



The Corporation of the City of Courtenay

Staff Report

To: Council

File No.: 5335-20

From: Director of Infrastructure and Environmental Engineering

Date: July 16, 2025

Subject: Lake Trail Multi-Use Path – Project Update

PURPOSE: The purpose of this report is to provide an update to Council on the status of the Lake Trail Multi-Use Path project, propose potential construction phasing options and request direction from Council on how to proceed.

BACKGROUND:

The Lake Trail Multi-Use Pathway project will construct dedicated bike lanes between Lake Trail School and Arden Elementary and fill an important gap in the City's cycling network. The project will also construct a 2.0m wide gravel path that's set back from the road and is intended for all users.

On July 11, 2022, Council resolved the following;

1. *THAT Council approves Option 1, and direct staff to submit an application for grant funding for the Lake Trail Multi-Use Path through the BC Active Transportation Grant Program for the 2 metre wide gravel pathway; and,*
2. *THAT Council support the project and commit to any associated ineligible costs or potential cost overruns; and,*
3. *THAT Council direct staff to send correspondence to the CVRD Electoral Areas requesting consideration of financial contribution to the project through the 2023 financial planning process.*

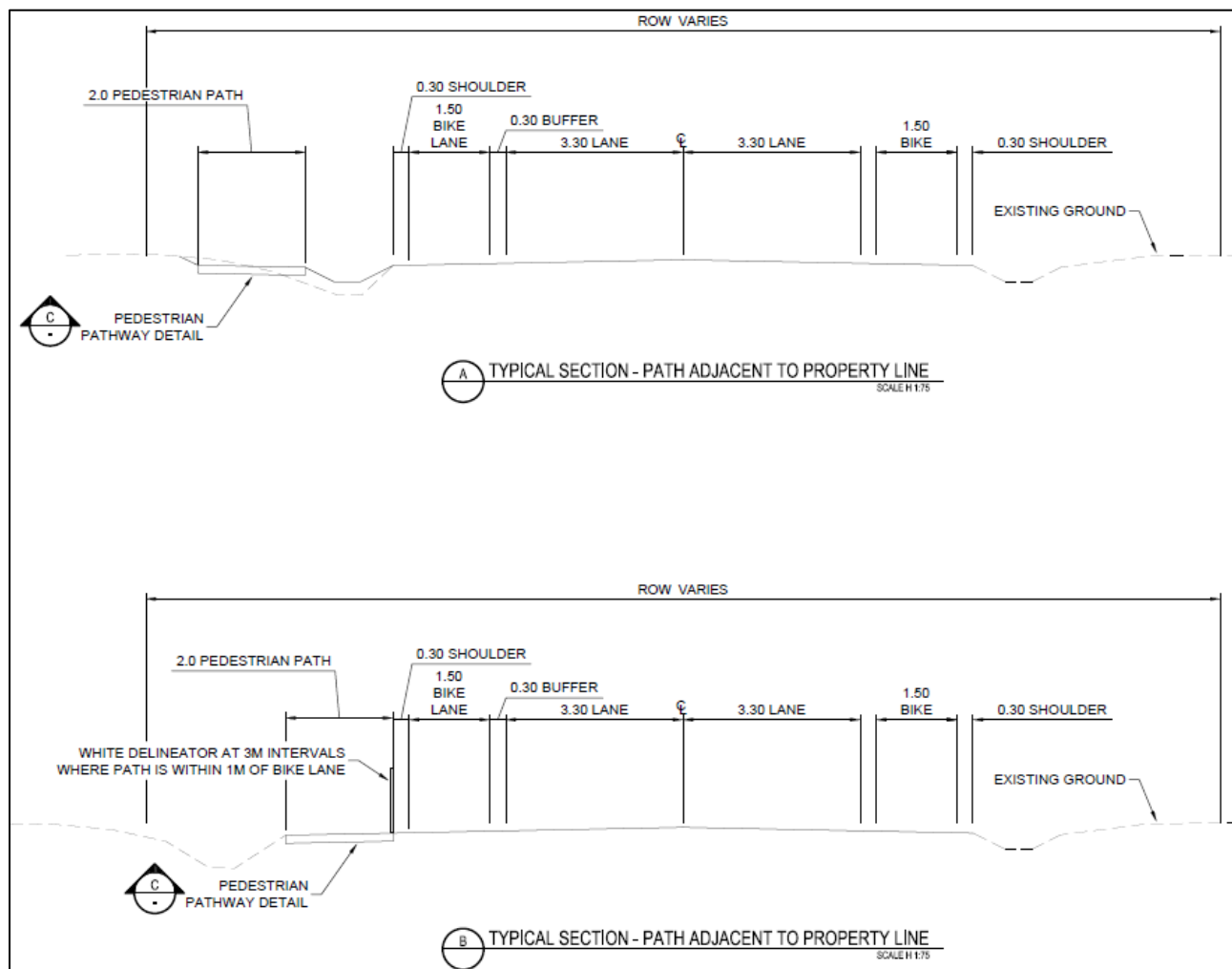
On November 13, 2024, Council was further informed that it was determined through environmental consultation that a portion of the roadside ditching along the frontage of the Courtenay Fellowship Baptist Church (the Church), 2693 Lake Trail Road, was discovered to be an environmentally sensitive and fish-bearing portion of Arden Creek. This discovery incurred further environmental permitting requirements and some project redesign. At the time, the project budget was estimated to be \$1,650,000, with construction planned for 2025 to coincide with meeting the BC Active Transportation Fund grant deadline of March 31, 2026.

