

# APPENDIX 8 – POST-CONSTRUCTION PROJECT WORKSHEET

**POST-CONSTRUCTION WORKSHEET FOR THE CITY OF VACAVILLE**  
**PROJECT SUMMARY SHEET**

**Project Owner Information:**

Project Owner Name:					
Name of Contact Person:					
Mailing Street Address:					
City:		State:		Zip:	
Telephone:			Email:		

**Project Information:**

Project Name:					
Name of Contact Person:					
Project Address:					
City:		State:		Zip:	
Anticipated construction start date:			Ending date:		
Project size (ft <sup>2</sup> ):			Subject to the Construction General Permit? (Yes / No)		

***Information of the Post-Construction Standards Plan Preparer:***

Name of Organization:					
Name of Contact Person:					
Mailing Street Address:					
City:		State:		Zip:	
Telephone:			Email:		

***Project Applicability:***

Type of Project: (Check one)	<input type="checkbox"/>	Small Project (2,500 to 5,000 ft <sup>2</sup> or detached single family home)
	<input type="checkbox"/>	Regulated Project (5,000 ft <sup>2</sup> )
	<input type="checkbox"/>	Not applicable to the Post-Construction Standards Plan <i>(provide reason in the space below)</i>
Is this a redevelopment project? (Yes / No)		Will the project result in an increase of more than 50% of the impervious surface? (Yes / No)
Has the project or the vesting map received approval from the municipality? (Yes, No, or N/A)		Date of project or vesting map approval:
Describe the nature and scope of the construction project:		
Number of Drainage Management Areas (DMAs):		

# POST-CONSTRUCTION WORKSHEET FOR THE CITY OF VACAVILLE

## SMALL PROJECT SUBMITTAL SHEET

### Project Information:

Project Name:	
Project Owner Name:	
Project Address:	

### Selection of Site Design Measures:

*Select one or more of the following Site Design Measures (as identified in Section 4.1 of the Post-Construction Standards Plan) which will be incorporated into the project's design.*

<i>Site Design Measures</i>	<i>Selected? (Yes / No)</i>
<b>Stream Setbacks and Buffers</b>	
<b>Soil Quality Improvement and Maintenance</b>	
<b>Tree Planting and Preservation</b>	
<b>Rooftop and Impervious Area Disconnection</b>	
<b>Porous Pavement</b>	
<b>Green Roofs</b>	
<b>Vegetated Swales</b>	
<b>Rain Barrels and Cisterns</b>	

### Post-Construction Calculator Information:

*Enter the following data from the State's Post-Construction Calculator:*

<b>Pre-project Runoff Volume (ft<sup>3</sup>)</b>	
<b>Post-project Runoff Volume (ft<sup>3</sup>)</b>	
<b>Net Credit of Volume Credits (ft<sup>3</sup>)</b>	

### Small Project Submittal Requirements:

*The following must be submitted for Small Projects to the plan checker:*

- Completed pages 1 and 2 of this Post-Construction Worksheet.
- Site plans showing the selected Site Design Measure(s) (identified in Section 4.1). The plans must be stamped by a California Civil Professional Engineer if any of the following Site Design Measures were selected: rooftop and impervious area disconnection, porous pavement, or rain cisterns. The plans must be stamped by a California Structural Professional Engineer if a green roof was selected or if there is a significant structural aspect to the rain cisterns and collection system. The plans must be stamped by a California Licensed Landscape Architect if any of the following Site Design Measures were selected: stream setbacks and buffers, soil quality improvement, or vegetated swales. The Site Design Measure(s) must be clearly called out on the submitted plans.
- A printout of the results page from the Water Board's SMARTS or Microsoft Excel™ Post-Construction Calculator.

# POST-CONSTRUCTION WORKSHEET FOR THE CITY OF VACAVILLE

## REGULATED PROJECT DMA SUBMITTAL SHEET

### Drainage Management Area (DMA) & Project Information:

A **separate** Regulated Project DMA Submittal Sheet is required to be completed and submitted for each DMA. Refer to Section 5.1 of the Post-Construction Standards Plan for more information about DMAs.

Project Name:	
Project Owner Name:	
Project Address:	
<b>Name of the DMA:</b>	
DMA area (ft <sup>2</sup> )	

### Selection of Applicable Source Controls:

Indicate which of the following activities or pollutant sources are included in **this DMA** of the new development or redevelopment. For more information about required Source Control refer to Section 5.2.

Site Design Measures	(Yes / No)
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	

### Hydrologic Soil Group and Soil Type Information:

Enter information concerning the soil types **within this DMA**. For more information, refer to Table 7 of the Post-Construction Standards Plan.

