



San Jacinto River Waste Pits | Superfund Site
Draft Community Involvement Plan 2016

COMMUNITY INVOLVEMENT PLAN PURPOSE

The U.S. Environmental Protection Agency (EPA) Community Involvement Plan (CIP) for the San Jacinto River Waste Pits Superfund Site (Site) will identify tools and activities that will be used to address community interests related to the Site. The Plan will serve as a guide for EPA's public awareness program for the Site and provide the public with continuing opportunities for greater awareness about the project. The CIP provides descriptions of these tools and identifies how they will be used to address community concerns and promote public awareness of the project's status. The CIP also contains Site-related references and a series of appendices such as Q & A designed to serve as resources for both EPA and the community. Specific sections include the EPA and project team, local government, media contacts, and directions on how to obtain additional Superfund and EPA information.

COMMUNITY INVOLVEMENT PLAN OVERVIEW

This Community Involvement Plan (CIP) recognizes and addresses the challenges presented by the respective communities near the Site as well as the interests of organizations and agencies engaged as stakeholders. Consistent with the goal of successful community involvement, this plan focuses on broad-based opportunities for disseminating project information and opportunities for interaction between the public with EPA staff and management. Community members and interested parties will continue to be given opportunities for both formal and informal input on a wide range of issues; however, it is important to note that the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), commonly known as Superfund, and the regulations spelled out in the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) govern the EPA's response actions under the Superfund program. The statute and regulations require EPA to retain all decision-making authority and do not allow the Agency to delegate authority to citizens groups or other outside interests.

Community Involvement Plan is a resource and living document for the Site cleanup.

The CIP is an overview for public awareness of issues related to the Site cleanup. It is a companion document to a number of Site reports, plans, decision documents, and other sources of information that are and will be available for review. Because the precise timing of all activities and points for community awareness is dependent on overall project plans and milestones achieved, this CIP will remain an evolving document to be updated as appropriate as Site activity progresses.

SITE DESCRIPTION

Impoundments containing waste from the former Champion International Pasadena Mill are located at the intersection of the Interstate Highway 10 Bridge and the San Jacinto River in Harris County, Texas. Sediment samples from within or close to these impoundments revealed high concentrations of dioxins. The Site was placed on the National Priorities List (NPL) of Sites slated for federal cleanup in March 2008; cleanup began in December 2010.

The Site itself has no specific street address. In 1965, two waste impoundments were built by constructing berms within the estuarine marsh directly north of the former Texas State Highway 73 and now Interstate Highway 10 (I-10). The Site is west of the main river channel of the San Jacinto River, east of the City of Houston and northwest of Baytown, between two unincorporated areas known as Channelview and Highlands.

Currently, one of the two impoundments located directly north of the I-10 Bridge is partially submerged in the San Jacinto River. An additional impoundment is suspected to be located directly south of the I-10 Bridge and is currently being investigated under the Site Remedial Investigation/Feasibility Study (RI/FS).

A Time Critical Removal Action (TCRA) is addressing source stabilization within the 1966 original perimeter of the impoundments. The RI/FS will address the nature and extent of contamination at or from this preliminary perimeter. Watershed management strategies will address permitted disposal activities within the permits area of concern.

After the Site is fully delineated, a complete description will be presented in the Record of Decision (ROD), along with Wastes and Volumes to be addressed by the Remedial Action.


HOW THE SUPERFUND PROCESS WORKS FOR COMMUNITIES

1



STEP ONE: DISCOVERY & NOTIFICATION
Contaminated sites/concerns are brought to the attention of EPA by states, tribes or the public. This begins a formal process that requires state or tribal Governor support.

2



STEP TWO: SITE EVALUATION
EPA conducts a preliminary assessment (PA) and a site investigation (SI). The site receives a Hazard Ranking Score based on established criteria for placement on the National Priorities List (NPL).

3




STEP THREE: NPL LISTING
If the Hazard Ranking Score reaches a level of potential threat to human health and the environment, the site could be eligible for listing. A Public Comment Period begins. After comments are considered, the site becomes a Final Listing on the NPL if approved and the criteria is met.

4



STEP FOUR: EPA BEGINS WITH A REMEDIAL INVESTIGATION & FEASIBILITY STUDY.—The study is finalized into two documents. The nature and extent of the contamination is evaluated. In this Report. The level of risk to human health and the environment is quantified. Remedial Alternatives are presented. A Proposed Plan is created from the Report findings supporting a Preferred Alternative.

5



STEP FIVE: PROPOSED PLAN/ RECORD OF DECISION
After formal consultation with the state or tribe and after public comments are received on the Proposed Plan, a final decision on the remedy is made by EPA in the ROD.

6




STEP SIX: REMEDIAL ACTION
A Remedial Design is developed from the ROD requirements and a Construction Completion determination is made once the remedy is built. Remedial Action begins the process toward clean-up.

7



STEP SEVEN: CLOSE OUT AND REMOVAL FROM NPL
When Clean Up Goals have been met by achieving all objectives, data is collected to support the deletion of the Site from the NPL Listing.

8



STEP EIGHT: FIVE-YEAR REVIEW
An evaluation is required to determine if the remedy is operating as intended in the ROD.

AT ANY TIME DURING THE PROCESS, Sites can be referred to the **Removal Program** if an imminent threat or endangerment to public health or the environment is present. This enacts an immediate Removal Action Plan.

Enforcement and Community Involvement Activities occur throughout the Superfund process.



San Jacinto River Waste Pits CIP: DRAFT

STEP EIGHT: FIVE-YEAR REVIEW

These technical reviews evaluate if the remedy is operating as intended in the ROD. The report is shared with the community.

STEP SEVEN: CLOSE OUT AND REMOVAL FROM NPL

The Record of Decision identifies the Clean Up Goals and Objectives. Once these goals are achieved, the site is eligible for deletion from the NPL Listing.

AT ANY TIME DURING THE PROCESS:

The Removal Program may be required to respond if an emergency (imminent threat or endangerment) threatens human health and the environment.

STEP FOUR: EPA BEGINS WITH A REMEDIAL INVESTIGATION & FEASIBILITY STUDY.

The nature and extent of contamination at the site is evaluated and the level of risk to human health and the environment is quantified. Remedy Alternatives are formally compared against one another and a nine element criteria to select the best remedy for the site.

STEP FIVE: PROPOSED PLAN and RECORD OF DECISION (ROD) - EPA recommends a Preferred Alternative through a Proposed Plan for public review and comment before a Remedy is selected in the ROD.

