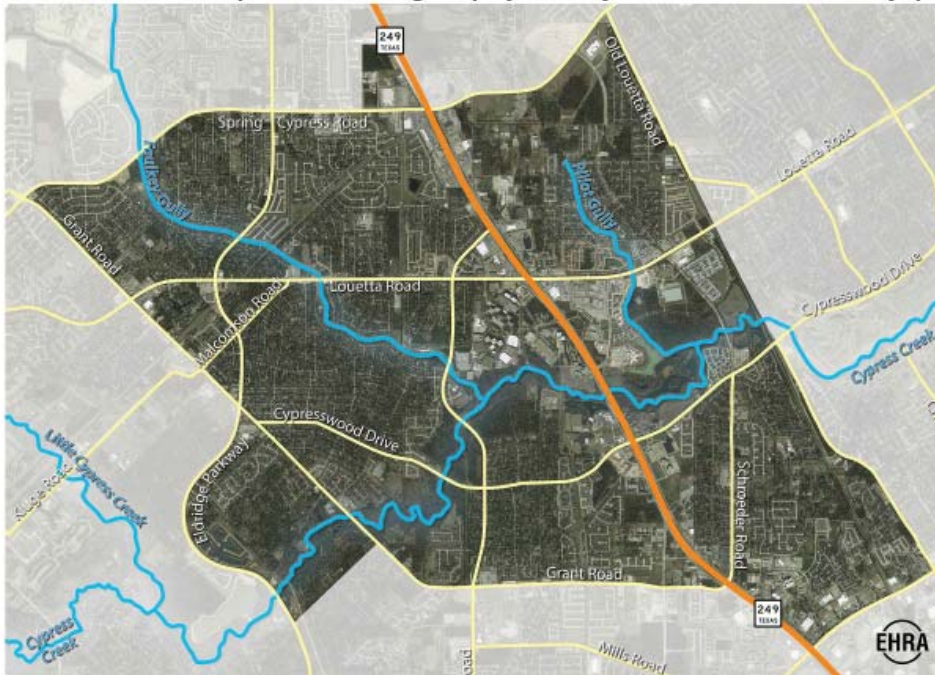
Appendix

Appendix A

Cypress Creek Trails Master Plan Survey

The Cypress Creek Trails Master Plan Coordinating Board was formed to create a Trails Master Plan for the Cypress Creek study area shown below. We welcome public opinion and would like your input for our trails project. Please answer this short 12 question survey. Thank you for your response!

Please review the map below outlining the project study area to answer the survey questions.



1. Do you live in this study area?

- ☐ Yes, I live in this area
☐ No, I don't live in this area

If yes, what neighborhood do you live in?

2. Do you work in this study area?

- ☐ Yes, I work in this study area.
☐ No, I don't work in this study area.

3. What best describes your age?

- | | |
|--------------------------------|-----------------------------|
| ☐ Under 18 | ☐ 45-54 |
| ☐ 18-24 | ☐ 55-64 |
| ☐ 25-34 | ☐ 65-74 |
| ☐ 35-44 | ☐ 75+ |

4. How do you currently use trails in your area? (Check all that apply)

- | | |
|--|---|
| ☐ Running/jogging | ☐ Equestrian uses |
| ☐ Cycling for leisure | ☐ As an alternative to driving a car to my destination |
| ☐ On-road cycling | ☐ I don't currently use trails in the study area |
| ☐ Off-road cycling | ☐ Other (please specify) |
| ☐ Walking | <input type="text"/> |

5. In the past year, how often have you and/or a member of your household utilized trails in the study area?

- ☐ daily ☐ monthly ☐ at least once in 6 months
☐ weekly ☐ at least once in 3 months ☐ once a year or less

6. What hinders you from utilizing trails within the study area more often?

- ☐ I am not aware of trails in this area ☐ Safety issues/concerns
☐ The trails do not lead to where I want to go ☐ No adjacent parking
☐ I'm not interested in using trails ☐ Other (please specify)
☐ No easy access from where I live/work

7. If more trails in the area were built, how would you utilize trails in the future? (Check all that apply)

- ☐ Running/jogging ☐ On-road cycling ☐ Walking ☐ As an alternative to driving a car to my destination
☐ Cycling for leisure ☐ Off-road cycling ☐ Equestrian uses ☐ Other (please specify)

8. If utilizing trails to reach a destination, what types of facilities would you like to connect to? (Check all that apply)

- ☐ Grocery Store ☐ Work ☐ School/University ☐ Other, please specify:
☐ Park ☐ Retail Shopping ☐ Restaurants

9. What type of surfacing do you prefer for trails? (Check all that apply)

- ☐ Asphalt
☐ Concrete
☐ Gravel/Decomposed Granite
☐ Natural Ground
☐ A Combination of Hard and Soft Surfaces
☐ Any

10. How would you rate your overall satisfaction with the existing trail system within the study area?

- ☐ Excellent ☐ Needs Improvement Please explain:
☐ Good ☐ Poor

11. In order to develop more trails within the study area, I would support the following: (Check all that apply)

- ☐ An increase in local taxes ☐ Volunteer trail maintenance events
☐ A trail user fee ☐ I would not like to see future trails built within the study area
☐ Volunteer trail building events Other (please specify)

12. Please leave any additional comments here.

www.facebook.com/CCTMP • To complete this survey online, go to: www.surveymonkey.com/s/CCTMP2014

• If manually filling out this survey, please return by mail to: EHRA •
10555 Westoffice Drive, Houston, TX 77042

Appendix B

Public Survey Comments

The last question of the public survey asked respondents to provide any comments or suggestions for the development of trails within the study area. The answers have been organized into the following categories: connectivity, design, materials, safety, amenity, and funding. Some comments were not applicable to the study, and therefore have not been included within this summary.

Connectivity

- Extend more out toward 290 near coles crossing. A lot of people already drive here to use the trails so I think linking them would be a good ideas. Also as a MS150 rider there is nowhere in the Cypress area for us to safely train. The only options are george bush park or going out to the country which is a huge inconvenience with Houston traffic and roads always under construction.
- We need to encourage a pedestrian lifestyle; it's healthier and greener. I live in Lakewood Forest. It would be great to be able to access Lone Star College University Park by bicycle or foot using Louetta Rd or Jones Rd. Also, if Louetta Rd had a sidewalk I could walk to the Vintage for shopping/entertainment. The Lone Star/HP campus has many beautiful walkways but need to be more accessible to the community. The whole study area needs more sidewalks and designated bike paths.
- If the trail were extended from the present terminus at Guernsey along Faulkey Gully and under Eldridge to at least Pitcairn St., it would allow access for all of LF sect. 15 as well as Pitcairn without the danger of crossing Eldridge. There are many who presently have to walk in the streets in this area who could then utilize the trail.
- Biking on Louetta is dangerous. Would like to bike from near N. Eldridge & Grant to HP and Vintage Park, as well as Kroger and the new park on N. Eldridge with a lake.
- Biking on Louetta is dangerous. Would like to bike from near N. Eldridge & Grant to HP and Vintage Park, as well as Kroger and the new park on N. Eldridge with a lake.
- Connect more trails, use less costly materials for



less used areas... Crushed gravel is fine in places

- A path needs to go under 249 to access Kroger. Likewise a path needs to be on the Cypress rd median to access Walmart on grant. Also access to khols etc along existing oath.
- I think the best return on investment would be to utilize what's already there to it's fullest and make better connections between existing paths. Suggestions: 1)Connect Lakewood Crossing sidewalks to the Cypress Creek Trail where they are close. 2)There are trails on north and south sides of Cypresswood very close to Cypress Creek, but it is not evident how to safely segue between the two. 3)A real win would be connecting this trail system with those of Cypresswood by Meyer Park and also provide safe walking/biking transport to Vintage. I think a really great way to do that would be to leverage the trails behind HP by paving/ graveling from the bridge sidewalk over jones, behind the utility station , and through to them. Then connect those trails to sidewalk system in the Cypress Creek business complex and then continue along through to Chasewood Park Drive, over to Vintage (maybe with some commercial funding?), and over to the YMCA. Alternatively there are trails from the YMCA all the way back to where Cypress Creek Bike path hits Jones (the clover leaf) as well. Those existing trails need a bit of work. There is new trail development going on back there too, which is good. Right now I can make almost all of these connections happen, but crossing roads in unsafe ways, and the dirt trails are just falling apart back there; erosion / falling trees and overgrown brush. Very difficult on bike.
- I am from NY and very disappointed in the trails systems here. Please improve!
- Does the paved path at the new park on Eldridge near Parc Lake count as a trail?
- Would love for more trails to connect for the ability to have longer runs.
- I would love to be able to walk to more places. Currently I use the trails for exercise.
- In general, this area of Harris County (well most of Harris County and Houston) is not very bike or pedestrian friendly, especially on and on the side of roadways. Having to put a bike on a car to access trails wastes time and energy. Walking to access the trails is a safety risk as well. Development of more trails should follow development of better, safer access to the trails from neighborhoods that do not adjoin trails.
- I will like to see a trail behind my house. my mom and wife are not able to cross Bio behind the house due to traffic. my mom been advise by doctor she should walk and I see other neighbor hood have trail behind there house so I will county to consider building a trail behind my house.
- This side of town needs trails comparable to George Bush Park and terry Hensley Park. We need such a trail to have a safe place to bike.
- Houston Metropolitan needa to leverage the areas along the bayou system to enable anyone (walker, runners, cyclists) to get from one place to other locations easily and SAFELY.
- Would love to see more asphalt/concrete trails in our area. Please don't make them too "curvy", but love riding in the trees. Would love to see the Faulky Gully trail continue past Cypresswood all the way to Grant. Would also like to see Faulky Gully trail connect to Lonestar and to Vintage.
- The main trails need to be wide enough and straight. Some of the trails built in the Lakewood Grove area are too narrow and too wiggly.
- Please build an off road biking trail.
- Our family would like to see the trails extended, connecting multiple trails together and accessing retail and restaurants. This would allow both longer bike rides and more extensive use of the trail system.
- I use the trails to acess the mountain bike trails. Don't make the mountain back trails safer! That's the whole point of them!
- I really enjoyed the trails. Definitely some the best money I've seen the local government spending. I would love to see them expanded an extended to lots of other areas.
- Would support volunteer efforts. Would love to see more trails and connections to existing.
- I ride and volunteer time to maintain the natural surface hike and bike trails. I would like to see

them preserved and improved with possible expansion like was done at Collins Park. Thanks.

- I use the trails a minimum of 4 days a week. It would be nice if they connected so that I didn't have to loop the same section several times. It's the safest way to run or cycle, away from traffic.
- I am really excited and very hopeful for the future of this trail! I run the current trail through Lakewood, but would love it to be closer to my home! CANT WAIT!!!
- Lets make this a destination in Texas! By Connecting and busltering the mountain biking presece we have an opportunity to do great things. We also need more bars and resturants along these trail as if it were a river. (kinda like the old Rainbow lodge in town). Lets make something to be proud of and bring dollars to our community.
- A lot of existing trails are great, but would serve me better if they interconnected. Specifically the Cypress Creek trails could connect with Cypresswood (Meyer Park) trails and those that continue to North Eldridge.
- Priority 'wish list': 1) Trail along on the median cypresswood drive from Grant Rd to Norchester 2) connecting existing trails safely to extend trail 3) trails by local schools would be very nice
- Trail - connection along Cypresswood Drive - also Lakewood Forest and Cedar Park
- Trails going to destination, maintenance along dirt trails.
- Irrigation for trees and trail along Cypresswood, Bike Trails at Anderson Woods, More rest stops, grant rd sidewalks, trails to CyCreek HS, Cypresswood Dr extending to the West?
- Connecting from subdivision to trails.
- Paved or bike trail to the YMCA from the Lakewood Forest area (say down Cypresswood from Taylor Park).
- Trail from Cypress Park to connect to trail at Cypresswood (at Norchester). Crushed granite trail down the esplanade of Cypresswood from Grant Rd to Norchester.
- Most important to me: safety, ease of access

- Need this for community, community exercise and resale. Most important to me: connect to Meyer Park safely on a trail that is easy on the person to walk/run - in other words good foundation, smooth trail
- Number of items most important to me: 1) Safety 2) Keep natural as possible and connect to other trails.
- More outreach to let people know about these trails and their connectivity, many just don't realize. Suggest preparing maps to be published in HOA newsletters, etc. made available for free.
- My family and I have run these trails for several years, starting at Pitcairn and Spring-Cypress, running down Pitcairn to get to the gully, and picking up the trails near Gurnsey. I run the trails over Louetta, under Jones, and then under Jones again over to Cypresswood. There is a sign about connecting trails to the YMCA and then under 249. Connecting the trails, making them longer, putting in water fountains and maybe some lights would help in their use. When I was running them this morning, there were quite a few people between Gurnsey and Louetta, but not many anywhere else along the trails.
- I live just outside study area but frequent many locations within.
- The trails system in the area is a great feature that should continue to be expanded and enhanced.
- I live west of the study area. I would like to see trails in my area. I live in Lakewood Glen subdivision.
- Live on Little Cypress Creek but understand your questions.
- I live in Coles crossing which is just outside of your area
- I would support seeing trails expanded in this area
- Please build more single-track bike trails - even if they are adjacent to main trails. When main trails are built wide with a hard surface it invites motorized vehicles and makes it less safe for walkers and bikers. Let's put a dent in obesity and make trails that are fun and safe for families...and connect them all the way to Bridgeland so we can get there more easily.

