1. Populations without data  
   i. Add content that conveys the status of data availability for that population such as A) extirpated, no data available, B) no monitoring currently exists, C) monitoring exists but data are not currently available on this site and provide the user information about where these data can be accessed, or D) status of data availability unknown. Consider a pop-up window or a message to be displayed on the CAP Fish HLI map-based query next to the population name or over its polygon that would communicate this information. This information should also be included in the CAP Fish HLI tabular query and in the exported file.  
   ii. On the CAP Fish HLI map-based query, default to display populations with data. Provide a check box for the user to choose to have the populations with no data visible in the list of populations.  
   iii. PSMFC StreamNet staff should work with the data providers to determine what information to include, building from previous inventories completed by StreamNet staff.  
   iv. The fairly static nature of the pop-up box information does not require incorporating these fields into the DES.

2. Superpopulations and other groupings  
   i. Separate out the HLI estimates for ‘superpopulations’ or other approved groupings from the population/subpopulation estimates by having the user select this display option in CAP Fish HLI map-based query, and include a filter that performs a similar function in the CAP Fish HLI tabular query.  
      1. Further work is needed to clarify the various groupings that are larger than an individual population so that the user clearly understands what these estimates represent. One approach for organizing these larger than a population groups could take into consideration the purpose of these different groups (e.g. a ‘superpopulation’ represents fish from multiple populations that are monitored as one group; whereas the groupings created by MAFAC represent summation of multiple HLI estimates). Before selecting how to organize these different groups of estimates that are larger than a population, PSMFC StreamNet staff should consider the different purposes for the groups currently included in the CAX and potential future groupings.  
   ii. If a superpopulation HLI estimate is displayed, or if HLIs for another type of grouping are displayed, include a list of populations included in that superpopulation; map the superpopulation polygon with the population polygons (wholly or partially) included, but do not make the population polygons interactive/clickable.
iii. Conversely, when viewing a population HLI estimate include superpopulations names (as a reference or hyperlink) so the user is aware that data are available for that species/run at other scales.

3. Subpopulation HLIs data
   i. Include as part of the population-scale view/select option and not as a separate view/selection option. For any population that has both population scale and subpopulation scale, sort so that the population scale estimates appear first in the list. For the subpopulations clearly articulate the geographic scale represented by the partial subset of the population in a textual manner; and add a label to indicate these are at the subpopulation, a partial subset of a population scale.
   ii. As funding and data availability allows, when clicking on a partial population data row display the river reach data in the population polygon or hatch the population polygon to indicate subpopulation scale data are included. The latter option of adding hatch lines is likely most manageable without affecting the existing data exchange standard.

4. Other suggestions
   i. Remove term “Non-TRT” in population names and keep the Status field under the population names.
   ii. Provide a filter for HLIs following the species/run and population scale check boxes for the tabular query.
   iii. Provide additional filters to support filtering by other fields and not be limited to sorting by population names.