DISCUSSION:

Lake Trail Road is a semi-rural minor arterial roadway in the City of Courtenay which fronts both Lake Trail Community School and Arden Elementary School. Despite this, the existing roadway provides little active transportation safety or opportunity, generally consisting of a single travel lane, paved shoulder, and ditch in each of the eastbound and westbound directions.

The Lake Trail Multi-Use Pathway project aims to enhance connectivity and improve safety within the community, particularly for our younger citizens. It proposes:

- Connecting Lake Trail Community School and Arden Elementary School with just over 1.2 kilometres of 2.0 m wide gravel pathway set back from the vehicle travel lane.
- Almost 600m of road widening will be constructed in order to extend the existing painted bike lanes along Lake Trail Rd from Arden Rd to Webb Rd, at the frontage of Arden Elementary.
- High performance green MMA paint at intersections and conflict zones.
- Upgraded bus stop location with concrete pad.
- Upgrades to the storm system including new 1200mm culvert crossing near Webb Road.



Progress

In August of 2024, staff with support from Environmental experts submitted a Request for Review (RfR) to Department of Fisheries and Oceans. The project's location is adjacent to Arden Creek and is within critical habitat of the endangered Morrison Brook Lamprey, Morrison Creek population, and is also a documented location for Chinook and Coho salmon.

Based on the factors above, Fisheries and Oceans Canada (DFO)'s response to the Request for Review revealed the need for permitting under both the Fisheries Authorization Act (FAA) and the Species at Risk

Act (SARA). For this permit, additional environmental consultants from Current Environmental were retained as experts experienced in mitigation efforts of the Morrison Brook Lamprey, including retention, salvage, relocation, and monitoring, who joined the existing group from McElhanney. This team of environmental professionals performed extensive additional fieldwork to identify the in-situ conditions of both the identified critical habitat and further upstream flow channels affected by project works. The application was submitted alongside a detailed technical memo which describes the proposed works, identifies the fish and fish habitat present near these works, discusses the temporary and permanent impacts to the fish and fish habitat, and provides the measures and efforts to avoid or mitigate disruption harm to the impacted species in both the short- and long-term, including monitoring efforts. The technical memo also discusses habitat credits and proposes a detailed offsetting plan, with critical habitat and riparian measures (such as in-stream and riparian plantings, riffle-pool features, and large woody debris placement) applied to un-impacted areas to restore and enhance the overall watershed habitat value.

City consultants submitted an initial package for review on March 18, 2025. Unfortunately, this package required supplemental information by DFO's reviewing officer and a revised permit application package was submitted June 19, 2025.

