Pacific Salmon Strategy Initiative | Initiative de la Stratégie relative au saumon du Pacifique

Salmonid Enhancement Program
Community Involvement Program Update

Salmonid Enhancement & Habitat Advisory Board

June 7, 2024

Community Involvement Program Update Outline

- Organisational Update – Recent staffing
- PSSI Investments - CEDP & PIP Programs Update
- Additional Program Updates:
  - Whirling Disease Update – 2nd Bulletin
  - Drought Response – Juvenile Salvage Guidelines
  - SEP Workshop Planning

Staffing Changes

Ongoing program changes:

- BC Interior
  - Williams Lake EG - Spencer Neufeld
  - BCI Section Head – Paul Welch
- Lower Fraser
  - North of Fraser – Burnaby to Mission – Cathy McClean
- South Coast
  - All positions are staffed
- North Coast
  - Smithers CA – Jonathan Minson resigned – Replace with Tasheena England temp.
  - Support Bio – Jody Atkinson
  - Terrace CA – Patrick Aresteyn-Vogler
- Additional Priorities
  - Engineer - Sandy Devcic
  - 2nd Engineer – Zaki Abdullah

- Recognise Bev Bowler

CEDP Phase 2 – Current Investment Implementation (2024/25)

- Based on the PSSI evaluation matrix & Pillar 2 objectives, 4 non-owned DFO CEDP facilities were prioritized to receive strategic investments this fiscal year through contribution agreements:
  - 2 BC Interior hatcheries - Dunn and Deadman
  - 1 WCVI - San Juan/4 Mile
  - 1 Sunshine Coast – Tla'amin
  - Continue to support Upper Fraser Chinook programming.
- DFO Owned Facilities – Priority investments w/ RPSS – Capital Funds
  1. North Coast - Toboggan
  2. WCVI – Thornton
  3. NVI - Gwani

PIPs – Investment Summary

- PIP program investments have been guided by PSSI Pillar 2 objectives & priorities
- PIP Review and investments administered through G&C agreements
  - Investments in all 44 facilities in 2023-24
- 10 Larger PIPs reviewed as part of the Engineering Assessment and Review
  - Based on their size, scope and production capacity, larger PIP facilities were provided with up to $50k each (Grant program limit)
- Implementation of investments have been initiated and are currently continuing

Additional CIP-ICEIF Pillar 2 Investments – *Upper Fraser Rebuilding*

- Continues to be a significant priority to SEP and CIP
- Ongoing program participation and funding of 5 hatcheries in the Upper Fraser
- Focusing primarily on conservation populations

CIP-ICEIF delivery – **Intended** Outcomes

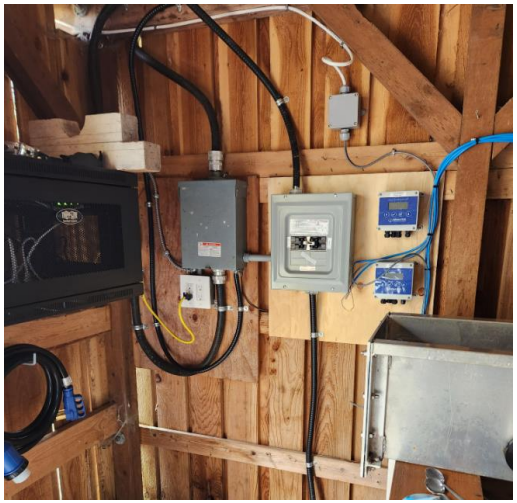
PSSI Pillar 2 Investments will support in addressing the pressing issues and priorities, for CIP partners & facilities through improving:

- Infrastructure / Site Improvements – Health & Safety / Buildings / Incubation & Rearing flexibility
- Enhancement - Focus on Priority stocks / Increasing Assessment Opportunities
- Fish Culture - Fish Health management / Bio-security
- Operational Effectiveness – Data Management / Education & Training / Succession planning
- Water Supply – Quality / Security / Licensing / Treatment
- Climate Change - Resiliency / Adaptation

