



Lambeth Centennial Park Boardwalk Lifecycle Renewal

Ecological Community Advisory Committee (ECAC) Presentation

October 2023



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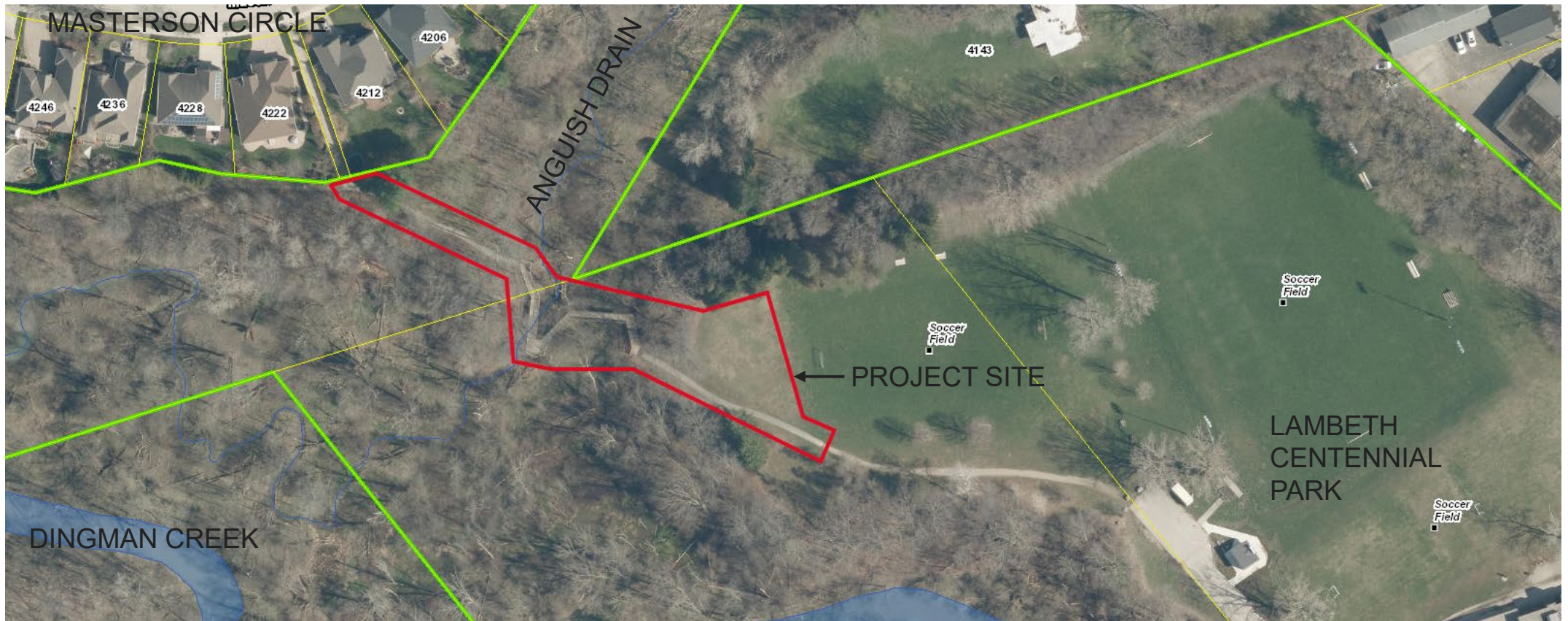


Lambeth Centennial Park Boardwalk Lifecycle Renewal
7112 Beattie Street, London



Agenda

1. Project Study Area and Background
2. Project Goals
3. Existing Conditions & Design Considerations
4. Environmental Impact Study
 1. Background Data
 2. Field Investigations
 3. Natural Heritage Features
 4. Impact Assessment
 5. Mitigation & Authorization
5. Ecological Enhancements
6. Next Steps



Project Site and Background

- The boardwalk is within the Dingman Environmentally Significant Area and Significant Valleylands identified on Map 5 of the London Plan.
- The boardwalk is within an area regulated by the UTRCA.
- The existing boardwalk was installed in 2000 and is in need of lifecycle renewal.
- In 2017/2018 extensive background studies and 100% detailed design drawings were completed by Stantec and Debbert Engineering. Due to lack of funding, the project was not constructed in 2018.



