

REPORT TO:	Council	FOR:	COW
REPORT FROM:	Community Planning & Infrastructure		
PRESENTED:	April 12, 2022	FILE:	
SUBJECT:	Mamquam Blind Channel Dredging Strategy Update + Engagement Plan		

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### **Recommendation:**

That Council approve the following resolution:

**THAT** the District of Squamish receive the April 12, 2022, project update on the Mamquam Blind Channel Dredging Strategy;

**AND THAT** the District of Squamish endorse the proposed engagement plan and initiate recruitment for a dredge program stakeholder working group as outlined in the April 12, 2022, staff report.

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### **1. Objective:**

To present information on the project scope, current status and technical review underway for the Mamquam Blind Channel (MBC) Dredging Strategy project and to request Council endorsement to proceed with the proposed engagement plan and next steps.

### **2. Background:**

The MBC holds vital importance and cultural significance for Sk̓wx̓wú7mesh Úxwumixw (Squamish Nation) as well as the Squamish community in terms of coastal ecological function and human health, local and regional economic activity as well as social, cultural and community values. The channel represents a critical marine gateway for the community: for the Sta7mes community/village site, for recreational boating and watersport key to the tourism sector, as well as industrial, commercial and marine transportation services essential to the local and regional construction and forest industries.

The MBC is a designated navigable waterway under the *Canadian Navigable Waters Protection Act*. Ongoing sedimentation and river changes, particularly near the confluence of the Stawamus River delta, are impacting navigability of the channel during low tides and navigation safety. Historic dredging in the MBC has occurred over time to facilitate use of the waterway. However, in the past 30 years there has been limited dredging; the last significant channel maintenance was undertaken by federal agencies in 1986. Further dredging was conducted in 1996-97. In 2013, a dredge review of the MBC was completed, estimating that approximately 80,000 to 100,000 m<sup>3</sup> of material would need to be removed to provide safe navigation of the channel at low tides. In addition, previous studies identified that the Stawamus River produces approximately 2,500 m<sup>3</sup> of sediment annually. A minor dredge project was completed in 2013 removing approximately 5,000 m<sup>3</sup> of material from the channel as a short-term stop-gap

measure to improve navigability. However, the need for a long-term dredge maintenance program continues to be recognized.

Due to significant costs to dredge and the absence of senior government funding, facilitating a community-based program and collaborative dredging strategy and funding program is needed to address navigation safety of the channel. Two past community initiatives (2006-08 and 2012-13) to organize and seek funding for the major maintenance dredging required failed<sup>1</sup>, prompting advocacy by the Squamish Chamber of Commerce requesting federal, provincial and municipal governments to take action to address marine safety, community economic development and quality of life affected by navigation channel constraints. Developing a long-term dredge management program was subsequently identified as a priority action in the District's 2018 [Marine Action Strategy](#) based on community inputs and objectives, and the dredge program development project received initial funding in the 2021 Financial Plan.

Following project scoping and planning in the Fall, District staff initiated a competitive bid process in Q3 2021 and engaged engineering consultant Westmar Advisors (Westmar) in November 2021 to assist in developing a community-based dredge management and funding strategy.

### 3. **Project Information:**

The primary objective of the project is to determine dredging needs and priorities to provide safe and functional navigation within the MBC while limiting environmental impacts and enhancing coastal ecosystem function.

The study area for the dredging strategy (see Figure 1 at right) was established with the objective of prioritizing and focusing on navigational safety within the most actively used reaches of the channel and the area classified as a navigable waterway (the CN Rail and Highway 99 bridge crossings effectively limit boat traffic and the MBC beyond them is not considered a navigable waterway by Transport Canada).

