

Beyond Translation Forum

Cultivating Hispanic Community Involvement

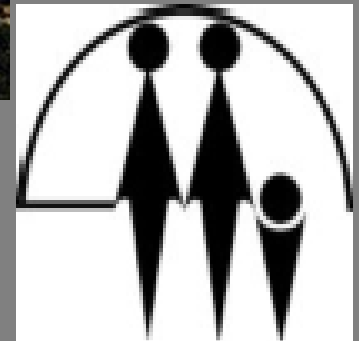
Houston, Texas



October 11, 2007



Arturo J. Blanco, Chief
Bureau of Air Quality Control
Department of Health and Human Services



Local Programs with Environmental Agencies Including Air Quality



Greater Houston Area Satellite Overview



Complexity of the Houston air pollution blend

- **Point Industrial Sources**

- 400 chemical manufacturing facilities
 - 2 of 4 largest refineries in the U.S.
 - The largest petrochemical complex
 - Port of Houston - sixth-largest in the world



- **Mobile Sources**

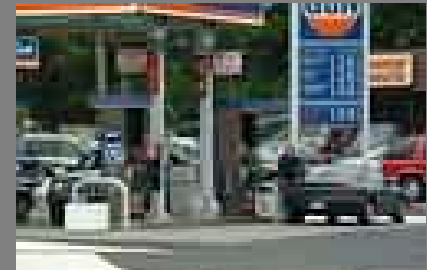
- Tailpipe emissions from cars, trucks, and buses. Houstonians drive on average more than 142,000,000 miles/day

- on-road emissions from motor vehicles
 - off-road emissions from ships, trains, airplanes, and heavy construction equipment



- **Area Sources**

- Small operations: surface coating processes, dry cleaners, gas stations, printing processes, restaurants, charcoal barbecues, and gasoline-fueled lawn maintenance equipment





What does HOUSTON do to improve our air?



Measure criteria pollutants to determine if we're meeting EPA standards:

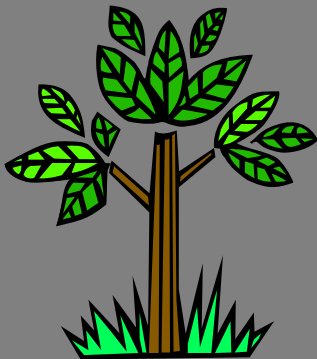
- **Houston air meets attainment for 5 of 6 National Ambient Air Quality Standards (NAAQS):**
 - **Particulate matter**
 - *The largest metropolitan area to meet standards for PM_{2.5}*
 - *But growing evidence relates PM_{2.5} with significant health effects at concentrations below existing NAAQS*
 - **Sulfur dioxide**
 - **Nitrogen dioxide**
 - **Carbon monoxide**
 - **Lead**
 - **Ozone – out of NAAQS attainment**
 - *Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller designated by the EPA as a 'severe ozone nonattainment area' for one hour standard and 'moderate nonattainment' for eight hour standard*



Industry: VOC and NO_x



Sunlight: Energy



Trees: VOC

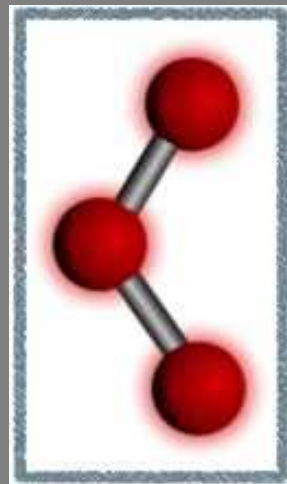


Transportation: NO_x and VOC

Oxygen Molecule (O_2) + NO_x + VOC +



Sunlight



Ozone Molecule (O_3)

Listen to what the public is saying about air toxics in our neighborhoods....



By Dina Cappiello, January 2005

Slide From Heidi Bethel, EPA

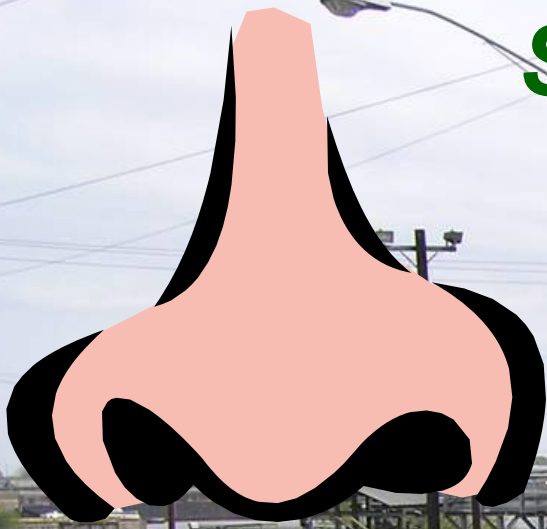
Respond quickly to know why plants are having an upset....



Point out the rules to those who are not following them....and once they know them, we follow up to keep them honest....



