



U.S. DEPARTMENT OF  
**ENERGY**

OFFICE OF  
**ENVIRONMENTAL  
MANAGEMENT**

# Permeable Treatment Wall Update Quarterly Public Meeting

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**Robert Steiner**  
**Regulatory Strategy and Compliance**  
CH2M HILL B&W West Valley

**November 19, 2014**

Installed 860 ft. Long Permeable Treatment Wall (PTW)  
In October/November 2010

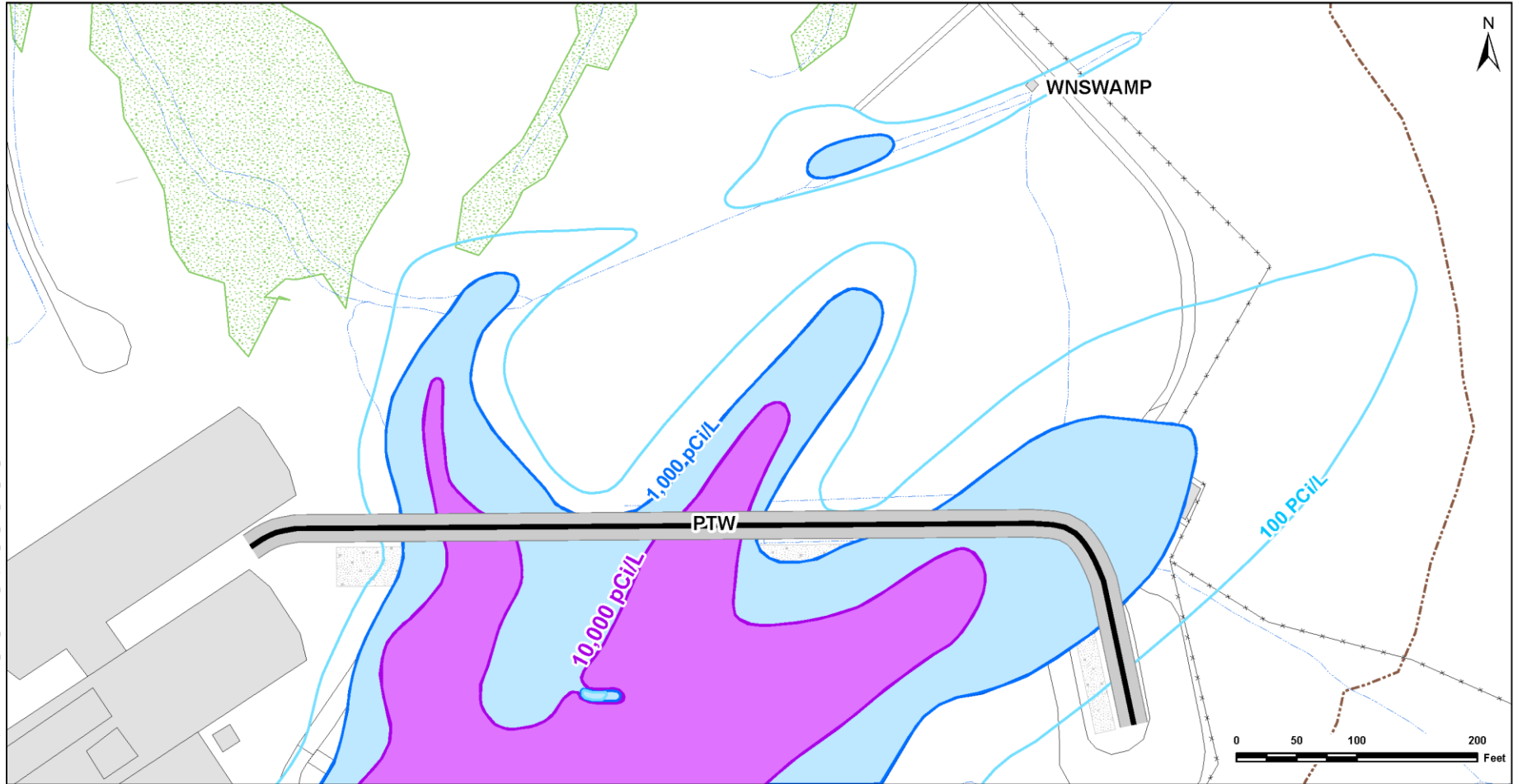
PTW Technology Selected to Achieve North Plateau  
Plume Remedial Action Objectives (RAOs)

1. Reduce Sr-90 leaving the site to ALARA (goal < 1,000 pCi/L)
2. Minimize expansion of plume
3. Technology used for containment does not preclude strategies for site decommissioning

