# Fish Passage Plan (FPP) Change Request Form

**Change Form # & Title**: 20AppB001 – Juvenile Fish Transportation Plan (updates for 2020)

**Date Submitted**: Dec 17, 2019

**Project**: Transport projects

**Requester Name, Agency**: Eric Hockersmith, Corps NWW

**Final Action: APPROVED 1/23/2020**

**FPP Section**:

Appendix B – Juvenile Fish Transport Plan

**Justification for Change**:

Changes are needed to address:

* early start–up at Lower Granite,
* potential changes related to summer transport that won’t be determined until after the New Year,
* and changes to reduce TDG exposure for transported fish collected at Little Goose.

**Proposed Change**:

*See following pages with edits to existing Appendix B in track changes.*

**Comments**:

 1/23/2020 FPOM FPP Meeting:

Conder asked about the date for re-initiation of summer truck transport and where that’s defined in the FPP since it is new this year. His understanding is that it is August 15. Hockersmith replied that it’s not in the FPP since it is a product of the Flex Spill Agreement group. It will be in the FOP. Morrill added that he thinks the default date is August 15 and any in-season changes can be coordinated via TMT.

**Record of Final Action**: Approved at the FPOM FPP meeting 1/23/2020.

1. OPERATING CRITERIA
	1. Early Season Non-Transport Operations.
		1. Prior to initiation of transport in flow years when fish are not being transported from the Snake River projects, fish collection facilities will be operated as described below.
		2. **Lower Granite:** Juvenile fish will be bypassed via normal separator operations and routed to the mid-river release outfall and PIT-tag detection system. Normal 24-hour sampling for the SMP shall occur. *In 2020, the Lower Granite bypass system will begin operations on March 1 and screens will be installed in at least the first three available priority units. Additional units may be screened before April 1 if maintenance schedules allow. Daily condition and index sampling will begin March 1st in 2020.*
		3. **Little Goose:** Juvenile fish will be bypassed and routed to the mid-river release outfall and full flow PIT-tag detection system, except during condition sampling as described below.
			* 1. Condition sampling will begin April 1 to monitor fish descaling and other fish condition parameters, to ensure sampling systems are operating correctly prior to the start of transport, and to train personnel on facility operations and sampling protocol.
				2. From April 1 until the start of transport, condition sampling will occur every other day.
				3. The sample goal should be 100 fish of the predominant salmonid species.
				4. When not sampling, the facility will return to primary (full-flow) bypass.
				5. Sampling frequency may be increased if injuries are observed or suspected (e.g., during high debris conditions).
				6. Full 24-hour samples may be taken to determine species composition to inform a decision on starting transport at this project.
				7. Fish condition reporting will follow the standardized SMP protocol and sent to FPC within 12 hours of sampling.
		4. **Lower Monumental**: Juvenile fish will be bypassed and routed to the primary outfall and full flow PIT-tag detection system, except during condition sampling as described below.
			* 1. Condition sampling will begin April 1 in order to monitor fish descaling and other fish condition parameters, to ensure sampling systems are operating correctly prior to the start of transport, and to train personnel on facility operations and sampling protocol.
				2. Starting on April 1 through April 15, condition sampling will occur at least twice per week, with no more than three days between samples. From April 15 until the start of transport, sampling will occur every other day.
				3. The sample goal should be 100 fish of the predominant salmonid species.
				4. When not sampling, the facility will return to primary (full-flow) bypass.
				5. Sampling frequency may be increased if injuries are observed or suspected (e.g., during high debris conditions).
				6. Full 24-hour samples may be taken to determine species composition to inform a decision on starting transport at this project.
				7. Fish condition reporting will follow the standardized SMP protocol and sent to FPC within 12 hours of sampling.
2. Truck and barge Operations
	1. Truck Operations.
		1. **Trucks.** Two 3,500-gallon fish transport trailers and one tractor, three 300-gallon midi-tanks, and three 150-gallon mini-tanks are available for hauling fish. One midi-tank and one mini-tank will be provided at each Snake River collector project. Mini- and midi-tanks are small units that can be mounted onto pickup trucks. During trucking operations, a transport truck/trailer is based at Lower Granite Dam, with the second transport trailer held in reserve. The truck/trailer combination may be redistributed to meet transport demands and when smaller transport vehicles begin operating in late summer.
		2. **Truck Release Sites:** The normal early spring release site for trucked fish will be a truck pad behind the Bonneville Dam Smolt Monitoring Facility (SMF). Fish released from the truck pad pass through the SMF outfall into the Columbia River. When collection numbers are low during truck transportation, midi-tanks and mini-tanks may also release fish into the Bonneville SMF outfall flume. Dalton Point will be utilized as an alternate release site in the case of an emergency or if unsafe conditions exist at the Bonneville facility.
