

---

Date: November 12, 2019

Project #: 23628.6

To: Dan Kaempff: Metro  
600 NE Grand Avenue  
Portland, OR 97232

From: Camilla Dartnell, Russ Doubleday, Bincy Koshy, and Brian L. Ray, PE: Kittelson

Subject: Regional Flexible Funds Risk Assessment

---

## OVERVIEW

Metro's Regional Flexible Funds Application (RFFA) process allows local agencies to apply for federal funding, distributed through Metro, for local projects. Metro evaluated 2022-2024 RFFA project applications based on how meaningfully they can help the region achieve the four Regional Transportation Plan priorities of advancing social equity, improving safety, implementing the region's Climate Smart Strategy and managing congestion. Historically, project applications have not included an evaluation on project risk, which considers the likelihood of a project being completed on time, on budget and as intended. Kittelson & Associates, Inc. (Kittelson) developed a methodology for a risk-based assessment and evaluated risks for each RFFA project application. The risk evaluation augments Metro's outcome-based evaluation by providing additional information for consideration during the RFFA application evaluation process. This memorandum summarizes the risk assessment methodology and provides a risk level and summary for each RFFA project application.

## METHODOLOGY

To create the risk-based assessment, Kittelson first assessed various funding agency practices for assessing risk. This informed a framework that considers the project's development stage, outlines risk considerations, and ranks risk based on likelihood of impact to project. Kittelson worked with Metro to create RFFA application questions specifically included to assess information about project risk. Kittelson applied the risk framework to the project applications to determine where projects have strengths, weaknesses and where there may be risk to project delivery. In some situations, applicants were asked to provide more information or clarification if the original application was unclear or vague.

The results of the risk review are presented in this memorandum and Metro shared the findings with the applicants. Three applicants provided responses, which have been included in this memorandum in the section titled Overview of Project Risk.

## Major Risk Considerations

Kittelson considered, several risk categories for evaluating risk. The following major risk categories were captured in the risk framework:

- Project development status (project readiness)
- Quality of project information
- Project complexity (potential implementation challenges)

### ***Project Development Status (Project Readiness)***

Project readiness is related to project risk. The farther along in development a project is, the more details have been determined and, therefore, the lower the likelihood of an unknown risk developing. Project readiness was determined based on current project stage in relation to the stages of project development requested for funding. To help inform the project readiness, the Kittelson considered the following criteria:

- Status of planning and scoping documents
- Status of environmental phase and clearances
- Status of preliminary engineering and design
- Status of right-of-way acquisition

This risk category was not intended to penalize projects that are in early project development or conceptual development phases. It is instead intended to evaluate the readiness of the project in relation to the project development phases requested for funding. More information about how Kittelson considered project development stages can be found on page 3 in the “Project Development Stage Considerations” section of this memo. However, Kittelson felt it was important to identify criteria around project development to assess the potential of future risks arising.

### ***Quality of Project Information***

Kittelson also considered quality of project information in the risk assessment. The quality of a project’s scope, schedule, and budget can highly affect project risk. For example, a project budget that does not consider right-of-way impact for a project that will require right-of-way acquisition increases the risk the available and requested funding will not cover the necessary project cost. This could, lead to a risk in project delivery. Kittelson considered the following criteria within the “Quality of Project Information” category:

- Quality of project scope
- Quality of project schedule
- Quality of project budget
- Whether or not funding match has been secured

### ***Project Complexity (Potential Implementation Challenges)***

The project complexity assessment aimed to identify potential implementation challenges that could affect the cost, schedule, or feasibility of implementing the project as desired. These challenges included considerations like community support, affect to major utilities, environmental impacts, and staff availability. Kittelson considered the following criteria within the “Project Complexity” category:

- Local community support
- Governing body support
- Status of coordination among internal and external agencies
- Staff availability
- Project manager qualified to support the management and delivery of federally funded projects
- Level of outside effort needed to execute project (need for coordination with other jurisdictions, right-of-way acquisition, etc.)
- Major utility relocation need
- Water quality or quantity mitigation need
- Environmental (SEPA/NEPA) impacts defined
- Overall cost

On its own, the cost of a project was not considered to affect the risk of a project. Cost was included as a criterion to help indicate the complexity of a project and therefore was seen as a complexity multiplier, to draw attention to potentially more complex projects.

