

March 11, 2025

Suitability of Shoreline Area for Scattering Cremated Remains

Table of Contents

Executive Summary.....	2
I. Review of Municipal, Provincial and Federal Laws Pertinent to the Spreading of Cremated Remains On Waterways.....	3
Scope of Review	3
Federal Legislation	3
Provincial Legislation	3
Municipal Legislation	4
Quantity of Cremated Remains	4
Analysis	5
II. Site Feasibility Criteria	6
III. Opportunities and Constraints of Duck Island Site	8
IV. Funding Analysis.....	10
V. Alternate Potential Locations	10
VI. Conclusion	14
Appendix A: Documents Reviewed	15
Appendix B: Site Suitability Criteria.....	20

Executive Summary

Mayor and Council are interested in the viability, practicality, and costs associated with the creation of a place where cremated remains could be deposited in the Fraser River. Pertinent federal, provincial, or municipal legislation to be considered in implementing such a project has been identified.

The South Asian diaspora has an affinity for this form of ceremony given the historic use of the Ganges and other waterways in India for cremation services. With the adoption of cremation across most cohorts of the City's population, a site purposefully dedicated to returning cremated remains to naturally flowing water is of interest to the wider community.

Two locations have been identified, evaluated using site feasibility criteria, and analyzed for opportunities and constraints. An additional third alternate location has also been evaluated. City staff have indicated that funding may be available through higher orders of government.

Our conclusions are that:

- While federal, provincial, and municipal legislation prohibits the proposed spreading of cremated remains, the anticipated impacts of the project are negligible. Legislative remedies are recommended in Appendix B.
- The Duck Island site is not appropriate for a facility to spread cremated remains on the water.
- The alternate Dow Fishing Bar site is preferred to the Duck Island site, but development of the necessary infrastructure would be costly.
- The Wellington Point Park site meets all the criteria outlined in the report. However, it is geographically further from the main South Asian population in North Delta compared to the other sites considered. (Wellington Point Park is 11km from Five Rivers Funeral Home, as compared to the Duck Island and Dow Fishing Bar sites which are 2-3km from the funeral home).

I. Review of Municipal, Provincial and Federal Laws Pertinent to the Spreading of Cremated Remains On Waterways

Scope of Review

The following sections summarize federal, provincial, and municipal legislation pertinent to spreading cremated remains on the Fraser River and waters adjacent to the City of Delta.

Potential remedies for addressing the barriers to spreading cremated remains on waters near Delta conclude this section.

Please refer to Appendix A for a table of documents and authorities considered within our wider review of federal, provincial, and municipal legislation, and corresponding recommended actions.

Federal Legislation

Federal legislation prohibits the deposition of cremated remains in and around the Fraser River based on definitions of “contaminants”, to protect wildlife, and to protect infrastructure. Legislation corresponding to each of these three categories is listed below:

Prohibitions Based on the Definition of Contaminants

- Parks Regulation Bylaw No. 7206 (PRB)
- The Canada Water Act (CWA)
- The Canadian Environmental Protection Act (CEPA)

Prohibitions to Protect Wildlife

- The Fisheries Act (FA)
- The Migratory Birds Convention Act, 1994 (MBCA)
- The Species at Risk Act (SRA)

Prohibitions to Protect Infrastructure

- The Canadian Navigable Waterways Act (CNWA)

Provincial Legislation

Provincial legislation prohibits the deposition of cremated remains in and around the Fraser River based on definitions of “contaminants”, to protect wildlife, and to protect infrastructure. Legislation corresponding to each of these three categories is listed below:

Prohibitions Based on the Definition of Contaminants

- The Water Sustainability Act (WSA)

- The Environmental Management Act (EMA)

Prohibitions to Protect Wildlife

- The Wildlife Act (WA)

Prohibitions to Protect Infrastructure

- Riparian Areas Protection Act (RAPA)

Municipal Legislation

Municipal legislation tacitly prohibits the deposition of cremated remains through regulation of activities likely to occur during the spreading of cremated remains on “non-sanctioned” lands, and to protect infrastructure. Legislation corresponding to each of these categories is listed below:

Prohibitions through Tacit Legislation

- Parks Regulation Bylaw No. 7206 (PRB)

Prohibitions to Protect Infrastructure

- The Waterways Protection Bylaw No. 1615 (WPB)

Quantity of Cremated Remains

We used the following sources to estimate the potential quantity of cremated remains that could be introduced into waters adjacent to Delta uplands:

- BC Vital Statistics
- Discussions with Five Rivers Community Services Society
- Cannings, Richard and Sidney. British Columbia: A Natural History.

