

Greg Steindorf

attached comments as emailed to A. Heye on 11/7/23.

Heye, Amanda (ECY)

From: Melton, Mark (ECY)
Sent: Tuesday, November 7, 2023 4:53 PM
To: Greg Steindorf
Cc: Heye, Amanda (ECY)
Subject: RE: Wetland Mitigation Downstream Distance

Hi Greg,

Thanks for the email. I will forward your comments to Amanda Heye to include with the formal comments on the draft 2024 SWMMWW.

Thanks,

Mark Melton, PE
Senior Stormwater Engineer
WA State Department of Ecology
Water Quality Program
Mark.Melton@ecy.wa.gov
360-701-5580 (cell)

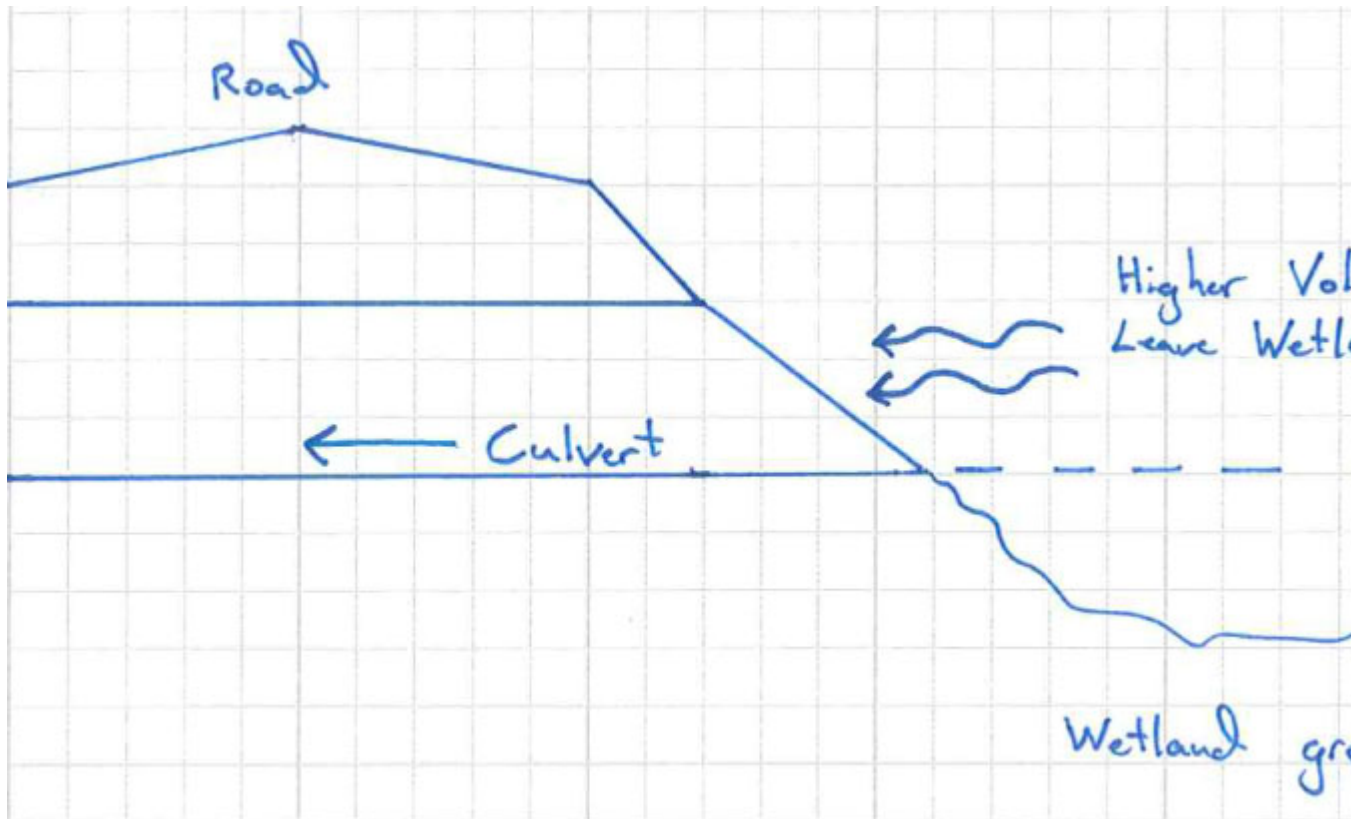
From: Greg Steindorf <gsteindorf@recivil.com>
Sent: Thursday, November 2, 2023 1:25 PM
To: Melton, Mark (ECY) <mmel461@ECY.WA.GOV>
Cc: Paul Knippel <PaulKnippel@cityofferndale.org>; Dale Buys <dale@recivil.com>; Labib, Foroozan (ECY) <flab461@ECY.WA.GOV>
Subject: RE: Wetland Mitigation Downstream Distance