### **Project Development Stage Considerations**

The projects for which agencies sought RFFA funding are currently in varying stages of project development and request funding to take them through varying levels of development. For example, one project may be in the planning phase currently and the agency may be requesting funding for preliminary engineering and environmental phases, while another agency may have completed its project environmental review and is requesting funding for final design and construction. Different levels of detail are required for risk mitigation at each project development stage. As the project moves further along in project development and is better defined, risks can be better known. For example, a project in the alternative development stages may only have a high-level understanding of the right-of-way impact, while a project through design will know the exact amount and location where right-of-way will need to be acquired.

Kittelson considered the current stage of project development, the stages that are being proposed for RFFA funding, and the project risk through completion into account when creating the risk scoring. The project risk level is only based on the risk of the project through the stages requested for RFFA funding. If the level of risk through construction varied from the risk through proposed RFFA funding, Kittelson noted the overall project risk through construction in the risk summaries.

---

## OVERVIEW OF PROJECT RISK

Kittelson evaluated each project based on the aforementioned criteria. For consistency, each project was assigned a score per criteria, and the sum of the scores was used to determine overall risk level. Those risk levels and a summary of risk for each project are provided below. *Please note that the scores below are incomplete, pending the incorporation of data clarification from several agencies. This will be updated and provided when available.*

Project	Completed stages	RFFA Funding Request Project Stage(s)	Risk Level	Risk Summary and Applicant Response, if Applicable
Clackamas County - Courtney Avenue Complete Street Project	Planning stage	Preliminary engineering and environment assessment stage, pre-construction (including ROW) and construction phases	Low	The only major project complexity is the need to obtain permanent utility easements. A right-of-way (ROW) study has been performed and associated ROW costs for the permanent easements have been considered and included in the project budget to mitigate this risk. Overall, the project is low risk.
Clackamas County - Regional Freight ITS Project Phase 2B	Planning stage (Phase 1), phase 2A to be completed in December 2020	Preliminary engineering, pre-construction and construction phases	Low	There are no right-of-way acquisition risks, utility relocation risks or SEPA/NEPA risks. There are minor risks associated with providing funds for construction before preliminary engineering is complete. Overall, project risks are low. The project is not listed in the RTP.
City of Forest Grove - Council Creek Regional Trail	Planning stage, alternatives identification and evaluation phase	Preliminary design (project development phase)	Moderate	<p>There is high risk associated with working with outside agencies, ODOT Rail and PWRR (Portland and Western Railroad), over state-owned right-of-way (ODOT Rail). However, RFFA funds are only requested for project development phase of the project. There are moderate risks associated with storm water runoff quantity and quality.</p> <p><b>Applicant Response:</b>                      “A project working group including Forest Grove, Cornelius, Hillsboro, Metro, and Washington County have been collaborating with both ODOT Rail and PWRR to bring about the idea of change to the corridor. This will be an ongoing process throughout this preliminary design work. We anticipate these parties specific needs will be clearly identified as an outcome of this work. The timing of future phase of work including final design and construction will also be identified.</p> <p>Treatment and detention of storm runoff will be a required. Clean Water Services will be included in the review and development of this preliminary design work. More details and cost estimates for this work will be determined during this preliminary design work.”</p> <p><b>Kittelson Conclusion:</b>                      Kittelson acknowledges that this early coordination with both ODOT Rail and PWRR helps mitigate project risks. Continued coordination will be required through the project.</p>

<p>City of Gladstone - Trolley Trail Bridge Environmental/Engineering</p>	<p>Preliminary feasibility study to be completed in December 2019</p>	<p>Planning, alternatives identification and evaluation, preliminary design and final design (project development phase)</p>	<p>Low</p>	<p>There are risks associated with right-of-way acquisitions for the bridge landing in Oregon City and relocation of storm water drainage pipe on Gladstone side of the bridge. However, RFFA funds have been requested only for the project development phase, determination of right-of-way needs and utility relocation needs. Risk for this RFFA funding request is low.</p>
<p>City of Gresham - Division Complete Street – Phase 1</p>	<p>30% planning stage (including preliminary environmental scoping)</p>	<p>Preliminary design, pre-construction and construction phases (including ROW and utility relocation)</p>	<p>Moderate</p>	<p>There are risks associated with right-of-way acquisitions, utility relocation, and funding the construction before completion of preliminary engineering and ROW acquisition. However, because the project is on an existing and entirely city-owned facility and utility relocation needs are minor, overall risks are moderate.</p>