- Mileage, shade and SAFETY
- Although I live in Bridgeland, Cypress Creek runs through our neighborhood. I would love to see an extension.
- Cypress Creek has a great team of guys who maintain it and host work party's for it. It would be nice to expand the trails closer to the 290 direction along mud district plots.
- I would really like to see Collins Park, Meyer Park connected to Cy Champ Park connected to the trails behind the Cy Creek Y connected to the Faulkey Gulley hike and bike trail in some way.
- Trails need to be connected with safe bike lines on roads. The county has major road up grades without safe bike lanes. Until this changes trails are useless to cyclists.
- If possible, create some kind of connection from North of Louetta Rd, and create a connection to Cypress Creek/Faulkey Gully. Also, can there be a bike lane on Cypresswood Dr? I rode my bike there once or twice, and it was a pretty hairy experience.
- A county Wide Trail system utilizing the County Flood system Right away creating a linked from east to west and north to south would be a great asset to the Whole County and City.
- More trails closer to Barker Cypress and Huffmeister please!
- I really appreciate having places that I can ride close to home. I miss being able to ride just west of Eldridge along the north side of Cypress Creek and now the access at the end of Creekway Drive is blocked. I'd like a safe way to get from the south side of the creek across to the north side around Grant Rd. Going through the creek under Grant works well except that the steep uphill on the north side of Grant is getting scary.
- Lack of sidewalks limits access to trails. No way to cross busy streets like Louetta, highways like 249.
- We recently moved into the area and are finding all kinds of new paths on the current trail system. Would love to see more added!
- Please get the connection done from Jones to the YMCA, I know dozens of people who can't wait to use it!!!

Design

- Please keep the horse trails and keep us in mind.
- I've been walking the trails for a few years and cycling . with some update parts its harder to walk them with all the cyclist zooming by ya and you have to jump off and n woods to get out of the way. They usually come with more then 6 in a pack. Then I'm riding my bike at my pace and all the sudden here comes a pack at a very racing pace. Could be dangerous.
- Originally we were told we could ride horses around Eldridge Lake area but now we are shut out. So not happy about horse trails being taken away. There are plenty of walking trails around the lakes. Need more horse access trails instead of riding too close to the creek, it can be risky there with all the sand and flooding. Would be happiest if we could have horse trails that we could even share with cyclist and walkers. There is plenty of room for all of us. Thank you for taking the time to create the survey. Cypress has a huge horse community and we need spaces to ride. That's why we live in Cypress, and have been riding out there for years! Please do not take that away.
- Horses and bicycles don't mix. Equestrian trails need natural ground and we prefer narrow wooded trails. Many horses are afraid of bicycles and even if the horses are not, bicyclists don't often yield to horses. This is dangerous. Many trails previously only used by horses are now used by bicyclists. Would be best and safest for all to have two trail systems with dedicated area for horses.
- We love our trails. There is no other place on earth as lovely as our white sand trails. We value our time there and are afraid of life without them. Please keep them open to horses, as we are the ones who value them the most!
- Would love to see more asphalt/concrete trails in our area. Please don't make them too "curvy", but love riding in the trees. Would love to see the Faulky Gully trail continue past Cypresswood all the way to Grant. Would also like to see Faulky Gully trail connect to Lonestar and to Vintage.
- The main trails need to be wide enough and straight. Some of the trails built in the Lakewood Grove area are too narrow and too wiggly.

- Please build more single-track bike trails - even if they are adjacent to main trails. When main trails are built wide with a hard surface it invites motorized vehicles and makes it less safe for walkers and bikers. Let's put a dent in obesity and make trails that are fun and safe for families...and connect them all the way to Bridgeland so we can get there more easily.
- I would be nice to include an equestrian trail around the edge of some parks which are designed and used for other leisure purposes.
- My wife and I have lived here on Cypress Creek for over 20 years. Our families have been raised enjoying the Cypress Creek trails and we look forward to helping to improve them. You all are doing a great job and we would be happy to support your endeavors in providing better access for all - walkers, horse riders, joggers and cyclists. We are not only residents of this area but have several businesses in the study area as well. Thanks in advance for your efforts to make the trails enjoyable for everyone!
- It is IMPERATIVE, from now on, for SAFETY reasons, to avoid frontal collisions on the tracks, specifically the most dangerous ones, the off-road cycling riders (speed and metal equipment) There are at list three ways to avoid potential accidents: 1) open more tracks to be used by different sports. One for cycling and one for walking, jogging and horse riding. 2) place arrow signs on each trail entrance, to indicate the marching direction, to avoid frontal collisions. 3) create a weekly calendar for each sport and place signs on each trail entrance. like: Mondays and afternoons for different activities, or two days for bicycles, two days for walkers and two days for horse riding.

Materials

- I think the best return on investment would be to utilize what's already there to it's fullest and make better connections between existing paths. Suggestions: 1) Connect Lakewood Crossing sidewalks to the Cypress Creek Trail where they are close. 2) There are trails on north and south sides of Cypresswood very close to Cypress Creek, but it is not evident how to safely segue between the two. 3) A real win would be connecting this trail system with those of Cypresswood by Meyer Park

and also provide safe walking/biking transport to Vintage. I think a really great way to do that would be to leverage the trails behind HP by paving/ graveling from the bridge sidewalk over Jones, behind the utility station, and through to them. Then connect those trails to sidewalk system in the Cypress Creek business complex and then continue along through to Chasewood Park Drive, over to Vintage (maybe with some commercial funding?), and over to the YMCA. Alternatively there are trails from the YMCA all the way back to where Cypress Creek Bike path hits Jones (the clover leaf) as well. Those existing trails need a bit of work. There is new trail development going on back there too, which is good. Right now I can make almost all of these connections happen, but crossing roads in unsafe ways, and the dirt trails are just falling apart back there; erosion / falling trees and overgrown brush. Very difficult on bike.

- I disagree with your premise that all trails must be connected, and certainly they do not all have to be paved. connecting trails does not necessarily increase usage, but it probably changes the type of usage..... attracts more bikes that prefer hard surfaces, encourages the type of bike rider that creates safety issues on the trails (fast and not concerned about others on the trails)..... some disconnection of paved trails with non-paved access trails allows access but reduces the bike speed safety issue (or perhaps put some speed bumps on the paved trails).....
- Connect more trails, use less costly materials for less used areas... Crushed gravel is fine in places.
- As road bike enthusiast, paved trails are better. In addition, the wider trails like those at Johnston and Pundt park are much better for multi use and allow easier navigation around others using the trails.
- when you paved the natural trails, you created a freeway for road bikes to spin at speeds between 15-25 mph among pedestrians and strollers; a good 85-90% of users are plugged in and tuned out (ear buds, music, cell phones) - the pedestrians cannot hear a smooth tired street bike about to overtake them - all it takes is for someone to step in front of one of the spandex kings and they are going to get run over (check out what happened in NYC's Central Park a couple of weeks ago, a woman

stepped in front of a triathlon road bike that never braked, was run over, and she is now brain dead - if still alive); so you have unintentionally created a potentially dangerous situation - guys/gals on road bikes are into spinning and keeping up with their cycle computers RPMs without fear of cars, and they instead have become the danger . . . I ride off road bikes, usually slower, but always louder with off road tires - but pedestrians still can't hear me because they are tuned out on ear buds - I always announce my position and that I am passing, but very few ever hear me; I'd stay off road, but you paved most of the trails to the mtb paths in our area; so sometimes good intentions have unintended consequences but overall, your paths are an advantage for our area, just concerned that eventually someone will be hurt on them (if they already haven't been hurt); lastly, some of your paths are pretty remote, obviously without lights - a good set up for muggers and other thugs to overtake individuals, especially near sunset and after - I've never seen any police presence on the trails at any time best wishes, and thank you for soliciting feedback!

- NO MORE ASPHALT PLEASE
- I walk my English Mastiff and would have preferred it if the existing trails were natural surface as it's easier on our joints. Natural surface retains/emits less heat than asphalt and concrete, and is more aesthetically pleasing.
- For my own personal use on a bicycle, most surfaces are adequate. For seniors, unpaved trails are not safe enough for comfortable walking. Paved trails also allow access to special needs and to strollers allowing family groups to enjoy them together. I work on Cypresswood Dr near Meyer park and would also like to see interconnect with those trails. I do not feel safe riding a bicycle to work on Cypresswood Dr but hope someday there will be a trails alternative route.
- Would love to see more asphalt/concrete trails in our area. Please don't make them too "curvy", but love riding in the trees. Would love to see the Faulky Gully trail continue past Cypresswood all the way to Grant. Would also like to see Faulky Gully trail connect to Lonestar and to Vintage.
- The main trails need to be wide enough and

straight. Some of the trails built in the Lakewood Grove area are too narrow and too wiggly.

- I don't want to see the existing mountain biking trails destroyed for new large paved trails.
- The trails in the 100 acre preserve off Jones are beautiful! Please I beg you do not ruin them trying to improve them. Nature is perfect they way it is. If you continue to build these trails our children will grow up with no natural areas to explore.
- I support anything that prolongs the life of our small area of wooded trails, pouring a concrete path through the middle of them and calling it a recreational hike/bike trail is absurd. Go ride around the block in your own neighborhood if thats what you want and leave the 100 acre preserve as is!
- No concrete, it's hard on joints and equipment.
- As an active member of the mountain biking community and local Cypress Creek area resident for over 30 years, I call these trails home. I have spent countless hours over the last several years as the natural surface trails have been restored and maintained to an incredible level with no funding; 100% volunteer effort. We take pride in maintaining the trails and make every attempt to keep them as natural as possible. I support any effort to promote the natural trail system in this area as long as it doesn't threaten existing multi-use natural surface trails.
- Please don't change anything! It's the closest natural trail system in the city. I ride it daily to get my exercise and it's extremely relaxing a quiet. There is a good group of volunteers that maintain the trail system whether it's keeping up with the trails or picking up trash. Leave it alone!
- I dislike the county coming in and plowing a 30 foot wide path through protected wetland to pave a asphalt surface in the woods. (100 acre preserve). Trials can be made with natural surfaces and prevent as much damage to the ecosystem.
- Please don't destroy the natural surface trails.
- I ride and volunteer time to maintain the natural surface hike and bike trails. I would like to see them preserved and improved with possible expansion like was done at Collins Park. Thanks.

- Dirt trails are fine as long as the weeds/grass is cut adjacent to the trail.
- Trail from cypress park to connect to trail at Cypresswood (at Norchester). Crushed granite trail down the esplanade of Cypresswood from Grant Rd to Norchester.
- Paved or bike trail to the YMCA from the Lakewood Forest area (say down Cypresswood from Taylor Park).
- Need this for community, community exercise and resale. Most important to me: connect to Meyer Park safely on a trail that is easy on the person to walk/run - in other words good foundation, smooth trail.
- Number of items most important to me: 1) Safety 2) Keep natural as possible and connect to other trails.
- Sometimes soft trails won't work in areas that flood regularly. Kickerillo Preserve is a fantastic property that could add so much for Prestonwood residents.
- This is a natural wooded area so it should stay that way. No foreign surfaces ie: asphalt or concrete. Keep it natural.
- Please build more single-track bike trails - even if they are adjacent to main trails. When main trails are built wide with a hard surface it invites motorized vehicles and makes it less safe for walkers and bikers. Let's put a dent in obesity and make trails that are fun and safe for families...and connect them all the way to Bridgeland so we can get there more easily.
- The existing off road trail in the study area which maintained and developed by the collective effort of mountain bikers must not be in anyway replaced or deformed by any concrete/asphalt improvement in the future. Any additional development should in harmony of the existing trail.
- Let the trails keep running like they have been the riders have it covered more wooded land to cut trails would be nice.
- Please leave plenty of difficult dirt trails for mountain biking.
- I am an off-road cyclist, member of GHORBA

and active supporter of existing natural surface trails. I am a frequent user. I want to see effective combination of hard and natural surface trails so they support each other for safety and user needs.

