

## Waterbody - Waterbody Matching Post Processor

By: Kevin Neufeld

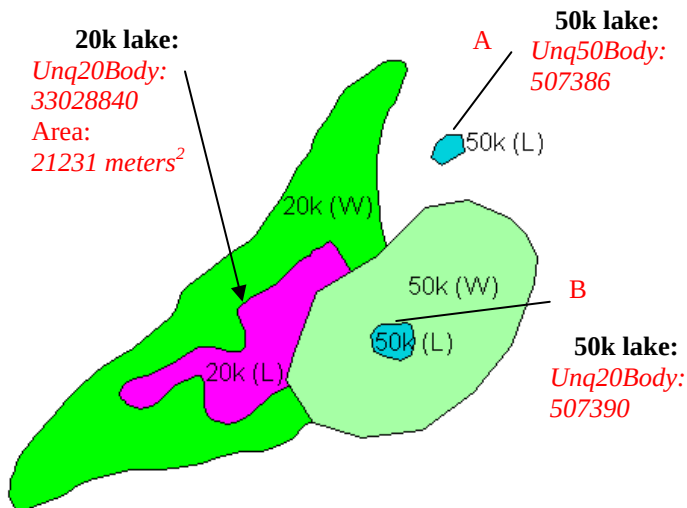
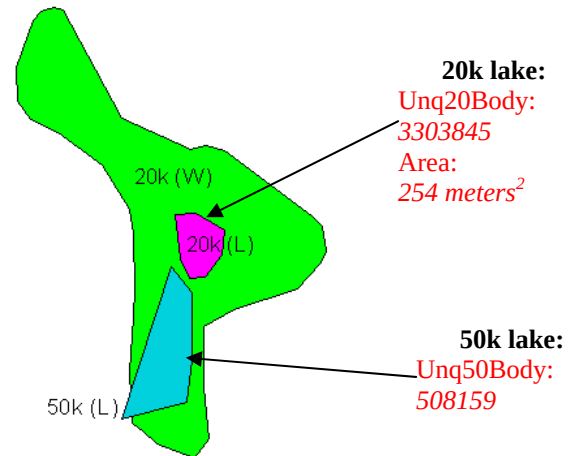
## Overview

The Post Processor is an addendum to the 3-phase waterbody-waterbody matching algorithm, adding a new 4<sup>th</sup> phase. This supplemental processor identifies and fixes anomalous matches whose participating waterbodies are only lakes that have an area below the designated 3Ha area constraint.

## Identified and Solved Matching Problems

UNQ20BODY 33030845

In this scenario, the 50k waterbody 508159 was incorrectly matched to the 20k wetland in phase 1. Consequentially, phase 2 and phase 3 of the matching phase skipped this match because it was already matched. The post processor algorithm identified that there was 20k lake nearby that was unmatched and decided to rematch the 50k lake 508159 to the 20k lake 3303845.



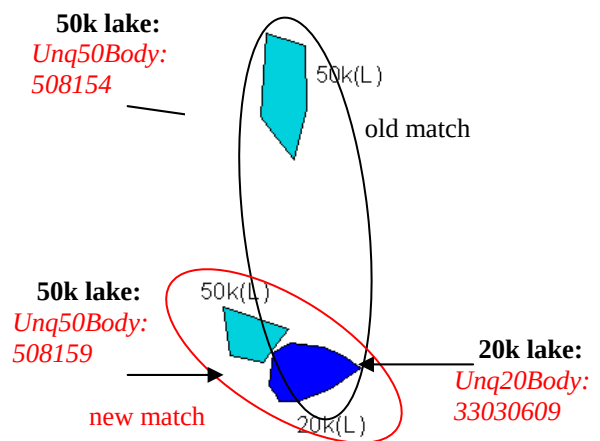
UNQ20BODY 33028840

In this scenario, the 50k lake 507386 (A) was first in the matching process, and matched to the 20k lake 33028840. Then when 507390 (B) had its turn to match, it found that the nearest 20k lake was already matched and so remained unmatched. The post processor algorithm identified this anomaly and correctly matched B to 33028840, leaving A unmatched.

UNQ20BODY 33030609

This previous unidentified error is similar to the previous anomaly where the order of matching the 50k lakes resulted in an erroneous match.

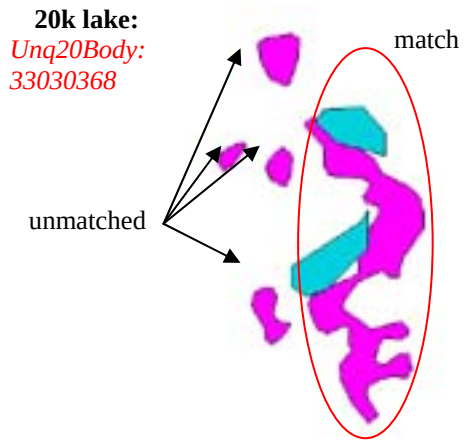
The post processor identified this error and correctly matched 5081590 to its 20k counterpart, 33030609.



