Living Shoreline Feasibility Model Data Collection Sheet

Circle the responses that best represent your shoreline of interest. The code to the left indicates the suggested methods for obtaining the information: DT-Desktop Analysis, FA-Field Assessment, PC-Personal Communication. See the model "user guide" for more information. (LINK TO USER GUIDE) Use the data sheets to then fill in the model. (LINK TO MODEL)

Physical Characteristics

Water Body Energy: This metric characterizes the typical level of energy experienced by a site due to the size of the water body and its movement along the site in which it is located, independent of wind and waves.

DT:	Low	Medium	High

Positional Energy: This metric intends to characterize energy at the site due to its position either along a single water body (e.g., inside/outside of meander) or where multiple water bodies meet (i.e., confluence flow dynamics). Landscape position can impact the intensity of water velocity, potentially contributing to processes such as erosion, scour, and particle transport.

DT:	Low	Medium	High

Storm Event Energy: This metric intends to characterize the intensity of event-based energy impacting the site due to periodic storms, through the integration of shoreline orientation and maximum expected wind speed. More intense energy is expected if the shoreline is aligned (facing) with the direction from which maximum wind is expected to originate.

	Maximum Wind Speeds		**Shoreline Orientation Relative to Storm Wind Direction**	
DT:	Low (<17 mph)	Medium (17-30mph) High (>30mph)	Unaligned	Aligned

Persistent Wave Energy: This metric intends to characterize the AVERAGE wave climate impacting the site. This is accomplished through the integration of the average fetch and the direction from which the wind originates. More intense persistent energy is expected at sites oriented towards the wind, and is expected to increase with fetch.

	Average Fetch (4 directions)		**Direction**	
DT:	Low (<1mile)	Medium (1-5miles) High (>5 miles)	Unaligned	Aligned

Boat Wake Energy: This metric intends to characterize the energetic impact to a site based on the "typical" degree of boating/water sport activity along the adjacent waterbody.

DT/FA/PC:	Low	Medium	High

Nearshore Slope: This metric intends to characterize the ability of waves to break in the nearshore environment by assessing the slope profile leading to the site. Metric categories were sourced directly from the Steven's Living Shoreline Engineering Guidelines.

FA:	Low (<10%)	Medium (10-20%)	High (>20%)

On-site Shoreline Condition: This metric intends to characterize the on-site energetics due to reflective and absorptive properties of any features currently present along the shoreline of interest.

DT/FA:	Natural	Mixed	Rip-Rap/Stone	Bulkhead/Seawall

Surrounding Shoreline Condition: This metric intends to characterize the level of reflective energy impacting the site due to the dominant condition of surrounding shorelines.

FA:	Predominantly Natural	Mixed Natural and Hardened	Predominantly Hardened

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Ecological Conditions

Percent Canopy Shading: This metric is intended to characterize potential impacts to vegetation growth due to shading from trees/vegetation or other structures along the upland fringe. Greater percent shading is expected to decrease living shoreline plant growth relative to unshaded areas.

FA/DT:	0-25%	25-50%	50-75%	75-100%

Intertidal Vegetation Community Status: This metric is intended to characterize the type of vegetation community present between the low and high tide lines. If a potential project does not include this vegetation component choose the null option (-).

FA:	Only Undesired Vegetation Community Present with Active Removal	Mixed Desired/Undesired Community Present with Active Removal	No Vegetation Community Present and/or Passive Action	Only Desired Vegetation Community Present or Mixed Desired/Undesired Community Present with Passive Action

Intertidal Vegetation Substrate: This metric intends to characterize the existing potential of the substrate at the intertidal portion of the site to promote plant establishment and growth.

FA:	Impenetrable	Undesired	Desired Unstable	Desired Stable

Subtidal Vegetation Community Status: This metric is intended to characterize the type of vegetation community present below the low tide line. If a potential project does not include this vegetation component choose the null option (-).