- The MUDS are just paving everything. And their trails are too wide so that the runners can not go alongside.
- Originally we were told we could ride horses around Eldridge Lake area but now we are shut out. So not happy about horse trails being taken away. There are plenty of walking trails around the lakes. Need more horse access trails instead of riding too close to the creek, it can be risky there with all the sand and flooding. Would be happiest if we could have horse trails that we could even share with cyclist and walkers. There is plenty of room for all of us. Thank you for taking the time to create the survey. Cypress has a huge horse community and we need spaces to ride. That's why we live in Cypress, and have been riding out there for years! Please do not take that away.
- We love our trails. There is no other place on earth as lovely as our white sand trails. We value our time there and are afraid of life without them. Please keep them open to horses, as we are the ones who value them the most!
- Horses and bicycles don't mix. Equestrian trails need natural ground and we prefer narrow wooded trails. Many horses are afraid of bicycles and even if the horses are not, bicyclists don't often yield to horses. This is dangerous. Many trails previously only used by horses are now used by bicyclists. Would be best and safest for all to have two trail systems with dedicated area for horses.
- Many associates and I have been concerned about the now inconsistent footing on the trails. they now have fallen trees, holes, mud. I need a good flat area to get the horses up to a training speed!
- More equestrian trails please - LOVE IT!
- These trails have been in use by equestrians since before North Eldridge was a county road, per the records of the family whom I bought my horse property.
- I would like to thank you in advance for considering the increase in access for equestrian use on the trails. We truly respect and appreciate

the land available to ride our horses on. We are open to volunteer events and we also try to keep the lands clean and safe on our own.

- Trails should be kept natural with no concrete surfaces. Equestrian facilities should always be in the mix. There is a huge contingent in the surrounding area that would use this area. A user fee (even an annual fee) for some water and hook-up facilities would be welcomed by that group and they would respect it so they wouldn't lose it. Riding areas are hard to come by these days.
- Please do not take any more land for developers that cut into the equestrian trails. No off road motor bikers or bicycles allowed on equestrian trails - HORSES ONLY.
- The trails in this area are some of the best and most scenic for equestrian use in the city of Houston. Love this area! Please keep the trails available to equestrians.
- I have been riding on the trails with my horses since age eight and am very disappointed to the decrease in the amount of trails for equestrians in the area. There are many of us in the area and would love more access to different trails.
- The Cypress Creek Trails offer a unique opportunity for equestrian use in the city of Houston. There are very few other opportunities for horseback riding on public lands. The natural areas should be left as wild as possible.
- There are several equestrians who use these and surrounding trails. Please maintain the trails so that they remain safe for not only the horses, but others as well.
- Please give access to horseback riding.
- The trails I use, I made myself through my own property. I own 8 acres on Big Cypress creek.
- Stop destorying the woods and horse trails. Keep bikes and loose dogs off the horse trails. You have limited the trails to horses by putting up barricades, but now loose dogs and bike riders are on the horse trails.

here. I mainly ride a mountain bike on the trails. Occasionally equestrian use, as well as, running and walking. In the past year, there have been a lot of new mountainbikers showing up, they have built some new trails, which I appreciate. They seem to have taken ownership of the trails. They have been disrespectful of other trail users, riding too fast when close to walkers, joggers, and equestrian users. Telling equestrian users they should not be on the trails. I hope everyone can be educated that these are everybody's trails to use, and respect not only each other, but the trails themselves.'

- As more people are using the trail (hikers, bikers, equestrians) there should be some common courtesy and usage rules set to ensure everyone is safe and respected. Some rules include right to pass and regulations on man-made ramps and bridges.
- There are too many snakes Mosquitos and fleas with tall grass. It's not cut enough. Some lighting in areas that aren't behind a house would make it safer.
- If the trail were extended from the present terminus at Guernsey along Faulkey Gully and under Eldridge to at least Pitcairn St., it would allow access for all of LF sect. 15 as well as Pitcairn without the danger of crossing Eldridge. There are many who presently have to walk in the streets in this area who could then utilize the trail.
- Biking on Louetta is dangerous. Would like to bike from near n Eldridge & Grant to HP and Vintage Park, as well as Kroger and the new park on N Eldridge with a lake.
- I quit cycling alone off -trail because I was afraid there might be hobos that live in the woods. There are a lot of homeless in the study area, and they do live in the woods around here. Also I would like to see signs, pass on the left, or stay to your right, or something like that. There are a lot of people that don't know the rules of the road! LOL and this really is for safety issues. Thank you, we love our trail!
- I disagree with your premise that all trails must be connected, and certainly they do not all have to be paved. connecting trails does not necessarily

Safety

- I have used these trails since 2000, when I moved

increase usage, but it probably changes the type of usage..... attracts more bikes that prefer hard surfaces, encourages the type of bike rider that creates safety issues on the trails (fast and not concerned about others on the trails)..... some disconnection of paved trails with non-paved access trails allows access but reduces the bike speed safety issue (or perhaps put some speed bumps on the paved trails).....

- In general, this area of Harris County (well most of Harris County and Houston) is not very bike or pedestrian friendly, especially on and on the side of roadways. Having to put a bike on a car to access trails wastes time and energy. Walking to access the trails is a safety risk as well. Development of more trails should follow development of better, safer access to the trails from neighborhoods that do not adjoin trails.
- I love biking and would like to see this whole area become more bike friendly. Currently it is very dangerous to ride most places in this city. I live only three miles from where I work yet cannot ride my bike safely on Louetta Rd. There is no shoulder or bike paths. Houston in general needs to be more bike friendly.
- As road bike enthusiast, paved trails are better. In addition, the wider trails like those at Johnston and Pundt park are much better for multi use and allow easier navigation around others using the trails.
- This side of town needs trails comparable to George Bush Park and Terry Hensley Park. We need such a trail to have a safe place to bike.
- When you paved the natural trails, you created a freeway for road bikes to spin at speeds between 15-25 mph among pedestrians and strollers; a good 85-90% of users are plugged in and tuned out (ear buds, music, cell phones) - the pedestrians cannot hear a smooth tired street bike about to overtake them - all it takes is for someone to step in front of one of the spandex kings and they are going to get run over (check out what happened in NYC's Central Park a couple of weeks ago, a woman stepped in front of a triathlon road bike that never braked, was run over, and she is now brain dead - if still alive); so you have unintentionally created a potentially dangerous situation - guys/gals on road bikes are into spinning and keeping

up with their cycle computers RPMs without fear of cars, and they instead have become the danger . . . I ride off road bikes, usually slower, but always louder with off road tires - but pedestrians still can't hear me because they are tuned out on ear buds - I always announce my position and that I am passing, but very few ever hear me; I'd stay off road, but you paved most of the trails to the mtb paths in our area; so sometimes good intentions have unintended consequences but overall, your paths are an advantage for our area, just concerned that eventually someone will be hurt on them (if they already haven't been hurt); lastly, some of your paths are pretty remote, obviously without lights - a good set up for muggers and other thugs to overtake individuals, especially near sunset and after - I've never seen any police presence on the trails at any time best wishes, and thank you for soliciting feedback!

- I enjoy using the Malcomson Rd UD trail. However, too many dog owners think this is their PRIVATE dog park and do NOT leash their dogs or pick up their waste. I'd like to see signs put up saying that Harris County has a LEASH LAW and dogs MUST BE LEASHED AT ALL TIMES.
- For my own personal use on a bicycle, most surfaces are adequate. For seniors, unpaved trails are not safe enough for comfortable walking. Paved trails also allow access to special needs and to strollers allowing family groups to enjoy them together. I work on Cypresswood Dr near Meyer park and would also like to see interconnect with those trails. I do not feel safe riding a bicycle to work on Cypresswood.Dr but hope someday there will be a trails alternative route.
- I use the trails a minimum of 4 days a week. It would be nice if they connected so that I didn't have to loop the same section several times. It's the safest way to run or cycle, away from traffic.
- I would love a safer way to get to work than biking on Louetta twice a day.
- LOVE THE TRAIL SYSTEM, BUT DO FEEL SAFETY CONCERNS AT TIMES, ESPECIALLY IN THE AREAS THAT DO NOT BACK UP TO HOUSES.
- Most important to me: safety, ease of access
- Number of items most important to me: 1) Safety

- 2) Keep natural as possible and connect to other trails
- Mileage, shade and SAFETY
 - These trails allow for an increased variety of fitness exercise, an alternative to less safe road riding. I would be in favor of one way (for bicycles) trails in Cypresswood due to the large amount of traffic. I have had a number of head on collisions - I can only imagine how many others have had similar. This may require some trail rework, but safer riding.
 - There is a continued presence of horseback riding on the existing trail system that poses a hazard to cyclists and hikers alike. Current trails are too narrow to provide comfortable passage when encountering horseback riders. Please consider measures to separate pedestrian traffic from horseback traffic.
 - I am an off-road cyclist, member of GHORBA and active supporter of existing natural surface trails. I am a frequent user. I want to see effective combination of hard and natural surface trails so they support each other for safety and user needs.
 - Trails need to be connected with safe bike lines on roads. The county has major road up grades without safe bike lanes. Until this changes trails are useless to cyclists.
 - If possible, create some kind of connection from North of Louetta Rd, and create a connection to Cypress Creek/Faulkey Gully. Also, can there be a bike lane on Cypresswood Dr? I rode my bike there once or twice, and it was a pretty hairy experience.
 - Houston Metropolitan needs to leverage the areas along the bayou system to enable anyone (walker, runners, cyclists) to get from one place to other locations easily and SAFELY.
 - I really appreciate having places that I can ride close to home. It seems like the options keep decreasing. I miss being able to ride just west of Eldridge along the north side of Cypress Creek and now the access at the end of Creekway Drive is blocked. I'd like a safe way to get from the south side of the creek across to the north side around Grant Rd. Going through the creek under Grant works well except that the steep uphill on the north side of Grant is getting scary.
 - I've been walking the trails for a few years and cycling . with some update parts its harder to walk them with all the cyclist zooming by ya and you have to jump off and n woods to get out of the way. They usually come with more then 6 in a pack. Then I'm riding my bike at my pace and all the sudden here comes a pack at a very racing pace. Could be dangerous.
 - Horses and bicycles don't mix. Equestrian trails need natural ground and we prefer narrow wooded trails. Many horses are afraid of bicycles and even if the horses are not, bicyclists don't often yield to horses. This is dangerous. Many trails previously only used by horses are now used by bicyclists. Would be best and safest for all to have two trail systems with dedicated area for horses.
 - Lots of problems with motorized vehicles.
 - Many associates and I have been concerned about the now inconsistent footing on the trails. they now have fallen tress, holes, mud. I need a good flat area to get the horses up to a training speed!
 - Originally we were told we could ride horses around Eldridge Lake area but now we are shut out. So not happy about horse trails being taken away. There are plenty of walking trails around the lakes. Need more horse access trails instead of riding too close to the creek, it can be risky there with all the sand and flooding. Would be happiest if we could have horse trails that we could even share with cyclist and walkers. There is plenty of room for all of us. Thank you for taking the time to create the survey. Cypress has a huge horse community and we need spaces to ride. That's why we live in Cypress, and have been riding out there for years! Please do not take that away.
 - Lack of sidewalks limits access to trails. No way to cross busy streets like louetta,highways like 249.
 - I would like to thank you in advance for considering the increase in access for equestrian use on the trails. We truly respect and appreciate the land available to ride our horses on. We are open to volunteer events and we also try to keep the lands clean and safe on our own.
 - Be nice if motorized vehicles stayed out of area where there should not be motorized vehicles!!
 - It is IMPERATIVE, from now on, for SAFETY reasons,

to avoid frontal collisions on the tracks, specifically the most dangerous ones, the off-road cycling riders (speed and metal equipment) There are at list three ways to avoid potential accidents: 1) open more tracks to be used by different sports. One for cycling and one for walking, jogging and horse riding. 2) place arrow signs on each trail entrance, to indicate the marching direction, to avoid frontal collisions. 3) create a weekly calendar for each sport and place signs on each trail entrance. like: mondays and afternoons for different activities, or two days for bicycles, two days for walkers and two days for horse riding.

