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NOTE

This assessment was conducted by the Houston Health Department upon the request of the community. Interpretation of the findings in this report require caution since the number of respondents is small (30). This study utilized a convenience sampling method (not representative sampling method), which is likely to contribute to bias, limiting the generalizability of the findings for areas beyond the survey area.
EXECUTIVE SUMMARY

As requested by and in collaboration with the IMPACT Fifth Ward, the Houston Health Department (HHD) conducted a survey of residents in 110 properties located near the Union Pacific Railroad (UPRR) site in Northeast Houston. A census sample method was used to enumerate each house in the target area. To collect the information needed, a 28-item questionnaire was developed in partnership with the community. While there are 110 properties, 30 properties are vacant lots/ homes or non-residential or associated with registered sex offenders and 8 properties include businesses / churches. Thus, the potential households for surveys were Seventy-two. Interview teams successfully conducted 30 interviews, yielding a completion rate of 41.6% (30/72). Below are key findings:

- Forty-three percent of households (13/30) surveyed reported some type of cancer diagnosis; the Houston average for ‘ever cancer diagnosis’ is 6.1%.
- Twenty-two individuals were reported to have been diagnosed with cancer from those 13 households, of which 15 are deceased.
- Households with a cancer diagnosis experienced financial stress. Of the 13 households (HHs) with a cancer diagnosis, 7 HHs reported depleted savings, 5 HHs reported gone into debt, 6 HHs reported unpaid medical bills, 5 HHs reported services cut off for not paying bills.
- Of cancers associated with the chemicals of concern in the UPRR contamination as identified by the Texas Commission on Environmental Quality, lung cancer was the highest category among the respondents and reported family members.
- The median number of years lived in the neighborhood before the cancer diagnosis was 45 years.
- Of the 30 households interviewed, 28 (93%) were very concerned, concerned, or somewhat concerned about the environmental contamination in and around their neighborhood.
- Of the 30 households interviewed, 22 (73%) and 21 (70%) respondents, respectively, reported smelling an oily smell and noticing oily / rainbow water in their neighborhood.
- Residents reported being very confident about handling legal issues and their chronic disease condition but reported lower level of confidence about handling issues related to healthcare, finances and stress.
- Half of the respondents (50%) reported their self-rated general health as fair or poor. One-fifth (20%) reported their health as very good or excellent.
- Slightly more than a quarter (26%) of households reported having no one available to help with daily chores if they are sick and/or having no one to talk about problems.
- Nineteen out of 30 (63%) households use some form of public insurance for health care.
BACKGROUND

As requested by and in collaboration with the IMPACT Fifth Ward, the Houston Health Department (HHD) conducted a survey of residents in 110 properties located near the Union Pacific Railroad site in North-East Houston.

Mission Statement
The mission of the Fifth Ward Community Health Assessment was to better understand the needs of the community and gather information to support an assessment of the cancers and/or noncancer health effects known to be associated with the chemicals of concern in the contamination from the Union Pacific Railroad (UPRR) site as defined by the Texas Commission on Environmental Quality (TCEQ).

Objectives
The objectives of the assessment were to:
- Identify health concerns within the community, especially related to the chemicals of concern in the contamination from the UPRR site as defined by the TCEQ.
- Provide contextual information for health and environmental studies, including further cancer studies.
- Provide a process for residents of the affected area to participate in the assessment of the health conditions in the community to encourage development of community leadership and understanding of the situation.
- Provide informational handouts to the target community.

METHODS

The Houston Health Department, in collaboration with IMPACT Fifth Ward, conducted a community health assessment in Fifth Ward to assess the overall health status of the residents of Fifth Ward area of Houston and specifically related to the UPRR contamination. The area targeted for this assessment were informed by the UPRR proposed groundwater contamination plume management zone beneath 110 properties. A census sample method was used to enumerate each house in the target areas. The area was divided into 10 units for survey administration and logistical purpose. A total of 38 personnel (23 HHD staff and 15 community volunteers) were deployed into 10 teams. Teams visited each home in the target area and interviewed adults (18 year +). When there was no one at home, and the homes looked habitable, the survey teams left a “We missed you letter” and went back twice at different times of the day, to conduct the survey. The letter provided a phone number as that residents could call to provide information.

