

Appendix A
Environmental Monitoring Program Maps

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2003 Environmental Monitoring Program Sample Points

The following maps contain points sampled as part of the West Valley Demonstration Project (WVDP) routine environmental monitoring program for 2003. This program met or exceeded the requirements of DOE Order 450.1, DOE Order 5400.5, and DOE/EH-0173T. Specific methods and recommended monitoring program elements are found in DOE/EP-0096, *A Guide for Effluent Radiological Measurements at DOE Installations*, and DOE/EP-0023, *A Guide for Environmental Radiological Surveillance at U.S. Department of Energy Installations*, which were the bases for selecting most of the sampling locations. Additional monitoring was mandated by air and water discharge permits (40 CFR 61 and SPDES).

The index on pages A-iv through A-vii is a list of the codes used to identify the various sampling locations, which are shown on Figures A-2 through A-13 (pp. A-2 through A-13). The sample location code describes the physical location where the sample is collected. The code consists of seven or eight characters: The first character identifies the sample medium as **A**ir, **W**ater, **S**oil/Sediment, **B**iological, or **D**irect Measurement. The second character specifies **oN**-site or **oFf**-site. The remaining characters describe the specific location (e.g., **AFGRVAL** is Air **oFf**-site at **G**reat **V**ALley). Distances noted at sampling locations are as measured in a straight line from the main stack on-site. Sampling points located inside buildings (e.g., on-site drinking water locations) or points that do not have a fixed location (e.g., outdoor ventilated enclosures) are not shown on these maps. Areas labeled as “wetlands” on the figures in Appendix A do not depict the WVDP’s formally-delineated wetlands inventory. As an aid to the reader, these polygons indicate relatively low-lying areas that almost always contain wet surface soils or standing water during years with typical precipitation totals.

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List of Sampling Locations

On-Site Surface Water and Soil/Sediment Sampling Locations (Fig. A-2 [p. A-2])

WNSP001	Lagoon 3 Weir Point
WNSP006	Facility Main Drainage
SNSP006	Soil at WNSP006
WNSP116	Pseudo Monitoring Point in Frank's Creek
WNSP007	Sanitary Waste Discharge
WNSWAMP	Northeast Swamp Drainage Point
SNSWAMP	Soil at WNSWAMP
WNSW74A	North Swamp Drainage Point
SNSW74A	Soil at WNSW74A
WNSDADR	SDA Run-Off
WNSP008	French Drain LLWTF Area
WNSP005	South Facility Drainage
WNCOOLW	Cooling Tower
WNFRC67	Frank's Creek East
WNERB53	Erdman Brook
WNNDADR	Disposal Area Drainage
WNDCELD	Drum Cell Drainage
WNNDATR	NDA Trench Interceptor Project
WNSTAW6	Standing Water

Off-Site Surface Water and Soil/Sediment Sampling Locations (Fig. A-3 [p. A-3])

WFBCBKG	Buttermilk Creek near Fox Valley, Background
WFBCTCB	Buttermilk Creek at Thomas Corners
WFBIGBR	Cattaraugus Creek at Bigelow Bridge, Background
SFBISED	Cattaraugus Creek at Bigelow Bridge, Background Sediment
WFFELBR	Cattaraugus Creek at Felton Bridge
SFTCORD	Soil at Thomas Corners Air Sampler
SFSDSED	Cattaraugus Creek at Springville Dam, Sediment
SFCCSED	Cattaraugus Creek at Felton Bridge, Sediment
SFTCSED	Buttermilk Creek at Thomas Corners, Sediment
SFBCSED	Buttermilk Creek at Fox Valley Road, Background Sediment
SFRSPRD	Soil at Rock Springs Road Air Sampler
SFRT240	Soil at Route 240 Air Sampler
SFBLKST	Soil at Bulk Storage Warehouse Air Sampler
SFFXVRD	Soil at Fox Valley Road Air Sampler
SFBOEHN	Soil at Dutch Hill Road Air Sampler
WNSTAW4	Standing Water
WNSTAW5	Standing Water
WNSTAW9	Standing Water

List of Sampling Locations (continued)

On-Site Air Monitoring and Sampling Locations (Fig. A-4 [p. A-4])

ANSTACK	Main Plant
ANSTSTK	Supernatant Treatment System
ANCSSTK	01-14 Building
ANCSRFK	Size-Reduction Facility
ANCPFK	Container Sorting and Packaging Facility
ANVITSK	Vitrification Heating, Ventilation, and Air Conditioning
ANSEISK	Seismic Sampler (Vitrification backup)
ANLLW2V	Low-Level Waste Treatment Ventilation
ANLAGAM	Lag Storage Area (ambient air)
ANNDAAM	NDA Area (ambient air)
ANSDAT9	SDA Trench 9 (ambient air)
ANRGFOP	Rain Gauge Fallout

Off-Site Air and Fallout Sampling Locations (Fig. A-5 [p. A-5])

AFFXVRD	Fox Valley Sampler
AFFXFOP	Fox Valley Fallout
AFTCORD	Thomas Corners Sampler
AFTCFOP	Thomas Corners Fallout
AFRT240	Route 240 Sampler
AF24FOP	Route 240 Fallout
AFBOEHN	Dutch Hill Road Sampler
AFDHFOP	Dutch Hill Fallout
AFRSPRD	Rock Springs Road Sampler
AFBLKST	Bulk Storage Warehouse Sampler

List of Sampling Locations (continued)

Active WVDP Groundwater Monitoring Locations (Fig. A-6 [p. A-6])

North Plateau On-Site Groundwater Monitoring Network (Fig. A-7 [p. A-7])

South Plateau On-Site Groundwater Monitoring Network (Fig. A-8 [p. A-8])

SSWMU #1	Low-Level Waste Treatment Facility Wells
SSWMU #2	Miscellaneous Small Units Wells
SSWMU #3	Liquid Waste Treatment System Wells
SSWMU #4	HLW Storage and Processing Tank Wells
SSWMU #5	Maintenance Shop Leach Field Wells
SSWMU #6	Low-Level Waste Storage Area Wells
SSWMU #7	CPC Waste Storage Area Wells
SSWMU #8	CDDL Wells
SSWMU #9	NDA Units Wells and NDATR
SSWMU #10	IRTS Drum Cell Wells
RHWF	Remote-Handled Waste Facility Wells
SSWMU #11	SDA Unit Wells
North Plateau Seeps	Northeastern Edge of North Plateau
Well Points	Downgradient of Main Plant
WNWNB1S	Former North Plateau Background Well

Near-Site Drinking Water and Biological Sampling Locations (Fig. A-9 [p. A-9])

BFFCATC	Cattaraugus Creek Fish, Downstream
BFFCATD	Cattaraugus Creek Fish, Downstream of Springville Dam
BFMREED	North-Northwest Milk, Near-Site
BFMWIDR	Southeast Milk, Near-Site
BFMSCHT	South Milk, Near-Site
BFVNEAR	Produce, Near-Site
BFBNEAR	Beef, Near-Site
BFDNEAR	Venison, Near-Site
FWWEL Series	Private Wells

Location of On-Site Thermoluminescent Dosimeters (TLDs) (Fig. A-10 [p. A-10])

DNTLD Series	On-Site Direct Radiation
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Location of Off-Site Thermoluminescent Dosimeters (TLDs) Within 5 Kilometers of the WVDP (Fig. A-11 [p. A-11])

DFTLD Series	Off-Site Direct Radiation
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List of Sampling Locations (concluded)