STEP SIX: REMEDIAL DESIGN/ REMEDIAL ACTION— After a Remedy is designed and implemented and EPA determines the remedy is operating as intended, the site is on its way to cleanup. Clean-up duration can vary.

STEP THREE: NATIONAL PRIORTIES LIST

If the Hazard Score meets CERCLA criteria for formal listing , the site is proposed in the Federal Register for public comment and before final decision is made for listing.

STEP TWO: SITE EVALUATION

In consultation with states or tribes , EPA conducts a preliminary site investigation . The site receives a Hazard Ranking Score based on established criteria for placement on the National Priorities List (NPL).

STEP ONE: DISCOVERY & NOTIFICATION

EPA is made aware of contaminated sites through information provided by the state or tribal environmental programs, or the general public.

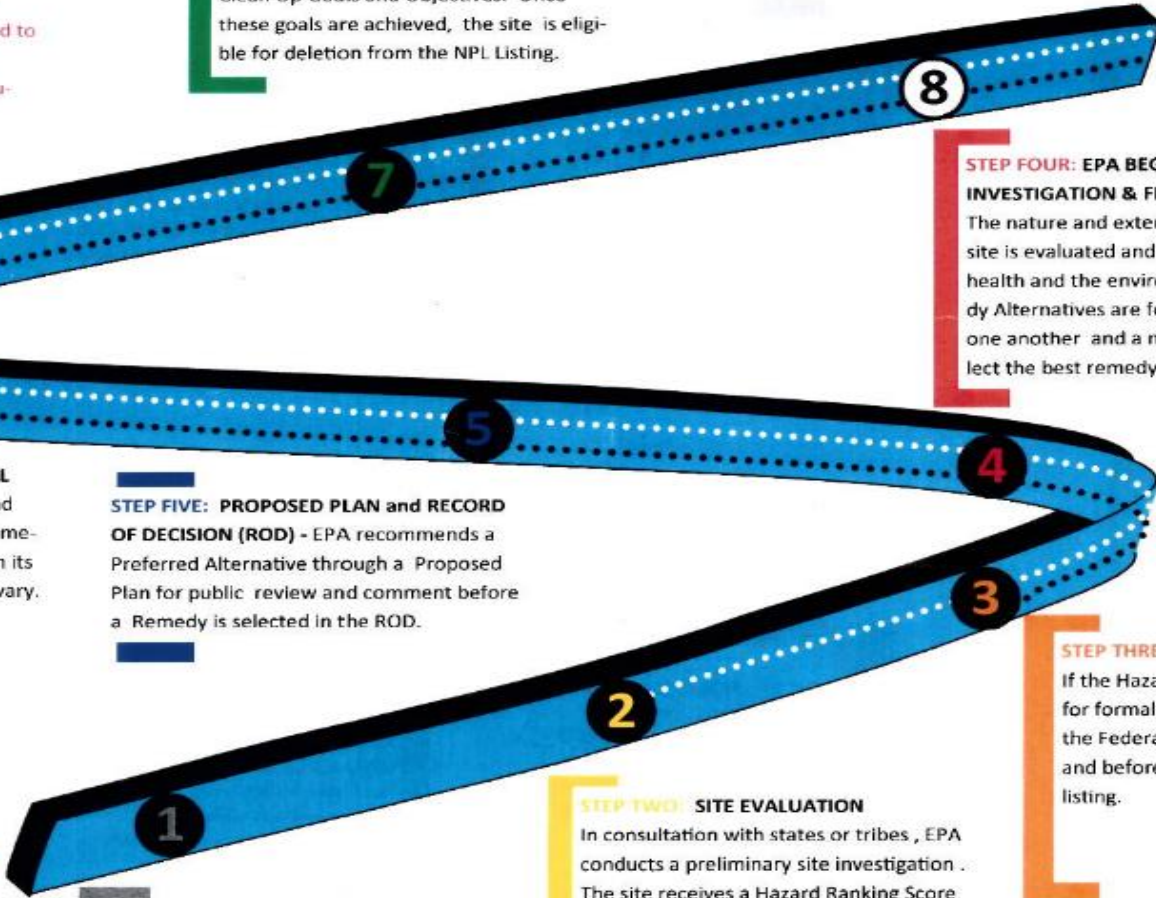
SUPERFUND PROCESS

STARTS HERE

Enforcement and Community Involvement Activities run throughout the process.

Enforcement (white dotted line)

Community Involvement (black dotted line)



Current Status

The EPA in cooperation with state, county, and local agencies is continuing to assess current and future site conditions to develop a comprehensive plan for site cleanup in a ROD.

As part of the EPA's oversight responsibility, and to verify the condition of the cap, EPA divers completed an underwater inspection of the armored cap on December 10, 2015, and again in early 2016 for any damage. The inspection identified an area on the northwest portion of the cap where the armor cap had been displaced or eroded. The underwater area did not have a geotextile liner under the rock, and a gap in the armor cap had resulted. The exact size of this gap is unknown. The EPA has directed both International Paper and Industrial Maintenance Corporation, the potentially responsible parties (PRPs) for the San Jacinto River Waste Pits Superfund site in Harris County, to submit a repair plan for the protective cap. The EPA prescribed that the repair plan should include confirmation sampling to assure the EPA that no materials had been released from the Site. The PRPs developed an Operations, Monitoring, and Maintenance Plan under Federal Order by the EPA and completed work to prevent wastes from continuing to migrate to adjacent areas including the San Jacinto River in July 2011. The Federal Order allows the EPA to require additional measures and investigations deemed necessary by the Agency from its periodic inspection of the protective cap. The EPA is exercising that authority.

In response to EPA's directive, the PRPs submitted a work plan on December 21, 2015. The work plan addressed EPA's requirements to delineate damage to the cap, collect sediment samples to determine if any materials were released into the environment, and conduct necessary repairs. The EPA approved portions of the PRPs' plan

to begin delineation of the damaged area and collection of samples, which began on December 23, 2015. The EPA will continue to work with the PRPs on the portion of the plan regarding the necessary repairs. Equipment and materials to repair the cap arrived on December 29, 2015, and was completed in early 2016. The EPA was on-site during the assessment and repair activities to ensure compliance with the approved work plan. Quality assured sample results are available to the public. Previous inspections of the cap, which included bathymetric surveys, did not identify any problems with the armor cap. The last inspection and bathymetric survey was completed in October 2015. The effectiveness of the inspection procedures will be evaluated and modified as necessary.