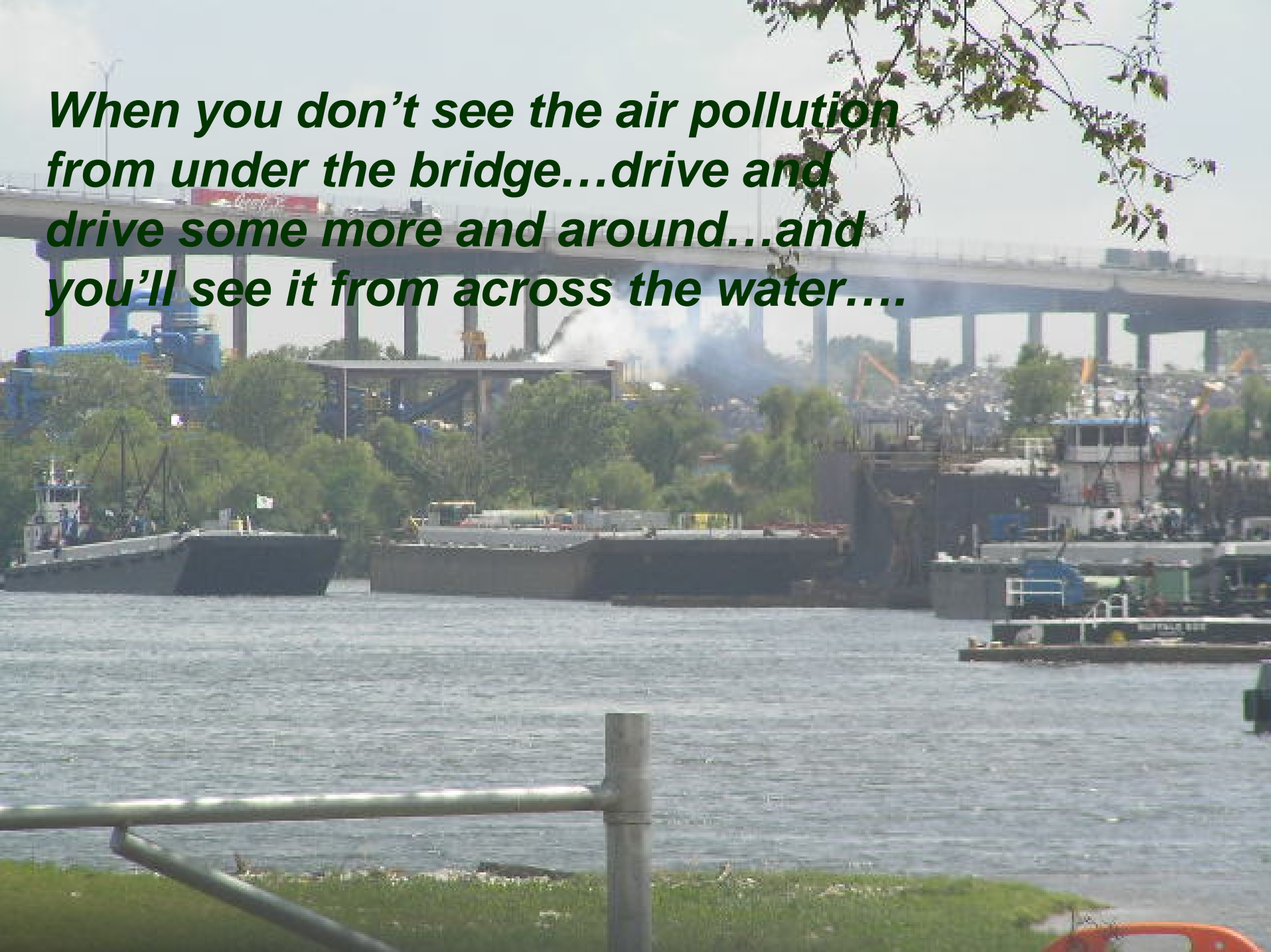
Show them where the odor is coming from and how bad it is....



Do a balancing act because there is no zoning in Houston....



***When you don't see the air pollution
from under the bridge...drive and
drive some more and around...and
you'll see it from across the water....***





**And sometimes is just
everywhere to be seen....**

A photograph of a dirt road in a rural or semi-rural area. A dump truck is driving away from the camera on the right side of the road, kicking up a large cloud of dust. A white van is visible further down the road in the distance. The road is flanked by trees and utility poles with power lines. The sky is overcast.

...so we work with businesses to improve environmental conditions....for example, thru settlement agreements

Doing the homework to better understand our air toxics blend....

- **A Closer Look at Air Pollution in Houston: Identifying Priority Health Risks**

Report of the Mayor's Task Force on the Health Effects of Air Pollution

- **The Control of Air Toxics: Toxicology Motivation and Houston Implications**
(Houston Endowment)

- **Epidemiological Study**

**University of Texas Health Science Center at Houston,
School of Public Health**

Honing in on....

Mayor's Task Force on Health Effects of Air Pollution, April 2006

April 2005, the Honorable Bill White, Mayor of Houston, asked the UT Health Science Center at Houston to help answer a critical science-policy question for action based on scientific judgment:

“Which ambient air pollutants are most likely to cause significant health risks for current and future residents of Houston?”

The Task Force on the Health Effects of Air Pollution was formed under the auspices of the Institute for Health Policy based at the University of Texas School of Public Health composed of environmental health experts from:

The University of Texas School of Public Health

The University of Texas Medical Branch at Galveston

The University of Texas M.D. Anderson Cancer Center

Baylor College of Medicine

Rice University

Report determined chronic health risk categories

Definite Risk (12)	Compelling and convincing evidence they represented significant risk to the general population or vulnerable subgroups at near current ambient concentrations
Probable Risk (9)	Substantial corroborating evidence they were likely to represent a significant risk under the right conditions
Possible Risk (24)	Partial or limited evidence suggested they might constitute a significant risk under certain circumstances
Uncertain Risk (118)	Inadequate or insufficient evidence to ascertain whether they pose a significant risk to the general population and vulnerable subgroups
Unlikely Risks (16)	Suggestive evidence they posed negligible or insignificant risk to the general population and vulnerable subgroups

Definite Risk Pollutants – Data for Ranking

Air Pollutant	Data Source for Classifying as 'Definite Risk'			
	AQS 2004		NATA 1999	
	Monitors in Exceedance		Census Tracts Concentration Exceedance	
	Cancer	Chronic	Cancer	Chronic
Ozone		X	N/A	N/A
Fine Particulate Matter (PM _{2.5})		X	N/A	N/A
Diesel Particulate Matter	X (estimated conc)		X	X
1,3-Butadiene	X	X	X	X
Chromium VI			X	
Benzene	X		X	
Ethylene Dibromide	X			
Acrylonitrile			X	
Formaldehyde		X		X
Acrolein		X		X
Chlorine				X
Hexamethylene Diisocyanate				X

