

Update on EPA Ethylene Oxide Monitoring Data

Willowbrook, IL

Friday, April 26, 2019

Willow Brook EtO Monitoring Network



2018/2019 3-Day Sampling Calendar - EtO

November						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1	2	3
4	5	6	7	8	9	10
11	12	TB	14	15	16	17
18	19	20	21	22	23	24
25	26	27	TB	29	30	

December						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	TB	7	8
9	10	11	12	TB	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

January						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	TB	23	24	25	26
27	28	29	30	31		

February						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
					TB	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	TB	20	21	22	TB
24	25	TB	27	28		

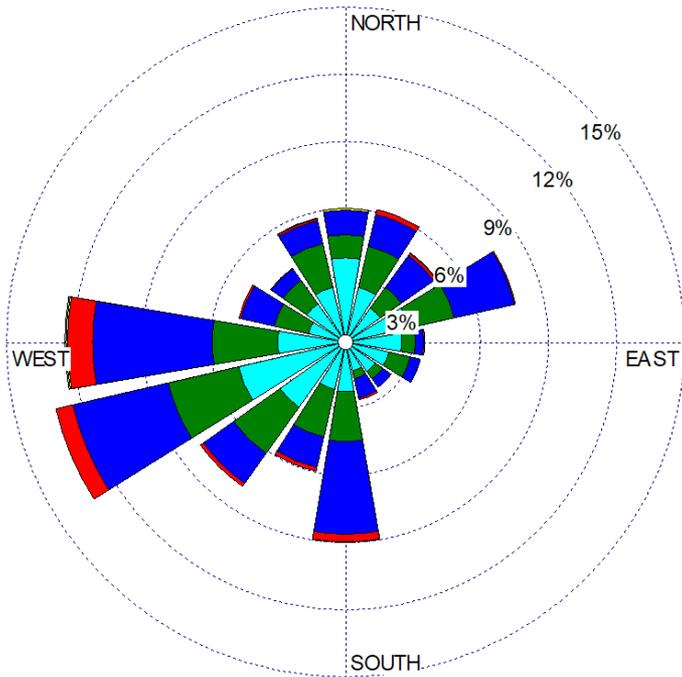
March						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5	6	TB	8	9
10	11	12	13	14	15	16
17	18	TB	20	21	22	23
24	25	26	27	28	29	30
31						

Standard Sample Collection

TB Trip Blank Collection

Willowbrook Study Wind Roses for Nov 13, 2018 – Mar 31, 2019

All Days

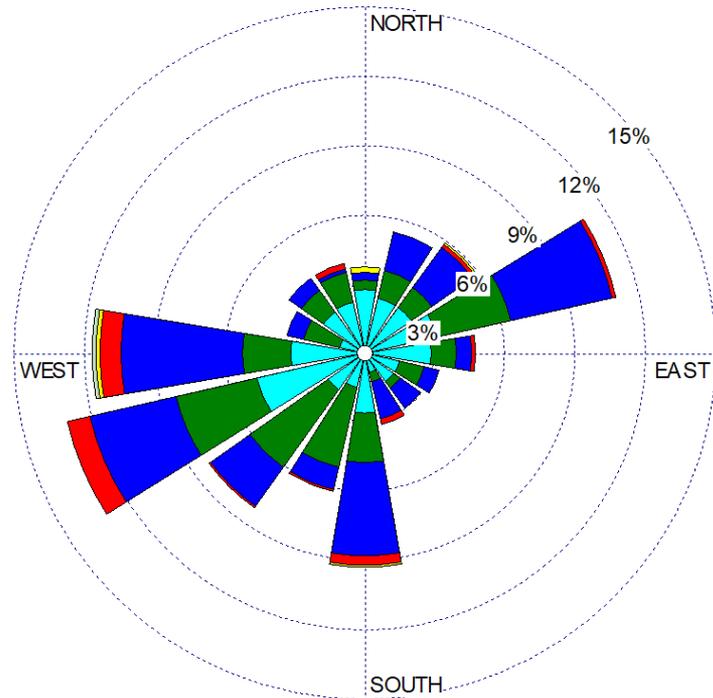


WIND SPEED
(Knots)

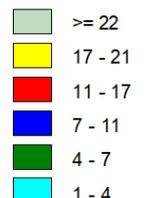


Calms: 0.09%

Sampling Days



WIND SPEED
(Knots)