On March 4, 2016, the EPA was notified by phone and email by the PRPs that a visual inspection of the cap at the San Jacinto River Waste Pits Superfund Site was completed on February 24, 2016, that revealed areas where the geotextile fabric was exposed. The EPA was not notified about the inspection results earlier because the PRPs' Project Coordinator was on vacation and not aware that the inspection took place until later. The unscheduled inspection occurred due to abnormally low tides caused by heavy north winds, which exposed a majority of the cap for visual inspection. Five small (approximately 1 foot by 3 foot at the largest) areas were observed with exposed geotextile. It appears that no waste material was exposed, but this will be confirmed during the assessment and repair.

On March 4, 2016, the EPA directed the PRPs to place additional rock over these areas and approved a plan to conduct the work under EPA oversight. The PRPs began the work on March 9, 2016, with completion several days later.

A full cap inspection will be conducted by EPA's Dive Team in early April 2016, weather permitting. The exact date is being developed in coordination with the EPA Dive Team and weather events. Following the inspection, sample devices will be placed in the cap at 14 locations by the EPA divers to confirm that no wastes are moving through the cap. A community Open House will be held in late May 2016, to update the community on Site activities and present information from the U.S. Army Corps of Engineers on potential cleanup remedies for the Site as well as additional inspection methodologies and technology.

U.S. Army Corps of Engineers may consider:

- Computer models - flow & scour for storm/surge events
- Existing cap design/construction
- Armor cap failures
- Short & long term cap reliability? [storms & barge strikes]
- Any migration through cap?
- Sediment re-suspension & residuals after removal
- Removal Best Management Practices
- Construction impacts on flooding
- Water quality & fish impacts
- New full removal alternative
- Cleanup level
- Engineering/institutional controls



Lower San Jacinto River

San Jacinto River at I-10 (Photo: HCFCD)

Placing Geotextile Over Repair Area



Placing Type C Rock on Top of Geotextile Layer in Repair Area





North Waste Pits After Cap



For more information about the Site and current status of the process, visit:

EPA Region 6 Site: http://www.epa.gov/region6/6sf/texas/san_jacinto/index.html

<http://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0606611>

EPA On Scene Coordinator Site: http://www.epaosc.org/site/site_profile.aspx?site_id=6534

Public Meeting Locations

Highlands Community Center

604 Highland Woods Drive
Highlands, Texas

Martin L. Flukinger Community Center

16003 Lorenzo Street
Channelview, Texas

Site Repository Information

Stratford Branch Library

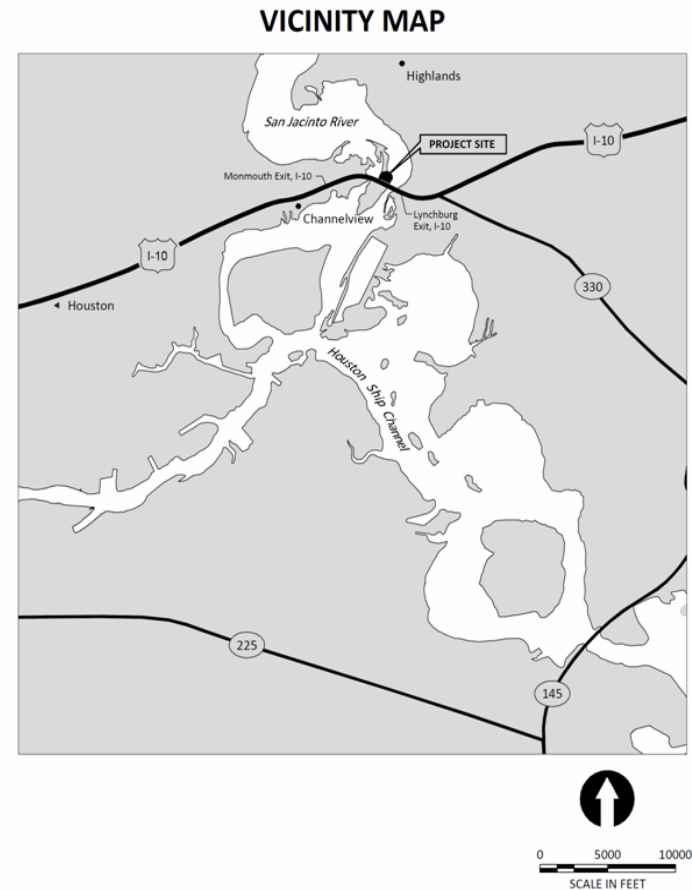
509 Stratford St.
Highlands, Texas 77562

