King County

KING COUNTY AUDITOR'S OFFICE

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Fish Passage Restoration: Opportunities to Increase Impact, Transparency, and Collaboration

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EXECUTIVE SUMMARY

The King County Fish Passage Restoration Program (FPRP) works to remove county-owned barriers in local streams and waterways so salmon and other fish can access their spawning habitat. Despite this objective, the program's current workplan schedules removal of some barriers with little or no habitat benefit early in its 10-year workplan. Fish barriers contribute to the decline of salmon, and this decline threatens the treaty-protected rights of tribes in Washington state. King County is removing fish barriers as part of its expressed commitment to honor tribal treaty rights to harvest salmon in usual and accustomed places and as part of its broader commitment to salmon protection. The program's sequencing of low-impact projects before high-impact projects means the program is not in alignment with the county goal of opening the best habitat as quickly as possible and is putting more impactful projects at risk if there are funding or staffing shortages later. The FPRP also does not consider the impact of non-county-owned barriers to fish passage when reporting the number of miles of restored habitat, thereby overstating the reported impact of the program. The FPRP can increase the transparency of its work by developing a strategic plan that clarifies the program's goals and objectives, the activities it will complete to reach those goals and objectives, and the measures it will use to track the program's impact. Additionally, although the FPRP consulted proactively with local tribes on some program elements, it did not consult with them when developing it's 10-year workplan and should ensure early involvement with tribal representatives when planning individual projects.

Acknowledgment

We would like to thank the Fish Passage Restoration Program (FPRP) team members within the Water and Land Resources Division (WLRD), the Parks Division (Parks), and the Road Services Division for their participation in this audit. The staff members within these agencies were responsive and collaborative. In particular, the WLRD program management team shared guiding documents and data throughout the audit process.

The FPRP team has worked to build a collaborative atmosphere with both internal and external parties. FPRP has signed an interdepartmental agreement with involved county agencies that defines roles, responsibilities, decision-making authority, and dispute resolution processes, demonstrating a commitment to continued collaboration and coordination. Additionally, we spoke with multiple external parties who reported a very positive view of the program and the FPRP program manager. They said that they appreciated the open and collaborative approach taken when developing the model to assign priority scores to fish passage barriers, and they are encouraged by King County's dedication to fund staff and resources for fish barrier removal.

The FPRP worked with internal and external parties to build an inventory of county barriers and to develop a priority scoring model to identify where to focus fish passage efforts. In 2021, the program completed a two-year field inventory to identify all county-owned barriers to upstream salmon migration. The inventory identified more than 900 county-owned structures that are either partial or total passage barriers. The program then collaborated with tribal, federal, state, and local jurisdictions to develop a model for prioritizing barriers for removal to achieve the best outcomes for salmon. Development of the priority scoring model creates some consensus around where King County should invest resources to achieve the best outcomes for fish.

REPORT HIGHLIGHTS

What We Found

The King County Executive created the Fish Passage Restoration Program (FPRP) to remove county-owned barriers to fish passage in local streams and waterways. However, the FPRP workplan schedules barrier removal projects that would restore access to the greatest amount of habitat after some asset management projects, which restore little or no habitat. As a result, the program is out of alignment with the county goal of restoring the best habitat for fish as fast as possible. Additionally, when reporting the miles of stream opened after removing a barrier, the program does not consider the impact of non-county-owned barriers, meaning the amount of newly accessible habitat for fish may be lower than reported.

Overall, entities that work with the FPRP spoke highly of the program's staff and its projects. However, some shared that there are areas where the program could further strengthen communication and collaboration. In particular, local tribes indicated that earlier collaboration on projects and greater inclusion in program-wide decision-making, such as workplan development, could improve government-to-government relations between King County and local tribes, help expedite permitting processes, and give tribes the opportunity to support the County's grant applications.

What We Recommend

We recommend that the FPRP develop and document a strategic plan that details its goals, objectives, and performance measures, and ensures alignment between FPRP and broader county goals for salmon habitat restoration. We also recommend that program staff review and clearly define the program strategy and adjust the workplan as needed to ensure the sequence of barrier removal projects aligns with its strategic plan and county goals. To ensure that the impact of program efforts is clear to decision-makers and the public, we recommend the FPRP measure the impact that non-county-owned barriers have on achieving program goals. We also make recommendations to increase collaboration with local tribes.

[1] Washington v. Washington State Commercial Passenger Fishing Vessel Association, 443 U.S. 658 (1979)

Why This Audit Is Important

Fish passage barriers have contributed to the decline of salmon and steelhead trout populations that are now endangered or threatened. Without access to their spawning habitat, salmon and steelhead trout cannot reproduce, and their numbers will continue to decline.

The decline in fish population threatens the treaty-protected rights of tribes within Washington state. In accordance with a series of treaties between the federal government and tribal governments, the Supreme Court held[1] that tribes have the guaranteed right to take fish at all usual and accustomed places, and the Ninth Circuit held that fish passage barriers owned by Washington state infringe upon those rights. King County has worked to increase its efforts to remove fish barriers as part of its expressed commitment to honor tribal treaty rights to harvest salmon in usual and accustomed places and as part of its broader commitment to salmon protection.

King County Road Services Division replacing a fish barrier with a fish-passable structure in Enumclaw in 2023.

Source: King County Auditor's Office

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Section 1: King County Fish Passage Restoration Program Q&A

SECTION SUMMARY

The King County Fish Passage Restoration Program (FPRP) works to improve the ability of salmon and other fish to complete their life cycle by replacing barriers in streams and waterways with structures that fish can pass through. In Washington state, barriers that hinder fish from accessing their habitat have contributed to the decline of many populations of salmon and steelhead trout, which are now endangered or threatened. This decline in fish population also threatens the treaty-protected rights of tribes within Washington state. Since 2018, King County has made a substantial investment in removing county-owned barriers by staffing and funding the FPRP. However, even if the FPRP is successful in removing all county-owned barriers, the program alone is not sufficient to meet the larger countywide goal of better fish habitat, as measured by increasing survival rate of juvenile salmon and providing open access to salmon habitat.

What does "fish passage" mean?

Fish passage is the ability of fish to move through their habitat types, such as streams and rivers, to complete their life cycle. Adult salmon travel up into freshwater streams from the ocean to spawn or lay eggs in freshwater streambeds. After the eggs hatch, the young fish travel down through these same streams to the ocean, where they will live between one and six years,[1] before returning to the streams where they were born and starting the cycle over again.

In Washington state, the Washington Department of Fish and Wildlife estimates there are over 18,000 man-made structures that are barriers to the passage of salmon and steelhead trout. The FPRP has identified over 900 fish passage barriers owned by King County. The most common fish passage barriers are road culverts. As shown in exhibit A, FPRP is working to replace fish passage barriers, such as the pipe

[1] The length of time a salmon resides in the ocean varies between different salmon species.

culvert shown in the image on the left, with a fish-passable structure, such as the box culvert, shown in the image on the right.

EXHIBIT A: The most common fish passage barriers are road culverts. The image on the left shows a road culvert that is not passable by fish trying to swim upstream. The image on the right shows a site after the installation of a fish-passable structure.

