

2018 HGB Sensitivity Modeling **25 Percent HECT Cap Reduction Sensitivity**

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SETPMTC
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CAMx Ozone Modeling in SIP Development

The Big Picture

Base Case

Day-specific meteorology and emissions;
replicate what actually happened

Baseline Case

Day-specific meteorology and Typical emissions;
used in RRF to predict future design values

Future Base Case

Apply future growth + on-the-books controls
to estimate future ozone

Control Strategy Testing

Determine control strategies that will
effectively reduce ozone

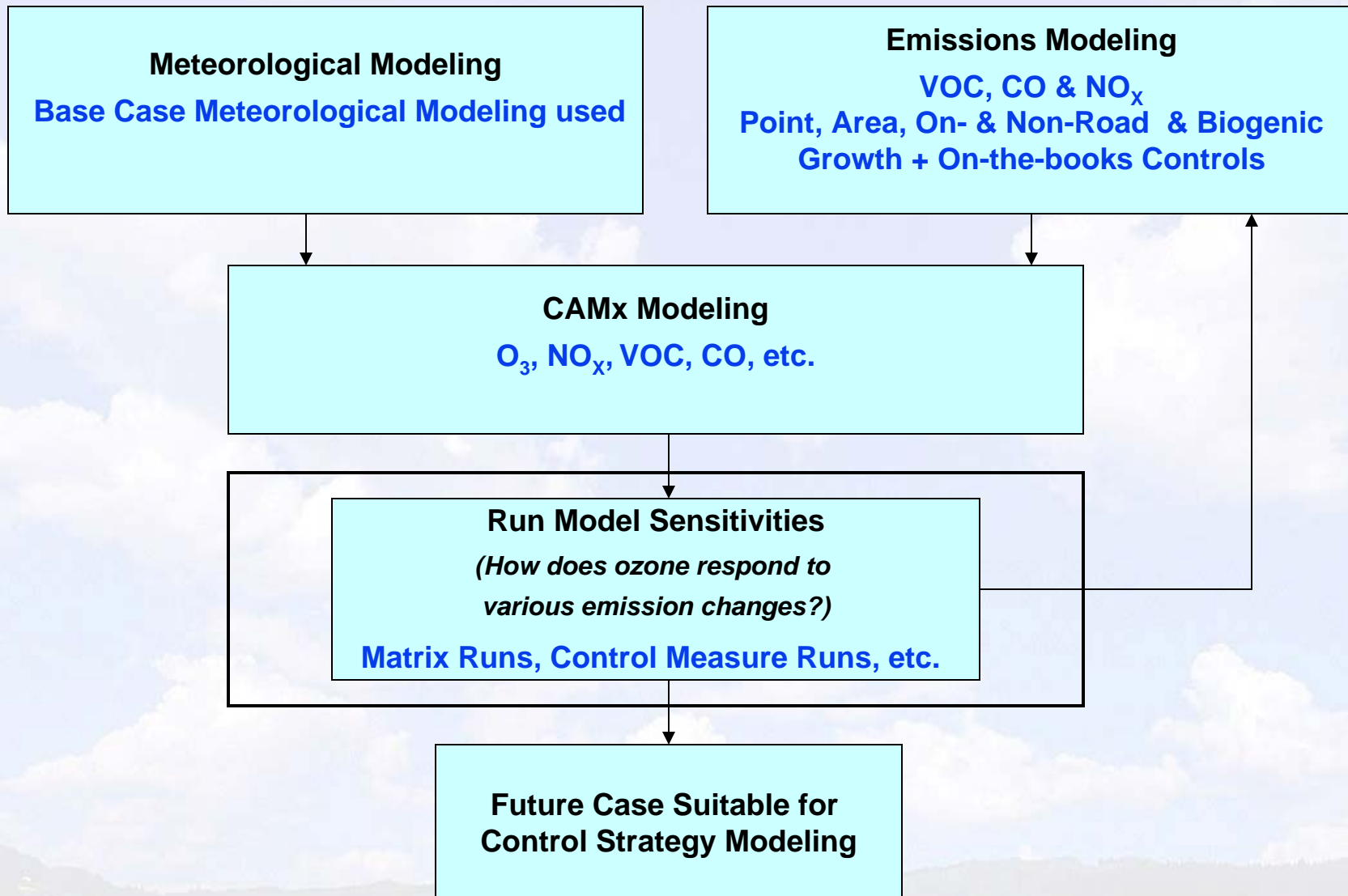
SIP

Document modeling procedures



CAMx Ozone Modeling in SIP Development

Future Case – Future Baseline Emissions



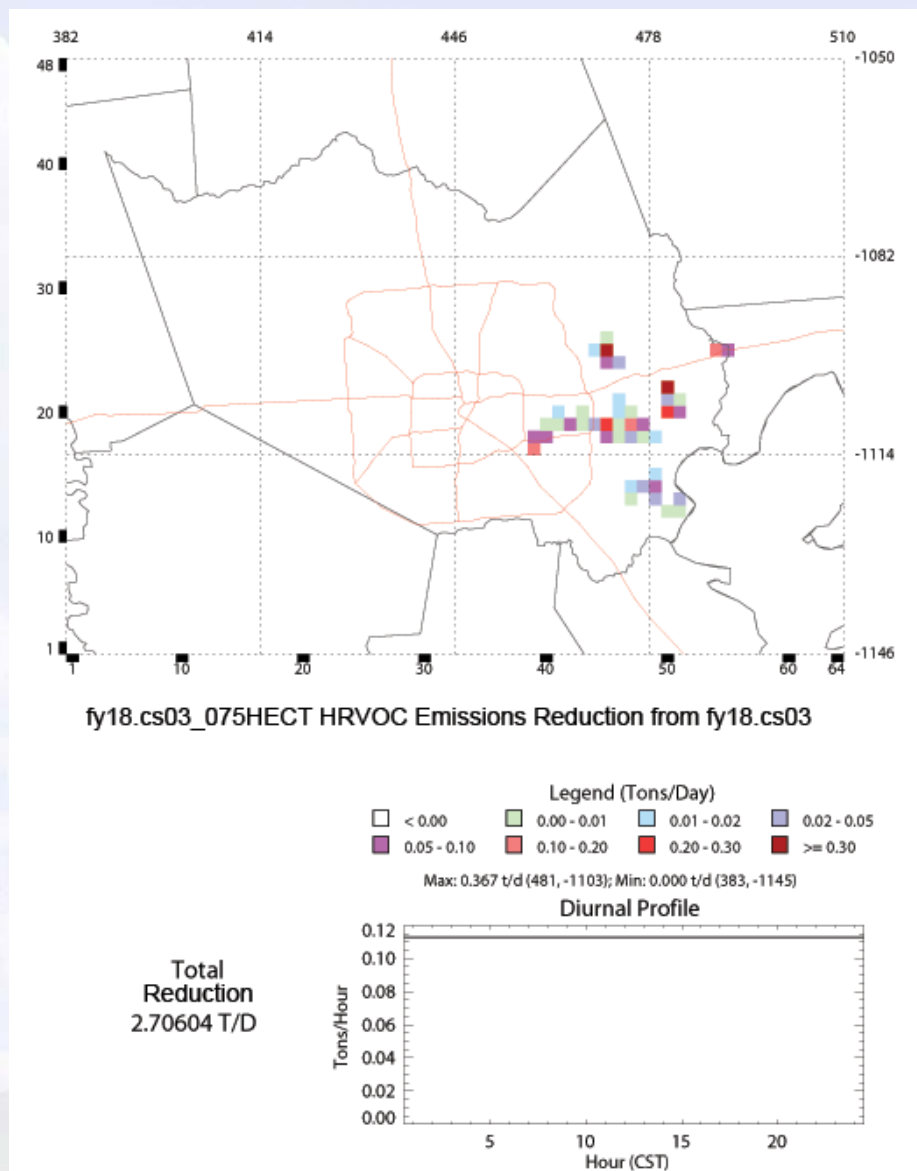


