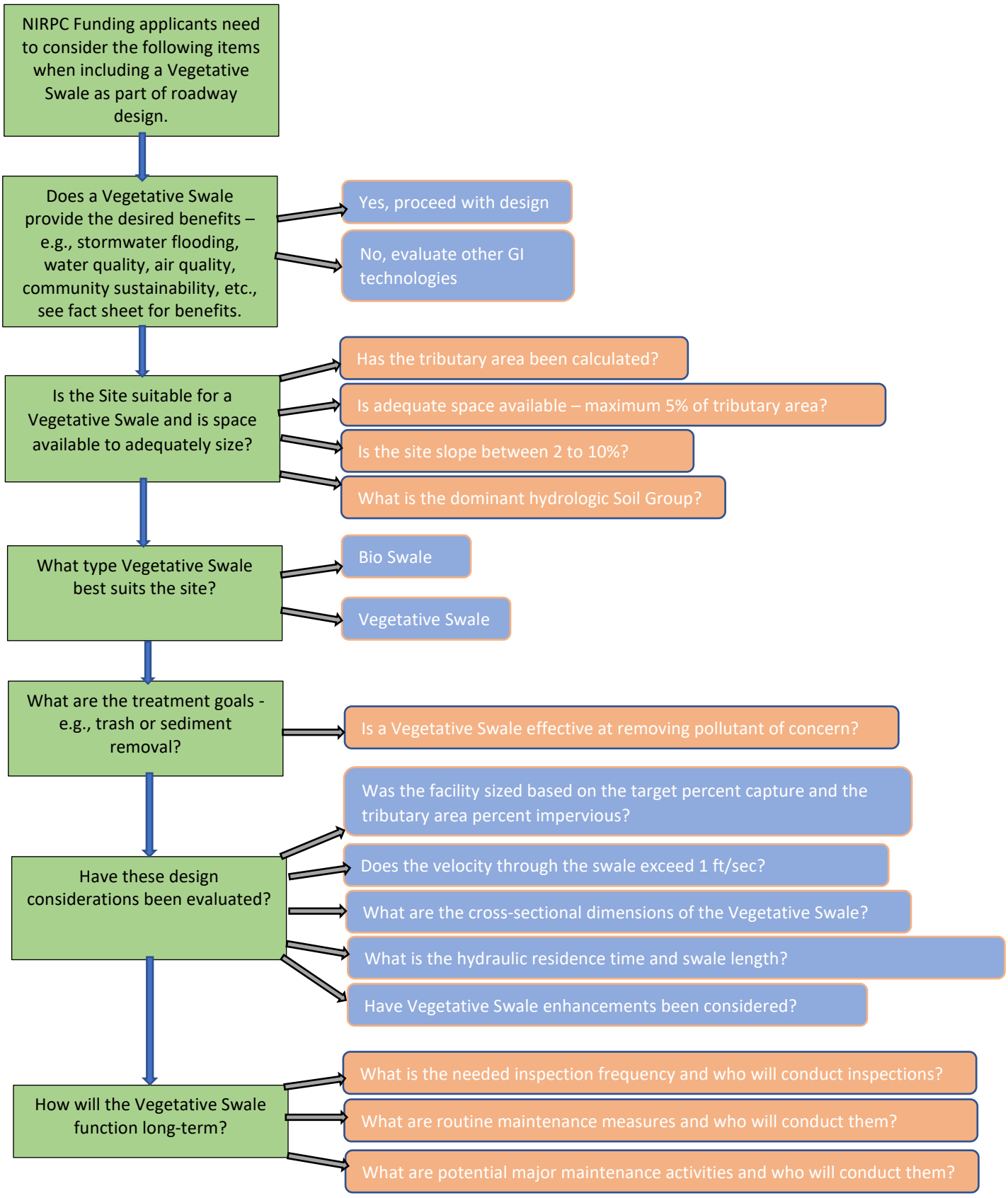
NIRPC Funding applicants need to consider the following items when including a Vegetative Swale as part of roadway design.
Does a Vegetative Swale provide the desired benefits – e.g., stormwater flooding, water quality, air quality, community sustainability, etc., see fact sheet for benefits.
Yes, proceed with design
No, evaluate other GI technologies
Is the Site suitable for a Vegetative Swale and is space available to adequately size?
Has the tributary area been calculated?
Is adequate space available – maximum 5% of tributary area?
Is the site slope between 2 to 10%?
What is the dominant hydrologic Soil Group?
What type Vegetative Swale best suits the site?
Bio Swale
Vegetative Swale
What are the treatment goals - e.g., trash or sediment removal?
Is a Vegetative Swale effective at removing pollutant of concern?
Have these design considerations been evaluated?
Was the facility sized based on the target percent capture and the tributary area percent impervious?
Does the velocity through the swale exceed 1 ft/sec?
What are the cross-sectional dimensions of the Vegetative Swale?
What is the hydraulic residence time and swale length?
Have Vegetative Swale enhancements been considered?
How will the Vegetative Swale function long-term?
What is the needed inspection frequency and who will conduct inspections?
What are routine maintenance measures and who will conduct them?
What are potential major maintenance activities and who will conduct them?