Questionnaire
To collect the information needed, a 28-item questionnaire was developed. The questionnaire was designed to collect information regarding household demographics, cancer history for
cancers associated with the chemicals of concern from the UPRR site as defined by TCEQ, general health, and environmental concerns. The questions were adopted from a variety of sources including the Behavioral Risk Factors Surveillance System, the Health of Houston Survey, and previous surveys developed internally for other HHD community initiatives. The IMPACT Fifth Ward reviewed the survey questionnaire multiple times and provided feedback for edits. Please see Appendix 2 for the survey questionnaire.

**Just-in-Time Training**
To ensure field teams were adequately prepared for the overall assessment, a 1.5 hour Just-In-Time training was provided the morning of the assessment. The training entailed an overview of the mission and problem, roles of staff and volunteers, a review of the consent form, questionnaire, and tracking form, interviewing techniques, safety, and logistics. Trainees were provided with a copy of the PowerPoint to reference, as needed. This time was also utilized to explain how the GroupMe app works, which was the mode of communication for field teams to provide updates, report any safety concerns, and ask any questions that may have come up in the field.

**Interview Teams**
There were a total of 10 interview teams comprised of two interviewers per team; an HHD employee and community volunteer. Each team was assigned to one of six Team Leads, who also served as Drivers. Each Driver, or Team Lead was responsible for transporting two teams to their respective survey cluster within the target area, except for one Team Lead who was solely responsible for one team only. Field teams were intentionally composed to include at least one HHD employee and a Spanish-speaker in case translation was requested/required.

**ICS Structure**
This community assessment was a planned effort that required a well thought-out and structured plan of action. Thus, we utilized the National Incident Management System’s Incident Command Structure (ICS) as a basis for organizing, planning, and executing project activities. The ICS team conducted a series of meetings throughout the preparation and planning phases to ensure a successful outcome. Preparation for the community assessment was performed by the following core sections with assigned responsibilities:

- **Incident Command** – Responsible for the overall effective and safe execution of the assessment. This includes the administration of all human and material resources as well as overseeing public affairs/communication efforts with the public and public officials.
- **Planning** - Responsible for coordination and oversight of the following planning functions: data collection and analysis, community engagement, resource assessment and management.
- **Operations** - Responsible for coordination and oversight of planning and implementation of the following activities: field team composition and flow.
- **Logistics** - Responsible for providing logistical support including facilities, supplies, food, ground transportation, communication, and for managing the employee care unit.
➢ Finance & Administration - Responsible for documenting project costs, maintaining project timesheets, procurement of supplies, producing cost analyses and reports.
➢ External Partners - Responsible for securing external resources and engaging partners to participate.
➢ Volunteer Team - Responsible for recruiting and placing volunteers.
➢ Training - Responsible for developing and implementing training presentations.
➢ Internal Communications and Public Information - Responsible for developing and releasing information about the project to the public, media, etc.; developing materials for project promotion and keeping employees informed.
➢ Safety Officer - Plans for and monitors safety and security of staff.
### FINDINGS

#### Households

- Of the 110 properties, there were only 72 properties that could be potentially surveyed (30 properties included either vacant lots, vacant homes, or homes associated with registered sex offenders, and 8 properties were businesses or churches).
- Interview teams successfully conducted 30 interviews (27 interviews on 01/04/2020 and 3 other interviews after that until 1/15), yielding a completion rate of 41.6% (30/72).
- Of the households where, successful contact was made (n=37), 81.0% (30/37) completed an interview. Seven households refused to be surveyed.

#### Cancer History and Impact

- Of the 30 households, 13 (43.3%) households reported at least one cancer diagnosis; six households reported cancers that are related to chemicals of concern, and seven households reported cancers that are unrelated to chemicals of concern.
- Of the 13 households (HHs) with a cancer diagnosis, 7 HHs reported depleted savings, 5 HHs reported gone into debt, 6 HHs reported unpaid medical bills, 5 HHs reported services cut off for not paying bills.
Of the 13 HHs with a cancer diagnosis, a total of 22 individuals were diagnosed with cancer.

Of cancers known to be associated with the chemicals of concern, lung cancer was the highest category among the respondents and reported family members.

All but one were diagnosed at the age of 50 or later.

All but one were diagnosed after 2003.