Through the marine zoning engagement process 2020/21, some stakeholders have

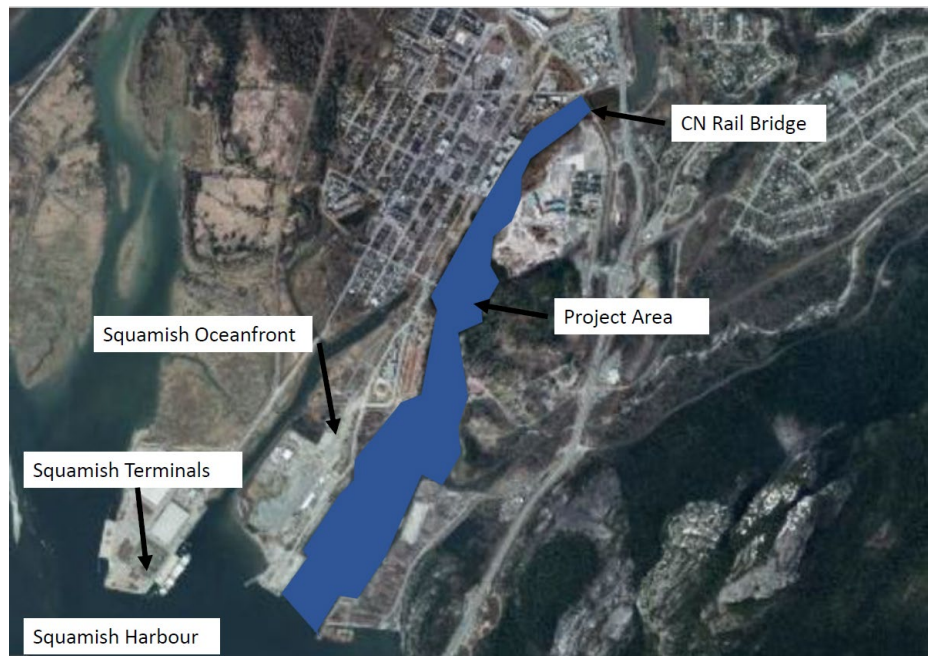


Figure 1 – Dredge Strategy Study Area

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<sup>1</sup> July 10, 2018 Squamish Chamber of Commerce Letter to District of Squamish [see report attachment].

highlighted interest in potential dredging of the upper Mamquam Blind Channel area to improve water access and recreation, environmental conditions, and water quality in the area. While examining these considerations holds merit, the upper channel has not been included in the initial dredge review area. The available funding envelope for the strategy development, lack of readily available data for this geographic area (bathymetry and sediment quality sampling) and additional cost to acquire it, coupled with high environmental sensitivity and significant sediment volumes and associated costs that would result from its inclusion, are additional reasons the upper channel was considered out of scope at this time. Some level of future review is expected to be undertaken by third parties as part of the detailed design for the future proposed pedestrian bridge and public dock facilities associated with the Redbridge project just north of the Highway 99 bridge.

Key project components (stages) and engagement activities for the dredge strategy development are summarized below.

#### *Project Planning + Key Tasks*

##### **Project Scoping, Procurement + Engagement Planning**

Key Tasks: Establishing project purpose, objectives and geographic scope of review; assembling project team, RFP services and consultant selection, engagement program development.

Engagement activities: Early outreach letters, online project page planning, intergovernmental meetings, and working group establishment.

##### **Data Gathering/Technical Review**

Key Tasks: Existing Information Review, navigable channel survey, initial estimate of dredge volume and locations based on vessel types and sizes, assessment of dredging impacts on surrounding properties and environment, preliminary environmental impact assessment.

##### **Draft Dredging Strategy Development**

Key Tasks: Navigable channel design and ecosystem-based approach to sediment management, re-use potential and estimate of future sedimentation; regulatory requirements review, cost estimation, economic analysis for priorities and values, and long-term funding options.

Government and stakeholder engagement on technical review and potential dredge options. Draft report with options and long-term funding strategies. Council workshop to review and confirm initial directions.

##### **Dredge Strategy Review + Refinement**

Key Tasks: Stakeholder engagement on draft strategy; ongoing working group consultation and public open house.

##### **Dredge Strategy Endorsement**

Key Tasks: Summarize final engagement, key edits, and recommendations for final endorsement and implementation.

### Project Engagement Program

The engagement program for development of the dredge management and funding strategy is outlined in Attachment 1. The project will involve early and ongoing engagement and involvement of Squamish Nation firstly, as well as soliciting guidance from governmental agencies in the marine realm, and inputs from key stakeholders and the broader community. The District's cross-departmental project team (Engineering/Environment, Planning, and Economic Development) will be jointly leading engagement activities with project technical and administrative support by Westmar. In addition to intergovernmental review, staff proposes to host a series of technical sessions with a community working group to review the technical information, and provide input on potential dredge areas, impacts, options and funding aspects. The working group approach is seen as a valuable and effective method to involve fulsome representation from a cross section of the community to advise on directions and recommendations.

