

**SPU Integrated Plan Multi Objective Decision Analysis (MODA) Criteria**  
**Draft Evaluation Criteria for use in Stormwater programs and projects.**

| Criteria  | Sub-Criteria<br>(not scored)  | Question  | Scale  |   |  |
|---|---|---|--|---|--|
|   |   |   | High = 5.0 (Good)  | Medium = 3.0  | Low = 1.0 (Bad)  |
| <b>1. Performance Risk</b>                      |   | <b>How flexible does the system perform in response to varying flow and pollutant characteristics above and below the design point?</b>   | High confidence: Monitoring data available to document system performance (e.g., TAPE or other comparable program) for most Consent Decree parameters under varying flow and quality conditions.<br><br>Project performance can be easily measured (e.g., inlet/outlet monitoring)<br><br>Treatment mechanisms and maintenance needs well understood and documented  | Medium confidence: Monitoring data available (e.g., TAPE or other comparable program) for typical stormwater pollutants (conventionals and metals ) under varying flow and quality conditions.<br><br>Technology has been tested and used in other stormwater or other wet weather applications<br><br>Treatment mechanisms and maintenance   | Low confidence: Minimal or conflicting data available on technology performance.<br><br>Technology has been tested, but not widely used in stormwater or other wet weather applications<br><br>Treatment mechanisms and maintenance needs understood, but not well documented<br><br>Project performance not easily measured   |
|   |   | <b>2. Flexibility</b>   | <b>What are the intervention opportunities to address under-performance, changes in regulatory compliance requirements</b>   | Can be easily modified to meet potential future regulatory requirements or changes in CSO/Stormwater quality with low capital expenditure   | Can be modified to meet potential future regulatory requirements or changes in CSO/Stormwater quality with additional treatment train and/or modifications to filter media   |
| <b>3. Relationship with Other Agencies</b>      | <b>Relationship with Tribes</b>   | <b>Enhances long-term relationship with Puget Sound area Tribes</b>   | Supports and enhances Puget Sound area Tribes' salmon recovery plans and natural resource protection goals.  | Does not create additional risks to Puget Sound area Tribes' salmon recovery plans and natural resource protection goals.   | Creates additional risks to Puget Sound area Tribes' salmon recovery plans and natural resource protection goals.  |
|   | <b>Relationship with King County</b>  | <b>Enhances long-term relationship with King County WTD</b>   | Reduces hydraulic and/or pollutant loading to WTD system; does not require special operation of WTD facilities: reduces risk on achieving permit compliance  | No change on loading to WTD; no additional risks on WTD facility performance or permit compliance   | Increases hydraulic and/or pollutant loading to WTD system; requires additional operational commitment from WTD; has potential to impact permit compliance   |
| <b>4. Water Quality</b>                         | <b>Project's ability to protect water quality threat from stormwater pollutants, ability to restore impaired uses, ability to maintain restored uses.</b> | <b>Currently under development by water quality team</b>  | The water quality are based upon a ratio of the pollutant load reduction of the stormwater projects compared to the pollutant load reduction of the CSO that has the most pollutant reduction.<br><br>In the case of pollutant load reduction, projects are scored based on how much pollutant reduction above CSO 168 they provide. The Best is a project that provides 29 times more pollutant load reduction than the CSO with the best (most) pollutant reduction. The worst is a project that provides no pollutant load reduction when compared to the CSO with the best (most) pollutant reduction.   |   |  |
| <b>5. Other Positive Environmental Outcomes</b> | <b>Green Goal (Flow, Habitat)</b>   | <b>Does the project help meet the City's Green Goal by reducing stream flow rates, and/or does the project add green space and habitat?</b>   | Project reduces flow/volume to a flow impacted waterbody   | Project reduces flow/volume to a flow impacted waterbody.   | Project will not manage flow   |
|   |   |   | The project provides substantive terrestrial habitat   | The project does not provide terrestrial habitat  | The project does not provide terrestrial habitat   |
| <b>6. Construction Impacts (short-term)</b>     | <b>Potential for Construction Impacts on the Community</b>  | <b>What level of disruption will occur during project construction?</b>   | Construction impacts will be relatively minor compared to other major SPU infrastructure projects. Impacts generally consistent with the following:<br>- Project is located in lightly populated area and will affect a small number of businesses/residents (1-5)<br>- Project located far from residents and no asthma or health impacts are likely<br>- Project will have low neighborhood intensity<br>- Project is located on low traffic street<br>- Construction activities involve minor excavation and disruption to streets and adjacent properties<br>- Construction will last less than 3 months | Construction impacts will be similar to other major SPU infrastructure projects. Impacts generally consistent with the following:<br>- Project is located in lightly populated area and will affect a small number of businesses/residents (6-15)<br>- Some actions necessary to mitigate the potential for asthma or health impacts<br>- Project will have moderate neighborhood intensity<br>- Project is located on arterial, but not major transportation corridor<br>- Construction activities involve significant excavation and disruption to streets and adjacent properties<br>- Construction will last 3-6 months | Construction impacts will be similar to many other major SPU infrastructure projects. Impacts generally consistent with the following:<br>- Project is located in a densely populated area and will affect a more than 15 businesses/residents (6-15)<br>- The potential for asthma or health impacts can not be mitigated completely<br>- Project will have high neighborhood intensity<br>- Project is located on an arterial that serves as a major transportation corridor<br>- Heavy construction activities will occur such as heavy excavation, heavy equipment use, pile driving, and disruption to streets and adjacent properties<br>- Construction will last more than 6 months |