FA:	Only Undesired Vegetation Community Present with Active Removal	Mixed Desired/Undesired Community Present with Active Removal	No Vegetation Community Present and/or Passive Action	Only Desired Vegetation Community Present or Mixed Desired/Undesired Community Present with Passive Action

Subtidal Vegetation Substrate: This metric intends to characterize the existing potential of the substrate at the subtidal portion of the site to promote plant establishment and growth.

FA:	Impenetrable	Undesired	Desired Unstable	Desired Stable

Upland Vegetation Community Status: This metric is intended to characterize the type of vegetation community present above the high tide line. If a potential project does not include this vegetation component choose the null option (-).

FA:	Only Undesired Vegetation Community Present with Active Removal	Mixed Desired/Undesired Community Present with Active Removal	No Vegetation Community Present and/or Passive Action	Only Desired Vegetation Community Present or Mixed Desired/Undesired Community Present with Passive Action

Upland Vegetation Substrate: This metric intends to characterize the existing potential of the substrate at the upland portion of the site to promote plant establishment and growth.

FA:	Impenetrable	Undesired	Desired Unstable	Desired Stable

Shellfish Community: This metric is intended to characterize the shellfish-mediated ecosystem engineering potential existing at the site of interest if a shellfish community is of interest on the living shoreline. Shellfish help build, establish, and maintain ecosystems through their structural aggregation, nutrient cycling, and multiple ecological mutualisms. If a potential project does not include this shellfish component choose the null option (-).

FA:	Undesired Community Removal	Biofouling Issues Require Active Attention	No Shellfish Present	Desired Shellfish Present

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Site Access

Material Delivery: This metric is intended to describe the level of complexity involved with getting the materials to be used in living shoreline construction to the site for installation and subsequent maintenance.

DT/FA/PC:	Low Complexity	Medium Complexity	High Complexity

Landowner Agreement: This metric intends to characterize the ease of acquiring land owner agreement if a living shoreline is desired for the site.

DT/PC:	Single or Multiple Landowner Disagreement	Multiple Landowner Agreement	Single Landowner Agreement

Personnel Access: This metric intends to characterize complexity of personnel access for installation, maintenance, and/or monitoring at the intended site.

DT/FA/PC:	Low Complexity	Medium Complexity	High Complexity

Working Window: This metric is intended to characterize duration of daily time available for activity at a site of interest, e.g tide, employee availability or other restrictions

DT:	6-12 hrs	3-6 hrs	<3hrs

Regulatory Consideration: This metric is intended to characterize the level of complexity required for installation, monitoring, and/or maintenance related to regulatory concerns (e.g., time of year restrictions for species of concern/endangered species at the area of interest)

DT:	No Considerations	Considerations

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Community Resources

Public Outreach/Education Potential: This metric is intended to capture the level of educational resources available at the site of interest, either in terms of current outreach resources on site or nearby, or the potential for active or passive educational programming

PC:	No Access/Viewability	Passive Programming	Active Programming

Community Stewardship: This metric intends to characterize the local public's current interaction with the site and how engaged the community may be in the project as a whole.

PC:	Negative Engagement (vandalism, disturbance)	Neutral Engagement	Active Positive Engagement

Resource/Capital Availability: This metric is intended to characterize the financial state, or available financial leverage, of the interested parties/landowners/community partners to install the project.

PC:	Low Resources (No funds)	Moderate Resources (Partial Funding/Resource Leverage)	High Resources (Independent Funds)

Enthusiasm for Nature Based Infrastructure: This metric intends to characterize either the level of community and partner preference for living shoreline, or other nature based infrastructure (NBI), relative to other methods of shoreline protection.

PC:	Minimally Engaged (Want hard armoring, no intervention, unengaged)	Moderately Engaged (Willing to try, want protection)	Very Engaged (partial to NBI)

Community Protection: This metric indicates whether or not a project is sought at the site to protect specific infrastructure that is either culturally or municipally essential to the community.

DT/FA/PC:	Individual/Other Reasons	Community Infrastructure Protection

Environmental Justice Leverage Potential: This metric intends to characterize the access or "leverage" of a community to resources such as state funding, or certain grants/support that would support the installation of a living shoreline.

DT/FA/PC:	No/Unlikely	Yes/Likely