### Project Status.

Initial technical preparatory work to bring to the engagement program has been completed by Westmar Advisors (highlights below) and staff are ready to begin engaging intergovernmental agencies and recruit working group participants, subject to Council feedback and endorsement of the engagement program and draft working group terms of reference per Attachment 1.

### Initial Technical (Discovery Stage) Findings

Technical background and baseline data collection was assembled for the project consultant. Information gathered is being used to establish a situational report to present with the project launch to ensure there is adequate background context to inform participants and establish shared understandings in early and ongoing engagement.

Key technical information includes:

- **Updated Bathymetry and Navigation Channel Area.** Public Services and Procurement Canada completed bathymetric soundings in the channel in 2020 which has provided the data utilized for this study. In addition, the District partnered with Transport Canada and water lot owners to delineate the Navigational Channel Area in 2017, which has framed the core navigation area considered in the study. Water lots outside of the Navigational Channel Area have not been included within the core dredge review area, however as part of the review, these areas are recognized as having potential need for companion dredging to support public, industrial, and commercial uses within private and public water lots.
- **Channel Design Depth + Estimated Dredge Volume.** An initial proposed dredge depth of -2.6m CD (Chart Datum) has been recommended based on the navigation channel and design vessels using the Mamquam Blind Channel waterway as well as accepted standards for vessel Under Keel Clearance. Based on the initial bathymetric information, this design dredge depth results in a total estimated dredge volume of 68,000 m<sup>3</sup>. A summary of dredge depth options and water navigability is reviewed is below:

Table 3 – Dredge Depth Comparison

Dredge Depth	Dredge Volume (approx.)	Percentage of Vessels able to Navigate at Various Water Levels		
		+1.8 m CD	+1.2 m CD (LWL)	+0.1 m CD (LLWL)
-2.6 m CD throughout channel	68,000 m <sup>3</sup>	100%	95%	81%
-3.2 m CD throughout channel	125,000 m <sup>3</sup> +	100%	100%	95%
-3.2 m CD for northern section and -4.3 m CD channel	180,000 m <sup>3</sup> +	100%	100%	100%

- **Key Dredge Areas.** There are two main areas within the navigation channel where dredging would be required to achieve minimum channel depths for general navigation: (1) Near the mouth of the Stawamus River, and (2) In the upper reaches of the MBC adjacent to Blue Heron Marina/Marina Estates. Dredging within foreshore water lots has not been included in this initial estimate, however, in some cases the dredge areas extend into private water lots to support the desired bottom of channel elevation within the Navigational Channel Area. See Attachment 2 for further details.
- **Sediment Review.** Sediment testing is required to determine available options for sediment disposal either disposal at sea (DAS) and/or land disposal. Generally, thresholds for contaminant levels are more stringent for DAS than land disposal. Previous sediment sampling conducted for dredge work in 2013 indicated that some areas of the channel have elevated levels of mercury and hydrocarbons that may prevent the sediment from being considered suitable for disposal at sea. These areas would need to have dredge materials disposed at a certified landfill. All areas had copper concentrations exceeding DAS criteria. However, past dredging campaigns in the Squamish area have received approvals for DAS despite the high copper concentrations because the entire area is known to have elevated levels of copper from the Britannia Mine. Engagement with Environment and Climate Change Canada (ECCC) is required to confirm the potential for disposal at sea. Disposal of marine sediments on land is subject to additional contamination criteria pertaining to sodium and chloride. Based on review of sediment sampling and contaminant thresholds, disposal on land is considered a viable option for future consideration, particularly for nearshore sites, where elevated levels of sodium and chloride are not expected to cause adverse effects.
- **Disposal and Reuse Options.** There are a variety of options for sediment disposal and reuse including raising existing land, creating new land and habitat enhancement. These options are being developed for detailed discussion with Squamish Nation and government agencies and stakeholder engagement.
- **Dredge Cost Estimates.** Cost estimates will be produced based on various disposal options under consideration. Very preliminary cost estimates including 30% contingency are summarized as follows (note these options are not mutually exclusive and some combination of options may be explored):

Disposal at Sea (DAS)	Habitat Enhancement	Land Creation	Land Raising
\$3.3M	\$4.4M	\$8.7M	\$5.0M

