

*2018 HGB Sensitivity  
Modeling*  
**HECT and VMEP Reduction Sensitivity**

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Dick Karp  
Air Modeling Team  
Air Modeling & Data Analysis Section





# CAMx Ozone Modeling in SIP Development

## The Big Picture

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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

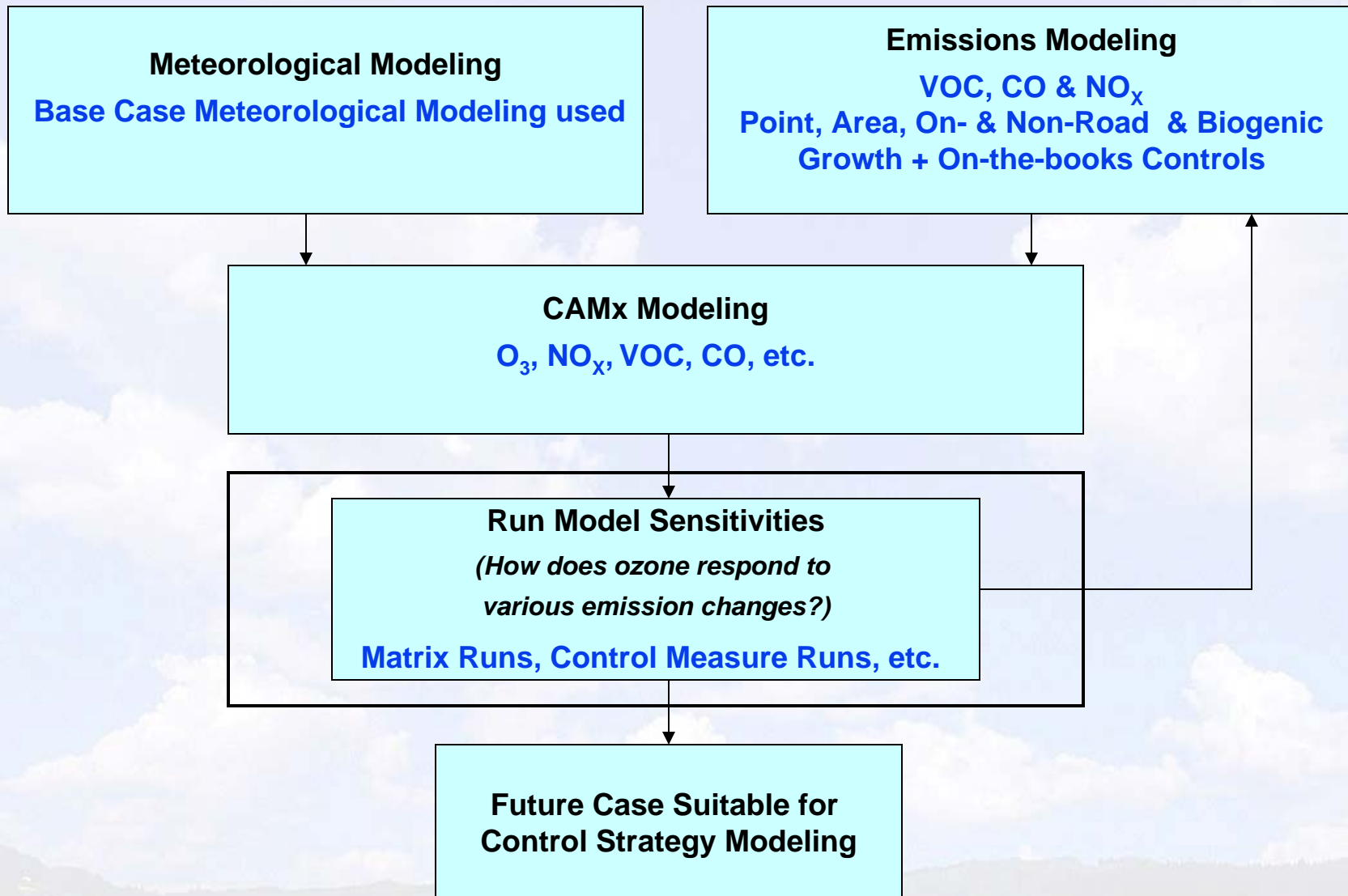
SIP

Document modeling procedures



