

Boswick, Robert

From: Ken Anderson <andersonk@ae.ca>
Sent: July 15, 2025 5:36 PM
To: Boswick, Robert
Cc: Adam Anseeuw (utility@rmofgrey.ca); Parsons, Travis; Genaille, Dee; Burland Ross, Siobhan
Subject: RE: Rural Municipality of Grey – St. Claude Aerated Wastewater Treatment Lagoon Upgrades

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Not a problem Rob.

The design value is 1,200 m3/day (rounded to simpler number)

It was based on two calculations:

1. It is what a single pump in the lift station can do over 24 hours of pumping. 14 L/s @ 24 hours is 1,210 m3/day.
2. The current MDF/ADD equaled a MDF Factor of 3.4. We had 360 m3/d as the future ADD design, and at x3.4 this is 1,224 m3/day.

I say "estimate", as this is still a highly variable flow based on climate, groundwater, snow melt, etc...

I consider future peaking flows are all still a guesstimate, sorry for the confusion.

The lagoon can buffer this flow over the 24 hours. There may be a short rise of 25-50mm of liquid in the first cell to overcome driving head through the intercell pipe at this peak flow.

Hope this helps with more clarity.

Regards,

Ken

Ken Anderson, P.Eng.

Manager, Water

Associated Engineering Ltd.

410 - Number Five Donald Street, Winnipeg, MB R3L 2T4

OFFICE DIRECT: (431) 317-3922 | Mobile: (204) 479-6980



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From: Boswick, Robert <Robert.Boswick@gov.mb.ca>

Sent: July 15, 2025 2:53 PM

To: Ken Anderson <andersonk@ae.ca>

Cc: Adam Anseeuw (utility@rmofgrey.ca) <utility@rmofgrey.ca>; Parsons, Travis <Travis.Parsons2@gov.mb.ca>; Genaille, Dee <Dee.Genaille@gov.mb.ca>; Burland Ross, Siobhan <Siobhan.BurlandRoss@gov.mb.ca>

Subject: RE: Rural Municipality of Grey – St. Claude Aerated Wastewater Treatment Lagoon Upgrades

Thank you for your prompt response Ken.

As these numbers are going to appear in the Environment Act licence for this proposal I think it would be best if an actual calculated number for the design maximum day flow to the lagoon be provided to the branch for inclusion in the licence for an upgraded lagoon rather than an estimate (1,200 m³/day). Moreover, it is important that the design of the upgraded lagoon (and associated appurtenances) would be able to effectively operate under such a design maximum day flow when it may occur. Please provide such a calculated number for the design maximum day flow to the upgraded lagoon.

Please discuss as necessary.

Thank you,

Robert Boswick, P.Eng.

Senior Environmental Engineer, Environmental Approvals Branch
Environment and Climate Change
robert.boswick@gov.mb.ca / Cel.: 204-918-5853 / FAX: 204-945-5229
Box 35 - 14 Fultz Blvd., Winnipeg, MB R3Y 0L6

From: Ken Anderson <andersonk@ae.ca>

Sent: July 15, 2025 11:35 AM

To: Boswick, Robert <Robert.Boswick@gov.mb.ca>

Cc: Adam Anseeuw (<utility@rmofgrey.ca> <utility@rmofgrey.ca>); Parsons, Travis <Travis.Parsons2@gov.mb.ca>; Genaille, Dee <Dee.Genaille@gov.mb.ca>; Burland Ross, Siobhan <Siobhan.BurlandRoss@gov.mb.ca>

Subject: RE: Rural Municipality of Grey – St. Claude Aerated Wastewater Treatment Lagoon Upgrades

Hi Rob, great news!

Based on the lift station records, we see some heavy flow days in spring melt.

I would estimate a design Max Day Flow to the lagoon would be **1,200 m³/day**.

ADD is good at **396 m³/day**

The average day loading used for the new aeration package design is **304 kg/BOD/day** with **2.0 mg/L DO**.

Thanks!

Ken

Ken Anderson, P.Eng.
Manager, Water
Associated Engineering Ltd.
410 - Number Five Donald Street, Winnipeg, MB R3L 2T4
OFFICE DIRECT:(431) 317-3922 | Mobile: (204) 479-6980



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From: Boswick, Robert <Robert.Boswick@gov.mb.ca>

Sent: July 15, 2025 10:35 AM

To: Ken Anderson <andersonk@ae.ca>

Cc: Brenda Poulsen (<utility@rmofgrey.ca> <utility@rmofgrey.ca>); Parsons, Travis <Travis.Parsons2@gov.mb.ca>; Genaille, Dee

<Dee.Genaille@gov.mb.ca>; Burland Ross, Siobhan <Siobhan.BurlandRoss@gov.mb.ca>

Subject: Rural Municipality of Grey – St. Claude Aerated Wastewater Treatment Lagoon Upgrades

Good morning Ken,

I am working toward finalizing the Environment Act licence for the Rural Municipality of Grey – St. Claude aerated wastewater treatment lagoon upgrades and need to know what the design maximum daily flow rate over any 24-hour period (in cubic metres) for the upgraded facility will be. Can you please provide this rate at your next earliest convenience?

Also, note that I am currently including 396 cubic metres per day as the average daily flow loading and 355 kilograms per day in terms of the five-day biochemical oxygen demand as the organic loading as previously provided. Are these still accurate?

These values will be included in the licence.

Please discuss as necessary.

Thank you,

Robert Boswick, P.Eng.

Senior Environmental Engineer, Environmental Approvals Branch
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robert.boswick@gov.mb.ca / Cel.: 204-918-5853 / FAX: 204-945-5229
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