

2011 Ozone Monitoring Update


Nathan Chenaux
TCEQ Houston Region



Overview

- Monitors / Maps
- 8 Hour Exceedences
- Design Values
- Old Standard
- Old One Hour

Eight-Hour Ozone Nonattainment Areas


Protecting Texas by Reducing and Preventing Pollution
TCEQ
 Texas Commission on Environmental Quality
 P.O. Box 13087 (Mail Code 197)
 Austin, Texas 78711-3087
 March 3, 2009
 0 40 80 120 Miles
 Texas Statewide Mapping Projection (TSMAP)
 Scale: 1:6,023,570

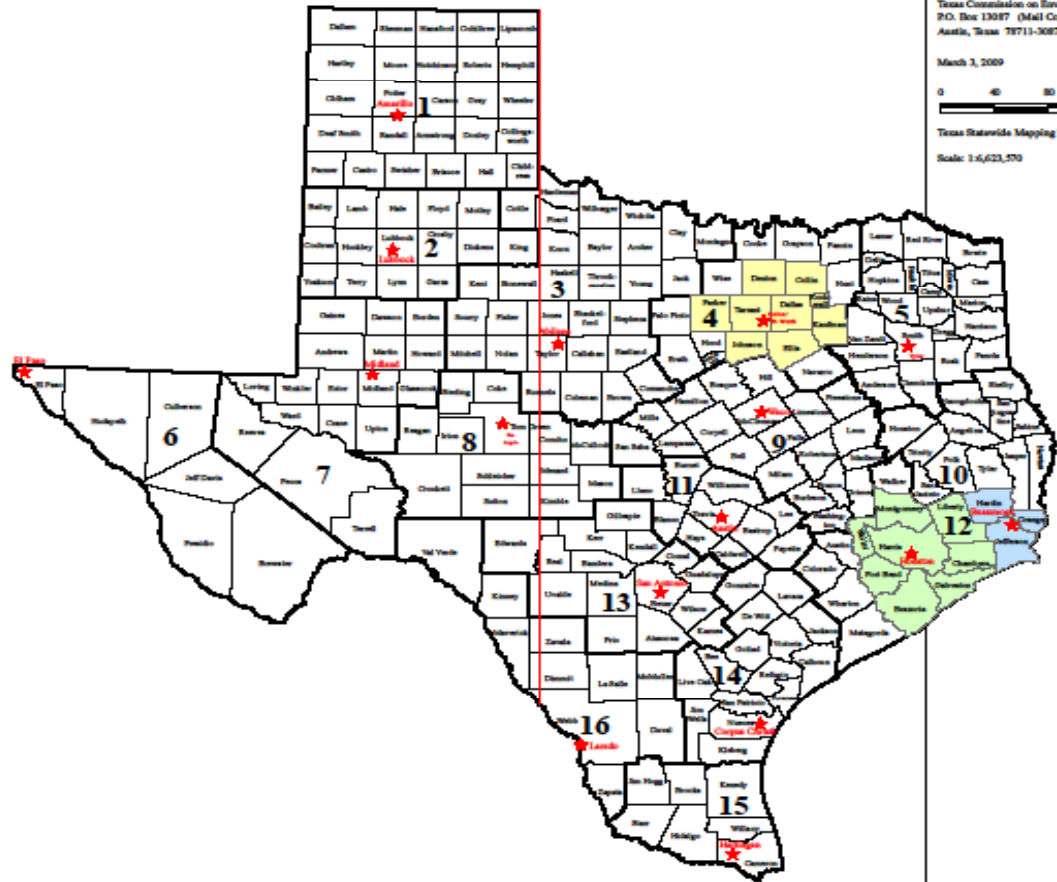


Table 1-2. Eight-hour ozone nonattainment areas

Summary of Reporting Requirements (tpy) for 30 TAC Section 101.10

County	VOC		NOX		Other		Individual HAP		Aggregated HAP	
	Actual	Potential	Actual	Potential	Actual	Potential	Actual	Potential	Actual	Potential
Bexar, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, Waller SEVERE / OZONE	10	25	25	25	100	100	10	10	25	25
Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant MODERATE / OZONE	10	100	25	100	100	100	10	10	25	25
Hardin, Jefferson, Orange MODERATE / OZONE	10	100	25	100	100	100	10	10	25	25
All Other Counties	100	100	100	100	100	100	10	10	25	25

Notes: If an account's emissions meet or exceed the tons per year (tpy) thresholds listed in this table, an emissions inventory questionnaire must be submitted to the TCEQ. This table is provided as a guidance tool to aid in the actual rule. If a discrepancy exists between the table and rule 30 TAC Section 101.10 and 30 TAC Section 116.11 (Major Source Definition), then the rule will take precedence.

