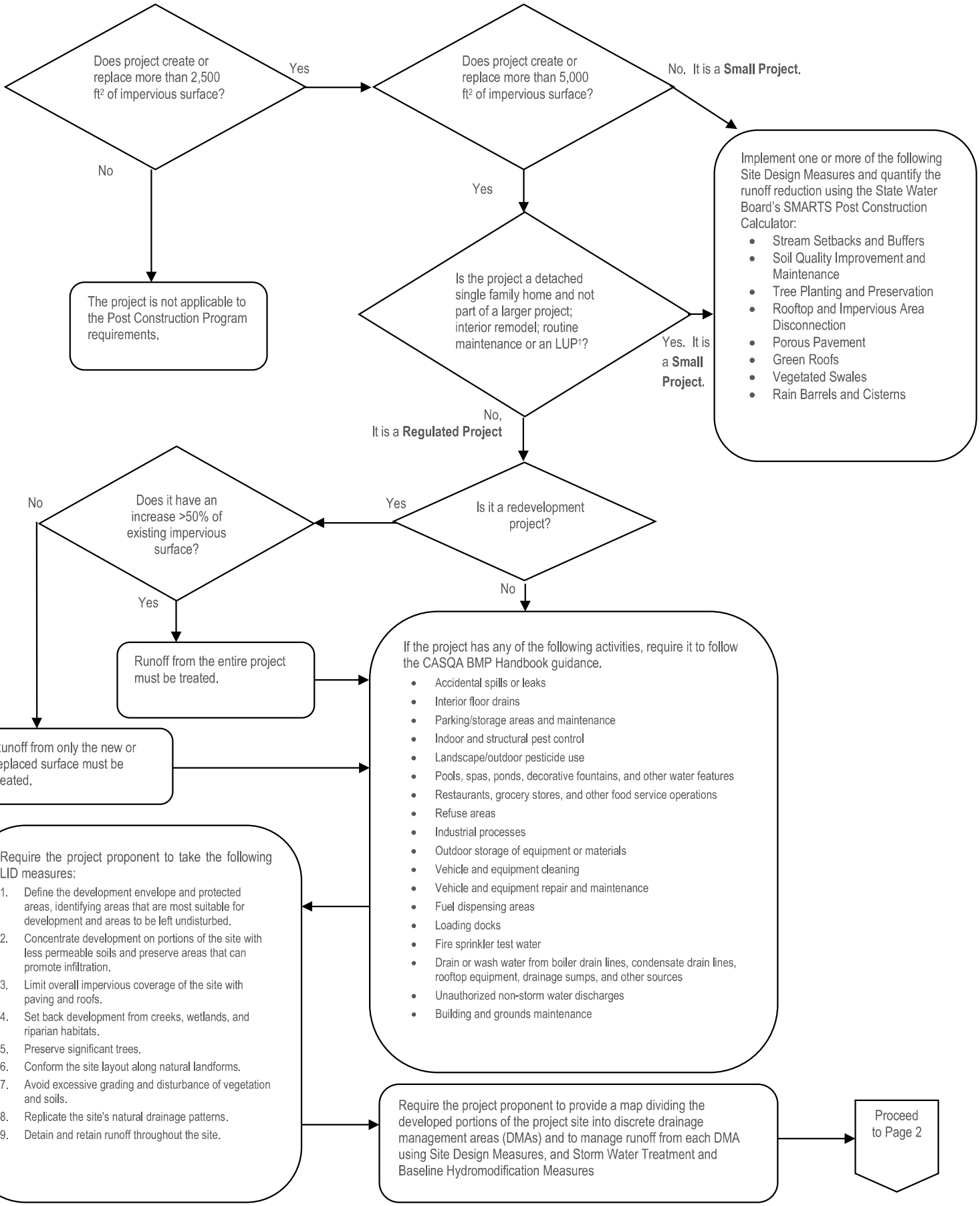
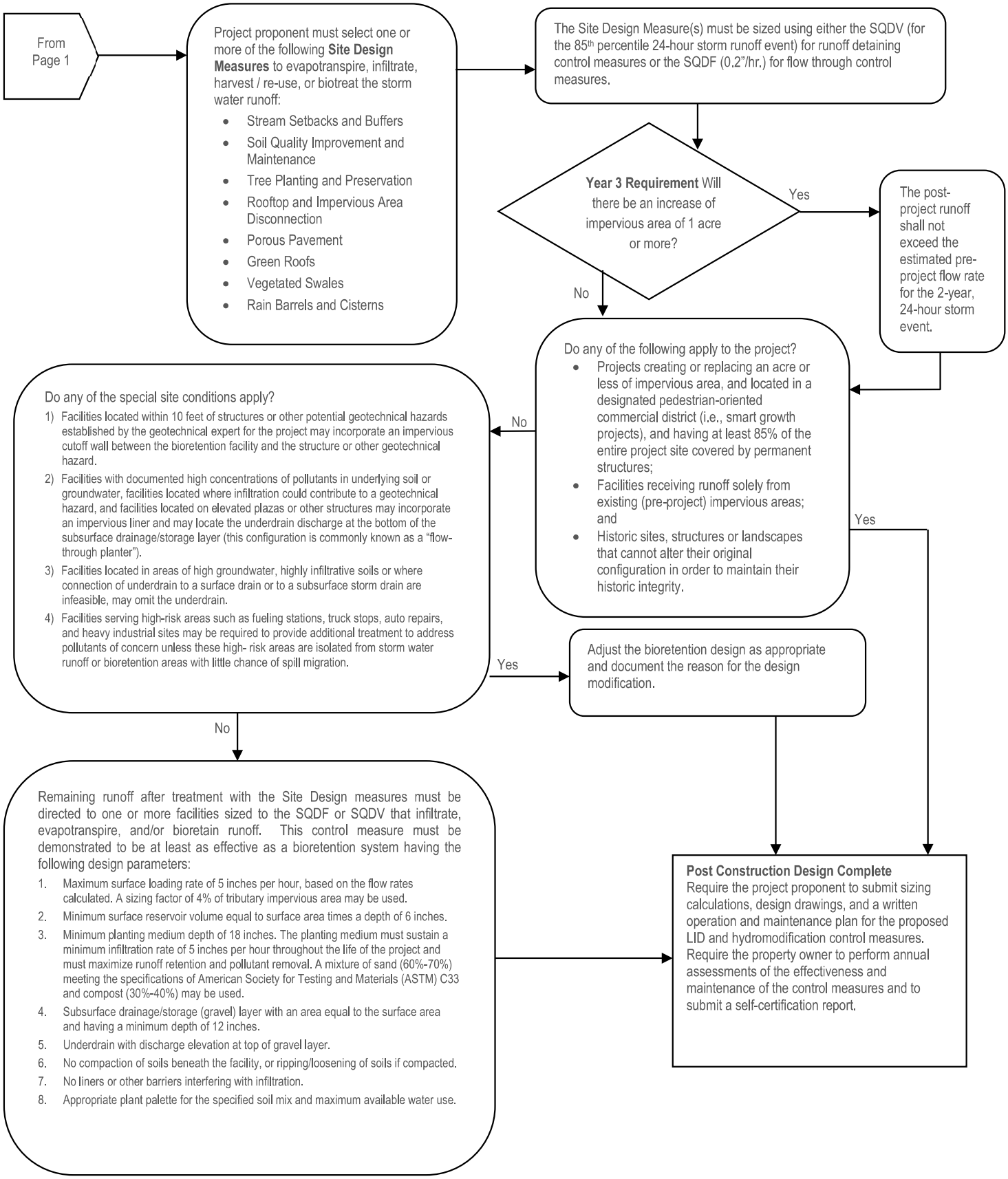

Does project create or replace more than 2,500 ft² of impervious surface?
Yes
No
Does project create or replace more than 5,000 ft² of impervious surface?
No. It is a Small Project.
Yes
The project is not applicable to the Post Construction Program requirements.
Is the project a detached single family home and not part of a larger project; interior remodel; routine maintenance or an LUP[1]?
Yes. It is a Small Project.
Implement one or more of the following Site Design Measures and quantify the runoff reduction using the State Water Board's SMARTS Post Construction Calculator:
Stream Setbacks and Buffers
Soil Quality Improvement and Maintenance
Tree Planting and Preservation
Rooftop and Impervious Area Disconnection
Porous Pavement
Green Roofs
Vegetated Swales
Rain Barrels and Cisterns
No, It is a Regulated Project
Is it a redevelopment project?
Yes
No
Does it have an increase >50% of existing impervious surface?
No
Yes
Runoff from the entire project must be treated.
Runoff from only the new or replaced surface must be treated.
If the project has any of the following activities, require it to follow the CASQA BMP Handbook guidance.
Accidental spills or leaks
Interior floor drains
Parking/storage areas and maintenance
Indoor and structural pest control
Landscape/outdoor pesticide use
Pools, spas, ponds, decorative fountains, and other water features
Restaurants, grocery stores, and other food service operations
Refuse areas
Industrial processes
Outdoor storage of equipment or materials
Vehicle and equipment cleaning
Vehicle and equipment repair and maintenance
Fuel dispensing areas
Loading docks
Fire sprinkler test water
Drain or wash water from boiler drain lines, condensate drain lines, rooftop equipment, drainage sumps, and other sources
Unauthorized non-storm water discharges
Building and grounds maintenance
Require the project proponent to take the following LID measures:
1. Define the development envelope and protected areas, identifying areas that are most suitable for development and areas to be left undisturbed.
