Valley Floor Power, Substations & Cleanroom Continuity During Flood Events

Pillar: The Valley | **Basis:** Operational Playbook + Agency Context | **Primary Source:** King County Flood Services / BC ESG Facilities Briefs | **As Of:** 2026-11-16

Satellite cleanrooms, autoclaves, and additive-manufacturing cells in Kent and Tukwila cannot tolerate unscheduled power drops; valley flood events threaten at-grade transformers, fuel deliveries, and utility access.

Operational Continuity & Corridor Facts

• Specific PSE/Seattle City Light substation feeder maps for individual private space facilities are not in our data and must be verified per site.

• What is documented is that SR 167 closures (such as Dec 15, 2025) sever diesel fuel-truck resupply routes for valley-floor backup generators.

• Facilities running ISO Class 7/8 cleanrooms, vacuum chambers, or thermal-vac tests require 72-hour on-site fuel autonomy and elevated transfer switches.

Valley Facility Utility Continuity Controls

System	Flood / Corridor Failure Mode	Control	Verification
Diesel Generators	Fuel truck blocked by SR 167 closure	Maintain >=72h on-site fuel	Pre-storm top-off trigger
Pad-Mount Transformers	Standing water / vault intrusion	Sandbag perimeter + elevation check	KCC 21A.24 Elevation Cert
Autoclaves / Cleanrooms	Grid sag during atmospheric rivers	UPS + automatic transfer switch	Monthly load-bank test

Corridor Exposure, Triggers & Facility Actions

• Set an automatic fuel-top-off trigger whenever Green River flow forecasts reach Phase 2 flood alert.

• Verify that generator exhaust, day-tank vents, and fuel fill ports sit above the documented 100-year flood elevation.

• Cross-reference WA CBPS / Seattle BEPS compliance (#1984) so backup-power retrofits align with building-energy reporting.

Cross-Cluster Links & Primary Sources

• **WA Space Cluster Hub (#1382):** https://bcesg.org/washington-space-cluster-census/

• **Facilities / EHS Desk Brief:** https://bcesg.org/wa-space-role-facilities-ehs-desk-brief/

• **Facilities: Waste, PSCAA & Floodplain:** https://bcesg.org/wa-space-role-facilities-waste-pscaa-floodplain/

• **Kent WA Space Cluster Profile:** https://bcesg.org/kent-wa-space-cluster-profile/

• **Satellite Mfg Continuity Exposure:** https://bcesg.org/wa-satellite-manufacturing-continuity-exposure/

• **King County Flood Services:**
https://kingcounty.gov/en/dept/dnrp/nature-recreation/environment-ecology-conservation/flood-services

• **WA EMD Regional Plans (Recovery Annex):** https://mil.wa.gov/plans

Provenance Note: Operational engineering guidance grounded in King County floodplain standards; specific utility feeder maps per facility are not in our data.