Calms: 0.00%

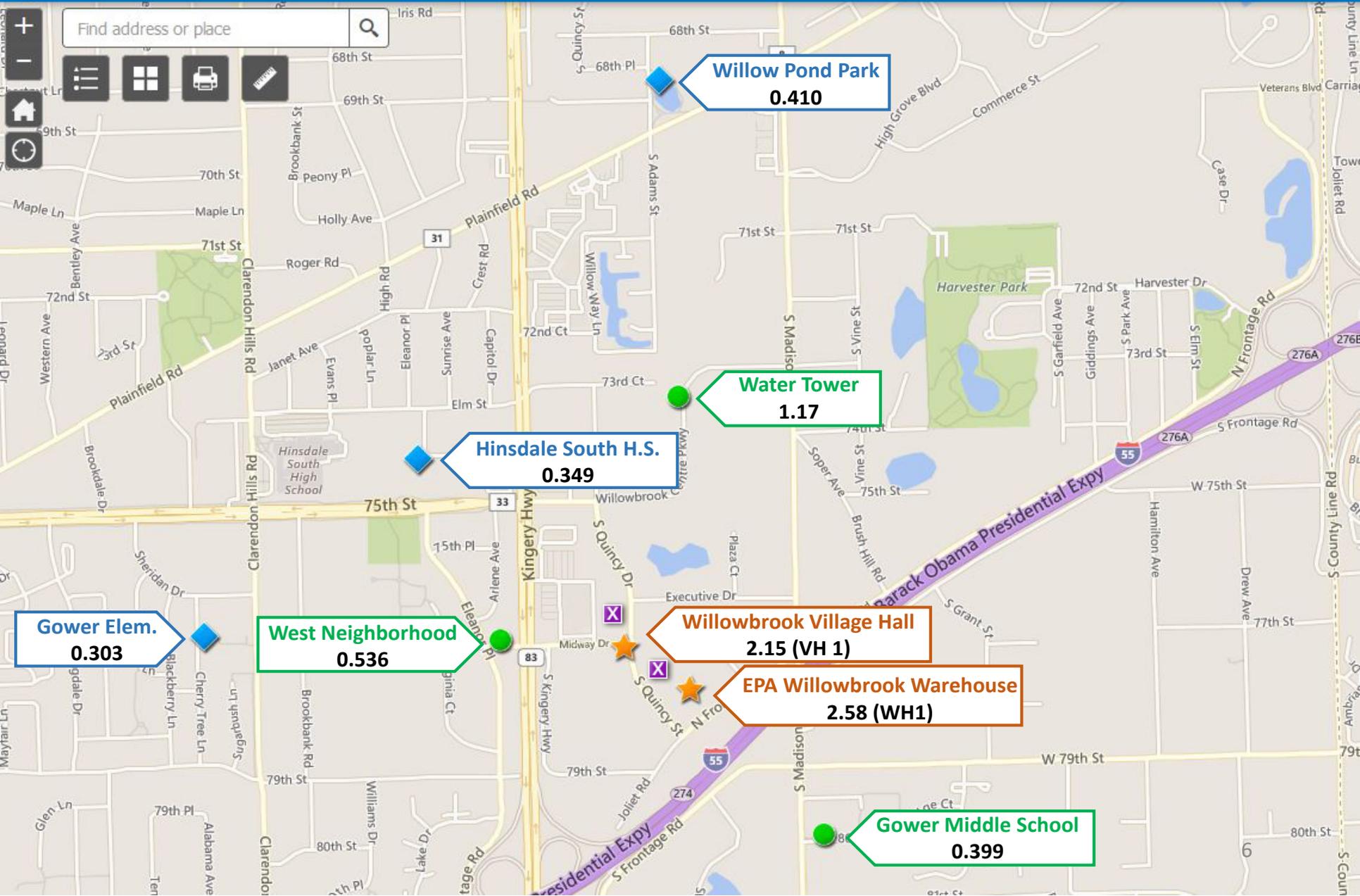
EtO Concentrations

Average EtO Concentrations ($\mu\text{g}/\text{m}^3$) – November 13 to March 31, 2019