Average number of years lived in the neighborhood by those with cancer diagnosis (regardless of age at diagnosis) was 44.2 with a range of 6-87 years and median years was 45. This information was available for only 19 individuals. The median number of years lived in the neighborhood before and after the cancer diagnosis was 45 years (n=10) and 1 year (n=15). The average numbers of years lived in the neighborhood before the cancer diagnosis was 45.2 years (n=10).
• Nine were males and 12 were females, there is no information about one.
• Of the reported 22 people diagnosed with cancer, 15 are deceased.

Other Health Impacts

• Of the 13 HHs with a cancer diagnosis, nearly one third reported irregular menstruation and infertility, slightly over a one-fifths reported low birth weight and miscarriage.

![Other Health Impacts among HHs with Cancer Diagnosis](chart)

Note: These numbers may not add up to 30 because of multiple response selection option and non-response.

Environmental Concerns

• Of the 30 HHs surveyed, 28 (93%) were very concerned, concerned, or somewhat concerned about the environmental contamination in and around their neighborhood.

![Concerned about Immediate Neighborhood](chart)

• Of the 30 respondents, 22 (73%) and 21 (70%) respondents respectively reported smelling an oily smell and noticing oily / rainbow water in their neighborhood.
• Of the 30 respondents, 15 (50%) reported that their house has been damaged by a storm or natural disaster and slightly more than half (57%) feel their home is safe to live.

General Health

Note: These numbers may not add up to 30 because of multiple response selection option and non-response.

Allergies (60%), high blood pressure (53%), and diabetes (50%) were the highest reported chronic diseases.

Survey results indicate the source of health care coverage for most of the residents is Medicare, Medicaid, private and Harris Health Financial Assistance Program (FAP), while about 18% households reported being un-insured. The Houston average of uninsured in Houston was 26.9% in 2018 (Health of Houston Survey, 2018). It is also noteworthy here that 19 out of 30 (63%) of households use some form of public insurance (Medicare or Medicaid or Harris FAP). Three households reported being on dual eligibility (both Medicare and Medicaid) and out of 8 households who reported private insurance as their source of health coverage, only 4 households use just private insurance, another 4 households use a combination of private and public insurance.
*These numbers may not add up to 30 because of multiple response selection option and non-response.

Half of the respondents (50%) reported their self-rated general health as fair or poor as compared to 20.2% in entire Houston area, as per Health of Houston Survey (2018). One-fifth (20%) of respondents reported their health as very good or excellent.

![Self-rated General Health](image)

The percentage of respondents who reported poor mental health for 14 or more of the last 30 days was 33.3. The percentage of respondents who reported poor physical health for 14 or more of the last 30 days was 40. The Houston average for poor mental health and poor physical health for 14 or more of the last 30 days were 14.9% and 12.6 (Health of Houston Survey, 2018).

**Social Support**

As a measure of social support available to the residents, we asked if there was anyone available to help with daily chores when sick and if there was anyone to talk about problems. Slightly more than a quarter (26%) of households reported having no one available to help with daily chores if they are sick and having no one to talk about problems. The Houston average for these responses were 12.4% and 6.1%, respectively (Health of Houston Survey, 2018).
Capacity

Residents reported being very confident to handle issues related to legal and chronic disease but reported lower level of confidence to handle issues related to healthcare, finance and stress.

Demographics

- Sixty-seven percent of respondents reported that they own their home, 20% reported they rent, and 13% reported “other”.
- Nineteen respondents (63.8%) reported being employed.
• Duration of living in the neighborhood ranged from 1 year to 55 years, with an average number of years being 26.1 and median being 25 years.
• 5 HHs reported having children less than 2 years of age, 13 HHs reported having children 2-17 years, 6 HHs reported having seniors in their homes.
• Sixteen respondents (53%) identified themselves as Hispanic.
• Nearly half (n=14) identified themselves as Black.

Greatest Needs

- **Home related (11)** (Central A/C - missing insulation, House Repairs, need work on my house, roof damage, repair for home, mold and lead, water leaks, water heater - no hot water, wiring and mold, water, drinking/showering in brown water, home repairs, bedding, making rent and lead testing, getting my ceiling fans up and running right, painting, and ramp for power chair).
- **Financial (Income)** (1)
- **Food** (1)
- **Health education and glasses** (1)
- **Legal assistance with mother's deed and lead** (1)
- **Union Pacific to tell her why after she submitted her medical records in 2004 why she never heard back** (1)
- **Transportation** (1)
- **Work** (1)
- **None** (8)

*The numbers in the parenthesis indicate the frequency.*

Pre-Feasibility

- Twenty-eight respondents (93%) reported they would be fine to be contacted later for additional information and services.
- Twenty-nine respondents (97%) reported they would be willing to speak to someone about their experiences in detail. Majority (83%) said that phone would be preferred method for future contact. There were three respondents who want to be contacted by appointment only.
APPENDICES
Appendix 1. Survey Introduction and Consent Script

I. INTRODUCTION:

Hello, my name is _____________ and this is _____________. We are with Houston Health Department and IMPACT community group.

