Lower Granite:

* Shear boom diverts debris away from PH trashracks
* Measure gatewell drawdowns and VBS differentials to determine trashrack and VBS debris load- rake trash as needed based on gatewell drawdowns
* Perform gatewell inspections for level, debris, and foreign substances at least once per day (morning) removing debris as needed
* Use tug towed log bronc in forebay to release controlled amounts of debris in the RSW flow
* Perform emergency and planned debris spills to reduce impacts at the RSW and spillways such as logs becoming jammed in the spillbay. Debris spills also eliminate this debris being pushed to the powerhouse during high wind events
* Use existing bubblers to push debris away from intakes such as makeup water valves fish ladder exits
* Increase orifice inspections and back flushing frequencies
* Monitor debris level in PDW, operate pneumatic and mechanical screen cleaners based on debris load
* Communicate when PDW screen cleaners are operated to ensure bio tech in standing by to remove as much debris as possible prior to it being distributed through the JFF system. Increase frequency of screen cleaner operation depending on debris load
* Train bio techs to ensure debris does not build up at the separator adult release gate, in the separator, under the separator bars, or on the separator exit dewatering screens.
* Remove debris from porosity unit and separator every 15 minutes during high debris or as needed depending on debris load
* During high debris have an additional person watch the separator while the bio tech performs other duties
* Remove debris from flumes, raceways, and tanks hourly or more often if needed
* Bio techs perform facility inspections at least twice per shift
* Biologists perform facility inspections as another set of eyes
* Monitor descaling rates as an indication for debris issues and follow the sample fish route backwards to ensure there are not issues. Examples would be throughing balls in pipes and flumes or doing an additional gatewell drawdown.

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