Willowbrook

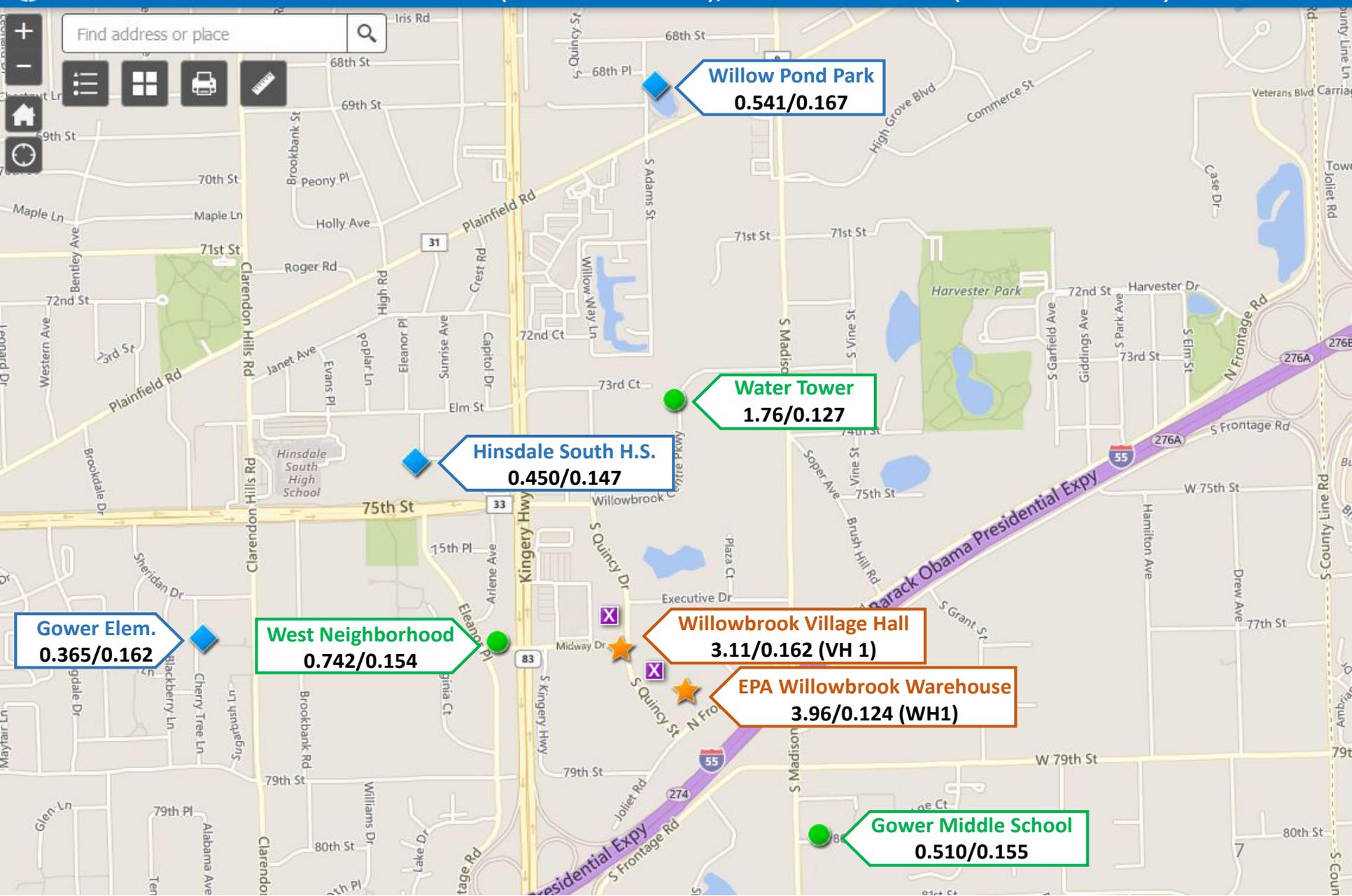
Entire Data Set



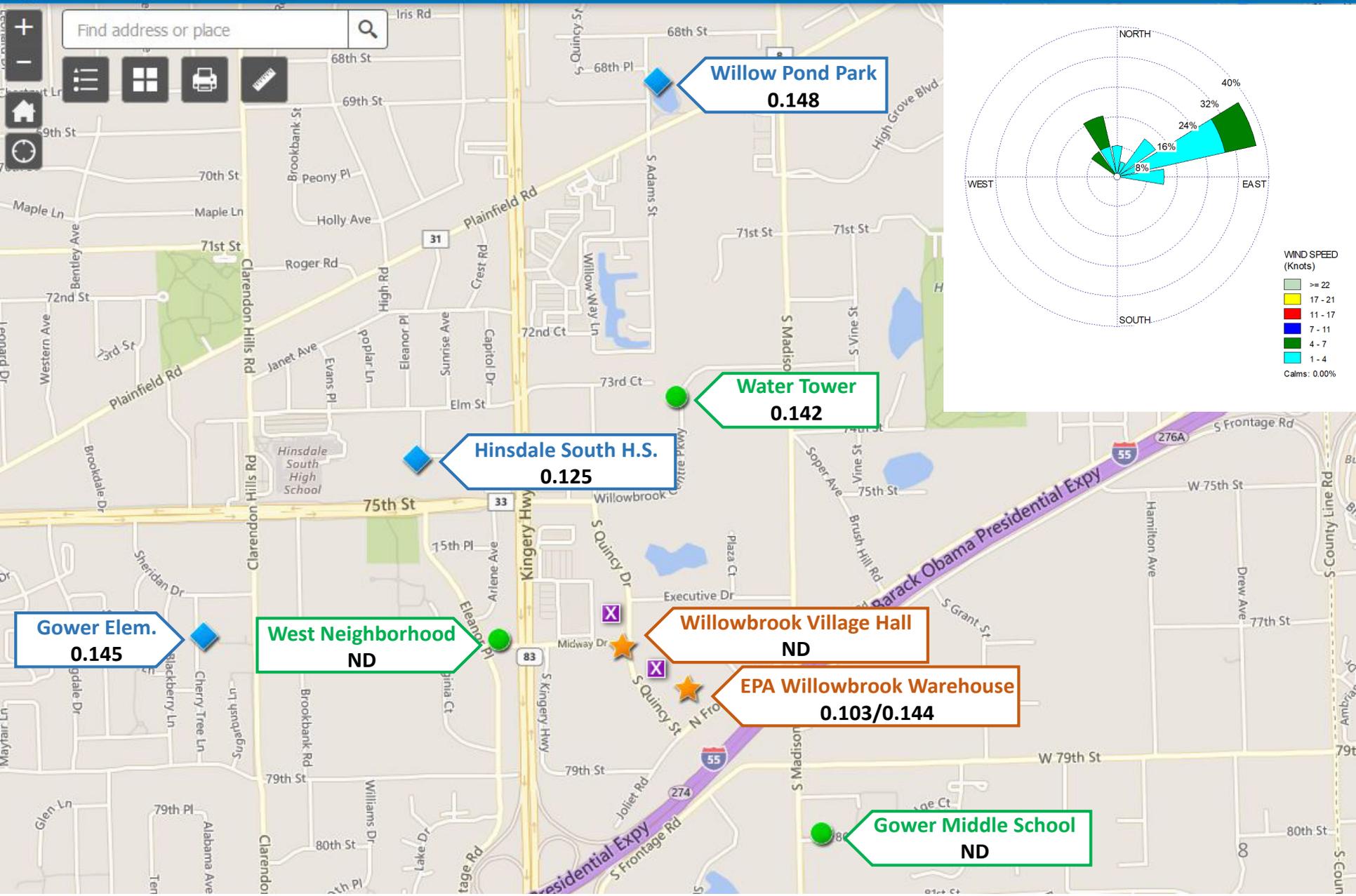
Average EtO Concentrations ($\mu\text{g}/\text{m}^3$) – November 13 to March 31, 2019

Willowbrook

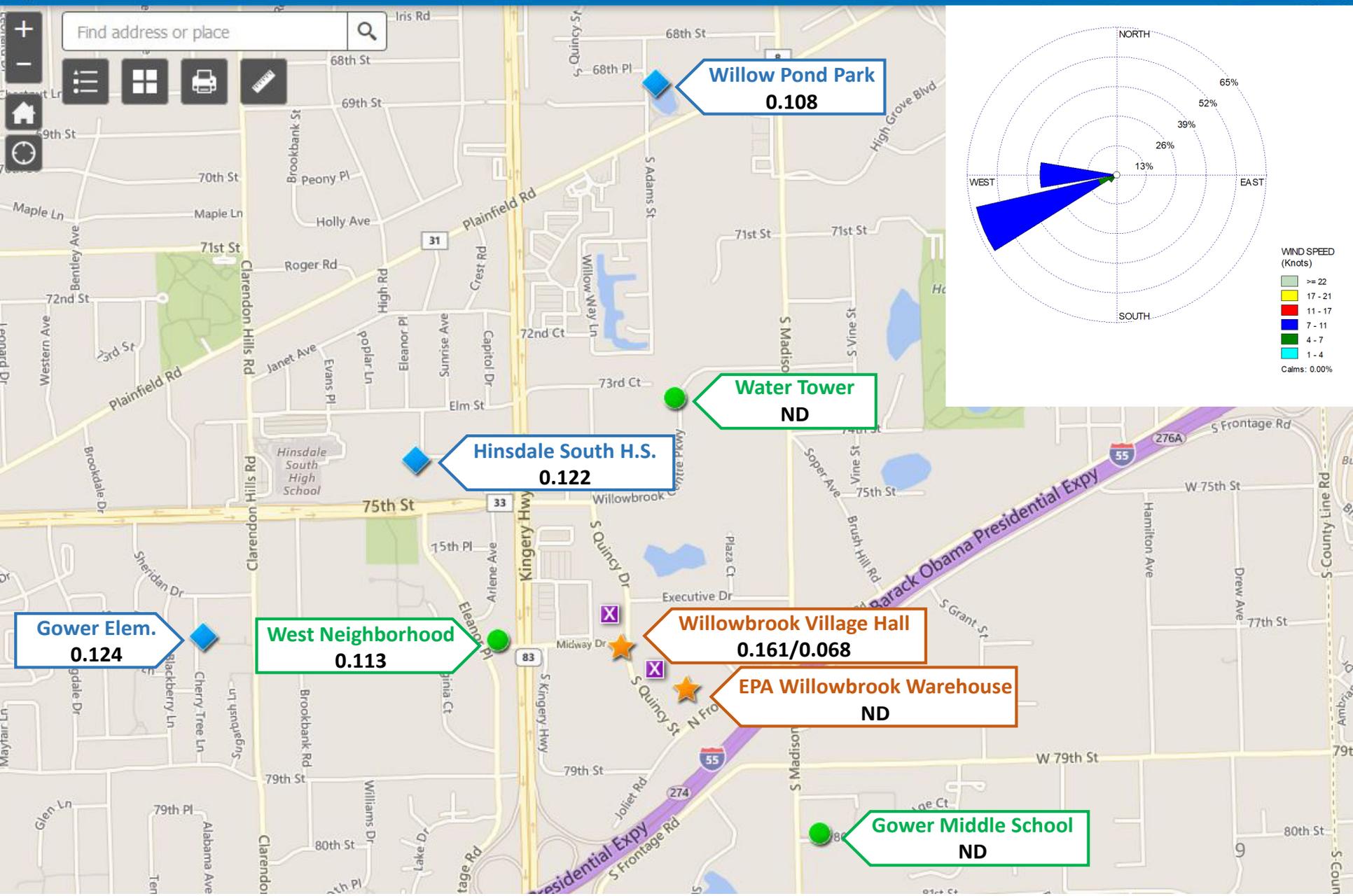
Pre-Seal Order (Nov 13-Feb 14)/Post-Seal Order (Feb 19-Mar 31)