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Project Goals

- Protect valleylands per the complete corridor approach identified in the Dingman Creek Subwatershed Servicing Study EA.
- Maintain and enhance the City's recreational pathway system and active mobility network (consistent with Provincial policies and the London Plan).
- Provide ecological net benefit through improved boardwalk design and naturalization / restoration, including invasive species management, native planting, and improved flows within the tributary.
- Promote healthier lifestyles and reduce greenhouse gas emissions by encouraging active mobility.



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Existing Conditions

- The existing boardwalk consists of a wooden structure and decking with multiple concrete piers. It requires considerable maintenance and is susceptible to vandalism.
- Multiple concrete piers are located within the tributary.
- The existing concrete piers (over 40) are obstacles to flows, increasing flow velocity and erosion in the tributary (Anguish Drain).
- The existing boardwalk and pathway system is identified on Map 4 Active Mobility Network of the London Plan and provides a key linkage for residences to the north and a connection from the Lambeth Arena and Community Centre to the south.

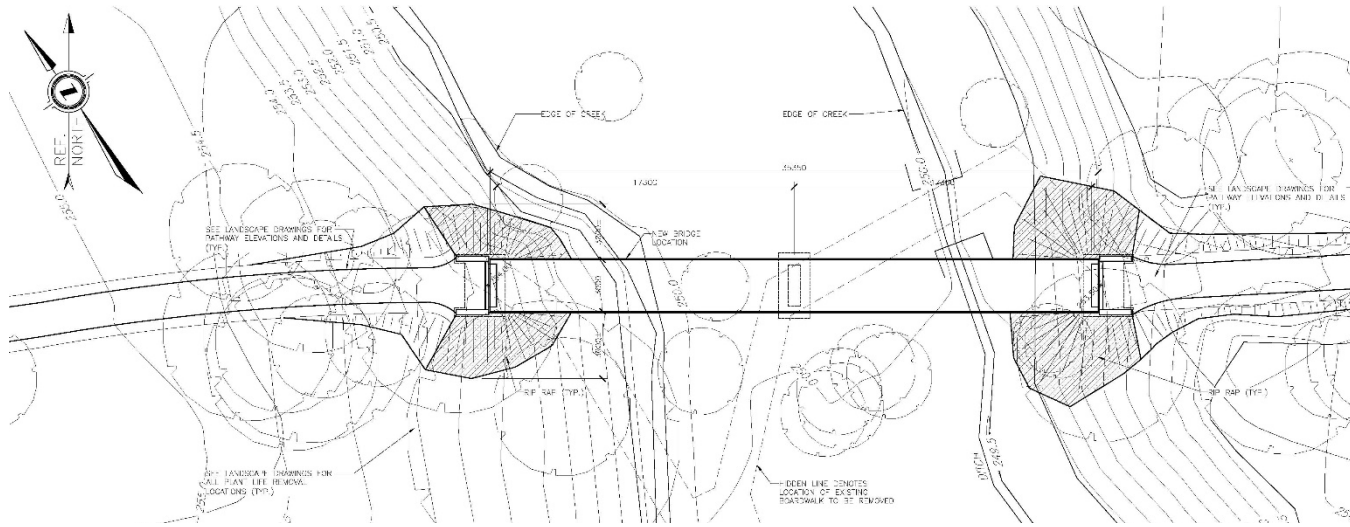


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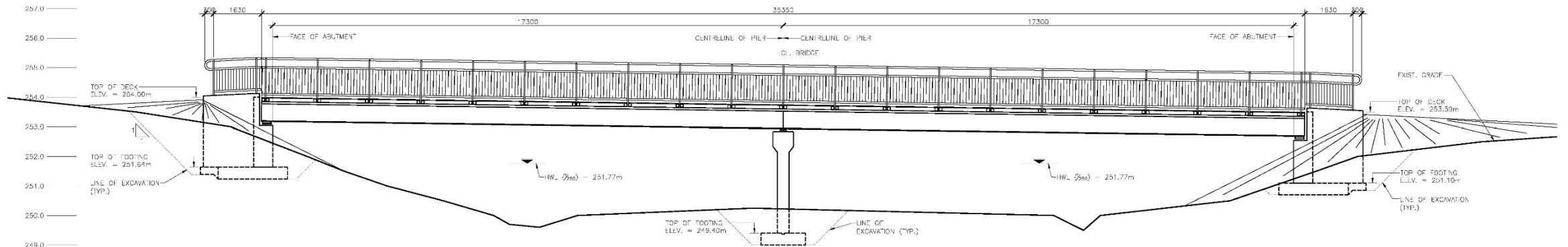


Boardwalk Design Considerations

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- The existing boardwalk structure is to be removed from the site as a part of this project.
- The proposed boardwalk consists of two abutments and a single central spread footing supporting steel beams and a concrete deck.
- The boardwalk has been designed to minimize disturbance in the valley.
- Installation of the central pier and removals of the existing boardwalk and concrete piers will be carried out in the winter months under frozen conditions to minimize disturbance.