Legend

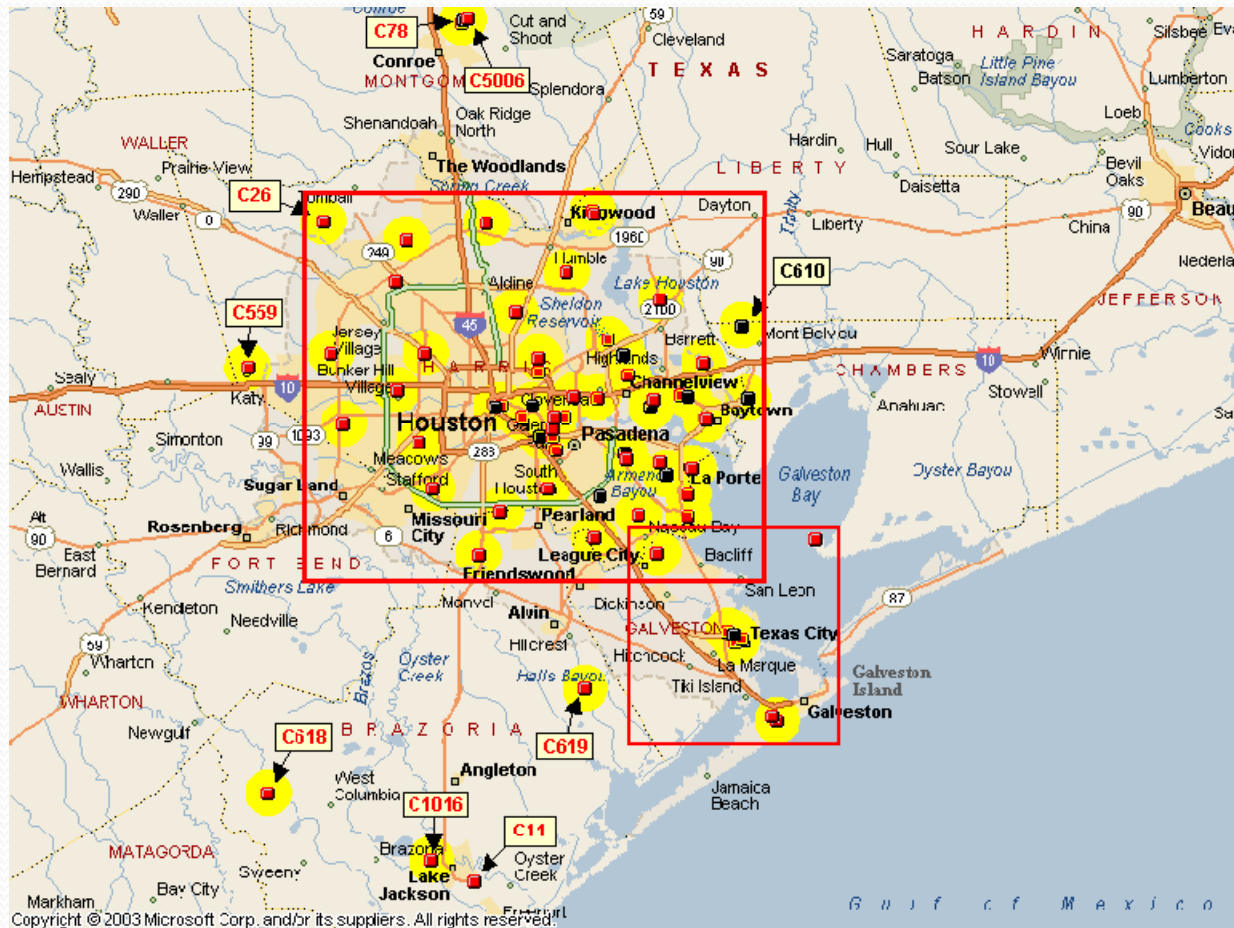
- ★ Region Headquarters
- 12 Region Number
- County Boundary
- Central Meridian

Source: The county boundaries and region headquarters are US Census Bureau 1992 TigerLine data (1:100,000).