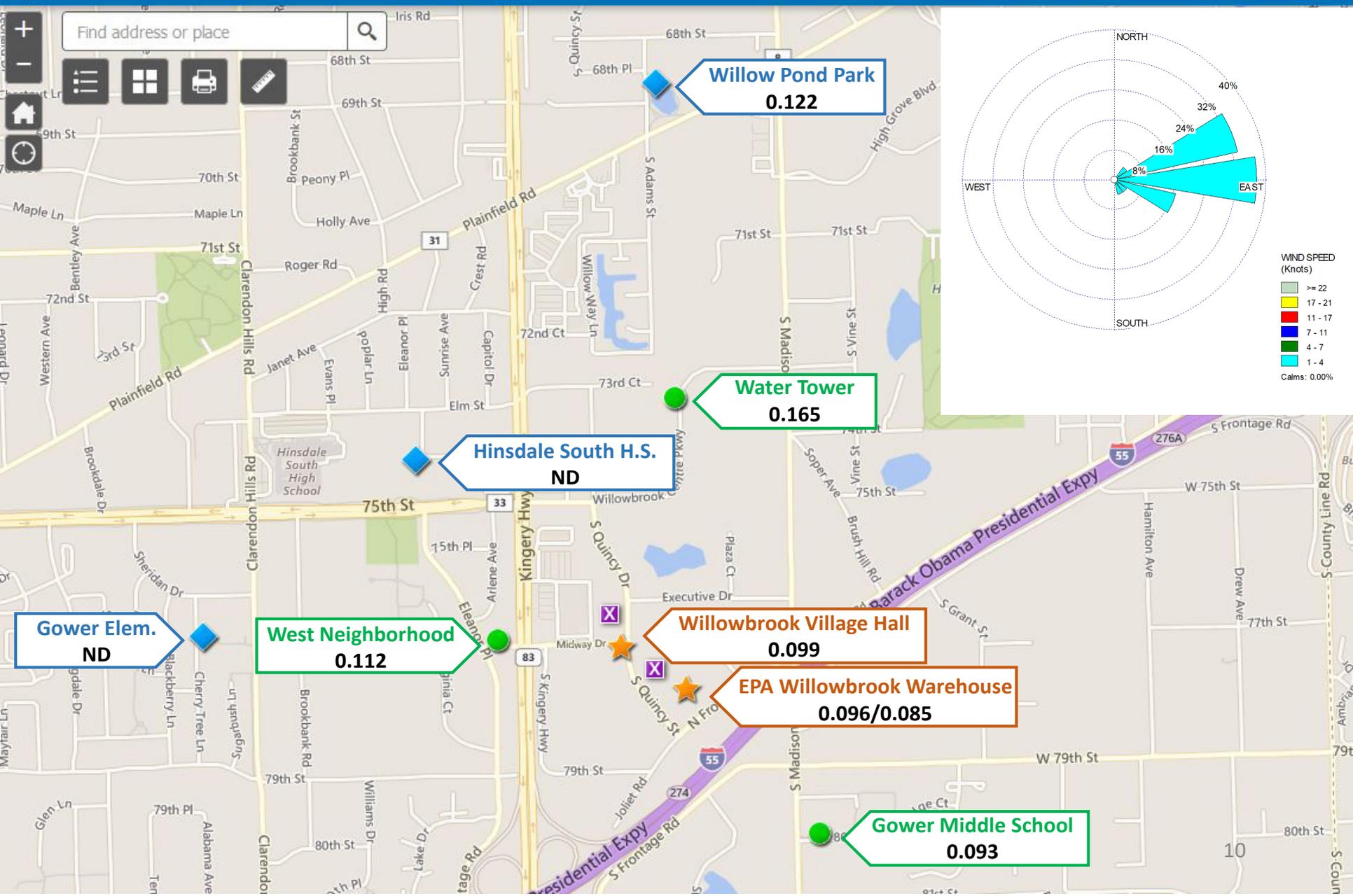
March 1, 2019 – 24-hour average EtO Concentrations ($\mu\text{g}/\text{m}^3$)



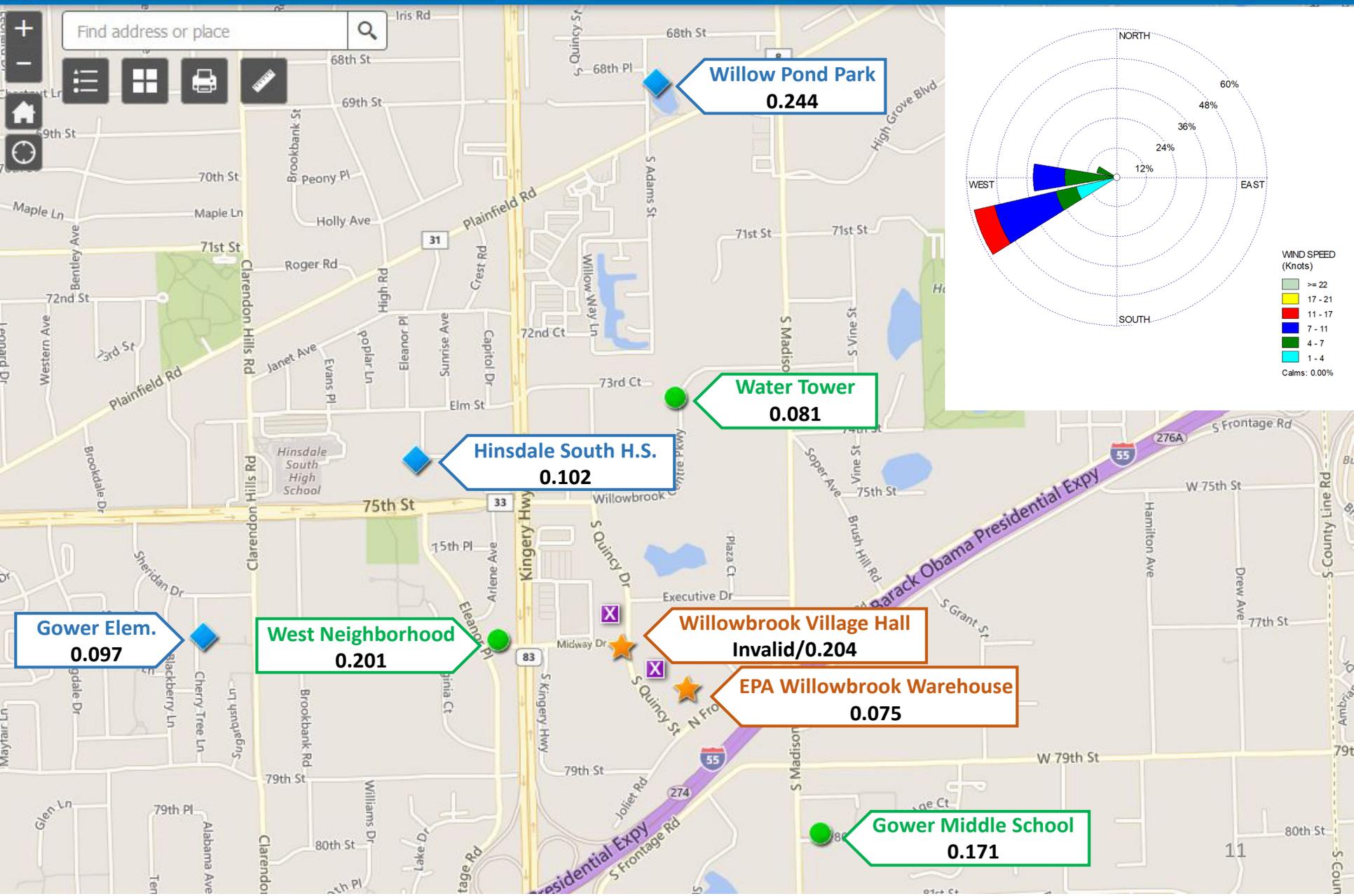
March 4, 2019 – 24-hour average EtO Concentrations ($\mu\text{g}/\text{m}^3$)