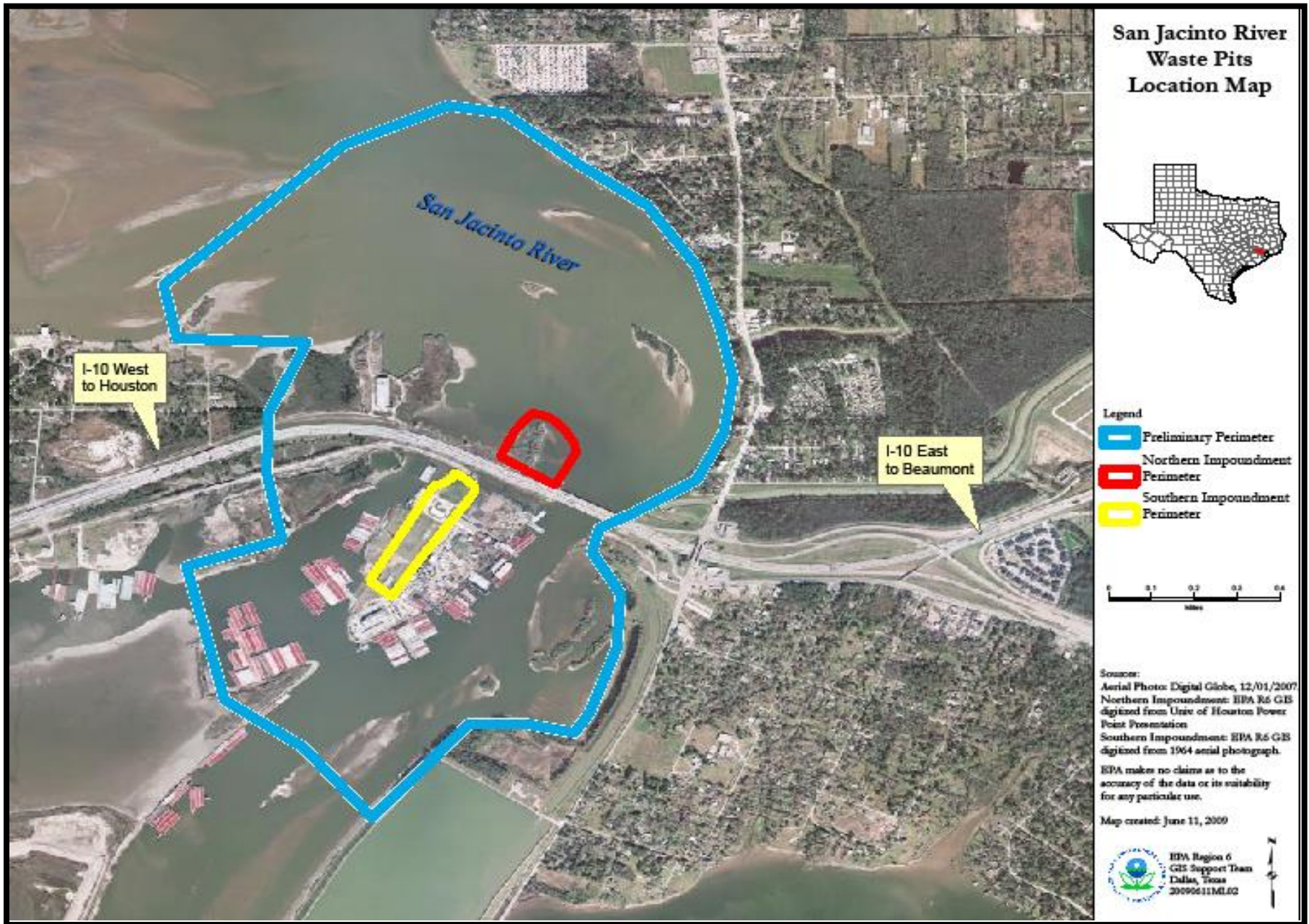
COMMUNITY BACKGROUND INFORMATION

DEMOGRAPHIC PROFILE AND CATEGORIES OF ADJACENT/RELATED POPULATIONS

The San Jacinto River Waste Pits Superfund Site is primarily located directly adjacent to **uninhabited commercial-industrial** acreage fronting the San Jacinto River and bounded by Texas Department of Transportation right-of-way beneath the Interstate 10 overpass.

The most immediately adjacent **residential** communities include the unincorporated areas known as Channelview, Lynchburg and Highlands.

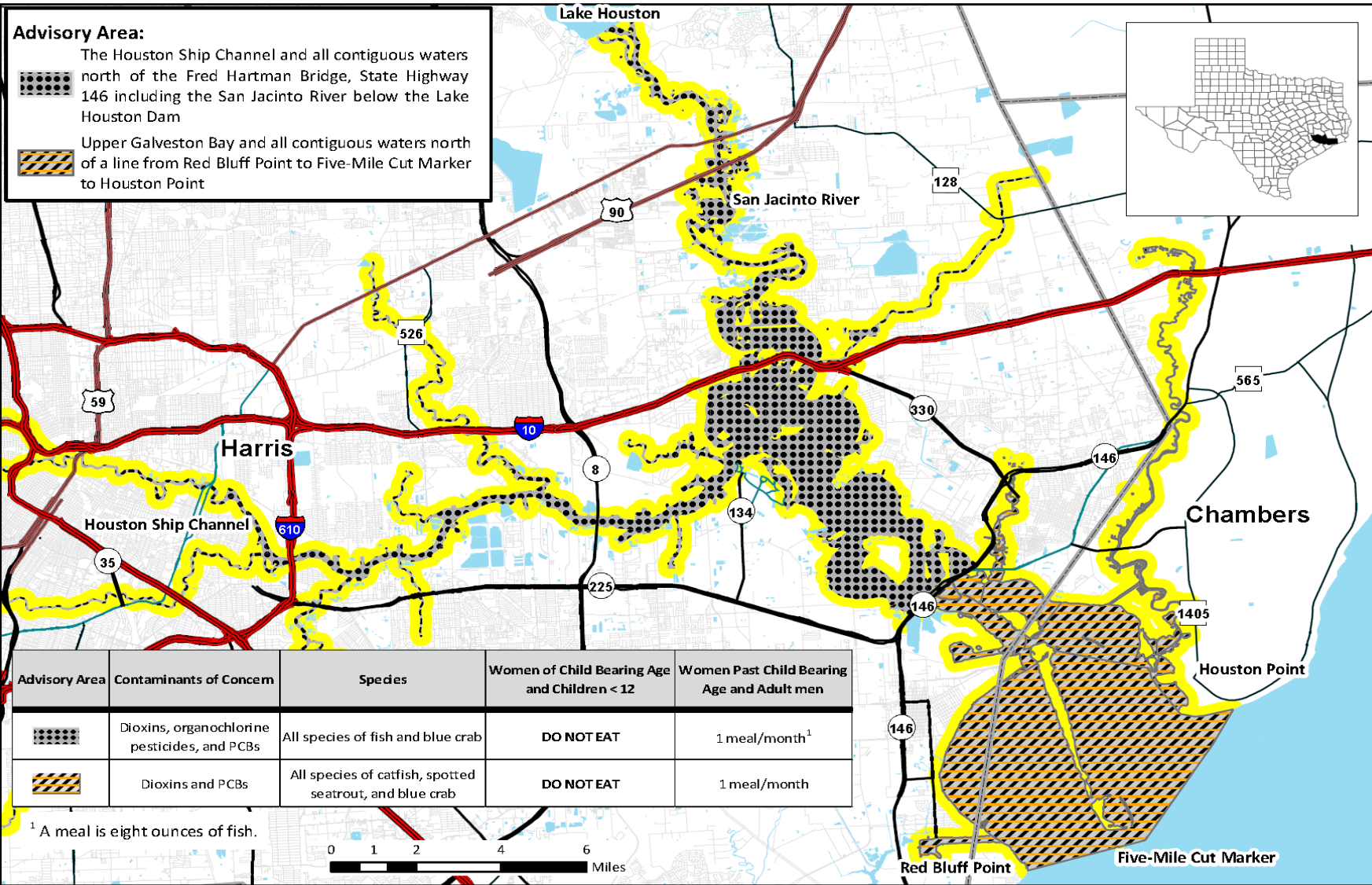




Galveston Bay Estuary (Map 1) – Houston Ship Channel, San Jacinto River, and Upper Galveston Bay

Chambers and Harris Counties

ADV-49 and ADV-50 Issued June 26, 2013 Rescinding ADV-3, ADV-20, and ADV-35



Following are representative demographic profiles of populations in adjacent zip codes as reflected in U.S. Census data from 2010.