HECT Sensitivity Modeling

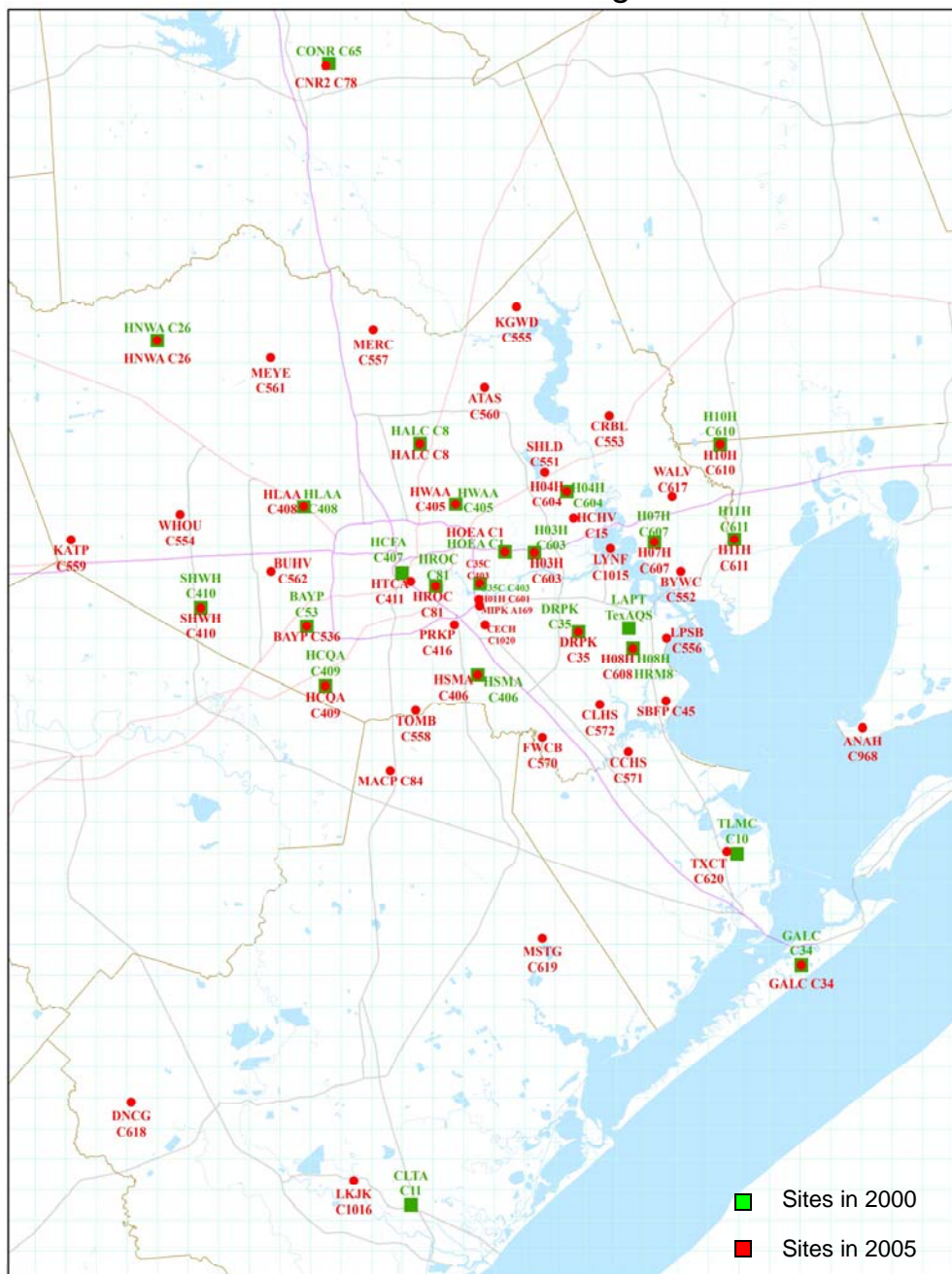
- Purpose:
 - To determine the sensitivity of projected 2018 eight-hour ozone design values (DV_{18s}) for monitoring sites in the HGB eight-county nonattainment area to a 25% reduction in the HECT cap
- HECT applicable sources in Harris County were modeled at 75 percent of their allocation, i.e., a 2.7 tpd reduction in HRVOC (CB05-VOC speciation)