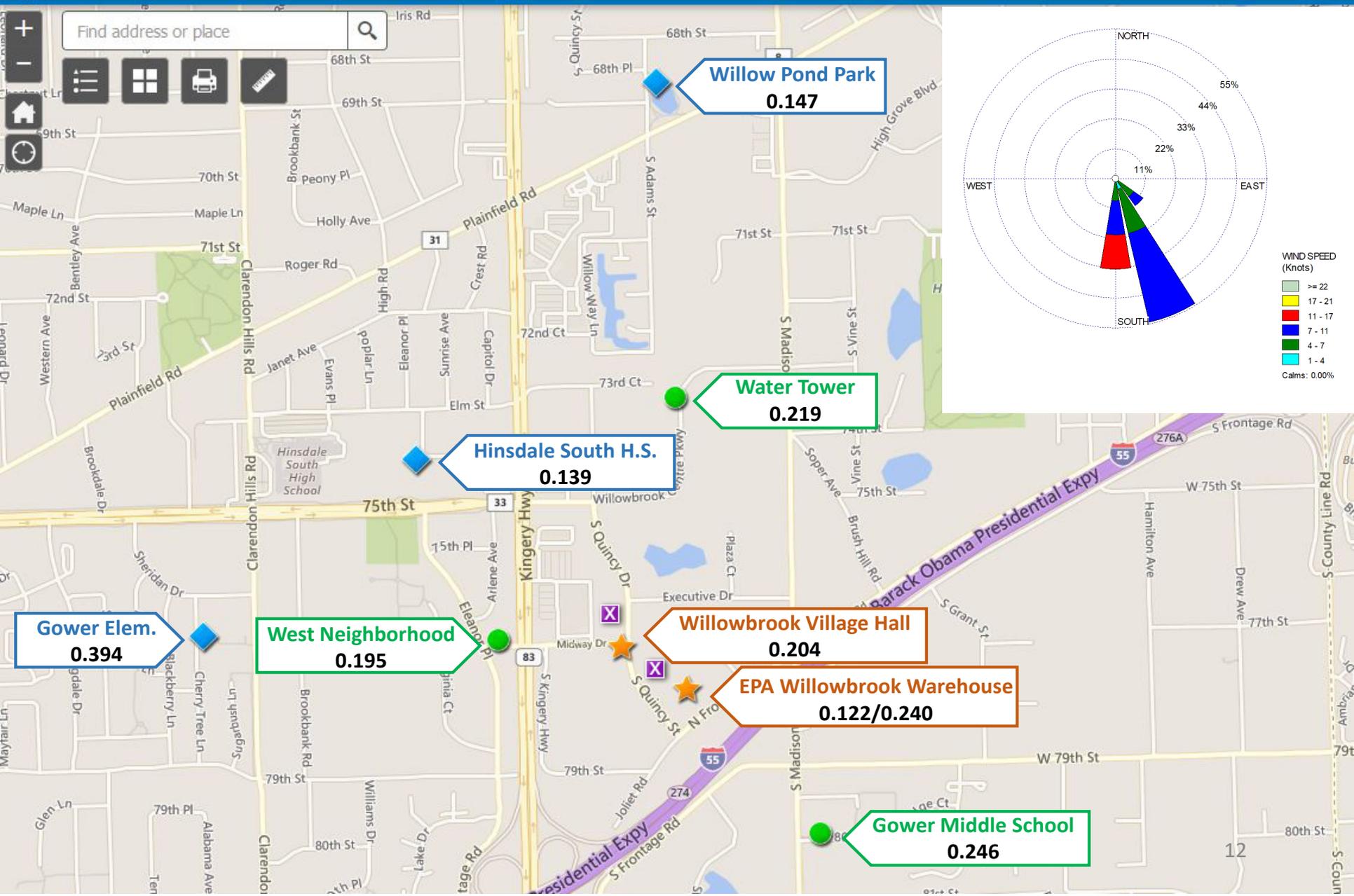
March 7, 2019 – 24-hour average EtO Concentrations ($\mu\text{g}/\text{m}^3$)



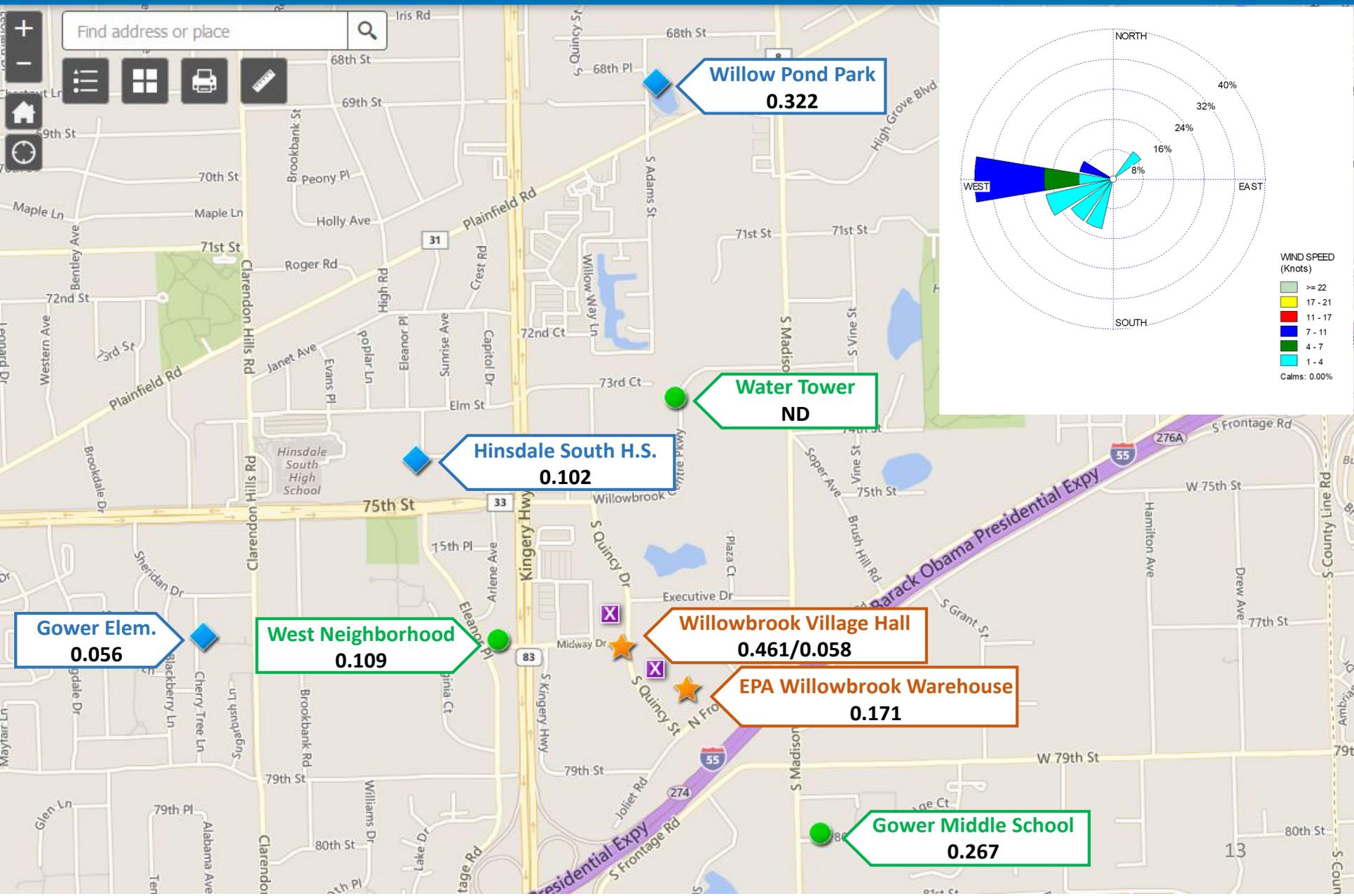
March 10, 2019 – 24-hour average EtO Concentrations ($\mu\text{g}/\text{m}^3$)