BRIDGE ELEVATION
SCALE: 1:25



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Environmental Impact Study (EIS)

EIS Agenda

1. Background Data
2. Field Investigations
3. Summary of Natural Heritage Features
4. Impact Assessment
5. Mitigation and Authorization
6. Ecological Enhancements



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Previous Studies:

- Stantec field data collection for the project in 2017
- Stantec (2022) North Lambeth P9 SWM Facility – Tributary C Post-Construction Monitoring Report, Year 3 (2021)
- UTRCA London Dingman Creek Subwatershed Monitoring Report (November 2022)
- AECOM Draft Southwest Area Plan – Natural Heritage Study (March 12, 2010)

Atlases and Other Data Sources

- City of London (2022) Official Plan, including Maps 5 and 6
- UTRCA Regulated Area Screening Map
- Natural Heritage Information Centre (NHIC) database
- Atlas of the Mammals of Ontario
- Ontario Reptile and Amphibian Atlas
- Ontario Breeding Bird
- Species at Risk in Ontario List
- DFO Aquatic Species at Risk
- eBird Canada
- iNaturalist

Environmental Impact Study - Background Natural Heritage Studies



- The London Plan Map 5 (Natural Heritage)

Significant Valleylands
 NAME Environmentally Significant Areas (ESA)

- Natural Heritage Information Centre:
 - Wooded Areas
 - Anguish Drain (permanent fish habitat)
 - Dingman Creek (permanent fish habitat)
- Background SAR / SOCC Records (1-km Element Occurrence records from NHIC):

Common Name	Provincial Rank	SARO Status	COSEWIC Status	Source
Snapping Turtle	S4	Special Concern	Special Concern	NHIC
Eastern Wood-pewee	S4B	Special Concern	Special Concern	NHIC
Greater Redhorse	S3			NHIC
Silver Shiner*	S2S3	Threatened	Threatened	DFO

* Record from Dingman Creek.