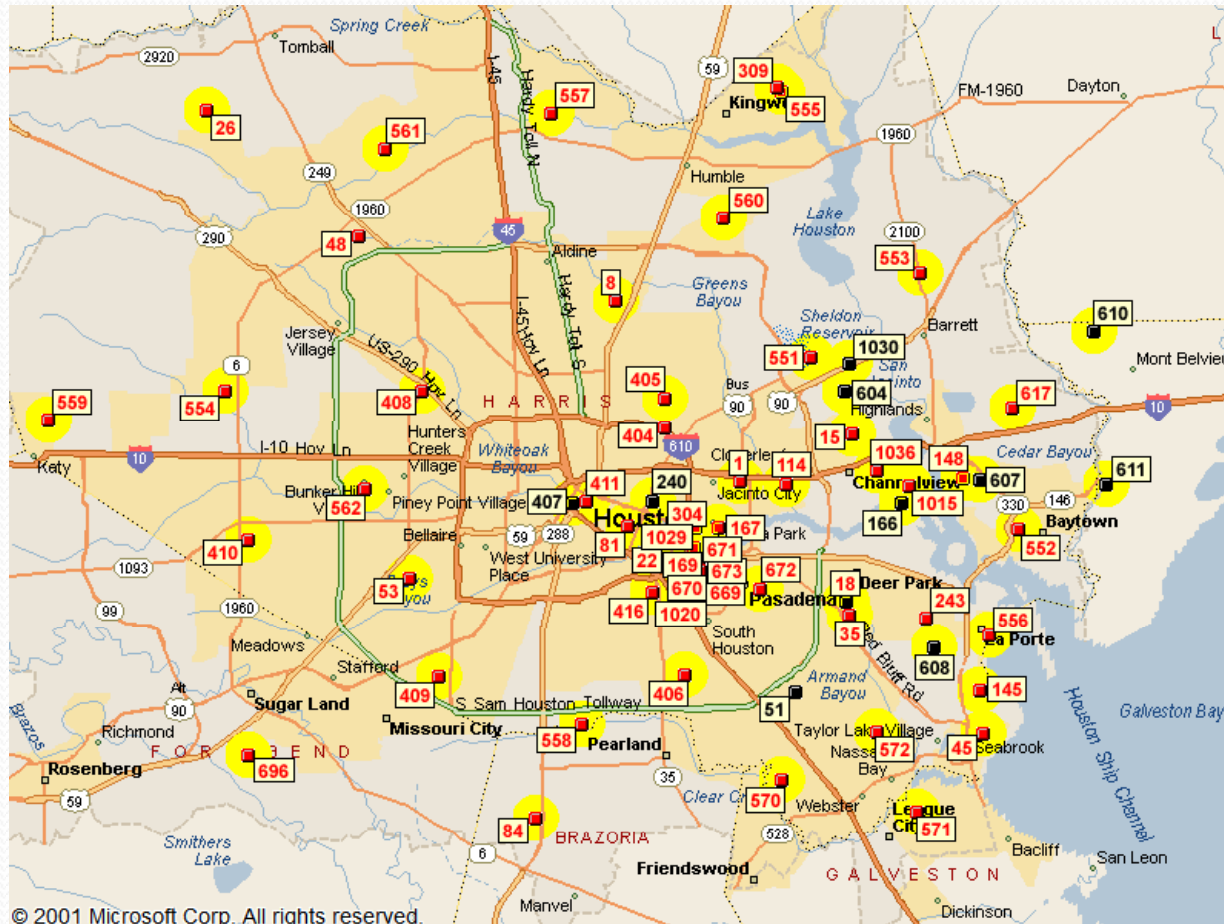


This map was generated by the Information Resources Division of the Texas Commission on Environmental Quality. This map was not generated by a licensed surveyor, and is intended for illustrative purposes only. No claims are made to the accuracy or completeness of the data or to its suitability for a particular use. For more information concerning this map, contact the Information Resources Division at (512) 259-0880.