The amount of cremated remains anticipated to be spread annually from a new facility in Delta has been estimated using both BC Vital Statistics and the number of cremations that the Five Rivers Community Services Society undertakes each year.

BC Vital Statistics reported 843 cremations within the Delta Local Health Area in 2024. Given South Asian residents constitute 26% of Delta’s population, 219 of those cremations can be estimated to originate within the South Asian community in 2024. This is a conservative estimate as we learned from the Five Rivers Society Executive Director and three Board Members that their Riverside Funeral Home serves *over 1200* families a year with at least 90% of those cremations serving South Asian families, likely from communities in Surrey, Richmond, Vancouver and elsewhere.

Historically, as much as 50% of the cremated remains arising from cremations at the Riverside facility are repatriated to the homelands and waters of the diaspora. However, this is anticipated to change with subsequent generations *not* returning remains to their homelands. Yet, most of those who do not take their family's remains home would prefer to spread their cremated remains on flowing water.

With the above in mind, LEES estimates that if 50% (i.e. 500) of families that use Riverside Funeral Home were to spread cremated remains on the Fraser River, that would introduce approximately 1000L of material into the water.

In comparison, the Fraser River discharges approximately 112,000,000,000,000L of water into the ocean each year and approximately 20,000,000 tons of sediment annually.

The Fraser River has an average water flow of 3,550,000L/second. While there may be localized variations in the flow rate at the "spreading site," the dilution rate is nonetheless expected to be sufficient to prevent the concentration of cremated remains in localized areas. Back eddies and other idiosyncrasies of the water flow will need to be considered.

Analysis

Political support for this project from provincial representatives is expressed in the Summary of Provincial Mandate Letters. Minister of Public Safety and Solicitor General Garry Begg has a provincial mandate to "Make it easier for communities and families to follow preferred funeral and cremation practices...". Minister of Housing and Municipal Affairs Ravi Kahlon has also expressed support for a pier to spread cremated remains in Delta.

With the support of Council, the province, and the federal government, remedies to address the potential contravention of existing legislation include:

1. Rewriting of applicable legislation to specifically allow for the spreading of cremated remains on both fresh and salt waters;
2. Utilizing the Environmental Impact Assessment process, and
3. Utilizing the Governor in Council (federal) and/or Order in Council (provincial) powers to permit the proposed spreading of cremated remains at a specific location.

Options 1 and 2 above would be disproportionately time-consuming and expensive relative to the proposed scope of work. Consequently, it is recommended that City staff work with provincial and federal authorities to carry out option 3 above as the optimal path forward.

While the environmental impact of spreading cremated remains on the flowing waters of the Fraser River is anticipated to be negligible and is unlikely to result in prosecution,

LEES+Associates advises that Delta work with their provincial and federal elected and non-elected officials to create “letters of approval” and eventually adjust the applicable legislation.