Amenity

- Trails should be kept natural with no concrete surfaces. Equestrian facilities should always be in the mix. There is a huge contingent in the surrounding area that would use this area. A user fee (even an annual fee) for some water and hook-up facilities would be welcomed by that group and they would respect it so they wouldn't lose it. Riding areas are hard to come by these days.
- Please do not take any more land for developers that cut into the equestrian trails. No off road motor bikers or bicycles allowed on equestrian trails - HORSES ONLY.
- We need more trails with easy trailer parking for equestrian use. Walking/hiking/biking is much more available, but we are lacking equestrian space. Most people enjoy seeing horses and kids are thrilled when they see horses and are able to pet them. Please let me know of any volunteer opportunities for trail improvements/maintenance. Would gladly participate.
- I can see trails while driving on Jones Rd and surrounding roads but I can't find a place to park to get to them!
- As more people are using the trail (hikers, bikers, equestrians) there should be some common courtesy and usage rules set to ensure everyone is safe and respected. Some rules include right to pass and regulations on man-made ramps and bridges.
- I would like to have street lights.
- There are too many snakes Mosquitos and fleas with tall grass. It's not cut enough. Some lighting in areas that aren't behind a house would make it safer.
- Biking on Louetta is dangerous. Would like to bike from near n Eldridge & Grant to HP and Vintage Park, as well as Kroger and the new park on N Eldridge with a lake.
- I quit cycling alone off-trail because I was afraid there might be hobos that live in the woods. There are a lot of homeless in the study area, and they do live in the woods around here. Also I would like to see signs, pass on the left, or stay to your right, or something like that. There are a lot of people that don't know the rules of the road! LOL and this really is for safety issues. Thank you, we love our trail!
- Please put in a dog park and bathrooms.
- It would be great to have a dog park included in any future development in this area.
- I enjoy using the Malcomson Rd UD trail. However, too many dog owners think this is their PRIVATE dog park and do NOT leash their dogs or pick up their waste. I'd like to see signs put up saying that Harris County has a LEASH LAW and dogs MUST BE LEASHED AT ALL TIMES.
- Need more parking at Glenway and Cypresswood.
- Currently enjoy the Trails greatly. Appreciate the community support in keeping the trails clean, and providing benches.
- The trails are fabulous and Me and my family really appreciate them. However, the odor around the bayou area is horrible. Smells of sewage. The odor is worst after rain and on hot days.
- I would like to see mountain bike trails that are built like we build skate parks with taxes for the kids. If we had trails that had more of a race track style, my kids would be on the track every day and not on the Xbox. I would love to help make this happen.
- Needs better dog leash signage. Too many people think its ok to walk dogs without a leash.
- As an active member of the mountain biking community and local Cypress Creek area resident

for over 30 years, I call these trails home. I have spent countless hours over the last several years as the natural surface trails have been restored and maintained to an incredible level with no funding; 100% volunteer effort. We take pride in maintaining the trails and make every attempt to keep them as natural as possible. I support any effort to promote the natural trail system in this area as long as it doesn't threaten existing multi-use natural surface trails.

- I use the trails to access the mountain bike trails. Don't make the mountain back trails safer! That's the whole point of them!
- I have lived in the area since 1974 and have always enjoyed the "wilderness" along the creek. At 50 its nice to run and bike the same area I did when we moved here when I was 10. Mountain biking has been a joy for the last 8 years and the recent added off road improvements are a God-send.
- Lights along all of the trails would lead to increased use as would more maps.
- I would suggest signs explaining cycling etiquette, as in to call out "passing on your left" since not all cyclists do it.
- We want trail to expand please! We need trees on the trail for next generation (hot day, sunny days need shade).
- Lets make this a destination in Texas! By Connecting and busltering the mountain biking presece we have an opportunity to do great things. We also need more bars and resturants along these trail as if it were a river. (kinda like the old Rainbow lodge in town). Lets make something to be proud of and bring dollars to our community.
- irrigation for trees and trail along Cypresswood, Bike Trails at Anderson Woods, More rest stops, grant rd sidewalks, trails to CyCreek HS, Cypresswood Dr extending to the West?
- Sometimes soft trails won't work in areas that flood regularly. Kickerillo Preserve is a fantastic property that could add so much for Prestonwood residents.
- More outreach to let people know about these trails and their connectivity, many just don't realize. Suggest preparing maps to be published in HOA newsletters, etc made available for free.
- My family and I have run these trails for several years, starting at Pitcairn and Spring-Cypress, running down Pitcairn to get to the gully, and picking up the trails near Gurnsey. I run the trails over Louetta, under Jones, and then under Jones again over to Cypresswood. There is a sign about connecting trails to the YMCA and then under 249. Connecting the trails, making them longer, putting in water fountains and maybe some lights would help in their use. When I was running them this morning, there were quite a few people between Gurnsey and Louetta, but not many anywhere else along the trails.
- These are wonderful trails and I use them almost daily. A map of the dirt trails would be helpful. So far the bike riders are very considerate of the walkers and vice versa. I hope it stays that way.
- The Cypress Creek mountain biking trails are amazing. They bring me to the area often.
- how do I find a website for the trails?
- Pump track-pump track-pump track-pump track-pump track.
- Mileage, shade and SAFETY
- These trails allow for an increased variety of fitness exercise, an alternative to less safe road riding. I would be in favor of one way (for bicycles) trails in Cypresswood due to the large amount of traffic. I have had a number of head on collisions - I can only imagine how many others have had similar. This may require some trail rework, but safer riding.
- We mountain bike and trail run all over Houston area, these trails are the best maintained and safe trails of all. We travel to trails 80+ miles round trip an average of once a week. We typically dine and shop in this area upon completion.
- Please leave plenty of difficult dirt trails for mountain biking.
- Trails need to provide for many different users and their varying abilities. The wider the user base the better the sense of community. additionally support can be gained from surrounding communities, the FB group are doing a great job. more mass equals more momentum, which will help the "bike park" concept. I am from UK and have seen trail centers with some fairly plane

but well used single tracks offering technical trail features spotted adjacent to main trails that offer high skill level obstacles varied, not all pro double black. For example skinnies (not too high or hard), sea saws, varying size drop offs, pump track rollers, rock gardens, log rumble fields, etc. Having these as short 10-20 yard parallel paths means that you don't have to cut and maintain extra long single tracks. Having the variety of options add to variety, fun and provide great training for all ages. Some of these could be built into the irrigation bowls if permission and planning was gained from the grass cutting teams employed by the city. Anyway hope you consider idea worthy of some follow up.

- The purchase of additional land along the creeks would be nice so that the mountain bike trails could be extended beyond their current reach.
- Trails need to be connected with safe bike lines on roads. The county has major road up grades without safe bike lanes. Until this changes trails are useless to cyclists.
- If possible, create some kind of connection from North of Louetta Rd, and create a connection to Cypress Creek/Faulkey Gully. Also, can there be a bike lane on Cypresswood Dr? I rode my bike there once or twice, and it was a pretty hairy experience.
- Shade trees along the trails would help during hot weather

Funding

- Colorado Springs, CO has a tax on sporting gear to support the construction and maintenance of trails for recreational use.
- I think the best return on investment would be to utilize what's already there to it's fullest and make better connections between existing paths. Suggestions: 1)Connect Lakewood Crossing sidewalks to the Cypress Creek Trail where they are close. 2)There are trails on north and south sides of Cypresswood very close to Cypress Creek, but it is not evident how to safely segue between the two. 3)A real win would be connecting this trail system with those of Cypresswood by Meyer Park and also provide safe walking/biking transport to Vintage. I think a really great way to do that would

be to leverage the trails behind HP by paving/ graveling from the bridge sidewalk over Jones, behind the utility station, and through to them. Then connect those trails to sidewalk system in the Cypress Creek business complex and then continue along through to Chasewood Park Drive, over to Vintage (maybe with some commercial funding?), and over to the YMCA. Alternatively there are trails from the YMCA all the way back to where Cypress Creek Bike path hits Jones (the clover leaf) as well. Those existing trails need a bit of work. There is new trail development going on back there too, which is good. Right now I can make almost all of these connections happen, but crossing roads in unsafe ways, and the dirt trails are just falling apart back there; erosion / falling trees and overgrown brush. Very difficult on bike.

- Need professionals to build trails, but volunteer help can be used to do some of the maintenance work. Some entity needs to organize it.
- Let those that use them, pay for them.
- Since there are many Seniors living in this area which would not use these trails, I would oppose any local taxes which would be required to expand the trails.
- I would DEFINITELY be opposed to an increase in taxes.
- No taxes please. only voluntary contributions for people who want to use it.
- NO NEW TAXES!
- Great idea, even though we do not get the opportunity to use the trails as much as we would like. I think they are an important part of our community as a whole. I would support the building of these trails through a one time tax assessment that has a definitive amount and can be paid through the local tax collector with an amortization of 24 - 36 months.
- We would hope that most funding would be covered by corporate philanthropy or existing local/state parks budgets.
- I do trail maintenance work at the volunteer events and on my own. There are many others like me that volunteer countless hours to have GREAT off road biking in this area.

- I am already active on the trails and work in trail maintenance. If there are any planned activities or meetings, please contact me.
- Pct 4 fund direct part of kickerillo mischer preserve.
- A GHORBA member and will help build trails.
- Trails are a great idea, but only if they can be funded through corporate interests rather than imposing the cost on the public or government agencies. Volunteer events are fine, but the private companies should pay for these projects if they choose to.
- There is a strong local volunteer base for off road biking trails. This group can and does do a great deal already to maintain the trails in this area.
- Cypress creek has a great team of guys who maintain it and host work party's for it. It would be nice to expand the trails closer to the 290 direction along mud district plots.
- I would like to thank you in advance for considering the increase in access for equestrian use on the trails. We truly respect and appreciate the land available to ride our horses on. We are open to volunteer events and we also try to keep the lands clean and safe on our own.
- Please relate to the local community how they can support expanding the trails. Thanks!
- Trails should be kept natural with no concrete surfaces. Equestrian facilities should always be in the mix. There is a huge contingent in the surrounding area that would use this area. A user fee (even an annual fee) for some water and hook-up facilities would be welcomed by that group and they would respect it so they wouldn't lose it. Riding areas are hard to come by these days.
- Noble Energy and other companies have matching donation programs that could also contribute to the community.
- I work in the fitness center at Noble Energy and would love to put a volunteer group together to refurbish and maintain the trails!
- We need more trails with easy trailer parking for equestrian use. Walking/hiking/biking is much more available, but we are lacking equestrian space. Most people enjoy seeing horses and kids

are thrilled when they see horses and are able to pet them. Please let me know of any volunteer opportunities for trail improvements/maintenance. Would gladly participate.

Appendix C

CULTURAL AND NATURAL RESOURCES CONSTRAINTS ANALYSIS OF THE CYPRESS CREEK TRAILS MASTER PLAN PROJECT, HARRIS COUNTY, TEXAS

Prepared for

Edminster Hinshaw Russ & Associates

Prepared by

SWCA Environmental Consultants

SWCA Project No. 28868

November, 2014

**CULTURAL AND NATRURAL
RESOURCES CONSTRAINTS ANALYSIS
OF THE CYPRESS CREEK TRAILS
MASTER PLAN PROJECT,
HARRIS COUNTY, TEXAS**

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November, 2014

1.0 INTRODUCTION

On behalf of Edminster Hinshaw Russ & Associates (EHRA), SWCA Environmental Consultants (SWCA) conducted a constraints analysis of the proposed Cypress Creek Master Plan Trails Project in northwestern Harris County, Texas. The purpose of this constraints analysis is to gather available information from publicly available natural resources data (e.g., wetlands, waterbodies, and endangered species) as well as previously recorded cultural resources data (e.g., archaeological surveys, archaeological sites, and historic resources) within the project area and to assess the potential for the presence of significant resources that may limit or otherwise influence the development of trails. The goal is to provide information for project planning and development, as well as to aid in estimating possible future work that may be required for regulatory compliance.

This report documents the results of these background reviews and assessments in or near the current project area. Complete biological and archaeological surveys of the project area were not conducted for this research. Therefore, this constraints analysis does not constitute any form of biological or archaeological clearance for the project area, but may be used to inform EHRA of the need for future resource compliance activities with city, state, and/or federal agencies.

2.0 PROJECT AREA

The project area consists of approximately 16 square miles in northwest Harris County bounded to the north by Spring Cypress Road, to the south by Grant Road, to the west by Grant Road and Eldridge Parkway, and to the east by Cutten Road and Old Louetta Road (**Figures 1 and 2**). This area includes portions of the Tomball, Satsuma, Cypress, and Rose Hill, Texas U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle maps.

3.0 REGULATORY FRAMEWORK

3.1 Natural Resources

Land development activities in Texas may be subject to permitting under a variety of regulatory programs. Depending on the actions to be undertaken by the developer, the location of the property, and the ecological context of the project, a project may require permission from the U.S. Army Corps of Engineers (USACE) and U.S. Environmental Protection Agency (EPA) under the requirements of the Clean Water Act (CWA) or through the Endangered Species Act (ESA), which is regulated by the U.S. Fish and Wildlife Service (FWS) and National Oceanic and Atmospheric Administration (NOAA). Furthermore, Texas Commission on Environmental Quality (TCEQ) and Texas Parks and Wildlife (TPWD) may require additional documentation for projects with the potential to influence waters and wildlife of Texas, respectively.

When a project is expected to impact waters of the U.S., this review process is often enjoined by seeking a permit under the CWA. USACE Galveston District oversees these permits for the majority of the Texas Gulf Coast, including the greater Houston area. The USACE Galveston District typically coordinates the review of project plans through the other agencies to ensure compliance with all applicable regulatory programs. However, in some instances agencies may require permitting beyond those required by USACE, such as cases in which waters of the U.S. are not impacted but endangered species are.

3.2 Cultural Resources

Projects in Texas can come under the purview of the National Historic Preservation Act of 1966 (NHPA) and the Texas Antiquities Code (TAC), both of which are administered by the Texas Historical Commission (THC) located in Austin. If an undertaking is federally permitted, licensed, funded, or partially funded, the project must comply with Section 106 of the NHPA, as amended. Section 106 requires that every federal agency consider the undertaking's effects on historic properties. The process begins with a historic properties inventory and evaluation. Under Section 106, any property listed in or eligible for the National Register of Historic Places (NRHP) is considered significant. The NRHP is a historic resources inventory maintained by the Secretary of the Interior that includes buildings, structures, objects, sites, districts, and archaeological resources. These regulations are defined in "Protection of Historic Properties," 36 Code of Federal Regulations (CFR) 800 of the NHPA. Examples of projects in Texas requiring compliance with the NHPA include those conducted on federal lands or ones acquiring a federal permit such as a Section 404 permit from the USACE.

