October 13, 2016

Fish Passage Operations & Maintenance

Update on USACE Fish Counts

Background:

The fish counting program is complex and as it has grown to utilize computers dependent on the USACE (Department of Defense) network. This has greatly improved how quickly counts can be published, but it is often times at odds with the cyber security requirements of this network. The counts move through the USACE firewall, thus present a higher cyber security risk than a static document posted to the website. This is a dynamic situation that requires continuous responses to constricting security measures and software updates. Fish are visually counted at 14 + 1 (Cascades Island) count slot windows by about 54 contracted fish counters. Network accounts, permissions, and security training have to be maintained for all counters and computer connectivity for each count station. A break or restriction in network connectivity for a computer or individual’s account results in delays of publishing of the count to the USACE public website. If you notice a delay in the counts, it is often more than one factor that prevented them from posting. If fish managers have specific data needs, please coordinate with the Fish Field Unit and we will work to provide the counts.

USACE is working on short term and longer term fixes to maintain the reliable and timely publishing of fish counts that the region has grown accustomed to. We recognize that in-season management decisions have become dependent on USACE fish counts and do our best to provide this critical data. In the short term we are working to correct folder access and permission for individual counters – they are currently preventing automatic publishing of the counts. Mid-season all counter were required to move to new account types, these issues are often associated with that move. In the long term were are working to move the fish count program outside the USACE network to one that is more compatible with the dynamic requirements and security that is more appropriate for information we plan to make public. It is important to note that even if the counts do not publish and/or part of the computer system fails – the counts can still being manually collected.

 How the counts are published to the website:

At the end of the counting day, about 9:30 pm (and again at 5:30 am), the fish counts from all counting slots within NWP and NWW are sent through the network server which is picked up by a scheduled task. The counts are then processed through an Access database and if all 16 hours from both ladders are a complete set, the counts are posted to the website.

These are some of the problems we encounter:

If the counts do not have a complete set due to, missing hours, missing ladder, or corrections noted from the counters then the counts are held in the database until the Fish Field Unit can make corrections or enter counts manually (from a FAX). We then have to manually trigger the database to run and the scheduled task will see the changes to update the website. Due to the size of the database, this process can take some time. In addition, since this database is running through our downtown network server, often times from Bonneville, we will experience network breaks and have to close the program, and wait for it to come back. This is a slow and frustrating process on our end.

USACE is in transition to migrate to a new computer security system, which has changed for the fish counters. During this transition some permissions did not carry over with all of the fish counters, so their access to send the counts was disabled. This causes a delay in receiving the counts into the database, thus having to manually enter the counts. Which is the cause of the counts not posting from 23-25 September at Bonneville. On 23 September a counter at The Dalles Dam was not able to log on to the computer because her account was disabled, so she had to count manually.

Last week, the scheduled task that pushes the counts to the website broke. After several days, our ACE-IT support was able to get it back up and running so that they didn’t have to manually trigger the scheduled task. However, this is an issue in which we are actively trying to find a solution. Again, if fish managers have specific data needs, please coordinate with the Fish Field Unit and we will work to provide the counts.