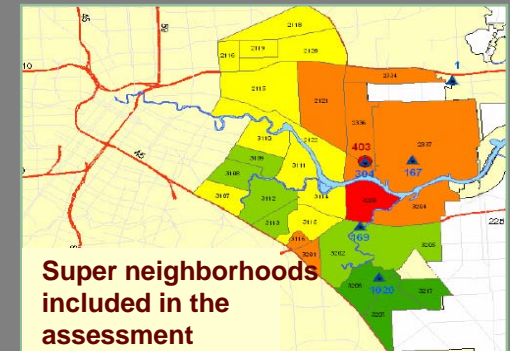
East Houston - A Case Study

Emissions Characterization

- 1/2 point sources of Greater Houston located in East Houston
- Over 20 large industrial sources located in East Houston
- The Port of Houston, and the Ship Channel generate a variety of pollutants
- Interstate Highways 10, 610 and 45 and State Highway 225 intersect this area

EAST HOUSTON

Denver Harbor/Port Houston, Pleasantville, Clinton Park/Tri-Community, Magnolia Park, Lawndale/Wayside, Harrisburg/Manchester, Pecan Park, Park Place, and Meadowbrook/Allendale



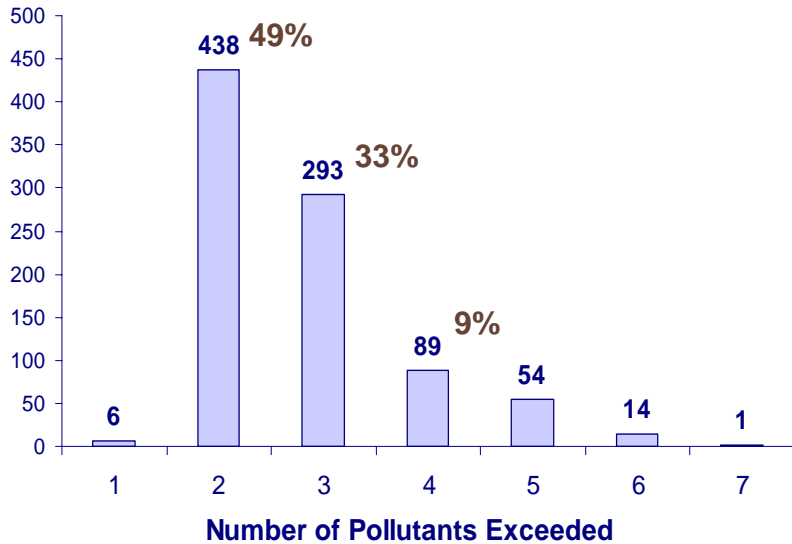
Sociodemographics

- Average family income more than 30% lower than City of Houston
- Over 1/4 of the residents fall below the poverty level
- Almost 20% of the residents have less than a 9th grade education
- Some of the highest uninsured rates for health coverage in Harris County

East Houston – High Risk Category Pollutants

Greater Houston Area profile

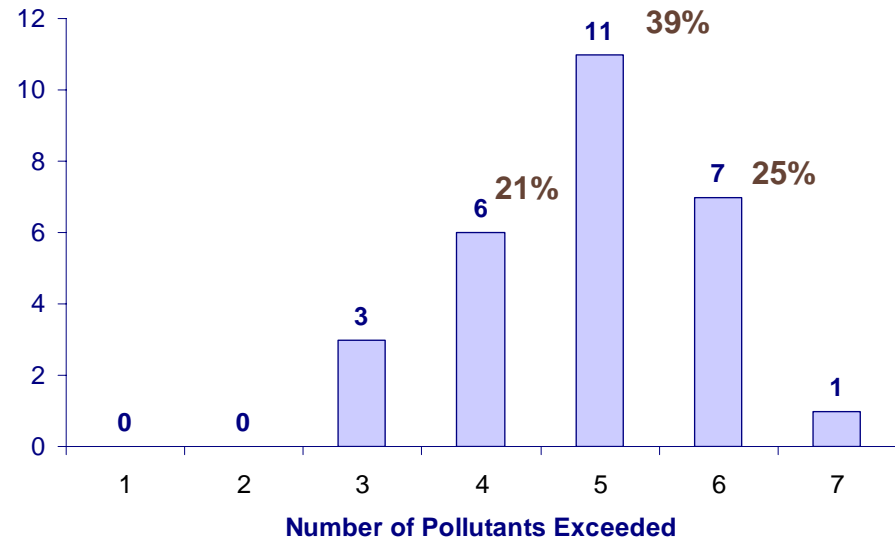
Census Tracts by Number of Definite Risk Pollutants



- NATA - 3 of top 12 pollutants from point sources
- 1 pollutant in definite risk category predominantly from area source
- 3/4 of total diesel concentrations attributed to non-road mobile sources

East Houston Area profile

Census Tracts by Number of Definite Risk Pollutants



- NATA - 7 of top 12 pollutants from point sources
- No pollutants in definite risk category predominantly from area sources
- Over 90 % of diesel concentrations attributed to non-road mobile sources

Recommendations of Task Force

- Efforts should be focused on the twelve “definite risk” pollutants
- These efforts should be focused to protect neighborhoods with the highest relative exposures – East Houston Neighborhoods
- Use this report as ‘decision tool’ for organizing and analyzing information about air pollution to better direct decision making process and resource allocation