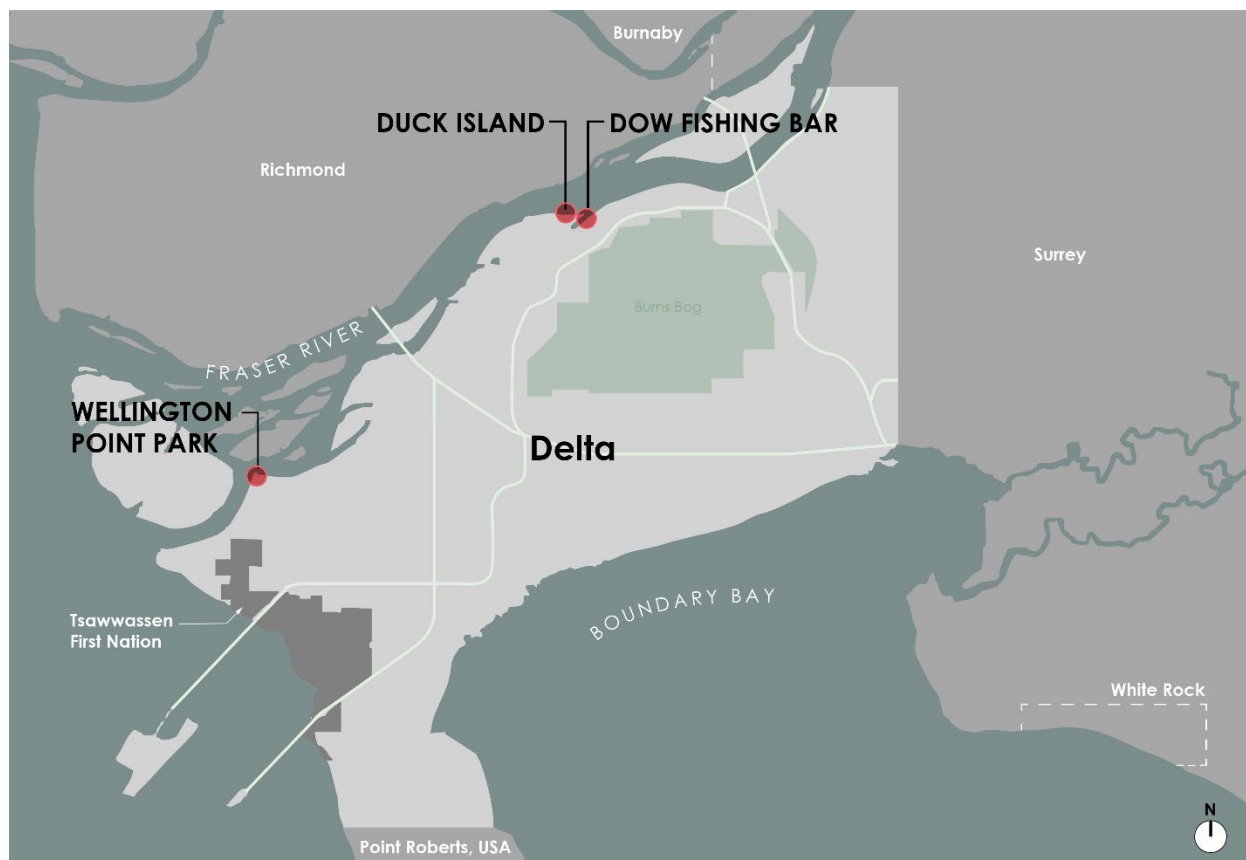


Figure 1: Context map of Delta area. Red dots show the locations of potential sites.

II. Site Feasibility Criteria

LEES established the following Site Feasibility Criteria by integrating findings from a stakeholder interview with the Five Rivers Community Association with LEES’ bank of evaluative criteria for places of remembrance. The board interviewed at Five Rivers expressed a desire to include other site amenities, such as washroom facilities, lighting, and seating. However, the site criteria considered within this report do not account for these additional amenities.

Key Criteria are listed in order of priority as follows:

Physical Attributes

1. Flowing water (a requirement for the South Indian funeral scattering tradition)
2. Easy site access (cars/public transit)
3. Easy pedestrian access (distance from parking to scattering area)
4. Ability to use existing infrastructure
5. Parking for up to 10 cars
6. Convenient location in the community
7. Scattering facility able to accommodate 10 – 20 people
8. Optimize positive adjacencies; minimize negative adjacencies
9. Water depths that allow for dispersal of the remains
10. Reasonable slope to the water's edge
11. Ground conditions to support roads/paths
12. Appropriate zoning
13. Minimal flood risks

Experiential Qualities

1. Little or no impacts from noise and smell
2. Attractive views along the way to the scattering area and at the outlook

See Appendix B for Site Suitability Matrix

Regardless of whether Duck Island, one of the alternate sites, or locations yet unknown in the community are ultimately considered, these criteria will help City staff and Council decide where this type of public amenity should be built.