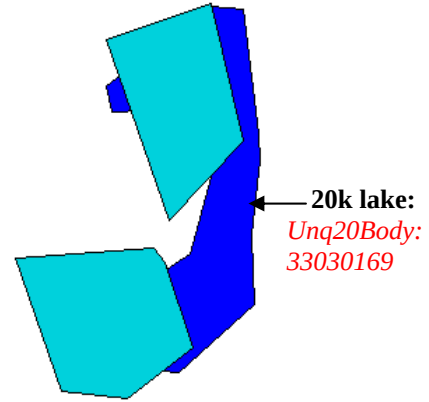
## Unidentified Problems

We are uncertain why these 20k lakes have been flagged as an issue.

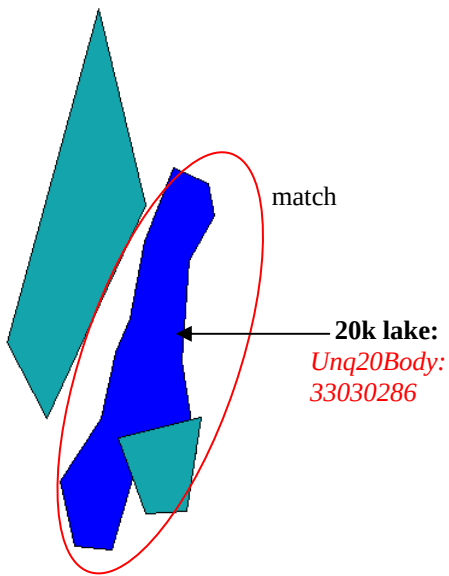
UNQ20BODY 33030368



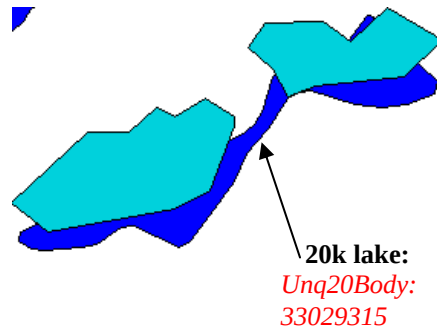
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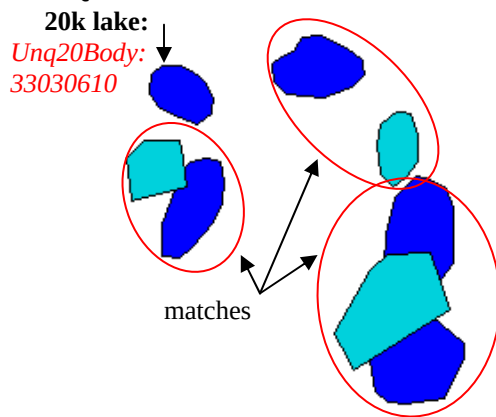
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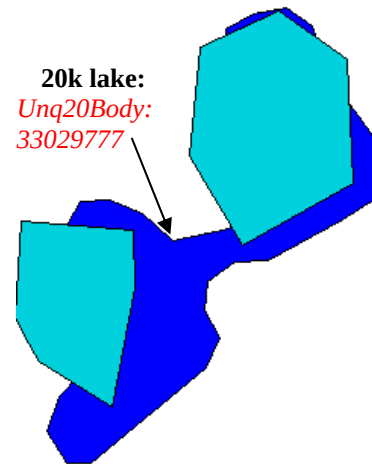
UNQ20BODY 33029315



UNQ20BODY 33030610

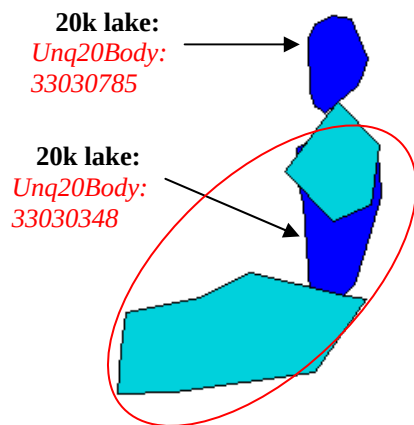


UNQ20BODY 33029777

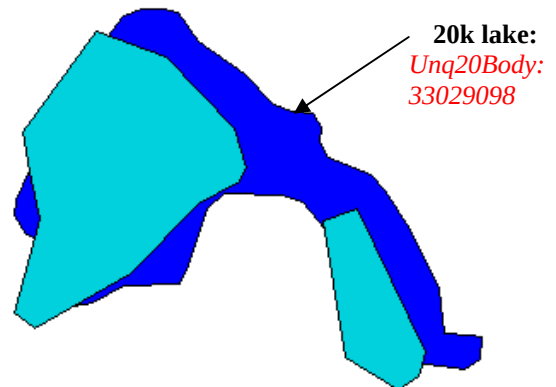


UNQ20BODY 33030785

UNQ20BODY 33030348



UNQ20BODY 33029098



33030348 more closely matches the two 50k waterbodies than 33030785 because of the area of intersection and distance to the two waterbodies.

UNQ20BODY 33029899