Historic and prehistoric cultural resource sites located on lands owned or controlled by the State of Texas or one of its political subdivisions are protected by the TAC. The TAC requires state agencies and political subdivisions of the state, including cities, counties, river authorities, municipal utility districts, and school districts, to notify the THC of any action on public land involving five or more acres of ground disturbance, 5,000 or more cubic yards of earth moving, or if there is the potential to disturb recorded archeological sites. The THC's Archeology Division manages compliance with the TAC, including the issuance of formal TAC Permits which stipulate the conditions under which scientific investigations will occur. Under TAC, any historic or prehistoric property located on state land may be determined eligible as a State Antiquities Landmark (SAL). Projects in Texas that typically necessitate compliance with TAC are those undertaken by entities such as the Texas Department of Transportation, cities, counties, and their representatives.

4.0 METHODS

4.1 Natural Resources

SWCA reviewed existing natural resources data sets to identify areas with a high probability of requiring significant permitting requirements. Specifically, SWCA evaluated publicly available data including National Wetlands Inventory (NWI) maps, National Hydrography Database (NHD) maps, Texas Natural Diversity Database (TxNDD) maps, U.S. Geographic Survey topographic maps, and historical aerial images of the project area to identify areas that are likely to contain significant natural resources or otherwise require permitting actions. These data sets provide the locations of tentatively identified forested, scrub/shrub, and herbaceous wetlands, location records of threatened and endangered species, waterbodies, and past land cover data, respectively. These data permitted SWCA to identify areas that might be avoided in project planning and help guide future detailed field work. Although the NWI, TxNDD, and topographic maps provide guidance, it is important to note that these data sources are informed by remote sensing of ecological components that are not static and are subject to natural and anthropogenic alteration over time. Therefore, more formal design plans will require further investigation in the field to quantify the presence of any natural resources.

4.2 Cultural Resources

The cultural resources constraints analysis consisted of a relatively detailed background cultural resource and environmental literature search of the project area. An SWCA archaeologist reviewed the corresponding Tomball, Satsuma, Cypress, and Rose Hill, Texas USGS 7.5-minute topographic

quadrangle maps on the Texas Archeological Sites Atlas (TASA) for any previously recorded surveys and historic or prehistoric sites located in or near the project area. Site files, relevant maps, NRHP properties, SAL listings, cemeteries, and local neighborhood surveys were also examined. This source provided information on the nature and location of previously conducted archaeological surveys and previously recorded cultural resource sites. Listings are limited to projects under the purview of the TAC or the NHPA. Therefore, all previous work conducted in an area may not be available. Bureau of Economic Geology maps, aerial photographs, and the Natural Resources Conservation Service (NRCS) Web Soil Survey were also examined for historical and environmental information related to the project area.

Utilizing this information, locations within the project area were assessed for their potential to contain archaeological and/or historical materials. The project area was then divided into high, medium, and low-probability areas, based on the potential to contain archaeological and historical resources. High-probability areas are defined as locales that possess or have a high likelihood of containing significant cultural resources. These areas are generally identified by distinct landforms and deposits that have been shown in other regional surveys to contain archaeological sites. In the case of historic resources, high-probability areas are identified by the presence of historic-age properties within the project area. Medium or low-probability areas are defined as locales where archaeological and/or historical resources are likely absent or have limited potential to be preserved or significant (e.g., upland settings or areas with intensive development).

5.0 FINDINGS

5.1 Geology

According to the Geological Atlas of Texas (Barnes 1992), the project area falls within three geologic formations: the Willis Formation, the Lissie Formation, and Holocene-age Alluvium. The Willis formation consists of clay, silt, sand, and siliceous gravel, with some petrified wood and iron concretions. The Pleistocene-aged Lissie Formation is comprised of clay, silt, and sand. Inclusions consist of siliceous gravel, pebbles, calcium carbonate, iron oxides, and iron-manganese oxides. Topography in the Lissie Formation is gently undulating and relatively featureless except for infrequent shallow depressions and pimple mounds. Holocene-age Alluvium consists of clay, silt and sand, with organic matter, occurring in point bar, natural levee, stream channel, backswamp, coastal marsh, mud-flat, and narrow beach deposits.

5.2 Soils

Soil survey data obtained from the NRCS (2014) for Harris County were used to compile a list of soils within the project area. Soils identified are listed in **Table 1** and depicted in **Figure 3**.

Table 1. Soils within the project area (NRCS 2014; Abbott 2001).

Soil Map Unit	Soil Name	Topographic Position	Geoarcheological Potential
Ap	Aris fine sandy loam	Uplands	Low
Ar	Aris-Gessner complex	Uplands and upland depressions	Low to moderate
Bn	Bissonnet very fine sandy loam	Uplands	Low
Cd	Clodine loam	Uplands	Low to moderate
Gs	Gessner complex	Upland depressions	Low to moderate
Ge	Gessner loam	Upland depressions	Low to moderate
Hf	Hatliff loam	Forested floodplains	High
HoA	Hockley fine sandy loam, 0-1% slopes	Uplands	Low
HoB	Hockley fine sandy loam, 1-4% slopes	Uplands	Low
Vo	Voss sand	Floodplains	High
Vs	Voss soils	Floodplains	High
Wo	Wockley fine sandy loam	Uplands	Low

As indicated in Table 1, the geoarcheological potential of these soils varies. Likewise, the NRCS has identified Aris fine sandy loam, Aris-Gessner complex, Gessner complex, Gessner loam, Voss sand, Voss soils, and Wockley fine sandy loam soils as hydric soils for Harris County. This determination indicates that these soils have properties that would promote the formation of wetland areas in locations where water is able to remain for a sufficient period during the growing season.

5.3 NWI Wetlands and NHD Waterbodies

Considering the project area's proximity to the floodplain (**Figure 4**), riparian corridors, and forested areas associated with Cypress Creek and its tributaries, it is not surprising that numerous wetlands are identified in the NWI data (**Figure 5**). In total, the NWI includes 104 forested wetland (PFO) areas constituting approximately 243.0 acres in the project area. These forested wetlands are generally located in the riparian corridors of Cypress Creek, Faulkey Gully, and Pillot Gully, with additional PFO wetlands associated with locations that have been developed since the NWI was created. The 20 scrub-shrub (PSS) and 32 emergent (PEM) wetlands in the NWI are far less abundant and provide approximately 50.9 and 64.3 acres of habitat, respectively. PSS and PEM wetlands in the project area are generally more abundant on properties immediately south of Spring-Cypress Road west of State Highway 249 between Cypresswood Road and Grant Road, especially to the east of Jones Road.

The NHD identified 14 perennial, intermittent, and ephemeral streams or other riverine habitats traversing approximately 17.75 river miles throughout the project area (**Figure 5**). In general, these are natural and man-made tributaries of Faulkey Gully and Cypress Creek with highly variable linearity, water quality, and physical condition. In addition to these lotic systems, the NHD identified one lake (Marshall Lake, 31.5 acres) adjacent to Cypress Creek, 5 additional riverine ditches (totaling 3.5 acres) and 41 ponds (totaling 54.86 acres) scattered throughout the project area. These waterbodies are all associated with Cypress Creek's watershed.

The NWI is largely based on remotely sensed data collected in the mid-1990s. As such, many of the mapped aquatic resources have been substantially altered or, in some cases, completely lost through construction over the past few decades. Additionally, several waterbodies have been established through the construction of water detention facilities and the consolidation of wetlands during land development. Any changes in the waterbodies of the area that were subsequent to the NWI are best represented by current aerial imagery. Interpretation of the aerial images indicates that constructed and lost waterbodies are largely associated with the development of subdivisions or industrial areas. Therefore, it will be critical to perform wetland delineations for all areas through which the alignment traverse to accurately ascertain the potential impacts to regulated waters.

5.4 Endangered Species

Three protected species are known to occur in the vicinity of the project area (**Figure 6**). Texas prairie dawn (*Hymenoxys texana*) is a federally listed endangered species that is generally associated with mima mounds on Texas' Gulf Coastal Plains. Sprague's pipit (*Anthus spragueii*), a migratory songbird that winters in the Texas Gulf Coastal Plains, is a candidate for federal listing, as well. Finally, the bald eagle (*Haliaeetus leucocephalus*), is protected under the Bald and Golden Eagle Protection Act.

Although the TxNDD does not identify any known records of these within the project area, the historic range of these species is such that any construction activities in the area would require scrutiny to ensure that these species are not harmed. For the pipit, this may simply require being careful in timing and locating construction to avoid critical habitat. However, for prairie dawn and the bald eagle, surveys may

be required for areas that provide potentially useable habitat. Such areas would have to be defined in a more detailed report that would be based on specified potential alignments.

5.5 Houston-PALM

The Houston Potential Archaeological Liability Map (PALM) was developed for the Houston area by the Texas Department of Transportation and provides an assessment of geoarchaeological potential (Abbott 2001). The Houston PALM lists the probability for a named soil to contain buried archaeological deposits. Further guidelines regarding the recommended level of effort for archaeological surveys within the Houston area are provided for each Map Unit (Abbott 2001). According to the Houston-PALM, the project area is located within Map Units 1, 2, 2a, and 4. Briefly, Map Unit 1 consists of areas underlain by deep Holocene deposits exhibiting limited surficial disturbance. Map Unit one should be evaluated with surface surveys and shovel testing for typical impacts; however, deep reconnaissance may be warranted if deep impacts are anticipated. Map Unit 2 and 2a consist of low to moderately disturbed Holocene-age veneer deposits that rest upon Pleistocene landforms and the preserved pimple mounds located therein that are impractical to map individually. Within Unit 2, only a surface survey is recommended, whereas in Unit 2a a surface survey of the pimple mounds only is recommended with no deep reconnaissance. No surveys are recommended for Map Unit 4 because the area is characteristic of stable or erosional Pleistocene landforms, Pleistocene landforms in urban contexts, areas underlain by historic age deposits, and made land.

5.6 Background Cultural Review

The results of the background cultural review revealed that approximately 25 percent of the project area has been previously surveyed for cultural resources. A total of 12 area surveys, 2 linear surveys, and 2 avoidance plans have been conducted within the project area (Table 2).

Table 2. Previously conducted cultural surveys within the project area.

County	Year	Sponsoring Agency	Survey Type	Additional Information
Harris	No data	No data	Area	
Harris	1978	USACE	Area	
Harris	1991	FHWA	Area	
Harris	1992	FHWA	Linear	
Harris	2002	HCFC	Area	TAC #3029
Harris	2003	HCFC	Avoidance plan	TAC #3114
Harris	2003	HCFC	Area	TAC #3114
Harris	2004	USACE	Area	TAC #3398
Harris	2004	Harris County	Area	TAC #3497
Harris	2004	HCFC	Area	TAC #3514
Harris	2004	TPWD	Area	TAC #3530
Harris	2005	USACE	Area	TAC #3737
Harris	2005	HCFC	Area	TAC #3748
Harris	2006	USACE	Avoidance plan	TAC #3737
Harris	2011	Private/ Lone Star College	Area	
Harris	2013	Harris County	Linear	TAC #6686

A total of 57 previously recorded archaeological sites are located within the project area (Table 3). A majority of these sites were recorded along Cypress Creek during preparation for a floodplain preservation project through the Harris County Flood Control District. Of the total sites within the project area, two sites (41HR997 and 41HR1000) are listed as SALs. These sites are both open campsites of undefined prehistoric age located on terraces overlooking Pilot Gully to the east of State Highway (SH) 249.

Table 3. Archaeological sites within the project area.