Difference in Emissions Between 2018 Future Base and HECT Sensitivity



HGB Ozone Monitoring Sites



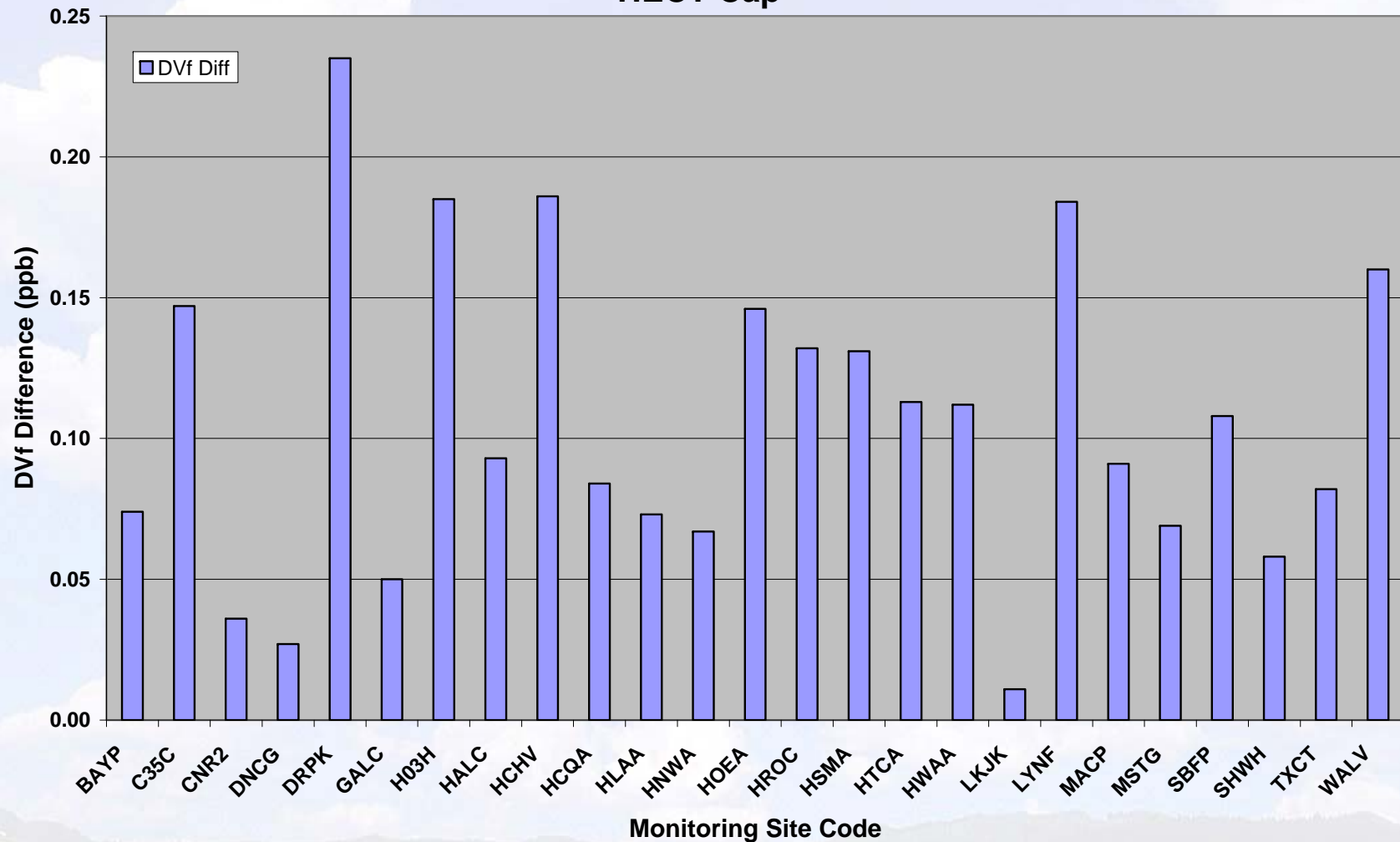
Site Code	Selected Site Name
BAYP	Bayland Park, Harris Co., TX
C35C	Clinton, Harris Co., TX
CNR2	Conroe Relocated, Montgomery Co., TX
DRPK	Deer Park, Harris Co., TX
GALC*	Galveston, Galveston Co., TX
H03H*	HRM-3, Haden Road, Harris Co., TX
H08H*	HRM Site 8, La Porte, Harris Co., TX
H10H*	HRM-10, Mt Belvieu, Chambers Co., TX
H11H*	HRM-11, , Chambers Co., TX
HALC	Aldine, Houston, Harris Co., TX
HCHV	Channelview, Houston, Harris Co., TX
HCQA	Croquet, Houston, Harris Co., TX
HNWA	NW Harris, Tomball, Harris Co., TX
HOEA	Houston East, Houston, Harris Co., TX
HROC	Houston Regional Office, Harris Co., TX
HSMA	Swiss and Monroe,, Harris Co., TX
HTCA	Texas Avenue, Houston, Harris Co., TX
HWAA	North Wayside, Houston, Harris Co., TX
LYNF	Lynchburg Ferry, Harris Co., TX
MACP	Manvel Croix Park, Brazoria Co., TX
MSTG*	Mustang Bayou, Brazoria Co., TX
SBFP	Seabrook Friendship Park, Harris Co., TX
SHWH	Westhollow, Houston, Harris Co., TX
TXCT*	Texas City, Galveston Co., TX
WALV*	Wallisville Road, Harris Co., TX