Future steps:

- Fish health Management Plans – July 2024 (to meet PAR license legal requirements)
- Develop site specific facility operation documents for CEDPs and larger PIPs (by end of PSSI Phase 1 2026)

Examples of Facilities Upgrades



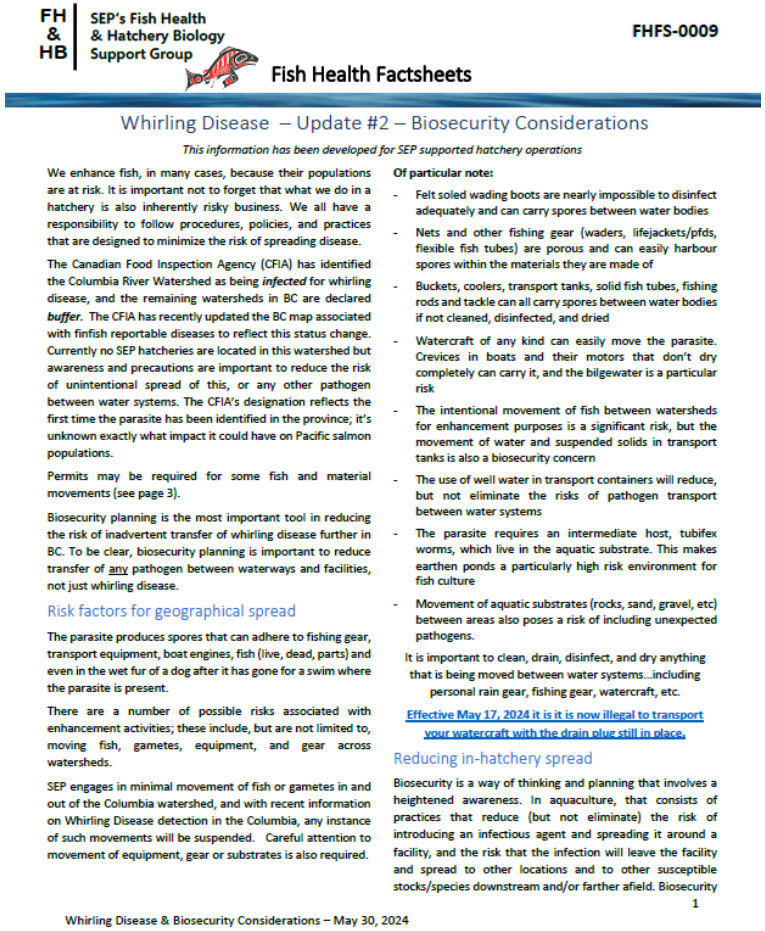
Canada

Updates on Recent Program Issues

- Whirling Disease – Information Bulletin

Key Points:

- Based on the original confirmation of Whirling Disease being detected in the upper Columbia in Dec, 2023, CFIA has now formally declared the Columbia to be an infected zone, and the rest of BC is a buffer zone
- No fish can be moved out of the Columbia unless there is a CFIA permit
- Advice is provided regarding the type, use, management and disinfection of equipment
- Biosecurity is about managing fish, pathogens and people
- People should remember to apply the same standards of care with regards to their personal equipment, travel and recreation in and around water.



FH & HB SEP's Fish Health & Hatchery Biology Support Group

FHFS-0009

Fish Health Factsheets

Whirling Disease – Update #2 – Biosecurity Considerations

This information has been developed for SEP supported hatchery operations

We enhance fish, in many cases, because their populations are at risk. It is important not to forget that what we do in a hatchery is also inherently risky business. We all have a responsibility to follow procedures, policies, and practices that are designed to minimize the risk of spreading disease.

