5. Screening Methodology

Teams of specialists in each issue area from DWR and the stakeholder groups were assigned to evaluate the impacts of the reservoir options for that issue. The teams examined each major issue or sub-issue to determine the impact that each reservoir option would have upon them. A ratings range of –5 to +5 was used to represent the severity or magnitude of a potential problem or benefit as compared to the base case. Negative numbers are detrimental or costly, and positive numbers are beneficial. The base case was defined as the as-designed option, with the normal reservoir level at 1588 ft., with the remediation completed and improvements made to the intake, outlet works and emergency drawdown discharge channel. The base case was defined by setting its ratings to 0 for all issues and sub-issues. The impacts for the issues related to other reservoir options were evaluated and rated by the teams in comparison to the base case option.

The evaluating teams also assigned weighting factors to the ratings given to each sub-issue. This was based upon their collective judgement as to the relative importance of the sub-issue. The weighting factors were assigned as a percentage for each sub-issue, with the sum of the percentages for all sub-issues adding up to 100 percent. The weighted ratings for all sub-issues were calculated for each reservoir option, the result being a total weighted valuation for that issue.

The weighted ratings for each of the 13 issues were then weighted by the group as a whole at one of the group meetings. The weighting percentages of the issues reflect their relative importance to the implementation of the remediation or modification program. Again, the sum of weighting percentages is 100 percent. The sum of the weighted issue ratings constitutes the group consensus as to the relative impacts of all issues for each of the reservoir options in comparison to the base case rating, that by definition is 0.

Although the present study did not include estimates of the costs or dollar benefits for the various reservoir options, qualitative judgements of relative dollar costs or benefits were factored into the ratings and weighting by considering order-of-magnitude cost estimates, e.g, if a required mitigation or improvement was estimated to cost from $1 to $10 million in conjunction with a construction magnitude representing a cost in the order of $1 billion (1% or less), it was considered not very severe.

The ratings and weighting factors for the enlarged reservoir options were all done on the basis of including the northeast dam that reduces the reservoir inundation in some of the critical SKR habitat.