<p>City of Milwaukie - Monroe Street Neighborhood Greenway</p>	<p>Planning phase and alternative analysis phase, preliminary design phase is ongoing</p>	<p>Construction phase for two out of five segments of the project (segment D and E)</p>	<p>Moderate</p>	<p>There is risk associated with the uncertainty of funding for final design. Funds are being requested for construction phase of segment D and segment E; but the project match is being provided through delivery of adjacent segments. For those segments, a rail crossing modification will require Union Pacific Railroad (UPRR) approval of 100% and coordination with ODOT Rail Division is necessary within other project segments. Segment A also has intersections with Class 1 and 2 Title 13 lands. Because those complexities do not directly affect Segments D and E, for which funding is requested, overall project risk for the funding request is moderate.</p> <p><b>Applicant Response:</b>                      “1. The city leverages the ODOT Safety Leverage program that will be disbursed within the same timeframe of RFFA funding. The city also reallocated additional CIP funds after initial RFFA application to achieve funding of up to 95% of estimated final design.                      2. City staff has extensive experience working in collaboration with ODOT Rail Division and UPRR on many projects to acquire rail order crossing modifications. The city is also currently coordinating with ODOT Rail Division staff to begin meetings in January to ensure that they are involved prior to preliminary design and up through final design.                      3. While the project corridor does cross over both Class 1 and 2 Title 13 lands, preliminary environmental permitting evaluation is concluding that extensive environmental permitting will not be required. The city is committed to establishing habitat friendly design solutions per Title 13 of Metro’s Urban Growth Management Functional Plan.”</p> <p><b>Kittelson Conclusion:</b>                      Kittelson acknowledges that these steps to secure funding match and coordinate with ODOT Rail Division helps mitigate the identified risks. The conclusion that environmental permitting will not be required further reduces the complexities associated with the project.</p>
<p>Multnomah County - Completing the Sandy Boulevard Transportation Gap</p>	<p>Currently in planning phase</p>	<p>Project development including stakeholder engagement and environmental tasks up to 15% design</p>	<p>Low</p>	<p>There are risks associated with the project proximity to fish bearing streams and flood zones in the area. Project will also require coordination with multiple agencies. Because project is only requesting funding through project development to allow to mitigate these risks, overall risk to project is low.</p>