2. Concentrate development on portions of the site with less permeable soils and preserve areas that can promote infiltration.
3. Limit overall impervious coverage of the site with paving and roofs.
4. Set back development from creeks, wetlands, and riparian habitats.
5. Preserve significant trees.
6. Conform the site layout along natural landforms.
7. Avoid excessive grading and disturbance of vegetation and soils.
8. Replicate the site's natural drainage patterns.
9. Detain and retain runoff throughout the site.
Require the project proponent to provide a map dividing the developed portions of the project site into discrete drainage management areas (DMAs) and to manage runoff from each DMA using Site Design Measures, and Storm Water Treatment and Baseline Hydromodification Measures
Proceed to Page 2


From Page 1
Project proponent must select one or more of the following **Site Design Measures** to evapotranspire, infiltrate, harvest / re-use, or biotreat the storm water runoff:
• Stream Setbacks and Buffers
• Soil Quality Improvement and Maintenance
• Tree Planting and Preservation
• Rooftop and Impervious Area Disconnection
• Porous Pavement
• Green Roofs
• Vegetated Swales
• Rain Barrels and Cisterns
The Site Design Measure(s) must be sized using either the SQDV (for the 85th percentile 24-hour storm runoff event) for runoff detaining control measures or the SQDF (0.2"/hr.) for flow through control measures.
**Year 3 Requirement** Will there be an increase of impervious area of 1 acre or more?
Yes
The post-project runoff shall not exceed the estimated pre-project flow rate for the 2-year, 24-hour storm event.
No
Do any of the following apply to the project?
• Projects creating or replacing an acre or less of impervious area, and located in a designated pedestrian-oriented commercial district (i.e., smart growth projects), and having at least 85% of the entire project site covered by permanent structures;
• Facilities receiving runoff solely from existing (pre-project) impervious areas; and
• Historic sites, structures or landscapes that cannot alter their original configuration in order to maintain their historic integrity.
No
Yes
Do any of the special site conditions apply?
1) Facilities located within 10 feet of structures or other potential geotechnical hazards established by the geotechnical expert for the project may incorporate an impervious cutoff wall between the bioretention facility and the structure or other geotechnical hazard.
2) Facilities with documented high concentrations of pollutants in underlying soil or groundwater, facilities located where infiltration could contribute to a geotechnical hazard, and facilities located on elevated plazas or other structures may incorporate an impervious liner and may locate the underdrain discharge at the bottom of the subsurface drainage/storage layer (this configuration is commonly known as a "flow-through planter").
3) Facilities located in areas of high groundwater, highly infiltrative soils or where connection of underdrain to a surface drain or to a subsurface storm drain are infeasible, may omit the underdrain.
4) Facilities serving high-risk areas such as fueling stations, truck stops, auto repairs, and heavy industrial sites may be required to provide additional treatment to address pollutants of concern unless these high- risk areas are isolated from storm water runoff or bioretention areas with little chance of spill migration.
Yes
Adjust the bioretention design as appropriate and document the reason for the design modification.
No
Remaining runoff after treatment with the Site Design measures must be directed to one or more facilities sized to the SQDF or SQDV that infiltrate, evapotranspire, and/or bioretain runoff. This control measure must be demonstrated to be at least as effective as a bioretention system having the following design parameters:
1. Maximum surface loading rate of 5 inches per hour, based on the flow rates calculated. A sizing factor of 4% of tributary impervious area may be used.
2. Minimum surface reservoir volume equal to surface area times a depth of 6 inches.
3. Minimum planting medium depth of 18 inches. The planting medium must sustain a minimum infiltration rate of 5 inches per hour throughout the life of the project and must maximize runoff retention and pollutant removal. A mixture of sand (60%-70%) meeting the specifications of American Society for Testing and Materials (ASTM) C33 and compost (30%-40%) may be used.
4. Subsurface drainage/storage (gravel) layer with an area equal to the surface area and having a minimum depth of 12 inches.
5. Underdrain with discharge elevation at top of gravel layer.
6. No compaction of soils beneath the facility, or ripping/loosening of soils if compacted.
7. No liners or other barriers interfering with infiltration.
8. Appropriate plant palette for the specified soil mix and maximum available water use.
**Post Construction Design Complete**
Require the project proponent to submit sizing calculations, design drawings, and a written operation and maintenance plan for the proposed LID and hydromodification control measures. Require the property owner to perform annual assessments of the effectiveness and maintenance of the control measures and to submit a self-certification report.