III. Opportunities and Constraints of Duck Island Site



Figure 2 Duck Island – Location Plan

Constraints of the Duck Island Site

- Site access from the parking lot is a primary constraint. Duck Island is accessible via the dike and trail northward over the groyne, but it is over 1 km from the parking lot. This would be a long walk for visitors with mobility challenges and would likely limit the use of the facility.
- The dike trail would need to be improved to meet accessibility standards.
- The trail over the groyne would need reconstruction and tree pruning/removals.
- Once at the end of the groyne there is a significant grade drop to even the high water level. Consequently, a pier structure would be required for families to get out over the water to spread the remains.
- The presence of an industrial plant northeast of the site compromises northward views across the river and introduces noise.
- Costs to develop this site are likely higher than potential alternatives.
- Provincial and federal approvals to build a pier will take time.
- Receipt of provincial and federal approvals is not guaranteed.
- First Nations need to be engaged in the vision and approvals.

Opportunities at the Duck Island Site

- The water at the north end of Duck Island has a steady flow and appears to maintain a low water level of 2m (estimated without access to bathymetry).
- The walk from the parking lot offers ample time for decompression and to enter the emotional space to spread cremated remains.
- The last 100m walk over the groyne offers a contemplative “through the woods” experience.
- A small pier extending a short distance (approximately 20m) over the water would provide a unique and attractive experience of the river for families spreading remains, as well as other visitors.
- The existing parking lot off Huston Road can accommodate approximately 5 cars, but additional parking would be required to accommodate user demand.
- Proximity to the Riverside Funeral Home as a primary cremation service provider, and to North Delta as an area where many South Asian residents of Delta live, may be perceived positively. Further engagement with the community is needed to assess preferences regarding location and proximity.

Analysis

The Duck Island Site does not meet the following criteria:

Accessibility

Pedestrian access at this site is challenging, requiring a minimum walk of approximately 1km to access the scattering area. This would limit accessibility for those with mobility challenges regardless of site upgrades.

Existing Platform

There is no existing platform or pier infrastructure. The construction of a platform as a prerequisite feature for the proposed program would contribute to the cost of making the site viable.

Noise

The site is impacted by noise from the adjacent industrial uses, which detracts from the tranquil quality desired for the proposed program.

Parking

While the existing parking lot off Huston Road can accommodate approximately 5 cars, additional parking for other site users is required. A total of 10 parking spaces is recommended, so the parking is not sufficient.

IV. Funding Analysis

This report provides high-level order of magnitude costing for the creation of a cremated remains scattering facility over the water at the Duck Island location.

A budget cannot be generated for the proposed initiative in the absence of an approved site, a construction drawing package, or concept plans. Consequently, a site program has instead been prepared to list elements required for project implementation at the Duck Island site. A recommended budget allowance has then been attached for each component. Rough order of magnitude costs have been developed to allow flexibility which can accommodate an overestimate of up to 50%.

Total recommended budget allowance*:	\$3.5 million
--------------------------------------	---------------

Undertaking detailed surveys, environmental and engineering studies, and detailed design would further enhance the veracity of this allowance. Unfortunately, the Duck Island site would still require significant built infrastructure to bring families safely out over the water despite its relative proximity to parking.

To reiterate, the recommended budget allowance above was prepared in the absence of a project site, concept design, or regulatory parameters to inform accurate estimates.

V. Alternate Potential Locations

Two other locations in Delta were taken into consideration:

- Dow Fishing Bar Site, and
- Wellington Point Park.

The Dow Fishing Bar site is located immediately adjacent to the parking lot at the end of Huston Street.



Figure 3 Dow Fishing Bar – Location Plan

Constraints of the Dow Fishing Site include:

- The water is relatively shallow and recedes further during low tide as this is a “bar” in the river.
- It is likely that a more substantial pier structure would be required to bring families out over the moving water.
- Provincial and federal approvals to build a pier will take time.
- Northward views across the river are compromised.
- The flow of water is not as vigorous as the Duck Island site which may mean the finer particles of cremated remains will linger in the downstream back eddy.
- Costs to develop this site are likely higher than potential alternatives.
- Receipt of provincial and federal approvals is not guaranteed.
- The existing parking lot off Huston Road can accommodate approximately 5 cars, but additional parking would be required to accommodate user demand.
- First Nations need to be engaged in the vision and approvals.