We are going door to door to talk with people in this area to better understand the basic health and human service needs for residents potentially impacted by environmental hazards in this community. We want to collect health data for this specific neighborhood to understand how creosote may have impacted our community and how the health department may potentially support the community moving forward.

We would like to ask you to participate in a brief 20-minute survey. The information you provide in this survey will remain confidential. The information may be used by Texas Houseers, Lone Star Legal Aid, Impact and the Houston Health Department to serve and advocate on behalf of the community.

[Surveyor: Wait for respondent to clearly answer YES or NO after each question below]

1. Would you be willing to participate in this survey?
   a. Yes (Continue to Question 2)
   b. No (READ “Refusal Script” below)

2. Do you live in this home?
   a. Yes (Continue to Question 3)
   b. If “No”: Is there someone else who lives in this home that we can speak to?
      i. Yes
      ii. No (READ “Ineligibility Script” below)

3. Are you at least 18 years or older?
   a. Yes (Continue to survey)
   b. If “No”: Is there someone else 18 years or older who lives in this home that we can speak to?
      i. Yes
      ii. No (READ “Ineligibility Script” below)

If you do not know all the information, perhaps someone else in the family would be able to help you. If this is not possible please do not worry, just provide the information that you can.

[Surveyor: if the respondent answered “don’t know” for any of the above questions, ASK for some additional information, like the phone number to get in contact with the person whose information they are sharing or a closer relative or an obituary.]

Refusal Script: No problem at all. If you change your mind or wish to complete the survey at a later date, please do not hesitate to call Houston Health Department at 832-393-4634. If you would like to learn more about IMPACT, please come to the next meeting on January 13. Thank you for your time and have a nice day.

Ineligibility Script: Thank you for your interest in completing the survey. Unfortunately, the survey must be completed by someone who lives in this home and is over the age of 18. If there is someone living in
this home over age 18 who would be interested in completing the survey, they are welcome to call Houston Health Department at 832-393-4634. If you’re interested in learning more about what IMPACT is doing to try to get Union Pacific to clean up the environment, please come to the next meeting on January 13. Thank you for your time and have a nice day.

[Surveyor: If, at any point, the survey is cut short or when the survey concludes, please read the following]

If you have any questions about this survey, you may call the Houston Health Department at 832-393-4634. If you are concerned about the impact of environmental contamination on your health, please come to the next IMPACT meeting on January 13 and follow us on Facebook. If you want to hear a report on the findings of this survey, please come to IMPACT’s meeting on February 10.
Appendix 2: Survey Questionnaire

GENERAL INFORMATION

Name: ___________________________________  Survey Date: __________________________
Address: ___________________________________  Zip: ___________
Best Phone #: ____________________________  Email: __________________________________

[Surveyor: READ ALOUD] Now we will ask you a few questions about your household’s cancer history.

CANCER HISTORY

1. Have you or anyone who has lived at this address been diagnosed with cancer?
   - Yes
   - No (Go to Q5)
   - DK (Go to Q5)
   - Ref

2. What other issues have arisen as a result of this cancer(s)? *(READ & CHECK ALL that apply)*
   - Lost jobs
   - Gone into debt
   - Depleted Savings
   - Unpaid medical bills
   - No Child Care
   - Difficulty accessing healthcare
   - Services cut off for not paying bills
   - Loss of property
   - No Transportation
   - Risk for becoming homeless
   - Other__________________________
   - None
   - N/A
   - DK
   - Ref

3. Have you or anyone in your HH ever experienced any of the following? *(READ & Check ALL that apply)*
   - Birth defects
   - Infertility
   - Low fetal birth weight
   - Irregular menstruation
   - Miscarriage
   - None
   - DK
   - Ref