Mark and Foroozan,

Thank you for meeting with us to discuss the wetland protection requirements in the SWMMWW, I really appreciate you taking time out of your day for us. Below are the questions/comments we discussed in our meeting regarding the draft 2024 manual. I am curious how the questions/comments relate to the 2019 manual. The City of Ferndale will not adopt the 2024 manual until 2027 so we have a few more years of utilizing the 2019 and want to make sure we are applying that correctly to all engineers who have to incorporate wetland protection into their mitigation.

1. What is the pre-project basin area that should be modeled for wetland protection in Method 1 and Method 2? Entire contributing basin? Project basin?
2. What is the post-project basin area that should be modeled for wetland protection in Method 1 and Method 2? Entire contributing basin? Project basin?
3. If you are modeling the entire contributing basin for the wetland in the post-project basin do you have to model all flow control BMPs within that basin? This will have a drastic shift in the hydrograph and can drastically change the daily storm volumes.
4. If you are modeling the entire contributing basin for the wetland but if there is an independent stream contributing to the wetland, how do you include the stream in the model?

5. What is Ecology's definition of a modified stream channel and when is a modified stream channel no longer considered a receiving water body (roadside ditch vs concrete channel vs pipe conveyance)?
6. If there is a modified stream channel that is now a pipe conveyance with stormwater conveyance networks connecting to it before discharging into the wetland would the modified stream channel count as the receiving water body (no wetland protection required) or would the wetland count as the receiving water body (wetland protection required)?
7. If a wetland has a natural "control structure" where the outflow is controlled and has the ability to safely "overflow" at a certain stage, how would this be considered or modeled? A simple example I have run into, there was a smaller wetland that was on a slope that was uphill of a forested area. The slope of the wetland meant that no water could be stored higher than the downslope edge no matter how much water was sent to it. Therefore, the hydroperiod could not be changed no matter the volume of water directed to the wetland. All excess water was discharged to a forested area so there was no downstream concern. If the project meets all flow control requirements but can't meet the wetland hydroperiod requirements, is it acceptable to exceed the hydroperiod thresholds if the wetland hydroperiod simply cannot be changed due to its geometry? This could also be a culvert, with sufficient capacity, placed under a roadway with an invert higher than the typical water surface elevation in the wetland.



Thank you,

Greg Steindorf, P.E.
Project Engineer



p: 360.354.3687 | c: 425.591.5379
a: PO Box 978 | 423 Front St., Lynden, WA 98264

From: Melton, Mark (ECY) <mmel461@ECY.WA.GOV>
Sent: Thursday, October 26, 2023 13:29
To: Greg Steindorf <gsteindorf@recivil.com>
Cc: Paul Knippel <PaulKnippel@cityofferndale.org>; Dale Buys <dale@recivil.com>; Labib, Foroozan (ECY) <flab461@ECY.WA.GOV>
Subject: RE: Wetland Mitigation Downstream Distance

Thanks Greg. I just sent an invite for 2:30 on that day.

Mark Melton, PE
Senior Stormwater Engineer
WA State Department of Ecology
Water Quality Program
Mark.Melton@ecy.wa.gov
360-701-5580 (cell)

From: Greg Steindorf <gsteindorf@recivil.com>
Sent: Wednesday, October 25, 2023 3:46 PM
To: Melton, Mark (ECY) <mmel461@ECY.WA.GOV>
Cc: Paul Knippel <PaulKnippel@cityofferndale.org>; Dale Buys <dale@recivil.com>; Labib, Foroozan (ECY) <flab461@ECY.WA.GOV>
Subject: RE: Wetland Mitigation Downstream Distance