Source: King County Auditor's Office notations on images from the King County Executive, *Upstream salmon habitat restored by King County this year, will soon begin a decade of projects to open 250 more miles of streams and rivers,* December 15, 2022

Why is it important to address fish passage barriers?

In Washington state, fish passage barriers have contributed to the decline of many populations of salmon and steelhead trout[2], some of which are now endangered or threatened. Addressing fish passage barriers is important because fish passage barriers make it difficult or impossible for salmon and steelhead trout to reach the habitat they need to reproduce. With barriers blocking access to their

[2] Steelhead trout are not salmon but have similar lifecycles to salmon, including migrating from the ocean back to freshwater streams to spawn. For the remainder of this report, we will refer to salmon alone, though the removal of fish passage barriers benefits both steelhead trout and salmon.

spawning habitat, salmon and steelhead trout cannot reproduce and their populations will not recover.

Treaties between several Northwest tribes and the federal government guarantee fishing rights to the tribes, and federal courts have ruled that State of Washington fish barriers contribute to the decline in salmon population and violate treaty rights. In accordance with a series of treaties between federal and tribal governments, several local tribes have the guaranteed right of taking fish at all usual and accustomed places. Twenty-one Northwest tribes successfully sued Washington state for its failure to correct fish-blocking culverts, and in 2007, the federal district court for the Western District of Washington found that state-owed fish passage barriers infringe upon tribal rights to take fish because barriers contribute to the decline in the abundance of salmon. While King County was not a party in the case, the County has expressed a commitment to honor tribal treaty rights to harvest salmon in usual and accustomed places. These considerations[3], along with the County's broader commitment to salmon protection, led the King County Executive to create the FPRP in 2018.

How is the FPRP organized?

The FPRP is an interdepartmental effort that includes staff from the King County Department of Natural Resources and Parks' Water and Land Resources Division (WLRD) and Parks Division (Parks), and the Department of Local Services' Road Services Division (RSD). These three agencies work together to replace fish passage barriers with fish-passable structures.[4] WLRD serves as the program manager for the FPRP and leads the development of its 10-year workplan that outlines the schedule of barrier removals. Since 2018, the three agencies have added 25 full-time equivalent positions to support the FPRP. Appendix A includes a chart showing the new positions created in each agency.

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[3] Washington state law requires the County to make any culvert it constructs or replaces fish-passable. Pursuant to RCW 77.57.030, every "dam or other obstruction across or in a stream shall be provided with a durable and efficient fishway."

[4] Projects to remove county-owned barriers managed by agencies other than WLRD, Parks, or RSD are not part of the FPRP. Instead, projects to remove those barriers are managed by the responsible agency and are typically addressed as part of other large capital improvement projects. The FPRP program manager does attempt to keep track of all county projects that include the removal of county-owned fish-barriers, including projects outside the FPRP.

Does the FPRP guarantee an increase in salmon populations?

Even if the FPRP successfully removes all fish passage barriers owned by WLRD, Parks, and RSD, the program alone is not sufficient to meet the larger countywide goal of better fish habitat, as measured by increasing the survival rate of juvenile salmon and providing open access to salmon habitat.[5] There are many factors that negatively impact fish survival. Removing fish passage barriers improves access to reproduction areas, but salmon also need habitat along shores and in estuaries and clean cool stream waters to survive. Factors outside the control of the FPRP, such as shoreline armoring,[6] road runoff, and increasing water temperatures,[7] impact fish access to and quality of their habitats. Additionally, as we discuss in section 2, the FPRP largely addresses county-owned barriers. Additional efforts will be needed to remove barriers owned by non-county-entities and fully restore access to salmon habitat.

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[5] The Clean Water Healthy Habitat Strategic Plan 2020–2025 includes six goals connected to twelve progress measures. The goal of Better Fish Habitat is connected to the following two progress measures: (1) Juvenile salmonid survival will be increasing throughout all major watersheds, and (2) Restored access to two-thirds of King County's salmon habitat and all the Kokanee habitat.

[6] Shoreline armoring is the altering of shorelines to prevent erosion, using structures such as large rocks or concrete walls.

[7] This list is not comprehensive. For additional information about factors that affect salmon populations, see "The Salmon Struggle," https://stateofsalmon.wa.gov (accessed February 2024).

Section 2: Opportunities Exist to Maximize Impact and Improve Transparency

SECTION SUMMARY

The FPRP is not fully aligned with King County's goal to restore access to the best habitat for salmon as fast as possible because it does not schedule projects with greatest habitat gains first. Without completing habitat-focused barrier removals first, the program is at risk of missing its goal of restoring access to 50 percent of habitat blocked by King County barriers by 2032, further delaying salmon access to habitat needed for reproduction. Further, because the FPRP does not consider the impact of non-county barriers in streams, the program overstates the number of restored stream miles. The FPRP has not yet developed a comprehensive strategic plan with a clear program goal and meaningful performance measures, limiting visibility into whether program activities are helping to achieve broader countywide goals related to salmon habitat. Finally, while the King County Clean Water Healthy Habitat (CWHH) Strategic Plan 2020–2025 relies primarily on FPRP to meet fish passage goals, the FPRP does not address non-county-owned barriers, meaning habitat may remain inaccessible despite county efforts.

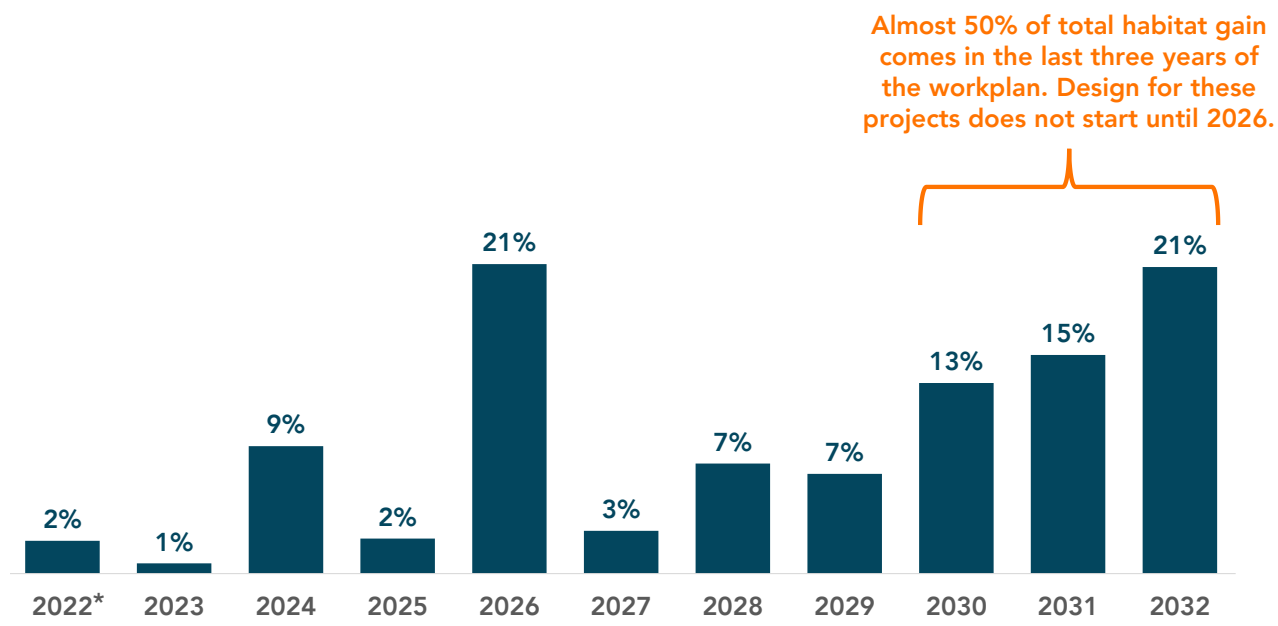
Projects resulting in greater habitat gains for salmon are scheduled after projects that result in lower impacts