Benzene Concentrations – Harris County

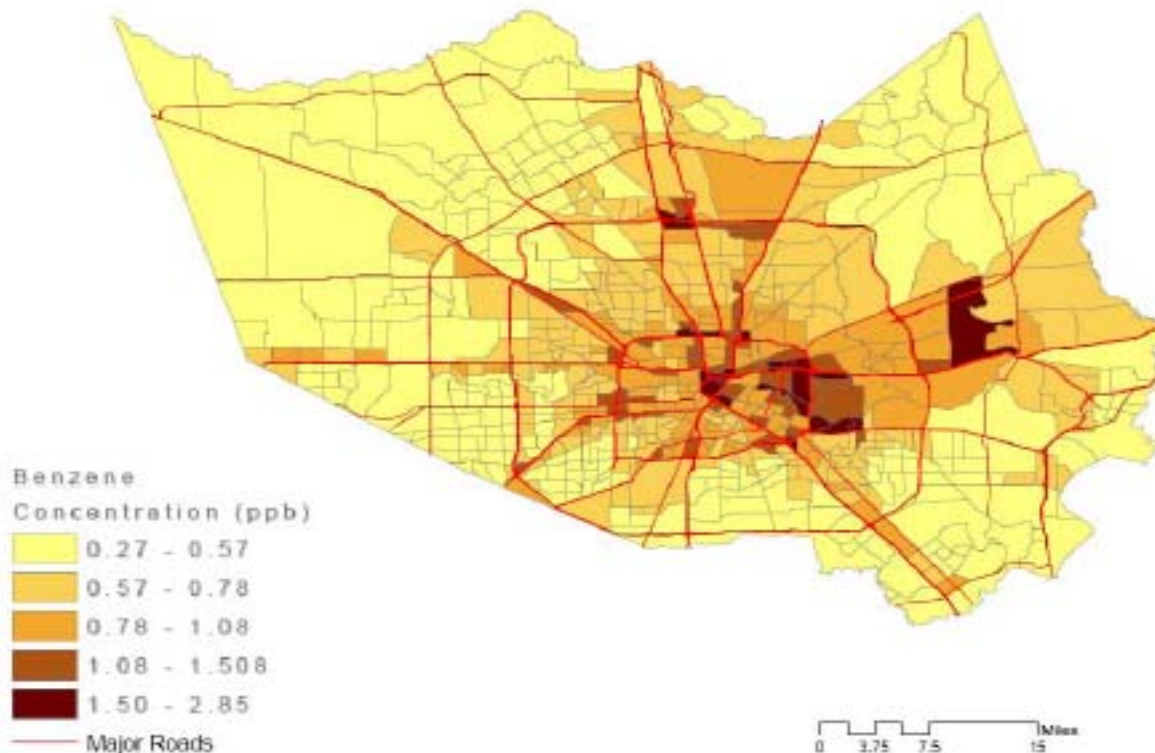


Figure 11. Modeled annual averaged benzene concentrations in Harris County in 1999. From the US EPA's National-scale Air Toxics Assessment (NATA) [553].