Environmental Impact Study - Background Data



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DINGMAN CREEK



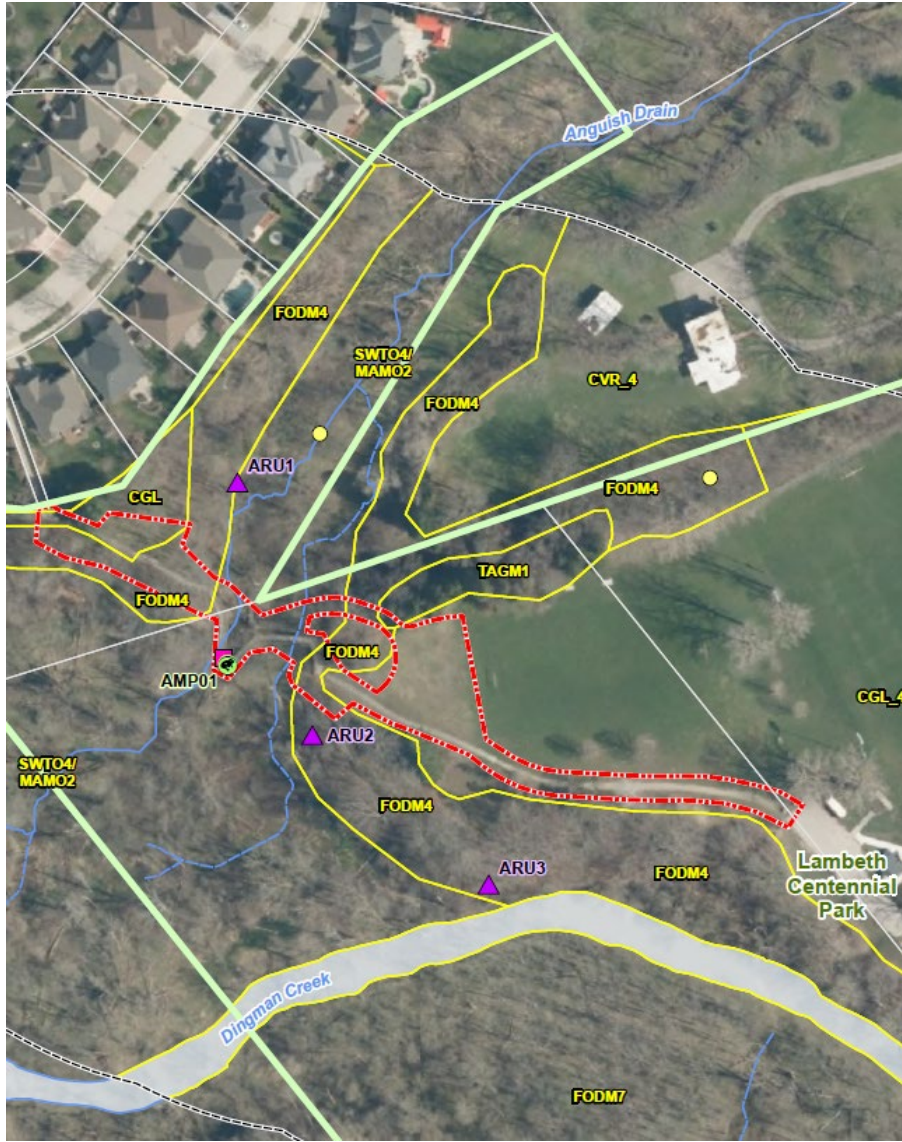
ANGUISH DRAIN DOWNSTREAM OF BOARDWALK

Type of Field Work	Dates of Field Work
• Bat maternity roost tree assessment	March 8, 2017
• Botanical survey (spring)	May 21, 2017
• Wildlife habitat assessment	
• Aquatic habitat assessment	June 9, 2017
• Botanical survey (summer)	
• Wildlife habitat assessment	
• Amphibian call survey (visit #1)	April 20, 2023
• Amphibian call survey (visit #2)	May 18, 2023
• Amphibian call survey (visit #3)	June 20, 2023
• Vegetation community survey	June 20, 2023
• Botanical inventory (summer)	
• Wildlife habitat assessment	
• Breeding bird survey (visit #1)	June 21, 2023
• Bat Autonomous Recording Unit (ARU) deployment	
• Breeding bird survey (visit #2)	July 6, 2023
• Bat ARU retrieval	
• Fish community survey	July 17, 2023
• Aquatic habitat assessment	