Opportunities of the Dow Fishing Site include:

- Close access from the parking lot at the foot of Huston Street.
- The pier would begin in a nicely wooded area, creating a decompression space, albeit shorter than the Duck Island site.
- A new structure extending out over the water may be attractive to other users, including anglers. More analyses would be required to assess community interest.
- The existing parking lot off Huston Road can accommodate approximately 5 cars, although additional parking would be required to accommodate demand.
- Proximity to the Riverside Funeral Home as a primary cremation service provider, and to North Delta as an area where many South Asian residents of Delta live, may be perceived positively. Further engagement with the community is needed to assess preferences regarding location and proximity.

Analysis

Based on our assessment, the Dow Bar Fishing site is preferable to the Duck Island site, primarily due to its proximity to parking and marshaling areas.

The Duck Island Site does not meet the following criteria:

Accessibility

Further site analysis will be needed to determine the extent of additional infrastructure required to provide access to this site.

Existing Platform

There is no existing platform or pier infrastructure. The construction of a platform as a prerequisite feature for the proposed program would contribute to the cost of making the site viable.

Noise

The site is impacted by noise from the adjacent industrial uses, which detracts from the tranquil quality desired for the proposed program.

Parking

While the existing parking lot off Huston Road can accommodate approximately 5 cars, additional parking for other site users is required. A total of 10 parking spaces is recommended, so the parking is not sufficient.

The Wellington Point Park alternative site is included here as it is a “ready to use” facility.



Figure 4 Wellington Point Park – Location Plan

Constraints of Wellington Point Park include:

- It is further from most of the South Asian Delta community than the other sites considered in this report.
- It is an established park/pier that already functions as a neighbourhood/community park. Consequently, some users may perceive their park experience to be compromised by families spreading cremated remains. However, further engagement is required to assess community perceptions.
- Seasonal increases in the number of park users may affect parking supply in the summer months.
- The boat ramp downstream from the pier may be affected by the scattering activity depending on the weather, wind, and tides. Consequently, a mechanism may be required to minimize the dispersal of the dust that largely constitutes cremated remains, which may reduce risk to the boat ramp.

Opportunities of Wellington Point Park include:

- The site is immediately capable of accommodating the scattering of cremated remains. Existing “bump outs” in the pier could provide families access to the water to spread cremated remains.
- Recent renovations to the pier have resulted in an attractive facility. Additional works could further enhance the experience and appearance.
- Parking is ample and proximate to the scattering area.
- “Startup” costs would be a fraction of what they are expected to be at the other two potential locations.
- No formal approvals for environmental or planning purposes would be required, aside from meeting the legislative requirements outlined in the report.

Analysis

Wellington Point Park meets all of the site suitability criteria for the spreading of cremated remains along Delta’s shoreline. Costs to make the park suitable for the scattering of cremated remains would be minimal. Consequently, based on site criteria alone, the anticipated timeline for implementation at Wellington Point Park is shorter than for the other two sites.

VI. Conclusion

In conclusion, the review of relevant federal, provincial, and municipal legislation highlights several legal hurdles in spreading cremated remains on the Fraser River. While federal and provincial legislation may prohibit or regulate such activities, the expected minimal environmental impact of cremated remains on the water suggests that prosecution is unlikely. It is recommended that City staff work with provincial and federal authorities to obtain necessary permits or approvals under existing regulations, particularly through the Governor in Council or Order in Council process. This solution would allow for the spreading of cremated remains while ensuring compliance with applicable laws. Additionally, potential amendments to the legislation could be pursued in the long term to specifically address this practice.

The two sites that we examined at Delta Link Park (Duck Island and Dow Fishing Site) do not meet the site feasibility criteria outlined in Appendix B. Meanwhile, Wellington Point Park meets the criteria outlined in the report.

