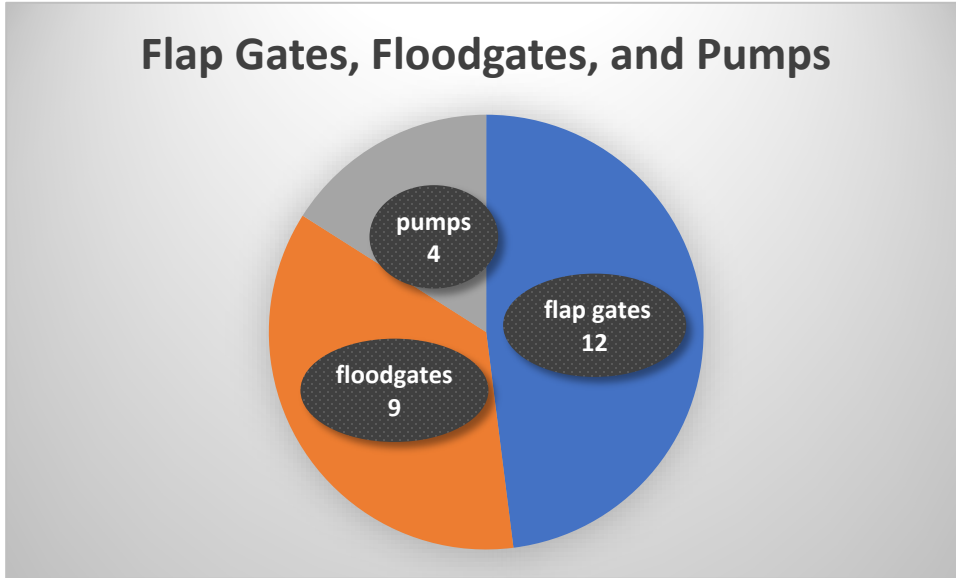


1.1.3: Flap gates, Floodgates and Pumps

Current Condition

Desired Condition by 2048

Figure 4. Flap Gates, Floodgates, and Pumps



King County conducted a survey in 2018¹ of the 12 flap gates, 9 floodgates, and 4 pumps that were visible from the lower Snoqualmie River and its main tributaries. Evidence of a 10th floodgate was found, but the structure is no longer intact or functioning. Of these 25 drainage structures, seen in Figure 4 and Map 4, appropriate partnerships for ownership and maintenance are still being determined. King County engineers are also working to assess the effectiveness and functionality of these structures. The SVWID and King County are working on pilot projects to determine a process, costs and funding sources for replacement or repair of existing gates and installation of new pumps.

Functional flap gates, floodgates, and pumps strategically located throughout Snoqualmie Valley to minimize flooding of farm fields. Inspection and maintenance schedule agreed to by the responsible parties, SVWID, and King County's Integrated Drainage Program. Maintenance and repair conducted regularly to ensure longevity of structures.

Timeline

- 2024: Complete assessment of ownership, functionality, and permitting.
- 2025-2027: Develop plan and identify long-term funding resources for repair, replacement, or new pump installations and routine maintenance cycles.
- 2032: All replacement and repairs completed.
- 2037: New pump installations completed.
- 2027-2048: Routine, ongoing maintenance on gates and pumps

Background

Flap and flood gates prevent water from flowing from main stem rivers back into ditches or culverts during high flows. Pumps actively move water from behind the gates into the river preventing backwatering. Many flap and flood gates in the Snoqualmie APD were installed in the late 1930s and maintenance has not been consistently recorded.