- **Maintenance Dredging Program.** The requirement for future maintenance dredging (typically reoccurring on an eight-year cycle) is estimated at 20,000 m<sup>3</sup> (equivalent to 2,500 m<sup>3</sup>/year sediment increase x 8 years) with a total cost estimated at \$1.5M per cycle.
- **Financial Cost-Benefit Analysis + Funding Strategies.** A cost-benefit analysis of undertaking dredging is a key component of the project, including social, environmental, and economic impacts of dredging, and consideration of priority areas and options for coastal habitat enhancement, and accessibility to Squamish harbour, marinas, boat launching, docking sites and port facilities that contribute to tourism, marine recreation, and economic activities. A review of potential funding sources for a community-based dredge program is underway. The following have been considered viable from a technical financing perspective:
  - Local Service Area
  - User Fees and Charges
  - Short Term Borrowing
  - Partnerships (Public-Public; Public-Private)
  - Federal/Provincial Grants
  - Annual Budget Allocation (for maintenance dredging only)

Further work and engagement will be completed to evaluate and bring recommendations forward to Council.

- **Economic Impact Analysis and Options Development.** The maintenance of navigable waterways was historically undertaken by Public Works Canada and later Transport Canada. Maintenance included deep sea shipping and domestic navigation channels for ocean traffic as well as local navigation channels for fishing vessels, tugs and barges, commercial and pleasure traffic. By the late 1990s federal dredging activities ceased and the responsibility for the seabed has since been transferred to the Province, however the Province does not actively fund physical maintenance works, creating a funding gap for dredging activities. Outside of major ports, coastal communities are especially challenged to fund waterway maintenance activities. In addition to exploring potential social and environmental benefits of dredging, an economic analysis will be undertaken to gain an understanding of the costs and current and potential economic benefits of maintaining safe channel navigability to examine the business case for the District to participate in funding of dredging activities. This is to include assessment of current and future employment and opportunities within the MBC and will inform development of a full range of dredging and habitat enhancement options and potential funding arrangements.

#### 4. Implications:

**a. Budget:**

The dredge strategy development is supported by 2021 special project funds of \$50K (Engineering) and \$10K (Economic Development). No additional budget was assigned in 2022. Dependent upon dredge recommendations and decisions, financing options and funding sources will be identified to advance dredge program next steps as determined through the project and will be incorporated into the Five-Year Financial Plan.

**b. Organizational Impact:**

The dredge project involves cross-departmental resources to advance this priority action in the Marine Action Strategy, which is a District strategic priority.

**c. Policy:**

Key Squamish2040 OCP policies pertinent to and guiding the project:

**Squamish River Estuary.** *Policy 10.10 j.* Continue to support re-watering of the Mamquam Blind Channel and its tributary systems to improve flows, and enhance environmental features by reconnecting the Mamquam River with the Mamquam Blind Channel and the lower portion of the Squamish River Estuary.

**Coastal / Marine Planning.** *Objectives 10.11 a.* Recognize, value and promote ecosystem services provided by coastal and marine environments; and *b.* Protect, restore and enhance the ecological features and functions of coastal and near shore areas.

*Policy 10.12 b* Continue to build partnerships and collaborate to monitor and protect waterfront and marine areas. Establish a Marine Working Group to coordinate and align efforts of all coastal stakeholders and agencies with jurisdictional authority and interests in the local marine environment.

**Marine, Rail+ Air Transport.** *Objective 20.23* Consider long-term intermodal needs and necessary infrastructure for viable marine and rail transportation connections.

*Policy 20.24 e.* Develop a dredging strategy for the Mamquam Blind Channel as needed in order to address navigability for transportation, recreation and commerce, while minimizing impacts to marine habitats and biodiversity.

*Policy 23.4 e.* Undertake dredging where necessary within navigable waterways (primarily Mamquam Blind Channel) within limits established for shoreline protection, and in consultation and partnership with regulating agencies and marine stakeholders, to ensure continued navigation access.

**Employment Lands Maximization** *Objectives 14.1 and Policy 14.1f* – Advocate for improved, safer access to and from Site B and support use of Site B for expanded specialized water-dependent industrial and port terminal uses.

**Port Facilities + Marine Activities** *Objective 14.5 and Policies 14.6b* – Encourage expansion and diversification of marine, and 14.6e (coordinated waterfront land uses that support economic development.