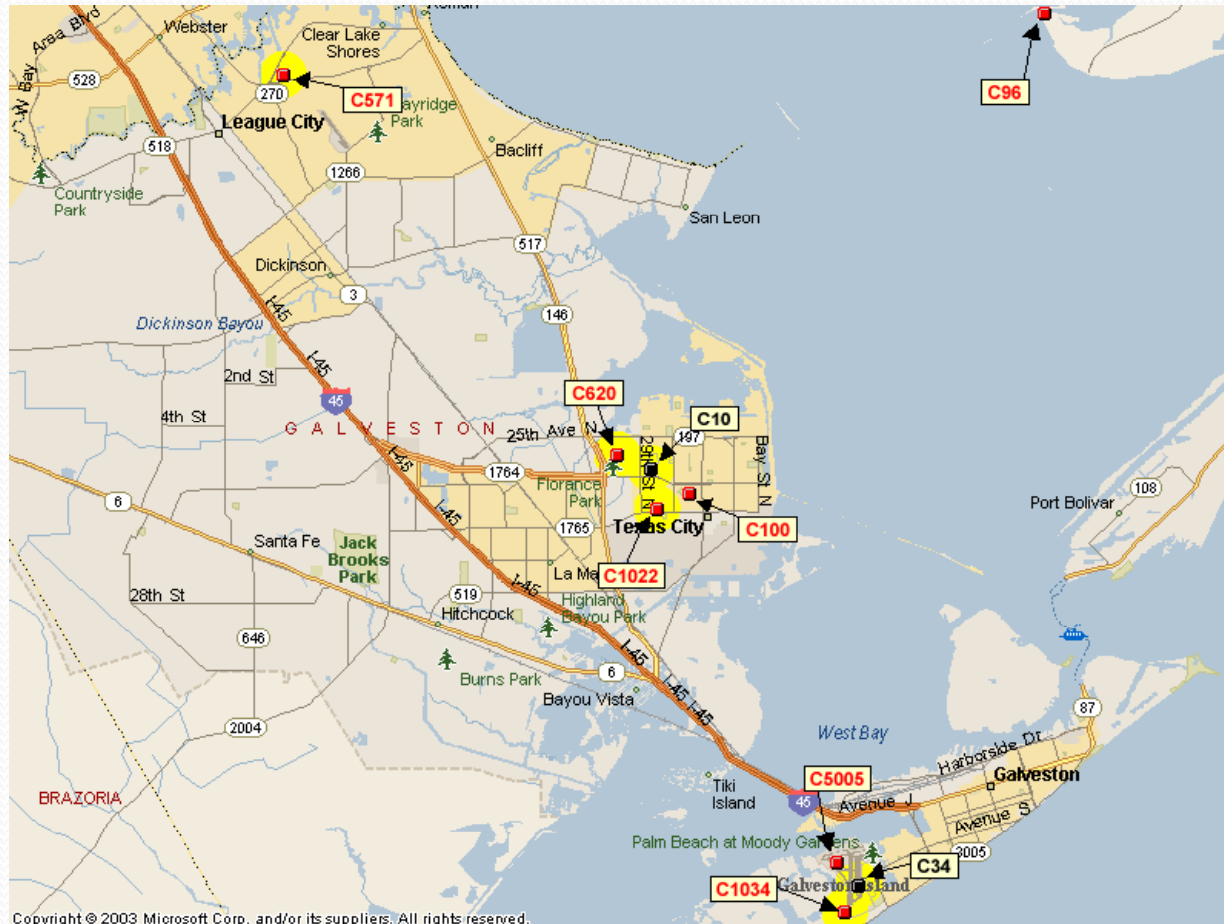
Monitors: HGB Area



Monitors: Zoom In on Houston



Monitors: Zoom in on League City/Texas City/Galveston





Exceedence Days

- Number of days monitored ozone exceeds 8 hour standard (>75 ppb). Only takes one monitor. Only used 21 FRM (Federal Reference Monitors).
 - 14 Days in 2011 (through June 26)
 - Highest 8 hr average: 112 ppb (Galveston, June 6, 9 am-5 pm)
 - Highest 1 hr average: 140 ppb (Galveston, June 6, 1-2 pm)
 - 29 Days in 2010 (1/1/10-12/31/10)
 - Highest 8 hr average: 97 ppb (Houston Aldine, May 3, 11 am-7 pm)
 - Highest 1 hr average: 130 ppb (Lynchburg, July 16, 2-3 pm)

*Disclaimer: Has not been through QA

Source: TCEQ webpage

2011: 14 Exceedences (HGB: >75ppb)

March

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

April

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

May

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

June

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		



Weather on Exceedence Days

Date	Avg Wind (mph)	High Temp
• 3/31	Light and var. N-S	78
• 4/12	Light and var. N-S	82
• 4/13	SE 4 mph	80
• 5/5	SE 4 mph	78
• 5/6	SE 3 mph	84
• 5/13	NW 4 mph	93
• 5/17	SE 6 mph	80
• 5/26	WNW 5 mph	96

Source: Ellington Field (wunderground)