1,3-Butadiene Concentration–Harris County

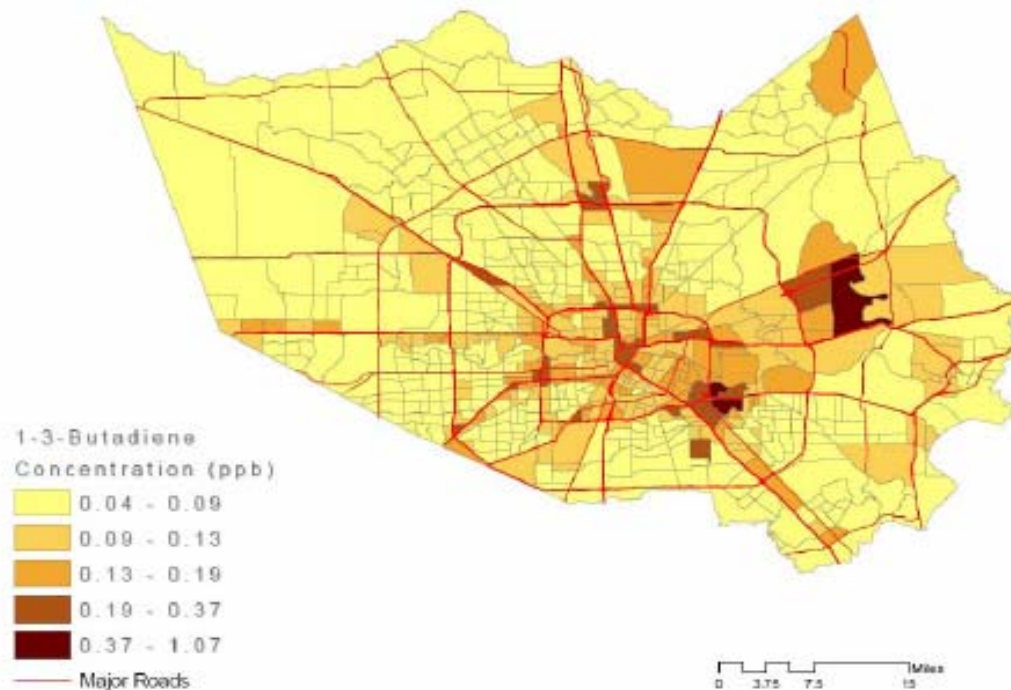
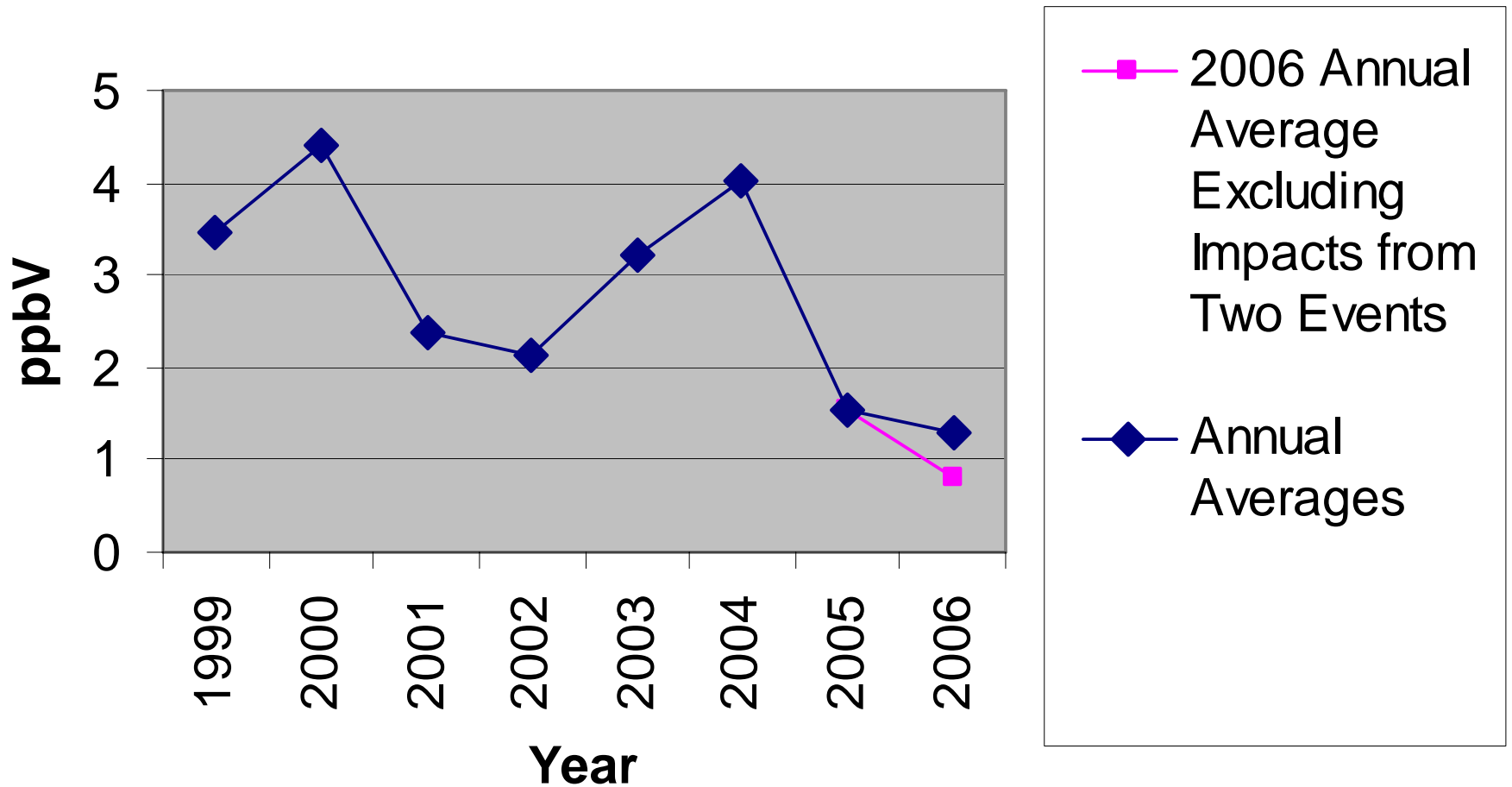


Figure 12. Modeled annual averaged 1,3-butadiene concentrations in Harris County in 1999. From the US EPA's National-scale Air Toxics Assessment (NATA) [553].

Milby Park Monitor 1,3-Butadiene Annual Average Concentrations



Revised Air Pollution Control Ordinances:

- **Code of Ordinances 10-451
(Nuisance)**
- **City Code of Ordinances 21-146
(Source Registration)**

Sec. 10-451. Nuisances, generally.

- a) Whatever is dangerous to human health or welfare, or whatever renders the ground, the water, the air, or food a hazard to human health is hereby declared to be a nuisance.**

- b) The following specific acts, conditions, and things are declared to constitute public nuisances and are hereby prohibited and made unlawful:**

(continued)

Sec. 10-451. Nuisances, generally.

(1) The deposit or accumulation of any foul, decaying, or putrescent substance or other offensive matter in or upon any lot, street, or in or upon any public or private place in such a way as to become offensive or objectionable; the overflow of any foul liquids, *or the escape of any gases, dusts, fumes, mists, and sprays to such an extent that the same, or any one of them, shall become, or be likely to become, hazardous to health or a source of discomfort to persons living or passing in the vicinity, or that the same shall by reason of offensive odors become a source of discomfort to persons living or passing in the vicinity thereof.*

Incorporated State Rules

Incorporated in the Code of Ordinances:

- 30 Tex. Admin. Code §§ 101, 106, 111-117 and 122.
- City can enforce as a violation of the municipal code; citations.

SUBCHAPTER E. AUTHORITY OF LOCAL GOVERNMENTS

§ 382.111. Inspections; Power to Enter Property

(a) A local government has the same power and is subject to the same restrictions as the commission under Section 382.015 to inspect the air and to enter public or private property in its territorial jurisdiction to determine if:

(1) the level of air contaminants in an area in its territorial jurisdiction and the emissions from a source meet the levels set by:

(A) the commission; or

(B) a municipality's governing body under Section 382.113; or

(2) a person is complying with this chapter or a rule, variance, or order issued by the commission.

§ 382.113. Authority of Municipalities

(a) Subject to Section 381.002, a municipality has the powers and rights as are otherwise vested by law in the municipality to:

- (1) abate a nuisance; and
- (2) enact and enforce an ordinance for the control and abatement of air pollution, or any other ordinance, not inconsistent with this chapter or the commission's rules or orders.