**Water-Based Recreation Objectives 18.9** (assets and stewardship of local blueways and marine areas), *Policy 18.10a* Promote marine-based recreation opportunities and low impact, water-based recreation access in and around the ocean, channels, and rivers.

**d. Bylaws:**

The key District bylaw pertinent to the long-term dredge management strategy development is the Squamish2040 OCP, which contains important guidelines respecting environmental protection (See Section 34.8 DPA1 Aquatic Marine Guidelines for marine and estuarine areas). Core direction for dredging is prescribed:

*Guideline 34.8 o.* Dredging activities, for new or maintenance of existing facilities, in compliance with senior agency requirements and authorized by the District, should be limited to the minimum area necessary to maintain the existing facility. Where within proximity to sea dike structures, dredging should be done with use of silt curtains to prevent siltation/sedimentation of adjacent areas.

**5. Strategic Plan**

The long-term dredge management strategy specifically directs focus, resources and effort in the following priority areas:

**The Economy and Local Jobs.** Safe marine access in Mamquam Blind Channel is required for industry, recreation, tourism, and mixed-use and commercial activities. Access to tidal waters specifically supports marine industry and employment and broader regional and provincial economic development beyond Squamish.

**Neighbourhood Connectivity and Public Spaces.** This project is connected to the marine gateway goal to enhance the community's connection to the water through improved public accessibility and safety. This directly links to the District's strategic goals in 2019-22 to increase year-round utilization of public spaces (parks, public squares) and increase the area of publicly accessible parks and gathering/pedestrian spaces... in marine waterfront areas by 2022.

**6. Organizational Plan:**

**Stewardship.** Applying an ecosystem-based approach to long-term channel maintenance paired with new opportunities for coastal habitat enhancement, the project can advance District's stewardship pillar by considering long-range community and ecological needs.

**Building Bridges.** The project seeks to advance the District's Building Bridges pillar by building collaboration, meaningful engagement, knowledge sharing and partnership with Squamish Nation.

**7. Engagement:**

The proposed engagement program is described in detail in Attachment 1. District staff further note that the Mamquam Blind Channel is an area of significant cultural and ecological importance to Squamish Nation. Based on recent marine planning conversations with Squamish Nation staff, the District will need to incorporate substantive time for meaningful governmental engagement with Squamish Nation at the outset of the project, along with Fisheries & Oceans Canada. Staff understands that Stawamus River restoration plans have been previously under



review so there is important need to share information and establish mutual objectives for an ecosystem-based approach to guide the dredge review.

**8. Next Implementation Steps:**

Following Council input and subject to endorsement of the engagement program and working group terms of reference, the staff project team will move forward with next steps to recruit and initiate working group technical review sessions to advance the initial stages of dredge management strategy development. In advance, District staff will also be engaging with Squamish Nation to ensure the project is aligned with key values, interests and marine use plans and initiatives of the Squamish Nation, and critical information is brought to the process.

**9. Attachments:**

1. Dredge Management Strategy Project Engagement Program and Draft Dredge Working Group Terms of Reference (April 12, 2022)
2. Mamquam Blind Channel Dredging Areas + Estimated Volumes (Preliminary)

**10. Alternatives to Staff Recommendation:**

**THAT** the District of Squamish refer the proposed dredge management strategy project engagement plan and stakeholder working group terms of reference to a future Committee of the Whole for further discussion; or

Another course of action as identified by Council.

**11. Staff Review**

**Prepared By:**

David Roulston, Manager Municipal Infrastructure  
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**Reviewed By:**

Katherine Mulligan, Economic Development Officer  
Heather Boxrud, Chief Financial Officer  
Robin Arthurs, General Manager of Corporate Services  
Gary Buxton, General Manager of Community Planning & Sustainability

**CAO Recommendation:**

That the recommendation of the Community Planning, Infrastructure & Sustainability be approved.

Linda Glenday, CAO

## ATTACHMENT 1

### Long-Term Dredge Management Strategy Engagement Program

*Engagement Purpose:* Consult on dredging and funding options and recommendations within the Mamquam Blind Channel to address navigation safety, accessibility, habitat and coastal protection and restoration, and community and regional economic vitality of the marine/gateway area.

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#### ***Project Stages and Major Tasks***

##### **1 Initial Data Gathering/Baseline Technical Review (Winter 2021-Spring 2022)**

Key Tasks: Engage engineering consulting services, Existing information review, Navigation channel survey, Initial estimate of dredge volume and locations, Assessment of dredging impacts on surrounding properties and environment, Preliminary environmental impact assessment.

