## **Town of Windham**

Department of Public Works 185 Windham Center Road Windham ME 04062

## Doug Fortier, Director

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To:

Tony Plante, Town Manager

From:

Doug Fortier, Public Works Director

Date:

May 19, 2017

RE:

Truck #5 Condition Assessment

Truck #5 had a major breakdown this past winter that cost \$10,531.36 to get it back on the road for the plowing season. The EGR Cooler, also known as the Exhaust Gas Recirculation Cooler, failed causing the truck to lose an excessive amount of coolant blown out through the exhaust system resulting in the truck overheating, which in turn resulted in the head gasket failing.

Due to the type of motor in this truck, the repair that was completed was considered minimal. The engine is a wet sleeve engine, which means it has steel sleeves lining the engines cylinders opposed to a typical cylinder with no sleeves. Each sleeve has o 'rings at the top and bottom of the cylinder to prevent coolant from leaking into the cylinders and base. When overheating accurse on this type of engine, these o 'rings can harden causing coolant to by-pass thus contaminating the engine oil. This can lead to many catastrophic failures.

This is the second time in this trucks life that the EGR cooler has failed but first time the head gasket has also failed.

If we were planning to keep this truck, the manufacturer recommends a complete tear down of the engine to inspect, clean and/or replace any necessary parts found compromised by the engine overheating. This type of repair can cost anywhere from \$20,000-\$30,000.

It is my strong recommendation that this truck be traded in towards the purchase of a new 2018 cab and chassis from Daigle and Houghton.