Soil Type Name	HSG Group (A, B, C, or D)

**Low Impact Development (LID) Design Requirements:**

*Please describe how the project is meeting each of the following LID design requirements. Provide your response in the text box following each requirement or provide responses on a separate sheet.*

1. Define the areas of the project that are to be left undisturbed or protected from soil disturbance. Identify sensitive environmental receptors such as water bodies, stream buffers, existing trees, riparian areas, and habitat areas.

2. How is the project concentrating development on portions of the site with less permeable soils and preserving areas that can promote infiltration?

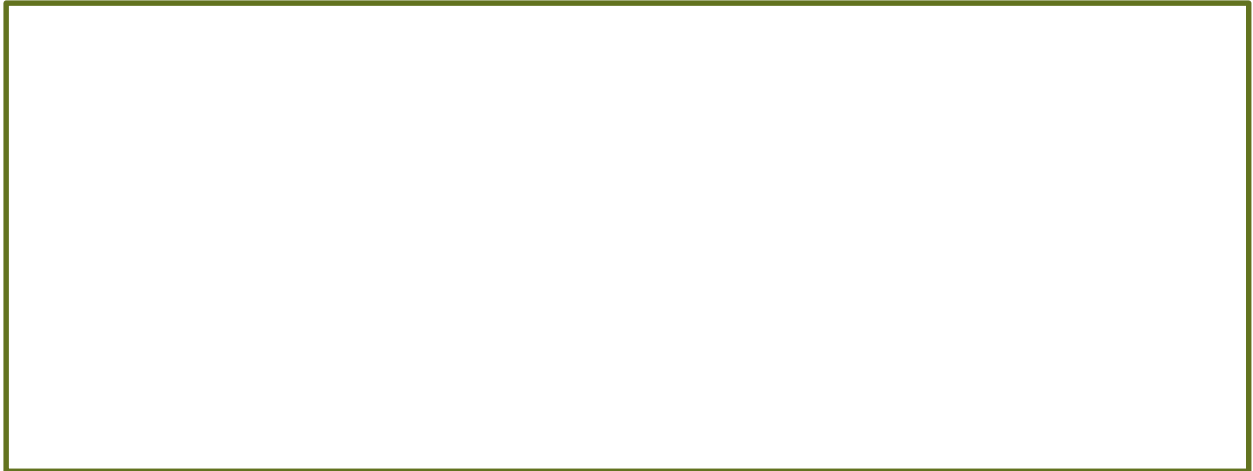
3. How is the project limiting the overall impervious coverage of the site consisting of paving and roofs?

4. If applicable, how much setback is there of the development from creeks, wetlands, and riparian habitats?

5. List and describe the trees that will be preserved.

6. Describe how the new development or redevelopment site layout will conform along natural landforms.

7. Describe how the project is avoiding excessive grading and disturbance of vegetation and soils.



8. Describe how the new development or redevelopment is replicating the site's natural drainage patterns.



9. Describe how the project will detain and retain runoff through the new development and redevelopment site.



## Pre- and Post-Development Project Hydrology Information:

Provide the following hydrology information for **this DMA**

### Pre-development Conditions:

Percent Impervious	
Average runoff coefficient for this DMA	
Peak flow rate (ft <sup>3</sup> /sec) for this DMA using the 2-year 24-hour design value discussed in <a href="#">Section 5.5</a> .	

### Post-development Conditions:

Percent Impervious	
Average runoff coefficient for this DMA	
Peak flow rate (ft <sup>3</sup> /sec) for this DMA using the 2-year 24-hour design value discussed in <a href="#">Section 5.5</a> .	

## Selection of Site Design and Treatment Control Measures:

Indicate which Site Design and Treatment Control Measures will be used for **this DMA**. For more information, refer to [Table 3](#). Provide calculations and design drawings for the selected measures per the submittal requirements describe in [Section 5.6](#).

