RYEDALE DISTRICT COUNCIL

CLIMATE CHANGE IMPACT ASSESSMENT

APPENDIX 2

Date	November 2019	Proposal	REPLACEMENT OF DIESEL PUMPS WITH PERMANENT ELECTRIC PUMPS IN MALTON

Ref	Proposal	Scheme element	Work Location	Climate Change Impact of Carrying out the Works	Climate Change Impact of Not Carrying out the works
001	Replacement of current temporary diesel pumps with permanent electric pumps	To reduce the carbon emissions from pumping during flooding incidents in Malton	Castlegate, Sheepfoot Hill and Chandlers Wharf in Malton	Significant one off construction, delivery and installation of permanent electric pumps costing in the region of £1.5m to implement with annual costs estimated at £100,000 for 25 years. There are no details currently on the feasibility and specification for such a significant scheme to enable a Climate change Impact Assessment to be undertaken. The Council is currently on a renewable energy tariff therefore permanent electric pumps would operate on a low carbon tariff. It is considered that the financial implications outweigh the carbon reduction benefits ie spend over 25 years totalling £4m equivalent to £160,000 pa to save on average up to 1.484 tonnes of carbon each year	Experience shows that temporary diesel pumps are normally operated from Tate Smith Yard on Sheepfoot Hill and in the Boat Yard and/or the Taylor and Brown Site and not at Chandlers Wharf (only required in extreme, prolonged ground water flooding incidents) **Pump Deployment Illustration:** Using an average of responding to flooding totalling one week a year 2 pumps running 24 hours a day for 7 days produce 1.484 tonnes of carbon (using 40 litres of diesel = 106kgs of carbon per day each) **To give a comparison of the carbon produced by two diesel pumps the calculation below shows how much carbon the vehicles travelling up and down Castlegate produce a year** **Daily Traffic Movements Illustration**: Using 14,500 daily vehicle movements from the traffic survey in Jan 2018 and one diesel car producing 0.33kgs of carbon per mile 14500 x 0.33kgs = 4.785 tonnes divided by 4 to illustrate 0.25/mile est distance travelling on Castlegate = 1.196 tonnes per day x 7 = 8.373 tonnes a week x 52 = 435 tonnes a year 2 pumps = 1.484 tonnes of carbon p.a.(based on 7 days deployment) Vehicle movements = 435 tonnes of carbon a year Diesel pump deployment represents less than 1% of annual carbon emissions from vehicles (0.003%) Replacing all diesel pumps with alternative energy efficient portable pumps over the next 5 years will reduce the above carbon emissions.

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