

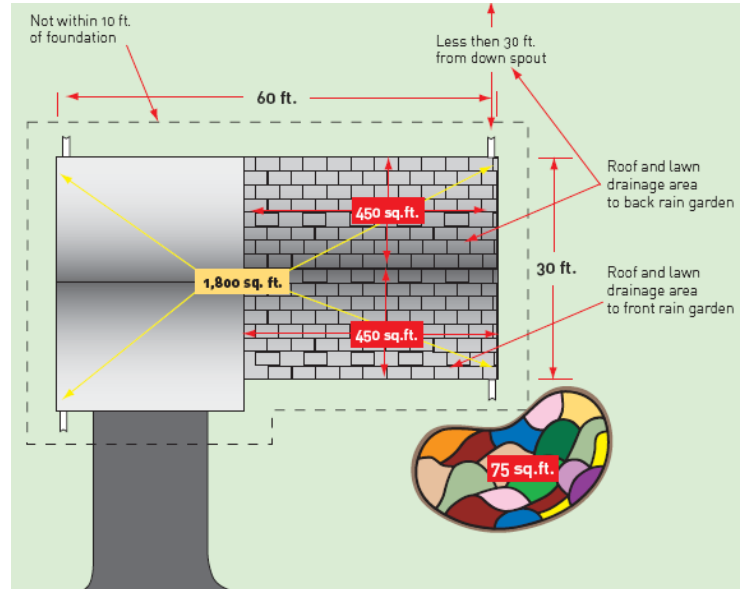
# How Big Should Your Raingarden Be?

Name: \_\_\_\_\_

Name: \_\_\_\_\_

The size of a raingarden depends on how much space is available in your yard and how much water you can capture in it. In Minnesota, it is appropriate to make a garden large enough to hold the water flowing to it during a one-inch rainfall event. Learn how to calculate the size of a raingarden by practicing with the satellite map of John Adams Middle School.

1. The first thing we need is the infiltration rate for your school which you calculated in the last activity. *“Infiltration Rate” can be used interchangeably with “Percolation Rate.”* The section you tested had an infiltration rate of :
2. Next we have to determine how much square footage of impervious surfaces drain to your raingarden spot. Using the School Maps you created earlier you can measure the roofs, parking lots, and impervious surfaces to find the total area that drains to your raingarden.



### Impervious Surfaces Draining to Raingarden:

- School roof: area draining to the raingarden = \_\_\_\_\_ ft. x \_\_\_\_\_ ft. = \_\_\_\_\_ ft<sup>2</sup>
- Parking lot: area draining to the raingarden = \_\_\_\_\_ ft. x \_\_\_\_\_ ft. = \_\_\_\_\_ ft<sup>2</sup>
- Playground: area draining to the raingarden = \_\_\_\_\_ ft. x \_\_\_\_\_ ft. = \_\_\_\_\_ ft<sup>2</sup>
- Additional area draining to the raingarden = \_\_\_\_\_ ft. x \_\_\_\_\_ ft. = \_\_\_\_\_ ft<sup>2</sup>
- Additional area draining to the raingarden = \_\_\_\_\_ ft. x \_\_\_\_\_ ft. = \_\_\_\_\_ ft<sup>2</sup>
- Add these up to determine total area = \_\_\_\_\_ ft<sup>2</sup>

3. Use the answers from #1 and #2 to calculate the needed size of each raingarden. Use the answers from #1 and #2 to calculate the needed size of each raingarden.

$$\frac{\text{Area draining into the garden}}{\text{Infiltration Rate}} = \text{Size of Raingarden (ft}^2\text{)}$$

4. Now that you know the desired size (in ft<sup>2</sup>) of each raingarden, you can decide on the dimensions of each raingarden. Sketch your proposed raingardens on a separate page. There is no “one” right answer for selecting the size, shape, and location of a raingarden. It should fit the layout of the yard, be an attractive addition, and complement the existing landscaping. Unfortunately you may not be able to build a raingarden as large as you need to because of space and money.