<p>Multnomah County - NE 223<sup>rd</sup> Avenue – Access for Freight and Active Transportation</p>	<p>Currently in preliminary planning stage</p>	<p>Project development, alternatives identification, preliminary design, final design, right-of-way, utilities, and construction phases</p>	<p>Moderate</p>	<p>There are risks associated with requesting funding for right-of-way acquisitions, utility relocation and construction phases without first having completed other project development stages. The risks include potential right of way acquisitions, utility relocation and environmental impacts as the project intersects with Class 1 and 2 riparian corridors. Overall project risk is moderate.</p>
<p>City of Oregon City - Willamette Falls Shared Use Path &amp; OR 99E Corridor Enhancement Project</p>	<p>Planning stage</p>	<p>Alternatives identification and evaluation and preliminary design phases (project development )</p>	<p>Moderate</p>	<p>There are high risks associated with outside agency coordination with ODOT, the Department of State Lands (DSL) and the Army Corps of Engineers. There are also risks associated with intersection of Title 3 and Title 13 areas (the Willamette River). However, funding is requested for the alternatives identification and preliminary design phases of the project, during which this coordination and environmental scoping will take place. Hence, this project has moderate risks.</p>
<p>City of Portland - Central Eastside Belmont &amp; Morrison Multimodal Improvements</p>	<p>Planning phase, portion of the alternatives identification and evaluation phase; includes engineering cost estimate</p>	<p>Alternatives identification and preliminary design, final design, right-of-way, utilities, and construction</p>	<p>Low</p>	<p>There are risks associated with requesting funding for construction without first having completed project development. Permanent right-of-way acquisition is not expected to be necessary, it does not affect environmentally sensitive areas, and interagency coordination is expected to be minor. Overall project risk is low.</p>
<p>City of Portland - Cully/Columbia Intersection Improvements</p>	<p>Planning phase and alternative identification and evaluation phase</p>	<p>Preliminary and final design, right-of-way, utilities, and construction phases</p>	<p>Moderate</p>	<p>There are risks associated necessary right-of-way acquisition and coordination with outside agencies, including Union Pacific Railroad and ODOT rail. This risk has been somewhat mitigated by beginning early coordination and support from ODOT Rail. Overall risk is moderate.</p>
<p>City of Portland - N Willamette Boulevard Active Transportation Corridor</p>	<p>Planning stage, portion of project development</p>	<p>Alternative identification and evaluation, preliminary and final design, pre-construction and construction phases</p>	<p>Low</p>	<p>There are risks associated with parking removal along the corridor and funding for construction without first having completed project development. There are not expected to be impacts to environmentally sensitive areas, right-of-way acquisitions, or major coordination with outside agencies. Overall, project risk is low.</p>

<p>City of Portland - NE 122nd Avenue Multimodal Safety and Access Improvement Project</p>	<p>Planning phase, portion of the alternatives identification and evaluation stages</p>	<p>Alternatives identification and evaluation, pre-construction and construction phases</p>	<p>Low</p>	<p>The project will add crossings along the corridor. There are not expected to be impacts to environmentally sensitive areas, right-of-way acquisitions, or major coordination with outside agencies. There is some risk associated with funding construction without first having completed project development. Overall, project risk is low.</p>
<p>City of Portland - NE MLK Jr Boulevard Safety and Access to Transit</p>	<p>Planning phase, portion of the alternatives identification and evaluation stages</p>	<p>Alternative identification and evaluation, preliminary and final design, pre-construction and construction phases</p>	<p>Low</p>	<p>There is some risk associated with funding construction without first having completed project development, especially because there is a known need for further outreach. There are not expected to be impacts to environmentally sensitive areas, right-of-way acquisitions, or major coordination with outside agencies. . Overall, project risk is low.</p>
<p>City of Portland - Springwater to 17th Trail Connection</p>	<p>Planning phase, portion of the alternatives identification and evaluation stages</p>	<p>Alternative identification and evaluation, preliminary and final design, pre-construction and construction phases</p>	<p>High</p>	<p>There is some risk associated with funding construction without first having completed project development. Other risks associated with this project include heavy coordination with outside agencies. The project will require a Pedestrian Access Easement from PGE and will require the OPRR rail tracks to be adjusted, which will also require coordination with ODOT Rail. Overall project risk is high.</p>
<p>City of Portland - Stark/Washington Corridor Safety Improvement Project</p>	<p>Planning phase</p>	<p>Alternative identification and evaluation, preliminary and final design, pre-construction and construction phases</p>	<p>Moderate</p>	<p>There are moderate risks associated with the project which, including coordination with outside agencies (ODOT) for changes in the freeway interchange areas.</p>
<p>City of Portland - Taylors Ferry Transit Access and Safety</p>	<p>Planning phase</p>	<p>Alternative identification and evaluation, preliminary and final design, pre-construction and construction phases</p>	<p>High</p>	<p>Risks include high need for coordination with outside agencies, as ODOT will need to approve of the project, and funding the project through construction when project development stages have not yet been completed. Other risks include environmental impacts (modification to the Woods Creek culvert as the project crosses Woods Memorial Natural Area and Woods Creek via an existing culvert) and other permitting requirements due to potential impacts to a Title 13 resource.</p>