The FPRP does not schedule projects with greatest habitat gains first, and as a result, the program does not align with publicly stated county and program goals to restore access to the best habitat for salmon as fast as possible. In the CWHH Strategic Plan, King County states its promise to "deliver better, faster results" in achieving environmental outcomes, including restoring access to salmon habitat. Additionally, the County Executive and the FPRP have described the work of the FPRP as "opening the best habitat for the most fish as quickly as possible" in press releases, on the program's web page, and in program reports. Despite this, in its 10-year workplan, the FPRP scheduled some high habitat-gain barrier removals to be completed *after* lower-impact projects, creating a disconnect between the program's implementation and these publicly stated goals. The misalignment between public-facing statements and the program's workplan risks lowering public trust in the program and limits the program's transparency to decision-makers, while also delaying salmon access to important habitat.

In its 10-year workplan, the FPRP does not schedule fish passage barrier removal strictly according to a barrier's habitat priority score, meaning it is not completing high-impact barrier removals first. In 2022, the FPRP collaborated with tribal, federal, state, and local jurisdictions to develop a model for assigning priority scores to fish passage barriers. These scores show the range of habitat benefits that result from removing individual barriers — from the benefits of removing barriers that block access to the best and most salmon habitat, to those where barrier removal would not result in meaningful habitat benefits. The priority scoring model enables King County to identify where to direct investments for the best outcomes for salmon. However, as shown in exhibits B and C, when the FPRP developed its 10-year workplan, it did not schedule the barrier removals based solely on barrier priority scores. The program collaborated internally with other King County agencies to consider asset management needs and projects with prior appropriations, in addition to priority scores. Program staff explained that the agencies have multiple demands on limited resources, and the resulting 10-year workplan balances necessary RSD and Parks maintenance needs with fish habitat gains.

Later in this section, we recommend the FPRP conduct strategic planning to clarify the program's goals and how the FPRP plans to achieve those goals. As part of this strategic planning effort, the FPRP should review its workplan decision-making process and the impact of the tradeoffs made when sequencing barrier removal projects. The FPRP should ensure program descriptions accurately describe the program's goals and strategy and should review and update its 10-year workplan to align with county and program goals.

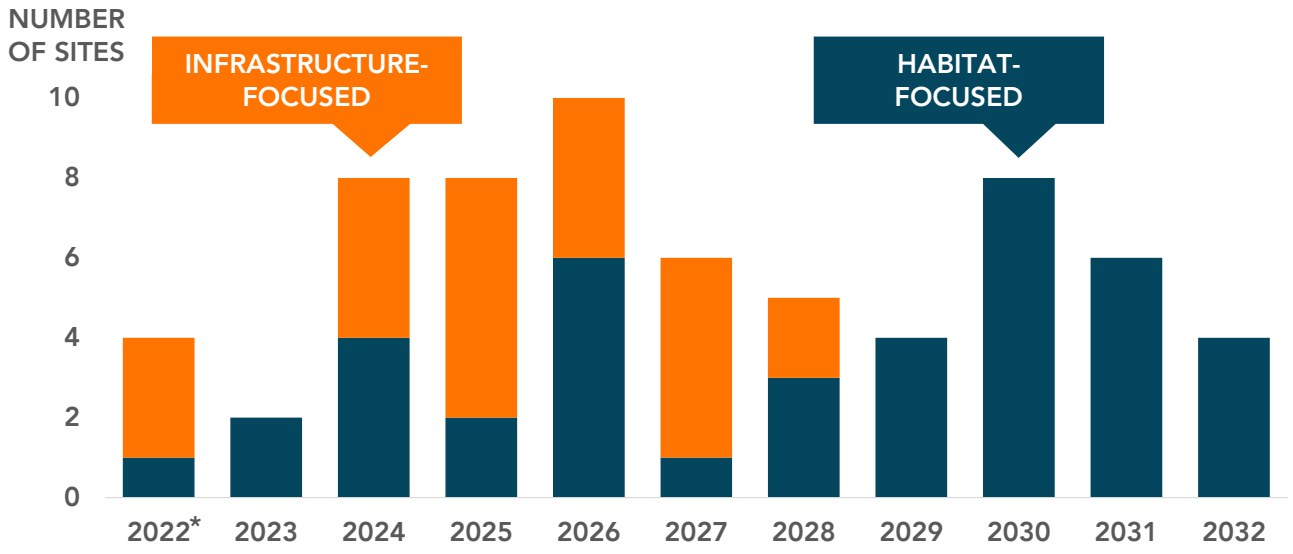
EXHIBIT B: Nearly half of the habitat gain expected from the King County Fish Passage Restoration Program's 10-year workplan occurs in the last three years of the workplan.



*The Fish Passage Restoration Program included these projects in the 2023–2032 workplan. King County completed removal of these barriers in 2022.

Source: King County Auditor's Office analysis

EXHIBIT C: Habitat-focused barrier removal makes up only 42% of the first half of the Fish Passage Restoration Program's 10-year workplan.



*The Fish Passage Restoration Program included these projects in the 2023–2032 workplan. King County completed removal of these barriers in 2022.

Source: King County Auditor's Office analysis

Recommendation 1

The Fish Passage Restoration Program should ensure public-facing websites and reports accurately reflect the decision-making considerations and tradeoffs involved in its workplan development and the resulting schedule of projects.

Recommendation 2

The Fish Passage Restoration Program should review and update its 10-year workplan to ensure it is aligned with county goals as well as with the program's goals and objectives developed during strategic planning, as described in Recommendation 5.