DFO has permitting processing timelines for these types of permits which are shown below:

- Maximum 60-day review for submittal package completeness (minimum once)
- Indigenous Consultation process of indefinite time
- Maximum 90-day review of submittal package content (minimum once)

Based on the above timeline provided by DFO, the earliest approvals could be expected would be approximately December, 2025. However, a minimum of one review cycle is often required for these permitting packages, and a safer timeline to assume is likely April, 2026, to have permitting in hand.

As part of the permitting process, DFO is required to engage with K'ómoks First Nation. City Staff and our consulting team have pre-engaged both DFO Review Officers and representatives from K'ómoks First Nation to expedite this timeline as much as possible.

Additional Requirements

In order to procure FAA and SARA permitting approvals, the project has required additional efforts to prepare the required submittals to the satisfaction of DFO. In addition to this, DFO requires all in-stream or riparian areas denoted as sensitive habitat which are temporarily or permanently altered as part of this project's works to be offset by improvements elsewhere.

The City is currently proposing offsetting improvements, which consist of naturalized plantings in-stream and within riparian areas, as directed by a qualified environmental professional. This includes locations adjacent to project works such as a long stretch of under-planted ditching along the Arden Elementary frontage of Lake Trail Rd. DFO further requires that these offsetting works undergo a 5-year monitoring and reporting period, with maintenance as required. Bonding for the costs of the works and monitoring are also required prior to permit approval.

Offsetting

In order to construct this project, both permanent and temporary impacts to in-stream and riparian fish habitat are expected in the project area. As a result, and per permitting requirements, the City of Courtenay is obligated to implement habitat offsetting measures to compensate for these impacts. The offsetting must meet the *no net loss* principle and demonstrate that it will produce a long-term net benefit or equivalency in habitat function and ecological value.

Type of Habitat Impact	Existing Conditions	Area	Total Area	Comments
Temporary Instream Alteration or Loss	In Stream	32 m ²	32 m ²	Habitat below the high-water mark that will be permanently altered or lost due to construction activities
Permanent Instream Alteration or Loss	In Stream	122.5 m ²	122.5 m ²	Habitat below the high-water mark that will be permanently altered or lost due to construction activities
Temporary Area within Riparian setback Alteration or Loss	Pavement	0 m ²	0	Intact (not regularly maintained) riparian habitat that will be temporarily altered due to construction activities. These areas are the areas of construction for new riparian plantings.
	Gravel Shoulder	0 m ²		
	Grassed Area	0 m ²		
	Shrubs & Trees	0 m ²		
Permanent Area within Riparian setback Alteration or Loss	Pavement	0 m ²	466.8 m ²	Intact (not regularly maintained) riparian habitat between the ordinary high-water mark and the riparian boundary that will be altered due to construction activities
	Gravel Shoulder	109.8 m ²		
	Grassed Area	357.0 m ²		
	Shrubs & Trees	0 m ²		
Total Riparian Loss (Temporary + Permanent) = 466.8 m ²				
Total Instream Loss (Temporary + Permanent) = 154.5 m ²				
Proposed Instream Habitat Improvements = 500.7 m ²				
Proposed Riparian Habitat Improvements = 356.2 m ²				
Surplus Habitat Improvements = 235.6 m ²				

(Table 1 - Instream and Riparian Habitat Changes Associated with the Project)

Common name	Scientific Name	Spacing
Shrubs		
Pacific Willow	<i>Salix lucida ssp. lasiandra</i>	1 m
Red Osier Dogwood	<i>Comus stolonifera</i>	1 m
Pacific Ninebark	<i>Physocarpus capitatus</i>	1 m
Black Gooseberry	<i>Ribes lacustre</i>	1 m
Red Flowering Currant	<i>Ribes sanguineum</i>	1 m
Nootka Rose	<i>Rosa nutkana</i>	1 m
Thimbleberry	<i>Rubus parviflorus</i>	1 m
Salmonberry	<i>Rubus spectabilis</i>	1 m
Hardback	<i>Spiraea douglasii</i>	1 m
Red Elderberry	<i>Sambucus racemosa</i>	1 m
Snowberry	<i>Symphoricarpos albus</i>	1 m

(Table 2 - Proposed species for riparian restoration)

The proposed offsetting directly mitigates unavoidable habitat loss and degradation resulting from culvert installations, riparian vegetation clearing, and road widening in proximity to Arden Creek. Restored riparian zones will moderate flows, stabilize stream banks, retain spawning substrates, improve filtration of surface runoff, and enhance thermal regulation for aquatic species. Instream improvements are expected to improve habitat complexity and fish passage, benefiting not only lamprey but also other resident fish species and aquatic organisms.