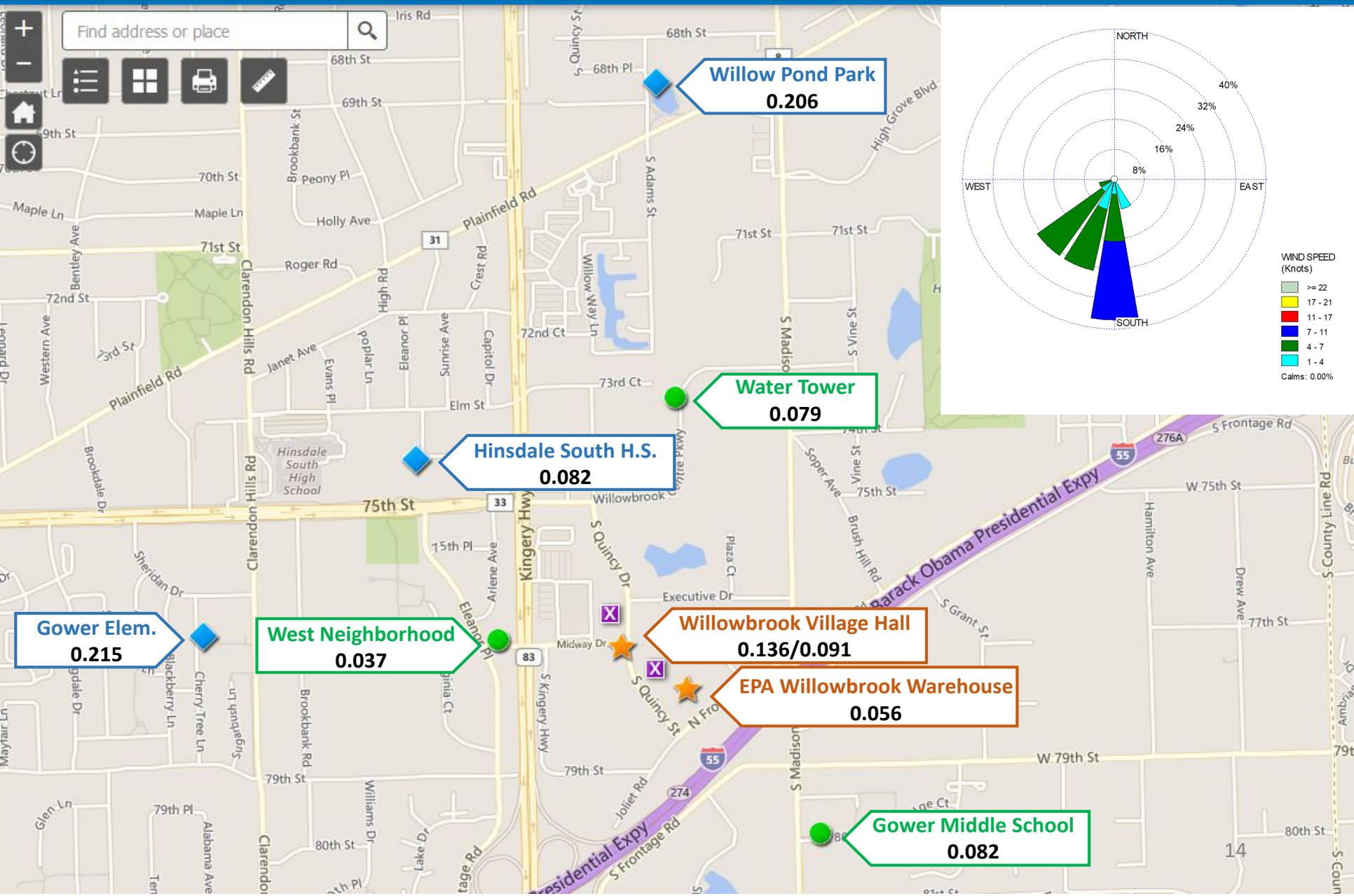
March 13, 2019 – 24-hour average EtO Concentrations ($\mu\text{g}/\text{m}^3$)



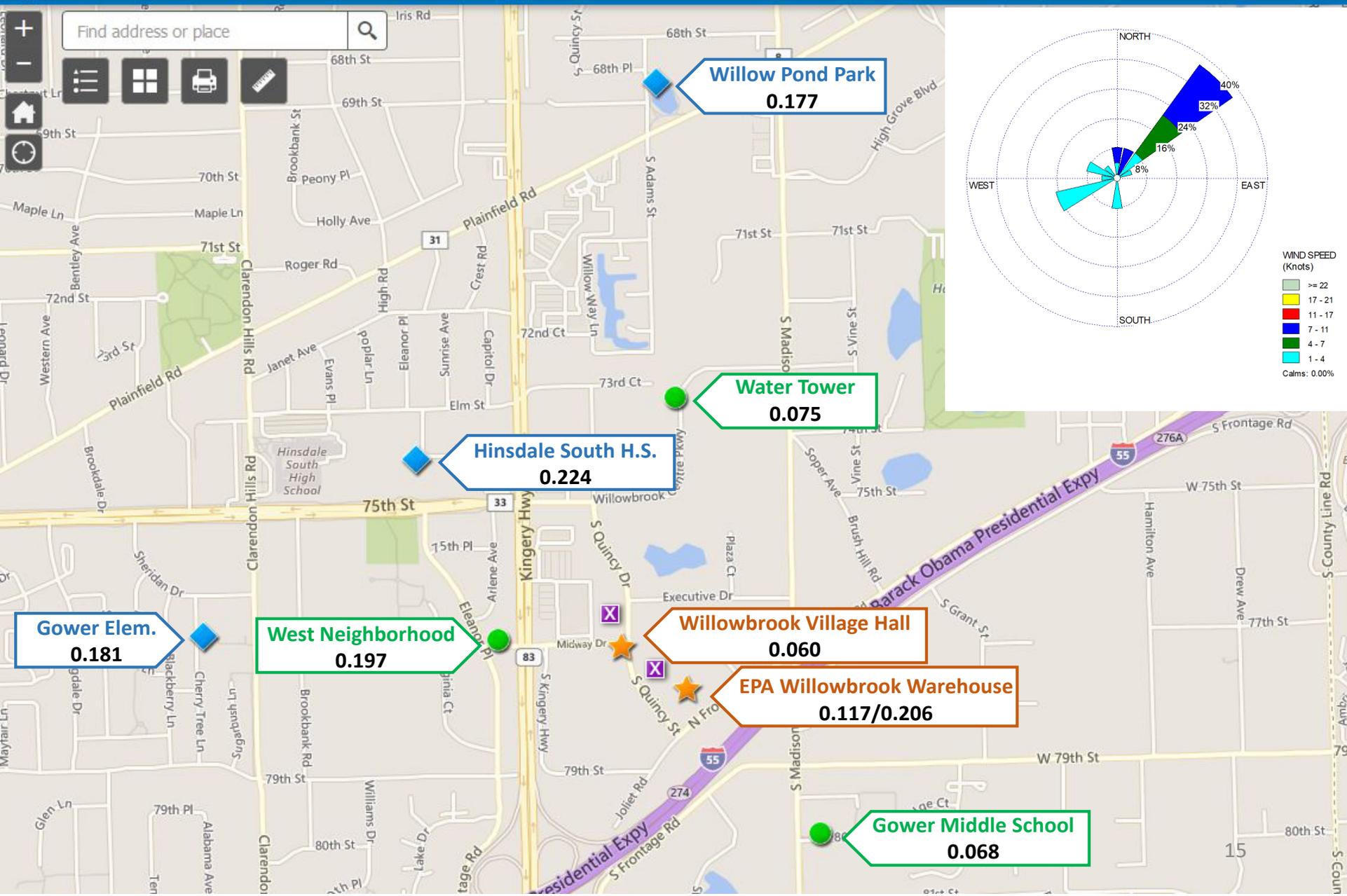
March 16, 2019 – 24-hour average EtO Concentrations ($\mu\text{g}/\text{m}^3$)