# CAMx Ozone Modeling in SIP Development

## Future Case – Future Baseline Emissions





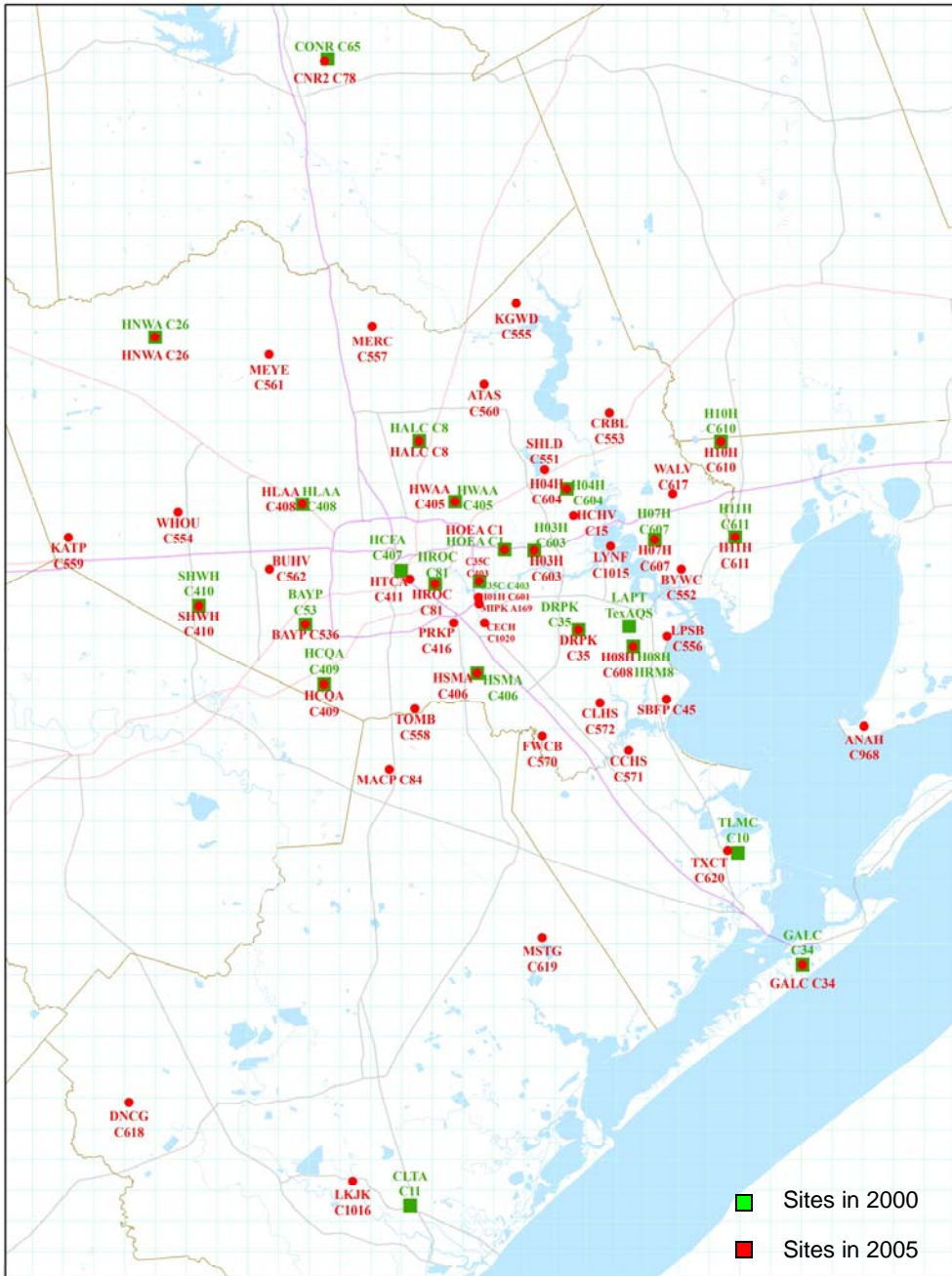
## *HECT and VMEP Sensitivity Modeling*

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- 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 percent reduction in the HECT cap plus mobile source VMEP reductions
- 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)
- On-road and non-road mobile sources were modeled with a 1.55 tpd and 0.70 tpd, respective  $NO_x$  reduction