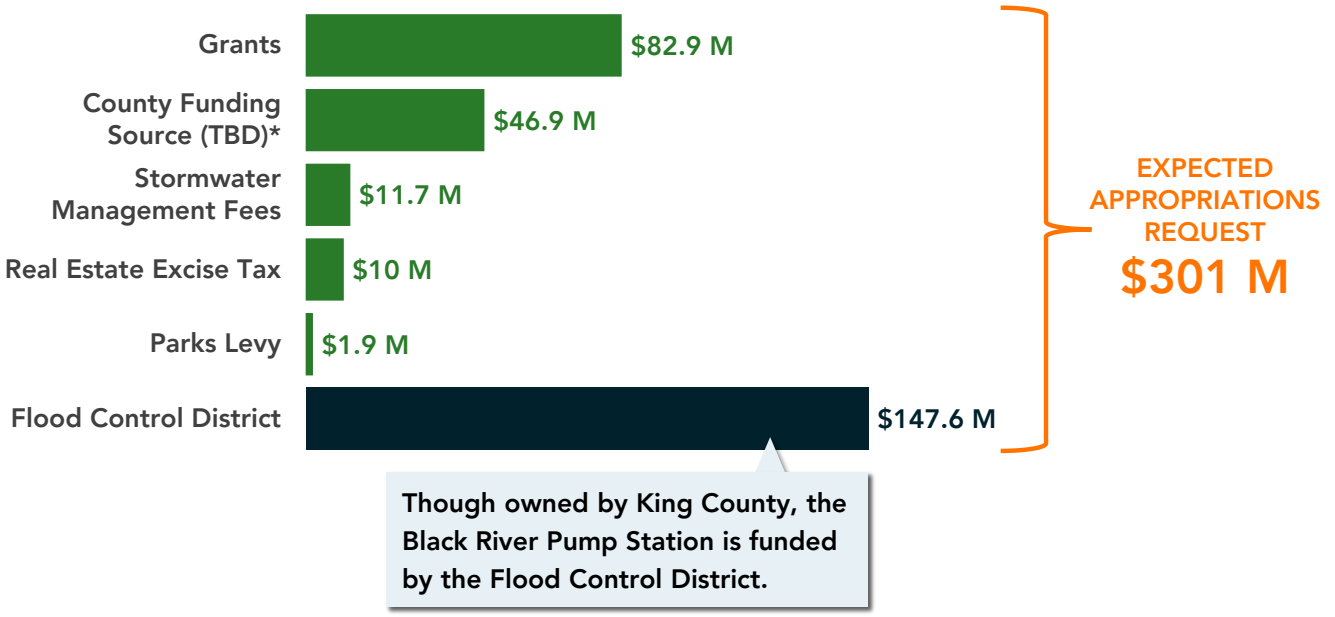
Funding limitations put later high-impact projects at risk

The current workplan schedule increases the risk that the FPRP will not meet its 10-year fish passage goal if there are funding shortfalls, and the program does not yet have a plan to address this risk. All agencies we spoke with said that a major challenge to FPRP success is securing ongoing funding. King County funding for the program comes from a combination of Stormwater Management Fees, Real Estate Excise Tax, and the Parks Levy. These funding sources are not dedicated solely to the FPRP and are not sufficient to cover all project costs of the program. For this reason, the FPRP plans to leverage limited county funding sources by applying for grants to fill the gap between available county funds and anticipated funding needs. Current estimates indicate that the program's workplan will require $300 million of additional funding between 2023 and 2033.[8] Exhibit D summarizes expected funding sources for the FPRP workplan.[9] With funding so constrained, any shortfalls would risk the program's ability to complete the habitat-focused projects that are scheduled to begin during the later years of the workplan.

[8] Some projects on the FPRP workplan requested and received appropriations through prior budgets.

[9] Nearly half of the cost of the FPRP 10-year workplan is associated with providing fish passage at the Black River Pump Station (BRPS). Though gains from the BRPS project are counted in the 10-year workplan, obtaining and appropriating funds for the BRPS are not the responsibility of the County. Rather, the King County Flood Control District (FCD) appropriates funds for the BRPS. As part of the formation of the FCD, the FCD was tasked with the operation and maintenance of existing county-owned flood control structures, with the County retaining ownership. However, even excluding the Black River barrier, the FPRP will have to rely on successful grant applications to cover most of the cost of its workplan.

EXHIBIT D: The 10-year Fish Passage Restoration Program workplan is currently expected to need new funding of nearly $300 million between 2023 and 2033.



Source: King County Auditor's Office analysis of King County's Fish Passage Restoration Program 10-year workplan and King County Flood Control District capital improvement program

Cost overruns in earlier projects could also lead to funding shortfalls and delays on the habitat-focused projects scheduled to occur later. Cost overruns are not uncommon on capital projects and have been experienced by state and local governments completing fish passage projects. For example, the Washington State Department of Transportation recently found that it will need an additional 3.5–4 billion dollars beyond the previously budgeted 3.8 billion dollars for its program addressing state-owned fish barrier removal projects. This is an increase of about 100 percent or more. Additionally, the FPRP, itself, has already experienced budget overruns to such an extent that the program reallocated money from a later project to cover the gap. Since the FPRP has not sequenced the fish habitat-focused projects to occur first, funding shortfalls would primarily impact habitat-focused projects, increasing the risk that the FPRP will not meet it's 10-year workplan goal of opening up 50 percent of fish habitat by 2032.

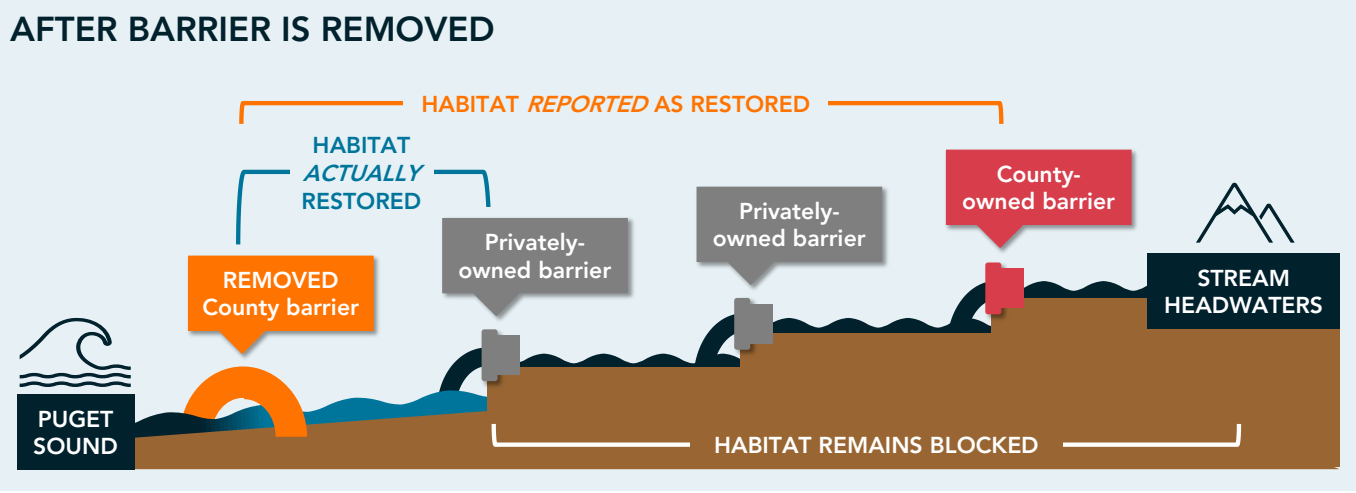
Recommendation 3

The Fish Passage Restoration Program should develop and document a plan to ensure completion of habitat-focused projects if projects are delayed, cost estimates increase, or funding is otherwise constrained.

Current measures don't include impact of non-county-owned barriers

The FPRP reports the number of stream miles restored. However, when calculating miles restored, FPRP does not consider the impact of non-county-owned barriers in a stream, meaning the program overstates the number of restored miles. For example, if a private property owner or another jurisdiction has barriers on a stream, the FPRP doesn't consider the barrier and counts all miles between consecutive King County barriers. This means that the stream miles reported as restored by FPRP may not actually be accessible to salmon. This indicates that removing county-owned barriers alone may not fully restore access in a stream. For an overview of how the FPRP calculates the number of stream miles restored, see exhibit E, below.