Environmental Sampling Locations Between 5 and 10 Kilometers From the WVDP (Fig. A-12 [p. A-12])

AFSPRVL	Springville Sampler
SFSPRVL	Soil at Springville Air Sampler
DFTLD21	TLD at Springville Air Sampler
WFWEL10	Drinking Water at Springville Air Sampler
BFVNEAR	Produce, Near-site
DFTLD22	TLD at West Valley Air Sampler
SFWEVAL	Soil at West Valley Air Sampler
AFWEVAL	West Valley Sampler

Environmental Sampling Locations More Than 10 Kilometers From the WVDP (Fig. A-13 [p. A-13])

BFMCTLS	Milk, South, Background
BFVCTRL	Produce, Background
AFNASHV	Nashville Sampler, Background
SFNASHV	Soil at Nashville Air Sampler
DFTLD37	TLD, Background
WNSTAWB	Standing Water, Background
DFTLD41	TLD, Background
BFFCTRL	Cattaraugus Creek Fish, Background
DFTLD17	TLD, Background
BFDCTRL	Venison, Background
AFGRVAL	Great Valley Sampler, Background
SFGRVAL	Soil at Great Valley Air Sampler, Background
DFTLD23	TLD at Great Valley Air Sampler
WFWEL06	Drinking Water at Great Valley Air Sampler
BFBCTRL	Beef, Background

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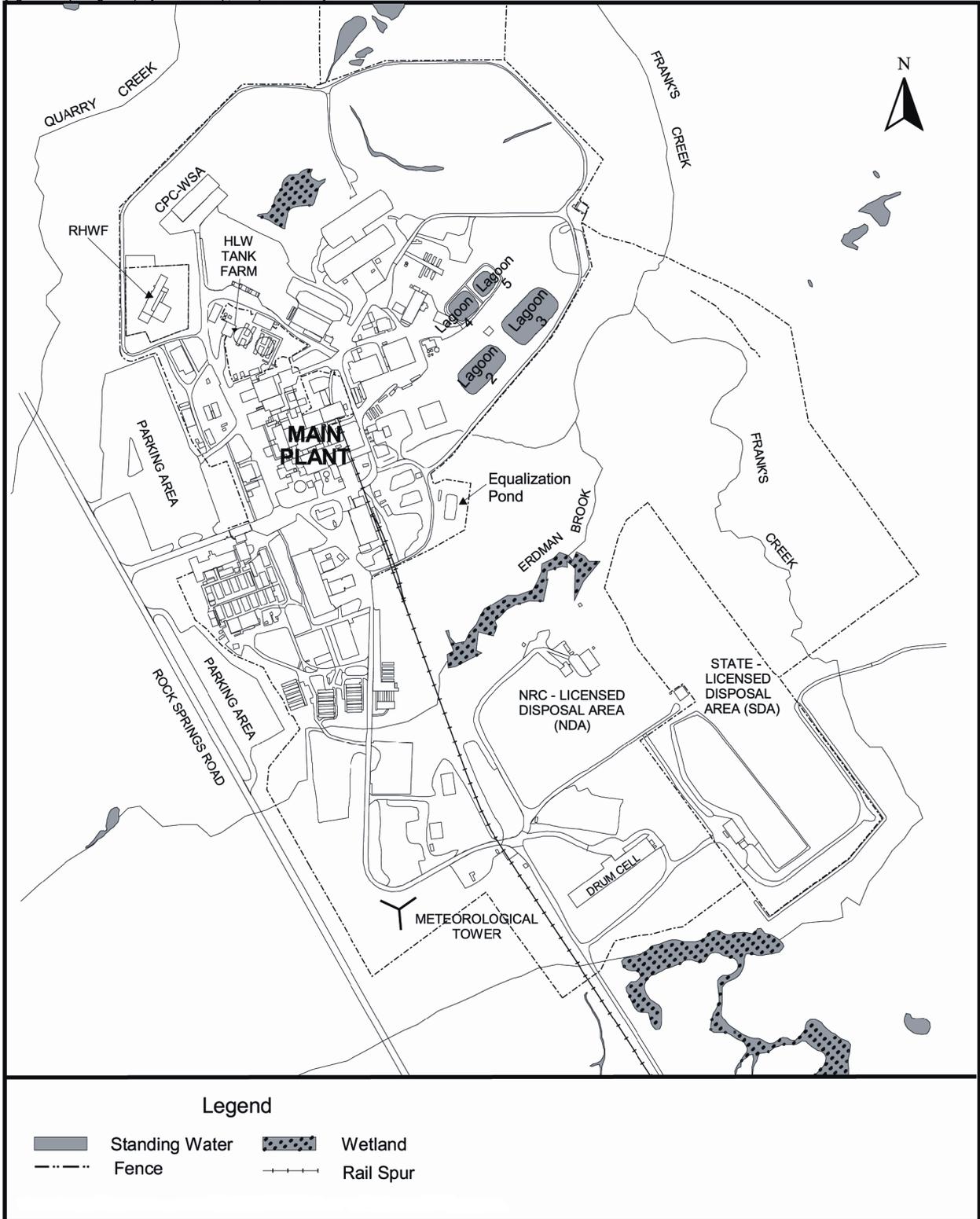