Engagement activities: Engagement planning, early outreach and referrals, online project information page, intergovernmental meetings, and working group establishment

##### **2 Dredging Strategy Development (Spring/Summer 2022)**

Key Tasks: Review Nav Channel Design, Re-use potential and estimate of future sedimentation, and regulatory requirements review. Confirm Cost Estimates, conduct economic analysis, and discuss long-term funding options. Stakeholder engagement on technical review, potential dredge options, costs and priorities. Draft report with options and long-term funding strategies.

Engagement activities: Intergovernmental meetings; dredge project working group meetings. Council workshop to review and confirm initial directions.

##### **3 Dredge Strategy Review + Refinement (Fall 2022)**

Key Tasks: Further stakeholder engagement on draft strategy; ongoing working group consultation and public open house.

##### **4 Dredge Strategy Endorsement (Winter 2022)**

Key Tasks: Summarize final engagement, key edits, and recommendations for final endorsement and implementation.

## Key Engagement Groups

Core engagement groups including governments, regulators, key stakeholders and the public with interests and who may be impacted by the project are outlined in the table below.

<b>2021/22 Long-Term MBC Management + Dredge Funding Strategy Development</b>				
<b>Engagement Groups</b>	<b>Engagement Level (IAP2)</b>	<b>Engagement Activities (Primary, Secondary)</b>	<b>Key Topics for Review</b>	<b>Timing (Project Stage)</b>
District Council	Involve; Empower	Council workshops	Project and engagement plan, scope for technical analysis and prelim considerations and dredge options analysis, financing considerations, long term maintenance and sustainability/ climate action	2, 3, 4
<b>Intergovernmental</b>				
Squamish Nation, community	Involve and Collaborate	Referral; G2G Meetings with project/ technical team; working group involvement invitation, and community engagement	Scope of study and Stawamus River ecosystem considerations (sediment flows, impacts, coastal processes) and habitat enhancement. Nav channel design, Enviro and cultural impact assessments, options including beneficial reuse, recommendations, and funding strategy approaches	Stages 1-4
Transport Canada: Navigation Protection Program; Office of Boating Safety	Involve; Collaborate	Referral; G2G Meetings with project/ technical team; Intergov meetings early and ongoing	Nav channel design, impacts to navigation, permitting and authorizations	Stages 1-4
Fisheries Oceans Canada	Involve; Collaborate	Referral; G2G Meetings with project/ technical team; Intergov meetings; early and ongoing	Nav channel design, fisheries impacts, habitat restoration and permitting and authorizations, beneficial reuse and disposal options	Stages 1-4
BC Ministry of Land, Water + Resource Stewardship and Ministry of Forests	Involve; Collaborate	Referral; G2G Meetings with project team	Land and water use, enviro protection, needs of forest sector, commercial needs	Stages 1-4
BC Dikes	Inform	Referral; G2G Meetings as needed; keep informed	Coastal flood protection, diking infrastructure	Stage 1/2

<b>2021/22 Long-Term MBC Management + Dredge Funding Strategy Development</b>				
BC Environment + Climate Change Strategy	Involve; Collaborate	Referral: G2G Meetings as needed; keep informed	Environmental management, Contaminated Sites regulation	Stage 1/2
BC MOTI	Involve; Collaborate	Referral: G2G Meetings as needed; keep informed	Transportation and infrastructure considerations connected to Hwy99	Stage 1/2
<b>Key Stakeholder Groups</b>				
General Public	Consult	Public Open House; member at large working group	Background, Nav channel design and maintenance, safety and accessibility, priorities, funding options	Stages 1-4
Marine Upland Owners + Water Lot Tenure Holders (Commercial, Industrial)	Consult	Small Group Meetings, Working Group rep; Public Open House	Background, Nav channel design, impact assessment, options and long-term funding strategy, local economic impacts; potential dredge project partnering	Stages 1-4
Port and Industrial Facilities (Squamish Terminals, Site B users, other)	Consult	Direct with project team; Small Group meetings; working group rep	Background, Nav channel design, impact assessment, options and long-term funding strategy, local/regional economic needs and impacts; Potential dredge project partnering	Stages 1-4
Mariners, Boaters/ Marina Managers	Consult	Public Open House	Background, Nav channel design and maintenance, safety and accessibility, funding options	Stages 1-4
Recreational and commercial watersports (groups)	Consult	Public Open House	Nav channel design and maintenance, safety and accessibility, funding options	Stages 1-4
Local and Regional Business /Industry	Consult	Working group representation; Public Open House and/or Focus Session	Nav channel access, design and maintenance, safety and accessibility, funding options	Stages 1-4
Stewardship Groups	Consult	Small Group Meetings; working group representation; Public Open House	Coastal processes and ecosystem functions, environmental impact mitigation, and habitat restoration + enhancement. Nav channel design, dredge options and funding strategy; partnerships	Stages 1-4
Chamber of Commerce	Consult	Representation on cross-sector working group	Dredge options and funding strategy; local economic impact; partnerships	Stages 1-4
Tourism Squamish	Consult	Representation on cross-sector working group	Dredge options and funding strategy; local economic impact; partnerships	Stages 1-4