Monitoring

As part of the regulatory approvals for the *Fisheries Act Authorization* (FAA) and *Species at Risk Act* (SARA), the City is required to implement and maintain a post-construction environmental monitoring program to determine the effectiveness of the offsetting works

The monitoring program is expected to extend over a 3 to 5-year period and will be implemented in two phases:

Year 1 – Contractor Responsibility: The project contractor will maintain the site from the date of substantial completion through to final acceptance, ensuring that all planted areas and habitat features are stabilized and functioning.

Years 2–5 – City Responsibility: Following the contractor’s maintenance period, the City will retain a Qualified Environmental Professional (QEP) experienced in monitoring and collection of the local fish species, including the Morrison Brook Lamprey, to conduct ongoing site monitoring. This will include three formal assessments of the riparian plantings and instream habitat features, carried out during the growing season (typically September). Key performance measures include vegetation survival (minimum 85% coverage) and functionality of installed habitat structures.

Permanent photo transects and GPS-referenced site data will be used to evaluate success over time. If any deficiencies or failures are identified—such as invasive species growth, poor plant survival, or habitat degradation—the City will be responsible for implementing corrective actions.

The City will also be required to submit a post-construction report within 60 days of completing the offsetting works, and subsequent monitoring reports in years 1, 2, 3, and 5. A final monitoring report in year 5 will evaluate overall success, compare conditions to pre-construction baselines, and determine whether any further offsetting is necessary.

Project Phasing

There are two options for Phasing this work. One option is to split the project into phases over the next two years to account for the additional environmental work. Another option would be to build out only phase 1. An analysis of the options is detailed below.

Phase 1 Only Construction

Phase 1 would focus only on delivering the highest-value pedestrian and cycling connections on the corridor, in areas which do not include any of the work considered critically environmentally sensitive, and as such do not require DFO permitting. This makes up approximately the eastern half of the original scope. Specifically, it includes:

- **Pedestrian Pathway and Signage Improvements:** A continuous off-street pedestrian connection between Lake Trail Community School to Arden Road on the north side, as well as a second section from Webdon Road to Arden Road. This represents about 50% of the total pathway length for the full project.
- The most immediate benefit is that this phase links the westbound sidewalk at the school directly to the existing crosswalk at Arden Road, closing a significant gap in the network.
- The Webdon connection also provides better access for the surrounding neighbourhood to the crosswalk at Arden.

- **North Side (Westbound) Bike Lane Improvements:** Upgrades to the north side bike lane will extend from Webb Road to Arden Road, covering approximately half of the planned new cycling infrastructure.
- This segment creates a continuous, marked westbound bike lane along a busy section of the corridor.
- **Transit Stop Improvements at the School (Pending SRW approval)**
The bus stop in front of Lake Trail Community School will be improved as part of this phase, supporting safer and more accessible transit access for students and other riders.
- **Drainage Upgrades**
localized drainage issues along the Arden Road to Lake Trail Community School section will be addressed.

A proposed schedule is shown for Phase 1.

Task	Q3 2025	Q4 2025	Q1 2026	Q2 2026	Q3 2026
Phase 1 Tendering					
Phase 1 Construction					

Phase 1 costs are estimated to be approximately \$825,000, within the available project budget.