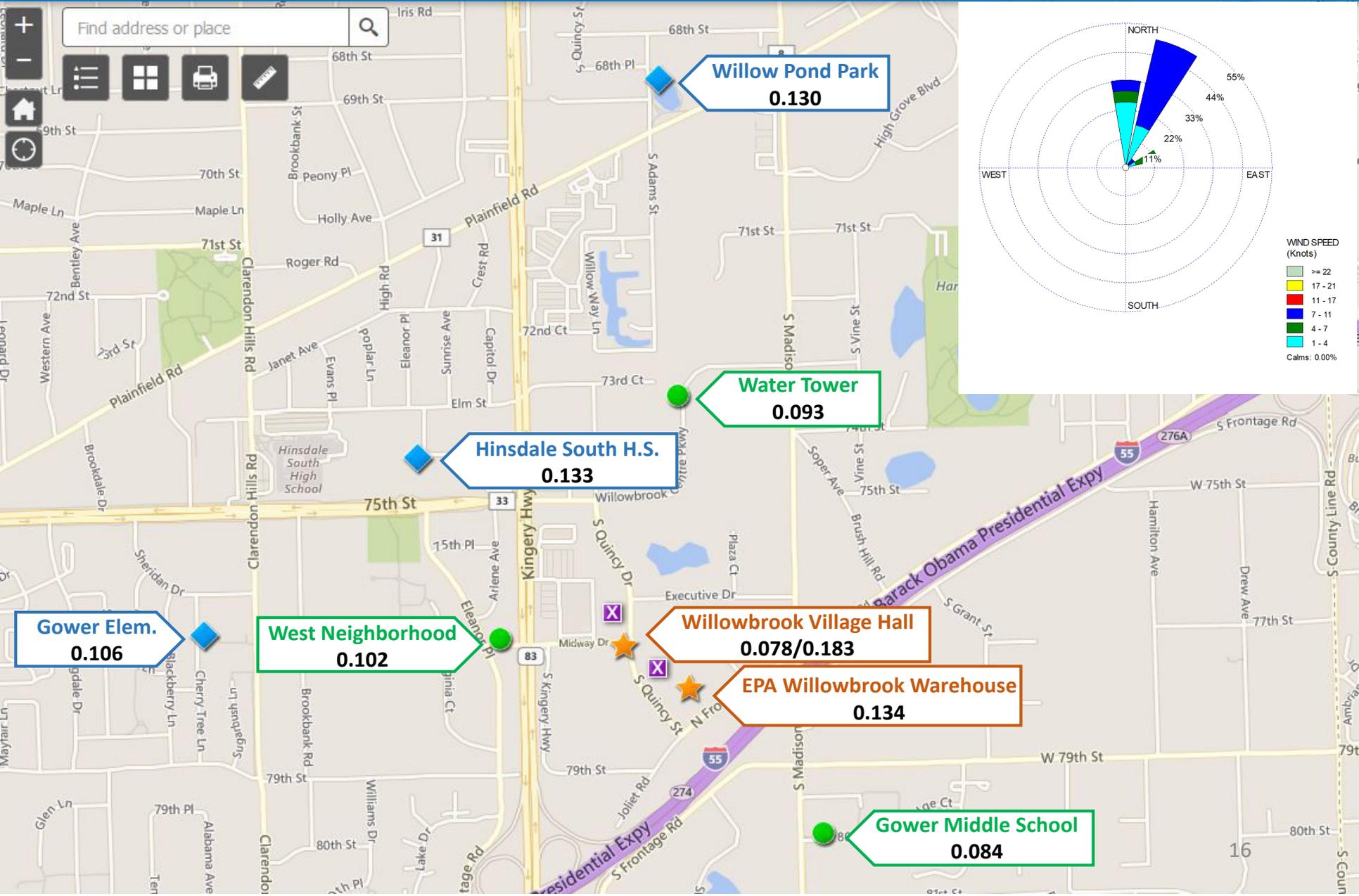
March 19, 2019 – 24-hour average EtO Concentrations ($\mu\text{g}/\text{m}^3$)