<b>2021/22 Long-Term MBC Management + Dredge Funding Strategy Development</b>				
<b><i>Other Potential Organizations + Groups</i></b>				
Destination BC	Inform; Consult	Project Team direct outreach	Marine gateway/destination development strategy alignment; Dredge options and funding strategy; local economic impact	Stages 1-4
BC Truck Loggers	Inform; Consult	Project Team direct outreach	local/regional economic needs and impacts	Stages 1-4
Pacific Pilotage Authority	Inform; Consult	Project Team direct outreach	local/regional economic needs and impacts	Stages 1-4
BC Boaters Association	Inform; Consult	Project Team direct outreach	Marine gateway/destination development; local economic impact	Stages 1-4

## **MBC Channel Maintenance + Dredging Working Group**

### **Proposal & Terms of Reference**

The project proposes to recruit and engage a cross-sector community working group to advise on the technical dredge review and strategy development for the project period.

**Mandate:** The mandate of the proposed Working Group is to review information, identify the relevant values, needs and community priorities for marine access and coastal protection and stewardship, and provide input, evaluate options and make recommendations on the development of a long-term ecosystem-based dredge management and funding strategy for the Mamquam Blind Channel.<sup>1</sup>

**Structure.** The dredge strategy working group is to be advisory with broad representation from the community, voluntary (serving without remuneration), and time-limited (disbanded upon completing identified tasks).

**Term.** Appointment to the working group is for one year, or until the group completes its work, whichever is earlier.

**Membership/Representation.** The working group is proposed to consist of up to ten (10) members with representation from the following groups/organizations:

- Squamish Chamber (board appointment and recommendation of candidate)
- Tourism Squamish (board appointment and recommendation of candidate)
- Downtown Squamish BIA (board appointment and recommendation of candidate)

<sup>1</sup> For Council's future consideration, there is potential for this working group to act as a pilot and to consider extending its mandate and transition into an ongoing standing Marine Working Group to review projects and initiatives in the local marine realm, per the Marine Action Strategy implementation working group direction/recommendation (MASt Focus Area 1 Governance).

- Business/Industrial Interest (Including but not limited to Forestry, Short-sea Shipping, Marine Sector e.g. boat repair, marine tech etc, Clean Tech, Other sectors with shipping interests) \*
- Local Marina Representative (Commercial Water Lot Tenure Holder)
- Mariners + grass roots 'Squamish Needs a Boat Launch Cttee' representative
- Waterfront Upland Owners
- Squamish Terminals/Port
- Community Organizations representing:
  - Squamish Harbour Authority
  - Public Safety (RCMSAR, RCMP)
  - Stewardship /Environmental Conservation
  - Marine Recreation (Community and/or Commercial Recreation)
- Community Member at Large

**Roles.** The working group will select a Chair/Vice-chair from among its members at their first meeting, or determine Co-chairs (position to be held jointly by two community members). The Chair/Co-Chair will work directly with staff to solidify agendas and meeting materials in advance of upcoming meetings. The Chair/Co-Chair is responsible for the orderly conduct of working group meetings and any relevant input from observers at the end of meetings.

**Facilitation + Administrative Support.** District staff (project team leads) will provide facilitation and administrative support to the working group for meeting scheduling and logistics, minute taking etc. Staff and the project consultant will bring subject matter expertise and liase with governmental agencies (see below).