Environmental Impact Study - Field Investigations



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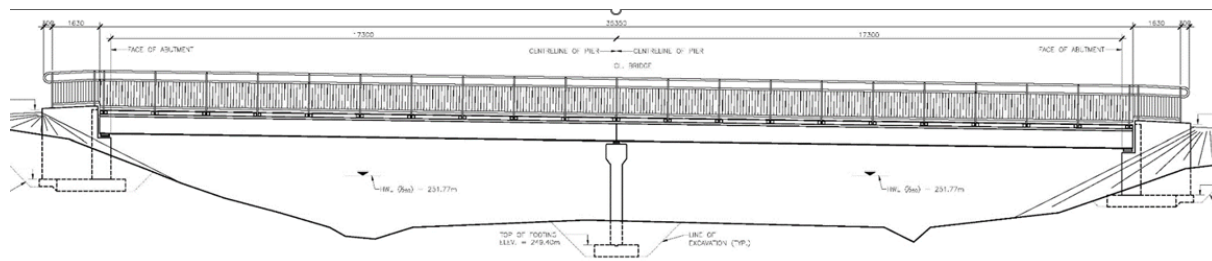
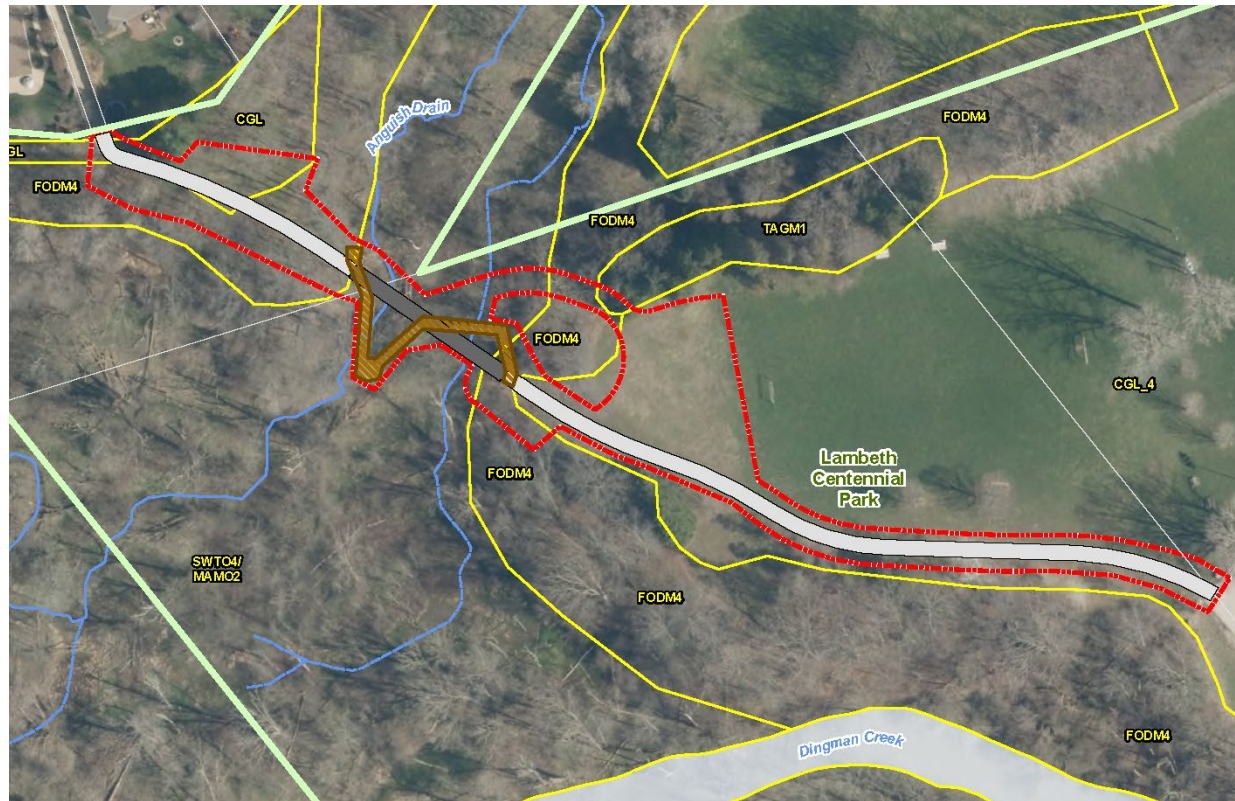
Summary of Natural Heritage Features

- Wetlands: Dogwood Organic Deciduous Thicket Swamp / Forb Organic Meadow Marsh (SWTO4/MAMO2)
- Woodlands: Dry – Fresh Upland Deciduous Forest (FODM4)
- Fish Habitat – warmwater: Anguish Drain and Dingman Creek
- Habitat for four SOCC was confirmed in the Study Area: Eastern Wood-pewee, green dragon, hoary bat and silver-haired bat.
- Eastern Wood-pewee, hoary bat and silver-haired bat are associated with woodlands and trees.
- Green dragon was found in the wetland community more than 65 m south of the Project Footprint in 2017 but was not found during targeted surveys in 2023.
- Two additional SOCC are considered potentially present: Northern Map Turtle and Snapping Turtle
- The Anguish Drain and Dingman Creek are potentially suitable turtle feeding and summer residence habitat.
- The Anguish Drain is not suitable for turtle overwintering. Dingman Creek in the Study Area is not likely suitable for turtle overwintering.

Environmental Impact Study - Summary of Findings



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Summary of Direct Impacts

- The bridge footings will be reduced from 40+ concrete piers to one centrally located pier
- There is a net gain to wetland (27 m²) and woodland (8.8 m²) communities when compared to the existing boardwalk

Potential Construction Phase Impacts

- Degradation of water quality
- Disturbance to migratory bird nests
- Alteration of fish habitat, harm to fish and aquatic wildlife
- Introduction of invasive species
- Disturbance to SOCC turtle feeding habitat and bat maternity roost habitat