LEGAL AUTHORITY

§ 7.351. Civil Suits

(a) If it appears that a violation or threat of violation of Chapter 16, 26, 28, or 34 of this code or Chapter 361, 371, 372, or 382, Health and Safety Code, or a provision of Chapter 401, Health and Safety Code, under the commission's jurisdiction or a rule adopted or an order or a permit issued under those chapters or provisions has occurred or is occurring in the jurisdiction of a local government, the local government ... may institute a civil suit under Subchapter D in the **same manner as the commission** in a district court by its own attorney for the injunctive relief or civil penalty, or both, as authorized by this chapter...

§ 7.352. Resolution Required

In the case of a violation of Chapter 26 of this code or Chapter 382, Health and Safety Code, a local government may not exercise the enforcement power authorized by this subchapter unless **its governing body adopts a resolution authorizing** the exercise of the power.

§ 7.353. Commission Necessary Party

In a suit brought by a local government under this subchapter, the commission is a necessary and indispensable party.

What else is Houston doing?

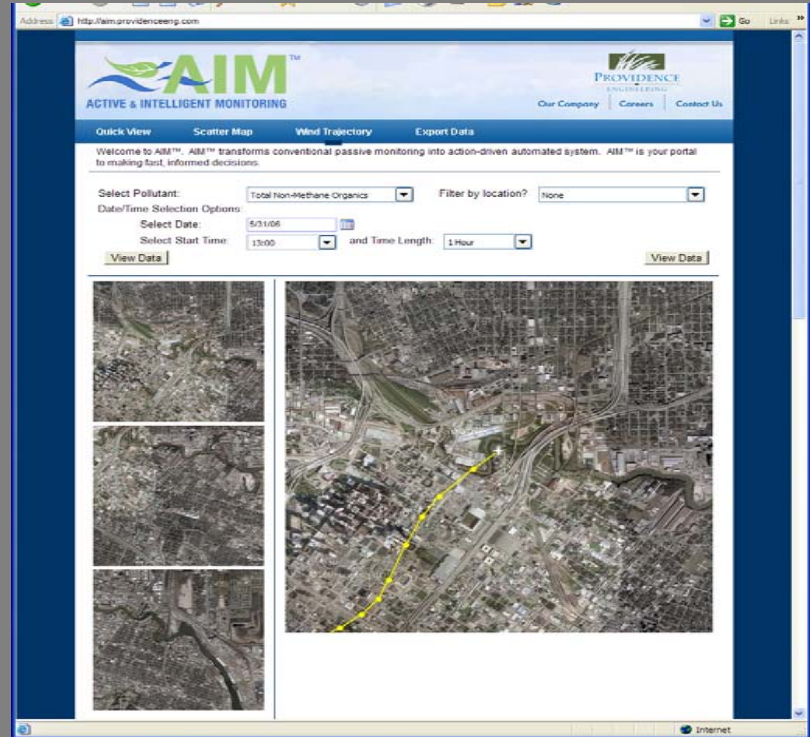
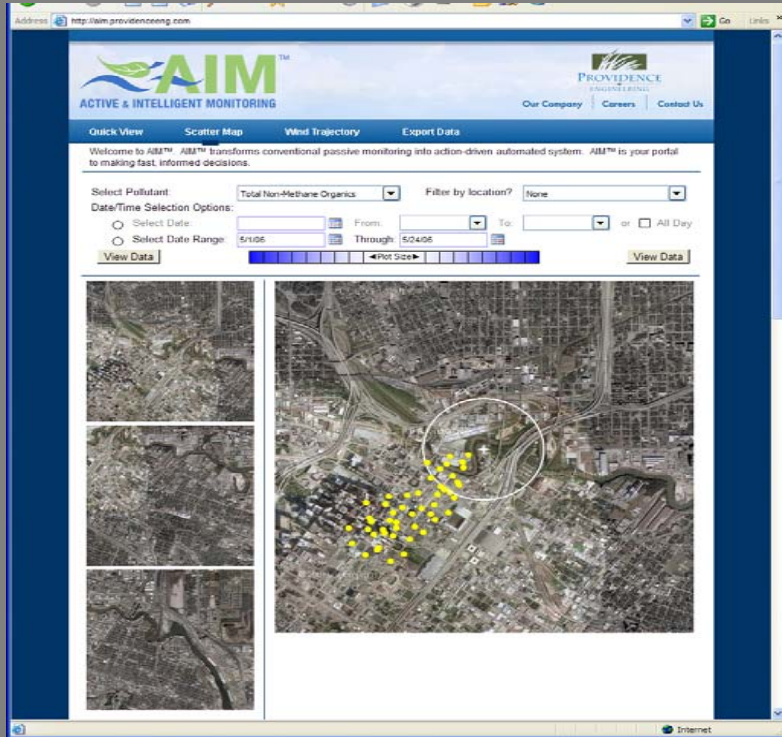
- Using state of the art tools
- Issuing notices and citations



Tracking air toxics with our state of the art tools....such as the Mobile Ambient Air Monitoring Laboratory (MAAML)....(funded by the EPA & the Houston Endowment Inc.)