EXHIBIT E: When reporting on the outcomes of removing barriers, the King County Fish Passage Restoration Program does not consider other non-county-owned barriers on the stream, overstating the length of stream to which salmon have restored access.



Source: King County Auditor's Office analysis

Identifying and refining program performance measures would help the FPRP clearly measure and communicate its progress toward restoring habitat access and identify where challenges exist in meeting program goals. Performance

measures help agencies ensure that their efforts are having the impacts they intend. For performance measures to be effective, they must accurately track both output (e.g., number of projects completed and number of barriers removed) and outcomes (e.g., amount or percentage of habitat restored and total increase in fish population). FPRP staff reported that they have identified performance measures as an ongoing area of improvement, and they are working with the Office of Performance, Strategy and Budget to determine appropriate measures for the program. As staff develop improved performance measures, they should ensure they identify measures that accurately capture program outputs and outcomes.

Recommendation 4

The Fish Passage Restoration Program (FPRP) should develop, document, and communicate the results of performance measures that accurately reflect program outputs and outcomes for restoring fish passage, including the impact of non-county-owned barriers on program outcomes. The FPRP should complete this as part of the strategic plan outlined in Recommendation 5.

Strategic planning could help align program activities and county goals

The FPRP has not yet developed a comprehensive strategic plan with a clear program goal and meaningful performance measures, which could increase visibility into whether program activities are achieving county salmon habitat goals. Through strategic planning, agencies identify goals, develop strategies to achieve these goals, and create performance measures to track results and help leadership fine-tune future strategies to maximize impact. Without strategic planning, organizations are at risk of working hard but not achieving the intended outcomes. King County Code requires that agencies complete strategic planning to support continuous improvement and to help ensure accountability for the use of county resources in line with county priorities.[10] Although King County Code does not require strategic planning at the program level, the King County Strategic Planning Guidebook emphasizes that individual work units can use strategic planning to assess their current environment, create shared goals for the future, and design strategies to achieve those goals.

FPRP leadership reported that they are planning to conduct strategic planning to document a long-term program strategy that encompasses all elements of their work

[10] King County Code 2.10.034

(e.g., including their efforts to streamline county permitting processes and use approaches such as priority transfers[11] to achieve greater habitat gains when possible). Through its strategic planning efforts, as detailed in paragraphs and recommendations above, the FPRP should develop performance measures that track the impact of the program for salmon and other fish and resolve misalignments between the program's 10-year workplan, countywide goals for the program, and public-facing materials describing the program. As needed, the FPRP should work with other county offices to ensure all materials about the program accurately communicate program goals. The FPRP should review its 10-year workplan and make any sequencing or project changes necessary to support the program's updated goal.

Recommendation 5

The Fish Passage Restoration Program (FPRP) should develop, document, and begin implementing a strategic plan that clarifies the goals and objectives of the program and should work with Clean Water Health Habitat initiative staff and others to ensure FPRP goals and objectives are consistent with county goals for fish passage and habitat restoration. In developing its strategic plan, the FPRP should ensure the plan aligns with and supports efforts described in Recommendations 1, 2, and 4.

Non-county barriers prevent fish passage and achievement of broader county goals

King County's CWHH initiative is relying primarily on FPRP to meet broad county fish passage goals, but the FPRP does not address non-county-owned barriers, meaning habitat may remain inaccessible, despite county efforts. The King County Clean Water Healthy Habitat Strategic Plan 2020–2025 includes the measure of restoring access to two-thirds of King County's salmon habitat and all Kokanee habitat. Many entities own fish passage barriers in King County, including other governments, private businesses, and landowners. These barriers can also be located in between county-owned barriers that are being replaced with fish-passable structures (see exhibit E). Therefore, even if King County removes a county-owned fish passage barrier, upstream habitat may remain largely inaccessible due to non-county-owned barriers.

FPRP management explained to us that King County's commitment to restoring access to fish habitat and its continued efforts to remedy existing barriers can

[11] Priority transfer is a new process proposed by the FPRP that allows the County to defer fish passage work at a site with marginal habitat gains by either restoring fish passage at another site where a barrier blocks large amounts of high-quality habitat or by paying a fee to mitigate the deferral of full fish passage requirements.

motivate neighboring jurisdictions and landowners to address their own fish passage barriers. Additionally, FPRP provides technical assistance to private property owners, including those with barriers adjacent to county-owned barriers, to aid them in removing barriers on their property. FPRP also works with local cities, the Washington State Department of Transportation, salmon recovery groups, and non-profit organizations to support these entities' prioritization and funding of projects to remove fish barriers.

Nonetheless, there are over 2,200 known non-county-owned barriers along streams within King County — or more than double the number of known barriers owned by King County. This means that the County will need to develop and implement a much larger effort to address non-county-owned barriers before it will be able to achieve its 30-year goal of opening two-thirds of currently blocked salmon habitat.

Recommendation 6

The King County Executive should develop, document, and implement a plan that includes the activities necessary to meet the fish habitat goal and progress measures outlined in the King County Clean Water Healthy Habitat Strategic Plan 2020–2025, such as removal of non-county barriers.

Section 3: Expand Consultation with Local Tribes

SECTION SUMMARY

FPRP staff proactively engaged with local tribes when developing the model to identify high-priority barriers for removal, but they did not consult with the tribes about development of the 10-year workplan that determines the schedule and sequence of barrier removal projects. As a result, the FPRP missed an opportunity to further King County's goals of partnering across governments and ensuring that individuals who are affected by county decisions are involved in the decision-making processes. Additionally, while the FPRP does consult with tribes on individual barrier removal projects, representatives from local tribes reported that the timing and frequency of consultation is not sufficient. In this section, we make recommendations that the FPRP develop a protocol for consultation with local tribes for workplan development and for individual projects that promote county goals, increase collaboration with the tribes, and potentially increase access to funding.

Tribes were involved with identifying high-priority barriers but not with project sequencing and scheduling

The FPRP did not consult with local tribes about the development of its 10-year workplan, denying the tribes of the opportunity to provide input on the sequencing of barriers for removal. The FPRP collaborated with representatives from local tribes when it developed its methodology for identifying high-priority fish barriers for removal. However, as discussed in section 2, the program did not base its 10-year workplan directly on the results of its priority scoring model, and it did not involve the tribes in the development of the workplan. Instead, the Fish Passage Restoration Program Steering Committee, a committee made up of county agencies, selected and sequenced the barriers for removal, without a review conducted by local tribes. Without including the tribes in workplan development, the program did not give the tribes meaningful opportunity to provide their input into decisions that relate directly to their ability to exercise treaty fishing rights. As a result, the program missed an opportunity to further county goals of partnering across governments and ensuring that people who are affected by county decisions are involved in decision-making processes.

The representatives of two local tribes we spoke with were very positive about the FPRP, the collaborative nature for developing the priority scoring model, and the

resulting priority scores. However, they emphasized the need for continuing meaningful dialogue during program implementation. Representatives said that by not consulting with them on workplan development, they are in the position of stakeholder rather than partner. King County's government relations officer for tribal relations has emphasized that King County should work to ensure ongoing government-to-government relations when engaging with the tribes. Going forward, increased consultation with local tribes would help ensure the FPRP meets county guidance for government-to-government relations and supports county goals for public engagement.

