

Fact Sheet

Unsealed Roads

The Shire of Bridgetown-Greenbushes is responsible for over 500km of unsealed roads. The condition of unsealed roads can change quickly, with the biggest contributing factors being rain, traffic type, traffic volume and traffic speed. Unlike sealed road, permanent speed limit signs are not used on unsealed roads because the condition of the road can not be assured and vehicles must ALWAYS be driven to suit the conditions.

Maintenance Grading

The Shire owns two graders which are used for both maintenance grading and road construction work. As Shire Policy No I.13 Gravel Road Development & Maintenance states

"5. Ensure a minimum standard of maintenance is performed to include one winter and one summer grading is undertaken on the entire Shire's gravel road network, subject to adverse weather conditions and the supply/existence of suitable gravel."

Maintenance grading is undertaken through out the year, with multi tyre rubber rollers also used to compact the road during winter grades. As moisture is required to achieve compaction, summer grading is generally done without rollers.

The main purpose of maintenance grading is to provide a good running surface and to form crossfalls in the road so that water runs off and does not pool. Water pooling on roads causes pot holes when vehicles drive through them. Moisture is a critical component in maintenance grading, which is best done when the gravel has the right amount of moisture in it.

Summer grading is done when there is little to no moisture in the gravel and is undertaken only to improve the running surface, however it is not good for the integrity of the roads. Summer grading is often done to remove corrugations but is only ever partially successful at this. Grading with insufficient moisture in the gravel loosens hard sections of the road which can not be recompacted until winter grading is done

During the rest of the year, graders "pull in" gravel loosened during summer, and mix it with remaining gravel to reform the roads with crossfalls that encourage water to drain off the surface. In the Shire of Bridgetown-Greenbushes, the window between having sufficient moisture and having too much moisture is narrow. This means that grading is often done in less than ideal conditions and sometimes, roads are graded when conditions are good but events that follow can lesson the quality of the road very quickly. In winter, rain, heavy vehicles and fast speeds can very quickly turn a newly graded road muddy and slippery.

Requesting a road to be graded

When a request to grade a road is received, the road will be inspected and assessed. When that road is scheduled for grading it is considered within the context of maintaining the whole of the unsealed road network. Also considered will be whether it is a school bus route, where the graders are at the time and what effect grading is likely to have on the road. Sometimes, when these factors are taken into consideration, officers may decide that the road does not need grading at that time.

Resheeting

Unsealed roads lose gravel over time and require the placement of additional gravel. This process is called resheeting, and involves placing an additional 100mm of compacted gravel on top of the existing surface. Council has a 10 year Strategic Works Plan, detailing the resheeting program. A comprehensive deliberation process was developed based on each project being assessed strategically by Councillors and technically by Shire Officers. This included a bus tour involving Councillors and Shire Officers, and a set of strategic and technical criteria applied separately to determine the overall ranking of future road works. The program is reviewed annually. A priority list of projects for a 10 year period resulted from this process with criteria, such as the following to prioritise the future road projects:

- How important is the road?
- What is the condition of the road?
- Is the road condition impacting on safety?
- How many vehicles travel on the road per day?
- What types of vehicles travel on this road and how often?
- Is the road used as part of a heavy haulage route?
- Is the road a school bus route?



Changing Road Conditions

Over time, unsealed roads become corrugated, potholed, rough, slippery, muddy and/or dusty. All of these are normal and unavoidable conditions that change often, and drivers must remain vigilant when driving on unsealed roads. It is also important to note that road conditions change after grading; unsealed roads are often more slippery after they have been graded than they were before the grading. During dry periods, grading tends to spread loose gravel over the road and in wet conditions, until the road surface has formed a dense crust, moisture can penetrate the gravel layer. If rain follows soon after a road has been graded, the road may become "sloppy" and very slippery. Sometimes a road may be better left with potholes and corrugations than be graded.

What you can do to HELP

1. **SLOW DOWN**—Travelling quickly on unsealed roads causes more dust, more potholes and more corrugations.
2. **DRIVE TO SUIT THE CONDITION OF THE ROAD**—Drivers are responsible for their own safety and that of other users of the road. If a road is known to be rough or slippery, drive at an appropriate speed.
3. **KEEP HEAVY VEHICLE MOVEMENTS TO A MINIMUM**—In wet conditions, try to postpone truck movements until the road has dried out.
4. **UNDERSTAND**—Understand the nature of gravel roads. They will be rough, muddy, slippery and dusty at times.
5. **EXPECT THE UNEXPECTED**—Never assume an unsealed road is going to be that same as it was the last time you drove on it, even if it is the same day.