CENWW-ODH August 28, 2017

MEMORANDUM FOR THE RECORD - 17 IHR 13 updated August 8, 2017

SUBJECT: Adult lamprey mortality found on July 26 and August 7, 2017, at south shore fish count station.

- A. Species Entosphenus tridentatus, 1 adult found on July 26, 1 adult found on August 7.
- B. Origin Unknown.
- C. Length Average size not measured.
- D. Marks and tags No marks or tags seen.
- E. Marks and injuries found on carcass –None seen on July 26. The lamprey found on August 7 had indentations from the bars of the picketed lead (see photo below).
- F. Location South shore fish count station at the picketed leads.
- G. Cause and time of death On July 26, at about 0815 hours, fish facility staff began to clean the picketed leads. While raising one of the downstream picketed leads, he briefly observed a dead adult lamprey with its head stuck between the vertical bars of the lead (head facing upstream), before the lamprey fell off into the water. It is uncertain how long the lamprey was dead, because he did not get a good look at its condition. At the time, the picketed leads were being cleaned once a day, so the lamprey was stuck in the lead for up to 1 day. Although it is not certain, the lamprey may have died as a result of being stuck in the picketed lead. On August 7, at about 0745 hours, a dead adult lamprey was found stuck between the vertical bars of one of the downstream picketed leads (head facing upstream) while cleaning it. The lamprey appeared to be dead for at least 1 day and was missing its head and tail (see photo below).
- H. Future and preventative measures The picketed leads are raised approximately 2" off the floor of the fish ladder for lamprey passage. The spacing between the vertical bars of the picketed leads is 1". However, the actual spacing between the bars is effectively less than 1" in areas where filamentous algae collects on the bars of the leads before being cleaned. This may create areas where the spacing between the bars is harder for lamprey to squeeze through. Currently, the picketed leads need to be cleaned twice a day to not exceed the criteria for head differential across the picketed leads. The frequency of required cleaning will most likely continue to increase in the next few weeks as more filamentous algae comes down the fish ladder. While cleaning the picketed leads, personnel will monitor the leads for any more lamprey to assess whether this continues to be a problem. Temporary lighting will be installed soon at the south shore count station so the picketed leads can be safely cleaned at night. The picketed leads will be cleaned once during the day time and once at night for the twice a day cleaning. The night time cleaning will help keep the leads clean at night when lamprey are passing.
- I. Pictures included nonesee below.



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