2 Year Phased Project – Construct both Phases

There is an opportunity to phase the proposed works, splitting the project into a Phase 1—as discussed above, which does not require DFO permitting—and a second phase to be completed later, likely during the Morrison Brook Lamprey environmental fish window. Environmental work windows for the Morrison Brook Lamprey are from July 14 – August 6 in a given year, this should be the target construction timeline for in-stream works. While performing the in-stream works outside of this window may be possible, pending DFO approval, efforts, environmental sensitivity, risk, and budget would be greatly amplified.

Phase 2 would include the western half of the project from Arden Rd to Arden Elementary School, including supporting DFO required environmental works.

Splitting the project into two phases would entail greater staff efforts and increased total costs. It is estimated that total project costs could increase by approximately 10% to accomplish this, although this would need to be confirmed through the tender process(es). If the project was split into phases, the most expedient timeline possible would likely see Notice of Award for Phase 1 works issued in fall, 2025, with a late 2025 construction schedule. The remainder of the work would be scheduled for the summer of 2026 if permitting is approved by DFO.

A proposed schedule for the 2-year phased project is shown below. There is some overlapping of the FAA Permitting process with phase 2 construction tendering. This represents schedule risk that staff may need

to balance by tendering (but not starting construction) without formal approval of the FAA permit, or risk pushing the construction outside of the preferred work window for Morrison Creek Lamprey, which is July 14 to August 6.

Task	Q3 2025	Q4 2025	Q1 2026	Q2 2026	Q3 2026
FAA Permitting Reviews					
Phase 1 Tendering					
Phase 1 Construction					
Phase 2 Tendering					
Phase 2 Construction					

Phase 2 costs are estimated to be approximately \$1,285,000. This cost does not include the cost for Phase 1.

Analysis of Options

Completing only Phase 1 would provide a significant upgrade compared to the existing facilities while also reducing total project costs and a one-year extension to the project schedule.

Completing only Phase 1 of the Lake Trail Multi-Use Pathway offers a way to deliver active transportation improvements while avoiding some of the most significant risks and constraints, as well as environmental impacts, associated with the full buildout. By limiting construction to areas outside of designated SARA critical habitat, the project avoids the added complexity, timelines, and costs tied to those processes, including design changes, bonding requirements, habitat compensation planning, and impacts to a species at risk. Additionally, Phase 1 work can proceed with fewer seasonal or regulatory windows, reducing schedule uncertainty and allowing for a more streamlined construction timeline.

Work during the fall or even winter months for Phase 1 is not considered a concern, as there is no paving and insignificant stormwater flow with no flow bypass requirements in these portions of the works. In addition, contracting firms with potential to bid on late-year tenders for simple, small- to medium-sized projects such as this one, often seek to keep their crews busy. Work during the school year may negatively impact traffic flow during busy morning and afternoon pick-up and drop-off times, but measures would be taken to minimize disruptions experienced. Much of the works would be completed by small machinery within the road shoulder.

If Phase 2 is not constructed, total separation between users and traffic will not be achieved across the entire project.

BC Active Transportation Grant Impacts

This project has received approval for up to \$500,000 in grant funding for the design and construction of this project. According to the grant agreement, this project must be completed by March 31, 2026. Staff intend to discuss the permitting delays with the granting authorities to determine if an extension can be granted for these funds. The grant was secured for construction of the complete scope of work. If only a portion of the scope is pursued, engagement with the grant regulator will be required to confirm impacts to grant funding.

POLICY ANALYSIS:

Regional Growth Strategy Reference:

Goal 4: Transportation

Objective 4-B: Improve bicycle and pedestrian infrastructure to increase the use of active transportation options.

Targets: 20% bicycle and pedestrian commuters by 2030.

Official Community Plan Reference:

Transportation

5.2 Goals

2. Development of a transportation system that provides choices for different modes of travel including vehicle, transit, pedestrian, cycling and people with mobility impairments.
5. Support a transportation system that recognizes the importance of the character and overall appearance of the City.

5.3 Policies

6. The City will pursue the development of a continuous pedestrian system and will continue to ensure that walkways and pedestrian linkages are provided in all new developments, particularly for major destination points, and are provided by the developer at the time of subdivision.