Figure A-1. West Valley Demonstration Project Base Map

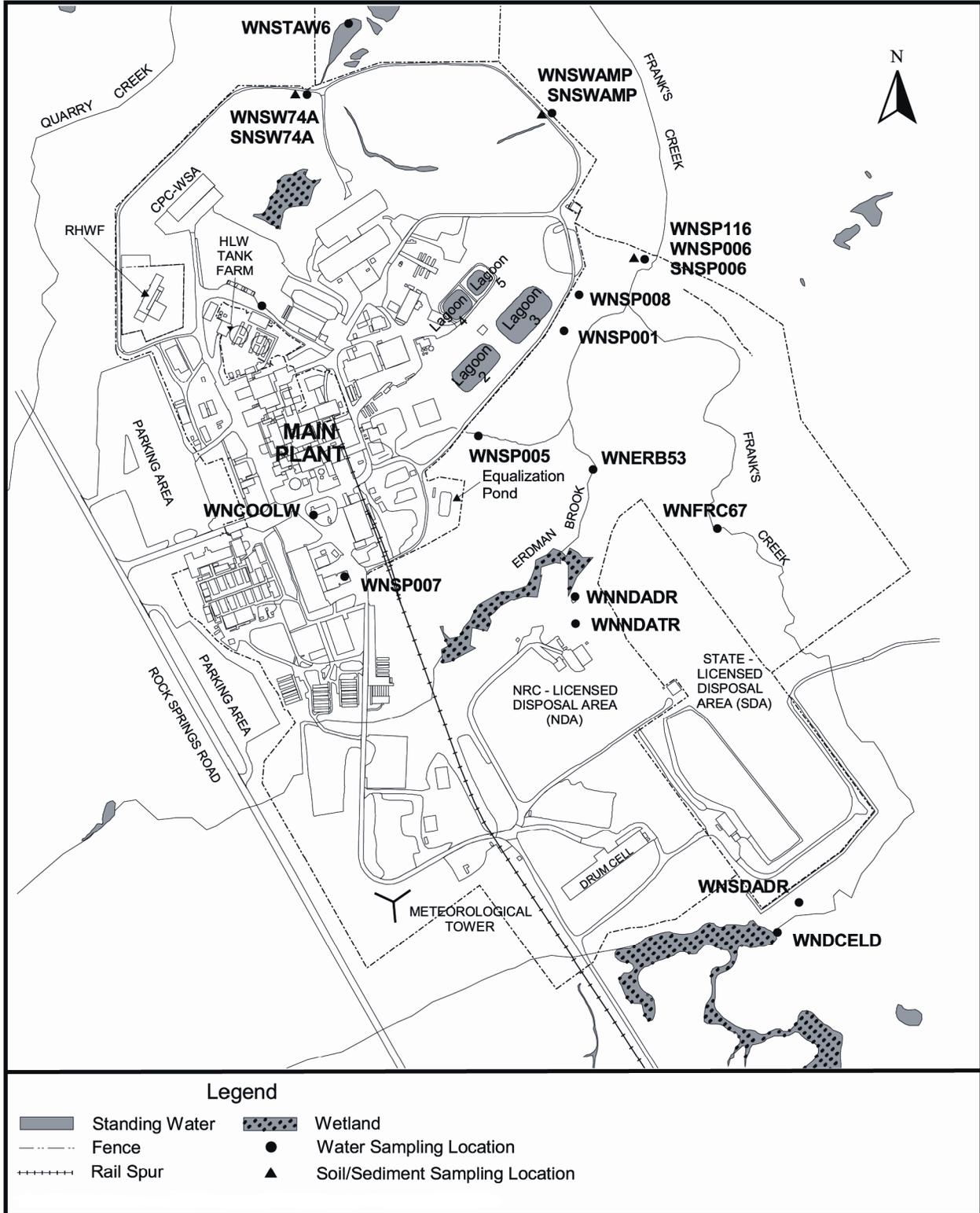


Figure A-2. On-Site Surface Water and Soil/Sediment Sampling Locations

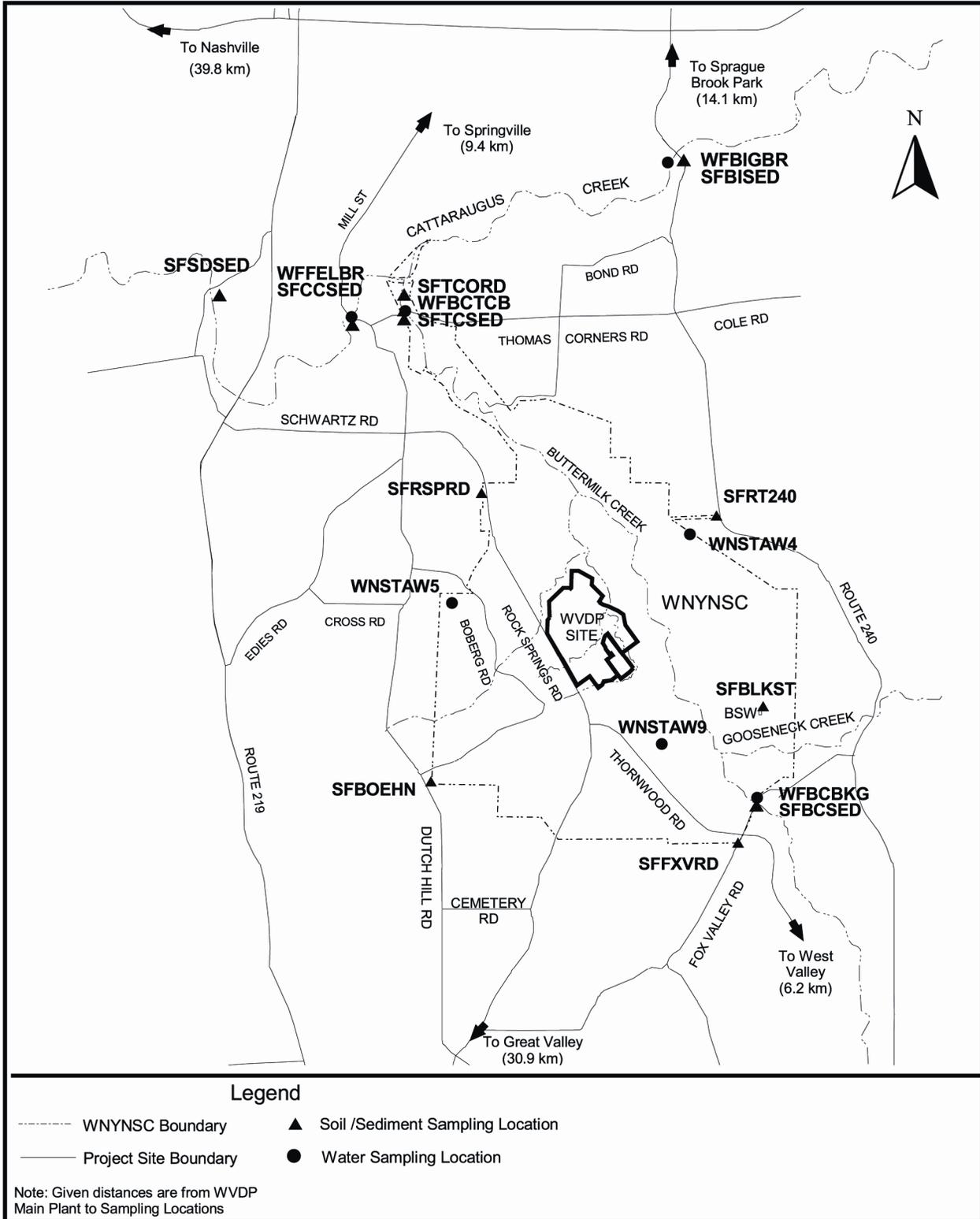