# HGB Ozone Monitoring Sites



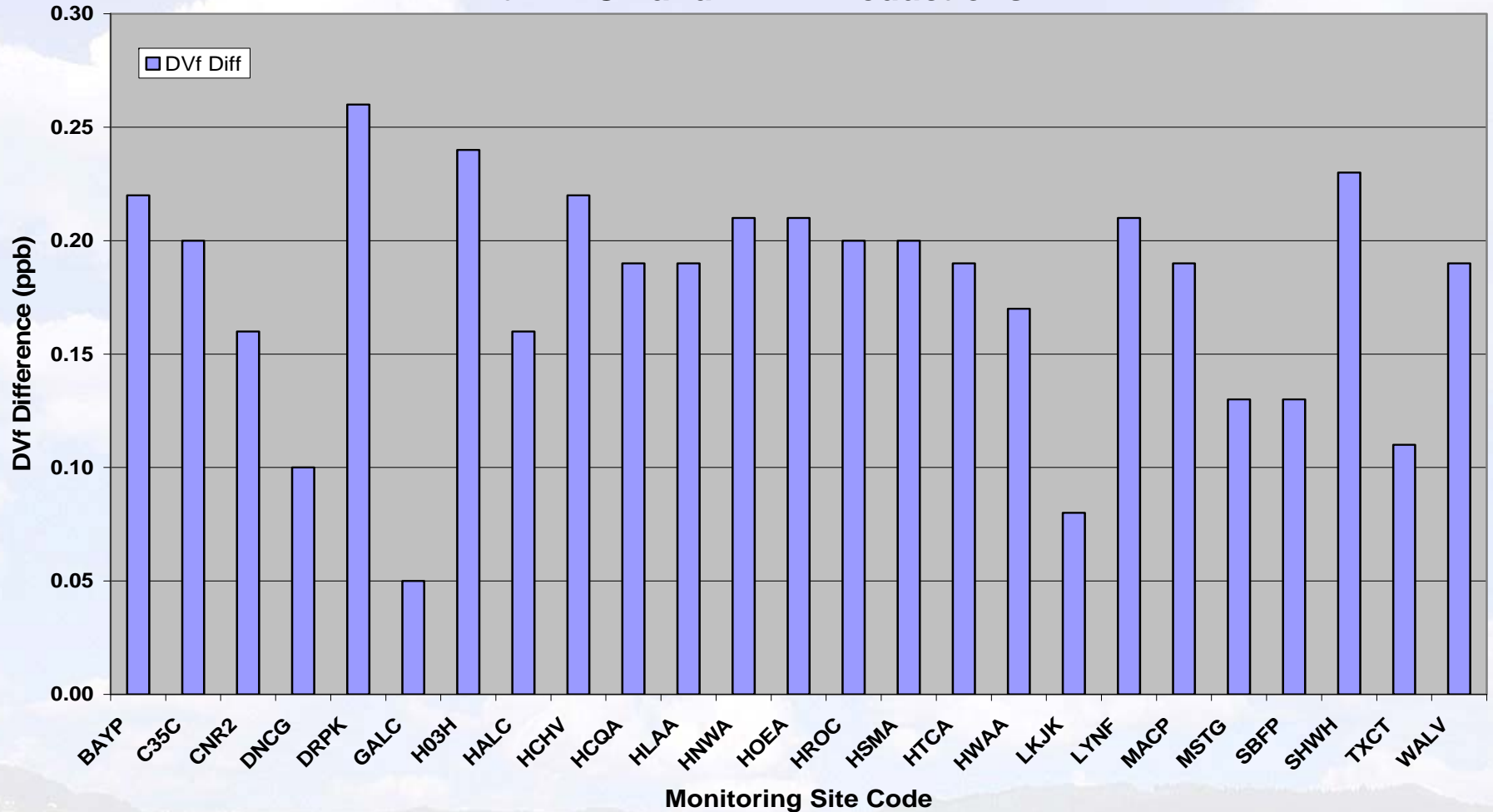
Site Code	Selected Site Name
BAYP	Bayland Park, Harris Co., TX
C35C	Clinton, Harris Co., TX
CNR2	Conroe Relocated, Montgomery Co., TX
DRPK	Deer Park, Harris Co., TX
GALC*	Galveston, Galveston Co., TX
H03H*	HRM-3, Haden Road, Harris Co., TX
H08H*	HRM Site 8, La Porte, Harris Co., TX
H10H*	HRM-10, Mt Belvieu, 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