Recommendation 7

The Fish Passage Restoration Program should develop, document, and implement a plan to ensure ongoing consultation with the local tribes, including consultation on the program's workplan.

Ensuring early and ongoing tribal consultation on projects could increase program success

When implementing individual barrier removal projects, county project teams generally involve tribes at the time of permitting, potentially missing opportunities for partnerships, grants, and quicker permitting timelines. King County agencies responsible for implementing the majority of fish barrier removal projects reported to us that engagement with local tribes for individual projects typically occurs at the time of permitting. Representatives from the tribes reported that involvement on a project-by-project basis at the time of permitting is not sufficient and that earlier and ongoing consultation, starting at the project development stage, allows for more meaningful collaboration and can reduce the timelines for some permits.

For example, when the County applies for a permit from the US Army Corps of Engineers (USACE), the USACE reviews permit applications to help ensure protection of tribal resources. Depending on the location of the project, the USACE review may include consultation with the tribes. If King County liaisons consulted with the tribes before applying for a permit, they could proactively incorporate feedback and reduce the time needed for consultation during permitting. In addition, one representative of a local tribe emphasized that they have provided letters of support for King County on grant funding opportunities in the past.

Ensuring tribes are given the opportunity for involvement throughout a project's life cycle could increase the chances of program success by decreasing timelines for some

permits and also creating opportunities to collaborate on grant funding applications. WLRD staff reported that they strive to engage with the tribes at all project stages. By developing a policy or plan outlining this practice, WLRD can help ensure this engagement occurs consistently on fish barrier removal projects.

Recommendation 8

The Fish Passage Restoration Program should ensure that the plan defined in Recommendation 7 provides for consultation with local tribes throughout a project's life cycle.

Conclusion

The Fish Passage Restoration Program can increase the transparency of its work by developing a strategic plan that outlines the opportunities and challenges it faces. Strategic planning will help to clarify the goals and objectives the program intends to achieve, the activities it intends to complete to reach those goals and objectives, and the measures it will use to track the program's impact. Reporting on each of these elements will provide guidance to staff and partners, both internal and external to King County, on how their actions contribute to programmatic goals. As part of its ongoing efforts, the FPRP can improve its communication and collaboration with program partners, particularly local tribes, by including them in the identification and sequencing of projects and throughout the life cycle of individual projects. Taken altogether, these improvements will allow program staff to effectively communicate FPRP impacts and ensure that project sequencing minimizes risk and aligns with county goals.

Appendix 1: Fish Passage Restoration Program Staffing

King County has made significant investments in the Fish Passage Restoration Program (FPRP). Since 2019, the Water and Land Resources, Parks, and Road Services divisions have added 25 full-time positions to support the FPRP.[12] Additionally, agencies rely on term-limited temporary positions to implement the FPRP. Exhibit 1 shows the permanent positions agencies have added to support the FPRP.

EXHIBIT 1: Since 2019, 25 full-time equivalent positions[13] have been added to support the Fish Passage Restoration Program.

WATER AND LAND RESOURCES DIVISION	PARKS DIVISION	ROAD SERVICES DIVISION
2023–2024 Biennial Budget • Capital Projects Manager III • Engineer II • Engineer III • Environmental Scientist II • Environmental Scientist III* • Project/Program Manager IV* **2019–2020 Biennial Budget** • Special Projects Manager II	**2022 3rd Omnibus Budget**** • Contract Specialist II • Contract Specialist III • Capital Project Manger II • Capital Project Manager III • Capital Project Manager II • Project/Program Manager II	**2023–2024 Biennial Budget** • Project/Program Manager III • Project/Program Manager III • Engineer II • Engineer III • Engineer III • Engineer III • Engineer III • Managing Engineer*** **2022 3rd Omnibus Budget** • Engineer II • Engineer II • Engineer III • Engineer IV

*Positions added to support the Fish Passage Restoration Program, with the budget request stating that it would also support other units within the Water and Land Resources Division.

** An omnibus budget is a supplemental appropriations ordinance that groups together appropriation requests from different agencies.

*** Road Services Division requested this managing engineer position to free up the current drainage managing engineer "to focus on the new Fish Passage Program."

Source: King County Auditor's Office analysis of Office of Performance, Strategy and Budget data and King County budget documents

[12] Based on budget requests made to King County Council since 2018.

[13] Position titles included in this exhibit are those that were listed in the county budget documents, except in situations where the title of the individual ultimately hired (or planned to be hired) differs from that in the budget request. In these cases, the exhibit includes the actual position titles for the individuals hired (or planned to be hired), as provided by the Office of Performance, Strategy, and Budget.

Appendix 2: Executive Response

March 4, 2024

Kymber Waltmunson
King County Auditor
Room 1033, King County Courthouse

Dear Ms. Waltmunson:

Thank you for the opportunity to review and comment on the proposed audit report titled "Fish Passage Restoration: Opportunities to Increase Impact, Transparency, and Collaboration."

The Department of Natural Resources and Parks (DNRP) concurs with the eight recommendations. The enclosed recommendation table outlines responses to each of the eight recommendations. Consistent with the audit report, we concur that these recommendations will increase the transparency of the work of the County's Fish Passage Restoration Program.

Notably, our concurrence with Recommendation 6 acknowledges that the DNRP response will focus on the fish passage measure, which is one of two measures outlined for the Better Fish Habitat Goal in the Clean Water Healthy Habitat Strategic Plan. For the juvenile salmon survival measure for Better Fish Habitat, the County will continue to work in partnership with cities, counties, tribes, and other partners to implement, monitor, and update water resource inventory areas (WRIA)-based salmon recovery plans and joint project and program priorities established by the Lake Sammamish Kokanee Work Group. WRIA Salmon Recovery Plans and the Lake Sammamish Kokanee Recovery Blueprint are developed collaboratively by cities, counties, tribes, and restoration partners at a watershed-scale, and we will continue to rely on juvenile salmonid survival rates based on trends reported by each Water Resource Inventory Area (WRIA) and the Lake Sammamish Kokanee Work Group.

We appreciate the collaborative approach your office utilized throughout this audit process.

Sincerely,

Dwight Dively
Chief Operating Officer

Recommendation 1

The Fish Passage Restoration Program should ensure public-facing websites and reports accurately reflect the decision-making considerations and tradeoffs involved in its workplan development and the resulting schedule of projects.

AGENCY RESPONSE	
Concurrence	**CONCUR**
Implementation date	March 31, 2025
Responsible agency	DNRP
Comment	For the development of the fish passage workplan and project sequencing, the Fish Passage Restoration Program (FPRP) considers potential habitat gain together with asset condition, regulatory requirements (particularly RCW 77.57.030 and WAC 220-660-190), facility purpose, and safety. DNRP will work with DLS to more clearly outline considerations and tradeoffs, and to evaluate revisions to the workplan to reflect the audit recommendations and in preparation for budgeting for the 2026-2027 biennium. This work will be part of preparation of the strategic plan prepared in response to Recommendation 5. Updates to program web pages will begin immediately and will be finalized in spring 2025 to align with the final strategic plan prepared in response to Recommendation 5. Moving forward, reports and other documents will align with the procedures and content identified in the strategic plan.