Figure A-3. Off-Site Surface Water and Soil/Sediment Sampling Locations

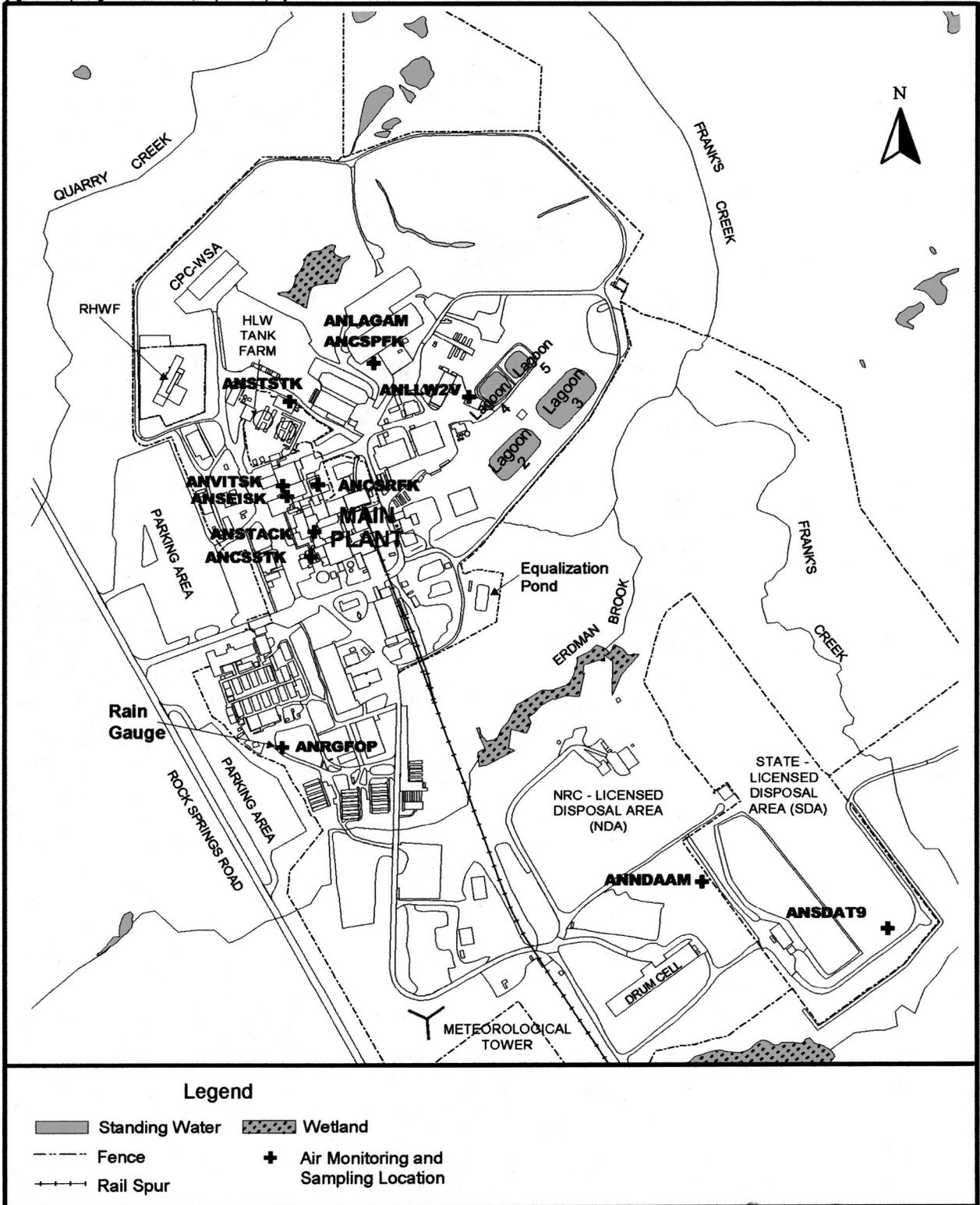


Figure A-4. On-Site Air Monitoring and Sampling Locations

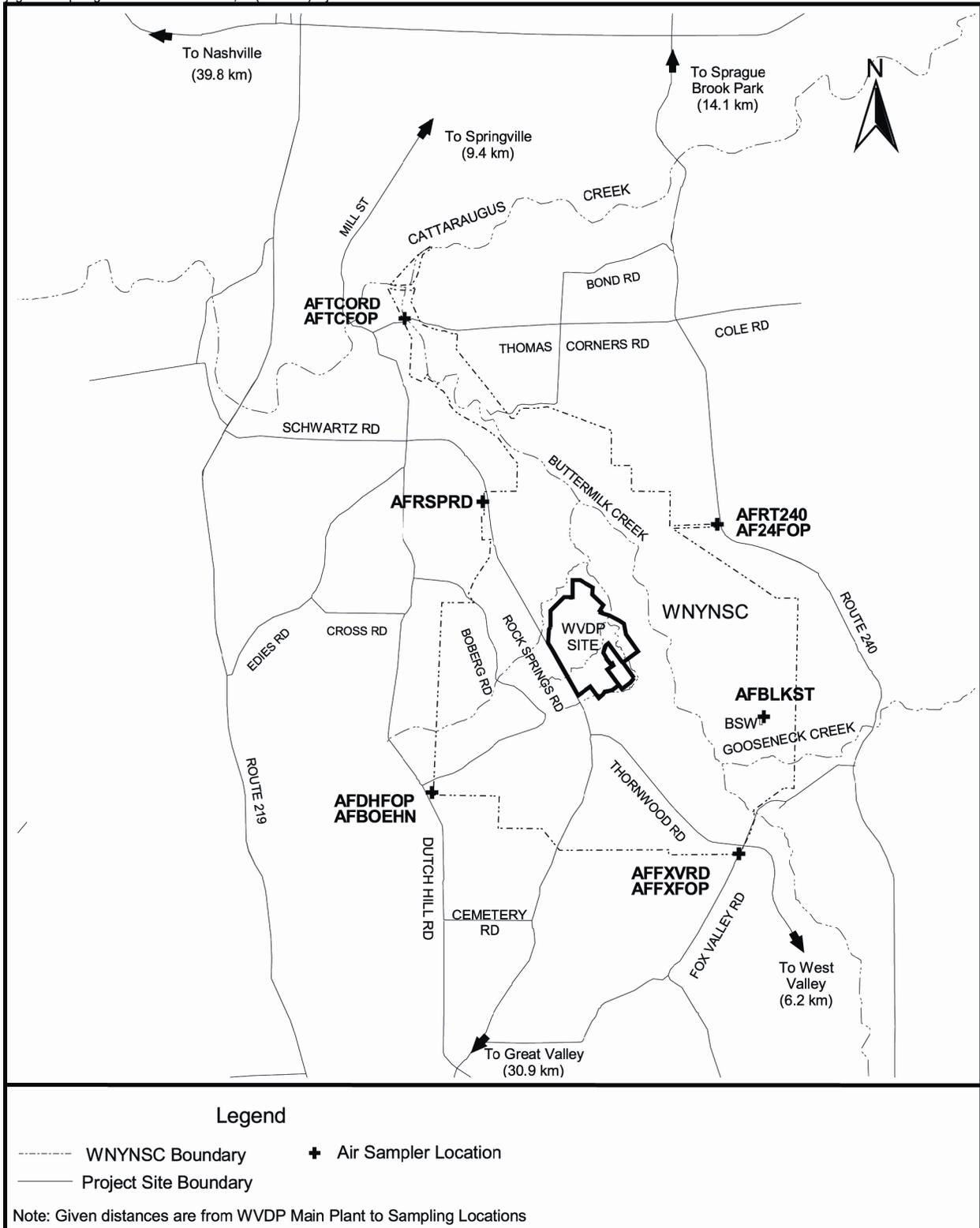


Figure A-5. Off-Site Air and Fallout Sampling Locations

