Reservoir site criteria

1. Reservoir Storage Capacity and Probability of Filling
   **Premise:** Consider a reasonable minimum storage threshold (20K AF for single large projects and 10K AF each for multiple smaller site combinations) and a maximum annual storage need at 35K AF; consider the probability of annual fill
   - No-low credit for sites with limited storage that can’t meet minimum threshold
   - Low credit for sites which have enough capacity (with high fill probability) to at least meet minimum threshold
   - Medium credit for sites that can meet maximum annual storage need (with high fill probability)
   - High credit for sites that can exceed maximum annual storage needs (high fill probability for capacity above annual need could be used as carry-over to increase likelihood of filling the next year)
   - Credit deductions for sites with low annual fill probability

2. Reservoir Location
   **Premise:** Consider the entire river reach for instream flow goals from Milton Freewater (LWWRID Diversion) to the Walla Walla River mouth; consider ESA fish blockage impacts
   - No-low credit for sites which cannot provide flow to the entire target reach
   - High credit for sites which can provide flow to the entire target reach
   - Low credit deduction for sites with small ESA fish impacts due to blocked access
   - High credit deduction for sites with high ESA fish impacts due to blocked access

3. Reservoir Fill and Conveyance Systems
   **Premise:** Consider the type, size, distance, and difficulties associated with the conveyance systems for filling the reservoir and for distributing stored water (instream diversion structures required, piping, ditches, gravity or pumping/re-lift required -- the more complicated these are, the more the cost and potential environmental impact)
   - No-low credit for very extensive/complicated systems relative to other options
   - Low credit for moderately extensive/complicated systems relative to other options
   - High credit for short or simple systems relative to other options

4. Project Cost Indicators
   **Premise:** Since high cost alone could preclude implementation of a storage project, consideration must be given to key cost indicators, particularly if costs or conditions are deemed insurmountable
   - Reduced credit if site required “excessive” dam width or height relative to other options
   - Reduced credit if site requires extensive or complicated fill and conveyance systems (due to additional in-channel diversion structures, long delivery routes, extensive water lifting/pumping, etc.)
   - Reduced credit if site has relatively high land acquisition cost relative to other options
   - Increased credit if reservoir has power production potential to offset O&M costs

5. Other Considerations
   **Premise:** Various site conditions or capabilities should be considered whether pro or con
   - Reduced credit if site has relatively high geologic fault conditions which increases chance failure and flood risk
   - Reduced credit if quality (temperature) of released water may not meet use requirements
- Reduced credit if area of inundation has high landowner concerns or loss of cultural value
- Increased credit if reservoir has potential to benefit both instream flow enhancement for fish and agriculture use
- Increased credit if stored releases could be more easily protected as instream flows relative to other options
- Increased credit if reservoir has additional benefits such as recreation

I hope these concepts will be helpful to start our screening criteria discussions. After we decide on the criteria, we will need to develop a rating system. I assume this would include assigning points and weighting to criteria in order to determine an overall score for the various sites/options. Thanks, GJames