77530 (CHANNELVIEW, TX)

Race	
Hispanic/Latino:	60.3%
White*:	22.2%
Black*:	15.3%
Native American*:	0.8%
Asian*:	1.6%
Hawaiian/Pacific Islander*:	0.1%
Two or More Races*:	3.7%

** Does not include individuals in this racial group who identify as Hispanic/Latino.*

77562 (HIGHLANDS, TX)

Race	
Hispanic/Latino:	24.8%
White*:	84.2%
Black*:	3.1%
Native American*:	0.9%
Asian*:	0.4%
Hawaiian/Pacific Islander*:	0%
Two or More Races*:	2.3%

** Does not include individuals in this racial group who identify as Hispanic/Latino.*

77520 (BAYTOWN, TX)

Race	
Hispanic/Latino:	43.4%
White*:	62.9%
Black*:	15.5%
Native American*:	0.6%
Asian*:	1.5%
Hawaiian/Pacific Islander*:	0%
Two or More Races*:	2.7%

** Does not include individuals in this racial group who identify as Hispanic/Latino.*

In terms of gender, demographic reports within these zip codes indicate residents are generally divided 50/50 male/female.

	<u>Baytown</u>	<u>Highlands</u>	<u>Channelview</u>	<u>Averages</u>
Under age 18 and over 65 (%)	47.9	44.3	49.5	47.2
Between ages 18-65 (%)	52.1	55.7	50.5	52.8
Female (%)	51.2	50	49.8	50.3

While the Site waste impoundments and adjacent areas are currently fenced and marked by 'No Trespassing' signage, riverside and on-river areas in the vicinity of the Site are frequented by individuals who comprise a **transitory community**. These individuals utilize the waterway primarily for outdoor recreation or fishing; however, market research conducted in connection with this Community Involvement Plan indicates this migratory group of waterway users resides primarily in zip codes no more than approximately 1 mile to 10 miles from the Site. Further information about this community will be derived and refined from research conducted for development of this CIP and included in an Appendix.

KEY COMMUNITY NEEDS & CONCERNS

Community needs and concerns stemming from the Superfund process are being regularly and frequently ascertained as follows:

Community Awareness Committee: Representatives from a wide variety of agencies, including Harris County Precinct 2 in which the Site is located, and non-governmental agencies (see appendix) have participated actively since December 2009 in a “Community Awareness Committee” established under the auspices of EPA Region 6 and in collaboration with representatives from Harris County, Texas. This committee has met regularly since 2010 to frequently assess and give voice to ongoing community interests in connection with the Site. The primary areas of public interest expressed to date via this ongoing forum include:

- 1) Status and milestones related to the Site and project progress
- 2) Ongoing level of awareness of Site activities among interested/engaged citizens and local organizations
- 3) Comprehension of existing state fish consumption advisories and postings among waterway users

Community Meetings: With the establishment of Site fencing and subsequent sediment containment activities that commenced in December 2010, the EPA in cooperation with State, County and local agencies, began hosting a series of local meetings aimed at addressing the interests and needs of nearby residents. These meetings occurred in July and December 2010, then again in May and September 2011, January 2014, April 2015, February 2016 and May 2016. Briefings have also been provided for elected officials.

The primary areas of interest expressed to date via these forums are:

- 1) Milestones related to the Site and project progress
- 2) Status of the Site cap and remediation
- 3) Public participation

PRIMARY COMMUNITY INVOLVEMENT GOALS TO SUPPORT SITE ACTIVITIES:

- Foster awareness of the Site among: the public; county constituents; engaged community organizations and their members and stakeholders; and diverse citizens in the area with an interest in or who interact with the Site and its immediate surrounding areas.
- Deliver consistent and timely information that explains and reinforces the sediment containment and other actions being taken and, where appropriate, reinforce existing public advisories.
- Allow informal or other feedback to enable community involvement as desired and expressed among citizens through existing forums and contact with EPA Region 6 and other agencies through facilitation under the Community Engagement Initiative (CEI), and CERCLA requirements.

COMMUNITY INVOLVEMENT ACTIVITIES IN SUPPORT OF GOALS

Develop and deliver ongoing and effective community outreach tactics that:

- Strive to reasonably reach diverse target audiences who come in contact with the Site or plan to return to the Site based on previous experiences at this location;

- Leverage and enlist public sector and interested organizations in helping to deliver cogent messages to relevant audiences; and
- Utilize local and community-based news media, and promote the EPA web site where appropriate, to amplify awareness and heighten public knowledge of the Site and associated risks.

Target Audiences and Messaging Needs:

- Meet multi-lingual and multi-cultural communication requirements
- Develop and deliver simple, non-technical explanation of the Site's status
- Differentiate between and among audiences utilizing the following matrix:

Target Audience	Outreach Channels	Information Desires	Frequency
COMMUNITY AWARENESS COMMITTEE	Primary: Regular meetings conducted by EPA Region 6 and Harris County Secondary: Email	Regular updates from EPA Region 6, project milestones, and progress toward community outreach and awareness among various public audiences	As needed
RESIDENTIAL or ADJACENT LANDOWNERS	Primary: Community meetings in neighborhood Secondary: Contact with EPA; warning signs	Status of project and future milestones; other advisories of interest	Semi-annually or more often, depending on status of project
WATERWAY USER	Primary: Direct at waterway, signs Secondary: Local media	Fishing and waterway usage advisories; local notices	Prior to and during activities

Tools & Tactics

In addition to outreach channels represented in the target audience matrix, further develop and utilize the following tools and tactics in connection with the Site:

Site Signage

- Durable, weather-proof and compelling graphical media that explains the Site's status and warns of trespassing or restricted access. Use the EPA imprimatur to reinforce this message.
- Determination of appropriate locations along project perimeter to assure enhanced awareness and prevent trespass

Flyers / Handbills

- Simple, understandable messaging that replicates information contained on Site signage
- Distribute via local channels [area industrial locations, businesses, neighborhood centers, homeowners associations, schools, marinas, etc.] as deemed appropriate.
- Develop target list for optimal distribution. Consider distribution directly at area fishing locations during peak usage periods.