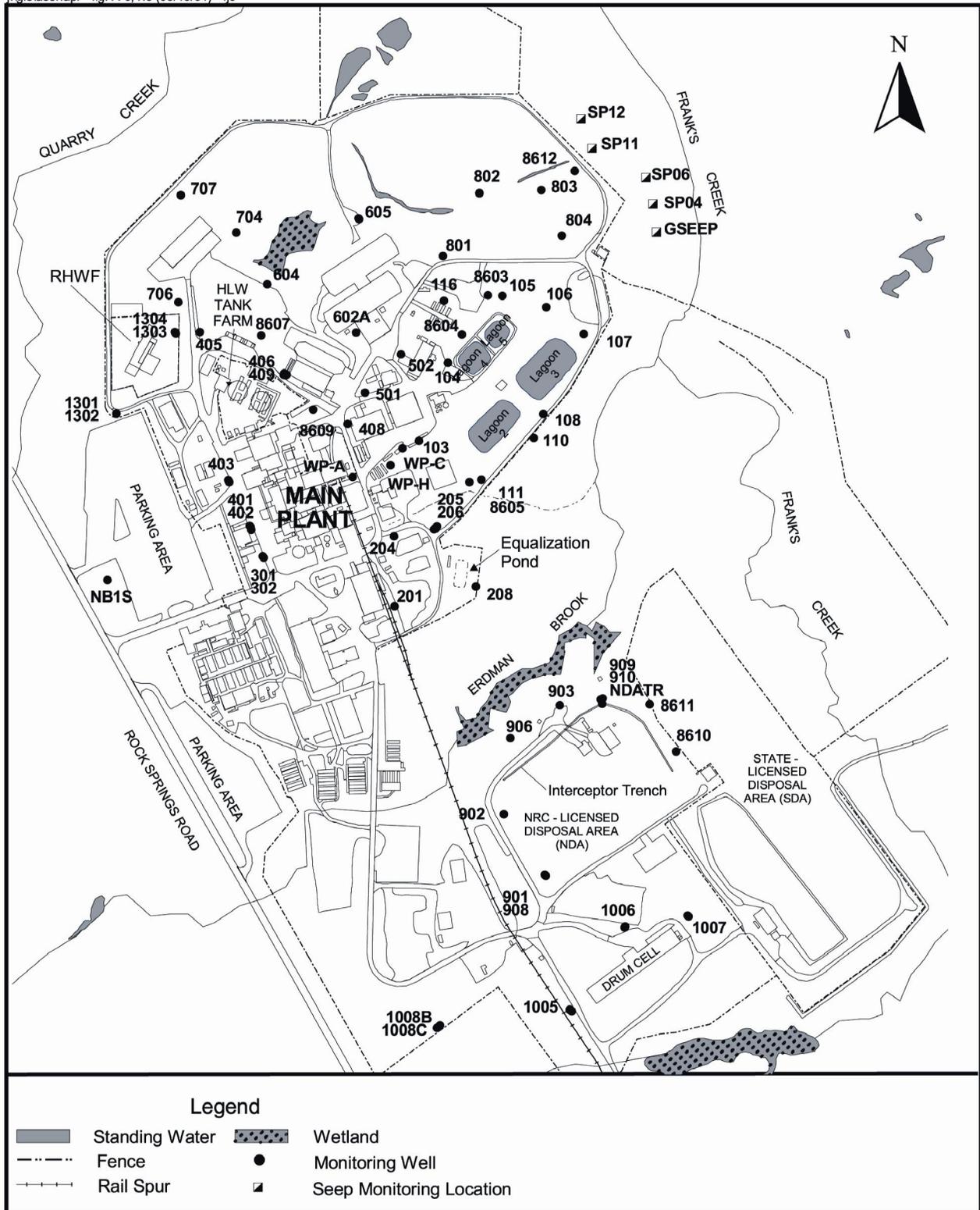


Figure A-6. Active WVDP Groundwater Monitoring Locations

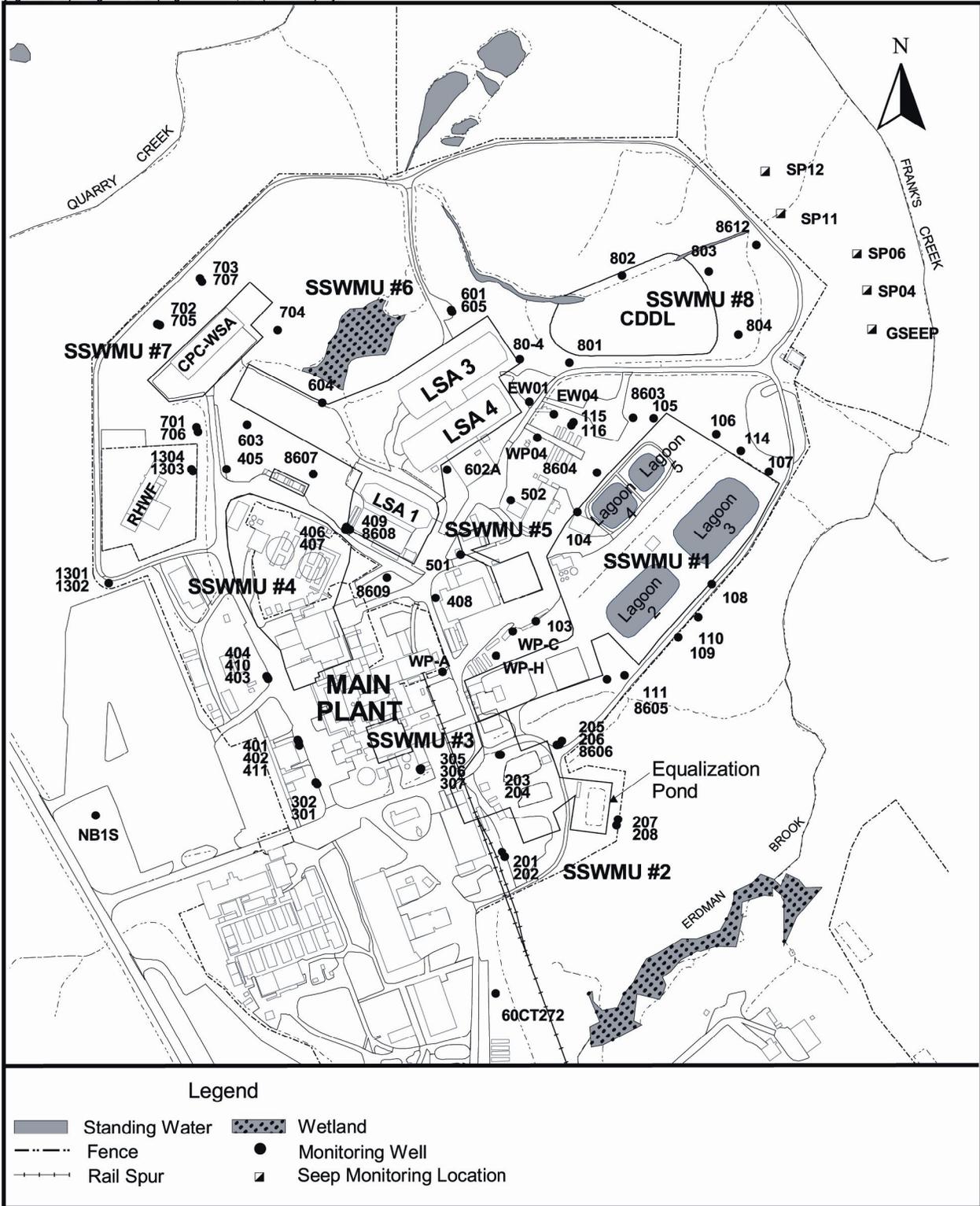


Figure A-7. North Plateau On-Site Groundwater Monitoring Network (Includes Wells Used for Water-Level Measurements)