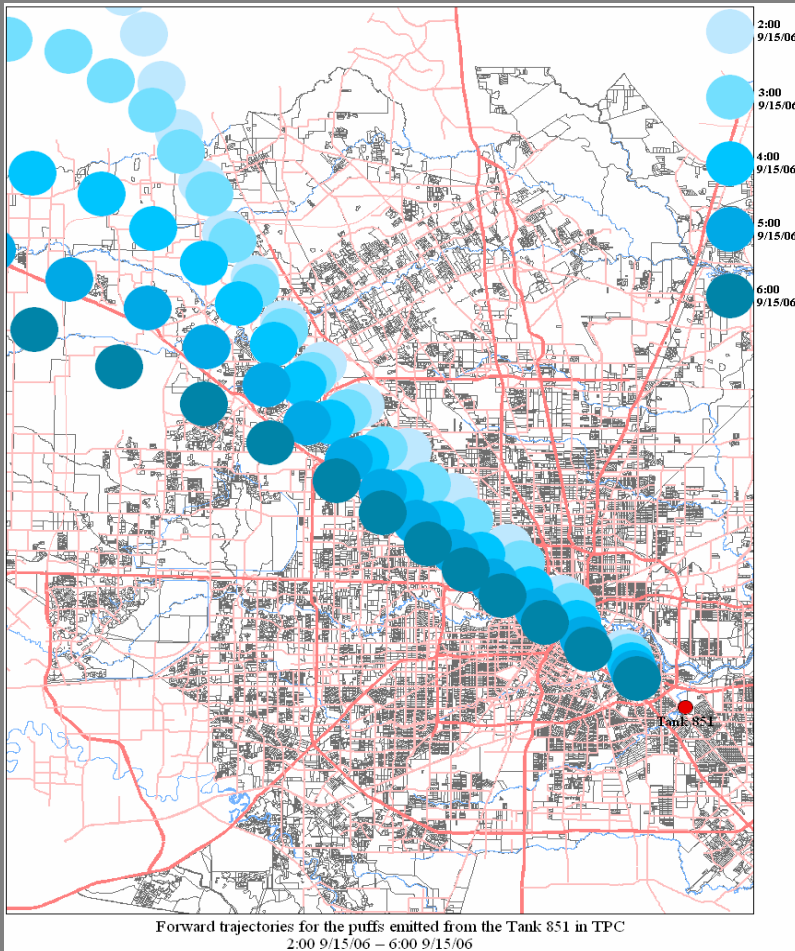


MAAML Goal – Point Source Determination



- Combining meteorological data with air toxic concentrations all collected at different times, project software can create a back trajectory model for point source determination

MLP Objective – Complex Modeling



- Project software also allows for the complex modeling of forward trajectories of air toxics plumes into various Houston communities
- Use of data from existing air monitoring stations will provide corroboration of MAAML results and aid in refinement of atmospheric models

Additional MAAML Equipment



- IR Thermographic Cameras
 - ❖ IR cameras can detect VOC emissions from a wide variety of possible sources
 - ❖ MLP Chemists employ IR cameras in fence line surveys for MAAML positioning



CITY OF HOUSTON

NOTICE OF VIOLATION

Houston Department of Health and Human Services



ENVIRONMENTAL HEALTH DIVISION

Reply to: Bureau of Air Quality Control
7411 Park Place, Houston, TX 77087-4441
Phone (713) 640-4200 Fax (713) 640-4343

Issue Date: _____ / _____ / _____ **Time:** _____ AM / PM

Issued to: _____ **Last Name** _____ **First Name** _____ **MI** _____

Title: _____ **Height:** _____ **Sex:** _____ **DOB:** _____ / _____ / _____

Drivers License: _____ **No.** _____ **Home Address:** _____ **State** _____ **Circle Type (DL / CDL / ID / MC)** _____ **Zip** _____

Name of Business: _____ **Address of Business(s):** _____ **Zip** _____

Mailing Address of Business: _____ **Business Phone:** _____ **Zip** _____

Location of Violation(s): _____ **Zip** _____

OFFENSE DATE _____ / _____ / _____ **Month** _____ **Day** _____ **Year** _____
An investigation was conducted on _____ / _____ / _____ at _____ AM / PM, by an investigator with the City of Houston's Department of Health & Human Services, Bureau of Air Quality Control. The following violation (s) of the City Code was/were observed.

Please check the appropriate box.

CC 409 Sec. 451 (b) (1): Permit the overflow of foul liquid/escape of gases/dust/fumes/mist/sprays: Caused Discomfort. Describe: _____

CC 408 Sec. 451 (b) (1): Permit the overflow of foul liquid/escape of gases/dust/fumes/mist/sprays: Hazard to Health. Describe: _____

CC 1352 30 TAC 101.4: Discharge to Air, affects health, animal life, vegetation or enjoyment of property. Describe: _____

30 Texas Administrative Code _____ Describe: _____

30 Texas Administrative Code _____ Describe: _____

30 Texas Administrative Code _____ Describe: _____

You are hereby notified that the above violation(s) must be corrected by: _____ **and**

I agree as a **Owner / Lessee/ Occupant / Person Having Control or Employee/Agent / Representative** to provide within **10** calendar days from the date of this notice, a **written description of corrective action taken** and the required documentation demonstrating that compliance has been achieved for the violation(s); **or** agree to submit a **Letter of Intent** to comply along with a corrective action plan for the alleged violation (s). Your initials indicate you will provide the aforementioned information to the **City of Houston** at the address listed above.

Failure to correct the violations may result in a Municipal Court Citation. For additional information, please call the Investigator. This is not an admission of guilt, but I do acknowledge receipt of this notice of violation and I am the person named and identified in this notice.

