KCC 21A.24 Zero-Rise & +3ft Base Flood Elevation: How Floodplain Rules Govern Space Plant Expansion

Pillar: The Valley | **Basis:** Agency Regulation | **Primary Source:** King County Code / King County Flood Services | **As Of:** 2026-11-16 (Live Rule)

King County Code 21A.24 enforces Zero-Rise floodway standards and +3 feet above Base Flood Elevation (BFE) freeboard—directly governing cleanroom expansions, test-cell pads, and backup-generator placement in the valley.

Operational Continuity & Corridor Facts

• King County Code 21A.24 (and municipal equivalents in Kent, Tukwila, and Auburn) requires structures in mapped floodplains to meet +3 feet above Base Flood Elevation (BFE) and Zero-Rise floodway rules.

• Tenant improvements exceeding 50% of structure market value can trigger full substantial-improvement elevation compliance.

• External backup generators, cryo tanks, and electrical switchgear placed at grade risk flood inundation unless mounted on elevated steel/concrete platforms.

KCC 21A.24 Siting & Tenant-Improvement Checklist

Facility Element	Floodplain Constraint	Engineering Mitigation	Reference
Backup Generators & UPS	At-grade pads flood first	Mount >= BFE + 3 ft	KCC 21A.24 / Rule #1993
Outdoor Cryo / Gas Tanks	Buoyancy & float-off hazard	Engineered anchoring + elevation	KCC 21A.24 / WAC 173-303
New Bay / Test Annex	Zero-Rise compensatory storage	Balanced cut/fill hydraulic study	King County Flood Services

Corridor Exposure, Triggers & Facility Actions

• Before signing a Green River Valley industrial lease, request the Elevation Certificate and floodway/flood-fringe boundary map.

• Confirm with Facilities/EHS (#2067) that hazardous waste accumulation areas under WAC 173-303 have secondary containment above flood stage.

• Factor hydraulic-study permitting lead time into CapEx schedules for new test-stand pads.

Cross-Cluster Links & Primary Sources

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

• **King County Floodplain & Levee Rule:** https://bcesg.org/wa-space-rule-king-county-floodplain-levee-live/

• **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/

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

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

• **City of Tukwila Official Portal:** https://www.tukwilawa.gov/

Provenance Note: Links directly to BC ESG Batch 5 Rule #1993 and Batch 6 Facilities/EHS brief #2067.