* Non-Regulatory Sites



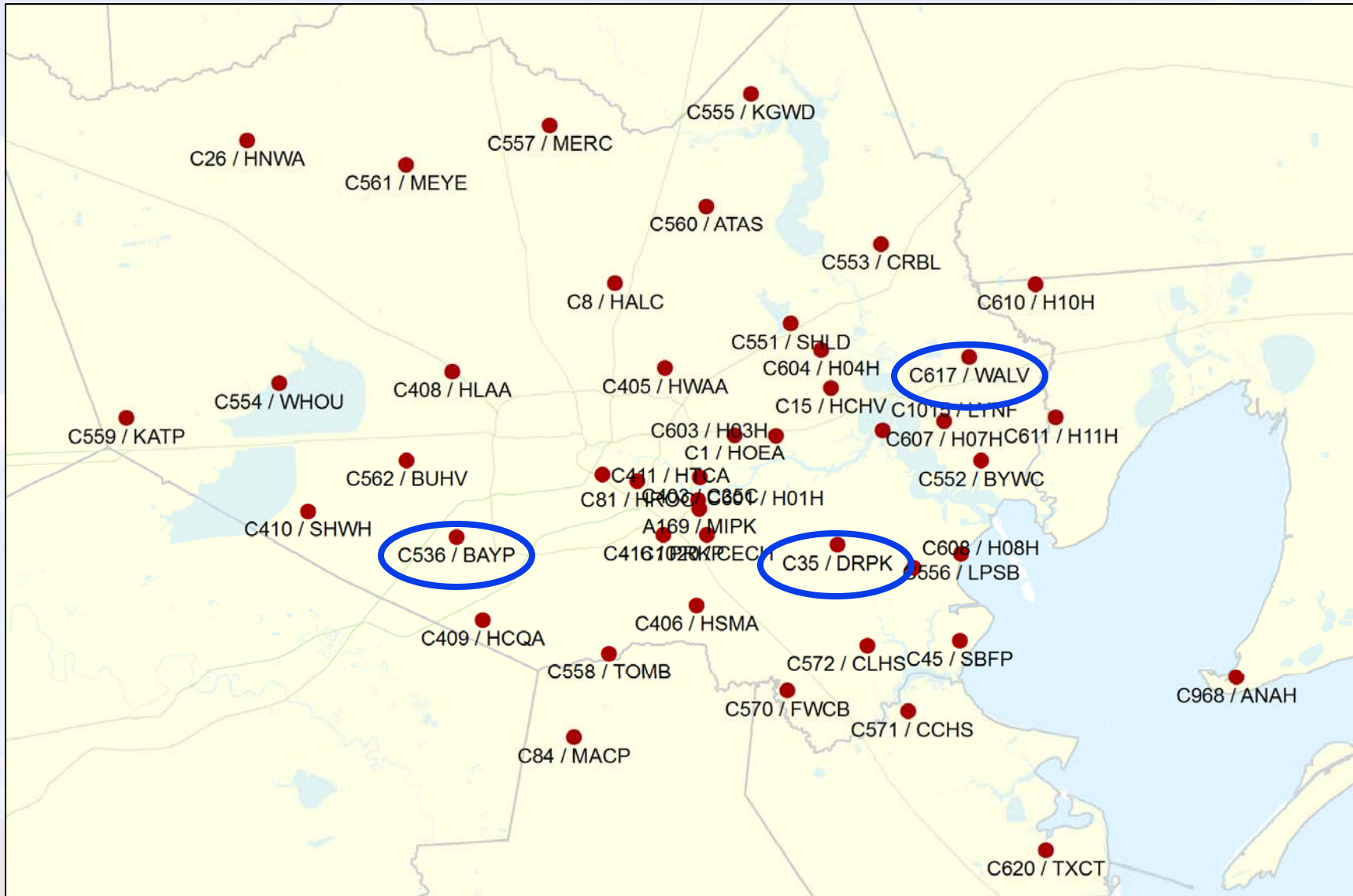
HECT Sensitivity Modeling

2018 Eight-Hour Design Value Difference