**Governmental and technical advisor participation.** The working group will be open to and invite governments/ agency representatives to join as needed to support the project.

**Appointment.** Candidates for working group will be reviewed and appointed by the District of Squamish CAO, with input from Council and support from staff. Appointments will reflect the diversity and experience of candidates and be reflective of the broad spectrum of the community.

**Meetings.** A majority of the voting members is required to constitute a quorum.

**Code of Conduct.** The working group shall follow the procedures as set out in the District's [Council and Committee Member Code of Conduct Policy](#). Working group members must devote the necessary time and effort to prepare for meetings, arrive at meetings on time, provide feedback in keeping with the working group mandate, and be respectful of others' thoughts and opinions. Members of the working group are not permitted to speak to the media or post to any social media platform as representatives of the working group unless authorized to do so by the District of Squamish.

**Public/Observers.** The public are welcome as observers, sitting at the periphery of the working group. The Chair will provide opportunity for members of the public to ask questions and offer points of information at the end of meetings. Observers will also exercise good faith and respect, mindful that they are in a working environment, where ideas and findings are in development and are works in progress. Working group meetings are not a forum for lobbying, speeches or demonstrations.

**Reporting.** Upon completion of its assignment, the working group will submit a report of its findings and recommendations to Council. The District staff representatives and Chair will collaborate on the preparation of the report. Following review by the Working Group, the report will be submitted to Council.

draft







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July 10, 2018

### **RE: Mamquam Blind Channel Dredging and Maintenance**

The Mamquam Blind Channel portion of Squamish harbour has long needed dredging attention. An action plan and the resources and coordination to realize it are required.

At present, channel navigation at lower tides is seriously impaired by material entering from the Stawamus River. There is also need for coordinated plans for land protection and habitat restoration at the mouth of the river as well as disposition of dredge spoils including among various pending land development projects.

Remedies for the mouth of the Stawamus have long been discussed. However, changes in the river bring new erosion and debris flow circumstances to be taken into account.

Marine safety, community economic development and quality of life are affected by navigation channel constraints in this key zone of the harbour. Vessels are encountering difficulties and are being grounded with increasing regularity. The harbour is avoided by potential marine tourist traffic. Commercial marine transport operations are also affected by channel conditions.

Delayed attention to these issues will only mean additional mitigation and remediation costs in future.



The last significant channel maintenance dredging project was undertaken by federal agencies in March 1986.

Transport Canada divested itself of various responsibilities for Squamish Harbour following *Canada Marine Act* changes taking effect in 1999.

During the past three decades there has been only limited maintenance dredging by the (now closed) sawmill operation and a small project undertaken by the District of Squamish in 2013 to alleviate conditions at the Stawamus delta front. Two local initiatives during 2006-08 and 2012-13 to organize and seek funding for the major maintenance dredging required did not succeed.

The Chamber wishes to acknowledge and congratulate the District of Squamish on its recently completed Marine Action Strategy, which refers to the important “gateway” function of Squamish harbour for tourist visitors as well as commercial goods transport.

The Strategy identifies “Initiate scoping and engagement on dredge program, priority navigation maintenance activities, and funding strategy” among priority action items.

There is an immediate need for project planning to get underway, considering timeline constraints (incl. minimizing risk to fisheries) and fundraising needs. The need for a long term, ongoing maintenance strategy must also be emphasized.

A significant number of stakeholders are affected by neglected channel maintenance: Squamish Nation; marine commercial transportation (e.g., construction, forest industry); marine services (e.g., search and rescue, training); recreational boating; and the tourism industry.

The Chamber encourages the three levels of government – District, Provincial and Federal – to play coordinated leadership roles to address planning, regulatory compliance and funding needs in collaboration with the Squamish Nation, other land owners, and key stakeholders in Mamquam Blind Channel maintenance.

Sincerely,

A handwritten signature in black ink, appearing to read "Rob Weys". The signature is stylized with a large, sweeping initial "R" and a series of loops and flourishes.

Rob Weys  
President, Squamish Chamber of Commerce

CHAMBER OF COMMERCE



SQUAMISH

cc:

Squamish Nation Chiefs and Council

Squamish Harbour Authority

RCM Search and Rescue Station 04

Ministry of Forests, Lands, Natural Resource Operations & Rural Development

– Sea to Sky District

Squamish Yacht Club

Squamish & District Forestry Association

Tourism Squamish