Site No.	County	Quadrangle	Site Type	Site Description	Temporal Period	NRHP Eligibility
41HR156	Harris	Satsuma	Prehistoric	Artifact scatter	Undefined Prehistoric	Undetermined
41HR157	Harris	Satsuma	Prehistoric	Artifact scatter	Undefined Prehistoric	Undetermined
41HR158	Harris	Satsuma	Prehistoric	Artifact scatter	Undefined Prehistoric	Undetermined
41HR333	Harris	Satsuma	Prehistoric	Artifact scatter	Late Prehistoric	Not Eligible*
41HR342	Harris	Satsuma	Prehistoric	Artifact scatter	Undefined Prehistoric	Undetermined
41HR344	Harris	Satsuma	Prehistoric	Artifact scatter	Undefined Prehistoric	Not Eligible
41HR346	Harris	Satsuma	Prehistoric	Artifact scatter	Undefined Prehistoric	Undetermined
41HR354	Harris	Satsuma	Prehistoric	Artifact scatter	Undefined Prehistoric	Undetermined
41HR367	Harris	Satsuma	Prehistoric	Artifact scatter	Undefined Prehistoric	Undetermined**
41HR368	Harris	Satsuma	Prehistoric	Campsite	Undefined Prehistoric	Undetermined**
41HR385	Harris	Satsuma	Historic	Cemetery	1887-1930s	Undetermined
41HR390	Harris	Satsuma	Historic	St. John's Lutheran Church	20 th Century	Undetermined
41HR400	Harris	Satsuma	Historic	Farm outbuilding	20 th Century	Undetermined
41HR572	Harris	Tomball	Prehistoric	Artifact scatter	Undefined Prehistoric	Undetermined
41HR774	Harris	Satsuma	Prehistoric	Artifact scatter	Undefined Prehistoric	Undetermined
41HR775	Harris	Satsuma	Prehistoric	Artifact scatter	Late Prehistoric	Undetermined
41HR776	Harris	Satsuma	Prehistoric	Artifact scatter	Undefined Prehistoric	Undetermined
41HR777	Harris	Satsuma	Prehistoric	Artifact scatter	Transitional Archaic to Late Prehistoric	Undetermined
41HR778	Harris	Satsuma	Prehistoric	Artifact scatter	Transitional Archaic to Late Prehistoric	Undetermined
41HR779	Harris	Satsuma	Prehistoric	Lithic scatter	Undefined Prehistoric	Undetermined
41HR780	Harris	Satsuma	Prehistoric	Artifact scatter	Undefined Prehistoric	Undetermined
41HR781	Harris	Satsuma	Prehistoric	Artifact scatter	Undefined Prehistoric	Undetermined
41HR782	Harris	Satsuma	Prehistoric	Artifact scatter	Undefined Prehistoric	Undetermined
41HR783	Harris	Satsuma	Prehistoric	Artifact scatter	Late Prehistoric	Undetermined
41HR784	Harris	Satsuma	Prehistoric	Artifact scatter	Undefined Prehistoric	Undetermined
41HR785	Harris	Satsuma	Prehistoric	Artifact scatter	Undefined Prehistoric	Undetermined
41HR786	Harris	Satsuma	Prehistoric	Artifact scatter	Undefined Prehistoric	Undetermined
41HR793	Harris	Satsuma	Prehistoric	Artifact scatter	Undefined Prehistoric	Undetermined
41HR945	Harris	Satsuma	Prehistoric	Artifact scatter	Undefined Prehistoric	Undetermined
41HR946	Harris	Satsuma	Prehistoric	Open campsite	Undefined Prehistoric	Undetermined
41HR947	Harris	Satsuma	Prehistoric	Artifact scatter	Undefined Prehistoric	Not Eligible
41HR948	Harris	Satsuma	Prehistoric	Artifact scatter	Undefined Prehistoric	Not Eligible
41HR949	Harris	Satsuma	Prehistoric	Artifact scatter	Undefined Prehistoric	Not Eligible
41HR950	Harris	Satsuma	Prehistoric	Artifact scatter	Undefined Prehistoric	Not Eligible
41HR951	Harris	Satsuma	Prehistoric	Artifact scatter	Undefined Prehistoric	Undetermined
41HR952	Harris	Satsuma	Prehistoric	Artifact scatter	Undefined Prehistoric	Undetermined
41HR953	Harris	Satsuma	Prehistoric	Artifact scatter	Undefined Prehistoric	Undetermined
41HR954	Harris	Satsuma	Prehistoric	Campsite	Undefined Prehistoric	Undetermined
41HR955	Harris	Satsuma	Prehistoric	Lithic scatter	Undefined Prehistoric	Not Eligible*
41HR956	Harris	Satsuma	Prehistoric	Artifact scatter	Undefined Prehistoric	Undetermined
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41HR958	Harris	Satsuma	Prehistoric	Lithic scatter	Undefined Prehistoric	Not Eligible*
41HR959	Harris	Satsuma	Prehistoric	Artifact scatter	Undefined Prehistoric	Undetermined
41HR960	Harris	Satsuma	Prehistoric	Artifact scatter	Undefined Prehistoric	Undetermined
41HR961	Harris	Satsuma	Prehistoric	Artifact scatter	Undefined Prehistoric	Undetermined
41HR962	Harris	Satsuma	Prehistoric	Lithic scatter	Undefined Prehistoric	Not Eligible*
41HR963	Harris	Satsuma	Prehistoric	Lithic scatter	Undefined Prehistoric	Undetermined
41HR964	Harris	Satsuma	Prehistoric	Lithic scatter	Undefined Prehistoric	Undetermined
41HR965	Harris	Satsuma	Prehistoric	Artifact scatter	Undefined Prehistoric	Undetermined
41HR966	Harris	Satsuma	Prehistoric	Artifact scatter	Undefined Prehistoric	Undetermined
41HR967	Harris	Satsuma	Prehistoric	Artifact scatter	Undefined Prehistoric	Not Eligible
41HR984	Harris	Satsuma	Prehistoric	Open campsite	Undefined Prehistoric	Undetermined
41HR997	Harris	Satsuma	Prehistoric	Campsite	Undefined Prehistoric	Eligible (SAL)
41HR998	Harris	Satsuma	Historic	Residential	Early to Mid-20 th Century	Not Eligible
41HR999	Harris	Satsuma	Prehistoric	Artifact scatter	Undefined Prehistoric	Not Eligible
41HR1000	Harris	Satsuma	Prehistoric	Seasonal campsite	Undefined Prehistoric	Eligible (SAL)
41HR1001	Harris	Satsuma	Prehistoric	Seasonal campsite	Undefined Prehistoric	Not Eligible

*Recommendation only applies to the portion of the site within the investigated right-of-way

**Further work and/or testing recommended

The background review also revealed that there are three cemeteries (Kohrman Family Cemetery, Willis Wood Cemetery, and Amos Cemetery) and one historical marker (Kohrville) within the project area. The Kohrman Family Cemetery is located 0.21 mile northwest of the intersection of Jones Road and SH 249 and contains 11 interments dating from 1874 to 1943. The Willis Wood Cemetery is an urban cemetery enclosed by a perimeter fence, manicured grass, and Faulkey Gully to the north. There are approximately 50 interments dating from 1860 to 1945. The Amos Cemetery is located off of Hufsmith-Kohrville Road. The cemetery is maintained and contains approximately 200 interments dating from 1900 to 1945. The Kohrville Historical Marker commemorates early settlers in this part of Harris County who formed the town of Kohrville (TASA 2014). The marker is located off of Gatesden Road, 0.15 mile northwest of the intersection of SH 249 and Jones Road.

6.0 RESULTS

The soils and geomorphic position of the project area is such that there is a high probability that trail alignments through the area would intercept wetlands and waterbodies. Therefore, SWCA strongly recommends more detailed evaluations of the potential trail alignments as they are developed to more definitively identify these risks. Additionally, the endangered species data indicate that development of trails in the project area would have little, if any, threat to endangered species in Harris County. It is important to note, however, that detailed wetland delineations and threatened and endangered species surveys would be required to reduce the risks to natural resources and limit the need to mitigate for impacts to waters of the United States or endangered species.

Based upon a review of the soils, geology, Houston-PALM, historical topographic maps, and aerial photographs, it is SWCA's opinion that there is a low overall probability for significant archaeological deposits within much of the project area (**Figure 7**). Residential and commercial developments as well as flood control modifications have significantly altered the ground surface in much of the project area over the last several decades, limiting the potential for intact archaeological deposits. However, numerous archaeological sites have been recorded within or immediately adjacent to Cypress Creek, and much of the greenbelt along the creek within the project area remains relatively undisturbed. Consequently, it is SWCA's opinion that these areas retain a medium-to-high probability for intact archaeological deposits.

7.0 Summary and Recommendations

SWCA conducted a natural and cultural resources constraints analysis of the proposed Cypress Creek Trails Project in northwestern Harris County. The purpose of the constraints analysis was to gather available information on previously recorded biological and archaeological surveys, known endangered species habitats, archaeological sites, and historic resources and to assess the potential for the presence of significant resources within the project area.

The named waterbodies identified in the NWI data include Cypress Creek, Faulkey Gully, and Pillot Gully, each of which has a relatively well-defined, stable channel. Although additional ephemeral waterbodies may be identified and the exact locations of the previously mapped waterbodies may require verification, the major mapped waterbodies provide a reasonable description of areas to avoid in the preliminary planning stages. The NWI data indicate that there are numerous wetlands and waterbodies located throughout the project area; however, many of the identified locations appear to be inaccurate when compared to recent aerial images. Furthermore, in the case of Cypress Creek, the riparian corridor is relatively undeveloped and is likely to contain intact wetland habitats. For NWI wetlands in the riparian corridors, care should be taken to avoid these areas; however, the discrepancy between NWI data and aerial imagery is illustrative of the need to carry out wetland delineations on potential trail alignments prior to completing engineering plans. Although there are no known populations of protected species in

the project area, this does not preclude their existence. Detailed field work will be necessary to ensure that the impact of potential trail alignments are accurately quantified.

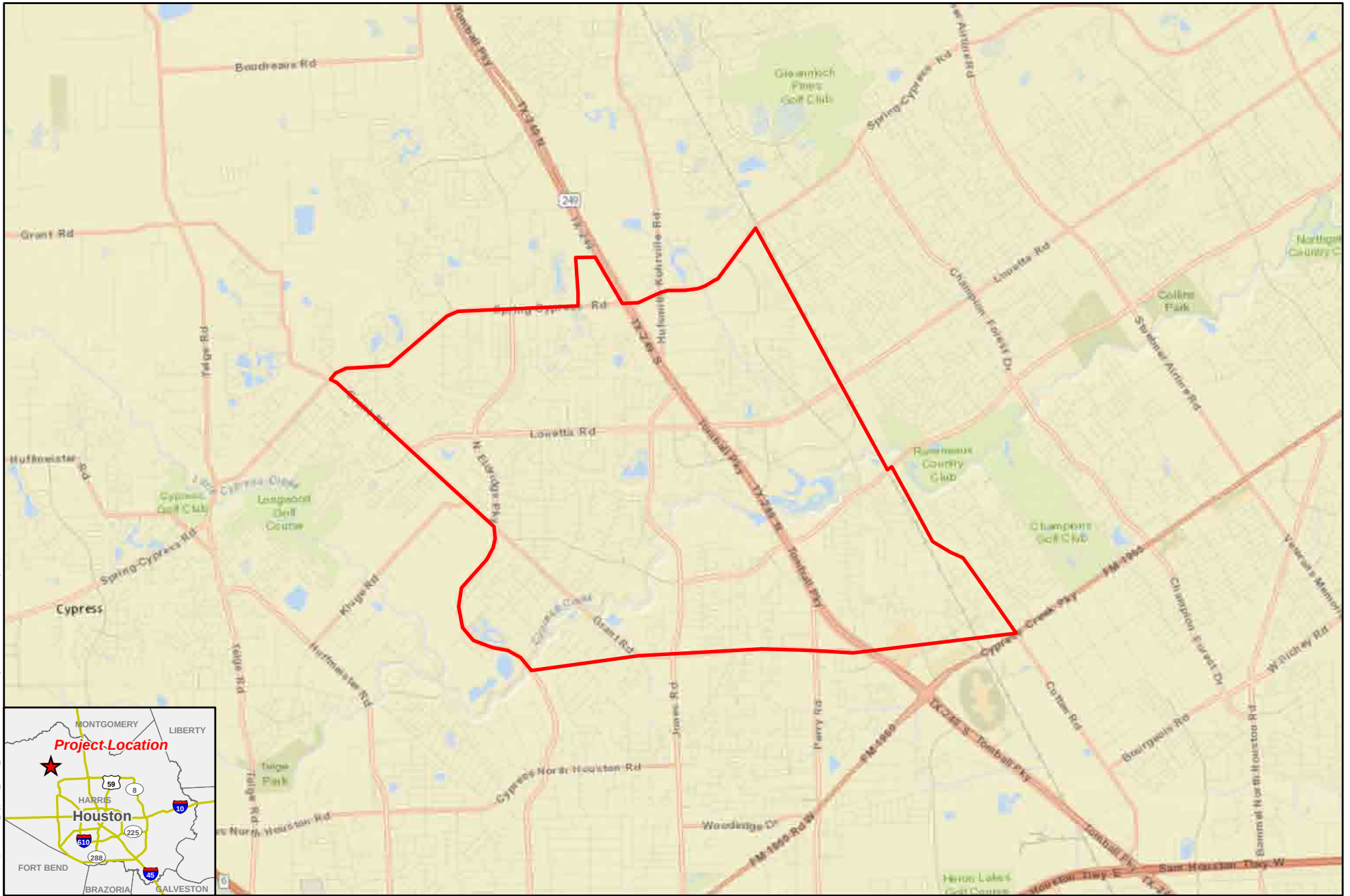
The background cultural resources review revealed that approximately 25 percent of the project area has been previously surveyed for cultural resources. In addition, there are 57 previously recorded archaeological sites, 3 cemeteries, and 1 historical marker within the project area. A majority of the cultural resources are located along Cypress Creek. Based upon a review of the soils, geology, Houston-PALM, historical topographic maps, and aerial photographs, it is SWCA's opinion that there is a low overall probability for significant archaeological deposits within much of the project area. However, much of the greenbelt along Cypress Creek remains relatively undisturbed, and therefore retains a medium-to-high probability for intact archaeological deposits.

