	POLICY	NO.	300-03
	POLICY TITLE: Gravel Road Maintenance Policy	EFFECTIVE DATE:	MM-DD-YYYY 04-18-2021
		REVISION LETTER:	A
		FINAL APPROVAL	050-21

1.0 PURPOSE

1.1 The purpose of this policy is to outline the priority of gravel road maintenance within the **RM of Beaver River No. 622 (RM)**.

2.0 DEPARTMENT(S) AFFECTED (SCOPE)

2.1 Department(s) Affected: **Transportation Services, Asset Management, Planning and Development**

3.0 POLICY

3.1 This policy states that:

- a) Gravel roads require various maintenance activities throughout the year.
- b) Maintenance is required to ensure proper surface drainage occurs within the RM.
- c) Dust control is important to maintain throughout the RM.

4.0 DEFINITIONS

4.1 Please find all terms referenced in the 300-01 The Classification of Roads Within the RM of Beaver River No. 622 Policy for further description.

5.0 RESPONSIBILITIES

- 5.1 The Administrator is responsible for ensuring compliance with this policy.
- 5.2 Council shall review all policies every three years for compliance and effectiveness of the policies.

6.0 IMPLEMENTATION - PROCEDURE

6.1 **As needed maintenance:**

- 1. Trim grass and other vegetation growing in ditches.
- 2. Re-gravel road to replace lost material, such as:
 - a) Excessive surface gravel has been lost;
 - b) Numerous bald/shiny spots are visible;
 - c) Clay balls are present on road should after blading;
 - d) Excessive rutting within road surface;

6.2 **Monthly maintenance:**

- 1. Perform road inspections, observing:
 - Potholes;
 - a) Wash boarding;
 - b) Rutting;
 - c) Loss of granular material;

Handwritten initials and a large circle mark at the bottom right of the page.

- d) Other failures.

Washout;

- a) Washout from heavy rains or lengthy rainy periods;
- b) Release of winter thaw;
- c) Culvert clean-outs or repairs.

2. Perform inspections of culverts with under roads, observing:

- a) Culverts entrance and exits;
- b) Vegetation on either ended;
- c) Animal activity in or around culverts;
- d) Damage and repairs as needed per incident;
- e) Changes in topography in which drainage has changed;
- f) Rules regarding the C&D drainage plan;
- g) If any culverts need to be replaced, then they shall be replaced minimum size of 16" (380mm) culverts.
- h) Culverts over 24" (610mm) require rock wrapped around ends. If the rock has been removed or diminished, then replacement of rock must occur.

3. Perform inspection of road sign conditions on all roadways, observing:

- a) The crossing signs, are in place and not knocked down or have not been removed;
- b) Any broken road signs from roadway activity;
- c) All animal possible damages to road signs;
- d) Any and all damage to the sign which makes them hard to read;
- e) Any and all signs that have been damage by vehicle collisions.

6.3 Biannual maintenance:

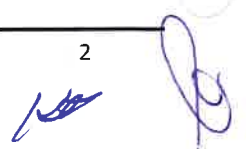
1. Grade roads to establish crown and redistribute material;
2. At a minimum, the following months should include grading:
 - a) April – after complete snowmelt;
 - b) August – before snowfall.

6.4 Winter Maintenance:

1. Removing snow and ice build-up for improved road safety, easy of travel upon, and sand mix the roads when necessary.
2. Removal of snow or ice buildup when it occurs:
 - a) A minimum of 4" (10cm) snow fall at one time;
 - b) Snow drifting in any areas of the RM larger than 4" (10cm);
 - c) Snow causing problem travel through RM or to the Urban municipalities;

6.5 Annual maintenance:

1. As aggregate required per road structure.
2. Calcium chloride roads and mix with road gravel for dust control. (at various costs to either RM or Ratepayer)
3. Remove vegetation and built-up gravel from shoulders.
4. Reshape shoulders to the classification of the road.
5. Reshape ditches to the classification of the road.



6.6 **Grading:**

1. Roads should be crowned in middle, with a 3-5% slope straight from crown to ditch; depending on the classification of the roadway.
2. Shoulders should be graded with a 4-6% slope towards the ditch.
3. Ridges at road shoulders should be removed while grading.
4. Ditches slopes between **3:1** and **4:1** away from road.
5. Grader speed: **Maximum – 8 km/hr.**
6. Moldboard angle: **30-45 degrees**

6.7 **Vegetation Removal:**

1. Disks, or other-use equipment, should be used to pulverize vegetation growing in road shoulders.
2. Vegetation height is to be controlled to allow good drainage but provide a filter for sand and gravel.

6.8 **Resurfacing:**

1. New surface gravel should be added as needed under clause 6.5
2. Road gravel should include clay to bind the material together.
3. Spread gravel evenly over existing road surface with grade, then use rolling compaction methods to establish good travel surfaces.

6.9 **Dust control:**

1. Use liquid calcium chloride on the surface.
2. Application should be completed when road is moist, either after light rainfall or after manually wetting the road surface.
3. Good surface gravel must be present for chlorides to be effective.

6.10 **Potholes:**

1. Use grader blade to cut road below the bottom of potholes.
2. Reshape road surface to proper cross-section.
3. Compact surface gravel to regain road strength.
4. Bring back crown where applicable.

6.11 **Approaches**

1. Shall be inspected to RM standard for approaches; **Policy 300-02**
2. Repairs will be to the property edge or within the ditch design.
3. Reshape the approach to the proper cross-section.
4. Compact surface to regain strength.

7.0 DOCUMENT APPROVAL

ROLE	POSITION	NAME OF THE APPROVER	DATE APPROVED
AUTHOR	Northbound Planning	Council	03/04/2021
OWNER	Administrator	Nicole Neufeld	03/04/2021
FINAL APPROVER	RM Council	RESOLUTION:	03/18/2021 MM/DD/YYYY

8.0 REVISION HISTORY

EFFECTIVE DATE	REVISION LETTER	DOCUMENT AUTHOR	DESCRIPTION OF CHANGE
03/04/2021	A	Northbound Planning	Initial release