Special Interest Groups and Other Channels

- Briefings or placement on regular meeting agendas as a means of providing information to key identified organizations such as the Channelview Chamber of Commerce and others requesting EPA participation
- Website message material for use by public agencies, relevant organizations and recreation-oriented sites

SAN JACINTO RIVER WASTE PITS Q & A

I. Sampling and Monitoring

a. What is the timeline for the newly required additional environmental sampling?

During the week of April 4, 2016, the EPA Dive Team will be placing pore water passive samplers at 14 locations in the cap. The samplers will remain for about two months to reach equilibrium. The EPA Dive Team will also be completing a full underwater inspection of the cap the same week. Also during the same week, the potentially responsible parties (PRPs) will be installing four new monitoring wells in the northern waste pit area under EPA oversight. The wells will be completed in the shallow water zone beneath the pits. Other work planned for April includes surface water sampling (week of April 18th) at seven locations both upstream and downstream of the Site, and sediment sampling (week of April 25th) at 28 locations around the cap perimeter. The surface water sampling will be repeated three times at one week intervals to allow for variability in river conditions. The sampling work will be performed by the PRPs under EPA oversight.

b. Who will review the 24/7 surveillance material?

The EPA Remedial Project Manager will review the surveillance material. The potentially responsible parties will also review the material and report any events to the EPA. The final details of the system's operation will be set in the final approved work plan.

c. How often will this surveillance material be reviewed?

The surveillance material will be monitored 24 hours per day, 7 days per week by the potentially responsible parties. The surveillance material will also be provided to the EPA within 24 hours for review on a daily basis.

d. From speaking with others who have more experience with Superfund Sites, I am told that it is typical for EPA to require the PRPs to test all groundwater wells within a 1-mile radius of the Superfund Site. I understand that Harris County is using settlement funds to test groundwater wells in specific communities but not in Highlands, McNair, and Channelview.

The nearest groundwater wells in Highlands are just east of the Site on S. Main Street. A well sampled in private testing has shown detectable levels of the following dioxin congeners:

- 1,2,3,6, 7, 8-HxCDD.
- 1, 2, 3, 7, 8, 9-HxCDD.
- 1, 2, 3, 4, 6, 7, 8-HpCDD. OCDD.
- 1,2,3,4, 7, 8-HxCDF.
- 1,2,3,6, 7, 8-HxCDF.
- 1,2,3,6, 7, 8-HxCDF.
- 1, 2, 3, 7, 8, 9-HxCDF.
- 2,3,4,6, 7, 8-HxCDF.
- 2, 3, 4, 6, 7, 8-HpCDF.
- 1,2,3,4,7,8,9-HpCDF. OCDF

Many of these congeners are listed in the U.S. EPA Region 6 CERCLA Docket No. 06-12-10 Administrative Settlement Agreement and Order on Consent between the U.S. EPA and International Paper Company and McGinnis Industrial Maintenance Corporation. This is a true and serious matter and we need the EPA to require the PRPs to hire an independent third party to conduct additional groundwater testing. We may not be able to share all of the data at this point but that doesn't change the fact that we are finding dioxin in many wells north, south, east, and west of the Site. The Waste Pits are in a highly residential area and our communities need the EPA to require additional testing in order to gain a conclusive idea of what's out there and what measures need to be made to protect human health and our environment. We need your help.

The ground water sampling program for any given site varies based on the conditions for that site. For example, the ground water flow direction, results of previous sampling, etc., would be considered in planning a sampling program for a site. Prior ground water sample data at the San Jacinto Waste Pits show that dioxin/furan is either not detectable or present at very low levels.

To confirm that this is still the case, additional ground water sampling at the Site is being planned. The PRPs will perform this sampling with EPA oversight. Should dioxin levels of concern be found in any of these new ground water samples, the EPA will follow-up by directing additional sampling to determine the nature and extent of any ground water plumes as appropriate.

Sampling data from several wells in the community was provided to the EPA. These wells did contain low levels of dioxin that were well below health-based levels. An analysis of the dioxin/furan congeners in those wells showed that the type of dioxin present there was similar to the background types of dioxin, and different from the dioxin from the paper mill waste in the pits.

The ground water sampling program that Harris County is planning should provide a significant amount of new information on the ground water conditions in the area.

II. Inspection Requirements

a. What methods will the new underwater inspection requirements include? Probing? Dive Teams?

The method to be used in the next underwater inspection for the remaining 86% of the underwater cap that was not covered by the EPA Dive Team will either be manual probing or tactile (by hand) as was done during the EPA Dive Team inspection. This inspection will be done by the potentially responsible parties with EPA Dive Team oversight. For inspections after that, the EPA is tasking the U.S. Army Corps of Engineers to provide recommendations for additional investigation measures to be applied at the Site. The PRPs will then be directed to perform the appropriate inspection methods going forward with EPA oversight.

b. When will a dive team complete an underwater inspection of the cap in entirety?

There were several cap inspections completed by the EPA Dive Team in Spring 2016. There will be additional dive team inspections as required.

III. December 2015 Cap Repair

a. What was different in the December 2015 cap repair than in the 2011 TCRA that allowed placement of geotextile on the northwest portion of the cap?

Geotextile was placed over most of the cap to separate the armor cap rock from the underlying paper mill waste and prevent the waste from migrating through the rock material. The geotextile was not used for the steeper sloping area on the northwest part of the cap because of concerns that the armor rock would too easily slide down the sloping geotextile. The damaged area occurred in the relatively narrow, shallow (less than 2 feet) flat sloping strip between the end of the geotextile and the start of the steeper sloping area. Geotextile could be used in the repair area because the slope was gradual and there were no concerns about the armor rock sliding down. One final point, a mixture of gravel and finer material was mixed with the armor rock to fill the interstices between the rocks and prevent the migration of the paper mill waste through the cap, or the same function as the geotextile.

IV. Request for U.S. Army Corps of Engineers' Cap Deficiency Investigation

a. We respectfully request that the Corps investigate what risk are associated with the deficiency discovered in December of 2015. More specifically, what occurs when water enters the site and migrates/percolates through the Pits?

The EPA does not believe a review of risks by the Corps is warranted at this time. Risk assessments were performed for the entire Site given conditions before the placement of the cap, and those have been reviewed. Because of the size of the deficient area relative to the site (0.05% of the total cap area) any risk associated with the damaged area would be a tiny fraction of site-wide risks if exposures were to have occurred. It is believed that exposure did not occur at or near the damaged area.