Issued by: _____ Phone: _____ Acknowledged by: _____

For Office Use Only Nuisance
SR# _____
Council District _____

CITY OF HOUSTON MUNICIPAL COURTS

Pay or Resolve this ticket before your court date or **YOU MUST APPEAR**
 For other locations see page 2, call 311 or (713) 837-0311, or visit www.houstoncourts.org

Ticket # **N20495614**



- 1400 Lubbock Houston TX 77002-1556
7:00 A.M. to 10:00 P.M.
Monday - Saturday
- 8300 Mykawa Houston TX 77048
8:00 A.M. to 5:00 P.M.
Monday - Friday
- 3203 S Dairy Ashford Houston TX 77082
8:00 A.M. to 5:00 P.M.
Monday - Friday

Court # _____ Time _____ A.M. / P.M. Date _____ / _____ / _____
Month / Day / Year

Last Name _____ First Name _____ MI _____ DL CDL ID MC # _____ ST _____

Race _____ Sex _____ DOB _____ / _____ / _____ Age _____ Height _____ Veh Lic _____ ST _____ Color _____ Make _____ Model _____ Occ Front _____ Occ Back _____
Month / Day / Year

Home Address _____ City _____ ST _____ ZIP _____ Area Code _____ Home Phone _____

Work Address _____ City _____ ST _____ ZIP _____ Area Code _____ Work Phone _____

#1 _____

#2 _____

#3 _____

OFFENSE DATE _____ / _____ / _____ TIME _____ A.M. / P.M. (Issue date if different) _____ / _____ / _____ If commercial (vehicle, DL, learners permit) include SSN _____ - _____ - _____
Month / Day / Year Month / Day / Year

Commercial Vehicle Y / N HAZMAT Y / N Weather _____ Traffic _____

Locations:

OFFICER NAME _____ Emp # _____ Dist _____ Beat _____

Your failure to appear, failure to pay, or failure to satisfy a judgment ordering payment of a fine and costs, may result in: 1) a warrant issued for your arrest; 2) a charge of Failure to Appear and \$200 fine 3); denial of Driver's License renewal; 4) denial of motor vehicle registration or renewal; and 5) a \$30 DPS fee for each violation charged. This is not an admission of guilt, but I do acknowledge receipt of this notice and I will appear in court at the time and place designated above. I am the person named and identified in this ticket.

SEARCH Y / N
 CONSENT Y / N
 ARREST Y / N

Notes / Witness name, address, phone / Witness name and ID#

Signature: _____

A group of people are on a boat, looking out at a body of water. In the background, a crane is visible on the shore. The text "What can you do for you and your neighborhood?" is overlaid in green, bold, italicized font.

***What can you do
for you and your
neighborhood?***

Collect Evidence

TITLE 30

ENVIRONMENTAL QUALITY

PART 1

TEXAS COMMISSION ON

ENVIRONMENTAL QUALITY

CHAPTER 70

ENFORCEMENT

SUBCHAPTER A

ENFORCEMENT GENERALLY

RULE 70.4

**Enforcement Action Using Information
Provided by Private Individual**

Criteria to be considered in the evaluation of the value and credibility of information provided by a private individual for use as evidence in an enforcement action:

- 1. The individual providing the information must be willing to submit a sworn affidavit attesting to the facts that constitute the alleged violation and authenticating any writings, recordings, or photographs provided by the individual.**
- 2. The individual providing the information must be willing to testify in any enforcement proceedings regarding the alleged violations.**
- 3. Any physical or sampling data submitted by an individual to prove one or more elements of an enforcement case must have been collected or gathered in accordance with relevant agency protocols. The individual submitting the physical or sampling data must be willing to submit a sworn affidavit demonstrating that the individual followed relevant agency protocols when collecting when collecting the data.**
- 4. Information gathered by an individual illegally will not be used in an enforcement case.**

Example of Filled Out Odor Log

Date	Start Time & End Time	Alleged Source	Describe Smell & How it Affected You	Intensity VS-Very Strong S-Strong M-Moderate L-Light VL-Very Light	Offensiveness HO-Highly Offensive O-Offensive UNP-Unpleasant NOT UNP- Not Unpleasant	Wind Speed & Wind Direction	Other Weather Conditions
				EXAMPLE			
August 1, 2010	8:00 AM to 11:00 AM	XYZ Co. 123 Main St. Houston, Tx	Chemical Odor – Caused breathing difficulty and made me go indoors	VS	HO	Winds from S at 10 mph	Cloudy with sporadic rain

Example of Photographic Documentation

February 30, 2010
at 8:00 a.m.

XYZ Company
123 Main Street
Anywhere, Texas

**Outdoor painting taking place along
eastern portion of property.**

Photo taken by: (print) Joe Helpful
Signature: *Joe Helpful*



AFFIDAVIT

THE STATE OF TEXAS §
 §
COUNTY OF HARRIS §

BEFORE ME, the undersigned authority, on this day personally appeared _____, whose identity was verified by presentation of a current Texas driver's license, and who swore on oath the following:

1. I am over 18 years of age and I am competent to make this affidavit. I have personal knowledge of the matters stated herein.
2. I am a citizen of the City of Houston, and I reside at _____ .
3. At approximately _____ on _____ I contacted the City of Houston and filed a complaint regarding air quality. I have filed approximately _____ complaints regarding this air quality issue, initiating with my complaint filed on _____ and continuing with complaints filed on _____, _____, _____, _____, and _____.
4. When I contacted the City of Houston, the air quality at my location was _____, due to the presence of _____. I spoke with an investigator and discussed my concerns about the _____ that emanates from _____. I described the emissions as _____. I was impacted by the emissions when _____.
5. At approximately _____ on _____, I was contacted by _____ an investigator with the City of Houston Department of Health and Human Services' Bureau of Air Quality Control, regarding my complaint of air quality.
6. The emissions from this source create a nuisance for me by impacting my health or comfort level. As a result of the emissions, I have to _____.

Affiant

SUBSCRIBED AND SWORN TO BEFORE ME, on this the ___ day of June 2006, to certify which witness my hand and seal of office.

NOTARY PUBLIC
in and for the State of Texas

Use our 3 - 1 - 1 Service Help Line



3

1

1

Participate in Community Outreach/Education



- Know how to access air monitoring data
- Help disseminate notices of permitting actions and air rule changes
- Share with us your comments/concerns
- Be part of neighborhood environmental health coalitions to educate and empower



***We welcome your
Questions!***