**Unit 2.1 Assessment**

1. Compare the results from the current scenario (post-expansion without LID control) with the baseline scenario (pre-expansion) in Table 1 or on the Results form. Which values are constant? Which vary? Do they make sense to you?

2. For those that vary, which increase post-expansion? Offer reasons for the increase.

3. For those that vary, which decrease post-expansion? Offer reasons for the decrease.

4. Relative to the processes and pathways of water flow in the hydrologic cycle (Unit 1.2), what process(es) is(are) are impacted by development? Describe.

5. Are the modeling results for pre- and post-expansion consistent with this? Explain.

6. Are these results consistent with the differences in water balance and rainfall-runoff data between rural and urban watersheds that you examined in Unit 1.3? Describe.

7. How are these impacts on the hydrologic cycle affecting the ecosystem services (Unit 1.1) provided by the forest cover?

Table 1. Model results for different land cover and LID controls related to the Thomaston Trail Expansion plan.

|  |  |  |  |
| --- | --- | --- | --- |
| **Statistic** | **Pre-expansion**  | **Post-expansion without LID Controls** | **Post-expansion with LID Controls** |
| % Runoff |  |  |  |
| % Infiltration |  |  |  |
| %Evaporation |  |  |  |
| Average Annual Rainfall (in) |  |  |  |
| Average Annual Runoff (in) |  |  |  |
| Days per Year with Rainfall |  |  |  |
| Days per Year with Runoff |  |  |  |
| Percent of Wet Days Retained |  |  |  |
| Smallest Rainfall w/ Runoff (in) |  |  |  |
| Largest Rainfall w/o Runoff (in) |  |  |  |
| Max Rainfall Retained (in) |  |  |  |