As the proposed trail locations were not made available prior to the preparation of this document, it is difficult to determine the level of effort required to comply with applicable federal and state regulatory statutes. However, it is anticipated that any proposed activities within the Cypress Creek greenbelt will likely require additional efforts (i.e., field surveys) to identify archaeological resources.

8.0 REFERENCES

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- U.S. Fish and Wildlife Service (USFWS). 2014. List of Threatened and Endangered Species in Harris County. Available at: http://ecos.fws.gov/tess_public/countySearch!speciesByCountyReport.action?fips=48201. Accessed August 13, 2014

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CYPRESS CREEK TRAILS MASTER PLAN

VICINITY MAP

HARRIS COUNTY, TEXAS

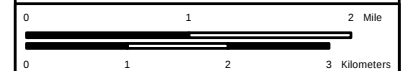
FIGURE 1

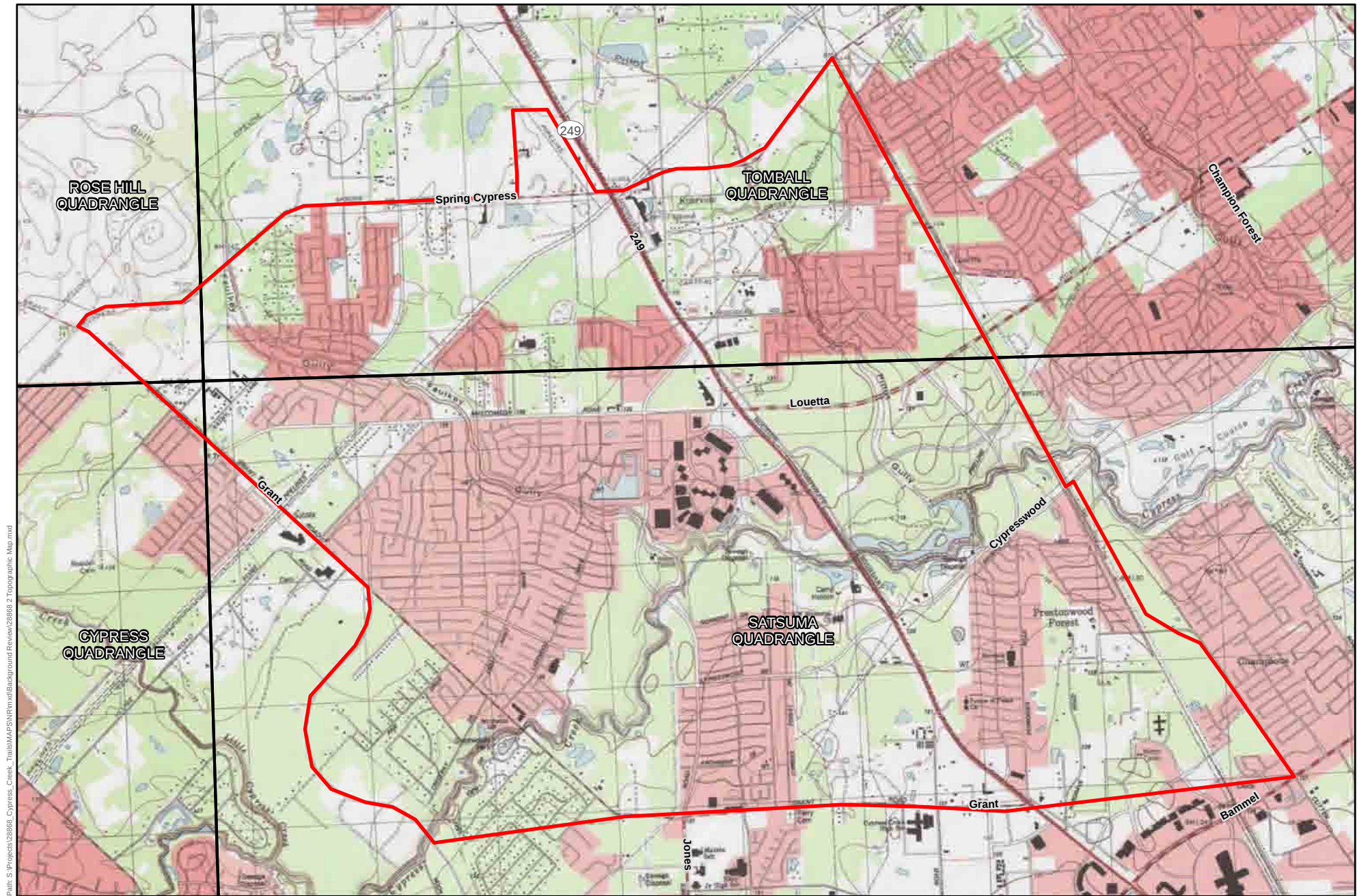
 Project Area



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Approved By:	RH
SWCA Project No.:	28868
Date Produced:	October 08, 2014

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CYPRESS CREEK TRAILS MASTER PLAN TOPOGRAPHIC REVIEW MAP HARRIS COUNTY, TEXAS

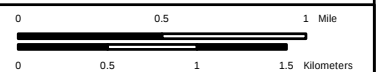
FIGURE 2

- Project Area
- USGS Quadrangles

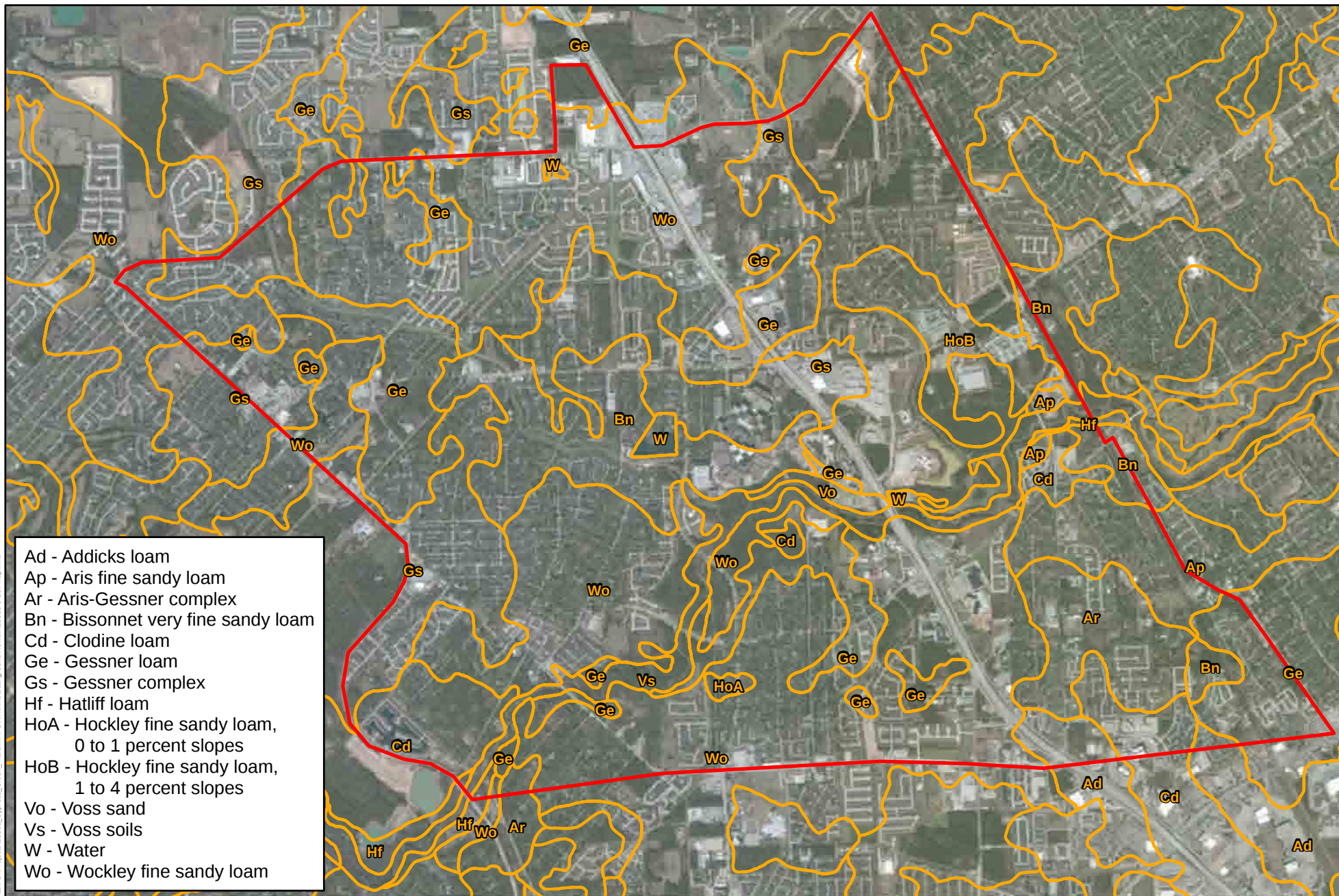


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SWCA Project No.:	28868
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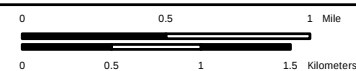
SOIL MAP
HARRIS COUNTY, TEXAS

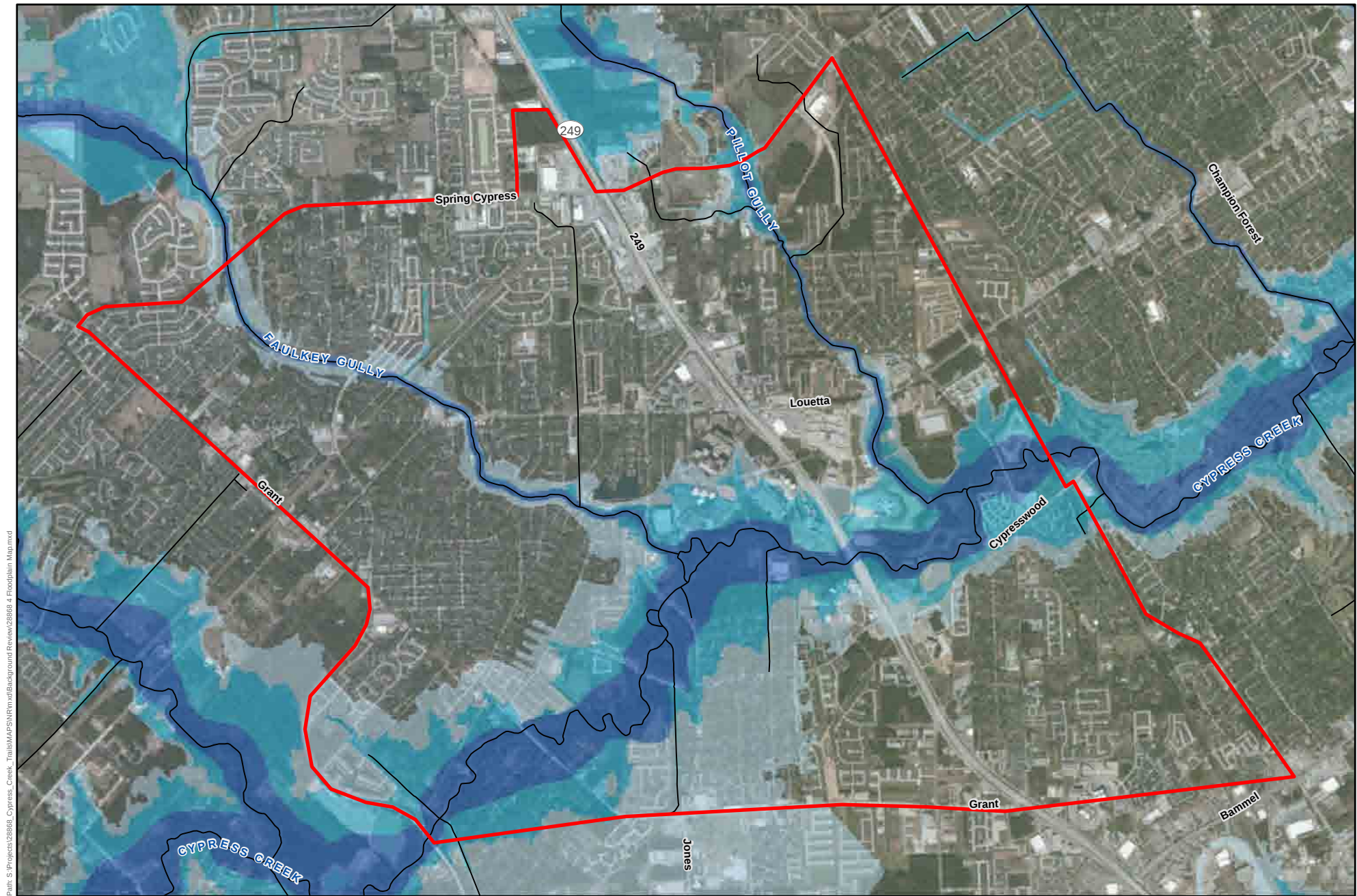
FIGURE 3



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SWCA Project No.:	28868
Date Produced:	October 08, 2014