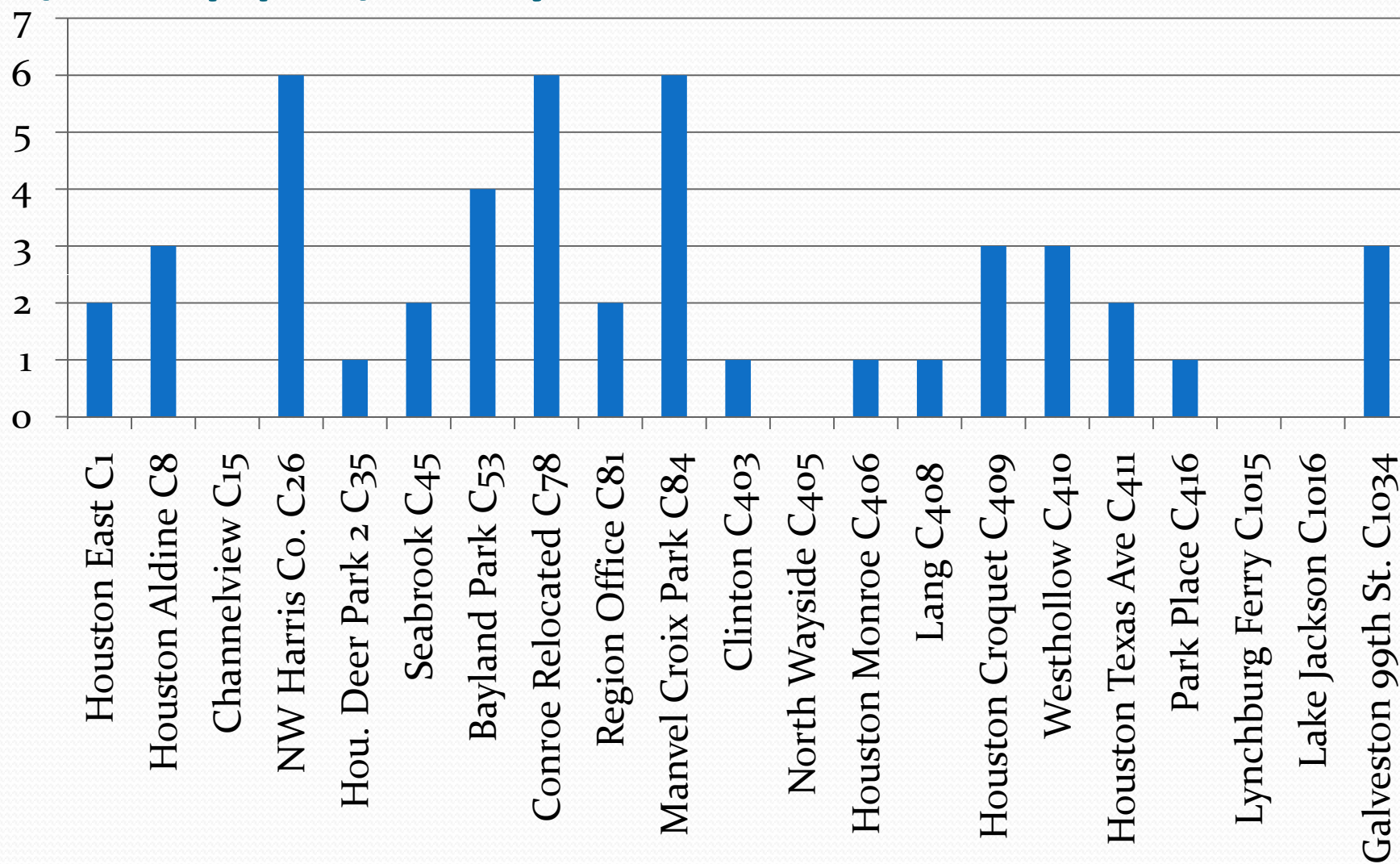


Weather on Exceedence Days

Date	Avg Wind (mph)	High Temp
• 6/1	SE 3 mph	95
• 6/2	SSW 4 mph	98
• 6/3	ESE 6 mph	91
• 6/5	ENE 3 mph	102
• 6/6	ENE 2 mph	100
• 6/7	SE 3 mph	91

Source: Ellington Field (wunderground)

2011 HGB 8hr Exceedence Days (>75ppb) by monitor



Through June 26, 2011 (has not been through QA). Source: TCEQ webpage. 21 FRMOnly.