Appendix A: Documents Reviewed

LEGISLATION	IMPLICATIONS	RECOMMENDED ACTION
FEDERAL		
Canada Water Act	<p>CWA Section 9 prohibits deposition of “waste of any type in waters composing a water quality management area... [or where] waste may enter any such waters”</p> <p>The site falls within a “water quality management area” as per CWA Section 10.</p>	City staff are to correspond with a Minister to define permissible quantities or concentrations of cremated remains.
Canadian Environmental Protection Act, 1999	Cremated remains would be considered to contribute to prohibited “water pollution” under CEPA 175.	City staff are to correspond with a Minister to define permissible quantities or concentrations of cremated remains.
Canadian Navigable Waterways Act	CNWA 21 prohibits the deposition of “any sawdust, edgings, slabs, bark or like rubbish of any description whatever that is liable to interfere with navigation in any water, any part of which is navigable or that flows into any navigable water”.	City staff are to apply for an exemption from the Governor in Council. The application is to be submitted through Transport Canada.
Disposal at Sea Regulations	DSA 8.1(b) specifies that “areas of sea adjacent to the territorial sea of Canada” regulated by CEPA 122(2)(e) include “the waters of the main channel of the Fraser River downstream of the Alex Fraser Bridge...”, which encapsulates all sites under consideration for the spreading of cremated remains in Delta.	[See recommended actions for CEPA]

Fisheries Act (FA)	<p>Cremated remains are considered a “deleterious substance” under the Fisheries Act (FA) 34(1), given they “would... form part of a process of degradation or alteration of the quality of... water”.</p> <p>FA 36(3) states that “...no person shall deposit or permit the deposit of a deleterious substance of any type in water frequented by fish...” unless authorized by the Governor in Council as per FA 36(4).</p> <p>Additionally, FA 34.4(1) states that “No person shall carry on any work...that results in the death of fish” unless the activity is “authorized by the Minister...or the conditions established by the Minister” as per FA 34.4(2)(b).</p>	<p>City staff are to correspond with a Minister to establish standards and codes of practice regarding cremated remains as a pollutant.</p> <p>City staff are to correspond with a Minister to define permissible quantities or concentrations of cremated remains.</p> <p>City staff are to apply for authorization for “development” from the Minister.</p>
Framework Agreement on First Nation Land Management Act	-	Further engagement and consultation with First Nations having jurisdiction over water along the Fraser is recommended.
Indian Act	-	Further engagement and consultation with First Nations having jurisdiction over water along the Fraser is recommended.

Migratory Birds Convention Act, 1994	<p>The Migratory Birds Convention Act, 1994 (MBCA) 5.1(1) states that “No person or vessel shall deposit a substance that is harmful to migratory birds... in waters or an area frequented by migratory birds or in a place from which the substance may enter such waters or such an area.”</p> <p>Cremated remains are considered to be “a substance that is harmful to migratory birds”. and the site is frequented by migratory birds (e.g. Great Blue Heron).</p>	City staff are to apply for ministerial authorization for the spreading of cremated remains.
Species at Risk Act	The Species at Risk Act (SRA) states that “no person shall destroy any part of the critical habitat of any listed endangered species or of any listed threatened species” and would be contravened by the spreading of cremated remains without a prior agreement or permit from the competent minister.	City staff are to acquire an agreement or permit from the competent Minister to authorize the spreading of cremated remains.
Tsawwassen First Nation Final Agreement Act	-	Further engagement and consultation with First Nations having jurisdiction over water along the Fraser is recommended.
PROVINCIAL		
Consumer Protection BC	[The regulation of coastal areas and waterways is outside the authority of Consumer Protection BC.]	-
Cremation, Interment, and Funeral Services Act	-	A review and update to this act is anticipated in the next 12 – 18 months. Delta should be prepared to comment on the changes, including reference to the spreading of cremated remains.
	-	-