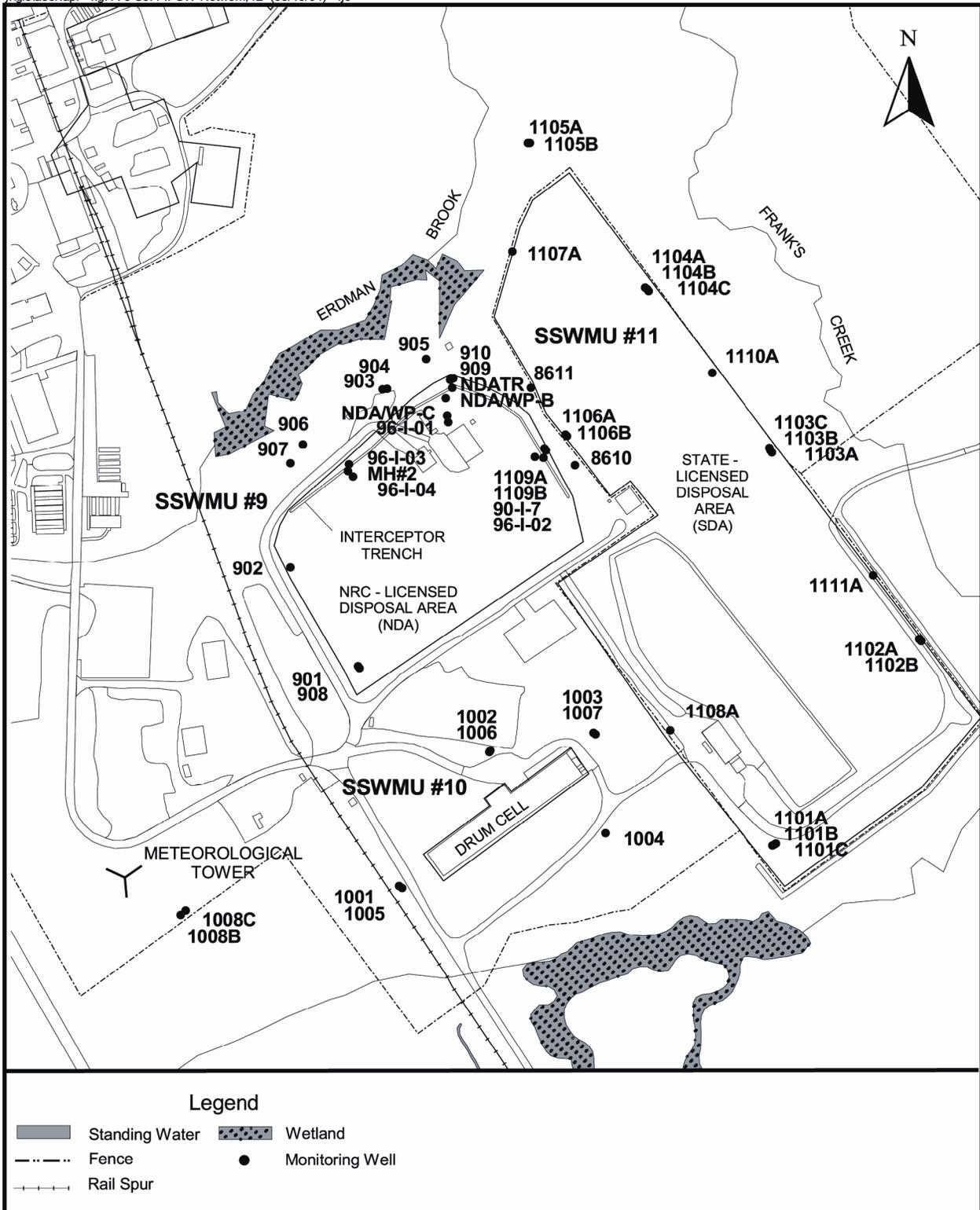


Figure A-8. South Plateau On-Site Groundwater Monitoring Network (Includes Wells Used for Water-Level Measurements [WVDP] and SDA Wells [NYSERDA])