Site Design or Treatment Control Measure	Sizing Criteria	Selected? (Yes / No)	Enter the Calculated Design Capture Volume or Flow Rate for the Selected Measure
<b>Stream setbacks and vegetated buffers</b> <i>(Site Design Measure)</i>	Flow		
<b>Soil quality improvement</b> <i>(Site Design Measure)</i>	Volume		
<b>Tree planting and preservation</b> <i>(Site Design Measure)</i>	SMARTS Calculator		
<b>Porous pavement</b> <i>(Site Design Measure)</i>	Volume		
<b>Green roofs</b> <i>(Site Design Measure)</i>	Volume		
<b>Vegetated swales</b> <i>(Site Design Measure)</i>	Flow		
<b>Rain harvesting and reuse</b> <i>(Site Design Measure)</i>	Volume		
<b>Bioretention and rain gardens</b> <i>(Treatment Control Measure)</i>	Volume		
<b>Infiltration trench, Flow-through Planter, or Tree Wells</b> <i>(Treatment Control Measure)</i>	Volume and Flow		
<b>Retention and detention basins</b> <i>(Treatment Control Measure)</i>	Volume		



**Variations and Exceptions:**

*Identify any applicable variations or exceptions for **this DMA**.*

Condition	Allowed Variation	Applicable to this DMA? If so, explain.
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 / infiltration facility and the structure or other geotechnical hazard	
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”)	
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	
Facilities serving high-risk areas such as fueling stations, truck stops, auto repairs, and heavy industrial sites	Are required to provide additional treatment to address pollutants of concern prior to the flow reaching the infiltration facility	

*If infiltration is not feasible for **this DMA**, please provide an explanation of the infeasibility and a description of the alternate non-infiltrating treatment control measure(s) that will be used in accordance with the development requirements in [Section 5.4.4](#).*

## Regulated Project Submittal Requirements:

*The following must be submitted for Regulated Projects to the plan checker:*

- The completed Post-Construction Worksheet including page 1 and, for each DMA, pages 3 – 10.
- A separate site plan for each DMA must be submitted. If there are multiple DMAs, a key map showing the location of the DMAs in relationship to one another and the entire site is required to be submitted. Each DMA site plan is required to show the following information:
  - ✓ DMA name and boundary;
  - ✓ The selected Site Design and Treatment Control Measures (identified in [Table 3](#));
  - ✓ The total drainage area in square feet of the DMA;
  - ✓ The pre-development peak flow rate at the point(s) of discharge;
  - ✓ The predicted post-development peak flow rate at the point(s) of discharge;
  - ✓ Areas of existing impervious surfaces (pre-development);
  - ✓ Proposed areas of impervious surfaces (post-development);
  - ✓ Setbacks from creeks, wetlands, and riparian habitats;
  - ✓ Existing topography and drainage patterns (pre-development);
  - ✓ Proposed topography and drainage patterns (post-development);
  - ✓ Soil types, soil type boundaries within the DMA, and their Hydrologic Soil Group Classification rating (A, B, C, or D); and
  - ✓ Trees, vegetation, and sensitive environmental areas to be protected and preserved.

Each plan must be stamped by a qualified licensed professional. The plans must be stamped by a California Civil Professional Engineer if any of the following control measures were selected: rooftop and impervious area disconnection, porous pavement, rain cisterns, bioretention or rain gardens, infiltration trench, or retention or detention basins. The plans must be stamped by a California Structural Professional Engineer if a green roof was selected or if there is a significant structural aspect to the rain cisterns and collection system. The plans must be stamped by a California licensed Landscape Architect if any of the following Site Design Measures were selected: stream setbacks and buffers, soil quality improvement, vegetated swales, bioretention and rain gardens. The selected Site Design and Treatment Control Measure(s) must be clearly called out on the submitted plans.

- Design drawings for the proposed Treatment Control Measures showing a plan view, elevation view, and subsurface cross-sections must be submitted. Sufficient detail and specifications should be included in these drawings to provide for adequate plan check review and for the construction of the treatment “facility”. Each design drawing must be stamped by a qualified licensed professional. The drawings must be stamped by a California Civil Professional Engineer if any of the following control measures were selected: rooftop and impervious area disconnection, porous pavement, rain cisterns, bioretention or rain gardens, infiltration trench, or retention or detention basins. The drawings must be stamped by a California Structural Professional Engineer if a green roof was selected or if there is a significant structural aspect to the rain cisterns and collection system. The drawings must be stamped by a California licensed Landscape Architect if any of the following Site Design Measures were selected: stream setbacks and buffers, soil quality improvement, vegetated swales, bioretention and rain gardens.

- A print out of the results page from the MS Excel™ Volumetric BMP Sizing Tool for each DMA and control measure that requires the volumetric sizing criteria is required to be submitted. (Refer to [Appendix 6](#) for information on how to download the tool.)
- Calculations stamped by the appropriate licensed individual (as described above) for each DMA and control measure that requires flow-based sizing criteria must be included with the submittal.
- An Operation and Maintenance Plan as part of a signed Stormwater Treatment Measure Access and Maintenance Agreement for the proposed treatment control measures must accompany the submittal (refer to [Section 6](#) and [Appendix 9](#)).