Service Providers

- Lead:
- Snoqualmie Valley Watershed Improvement District (SVWID)
- Partners:
- KC Integrated Drainage Program

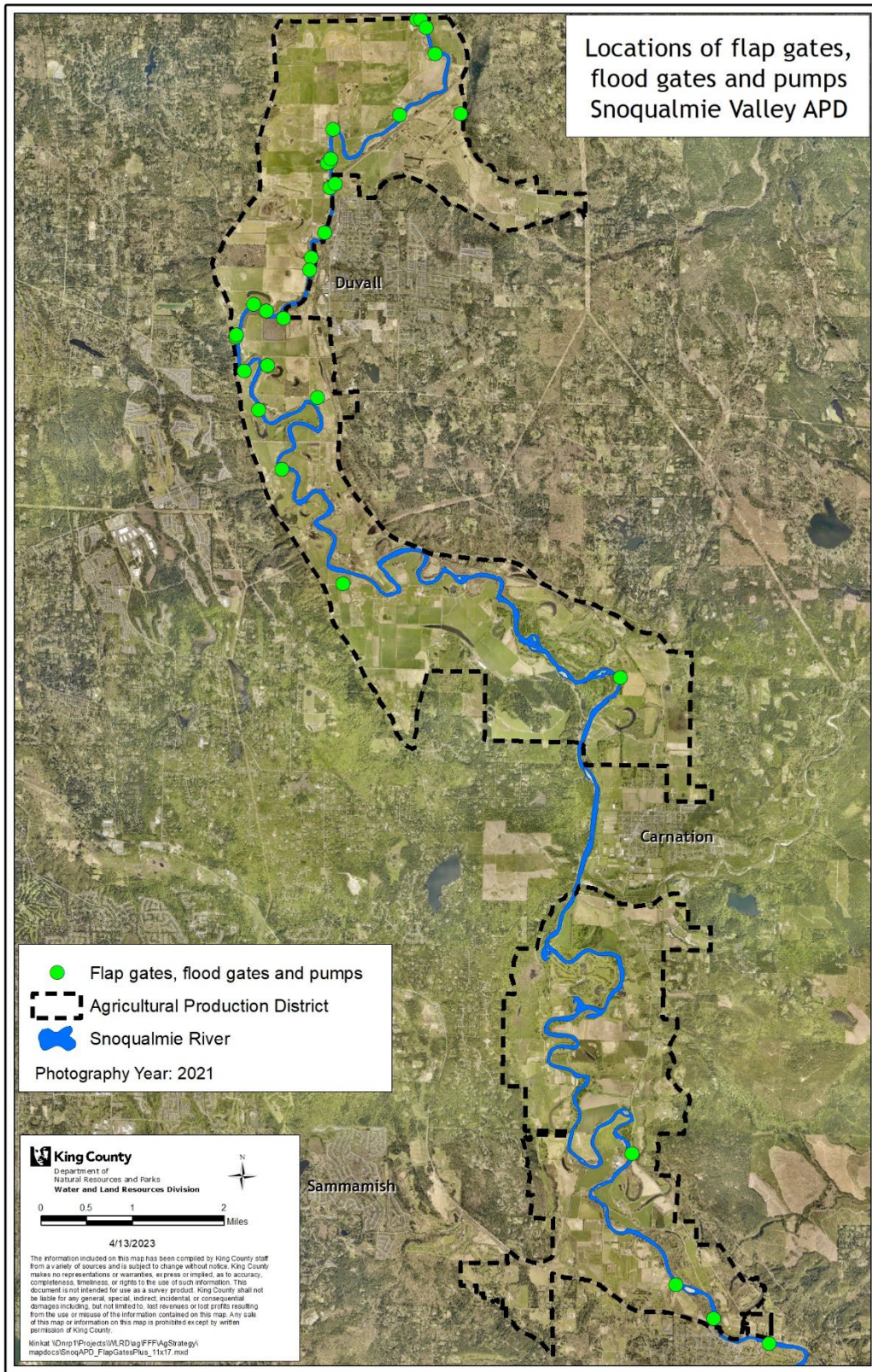
Priority

MEDIUM /HIGH

Strategies

- Clarify and streamline permitting process for installation, replacement, and repair to ensure regulatory certainty.
- Use sub-basin hydrological analysis to identify key points and strategic locations for gate repair and pump installation.
- Secure long-term funding for installation, replacement, and repair projects as needed throughout the Snoqualmie APD.

Map 4. Locations of Flap gates, Floodgates and Pumps in the Snoqualmie Valley APD



¹ Large drainage outfalls to the Snoqualmie River (or as noted) north of Fall City (from FFF Regulatory Task Force “Comprehensive Drainage Assistance” Issue Paper, Table 2).