with 25 Percent Reduction in HECT Cap





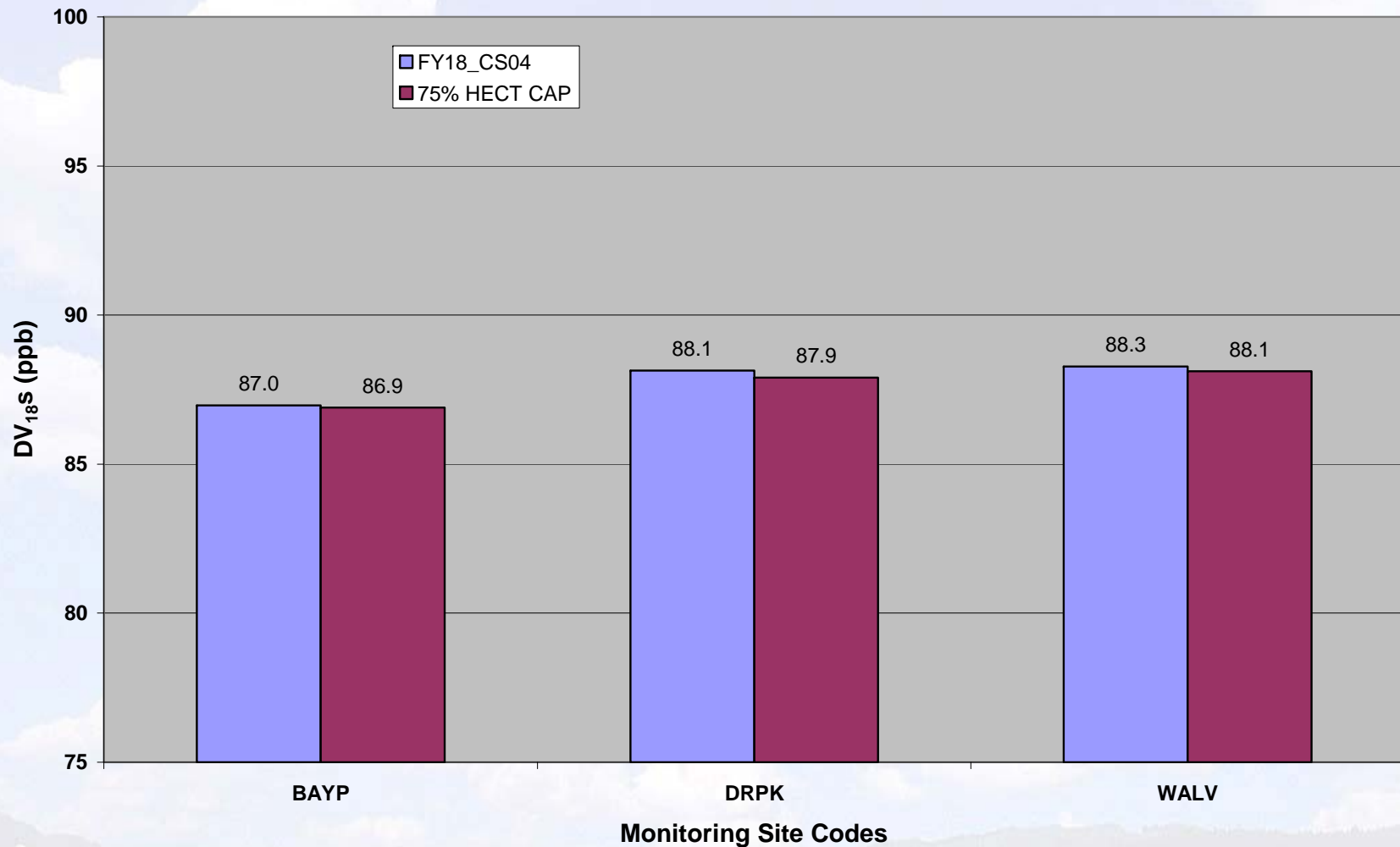
Air Quality Monitoring Sites in the HGB Area