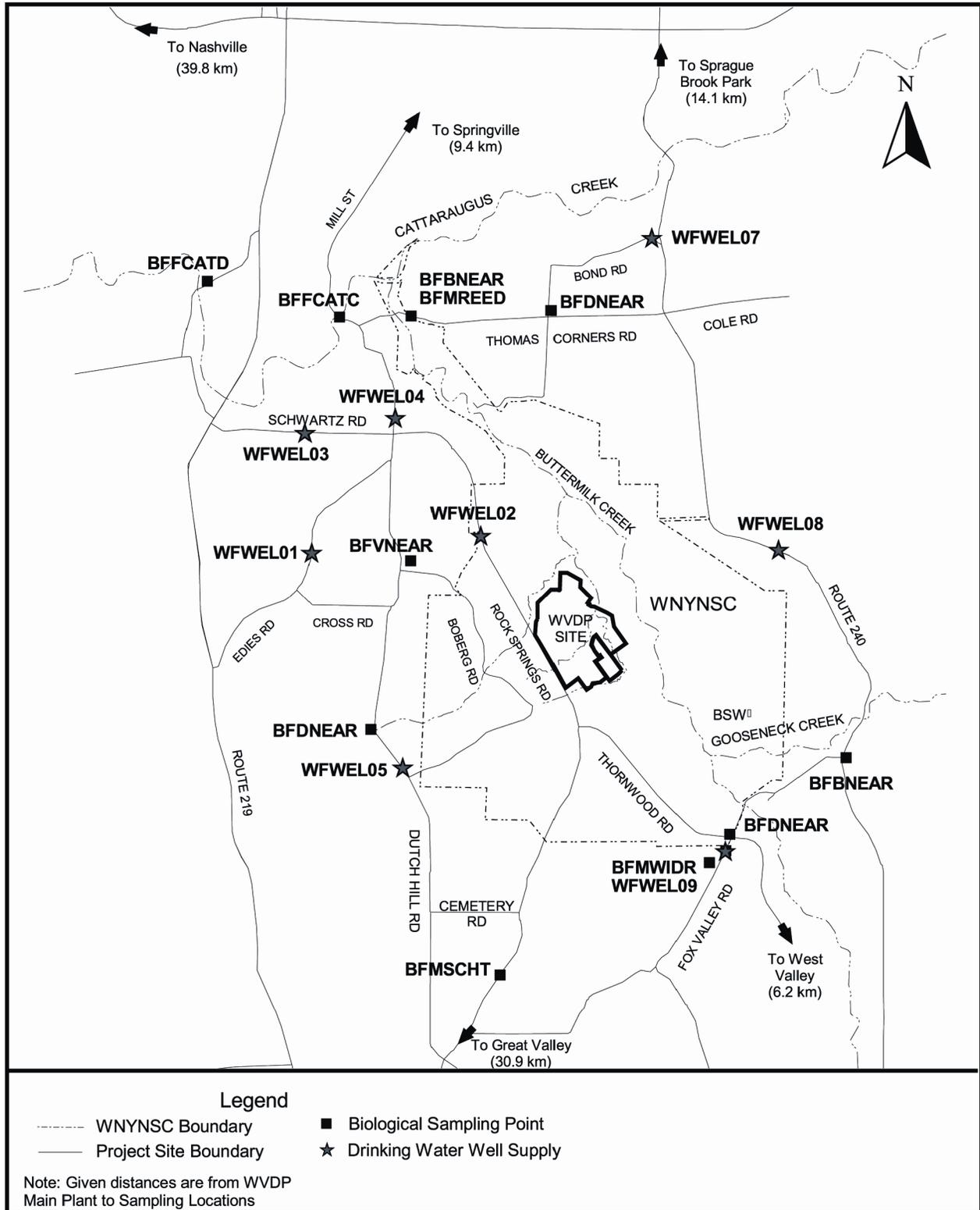


Figure A-9. Near-Site Drinking Water and Biological Sampling Locations

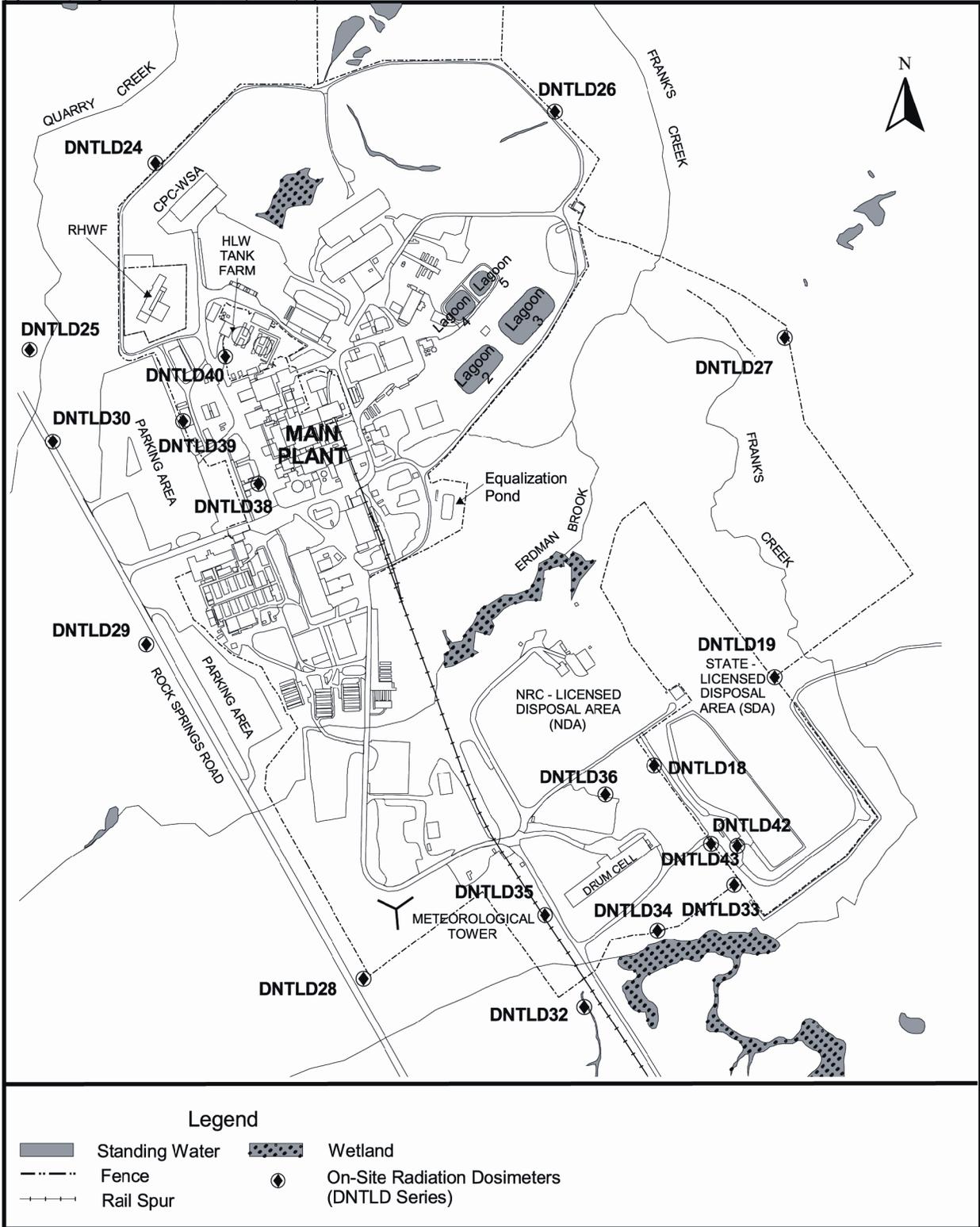


Figure A-10. Location of On-Site Thermoluminescent Dosimeters (TLDs)

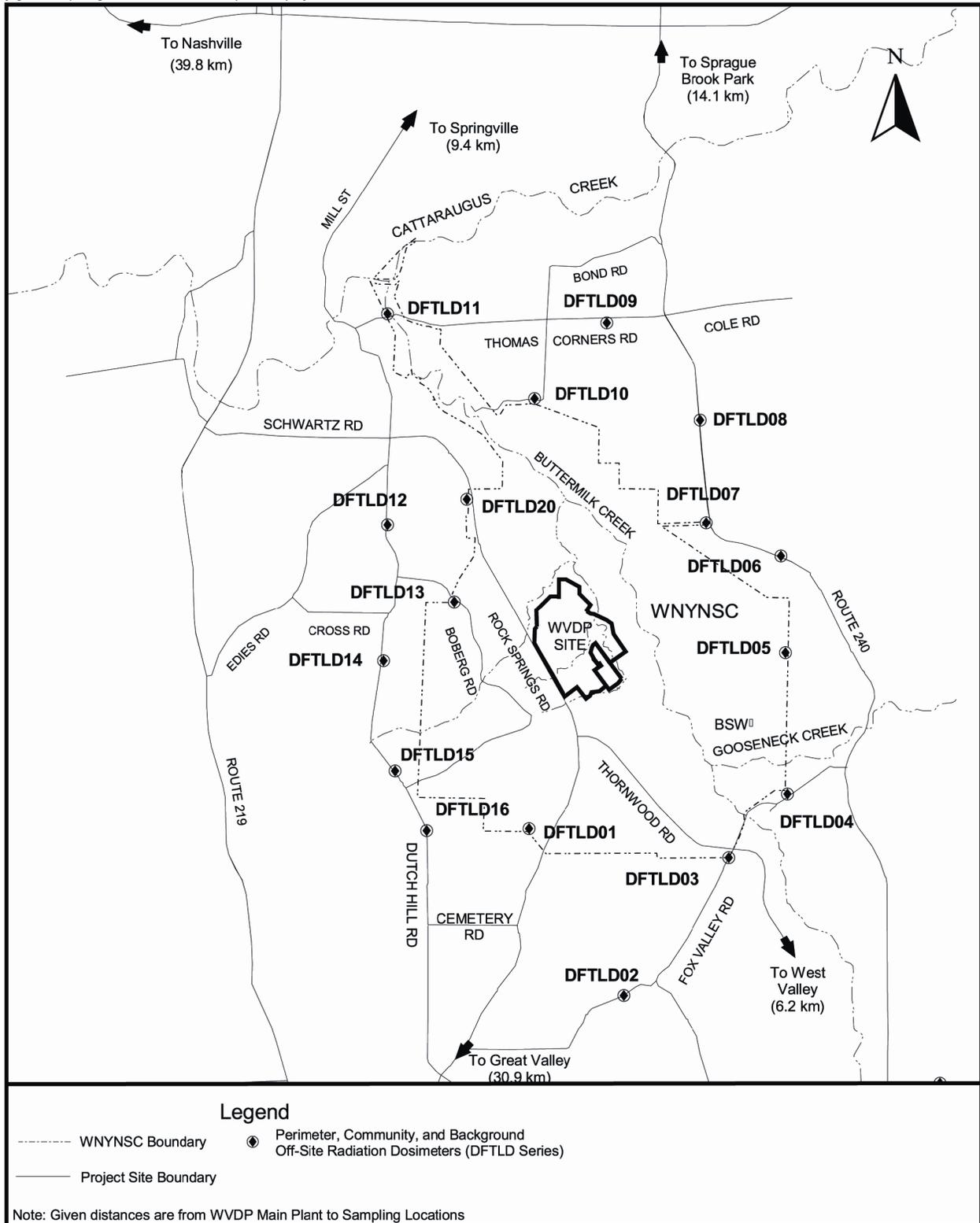


Figure A-11. Location of Off-Site Thermoluminescent Dosimeters (TLDs) Within 5 Kilometers of the WVDP