Design Values (ppb)

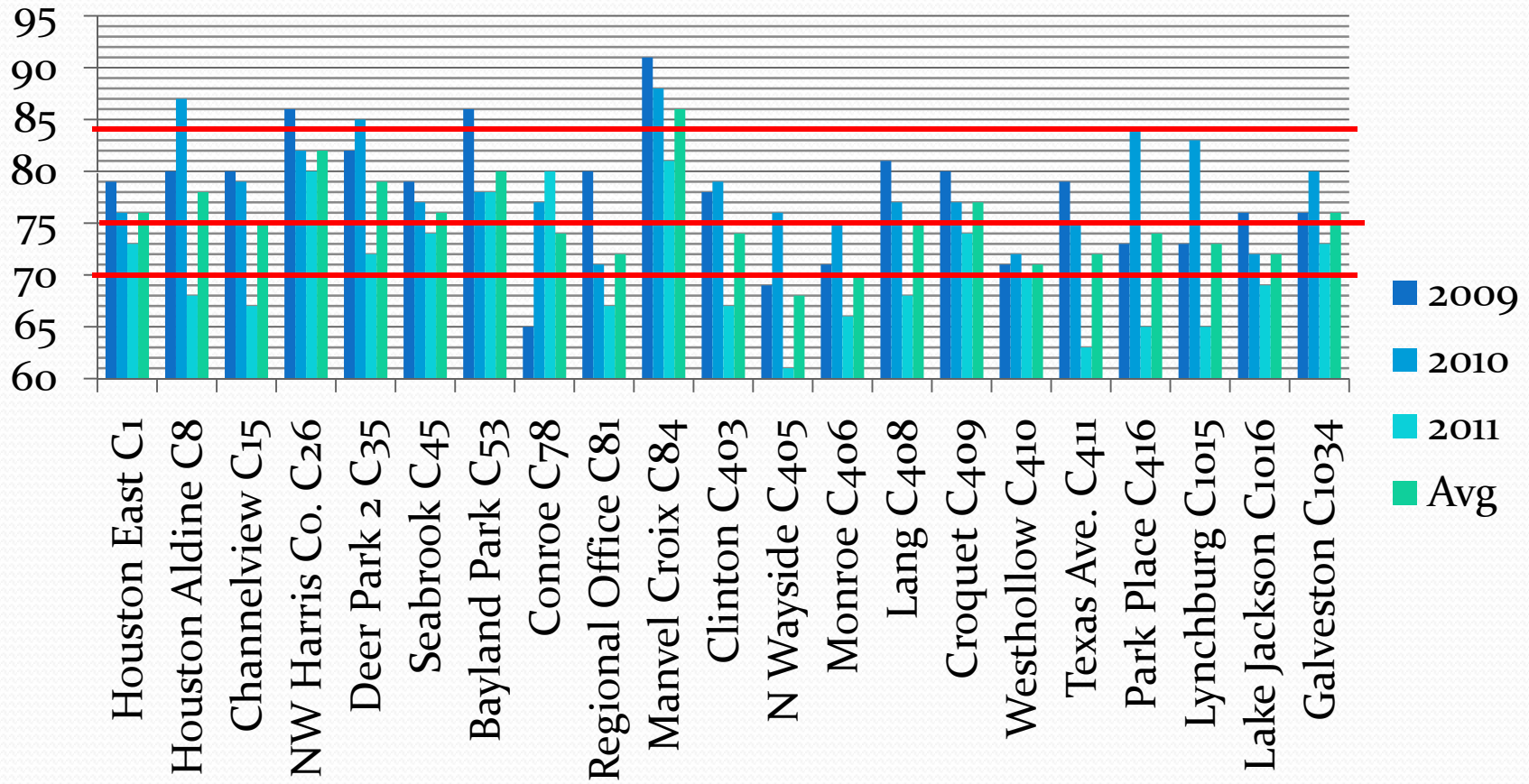
4th highest 8hr avg.

Site (21 FRM)	2009	2010	2011	Current 3 yr Avg
• Houston East C1	79	76	73	76
• Aldine C8	80	87	68	78
• Channelview C15	80	79	67	75
• NW Harris C26	86	82	80	82
• Deer Park 2 C35	82	85	72	79
• Seabrook C45	79	77	74	76
• Bayland Park C53	86	78	78	80
• Conroe C78	65	77	80	74
• Region Office C81	80	71	67	72
• Manvel Croix C84	91	88	81	86
• Clinton C403	78	79	67	74
• Wayside C405	69	76	61	68
• Monroe C406	71	75	66	70
• Lang C408	81	77	68	75
• Croquet C409	80	77	74	77
• Westhollow C410	71	72	70	71
• Texas Ave. C411	79	75	63	72
• Park Place C416	73	84	65	74
• Lynchburg C1015	73	83	65	73
• Lake Jackson C1016	76	72	69	72
• Galveston C1034	76	80	73	76