		3. **Operation of Truck Life Support Systems:** Truck drivers will be trained by project biologists and maintenance personnel on the operation of truck life support systems, the requirements of fish to be met, and signs of stress for which to watch. Routine checks will be made on support systems and fish condition at check points identified by project biologists. Life support system data and information on fish condition will be entered into the truck driver's logbook at each check point and at the release point. The truck driver's logbook will be reviewed by the project biologist upon the truck driver's return after each trip.
		4. **Truck Loading Schedules:** If required to maintain transport schedules at the Snake River projects, transport trucks, midi-tanks, and mini-tanks leaving Lower Granite may take on additional fish at Little Goose Dam, or trucks leaving Little Goose may take on additional fish at Lower Monumental Dam. Loading schedules will be coordinated so that fish will be kept separated by size as much as possible.
	2. Barge Operations.
		1. **Barges:** Eight fish barges and four towboats will be available for use.
		2. **Barge Scheduling:** Barges with 75,000 pound capacity will operate from Lower Granite Dam. It takes approximately 79 hours to make a trip from Lower Granite Dam to the release area near the Skamania light buoy below Bonneville Dam and return. One barge will leave Lower Granite Dam every-other-day or daily, beginning on or about the second day after the initiation of collection. The FOP (**Appendix E**) specifies the date collection will start for transportation in coordination and discussion with RIOG. When fish numbers increase during the course of every-other day barging operations, the transport program will switch to one barge leaving Lower Granite daily. When fish numbers decline in late spring, operations will change to or return to every-other-day barging from Lower Granite Dam, with barging operations continuing through July 31. During spring operations, barges will take on additional fish at Little Goose, and Lower Monumental dams as barge capacity allows. The two medium and two small barges may also be used from Lower Granite Dam for additional barging capacity or they will be used for direct loading of fish at Little Goose Dam. Direct loading rather than loading into the raceways will be preferred during the spring FOP spill at Little Goose Dam to reduce exposure duration to high Total Dissolved Gas (TDG) in the raceways that can occur during high spill periods. When daily collection exceeds barge capacity, juvenile fish may be spilled per **section 4** above or will be bypassed to the river until collection numbers drop to where juvenile fish can be barged within barge carrying capacity criteria.
		3. **Barge Loading:** Whenever possible, small and large fish will be loaded in separate compartments in barges or until steelhead collection drops below 100 fish collected over a two day period. At that time, all fish may be transported in the same compartment.
		4. **Barge Riders:** Project barge riders will accompany each barge trip, supervising all loading and release operations, and barge operations en-route. Barge riders will be trained on barge operation, maintenance, and emergency procedures by project biologists and maintenance personnel. Barge riders will also be cross-trained in facility operations, and may rotate with facility operators as decided by project management. Barge riders shall be responsible for monitoring fish condition, barge equipment operations, and water quality data (currently temperature and dissolved oxygen levels) at regular intervals during downriver trips. Barge riders shall maintain logbooks and forms recording loading activities and times, loading densities by barge compartment, information on equipment operations, and release locations. Standard operational procedure forms shall be filled out during routine monitoring of equipment operation and shall include fish mortality and water quality data. At each subsequent dam where fish are loaded onto the barge, the barge rider shall make appropriate notations in the logbook and/or appropriate form. The barge rider shall also serve as an inspector for the towboat contract, and record information required by the Contracting Officer's Representative, and shall initial the towboat captain's logbook confirming operational information and lockage times. Any unresolved differences between barge riders and towboat crews shall be reported immediately to the Contracting Officer's Representative.
		5. **Barge Release Area:** The barge schedule is based on releasing fish between river miles 138 and 141 with arrival at that point pre-determined to occur during nighttime hours to minimize predation impacts. As a reference point, Bonneville Dam is at RM 146. Barge travel time is affected by weather and river flows. Each towboat will be assigned a designated river mile for fish releases to ensure fish are not released in the same area on consecutive trips. Lower Granite project biologists will furnish maps of the release site and clearly designate the assigned river mile for fish release on each trip. As warranted, barge riders may randomly select a barge release site between river miles 138 and 141 to further decrease the ability of predators to prey on fish released from the barge. The alternate release site should be coordinated with the Lower Granite project biologist, if possible.
		6. **Barge Lockage Priority:** During the fish barging season, , fish barges as Government vessels should be provided priority lockage over commercial and recreational traffic when locking through navigation locks, per *33 CFR 207.718(f)*. However, safety will not be compromised during lockages.