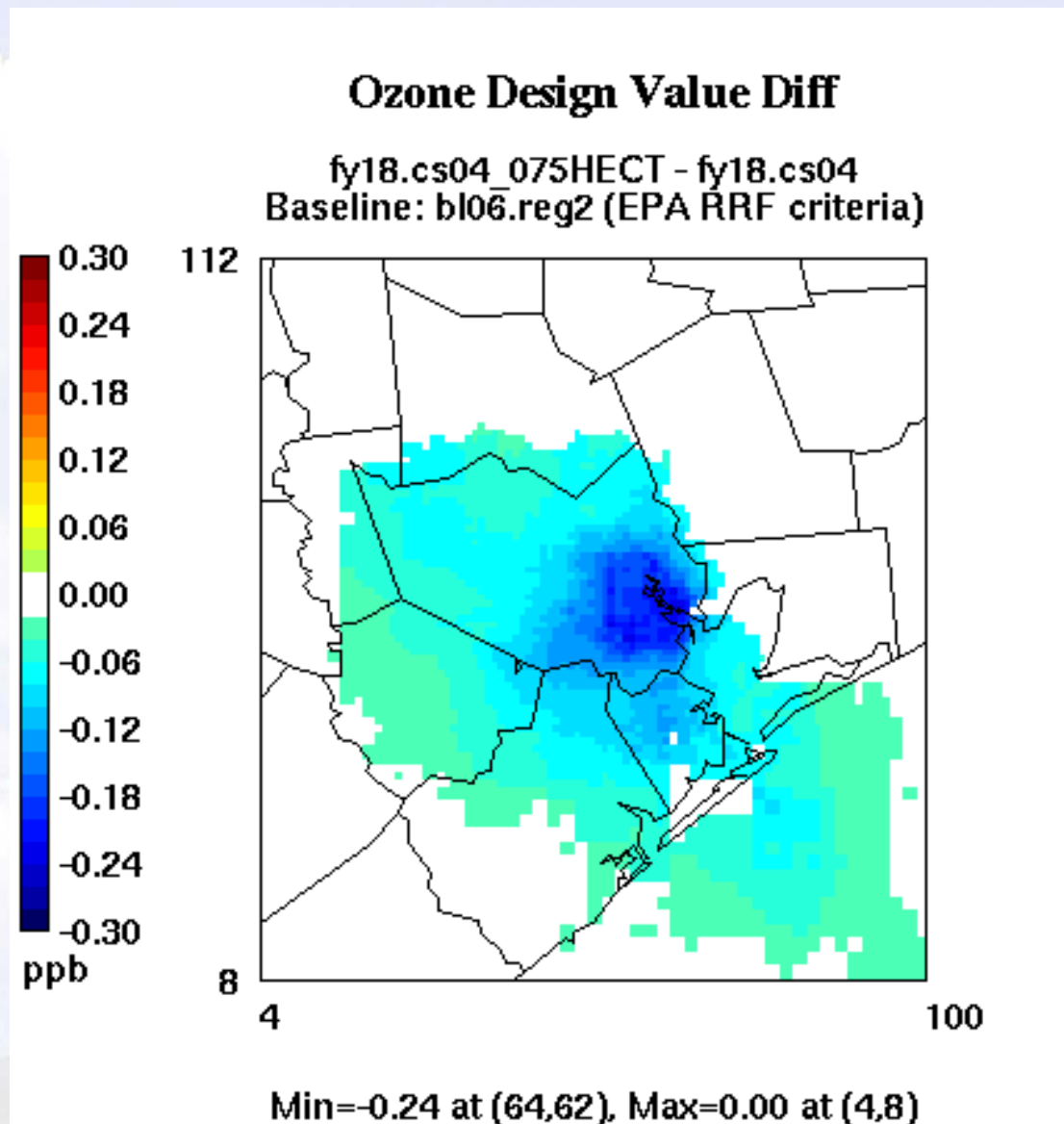
HECT Sensitivity Modeling

2018 Predicted Eight-Hour Design Values with 25% Reduction in HECT Cap





HECT Sensitivity Modeling





HECT Sensitivity Modeling Summary of Results

Emissions Changes			Results in 8-County HGB Area			
	NO _x (tpd)	VOC (tpd)	Avg DV ₁₈ change	DV ₁₈ at BAYP	DV ₁₈ at DRPK	DV ₁₈ at WALV
2018 Future Case	0.0	0.0	N/A	86.97 ppb	88.14 ppb	88.28 ppb
25% Reduction to HECT Cap	0.0	2.7	0.11 ppb	86.90 ppb (0.07 ppb)	87.90 ppb (0.24 ppb)	88.12 ppb (0.16 ppb)