FINANCIAL IMPLICATIONS:

At the July 11, 2022 Council meeting, Council approved Option 1, which included a 2m wide multi use path as well as widening of the road in selected areas to accommodate additional cycling lanes. The cost estimate was reported at approximately \$917,000. Staff were also directed to apply for the BC Active Transportation grant.

The project was included in the 2024 financial plan with an updated budget of \$1,400,000. The total City contribution was \$714,000. The funding sources were as per the table shown below:

Taxation (current and prior years)	\$464,000
Infrastructure Reserve	\$250,000
BC Active Transportation Grant	\$500,000
CVRD Grant	\$186,000
Total	\$1,400,000

At the November 13, 2024 Council meeting, Council was informed that the total project budget was estimated to be \$1,650,000, an increase of \$250,000. The reason for the increased costs were a result of DFO's request for review which resulted in detailed design changes to avoid sensitive habitats, estimated costs for statutory right of ways to accommodate the newly designed path on private property, and higher estimated projects costs for contractors to include environmental mitigation measures and oversight during construction.

The project budget was increased in the 2025 financial plan to \$1,650,000 to reflect these changes. In order to fund this increase, interest from the Growing Communities Funds received in 2023 was used. The total City contribution increased to \$964,000.

Phase 1 Only Construction

Phase 1 only would represent about 50% of the previously contemplated project. Additionally, this would remove the additional environmental work, bonding and construction escalation. This is only an estimate and final costs are dependent on construction.

Project Description	Budget
Lake Trail MUP – 2025 budget	\$1,650,000
Phase 1 Estimated Project Costs	\$825,000

2 Year Phased Project – Construct both Phases

Due to the Environmental Scope and bonding required for the FAA and SARA permits, the additional costs are currently estimated at \$124,200 in 2025 dollars. Please note this is based on the currently proposed offsetting plan, which has not yet been approved by DFO, and should be considered an estimate only until DFO requirements are confirmed.

In addition, due to the one-year project delay, a year-over-year project cost escalation could be expected for this project, estimated at 8% of total works.

If the project were to be split into two phases as discussed above, additional budget may be required for additional efforts by the contractor, such as increased total site time and multiple mobilization/demobilization processes. This cost is currently estimated at 5% of total project costs.

The total estimated price for the project based on a phased implementation is \$2,107,750. The construction escalation and costs to phase the work are two unknown risks and staff have taken a conservative approach in these estimates.

Project Description	Budget
Lake Trail MUP – 2025 budget	\$1,650,000
Additional Environmental Scope	\$94,200
Bonding	\$30,000
Subtotal	\$1,774,200
1-year Budget Escalation (8%)	\$141,936
TOTAL (Unphased)	\$1,916,136
Costs to Phase Works (10%)	\$191,614
TOTAL (Phased)	\$2,107,750

In addition, costs for a Qualified Environmental Professional (QEP) experienced in monitoring and collection of the local fish species, including the Morrison Brook Lamprey, will need to be included as operating costs for the next 5 years. The QEP will need to conduct three formal assessments of the riparian plantings and instream habitat features during the growing season.

A report will also need to be issued in year 5 addressing the conditions of the offsetting measures and their effectiveness, including statistical analysis comparing year five vegetation dynamics to pre-construction. Evaluation will be required to determine if the offsetting measures were successful based on a comparison to the reference sites, and to identify if any additional offsetting measures must be implemented to ensure success of the offsetting measures.

The total estimated operating funds required for the next 5 years is estimated at \$80,000 (\$15,000 per year with an additional \$5,000 for wrap up reporting)

Budget Shortfall for Both Phases

The current expected budget shortfall to construct both phases of this project is \$457,750 and is based on the table below. This is based on conservative cost estimates that were detailed in the previous sections. This funding shortfall could be less depending on the results of the tendering process. The City's portion of this project would increase to \$1,421,750 from the prior years \$964,000 and the original budget of \$714,000.

Estimated Total (Phase 1 & 2)	\$2,107,750
Current Budget	\$1,650,000
Budget Shortfall	\$457,750

At this time, staff cannot provide a clear recommendation on how to fund the budget short fall as there is a lack of certainty around future environmental requirements for the project by the regulator. Given recent Council direction regarding the 6th Street Bridge project, existing reserves and surpluses have been reviewed and allocated, resulting in fewer funds available for other projects. If direction is received to construct Phase 2, staff will propose funding options during the upcoming financial planning process.