4. Were you or anyone who has lived at this address ever diagnosed with *(Provide Appendix A, READ & Check ALL)*:

<table>
<thead>
<tr>
<th>Cancer Type</th>
<th>Yes</th>
<th>No</th>
<th>DK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liver cancer?</td>
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<tr>
<td>Leukemia?</td>
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<tr>
<td>Adrenal cancer?</td>
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<td>Skin cancer?</td>
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<td>Lung cancer?</td>
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<tr>
<td>Gastrointestinal Cancer?</td>
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<td>Esophageal cancer?</td>
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<td>Oral cancer?</td>
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<td>Laryngeal cancer?</td>
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<td>Breast cancer?</td>
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<td></td>
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<td>Pharyngeal cancer?</td>
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<tr>
<td>Tracheal cancer?</td>
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<td></td>
<td></td>
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<tr>
<td>Nasal cancer?</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
### ENVIRONMENTAL

5. On a scale of 1 to 5, where 1 means “Not concerned at all” and 5 means “Very Concerned”, how concerned are you about environmental contamination in or around your neighborhood?
   - Yes
   - No
   - DK

6. Have you or any members of your HH ever smelled an oily smell in or around your home?
   - Yes
   - No
   - DK

7. Have you or any members of your HH ever noticed water that is shiny, oily or “rainbow” colored in or around your home?
   - Yes
   - No
   - DK

8. Since 2015, has your home been damaged by a storm or natural disaster?
   - Yes
   - No (Go to Q8)
   - DK

   7a. If Yes; What was the name, month or year of the storm(s) __________________________
   - DK

   7b. If Yes, how close is your home to the condition it was in BEFORE the storm or natural disaster?
   (READ)
   - Completely repaired
   - Somewhat repaired
   - Not repaired at all
   - DK

9. Do you feel your home is currently safe to live in?
   - Yes
   - No; If No, Why? _______________________
   - DK

### GENERAL HEALTH

10. Do you or anyone in your HH have any of the following chronic diseases? (READ & Check ALL that apply):
   - Asthma
   - COPD
   - Allergies
   - Diabetes
   - Hypertension
   - Heart
   - Previous mental health condition
   - Other __________________________
   - None

11. What is your primary source of health care coverage? (READ & Check ALL that apply):
   - Un-insured
   - Private
   - Medicare
   - Harris FAP (Financial Assistance Program, formerly Gold Card)
   - Medicaid
   - Military
   - Self-Pay
   - State Children Health Insurance Program (S-CHIP)
12. Would you say that in general your health is? *(READ)*
   - Excellent
   - Very Good
   - Good
   - Fair
   - Poor
   - DK
   - Ref

13. Now thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good?
   - Number of days (01-30)
   - DK
   - Ref

14. Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?
   - Number of days (01-30)
   - DK
   - Ref

15. Do you have anyone available to help with daily chores when you are sick?
   - Yes
   - No
   - DK
   - Ref

16. Do you have anyone to talk to about your problems?
   - Yes
   - No
   - DK
   - Ref

### AID & CAPACITY

17. On a scale of 1 to 5, where 1 means “Not confident at all” and 5 means “Very Confident”, please rate your confidence in your HH’s ability to execute and manage:
   a) Legal issues:
      - 1 (Not confident at all)
      - 2 (A little confident)
      - 3 (Somewhat confident)
      - 4 (Confident)
      - 5 (Very confident)
   b) Healthcare issues:
      - 1 (Not confident at all)
      - 2 (A little confident)
      - 3 (Somewhat confident)
      - 4 (Confident)
      - 5 (Very confident)
   c) Financial issues:
      - 1 (Not confident at all)
      - 2 (A little confident)
      - 3 (Somewhat confident)
      - 4 (Confident)
      - 5 (Very confident)
   d) Stress:
      - 1 (Not confident at all)
      - 2 (A little confident)
      - 3 (Somewhat confident)
      - 4 (Confident)
      - 5 (Very confident)
   e) Chronic Diseases (such as hypertension and diabetes):
      - 1 (Not confident at all)
      - 2 (A little confident)
      - 3 (Somewhat confident)
      - 4 (Confident)
      - 5 (Very confident)

18. In the past 12 months, has your HH received any services or aid from any community organizations?
   - Yes
   - No *(Go to Q19)*
   - DK
   - Ref

18a. If YES, what is the name of the organization providing aid? ____________________________
   - DK
   - Ref