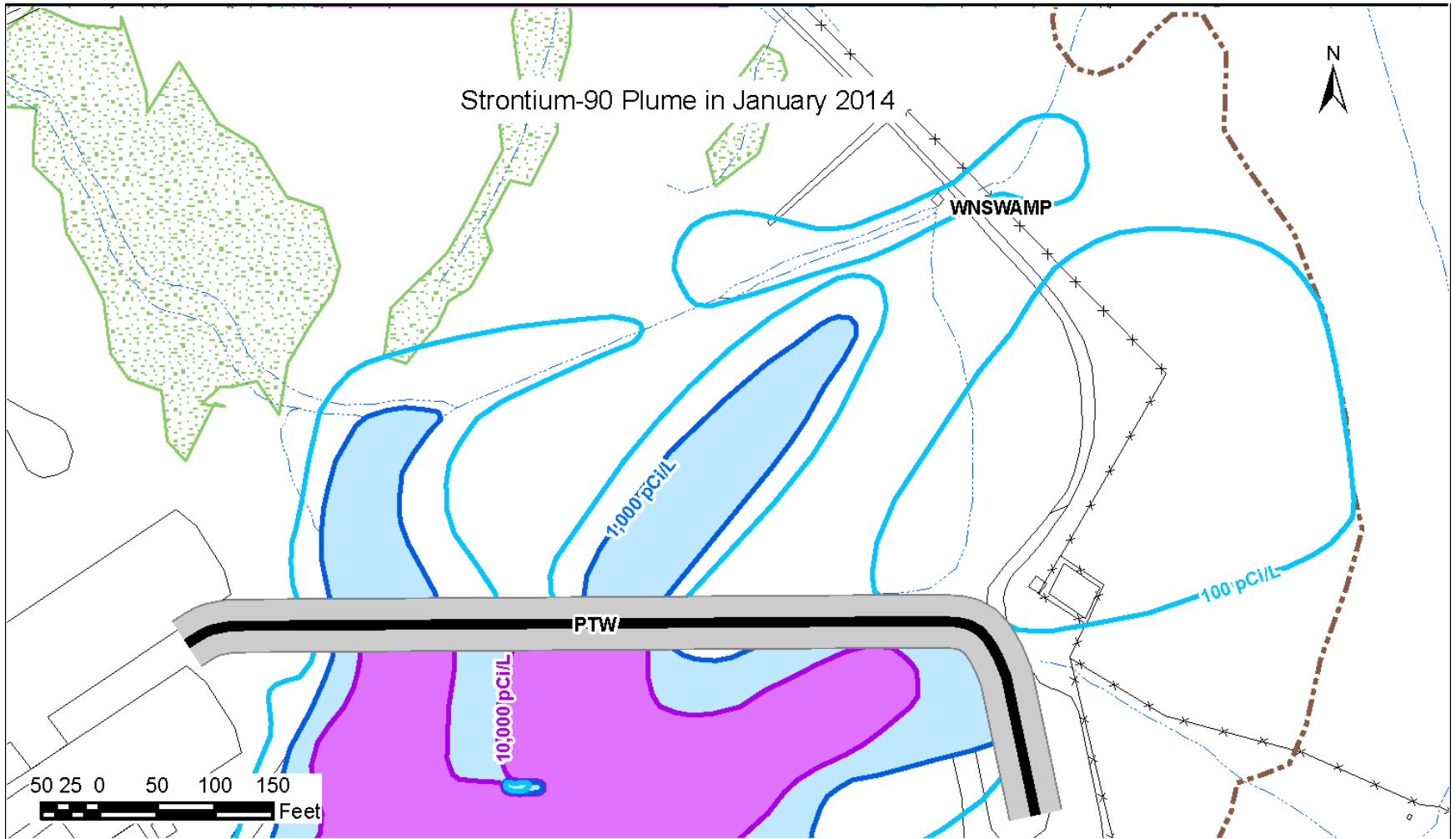
## PTW Performance Monitoring

- Performed Baseline Monitoring in January 2011
- Monthly Inspections Performed Per O&M Plan
- Quarterly Groundwater Monitoring
  - Measure Groundwater Elevations
  - Collect Samples for Sr-90 and Geochemical Constituents
- Results Reported in Annual Monitoring Reports