Water does migrate through the geotextile and cap; however, dioxin has very low water solubility and tends to sorb onto the solid particles. The dioxin is not expected to migrate through the cap at any concentration of concern because of the geotextile and filter gravel preventing the movement of the solid particles. Cap pore water sampling done in 2012 showed the dioxin was being contained. Having said that, the purposes of the sampling to be done in the near future is all targeted at confirming that the dioxin is being successfully contained. For example, pore water samples to check for migration through the cap, sediment samples to check for migration around the cap edge, ground water samples to check for migration out of the waste pits, and multiple surface water samples upstream and downstream to check for river impacts.

One final point, the current cap is a temporary measure to isolate the paper mill waste from the river and direct contact with persons who were formerly using the area. Regardless of what the final remedial action will be, it will take years to complete the final remedial action. This is because an enforceable instrument has to be created to implement the final remedial action, the design of the remedy has to be completed, construction completed, etc. Sampling and other actions will ensure that the temporary armor cap is an effective barrier to protect human health and the environment until the final remedial action is completed.

V. Community Meeting Frequency

- a. Quarterly community meetings were discussed by Sam Coleman. Seeing that the new requirements for underwater inspections are quarterly, perhaps the community meetings could follow the inspections to report findings and updates to local residents.*

Holding meetings following the quarterly site inspections or other significant events is appropriate and will be implemented for scheduling future community meetings and/or informal availability sessions with the communities.

The EPA has held a number of community engagement meetings including Community Advisory Committee meetings since work started on the Site, as well as provided Fact Sheets and Updates on Site developments. Working with our many local and State partner agencies will continue to keep the public informed.

VI. Fish Tissue Testing

- a. We request that the U.S. EPA require the PRP's hire a third party to conduct additional fish tissue sampling for dioxin and PCBs. We request testing of the following fish and shellfish: Blue Crab, Sheepshead, Spotted Seatrout, Sand Trout, Blue Catfish,*

Flathead Catfish, Hardhead Catfish, Red Drum, Striped Bass, Flounder, Black Drum, and Oyster.

The EPA is considering an aquatic tissue sampling program to check if there have been any significant changes in the tissue concentrations since the previous round of sampling that was done for the Remedial Investigation at the Site. The previous fish and shellfish species sampled were selected to represent site conditions as closely as possible and were collected as they were available. A future tissue sampling event would select samples to allow identification of any trends. For your information, the species sampled previously were hardhead catfish, killifish, blue crabs, and clams.

Some of the fish requested may contain dioxins and PCBs, however, it would be impossible to link such contamination directly to the Site. Fingerprinting techniques used for sediments are not reliable for tissues. Organisms metabolize dioxins and PCBs to some degree, and each species would do this differently and yield a different fingerprint. In addition, many of these fish are highly mobile with wide ranges and may have only come into contact with site-related sediments briefly as compared to others portions of the watershed.

b. If you look at Superfund Sites across the United States that are similar to the Waste Pits, the EPA has required removal of the highest concentrations of waste. There are 7 similar sites in terms of toxicity, geologic/hydrologic setting (tidally influenced waterway), fish consumption advisory, and contaminants of concern/ contaminated mediums. Following remediation at some of these sites, fish consumption advisories were lifted. Texas Department of State Health services has stated that they do not have the resources to conduct fish tissue sampling.

Removal of contaminated sediment has been a remedy component at many Superfund sites. For the San Jacinto River Waste Pits Site, the final remedy must be selected based on consideration of the nine Superfund remedy selection criteria applied to the conditions at San Jacinto. Removal alternatives are included in the range of alternatives under consideration.

Completion of the final remedial action for San Jacinto may result in a reduction of contamination in fish and shellfish in the San Jacinto River. However according to the information we have from the Texas Department of State Health Services and from the Total Maximum Daily Load study, the fish advisories in place for the San Jacinto River are based on dioxin and PCBs from multiple sources and the advisories may still be required even after remediation of the San Jacinto River Waste Pits is completed.

APPENDIX

I. SITE RIVER-USER RESEARCH SUMMARY

Summary: A research initiative, conducted by de La Garza Public Relations of Houston, Texas, and executed by Lone Star Research on behalf of the Site Community Awareness Committee, was initiated in the Fall of 2010. The intent of the research was to determine and measure the knowledge, awareness, interests and demographics of waterway users near the San Jacinto River Waste Pits Superfund Site (Site). Focus group and intercept interviews were conducted to seek insights on waterway usage, Site and signage awareness, user activities, preferred means of communication, frequency of river use, demographics, educational background and languages spoken.

Focus Group Insights: A focus group was developed and facilitated to determine the depth of knowledge and awareness of waterway users regarding the Site and help guide further research. Participants were recruited along the San Jacinto River near the Site who were observed fishing or using the riverbanks for recreational use. Twelve participants were recruited to participate (eight African-American and four Hispanic individuals). On September 18, 2010, they gathered at the Crosby Library for an informal discussion facilitated by a market research specialist.

The quality and quantity of fish and crabs were reported as the main reason for use of the waterway. Secondary use included recreational activity, such as picnicking or playing at local parks. Most participants were not familiar with fencing surrounding the Site until the specific area involved was depicted or clarified.

There was generally a lack of concern voiced about air or water pollution issues; however, participants indicated they would like to be made aware of these issues if documented pollution exists. Many suggested an increase in signage as a means of communication.

Intercept Results: Following a period of general reconnaissance in areas surrounding the Site, from March 10, 2011 to April 12, 2011, researchers canvassed locations surrounding the Site. Of 176 individuals intercepted, 100 indicated use of the area for recreational or fishing purposes:

- 43 percent reported using the waterway for both fishing and crabbing
- 29 percent reported using the waterway only for fishing
- 22 percent reported using the waterway only for crabbing
- 4 percent reported using the waterway for general outdoor activity, picnics or swimming

The majority were intercepted at Riverside Terrace Park. Researchers noted that survey participants tend to move between Riverside Terrace Park, the bridge near Interstate 10 and the islands in Burnett Bay:

- 50 percent of participants were intercepted at Riverside Terrace Park
- 38 percent were intercepted near the bridge on either side of Interstate 10
- 12 percent were intercepted at the islands in Burnett Bay or near the Lynchburg Ferry

Additional demographic information of those intercepted include:

- 67 percent were males
 - Males accompanied all females who were interviewed
- 71 percent of the participants had an education level of a high school diploma or less
- 62 percent were between the ages of 18 and 40
- 32 percent between the ages of 41 and 59
- 6 percent were over the age of 60
- 77 percent spoke English (77 percent) with the remainder speaking Spanish
 - Although prepared for multiple languages, researchers encountered no waterway users who spoke Vietnamese

Summer (88 percent) is by far the most common season for river activity followed by spring, winter and fall. Only 28 percent visited throughout all seasons. Nearly half reported coming to the river 2-3 times a month, with the vast majority (88 percent) visiting most often on the weekend as opposed to a weekday.