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FLOODPLAIN MAP

HARRIS COUNTY, TEXAS

FIGURE 4

 Project Area

 100-Year Floodplain

 NHD Stream

 500-Year Floodplain

 Floodway



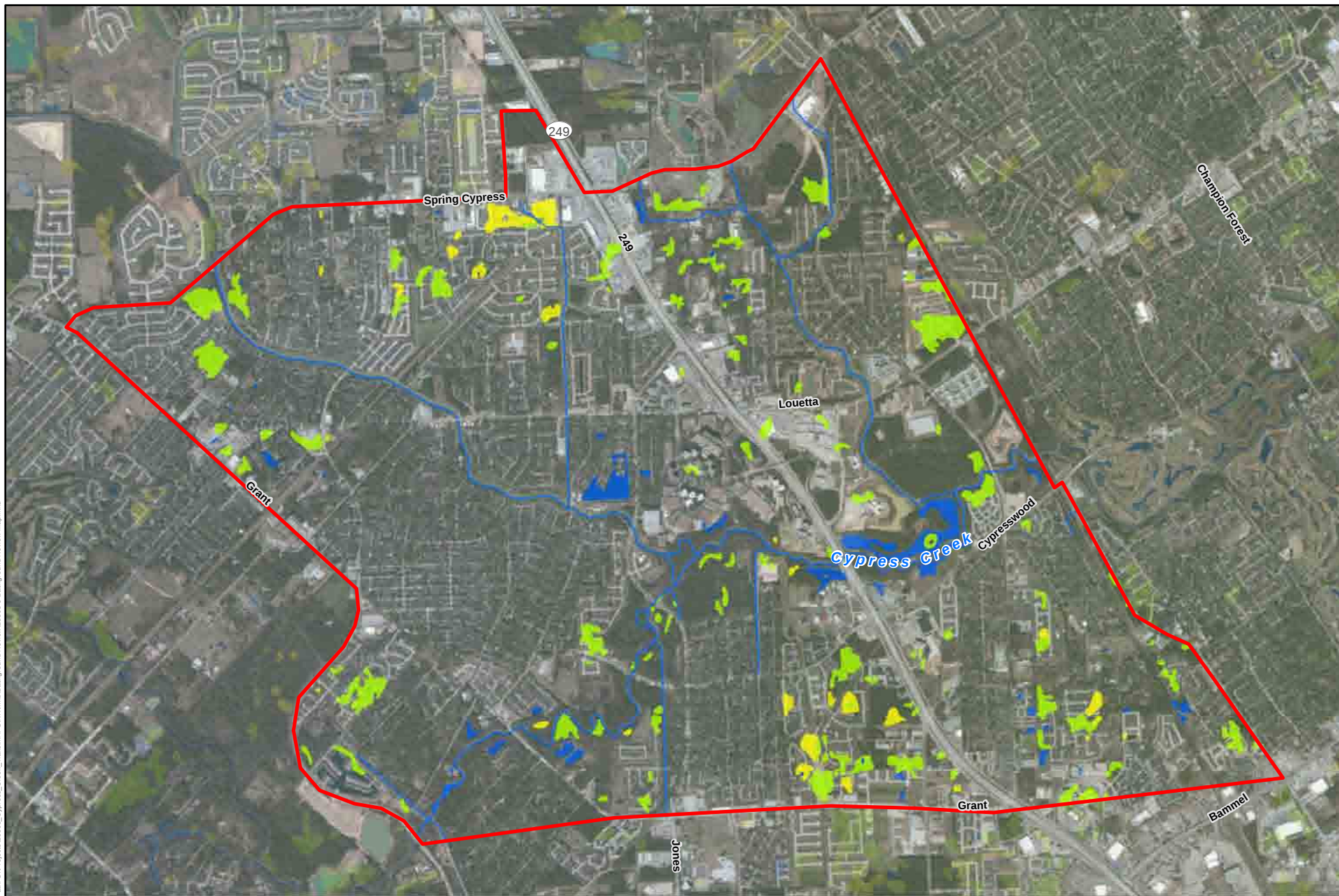
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Approved By:	RH
SWCA Project No.:	28868
Date Produced:	October 08, 2014

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CYPRESS CREEK TRAILS MASTER PLAN

BACKGROUND REVIEW MAP

HARRIS COUNTY, TEXAS

FIGURE 5

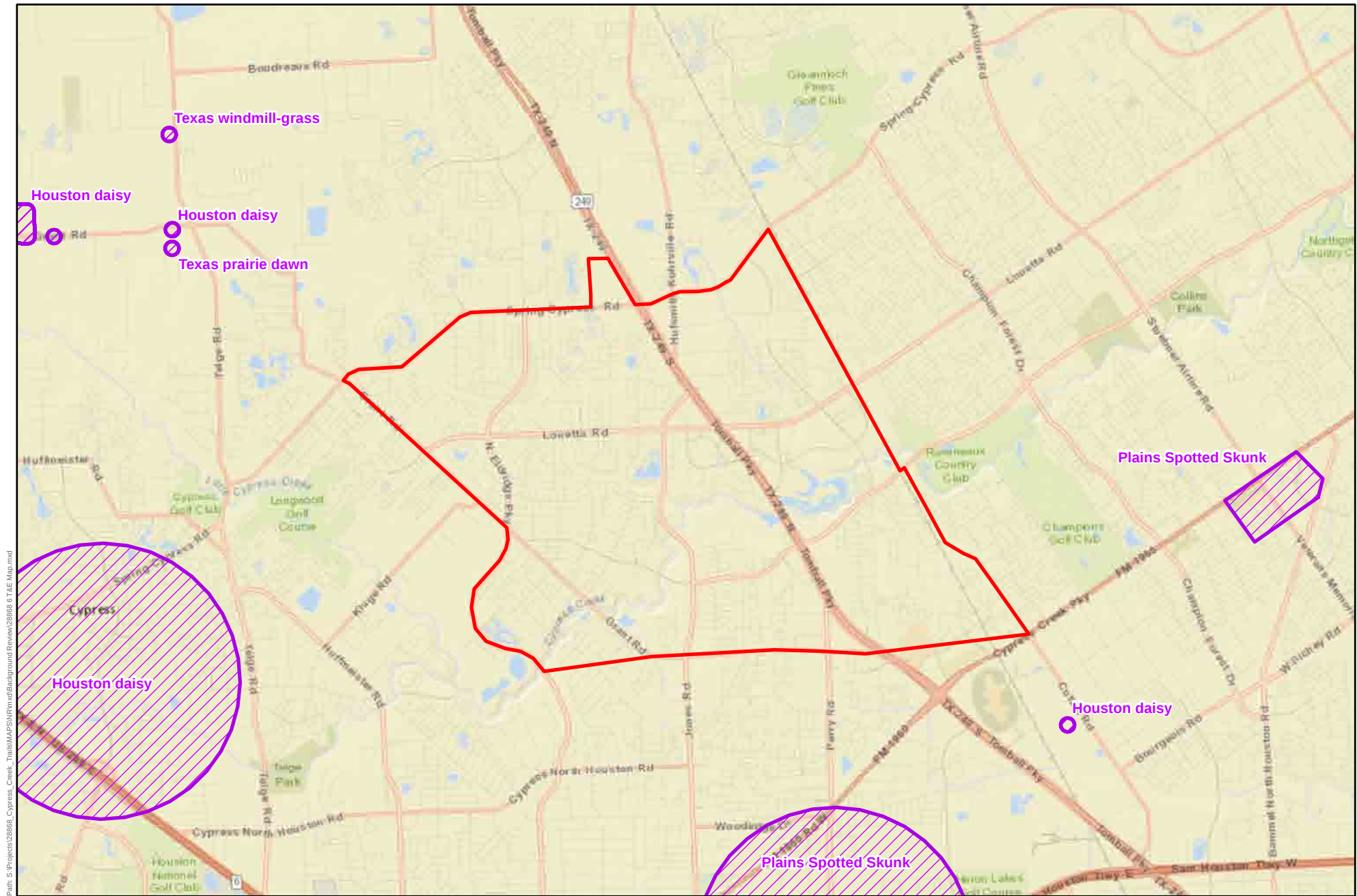
- Project Area
- NHD Stream
- NWI Freshwater Emergent Wetland
- NWI Freshwater Forested/Shrub Wetland
- NWI Open Water



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Approved By:	RH
SWCA Project No.:	28868
Date Produced:	October 08, 2014

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CYPRESS CREEK TRAILS MASTER PLAN

THREATENED AND ENDANGERED SPECIES MAP

HARRIS COUNTY, TEXAS

FIGURE 6

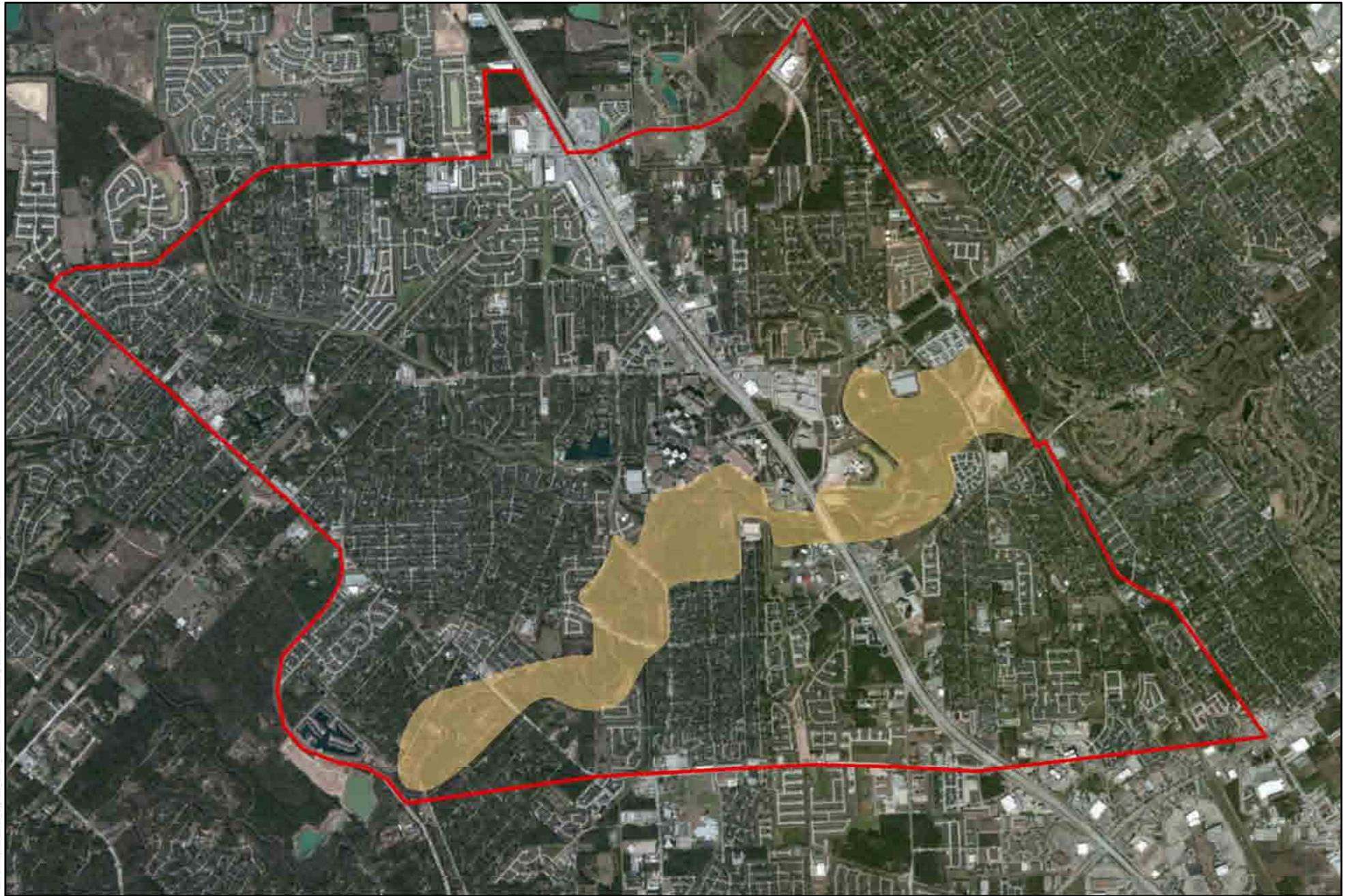
Project Area

TXNDD T&E Locations

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Scale:	1:75,000
Created By:	JS
Approved By:	RH
SWCA Project No.:	28868
Date Produced:	October 08, 2014

0 1 2 Mile

0 1 2 3 Kilometers



 Study Area Boundary
 Medium-High Probability Area