Source: TCEQ Webpage (through 6/26/11)

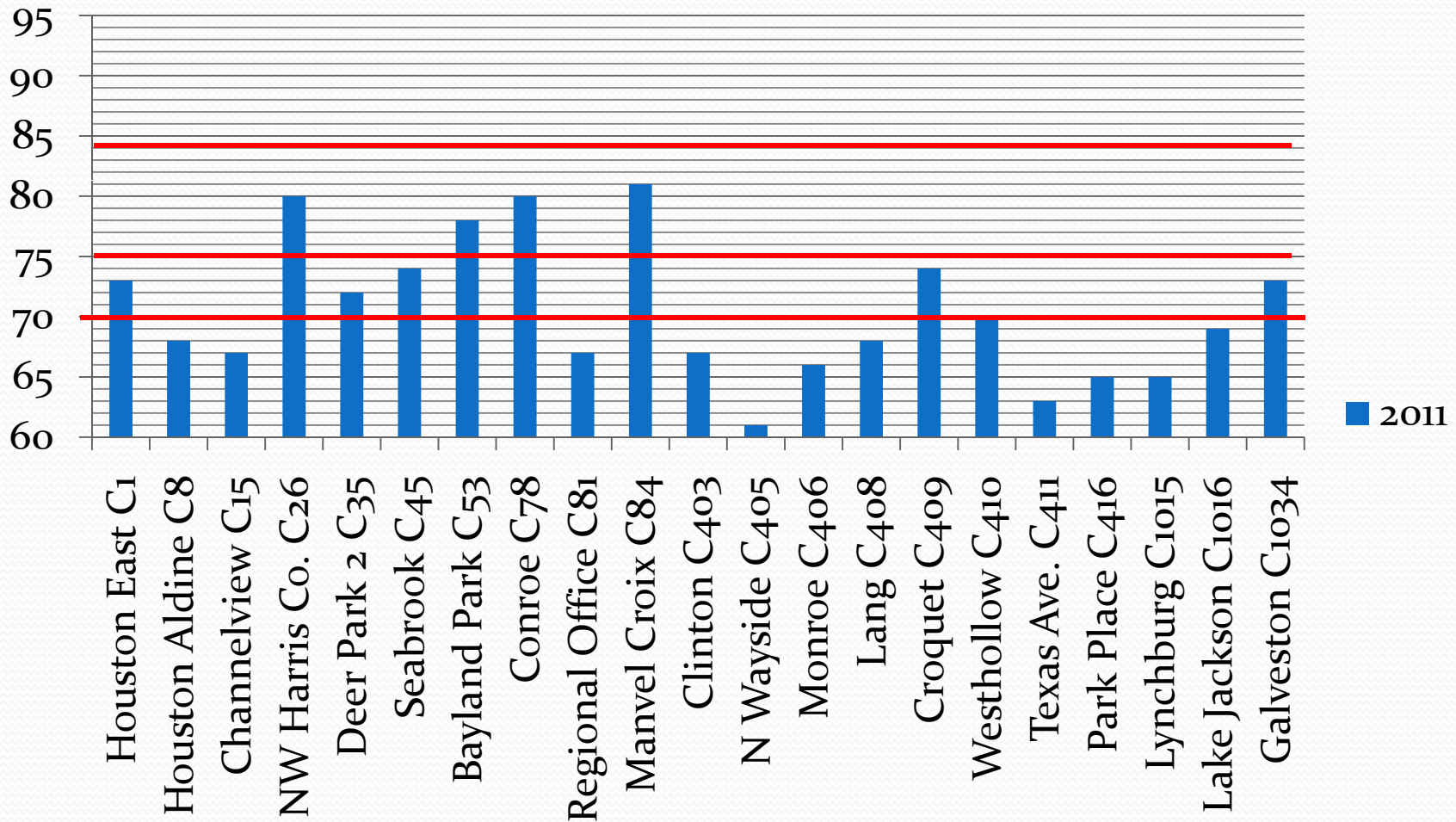
*All data has not been through QA. Note: (Current 3 yr avg.) One over 84 ppb, 9 over 75 ppb, all but one over 70 ppb.

