

Stormwater Pollution Prevention Plan (SWPPP)

Chateaux Sur Mer Subdivision
City of Sanibel
Lee County, Florida

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Chateaux Sur Mer Subdivision

1 INTRODUCTION

This document provides details of the Stormwater Pollution Prevention Plan (SWPPP) for the Chateaux Sur Mer Road Improvement project. The plan discusses an evaluation of how and where pollutants may be generated and transported by stormwater. The plan also provides how stormwater runoff will be managed for the project.

2 SITE EVALUATION

The primary source of pollutants on this site are from the soil particulates of the existing dirt roads. These particulates are in the form of dust during dry periods. During rain events these particulates are transported by the stormwater from the roadway to the adjacent areas.

3 MANAGING STORMWATER RUNOFF

Due to the nature of this project there is very limited ability to manage the stormwater runoff from this site. This is an existing residential subdivision that does not provide areas for placement of any major retention areas. Runoff from the roadway must travel over improved lots prior to reaching the Bayou or canals within the subdivision. There are two exceptions to this.

There is direct runoff the open bodies of water along the entry road into the subdivision. The roadway in this area is already paved and is not part of this project. As there is no construction in this area no provisions are being made for stormwater management.

There is a small area which is owned by the Association that is adjacent to the roadway with access to the Bayou. This area will be used for limited stormwater management.

There are two private drain systems that discharge into the Bayou area of the project. Modifications to these drains will be made as an attempt to improve the quality of the discharge and provide for some retention and exfiltration.

4 EROSION AND SEDIMENTATION CONTROLS.

The primary measure to control the sediment in the stormwater runoff is the paving of the roadway surface. This will reduce most of the sediment that currently runs off the road during storms to a very small amount. After the paving of the roadway any sediment would be generated from dust etc. which may have accumulated on the paved surfaces.

As previously mentioned most of the roadway system is abutted by private improved lots. These lots act as a natural filter for the runoff prior to reaching the bodies of water. These lots are generally in excess of 100 feet in depth. This would allow for natural filtration of the sediment prior to reaching the water. As such no provision is made to control sediment in these areas. As the runoff in these areas is from sheet flow rather than concentrated flow there is no requirement to reduce the velocity that would cause erosion in these areas.

In addition several of the improved lots contain roadway swales and or small detention areas. These areas will continue to function as they currently do since the only improvement is paving the existing roadway with no changes to the surrounding areas.

The depth of the area owned by the Association previously mentioned is very small compared to the adjacent lots. This area is being improved to include both Erosion and Sediment control as well as providing provisions for stormwater management

The first step in the erosion control is the installation of filter fabric along the top of the bank of the Bayou during construction of the improvements.

For stormwater management exfiltration trenches are to be installed in combination with a berm to provide retention and exfiltration of the stormwater. These improvements are considered the best management practices (BMPs) to be used for this site.

The berm will be provided with an emergency spillway that will discharge the stormwater at an elevation set not to flood the roadway during a normal storm event. Since this spillway would be considered a concentrated flow it is provided with rip-rap to prevent erosion of the berm and surrounding area.

The two drain pipes in the two private drains are to be retrofitted to improve stormwater management. Portions of the pipes will be removed and replaced with EzFlow piping along with a stone lined trench. This would allow some runoff storage and exfiltration prior to reaching the discharge points.

5 MAINTENANCE AND INSPECTIONS

Existing Areas (Private lots)

Normal maintenance on the private lots will be performed by the home owner. This may be a private contractor hired to do the regular maintenance.

Short Term Construction

Maintenance of the filter fabric fence during construction shall be performed by the responsible contractor. The area should be inspected after each rain event to check for accumulated silt or damage to the fence. Any accumulated silt shall be removed from the area. Damage to the filter fence shall be repaired as necessary. Upon complete stabilization of the area after installation of the improvements the filter fence shall be removed.

Long Term Maintenance

Maintenance on the improvements located on the Association property will be performed by the contractor hired by the Association that performs other work on Association property.

The retention area shall be inspected after each rain event. Any accumulated debris shall be removed for the area and properly disposed of. The inlets for the exfiltration trenches shall be inspected for debris. If debris has accumulated in the inlet sump it shall be removed prior to reaching the level of the piping system.

The contractor shall provide records to the Association indicated the time and type of work performed on this area.

Retrofitted Drains

The retrofitted drainage system is the responsibility of the Association. The maintenance will be performed by the contractor hired to maintain other Association property. The system should be checked after each rain event and cleaned as necessary.