Scenario	Wetland	Woodland	Total
Existing boardwalk	125.5 m ²	22.4 m ²	147.9 m ²
Temporary work area (Project Footprint)	558.6 m ²	747.9 m ²	1306.5 m ²
New boardwalk	98.5 m ²	13.6 m ²	112.0 m ²
Net gain (new – existing boardwalk)	27.0 m²	8.8 m²	35.9 m²

Environmental Impact Study – Impact Assessment



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Summary of Mitigation and Authorization Requirements

Avoidance of fish and wildlife:

- In-water work between July 16 to March 14, access proposed central pier from the east (to avoid crossing the permanent branch of Anguish Drain)
- Vegetation clearing outside bird nesting period and bat roost period
- Herptile exclusion fencing and inspections

Standard Measures during Construction:

- Erosion and sediment control
- Control of spills
- Invasives species management / clean equipment protocol
- Revegetation and Monitoring

Authorizations:

- DFO Request for Review (Letter of Advice anticipated)
- UTRCA permit

Environmental Impact Study – Mitigation and Authorization



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Lambeth Centennial Park / Dingman Ecological Corridor Restoration Plan 2024-2026

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Legend

- Priority Invasive Species Management
- Proposed Naturalization with ReForest London
- Parcel Fabric
- City Property
- ♿ Washrooms
- ♻️ Lambeth Community Centre
- P Parking Lot
- Water
- Existing Path
- Replacement Boardwalk Bridge

As per the City of London Invasive Plant Management Strategy

Scale: 1:3,000

Priority species to be managed include:

- Phragmites*
- Dog Strangling Vine*
- Buckthorn
- Japanese Knotweed*
- Giant Hogweed*
- Initial management in 2024
- Follow up / touchups in 2025

*If present

Lambeth Centennial Park - 7112 Beattie Street

Proposed Naturalized Areas in Lambeth Centennial Park for Fall 2024

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Scale: 1:1,500

Legend

- Proposed Planting
- Roads
- Parcels
- Water
- ♿ Restroom
- 🚗 Parking Lot

POLYGON	AREA (m ²)	TREES	SHRUBS	TOTAL WOODY PLANTS
A	845	110	40	150
B	294	35	15	50
Planting Density: 1800/ha				

Candidate Species List

Large Trees

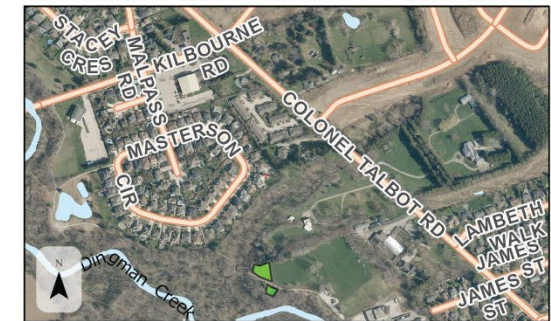
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|-------------------|------------------------------|
| Freeman Maple | <i>Acer x freemanii</i> |
| Sugar Maple | <i>Acer saccharum</i> |
| Bitternut Hickory | <i>Carya cordiformis</i> |
| Blue Beech | <i>Carpinus caroliniana</i> |
| Hackberry | <i>Celtis occidentalis</i> |
| Sycamore | <i>Platanus occidentalis</i> |
| Black Cherry | <i>Prunus seratina</i> |
| Bur Oak | <i>Quercus macrocarpa</i> |
| White Cedar | <i>Thuja occidentalis</i> |
| Basswood | <i>Tilia americana</i> |

Small Trees

- | | |
|---------------------|----------------------------|
| Smooth Serviceberry | <i>Amelanchier laevis</i> |
| Alternate Dogwood | <i>Cornus alternifolia</i> |
| Choke Cherry | <i>Prunus virginiana</i> |
| American Elderberry | <i>Sambucus canadensis</i> |
| Highbush Cranberry | <i>Viburnum trilobum</i> |

Shrubs

- | | |
|-----------------------------|---------------------------|
| Grey Dogwood | <i>Cornus racemosa</i> |
| Red Osier Dogwood | <i>Cornus stolonifera</i> |
| Narrowed-Leaved Meadowsweet | <i>Spiraea alba</i> |
| Wild Black Currant | <i>Ribes americana</i> |



Scale: 1:10,000



Next Steps

- EIS circulated to ECAC.
- Winter 2023-2024 – New boardwalk installed.
- 2024-2026 – Ecological Restoration.



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Questions