

## **Rose Manor Storm Water Reserve**

Many people have asked about the Storm Water Reserve at Rose Manor so we have put the following description together.

These days all storm water for new developments must be treated before going into natural waterways like streams and rivers. There are a couple of options for doing this. You can either create swales in the front of properties like they have at Omaka Landings, with a sand base and drains at the end of each. Or you create a Storm Water Reserve like we have at Rose Manor. The storm water reserve means that we are able to do off street parking in front of properties with garden plots and street trees. It is a much more expensive option however we believe in the long term will be a much better option.

The ponds on the western side of the reserve at Rose Manor are what is called the first flush ponds. These are designed to catch the first hour of a major rain event. All the sediment from the roads and footpaths along with house roofs get washed into this pond. The object is for the storm water to flow through the sand based bottom which filters the water before going into Casey's Creek.

If it's a significant event, then the overflow from the first flush pond will then be captured in the storage ponds which are on the eastern side and will go through a controlled flow into Casey's Creek. This Reserve is designed for a 50 year event and does have a safety mechanism should the ponds completely fill.

In normal circumstances these ponds will be fully grassed and 95% of the time they will be dry.

There is a 1200mm storm water pipe runs west along Old Renwick Road and turns into Spencer Place then Rembrandt Drive and travels under the road in a westerly direction. In normal circumstances this pipe will capture the storm water west of Rose Manor. At this time this storm water pipe is deliberately sealed in two places which captures the waste water from Rose Manor. The reason for this is because the Sewer Upgrade for the north west is many years behind what was planned, and this pipe acts as a temporary storage and gets flushed out overnight during off peak times.

This means that the storm water from the west of what's currently developed is all going into the new storm water reserve. Once the sewer upgrade is completed around March 2022 then the 1200mm pipe will be opened up and the storm water reserve will only receive about half the flow of what it's currently capturing, which means it will be a lot drier.

Because we have had a very wet winter the first flush ponds have not really had a chance to grass properly on the bottom however this will be rectified in spring 2021.

For stages 10 and 11 there will be a second storm water reserve created to cater for approx 20% of the overall Rose Manor development.