# Sr-90 Plume Delineation (January 2011 Baseline)



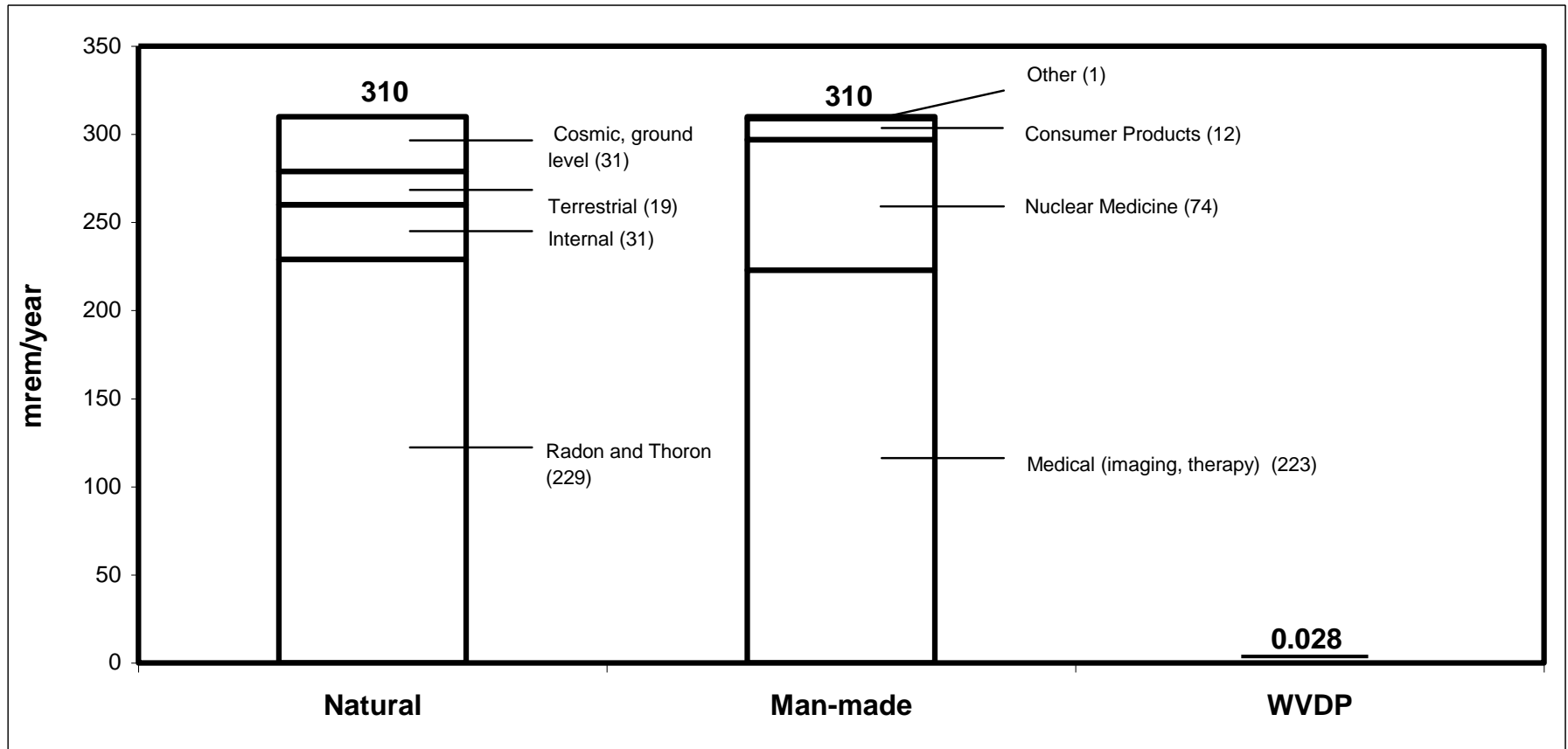
# Sr-90 Plume Delineation (January 2014)





# Comparison of Dose From Natural and Man-Made Sources<sup>a</sup> to the Dose from 2013 WVDP Effluents

**Figure 3-1 of 2013 WVDP Annual Site Environmental Report  
Comparison of Doses From Natural and Man-Made Sources  
to the Dose From 2013 WVDP Effluents**



<sup>a</sup> Source: National Council on Radiation Protection and Measurements (NCRP) Report Number 160, 2009.

2014 annual monitoring results indicate that the PTW is functioning successfully.

- The ongoing processes at the PTW are achieving RAOs and the functional design requirements of the PTW system have also been attained
- Continue quarterly monitoring and performance evaluations, and document in annual reports

Continue to monitor and evaluate dose resulting from WVDP effluents and document in Annual Site Environmental Reports