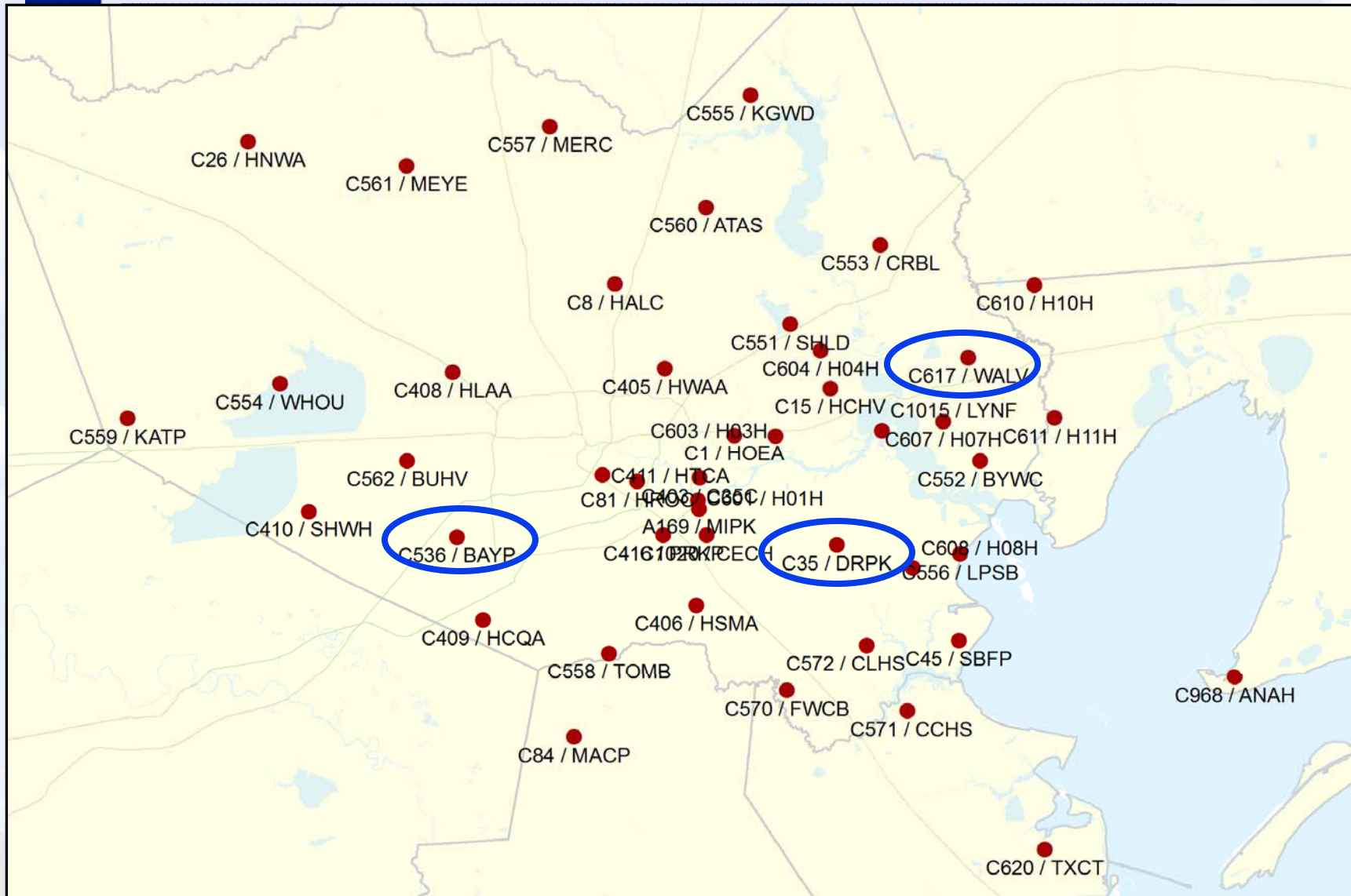
# HECT and VMEP Sensitivity Modeling

2018 Eight-Hour Design Value Difference  
with HECT and VMEP Reductions





## Air Quality Monitoring Sites in the HGB Area





# HECT and VMEP Sensitivity Modeling

## 2018 Predicted Eight-Hour Design Values with HECT and VMEP Reductions