<p>City of Sherwood - Blake Street Design – Tonquin Area East-West Corridor</p>	<p>Planning phase</p>	<p>Project development, preliminary design</p>	<p>Moderate</p>	<p>There is risk associated with uncertain project impacts to environmental habitat and wetland areas. Coordination with outside agencies like the Bonneville Power Administration and PGE will also be required. There are potential risks in identifying an alignment and conducting public outreach to affected property owners. The expected timeline of 9-12 months for initial environmental review, geotechnical analysis, alignment evaluation, public outreach, and 60% design for the new roadway and sanitary and water infrastructure does not account for any schedule risks. Because the project is only requesting funding through project development, this project has moderate risks overall.</p>
<p>City of Tigard - Bull Mountain Complete Street</p>	<p>None</p>	<p>Planning phase, public engagement, alternatives analysis</p>	<p>Low</p>	<p>This project has some risk associated with right-of-way impacts and uncertain funding match. Because this project is still in the planning phase, there could be risks that have not yet been identified. Overall, project risk through planning, public engagement, and alternatives analysis is low.</p>
<p>City of Tigard - Red Rock Creek Trail Implementation Plan (RRCTIP) – Alignment Study</p>	<p>Planning, concept development</p>	<p>Project development</p>	<p>Moderate</p>	<p>The project will require coordination with outside agencies, including ODOT Rail, TriMet, and PGE. The project through construction has risks associated with potential right-of-way needs, coordination for the overcrossings, and potentially needing to fund stormwater improvements along Red Rock Creek. Funding is only requested for project development, therefore risk for this funding request is moderate.</p> <p><b>Applicant Response:</b> City of Tigard responded questioning the level of assigned risk and noting that many of the project risks pertain most directly to pre-construction and construction. They note that the project development stages of the alignment study, for which RFFA funding is being requested, will help surface and identify potential coordination/construction risks and help the City determine an alignment, design, and phasing to manage those risks. They also note that the “City is already in conversations with TriMet and Clean Water Services as this project will be closely coordinated with both SWC project development and with Tigard &amp; CWS’s Red Rock Creek Sub Basin Strategy project.”</p> <p><b>Kittelson Conclusion:</b> There are risks associated with project development tasks. There is potential for coordination with outside agencies and coordination with the public and adjacent landowners to take more resources than expected. There are complexities associated with establishing a trail alignment through a relatively developed area and proposing new bridges across Highway 217 and the railroad.</p> <p>Early coordination, like is being done with TriMet and Clean Water Services, help mitigate risks associated with the project.</p>

<p>Washington County - Aloha Safe Access to Transit</p>	<p>Various depending on the project components</p>	<p>Planning phase, alternatives identification, public involvement, preliminary design, right-of-way, construction</p>	<p>Low</p>	<p>This is a low-risk project. Risks are associated with needing to work with outside agencies (ODOT) to improve local access to transit on a state facility.</p>
<p>Washington County - Bike and Ped Bridge Crossing of US 26 at Cornelius Pass Road</p>	<p>Planning, concept development, alignment</p>	<p>Preliminary design</p>	<p>Low</p>	<p>This project requests RFFA funding for preliminary design work. There are associated risks with coordinating with outside agencies, including ODOT, City of Hillsboro, and Tualatin Parks and Recreation Department and Bonneville Power Administration to determine trail alignment. Many of these agencies are highly supportive of the project. Overall risk for this funding request is low.</p>
<p>City of West Linn - OR 43 Multimodal Improvement Project – Mapleton Dr. to Barlow St.</p>	<p>Planning, concept design, detail design</p>	<p>Construction phase</p>	<p>Moderate</p>	<p>There is risk associated with needing to work with outside agencies (ODOT) to improve multimodal access on a state facility. There are some outstanding right-of-way concerns at Mary S. Young Park which will require coordination with the State of Oregon, some intersection with Title 13 areas, and potential federal 4(f) impact issues. Finally, further discussion with ODOT staff on progress of current project development is needed prior to final assessment rating, as project development may require additional funding before going to construction. There is potential for this RFFA funding to be applied to project development activities instead of construction.</p>

## CONCLUSION

This risk assessment is intended to provide information about the likelihood of a project being completed on time, on budget, and as intended. It could help inform the RFFA project funding decision making process. Project risk should be balanced with intended project outcomes to make the decision about which RFFA applications should be prioritized.