

10 Performance Evaluation

From Appendix F of the MS4 Permit: “Performance Evaluation – The permittee shall evaluate the effectiveness of the LPCP by tracking the phosphorus reductions achieved through implementation of structural and non-structural BMPs and tracking increases in phosphorus loading from the LPCP Area beginning six years after the effective date of the permit.

Phosphorus reductions shall be calculated consistent with Attachment 2 (non-structural BMP performance), Attachment 3 (structural BMP performance) and Attachment 1 (reductions through land use change), to Appendix F for all BMPs implemented to date. Phosphorus load increases resulting from development shall be calculated consistent with Attachment 1 to Appendix F. Phosphorus loading increases and reductions in units of mass/yr shall be added or subtracted from the calculated Baseline Phosphorus Load to estimate the yearly phosphorous export rate from the LPCP Area in mass/yr. The permittee shall also include all information required in part II.2 of this Appendix in each performance evaluation.”

10.1 Year 6 Updates (2023-2024)

The updates to the LPCP efforts in Year 6 encompass the requirements of the Performance Evaluation. Significant reductions achieved through the implementation of structural and non-structural controls are incorporated into the LPCP Implementation Schedule in Section 8. No projects implemented from 2016 to 2023 have contributed to a significant increase in Phosphorus loading. All calculations were done consistent with the methods outlined in the MS4 Permit Appendix F.

10.2 Year 7 Updates (2024-2025)

The updates to the LPCP efforts in Year 7 incorporate the requirements of the Performance Evaluation. Reductions achieved through the implementation of non-structural controls are incorporated into the LPCP Implementation Schedule in Section 8. No projects implemented from 2016 to 2023 have contributed to a significant increase in Phosphorus loading.

No structural controls were implemented in Year 7. In preparation for the phosphorus reduction goals for Permit Year 8 as specified in the LPCP Implementation Schedule detailed in Section 8 of this report, conceptual designs and phosphorus removal calculations for structural controls adjacent to roadways within the McKinstry Watershed were completed. All conceptual plans were developed to meet or exceed the Year 8 phosphorus load reduction goal for the McKinstry Watershed. According to these conceptual plans and calculations, the installation of two infiltration trenches is estimated to remove between 0.673 and 0.779 pounds of phosphorus per year, depending on BMP footprint; three leaching basins are estimated to remove 0.834 pounds of phosphorus per year; and eight leaching basins are estimated to remove 1.896 pounds of phosphorus per year. Refinement of these conceptual designs and phosphorus removal calculations will be completed in Year 8.

All calculations were completed in conformance with the methods outlined in the MS4 Permit Appendix F and its attachments.