
Seepage Loss Review Memo

Date: December 10, 2023

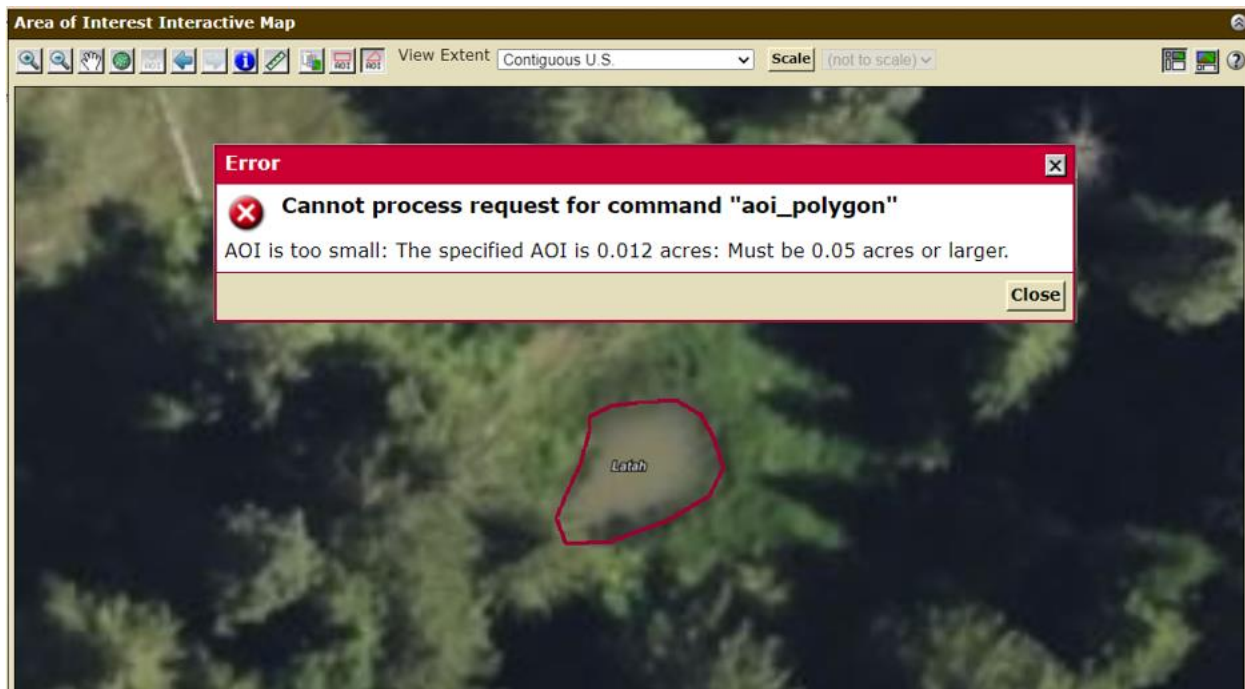
From: Craig Saxton

RE: Recalculation of volumes associated with 87-12314

During settlement discussions for 87-12314 with the claimants representatives disagreed with the proposed recommended volume for seepage loss, stating that the NRCS soil type classification of CL¹ was used in error when calculating seepage losses for the pond described in 87-12314. It was proposed by the claimants representative that the actual soil type for the area the pond is located, is identified as soil type SM².

After reviewing the information provided by the claimant, and following guidance provided in IDWR's pond analysis spreadsheet which uses the tools provided by the United States Department of Agriculture, Natural Resources Conservation Service (NRCS), I agree that the NRSC indicates that the majority of the soil in the area of interest for the pond is classified as SM. I recalculated the seepage losses using this soil type.

When recalculating seepage loss, I was able to use the NRCS aerial photos to measure a more accurate surface area of the pond. The pond surface area was measured at 0.012 acres. Previous seepage loss calculations used a pond surface area of 0.02 acres.



The red boundary surrounding the pond calculates to 0.012 acres. This area was too small for the NRCS tool to establish an Area of Interest, but it shows the surface area of the pond.

Calculated Seepage losses based on a pond with a 0.012 acre footprint (surface area) which was measured using tools provide by the NRCS, with a soil type classification of SM, results in seepage losses up to 0.88 AFA **~0.9 AFA**.

¹ CL (Low to medium plasticity clays) = 0.003 ft per day

² GW, GP, GM, GC, SW, SP and SM (silty sand, sand silt mixtures and gravel mixtures) = 0.2 ft per day