The Canadian Food Inspection Agency (CFIA) has identified the Columbia River Watershed as being ***infected*** for whirling disease, and the remaining watersheds in BC are declared ***buffer***. The CFIA has recently updated the BC map associated with finfish reportable diseases to reflect this status change. Currently no SEP hatcheries are located in this watershed but awareness and precautions are important to reduce the risk of unintentional spread of this, or any other pathogen between water systems. The CFIA's designation reflects the first time the parasite has been identified in the province; it's unknown exactly what impact it could have on Pacific salmon populations.

Permits may be required for some fish and material movements (see page 3).

Biosecurity planning is the most important tool in reducing the risk of inadvertent transfer of whirling disease further in BC. To be clear, biosecurity planning is important to reduce transfer of any pathogen between waterways and facilities, not just whirling disease.

Risk factors for geographical spread

The parasite produces spores that can adhere to fishing gear, transport equipment, boat engines, fish (live, dead, parts) and even in the wet fur of a dog after it has gone for a swim where the parasite is present.

There are a number of possible risks associated with enhancement activities; these include, but are not limited to, moving fish, gametes, equipment, and gear across watersheds.

SEP engages in minimal movement of fish or gametes in and out of the Columbia watershed, and with recent information on Whirling Disease detection in the Columbia, any instance of such movements will be suspended. Careful attention to movement of equipment, gear or substrates is also required.

Of particular note:

- Felt soled wading boots are nearly impossible to disinfect adequately and can carry spores between water bodies
- Nets and other fishing gear (waders, lifejackets/pfds, flexible fish tubes) are porous and can easily harbour spores within the materials they are made of
- Buckets, coolers, transport tanks, solid fish tubes, fishing rods and tackle can all carry spores between water bodies if not cleaned, disinfected, and dried
- Watercraft of any kind can easily move the parasite. Crevices in boats and their motors that don't dry completely can carry it, and the bilgewater is a particular risk
- The intentional movement of fish between watersheds for enhancement purposes is a significant risk, but the movement of water and suspended solids in transport tanks is also a biosecurity concern
- The use of well water in transport containers will reduce, but not eliminate the risks of pathogen transport between water systems
- The parasite requires an intermediate host, tubifex worms, which live in the aquatic substrate. This makes earthen ponds a particularly high risk environment for fish culture
- Movement of aquatic substrates (rocks, sand, gravel, etc) between areas also poses a risk of including unexpected pathogens.

It is important to clean, drain, disinfect, and dry anything that is being moved between water systems…including personal rain gear, fishing gear, watercraft, etc.

Effective May 17, 2024 it is it is now illegal to transport your watercraft with the drain plug still in place.

Reducing in-hatchery spread

Biosecurity is a way of thinking and planning that involves a heightened awareness. In aquaculture, that consists of practices that reduce (but not eliminate) the risk of introducing an infectious agent and spreading it around a facility, and the risk that the infection will leave the facility and spread to other locations and to other susceptible stocks/species downstream and/or farther afield. Biosecurity

