Watershed Wise Landscape Professional Certification Site Evaluation

The purpose of this Site Evaluation is to demonstrate your ability to implement the concepts and skills learned in your Watershed Wise Landscape Professional training. For the purpose of this exercise, please use the sample site provided to develop your evaluation and recommendations.

WWLP Site Evaluations document existing conditions and provide recommendations in keeping with the Watershed Approach to landscaping. Detailed instructions for conducting and submitting the Site Evaluation follow below. Your submittal will include:

A. Completed Excel spread sheet
B. One plan in PDF format, with relevant notes

All documents must be labeled with your name and date and uploaded simultaneously. The drawing does not need to be in color.

The following descriptive document is not to be submitted but used to confirm that you have considered all of the information necessary for G3 to evaluate your understanding of Site Evaluation in the Watershed Approach.

**Part A** of this document is information required to complete the spreadsheet portion. If possible, submit the spreadsheet itself rather than a pdf.

**Part B** of this document is directions and an example to complete the required drawing portion.

Note: You have **30 days** to complete this process from the date you are notified of passing the exam. Extensions may be granted at the sole discretion of the G3 WWLP Coordinator. G3 has granted extensions in the past, however, if the delay becomes significant G3 may require the participant to retake the exam. Requests for extensions may be made to WWLP@GreenGardensGroup.com.

If you think you need help completing this exercise, one-on-one coaching is available on an hourly basis. Visit [https://greengardensgroup.com/wwlp-site-evaluation-coaching/](https://greengardensgroup.com/wwlp-site-evaluation-coaching/) for more information.
PART A - SPREADSHEET INFORMATION

1. Preparation for the Evaluation:

Gather your information and be prepared to indicate the following on the spreadsheet:
- Name
- City, State, Zip
- Your Watershed Name
- Annual ETo (where you are)
- January ETo, July ETo
- Average Annual Rainfall (name your source) Historic, General

2. Plant Hydrozones:

In the template provided there are two hydrozones: cool season turf and low water using shrub. Select a plant that would meet a low water use designation and enter on spreadsheet. Assign a Plant Factor to each planted area based on its water requirement.

3. Rainwater Capture:

Based on your local conditions, answer questions about how much water can be captured from the roof in 1) a 1” first flush and 2) for the total average annual rainfall. Answer questions about how large the catchment area needs to be to capture a 1” first flush.

4. Water Budgeting:

Indicate the Maximum Available Water Allowed (Water Budget) based on the following formula:

\[
\text{Square Footage of Total Landscaped Area} \times \text{Annual ETo} \times 40\% \text{ Adjustment Factor} \times 0.62 = \text{Annual Gallons of MAWA}
\]

Prepare the ETWU of the site provided by adding up the Landscape Water Requirements (LWR) of each of the hydrozones.

If your calculated ETWU for the site is greater than the MAWA, make recommendations on the spreadsheet to reduce the ETWU so that it comes in under budget. (e.g. replace plants, revise irrigation). This means you will need to assign new Plant Factors and/or new Irrigation Efficiencies for the zones you are changing. Indicate revised ETWU on spreadsheet.

Captured rainwater does not contribute to the water savings.

5. Irrigation:

Using the sample site, evaluate and answer the questions indicated. Add comments about any circumstances that might require additional mitigation.
A.) Irrigation Flow Calculations:

The site we provided assumes spray irrigation is installed. Based on the chart below, indicate the number of spray heads of each type. Then using the pressure indicated on the spreadsheet, determine the gallons per minute (GPM) per nozzle pattern. When you add up all the nozzles, you will have obtained the Total Gallons Per Minute (TGPM) for that zone.

Number of Spray heads of each type in each Zone:

_____ 1/4 circle  _____ 1/2 circle  _____ Full circle  _____ Side strip

_____ Bubbler  _____ Impact Spray  _____ ¾ circle  _____ Drip emitters

Fill in chart below: Range based on Static Pressure PSI: Low 15 PSI, High 60 PSI

<table>
<thead>
<tr>
<th>Nozzle Pattern</th>
<th># Heads or Emitters</th>
<th>Pressure at Hose Bib</th>
<th>Est. Gallons per minute (GPM)</th>
<th>Total GPM/GPH</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4</td>
<td></td>
<td>.39 – .59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/2</td>
<td></td>
<td>.78 – 1.18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full</td>
<td></td>
<td>1.56 – 2.36</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Side (4’x30’)</td>
<td></td>
<td>.09 – 1.21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3/4</td>
<td></td>
<td>1.17 – 1.77</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bubblers/Impacts</td>
<td></td>
<td>2.00 – 5.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drip Emitters</td>
<td></td>
<td>.5 – 2 GPH</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

B.) Irrigation Efficiency:

Use this chart for Irrigation Efficiency to develop your ETWU calculations.

<table>
<thead>
<tr>
<th>Type of Zone</th>
<th>Target Uniformity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spray</td>
<td>0.55-0.65</td>
</tr>
<tr>
<td>Rotor</td>
<td>0.65-0.75</td>
</tr>
<tr>
<td>Drip</td>
<td>0.85-0.90</td>
</tr>
</tbody>
</table>
PART B - DRAWINGS

Rainwater Capture:

We have provided you with a site plan on which you should indicate how you would redesign the landscape to capture the first flush amount you have calculated.

On the plan indicate where water from the roof area would be captured in the landscape. Make sure to indicate the square footage and depth of the catchment area. Also be sure to indicate where you will put the excavated soil. **Keep it simple!**

Note: each municipality will have its own codes, but for the sake of this Site Evaluation, use the following assumptions on setbacks:
- 5 feet to residence,
- 5 feet to neighbor,
- 3 feet to sidewalk

**Tips for a successful submission:**

- **Keep it simple!** You only need to capture the first flush (1”).
- Don’t forget to consider setbacks. You don’t want water standing near a building.
- Basins should be **no deeper than 12”**, the shallower the better.
- Indicate the basin’s capacity (area and depth), e.g. 500 sf, 6” deep.
- Make sure to indicate where the excavated soil will go.

Here is an example of a completed drawing. You don’t need to do color!