ADMINISTRATIVE IMPLICATIONS:

This project will be led by the Infrastructure and Environmental Engineering division, with support from most other City departments. Consultants with technical knowledge specific to this work will be utilized to

implement the detailed design. Estimated costs associated with external consultants are included in the project capital budget.

STRATEGIC PRIORITIES REFERENCE:

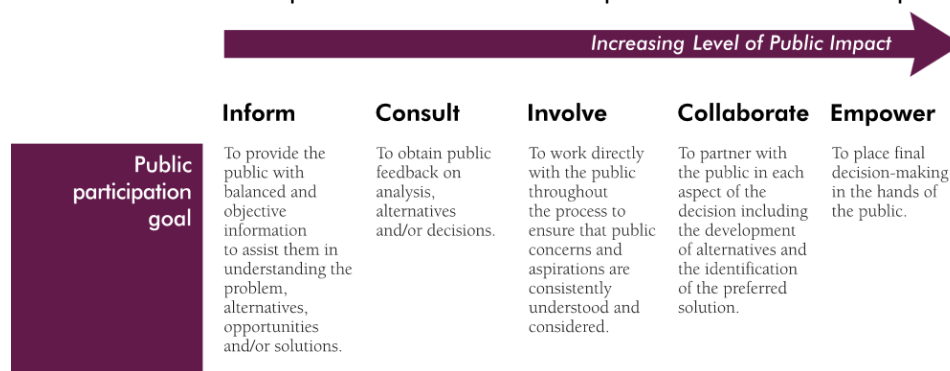
Although this project is not a strategic priority, the following master plan references support the construction of the project:

- The City of Courtenay's Official Community Plan (OCP) includes "Lake Trail Road upgrade (multi-use path)" as a desired amenity for the Lake Trail Neighbourhood Centre.
- Cycling Network Plan: A multi-use pathway is recommended for Lake Trail Road to provide separation from traffic and a connection for both cyclists and pedestrians between Lake Trail Middle School and Arden Elementary
- The Transportation Master Plan also lists Lake Trail Road as a medium-term (10-year) cycling improvement priority
- The Parks and Recreation Master Plan supports establishing a system of trails with connections to schools and linking the trail system with the active transportation network that serves pedestrians and cyclists. The plan also notes that Lake Trail Community School has "enviable access to nature at the neighbourhood's doorstep" due to connections to regional greenways.

PUBLIC ENGAGEMENT:

The Arden Green Team are strong supporters of the project and will continue to be informed as the project progresses. Before construction begins, public notices will be distributed to the residents and businesses in the area.

Staff would **inform** the public based on the IAP2 Spectrum of Public Participation:



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OPTIONS:

1. THAT Council direct staff to proceed with construction of Phase 1 of the Lake Trail Multi-Use Path project (the eastern half from Lake Trail Elementary to Arden Road) in fall 2025, and report back on the Department of Fisheries and Oceans (DFO) permitting status for Phase 2, including funding and construction options.
2. THAT Council direct staff to proceed with the full Lake Trail Multi-Use Path project in phases, awarding only Phase 1 for construction in fall 2025, and planning Phase 2 for summer 2026, subject

to confirmation from the Department of Fisheries and Oceans (DFO); and

THAT staff report back with options to fund the budget shortfall for Phase 2 during the 2026 financial planning process.

3. THAT Council provide alternative direction to staff.

ATTACHMENTS:

1. Lake Trail Road - Fisheries Act Authorization Memo

Prepared by: Sean Hayes, P.L.Eng., PMP, Engineering Technologist

Reviewed by: Adam Pitcher, ASCT, PMP, Manager of Capital Projects

Chris Davidson, P.Eng., PMP, Director of Infrastructure and Environmental Engineering

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Concurrence: Geoff Garbutt, M.Pl., MCIP, RPP, City Manager (CAO)