

Status and Update

Modeling historical drinking-water contamination at Camp Lejeune

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Camp Lejeune Community Assistance Panel Meeting

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Status of Hadnot Point-Holcomb Boulevard Chapter Reports

(release of reports is not in alphabetical order)

- ❑ **Chapter C – IR sites groundwater contaminants**
 - Publicly released – October 2010
- ❑ **Chapter B - Geohydrologic framework**
 - Addressing peer-review comments
 - Submit for ATSDR/NCEH eClearance mid-April 2011
- ❑ **Chapter D – AST/UST sites groundwater contaminants**
 - Draft being prepared
 - Submit for peer review – end of May 2011
- ❑ **Chapter G – Water-level data and groundwater flow**
 - Tentative draft for Project Officer review – end of August 2011

Status of Hadnot Point-Holcomb Boulevard Chapter Reports—continued

(release of reports is not in alphabetical order)

- ❑ **Chapter A – Summary of Findings**
 - Tentative public release – end of December 2011
- ❑ **Executive Summary**
 - Tentative public release – end of December 2011
- ❑ **Chapters E, F, H, I, J, K, L, M, N, O, P**
 - Detailed technical information, data, and simulations
 - March-June 2012

Summary and comparisons of data

Data category	Number of data values*	
	HP-HB area	TT area
Wells, hydropunch points, and boreholes	1,748	222
Water-level measurements	12,255	789
Groundwater samples analyzed for chlorinated solvents (PCE, TCE, DCE, vinyl chloride)	4,108	192
Groundwater samples analyzed for BTEX	6,668	191
Supply-well and monitor-well aquifer and slug tests	264	33
Water-supply wells analyzed for operational history	100	16
Historically contaminated water-supply wells (concentration greater than the MCL)	12	4
Contaminant sources (for study analyses)	25	1

*All values are approximate at this time

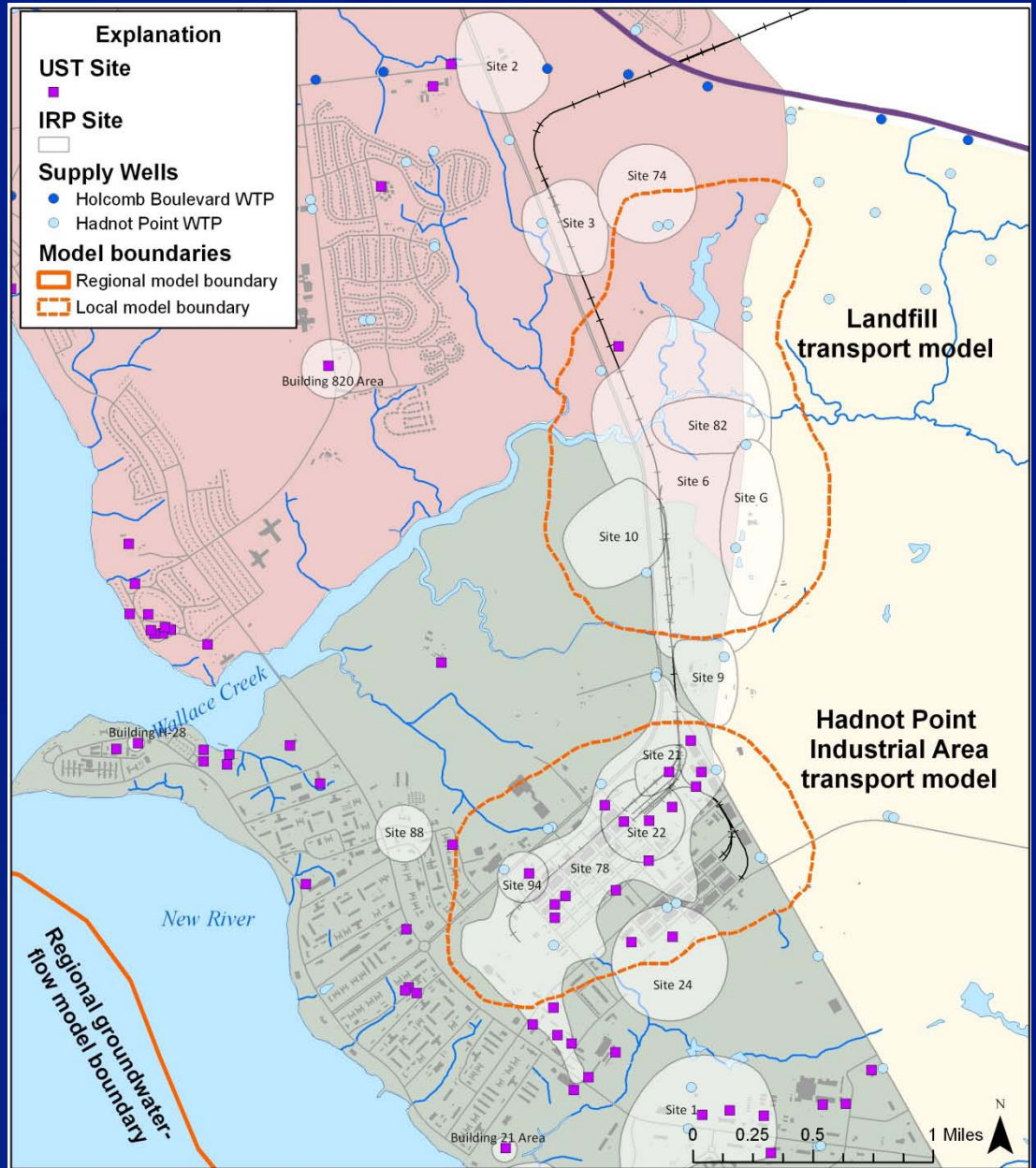
Status of Hadnot Point-Holcomb Boulevard water-modeling analyses