Zip codes of individuals were captured to generally identify their places of residence. The most common residency of survey participants was the adjacent area of Channelview, followed by surrounding communities such as Northshore, Baytown, Cove, Galena Park and other communities nearby.

Communication Preference Findings: The majority of respondents indicated they prefer to obtain waterway information by visiting the area on the day of their activity and without conducting their own research prior to their activity. Most recalled observing Site signage, but they could not pinpoint where or specifically what the signs communicated.

An overwhelming majority (67 percent) would like to be provided information at the waterway on the day of use with 41 percent indicating that they did not have a second information preference beyond obtaining information at the waterway (although given the opportunity to cite other information options). Less than 17 percent identified receiving information through media sources such as television or through print, Internet, and other methods as their first preference for finding information about the waterway.

Based on focus group and Site survey findings, communication initiatives should deploy signage that uses illustrations in addition to words. This method would help to overcome any literacy barriers. Flyers in both English and Spanish should be distributed within high-traffic areas and be consistent with signage. Peak seasons and weekends offer the most optimal time to reach waterway users.

II. EPA REGION 6 | SAN JACINTO RIVER SITE CONTACTS:

- a. Remedial Project Managers: Gary Miller
- b. Public Liaison/Community Involvement: Donn Walters
- c. Media Contact: David Gray

III. FEDERAL & STATE ELECTED OFFICIALS

a. U.S. Senator John Cornyn

Washington, DC Office
517 Hart Senate Office Building
Washington, DC 20510
Phone: (202) 224-2934

b. U.S. Senator Ted Cruz

Washington, DC Office
404 Russell Senate Office Building
Washington, DC 20510
Phone: (202) 224-5922

c. U.S. Rep. Brian Babin

Washington, DC Office
316 Cannon House Office Building
Washington, DC 20515
Phone: (202) 225-1555

d. U.S. Rep. Gene Green

Washington, DC Office
2470 Rayburn House Office Building
Washington, DC 20515
Phone: (202) 225-1688

e. Texas State Senators

Senate District 15: Senator John Whitmire

Capitol Phone: (512) 463-0115

Capitol Address: P.O. Box 12068, Capitol Station, Austin, TX 78711

Senate District 6: Senator Sylvia R. Garcia

Capitol Phone: (512) 463-0106

Capitol Address: P.O. Box 12068, Capitol Station, Austin, TX 78711

f. Texas State Representatives

House District 127: Representative Dan Huberty

Capitol Phone: (512) 463-0520

Capitol Address: P.O. Box 2910, Austin, TX 78768

House District 143: Representative Ana Hernandez

Capitol Phone: (512) 463-0614

Capitol Address: P.O. Box 2910, Austin, TX 78768

House District 128: Representative Wayne Smith

Capitol Phone: (512) 463-0733

Capitol Address: P.O. Box 2910, Austin, TX 78768

IV. SJRWP COMMUNITY AWARENESS COMMITTEE (in addition to EPA Region 6 and PRPs)

GOVERNMENT ENTITY OR NON-GOVT. ORGANIZATION
Harris County Commissioner – Precinct 2
Harris County Attorney’s Office
Harris County Public Health & Environmental Services
Harris County Public Infrastructure Department
Houston-Galveston Area Council
Texas Commission on Environmental Quality
Texas Department of State Health Services
Texas Department of Transportation
Texas Parks & Wildlife Department
Port of Houston Authority
Galveston Bay Foundation
San Jacinto River Coalition

V. STAKEHOLDER GROUPS

EPA Region 6 maintains mailing list(s) and facilitates a wide variety of contacts to ensure and maintain ongoing awareness.

VI. KEY AREA AND LOCAL MEDIA CONTACTS

COMMUNITY MEDIA:

Baytown Sun at www.baytownsun.com

Highland Star/Crosby Courier at www.starcouriernews.com

Lake Houston Observer at http://www.hcnonline.com/lake_houston_sentinel/front/

METROPOLITAN HOUSTON & HARRIS COUNTY MEDIA:

Associated Press (AP) Houston, Texas at www.ap.org

Enfoque Deportivo* at www.enfoquedeportivo.com

Free Press Houston (FPH) at www.freepresshouston.com

Houston Business Journal at www.bizjournals.com/houston

Houston Chronicle at www.chron.com

Channel 2 - KPRC (NBC) at www.click2houston.com

Channel 8 - KUHT (PBS) at www.houstonpbs.org

Channel 11 - KHOU (CBS) at www.khou.com

Channel 13 - KTRK (ABC) at www.ktrk.com

Channel 26 - KRIV (FOX) at www.myfoxhouston.com

Channel 39 - KIAH (CW) at www.39online.com

Channel 45 - KXLN (Univision) at www.univision.com

* Enfoque Deportivo a Spanish language newspaper reporting national, international, and local news special reports. Free to the public, the publication is distributed to major restaurants, and markets in the Hispanic population. Enfoque is a bi-weekly publication with a circulation of 20,000 in the Houston, TX DMA.

VII. PUBLIC MEETING LOCATION(S)

Highlands Community Center

604 Highland Woods Drive
Highlands, Texas

Martin L. Flukinger Community Center

16003 Lorenzo Street
Channelview, Texas

VIII. SITE INFORMATION

Stratford Branch Library
509 Stratford St.
Highlands, Texas 77562

IX. OTHER INFORMATION SOURCES

Available online information about the San Jacinto River Waste Pits Superfund Site:

EPA Region 6 Site: <http://www.epa.gov/tx/san-jacinto-river-waste-pits-superfund-site>

EPA On Scene Coordinator Site: http://www.epaosc.org/site/site_profile.aspx?site_id=6534

Galveston Bay Foundation Site: www.sanjacintowastepits.com

Examples of topics or information available at this web site include:

- Site Background, Frequently Asked Questions, and Comprehensive Glossary of Terms Public Participation Information and Documents (e.g., Community Involvement Plan)
- Project Design Progress Reports, Work Plans
- Facility Siting Updates and Reports
- Performance Standards Updates and Reports
- Site Maps and Photos
- Site Documents such as Settlements, Record of Decision, RI/FS Reassessment Reports
- Ways to Stay Informed About Site Activities