



Fact Sheet Unsealed Roads

The Shire of Manjimup is responsible for over 800km of unsealed roads, which is roughly the same distance, by road, from Manjimup to Norseman via Esperance. The condition of unsealed roads can change quickly, with the biggest contributing factors being rain, traffic type, traffic volume and traffic speed. Unlike sealed roads, permanent speed limit signs are not used on unsealed roads because the condition of the roads can not be assured and vehicles must always be driven to suit the conditions. With such a large length of roads to maintain, the Shire continuously looks for ways to improve its service but sealing unsealed roads is counter-productive as over the whole life of a road, it is more expensive than maintaining the unsealed road.

Patrol Grading

The Shire owns three graders which are used for both patrol (maintenance) grading and road construction work. At times, graders are hired from contractors to supplement the Shire's fleet. Unsealed roads are maintained by periodic patrol grading undertaken throughout the year, with rubber tyred rollers also used to compact the road during winter grades. As moisture is required to achieve compaction, summer grading is done without rollers.



The main purpose of patrol 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 patrol (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 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.



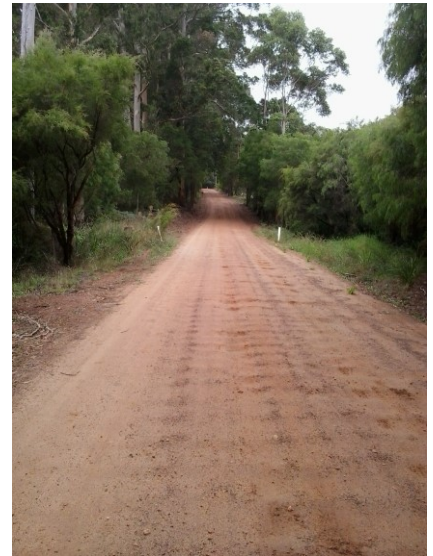
During the rest of the year, graders “pull in” gravel loosened during summer, and mix it with remaining gravel to reform the roads with crossfalls that encourage water to drain off the surface. In the Shire of Manjimup, the window between having insufficient moisture and having too much moisture is narrow. 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 lessen the quality of the road very quickly. In winter, rain, heavy vehicles and fast vehicle 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 is considered within the context of maintaining the whole of the unsealed road network. Also considered will be the weather forecast, 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 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 an placing an additional 100mm of compacted gravel on top of the existing road. Council has a *10-year Forward Capital Works Plan*, detailing the resheets that are planned for unsealed road until 2025, however roads not listed may also be considered as part of the annual budgeting process.



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; i.e. travel at lower speeds and expect the unexpected. 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 pot holes and more corrugations.

2. If possible, keep heavy vehicles off the road when it has been raining.

Roads are more vulnerable when saturated and trucks can cause significant damage to a wet road, especially one that has just been graded. In wet conditions, try to postpone truck movements until the road has dried.

3. Understand the nature of unsealed roads.

They will be rough and muddy or dusty at times; does the road really need grading now?

4. Drive to suit the conditions.

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.

5. Expect the unexpected.

Never assume an unsealed road is going to be the same as it was the last time you drove on it, even if it is the same day.