Recommendation 2

The Fish Passage Restoration Program should review and update its 10-year workplan to ensure it is aligned with county goals as well as with the program's goals and objectives developed during strategic planning, as described in Recommendation 5.

AGENCY RESPONSE	
Concurrence	**CONCUR**
Implementation date	March 12, 2025
Responsible agency	DNRP
Comment	The FPRP considers potential habitat gain together with asset condition, facility purpose, and safety into the development of the fish passage workplan and project sequencing. DNRP will work with DLS to more clearly outline considerations and tradeoffs. They will evaluate revisions to the workplan to reflect the audit recommendations the strategic plan prepared in response to Recommendation 5. Updates will inform project budget requests starting with the 2026-2027 biennium.

Recommendation 3

The Fish Passage Restoration Program should develop and document a plan to ensure completion of habitat-focused projects if projects are delayed, cost estimates increase, or funding is otherwise constrained.

AGENCY RESPONSE	
Concurrence	**CONCUR**
Implementation date	March 12, 2025
Responsible agency	DNRP, DLS
Comment	The program funding requirements are based on project-specific estimates and updated for each budget cycle to reflect updated design, schedule, and cost information. The forecasted funding for the program consists of several County revenue streams together with a substantial percentage from grants leveraging County dollars. DNRP and DLS will review the workplan sequencing and funding needs for the workplan. Importantly, the data the program has from the barrier inventory and prioritization allows the County to accelerate habitat gains by targeting restoring fish passage at only five percent of priority county barriers to provide at least half (fifty percent) of the total habitat gain possible from remedies for the more than 950 county-owned barriers. The acceleration of habitat benefits includes addressing projects that may not provide the highest absolute habitat gains yet face regulation-driven fish passage requirements. The strategic plan prepared in response to Recommendation 5 will document the findings, including contingencies to best ensure completion of all planned projects.

Recommendation 4

The Fish Passage Restoration Program (FPRP) should develop, document, and communicate the results of performance measures that accurately reflect program outputs and outcomes for restoring fish passage, including the impact of non-county-owned barriers on program outcomes. The FPRP should complete this as part of the strategic plan outlined in Recommendation 5.

AGENCY RESPONSE	
Concurrence	**CONCUR**
Implementation date	March 12, 2025
Responsible agency	DNRP
Comment	DNRP will review performance measures and update the metrics and targets for the program. The updated metrics will be documented in the strategic plan prepared in response to Recommendation 5. The updated metrics will include data to ensure clear and transparent messaging about program outcomes.

Recommendation 5

The Fish Passage Restoration Program (FPRP) should develop, document, and begin implementing a strategic plan that clarifies the goals and objectives of the program and should work with Clean Water Health Habitat initiative staff and others to ensure FPRP goals and objectives are consistent with county goals for fish passage and habitat restoration. In developing its strategic plan, the FPRP should ensure the plan aligns with and supports efforts described in Recommendations 1, 2, and 4.

AGENCY RESPONSE	
Concurrence	**CONCUR**
Implementation date	March 12, 2025
Responsible agency	DNRP
Comment	DNRP will consolidate program goals, objectives, work elements, and capital work planning into a strategic plan that clearly outlines how the program is structured and works to advance county fish passage and salmon recovery efforts. The strategic plan will also summarize the evolution of the program since its inception in 2018, how improving data has and will continue to inform project selection, budgeting, and sequencing of fish passage capital projects over time, and current program status, priority actions, and performance. The plan will discuss the program's status and, as relevant, refresh the different elements of the county's Fish Passage Restoration Program. The plan development will include extensive coordination with tribes and other municipalities and state agencies. The implementation date reflects consideration of the time necessary for effective outreach, engagement, and collaboration with external entities and tribal partners.

Recommendation 6

The King County Executive should develop, document, and implement a plan that includes the activities necessary to meet the fish habitat goal and progress measures outlined in the King County Clean Water Healthy Habitat Strategic Plan 2020–2025, such as removal of non-county barriers.

AGENCY RESPONSE	
Concurrence	**CONCUR**

Implementation date	March 12, 2025
Responsible agency	DNRP
Comment	Restoring access to historic habitat through fish passage restoration projects is one of two long-term measures for the Better Fish Habitat 30-year goal in the Clean Water Healthy Habitat (CWHH) Strategic Plan. DNRP concurs with Recommendation 6 with respect to the fish passage goal associated with Better Fish Habitat in the CWHH Strategic Plan. The strategic plan prepared in response to Recommendation 5 will describe how the FPRP metrics and outputs of specific projects will be captured for the program and how the performance metrics relate to the CWHH Strategic Plan. This includes clarification about how non-county barriers factor into the CWHH goal. From a strategy standpoint, the FPRP works with other barrier owners on fish passage and connectivity to link fish up with more habitat on streams where multiple parties have responsibilities. The other measure for the Better Fish Habitat 30-year goal in the Clean Water Healthy Habitat (CWHH) Strategic Plan is related to juvenile salmonid survival rates based on trends reported by each Water Resource Inventory Area (WRIA) and the Lake Sammamish Kokanee Work Group. To advance the juvenile salmonid survival measure that is part of the CWHH Strategic Plan's "better fish habitat" goal, the county will continue to work in partnership with cities, counties, tribes, and other partners to implement, monitor, and update WRIA-based salmon recovery plans and joint project and program priorities established by the Lake Sammamish Kokanee Work Group. These technical groups use metrics they deem to be most appropriate for monitoring juvenile survival trends; this will be an intentional subset of all the available data to limit the scope to supportable inferences for each WRIA. WRIA Salmon Recovery Plans and the Lake Sammamish Kokanee Recovery Blueprint are developed collaboratively by cities, counties, tribes, and restoration partners at a watershed-scale.

Recommendation 7

The Fish Passage Restoration Program should develop, document, and implement a plan to ensure ongoing consultation with the local tribes, including consultation on the program's workplan.

AGENCY RESPONSE	
Concurrence	**CONCUR**
Implementation date	March 12, 2025
Responsible agency	DNRP
Comment	DNRP will generate a plan for communicating and consulting with tribes as an element of the strategic plan prepared in response to Recommendation 5. This includes collaboration with tribes during development of the strategic plan prepared in response to Recommendation 5. In particular, the program will invite consultation to review and discuss the workplan, including possible workplan revisions in consideration of tribal perspectives and the audit recommendations, as well as clarification and updates on the county's tribal consultation procedures for fish passage projects. These procedures will be consistent with broader consultation policies and practices.

Recommendation 8

The Fish Passage Restoration Program should ensure that the plan defined in Recommendation 7 provides for consultation with local tribes throughout a project's life cycle.