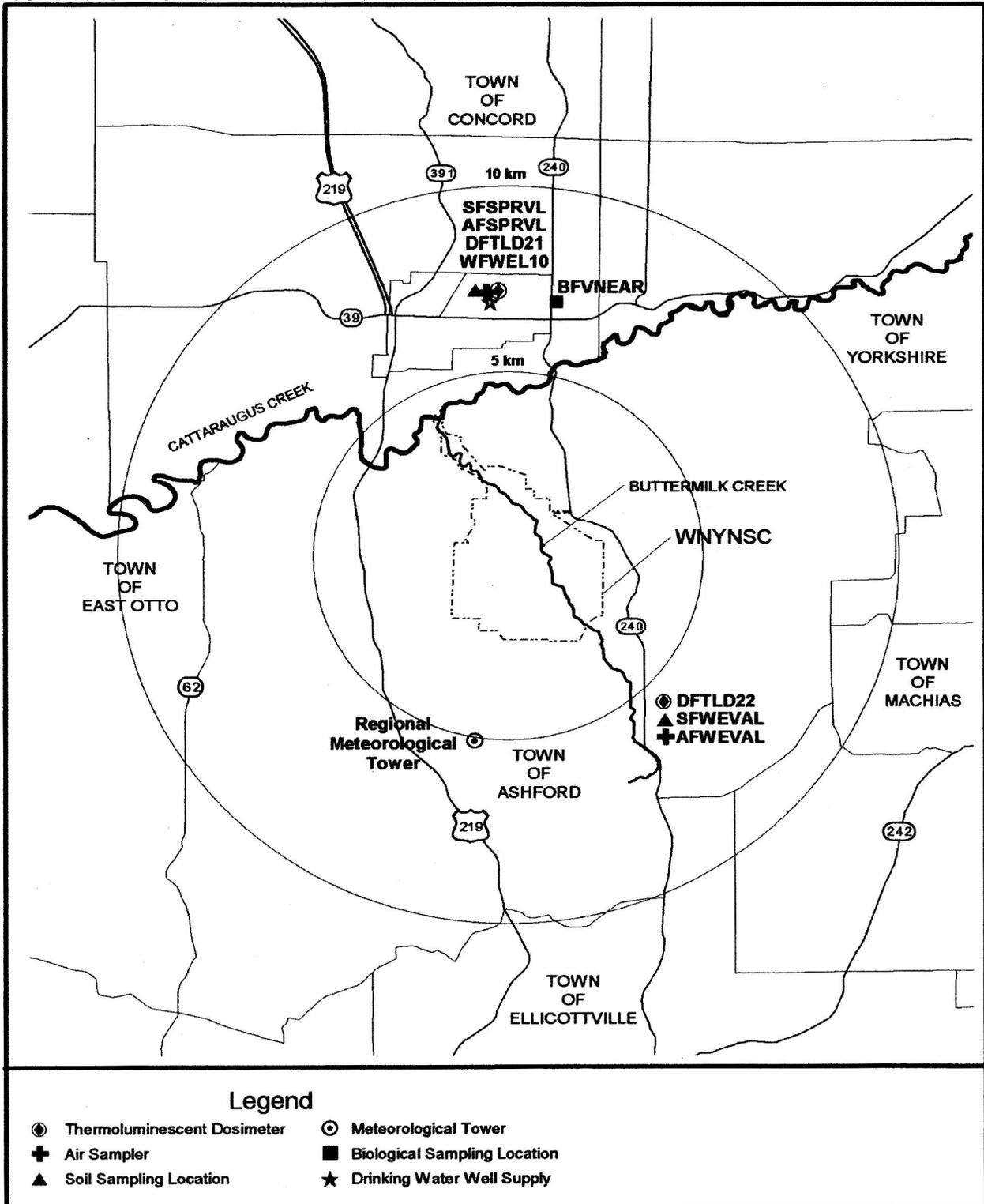


Figure A-12. Environmental Sampling Locations Between 5 and 10 Kilometers From the WVDP

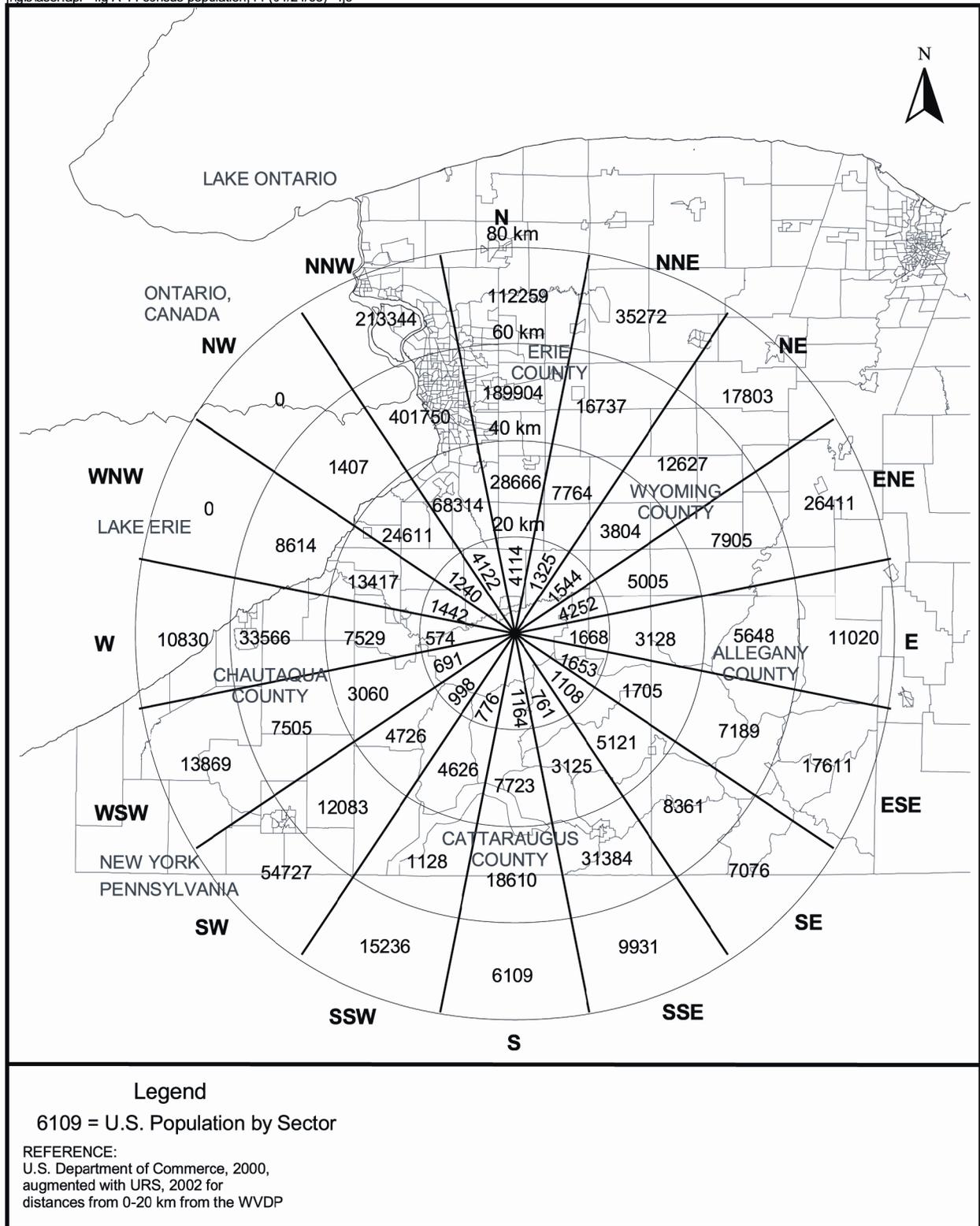


Figure A-14. Estimated 2002 Population by Sector Within 80 Kilometers of the WVDP