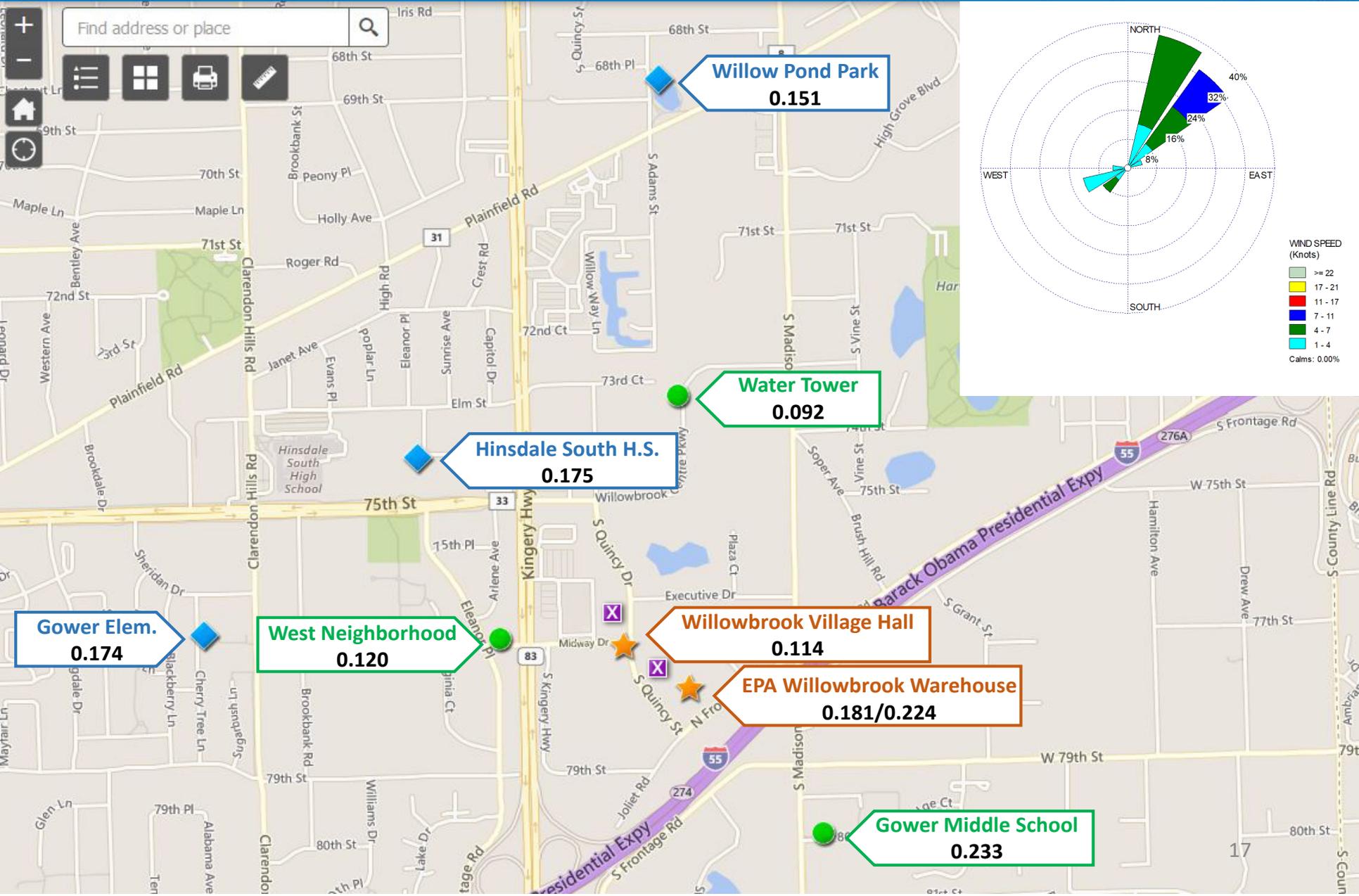
March 22, 2019 – 24-hour average EtO Concentrations ($\mu\text{g}/\text{m}^3$)



March 25, 2019 – 24-hour average EtO Concentrations ($\mu\text{g}/\text{m}^3$)



March 28, 2019 – 24-hour average EtO Concentrations ($\mu\text{g}/\text{m}^3$)



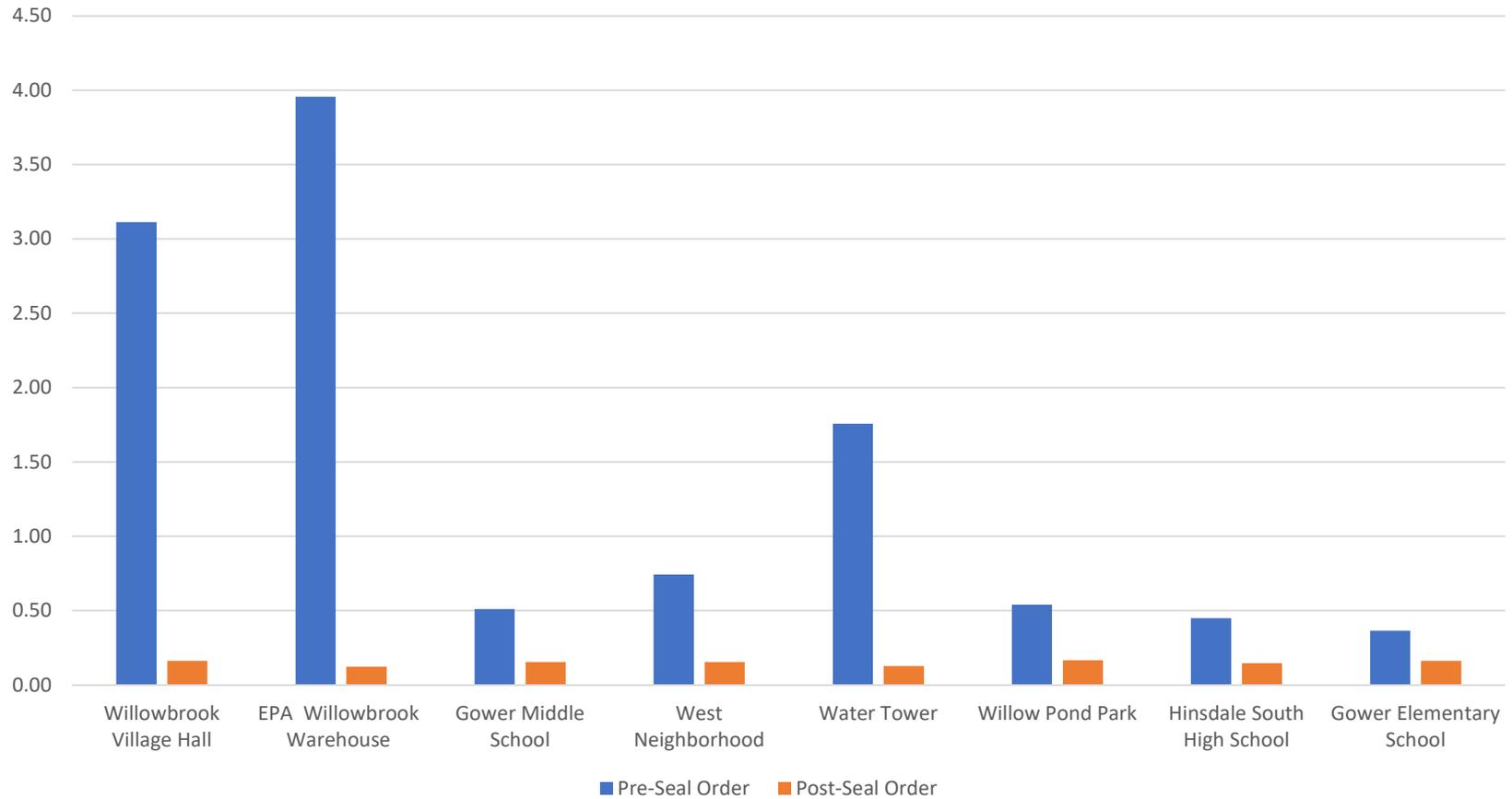
Summary

- Sampling Period: Nov 13, 2018 – March 31, 2019
- Number of Sampling Days: 49
- Valid Samples: 97%
- Site Averages:

	<u>Pre-Seal Order</u>	<u>Post-Seal Order</u>
Max Sites	3.31 ug/m ³	0.15
Residential Sites	0.70 ug/m ³	0.15

Average Values (by site)

micrograms per cubic meter



Sampling showed significant day-to-day variability (pre-seal order)