AGENCY RESPONSE	
Concurrence	**CONCUR**
Implementation date	March 12, 2025
Responsible agency	DNRP
Comment	At the project-specific level, DNRP and DLS project teams coordinate and consult with natural resources and cultural archeological staff from the impacted tribes from project conception through construction. Early tribal coordination takes place on all fish passage projects, starting with joint field determination of the bankfull width of the stream at the project site (which is a key initial design input for fish passage projects). The County proactively pursues coordination with the natural resource staff at various design stages with the intent to reach consensus on project approach and design before applying for permits. In some cases, tribal natural resource staff may not have staffing capacity to provide comments or fully engage when the county provides opportunities for their early involvement. Coordination with tribal cultural resources staff also takes place on all fish passage projects. This coordination begins prior to archaeological fieldwork in accordance with the county's regulations and policy guided by the county's Historic Preservation Program. On projects involving a federal permit or federal funding, the National Historic Preservation Act also provides a framework for cultural resources consultation with tribes. Project teams endeavor to design projects that incorporate tribal input to the fullest extent possible, which helps ensure predictable permitting timelines. The strategic plan prepared in response to Recommendation 5 will outline project-specific consultation procedures, with updates based on tribal input received during plan preparation. These procedures will be consistent with broader consultation policies and practices.

Appendix 3: Statement of Compliance, Scope, Objective & Methodology

Statement of Compliance with Government Auditing Standards

We conducted this performance audit in accordance with Generally Accepted Government Auditing Standard. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Scope of Work on Internal Controls

The audit assessed internal controls relative to the audit objectives. We assessed the extent to which the Fish Passage Restoration Program (FPRP) has implemented controls to effectively monitor and communicate progress toward meeting the program's goals; to align program activities with countywide initiatives and goals; and to ensure roles, responsibilities, decision-making authority, and dispute resolution processes are clear and in place. The audit identified concerns relating to the control environment, control activities, information, and communication, and we made recommendations to help ensure the program achieves its goals and is aligned with countywide priorities and goals.

Scope

This audit focuses on the Fish Passage Restoration Program from 2019 to present.

Objectives

1. To what extent does the FPRP have the tools and structure to support program effectiveness?
2. To what extent does the FPRP workplan align with county and regional fish passage goals?
3. To what extent does the FPRP support broader salmon recovery efforts?

Methodology

To assess to what extent the FPRP has the tools and structure to support program effectiveness, the audit team reviewed the program's interdepartmental memorandum of understanding between the divisions that implement FPRP projects. We met with management and program staff members in the three county agencies who implement the program, and we reviewed program steering committee notes and key program documents, such as the program charter and risk matrix. To learn about program staffing

and funding, we reviewed county budget documents and met with departmental finance managers. We met with analysts from the Office of Performance, Strategy and Budget who conduct investment monitoring of the program, and we assessed whether the program had clearly articulated a strategic plan, including goals, objectives, and performance measures. We assessed the program's processes for inventorying county-owned barriers and for scoring barriers for removal to achieve the best outcomes for salmon.

To assess the extent to which the FPRP workplan aligns with county and regional fish passage goals, the audit assessed the program's process for developing its 10-year workplan, which determines the sequence and schedule for fish barrier removal projects. We compared the program's workplan to the program's guidance documents, the results of its prioritization model, and countywide plans and goals for fish passage and salmon recovery, including those articulated in the King County Clean Water Healthy Habitat Strategic Plan 2020-2025. The audit team relied, in part, on geographic information system (GIS) data prepared by entities including the Water and Land Resources Division and the Washington Department of Fish and Wildlife to complete these comparisons. Since the audit focused on how the GIS data was used, rather than the accuracy of the data itself, the audit team used the GIS data as is and without auditor field validation of values.

To learn how well the FPRP collaborates with other local and regional fish passage efforts, the audit team interviewed representatives from agencies within King County, the Washington State Department of Fish and Wildlife, a non-profit organization, and two local tribes. The audit team compared the approach taken by FPRP to develop its prioritization scoring model with other approaches and followed up on questions with Washington Department of Fish and Wildlife representatives and FPRP staff.

To understand to what extent the FPRP supports broader salmon recovery efforts, our audit work reviewed the program's goals and workplan and compared them to documents outlining countywide salmon recovery goals. Additionally, the audit team spoke with representatives from two local tribes and Washington State Department of Fish and Wildlife to determine to what extent the program aligned with statewide salmon recovery efforts and priorities. Lastly, the audit team interviewed program staff to better understand the program's opportunities and challenges in meeting salmon recovery goals.

Appendix 4: List of Recommendations

Recommendation 1

The Fish Passage Restoration Program should ensure public-facing websites and reports accurately reflect the decision-making considerations and tradeoffs involved in its workplan development and the resulting schedule of projects.

Recommendation 2

The Fish Passage Restoration Program should review and update its 10-year workplan to ensure it is aligned with county goals as well as with the program's goals and objectives developed during strategic planning, as described in Recommendation 5.

Recommendation 3

The Fish Passage Restoration Program should develop and document a plan to ensure completion of habitat-focused projects if projects are delayed, cost estimates increase, or funding is otherwise constrained.

Recommendation 4

The Fish Passage Restoration Program (FPRP) should develop, document, and communicate the results of performance measures that accurately reflect program outputs and outcomes for restoring fish passage, including the impact of non-county-owned barriers on program outcomes. The FPRP should complete this as part of the strategic plan outlined in Recommendation 5.

Recommendation 5

The Fish Passage Restoration Program (FPRP) should develop, document, and begin implementing a strategic plan that clarifies the goals and objectives of the program and should work with Clean Water Health Habitat initiative staff and others to ensure FPRP goals and objectives are consistent with county goals for fish passage and habitat restoration. In developing its strategic plan, the FPRP should ensure the plan aligns with and supports efforts described in Recommendations 1, 2, and 4.

Recommendation 6

The King County Executive should develop, document, and implement a plan that includes the activities necessary to meet the fish habitat goal and progress measures outlined in the King County Clean Water Healthy Habitat Strategic Plan 2020–2025, such as removal of non-county barriers.

Recommendation 7

The Fish Passage Restoration Program should develop, document, and implement a plan to ensure ongoing consultation with the local tribes, including consultation on the program's workplan.

Recommendation 8

The Fish Passage Restoration Program should ensure that the plan defined in Recommendation 7 provides for consultation with local tribes throughout a project's life cycle.

Appendix 5: Advancing Performance & Accountability

KYMBER WALTMUNSON, KING COUNTY AUDITOR

MISSION Promote improved performance, accountability, and transparency in King County government through objective and independent audits and studies.

VALUES INDEPENDENCE • CREDIBILITY • IMPACT

The King County Auditor's Office is committed to equity, social justice, and ensuring that King County is an accountable, inclusive, and anti-racist government. While planning our work, we develop research questions that aim to improve the efficiency and effectiveness of King County government and to identify and help dismantle systemic racism. In analysis we strive to ensure that communities referenced are seen, not erased. We promote aligning King County data collection, storage, and categorization with just practices. We endeavor to use terms that are respectful, representative, and people- and community-centered, recognizing that inclusive language continues to evolve. For more information, see the King County Equity and Social Justice Strategic Plan, King County's statement on racial justice, and the King County Auditor's Office Strategic Plan.

ABOUT US The King County Auditor's Office was created by charter in 1969 as an independent agency within the legislative branch of county government. The office conducts oversight of county government through independent audits, capital projects oversight, and other studies. The results of this work are presented to the Metropolitan King County Council and are communicated to the King County Executive and the public. The King County Auditor's Office performs its work in accordance with Government Auditing Standards.

AUDIT

This audit product conforms to the GAGAS for independence, objectivity, and quality.