18b. If YES, what type of aid was provided? ____________________________
   - DK
   - Ref
19. Would your HH be interested in receiving any of the following services from the Houston Health Department? *(READ & Check ALL that apply)*
- Laboratory Services  
- Immunizations  
- WIC  
- Health education  
- Vital Records  
- Harris County Area Agency on Aging  
- Tuberculosis  
- Other (specify): ___________________  
- No  
- N/A  
- DK  
- Ref

20. What is your household’s greatest need at this time?

________________________________________  
________________________________________

- DK  
- Ref

**DEMOGRAPHIC INFORMATION & RESIDENTIAL HISTORY**

21. Do you own or rent this residence?  
- Own  
- Rent  
- Other________

- DK  
- Ref

22. How long have you lived in this neighborhood?  

- DK  
- Ref

23. Are you currently employed?  
- Yes  
- No  
- Not in labor force

- DK  
- Ref

24. Including yourself, are there any people living in your HH that are:

- Less than 2 years old?  
  - Yes; How Many________  
  - No  
- 2-17 years?  
  - Yes; How Many________

- 18-64 years?  
  - Yes; How Many________  
  - No  
- 65+ years?  
  - Yes; How Many________

25. Which race do you identify with? *(Check ALL that apply)*

- Black or African American  
- White  
- Asian  
- American Indian or Alaska Native  
- Native Hawaiian or other Pacific Islander  
- Other ____________________

- DK  
- Ref

26. Do you identify as Hispanic or Latino?  
- Yes  
- No

- DK  
- Ref

**PRE- FEASIBILITY**

27. May we contact you to provide additional information and services from the Houston Health Department?  
- Yes  
- No

- DK  
- Ref

28. Would you be willing to speak to someone about your experience in more detail?  
- Yes  
- No

- DK  
- Ref

28a. If YES, what is the best way to contact you?  
- Phone  
- Email

- Other ____________________
Appendix 3– Cancer Types List

Question: Were you or anyone who has lived at this address diagnosed with:

- Liver cancer    Yes or No?
- Leukemia (blood related)    Yes or No?
- Adrenal cancer (Adrenal gland related)    Yes or No?
- Skin cancer    Yes or No?
- Lung cancer    Yes or No?
- Gastrointestinal Cancer (intestine related)    Yes or No?
- Esophageal cancer (throat related)    Yes or No?
- Oral cancer (mouth related)    Yes or No?
- Laryngeal cancer (Larynx related)    Yes or No?
- Breast cancer    Yes or No?
- Pharyngeal cancer (Pharynx, a part of throat, related)    Yes or No?
- Tracheal cancer (wind pipe related)    Yes or No?
- Nasal cancer (nose related)    Yes or No?
- Angiosarcoma (blood vessel related)    Yes or No?
- Adenoma (glands related)    Yes or No?
- Any other cancer types (not listed)?    Yes or No?
<table>
<thead>
<tr>
<th>A. Name of Cancer</th>
<th>B. What is your relationship to the person diagnosed with _____ cancer? (Such as self, spouse, child, parent, grandparent, cousin, or friend)</th>
<th>C. What year was this person diagnosed?</th>
<th>D. What age was this person when diagnosed?</th>
<th>E. Does this person currently live at this address?</th>
<th>F. How long has this person lived at this address?</th>
<th>G. What is this person’s race?</th>
<th>H. Is this person Hispanic or Non-Hispanic?</th>
<th>I. What is this person’s gender?</th>
<th>J. If deceased, what year did this person pass away?</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ DK</td>
<td>☐ DK</td>
<td>☐ Yes</td>
<td>☐ DK</td>
<td>☐ Black</td>
<td>☐ Hispanic</td>
<td>☐ Male</td>
<td>☐ Yes; Year: _____</td>
<td>☐ No</td>
<td>☐ DK</td>
</tr>
<tr>
<td>☐ DK</td>
<td>☐ DK</td>
<td>☐ Yes</td>
<td>☐ DK</td>
<td>☐ Black</td>
<td>☐ Hispanic</td>
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Appendix 4: Target Area

Suggested Clusters for Assessment of Identified Properties
Appendix 5: Area of Community Concern

Creosote Area of Community Concern

24 May 2019
Sources: City of Houston, Google Earth, ESRI Data, TCEQ, Union Pacific, H-GAC, Impact and Houston community members