- ❑ **Steady-state (pre-pumping), “regional” groundwater flow model is calibrated**
- ❑ **Transient groundwater flow models**
 - 100 supply wells (72 to HP WTP, 24 to HB WTP, 2 irrigation, 1 emergency/stand-by, and 1 well never connected to WTP)
 - Will be used as a “transitional” model to test boundary locations for contaminant fate and transport models
- ❑ **Contaminant fate and transport models – Focus on HP industrial and landfill areas**
 - ATSDR staff – Single-species PCE and TCE
 - Ga.Tech – Multispecies, multiphase PCE and TCE
 - Ga.Tech – LNAPL (benzene) in HP fuel farm and industrial area



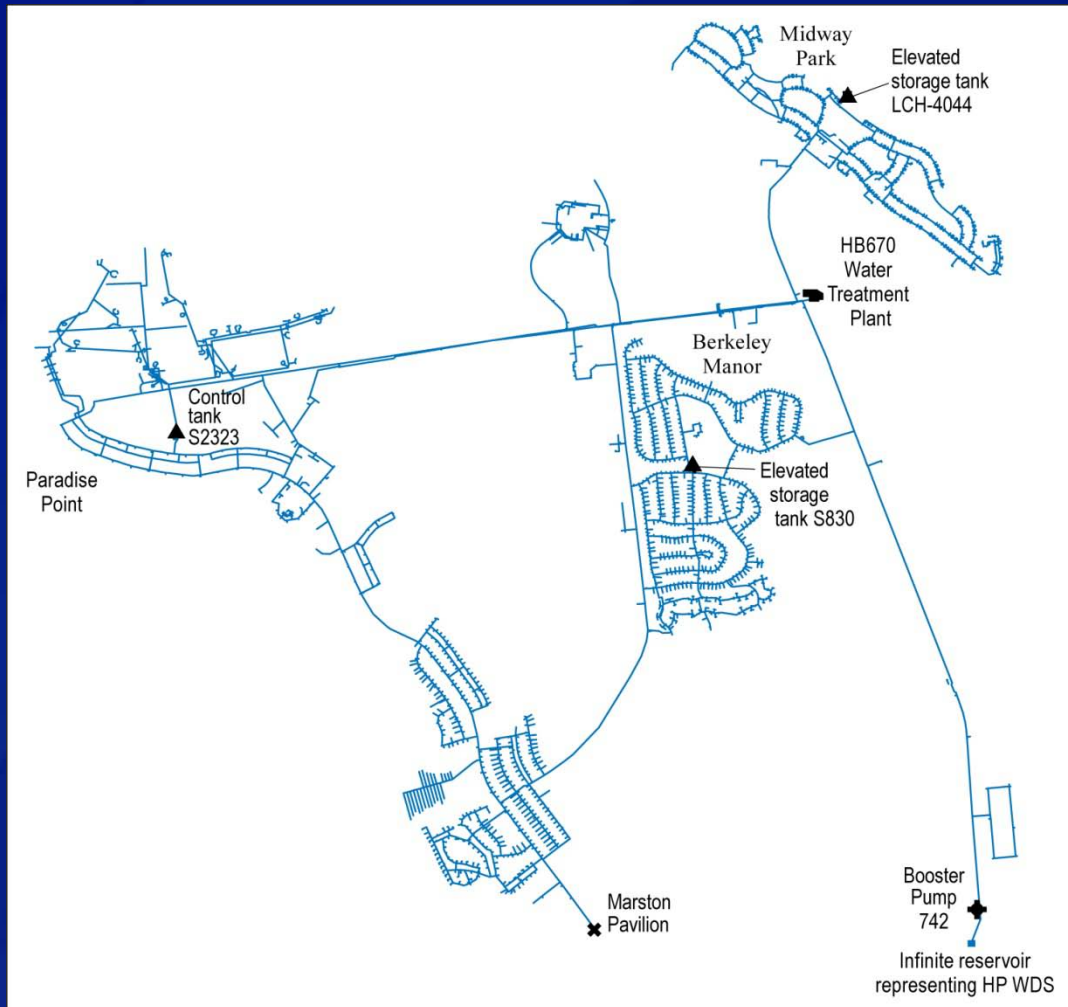
Hadnot Point-Holcomb Boulevard groundwater-flow and transport model boundaries

Hadnot Point-Holcomb Boulevard transport model boundaries



Status of Hadnot Point-Holcomb Boulevard water-modeling analyses--continued

- ❑ **Intermittent water transfers between Hadnot Point and Holcomb Boulevard water treatment plants (WTPs)**
 - Water-distribution system model calibrated
 - Simulating event-based scenarios (minimum, average, maximum)
 - Will provide epidemiologists with range of concentrations for various family housing areas within the Holcomb Boulevard WTP service area



Holcomb Boulevard water-distribution system model network

Questions ?

For more information please contact Agency for Toxic Substances and Disease Registry

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The findings and conclusions in this presentation are those of the author and do not necessarily represent the official position of the Centers for Disease Control and Prevention.