Drinking Water Protection Act	<p>The spreading of cremated remains would not contravene the DWPA under current conditions where drinking water is not taken from the Fraser.</p> <p>Evaluation of speculative proposals that propose to utilize the Fraser River as a future drinking water source for Metro Vancouver remains beyond the scope of this report.</p>	-
Emergency and Disaster Management Act	-	-
Emergency and Disaster Management Regulation	-	-
Environmental Management Act	The Environmental Management Act (EMA) 79(1) defines a “polluting substance” as “any substance...capable of causing pollution if it were to...[be spilled or escape] onto any...body of water”	City staff are to apply for ministerial authorization for the spreading of cremated remains.
FrontCounter BC	-	A Crown Land tenure and Section 11 Change Approval would be required for any pier installation.
Provincial Mandate Letters 2025	[Political support for this project from provincial representatives is expressed in the Summary of Provincial Mandate Letters.]	[This report is associated with Minister of Public Safety and Solicitor General Garry Begg’s provincial mandate to “Make it easier for communities and families to follow preferred funeral and cremation practices...”.]
Riparian Areas Protection Act	If a pier or other structure in the wetted part of the rivers is contemplated, the Riparian Areas Protection Act (RAPA) 8(1) would apply.	City staff would be required to submit a detailed assessment of the construction and long-term impacts of the pier (not just the act of spreading remains).

Water Sustainability Act	Cremated remains are considered to be “another matter or substance” prohibited under the Water Sustainability Act (WSA) s46(1)(a).	City staff are to acquire an agreement or permit from the Comptroller to authorize the spreading of cremated remains.
Water Protection Act	-	-
Water Users’ Communities Act	-	-
Wildlife Act	The spreading of cremated remains would contravene the Wildlife Act 7(1)(a-d) which states that “A person commits an offence if a person...deposits on land or water a substance or manufactured product or by product in a manner that is harmful to wildlife, or wildlife habitat”.	City staff are to apply for a permit is required from the Regional Manager.
MUNICIPAL		
Cemetery Bylaw No. 8253, 2024	-	-
City of Delta Regular Council Meeting Resolution No. R25/1-28, January 20, 2025.	[City of Delta Regular Council Meeting <i>Resolution No. R25/1-28</i> was carried unanimously on January 20, 2025.]	[This report investigates “the suitability of the City of Delta’s existing shoreline area of the public trail connecting the Delta Link Business Park to the Fraser River as a City of Delta site for the purpose of having families scattering or immersing ashes of their loved ones” as resolved within R25/1-28.]

Appendix B: Site Suitability Criteria



		Context					Potential Impacts			Suitable Conditions for:				General Conditions	
	Site	Size	Coordinates	Zoning	Adjacencies	Site Access	Views	Smell	Noise	Flood Risks	Slope / Accessibility	Roads and Paths	Water Access	Existing Platform	Distance to scattering area
1	Duck Island 7949 Huston Rd	2 ha	49.149723, -123.012374	Special Low Impact Industrial	Pump Station Huston Dyke Trail Special Low Impact Industrial	Car (5) parking spots	<ul style="list-style-type: none"> Industrial Mt. Seymour Mountain Coquitlam Pinecone Burke Provincial Park Golden Ears Provincial Park 	N	Y	Moderate	Fairly flat Far (1km+) walk to parking Requires pier installation	Y	Y	N	800m
	Dow Bar Fishing Park 7940 Huston Rd	3 ha	49.147054, 49.147054	Public Use	Pump Station Flood Box Huston Rd Special Low Impact Industrial	Car (5) parking spots	<ul style="list-style-type: none"> Industrial Mt. Seymour Mountain Coquitlam Pinecone Burke Provincial Park Burnaby Mountain Golden Ears Provincial Park 	N	Y	Moderate	Fairly flat Close to Parking (less than 500m) Requires pier installation	Y	Y	N	500m
3	Wellington Point Park 3653 River Rd W	5 ha	49.085056, -123.122298	Special Low Impact Industrial	River Rd W Agricultural Special Low Impact Industrial	Car (20+) parking spots	<ul style="list-style-type: none"> Barber Island Cypress Provincial Park Mt. Seymour Coquitlam Mountain Golden Ears Provincial Park 	N	N	Moderate	Fairly flat Accessible via existing pier	Y	Y	Y	200m