Appendix A: Project Scope

Vasona Creek in West Valley College
Stormwater Pollution Reduction Plan

General Description

West Valley College will prepare a stormwater pollution reduction plan to treat urban runoff discharged from the WVC campus into Vasona Creek. The plan will investigate the storm drainage system by subwatershed areas, analyze available stormwater treatment and water conservation measures, and produce 30% complete engineering plans for three pilot projects suitable for construction and implementation grant applications.

The plan will address drainage collection system (building downspouts, pipes, ditches, outlet) and discharge volumes serving over 40 acres of land. The treatment measures could include: construction of wetland detention ponds, water retention facilities for reuse in landscape irrigation, use of bioswales, and vegetation for filtering, and reconstructing and stabilizing storm drain and ditch outlets. The plan will aim to reduce pollution coming from parking lots, buildings, roads and trails, and undeveloped lands. The target pollutants for reduction include: sediment, dissolved nutrients, metals, and oil and grease hydrocarbons. The project will create information to quantify stormwater and pollution reductions, which will be included in a report to the District. The work includes sampling and laboratory analysis to document pollutant types and mass discharge.

Development of the stormwater plan will include WVC Faculty and students who will be involved in data collection, analysis, research of treatment systems and vegetation plantings using native species. The project will also have flood benefits by seeking opportunities to detain runoff and reduce flooding downstream; the City of Saratoga is participating with in kind services in order to develop project benefits to downstream areas that are now subject to flooding. The stormwater plan will quantify runoff volumes, assess locations where stormwater can be detained and where use of native plant communities can filter runoff and create wildlife habitats.

Project activities include field assessment of potential locations for stormwater detention and retention facilities, inspection of existing storm drain outlets and topographic surveying for developing design basemaps, and engineering design work.

Tasks and Subtasks

Task 1: Project Management and Administration
WVC will provide in kind services for project management and administration for contracting, invoicing and payments, budget tracking and reporting.

Schedule: July 1, 2013 through March 1, 2014

Task 2: Prepare Stormwater Plan

Subtask 2.1: Confirm stormwater system in field
WVC will hire a private civil engineering firm to complete the stormwater plan. The first task will be to field verify the stormwater analysis completed for WVC as part of the campus redevelopment plan (which is now under construction). The analysis will confirm the

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subwatershed areas and the culverts, pipelines, ditches and storm drain outlets that discharge into Vasona Creek. The field survey will document conditions and investigate and document areas that could be used to detention and retention facilities.

Schedule: July 1, 2013 to September 1, 2013
Deliverable: Map of Present stormwater system

Subtask 2.2: Develop Opportunities
The CE will develop a set of potential stormwater facility projects by subwatershed with recommended improvements. The conceptual design process will utilize Low Impact Development (LID) methods and incorporate use of created wetlands, bioswales, subsurface storage and potential for water recycling. The potential flood benefits will be developed from conceptual designs of detention facilities. From this process, a set of recommendations will be developed for each subwatershed.

Schedule: July 1, 2013 through November 30, 2013
Deliverable: Memorandum summarizing conceptual design process.

Subtask 2.3: Measure Water Quality Parameters
WVC faculty and students will conduct a stormwater sampling data set by taking samples during storm events. The work will be incorporated into WVC curriculum and may include some of the laboratory analysis and research into treatment methods. The samples will be compiled into a dataset, including the locations of samples and a spreadsheet of the results.

Schedule: September 1, 2013 through January 15, 2014
Deliverable: Memorandum summarizing stormwater sampling process and results

Subtask 2.4: Prepare site designs and report
The CE will prepare a set of three projects for design, cost estimation and plan development. The three projects will be developed to the 30% complete design level to apply for grant funding and to initiate permitting and environmental review. The project report will be prepared in draft form, reviewed by WVC staff and completed into a final version by May 31, 2013.

Schedule: November 30, 2013 through March 1, 2014
Deliverable: Draft and final versions of report and designs for three projects (30% complete)

Task 3.0: Public Outreach

Subtask 3.1: Presentation to Community
WVC will coordinate a community meeting for the college and for residents living near Vasona Creek. The purpose will be to inform the community of stormwater pollution issues and to increase awareness of measures that avoid pollution and aid in treatment. WVC will work with the City of Saratoga Public Works Dept. to examine flooding problems that occur downstream of the WVC campus and contact residents to participate in the public meeting.

Schedule: Complete public meeting by December 15, 2013
Deliverable: Powerpoint presentation

Subtask 3.2: Present Report to SCVWD
WVC will coordinate a meeting with SCVWD staff to present the results of the stormwater plan development and results. The purpose will be to inform SCVWD staff how the money was spent and the potential for implementing demonstration and pilot projects that show how LID stormwater projects are designed, construction and how they function.

Schedule: Complete meeting with SCVWD by February 1, 2014.
Deliverable: Powerpoint presentation.

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FIGURE 1
Project Location Map

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WATERWAYS
CONSULTING, INC.
Santa Cruz, CA
watways.com
Portland, OR
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INSUFFICIENT INFRASTRUCTURE DATA

PROJECT REACHES
- STORM DRAIN OUTFALL
- DRAINAGE AREA - STORM DRAIN
- DRAINAGE AREA - DIRECT RUNOFF

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APPENDIX B – SCHEDULE

Vasona Creek in West Valley College

Vasona Creek Stormwater Plan (version: 5_9_13)

Task 1: Project Management and Administration

Schedule: July 1, 2013 through March 1, 2014

Task 2: Prepare Stormwater Plan

Subtask 2.1: Confirm stormwater system in field

Schedule: July 1, 2013 to September 1, 2013

Deliverable: Map of Present stormwater system

Subtask 2.2: Develop Opportunities

Schedule: July 1, 2013 through November 30, 2013

Deliverable: Memorandum summarizing conceptual design process.

Subtask 2.3: Measure Water Quality Parameters

Schedule: September 1, 2013 through January 15, 2014

Deliverable: Memorandum summarizing stormwater sampling process and results

Subtask 2.4: Prepare site designs and report

Schedule: November 30, 2013 through March 1, 2014

Deliverable: Draft and final versions of report and designs for three projects (30% complete)

Task 3.0: Public Outreach

Subtask 3.1: Presentation to Community

Schedule: Complete public meeting by December 15, 2013

Deliverable: Powerpoint presentation

Subtask 3.2: Present Report to SCVWD

Schedule: Complete meeting with SCVWD by February 1, 2014.

Deliverable: Powerpoint presentation.