| <b>7. Community Impacts (longer-term)</b>       | <b>Education Value</b>  | <b>Supports (visual) connection to water system. Supports citizen stewardship of project/facility. Supports formal education.</b>   | Project is visible and provides a strong opportunity for education that is culturally relevant   | Project is visible and may provide some opportunity for education, but it will not be particularly culturally relevant  | Project is hidden from view and provides no particular opportunity for education   |
|   | <b>Lasting Amenities for Neighborhood</b>   | <b>What lasting impact will the project and its O &amp; M activities have on the neighborhood, either positive (culturally relevant, sidewalks, water access, bike paths, traffic calming, visual appeal), or negative (odor, noise, visual) NOTE: Not meant to include construction impacts</b>  | Facility is compatible with and culturally relevant to the surrounding community and minimal staff will be present infrequently.<br><br>Completed project or on-going program alleviates a current concern of residents or will have a notable positive lasting benefit for residents and/or visitors to the site.   | Facility and grounds can be designed to screen facility, and minimal staff visits are necessary.<br><br>Traffic, odor and noise from the facility would require mitigation to be acceptable to the community.<br><br>Project does not alleviate a current concern but improves upon existing neighborhood conditions  | Facility will impact the community negatively and there would be staff on-site regularly.<br><br>Traffic odor and noise from the facility would require significant mitigation to be acceptable to the community.<br><br>No significant improvement to amenities desired by the neighborhood   |
| <b>8. Environmental/Social Justice</b>          |   | <b>Who and Where? Will location of project address the historical inequity? (e.g. address problems that were historically "underreported") Protects a current use by socio-economic class. (e.g. fishing in Duwamish/Green lake)? Will facility siting affect an already heavily impacted areas? (e.g. South Park has transfer station)</b> | Alternative provides substantial culturally relevant benefits to historically underrepresented and low-income populations, and<br><br>Project will not add result in on-going negative effects to an area already heavily impacted   | Alternative some culturally relevant benefits to historically underrepresented and low-income populations, and<br><br>Project has the potential to provide some on-going negative effects to an area already heavily impacted, but those effects can be mitigated effectively   | Alternative provides no culturally relevant benefits to historically underrepresented and low-income populations<br><br>Project likely to provide some on-going negative effects that cannot be mitigated effectively to an area already heavily impacted  |
|   |   |   |  |   |  |
| <b>9. Ease of O&amp;M and Safety</b>            | <b>Operations</b>   | <b>Beyond any cost implications, what are the implications for SPU staff to operate the system assuming adequate resources are available?</b>   | Passive system, no crew required to operate  | Active treatment/operations, can be remotely operated, onsite operator(s) not required<br>Vendor service contract available for operation<br>SPU crews can be trained easily  | Active treatment/operations, onsite operator(s) required<br>No vendor service available<br>SPU crews need specialized training or certifications   |
|   | <b>Maintenance</b>  | <b>Beyond any cost implications, what are the implications for SPU staff to maintain the system assuming adequate resources are available?</b>  | Maintenance requirements/frequency well established and consistent with SPU standard practices (e.g., 1-2 times per year)<br><br>Quarterly inspections<br><br>Requires no special skills, knowledge, or equipment for SPU crews to maintain  | Maintenance requirements/frequency not well established, but on the order of requiring maintenance 2-4 times per year<br><br>Monthly inspections<br><br>Requires special equipment  | Requires maintenance more than 2 times per year<br><br>Requires special equipment, skills, training, or licensing and/or heavy lifting or intense physical labor<br><br>Requires inspections more frequent than monthly.<br><br>Large underground structure requiring regular structural inspections (e.g., every 5 years)   |
|   | <b>Safety to SPU Staff and Public</b>   | <b>Assuming safety and security are addressed appropriately during design, what safety concerns remain?</b>   | Project would result in few safety concerns that would need to be mitigated. At least two of the following exist:<br><br>- Outside ROW or does not require traffic control/flagging to access<br><br>- No confined space entry to operate or maintain<br><br>- Little potential for inadvertent contact by public.   | Project would result in some safety concerns that would need to be mitigated. One or more of the following exists:<br><br>- Facility located in ROW and traffic control/flagging needed, but no police support<br><br>- Confined space entry may be required, but not for routine maintenance<br><br>- Few public safety areas in relatively low use area or; can be designed to minimize risk (e.g., short ponding duration to minimize mosquito concerns; vegetation selected to minimize public access, e.g.,...NW 110th cascade system)   | Project would result in many safety concerns that would need to be mitigated. Two or more of the following exists:<br><br>- Facility located in ROW and traffic control/flagger/police support required<br><br>- Confined space entry required for routine operations<br><br>- Some public safety concerns: Project located in high use area (e.g., residential neighborhood) or attractive nuisance concerns (e.g., biofiltration swale/BR cells that encourage access) and community has expressed concerns about safety (e.g., drowning hazard from stormwater ponding)   |