Design Values



Design Values

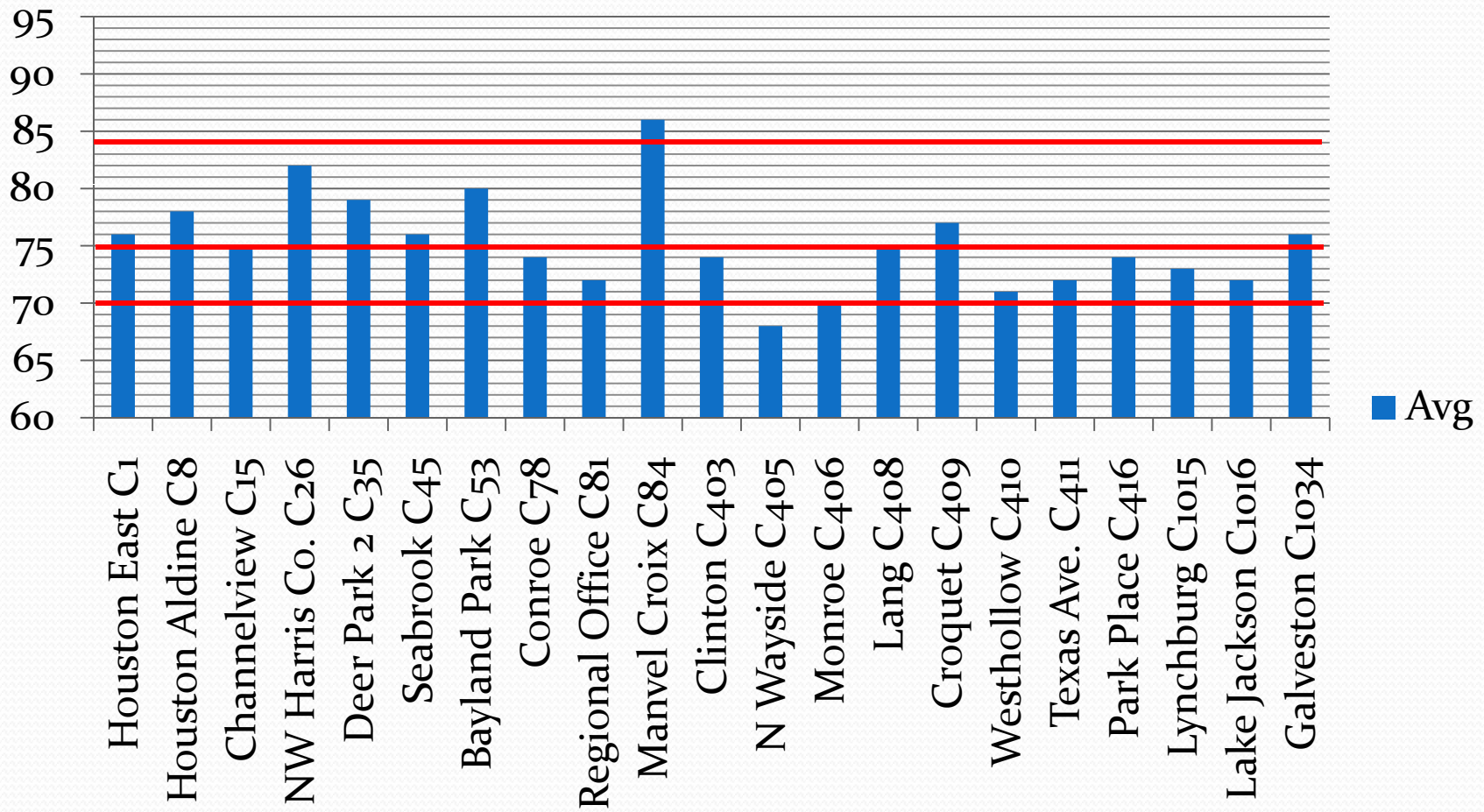
2011 4th High



*Note: 0 above 84 ppb and 4 above 75 ppb. 9 above 70 ppb.

Design Values

Current 3 Year Average ('09-'11)



*Note: 1 above 84 ppb. Nine of 21 over 75 ppb. All but 2 over 70 ppb.

2011 HGB Ozone Exceedence Days Old 8 Hour Standard (>84ppb)

- 5 Days through June 26 (vs. 14 days for 75 ppb)
 - 3 in May
 - 2 in June

Source: TCEQ webpage (FRM only)

*All data has not been through QA



HGB One Hour Ozone

- Exceedences of 124 ppb in 2011 (through 6/26/11)
- 1 Day

Site	Date	ppb	Time
• Galveston C1034	6/6	140	1-2pm
• Mustang C619	6/6	128	1-2pm

*Data has not been through QA

Source: TCEQ Webpage (21 FRM only)



End