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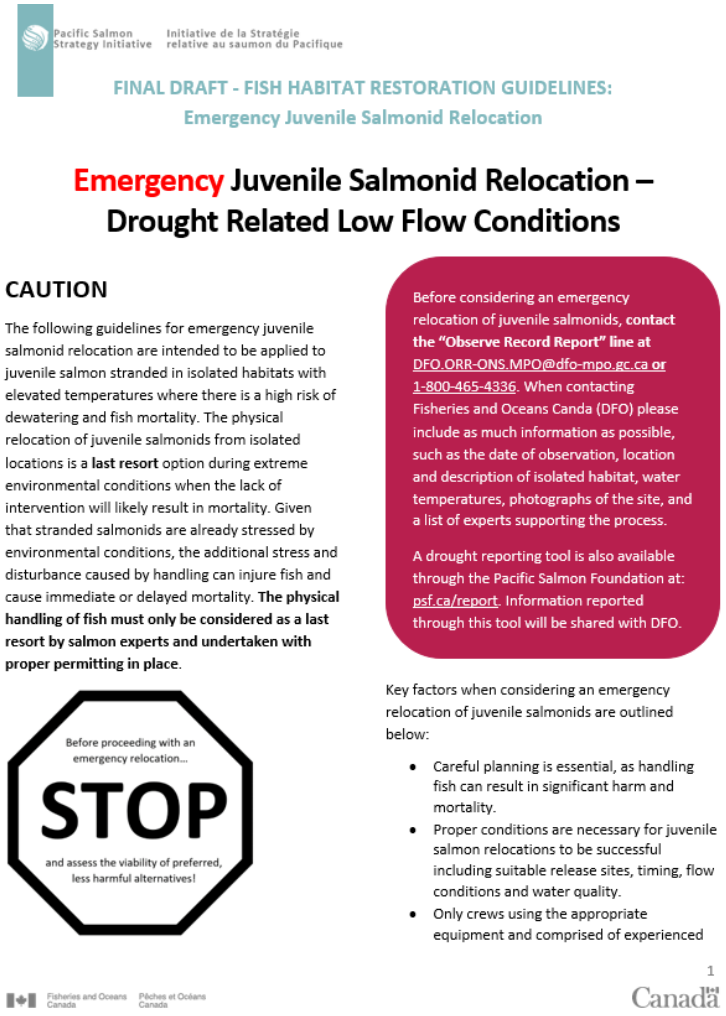
Whirling Disease & Biosecurity Considerations – May 30, 2024

Updates on Recent Program Issues

Drought Response – Juvenile Salmon Salvage Guidelines

Key Points:

- designed primarily to warn off the well-intentioned, but unqualified.
- Explains the dangers and the complexities of handling fish, and the need to ensure proper planning, assessments, qualified crews, required equipment and proper permitting, documentation and reporting.
- It advises the movement of fish is a last resort and other efforts to assist fish through flow management or minor channel modification must be considered first.
- This is a living document and will undoubtedly require ongoing changes, but there is an urgency to get it distributed before groups start moving fish on their own in response to drought.
- It is intended for emergency response application only, and is not to be used for other purposes such as fish exclusion, scientific collection or other non-emergency scenarios.



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FINAL DRAFT - FISH HABITAT RESTORATION GUIDELINES:
Emergency Juvenile Salmonid Relocation

Emergency Juvenile Salmonid Relocation – Drought Related Low Flow Conditions

CAUTION

The following guidelines for emergency juvenile salmonid relocation are intended to be applied to juvenile salmon stranded in isolated habitats with elevated temperatures where there is a high risk of dewatering and fish mortality. The physical relocation of juvenile salmonids from isolated locations is a **last resort** option during extreme environmental conditions when the lack of intervention will likely result in mortality. Given that stranded salmonids are already stressed by environmental conditions, the additional stress and disturbance caused by handling can injure fish and cause immediate or delayed mortality. **The physical handling of fish must only be considered as a last resort by salmon experts and undertaken with proper permitting in place.**

Before proceeding with an emergency relocation...
STOP
and assess the viability of preferred, less harmful alternatives!

Before considering an emergency relocation of juvenile salmonids, **contact the "Observe Record Report" line at** DFO.ORR-ONS.MPO@dfo-mpo.gc.ca **or** 1-800-465-4336. When contacting Fisheries and Oceans Canda (DFO) please include as much information as possible, such as the date of observation, location and description of isolated habitat, water temperatures, photographs of the site, and a list of experts supporting the process.

A drought reporting tool is also available through the Pacific Salmon Foundation at: psf.ca/report. Information reported through this tool will be shared with DFO.

Key factors when considering an emergency relocation of juvenile salmonids are outlined below:

- Careful planning is essential, as handling fish can result in significant harm and mortality.
- Proper conditions are necessary for juvenile salmon relocations to be successful including suitable release sites, timing, flow conditions and water quality.
- Only crews using the appropriate equipment and comprised of experienced

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SEP Workshop Status

- Developing Delivery Options

Discussion and Questions