Mark,

The afternoon of 11/1 works best for us. We are available anytime after 130 pm

Thank you,

Greg Steindorf, P.E.
Project Engineer



p: 360.354.3687 | c: 425.591.5379
a: PO Box 978 | 423 Front St., Lynden, WA 98264
www.recivil.com

From: Melton, Mark (ECY) <mmel461@ECY.WA.GOV>
Sent: Wednesday, October 25, 2023 15:35
To: Greg Steindorf <gsteindorf@recivil.com>
Cc: Paul Knippel <PaulKnippel@cityofferndale.org>; Dale Buys <dale@recivil.com>; Labib, Foroozan (ECY) <flab461@ECY.WA.GOV>
Subject: RE: Wetland Mitigation Downstream Distance

Thanks Greg. I have a co-worker that I would like to have join me on the call. It looks like his calendar is busy tomorrow afternoon.

Do you have availability in the afternoon on Tuesday (10/31) or Wednesday (11/1) of next week?

Thanks,

Mark Melton, PE
Senior Stormwater Engineer
WA State Department of Ecology
Water Quality Program
Mark.Melton@ecy.wa.gov
360-701-5580 (cell)

From: Greg Steindorf <gsteindorf@recivil.com>
Sent: Wednesday, October 25, 2023 10:35 AM
To: Melton, Mark (ECY) <mmel461@ECY.WA.GOV>
Cc: Howie, Douglas (ECY) <doho461@ECY.WA.GOV>; Heye, Amanda (ECY) <ahey461@ECY.WA.GOV>; Paul Knippel <PaulKnippel@cityofferndale.org>; Dale Buys <dale@recivil.com>
Subject: RE: Wetland Mitigation Downstream Distance

Mark,

I hope your vacation was nice. Thank you for the reply, that does help clear up a few things but I agree that a discussion would be beneficial. We are available tomorrow (10/26) after 2 pm. We also have some availability next week if tomorrow does not work for you.

Thank you,

Greg Steindorf, P.E.
Project Engineer



p: 360.354.3687 | c: 425.591.5379
a: PO Box 978 | 423 Front St., Lynden, WA 98264
www.recivil.com

From: Melton, Mark (ECY) <mmel461@ECY.WA.GOV>
Sent: Friday, October 20, 2023 14:39
To: Greg Steindorf <gsteindorf@recivil.com>
Cc: Howie, Douglas (ECY) <doho461@ECY.WA.GOV>; Heye, Amanda (ECY) <ahey461@ECY.WA.GOV>; Paul Knippel <PaulKnippel@cityofferndale.org>
Subject: RE: Wetland Mitigation Downstream Distance

Hi Greg,

Apologies again for the delay on this. To follow up on your email:

For the distance question you asked about, the answer comes from determining what the receiving water is. In the scenario that you provided if the 1.2 mile flow path is conveyance piping that outfalls at a wetland then MR8 would apply. If the 1.2 mile flow path is actually a river then the project would be outfalling to the river

and that would be the receiving water, not the wetland. In other words there is not a cutoff distance if the wetland is determined to be the receiving water.

For the question about modeling the 50 flow control BMPs. Our expectation is that the modeling for the flow control BMPs is focused on the BMPs within the project area not the entire contributing basin.

In answering your question we took a very close look at the language we have for method 1 in the manual currently and can see how there may be some confusion. If you are interested and available we would like to discuss this with you further and ask a few follow up questions. Do you have any availability to discuss this next week?

Thanks,

Mark Melton, PE
Senior Stormwater Engineer
WA State Department of Ecology
Water Quality Program
Mark.Melton@ecy.wa.gov
360-701-5580 (cell)

From: Greg Steindorf <gsteindorf@recivil.com>
Sent: Thursday, October 12, 2023 3:15 PM
To: Melton, Mark (ECY) <mmel461@ECY.WA.GOV>
Cc: Howie, Douglas (ECY) <doho461@ECY.WA.GOV>; Heye, Amanda (ECY) <ahey461@ECY.WA.GOV>; Paul Knippel <PaulKnippel@cityofferndale.org>
Subject: RE: Wetland Mitigation Downstream Distance

Mark,

Just checking in on my email below. I am curious as to your and Ecology's opinion on this.

Thank you,

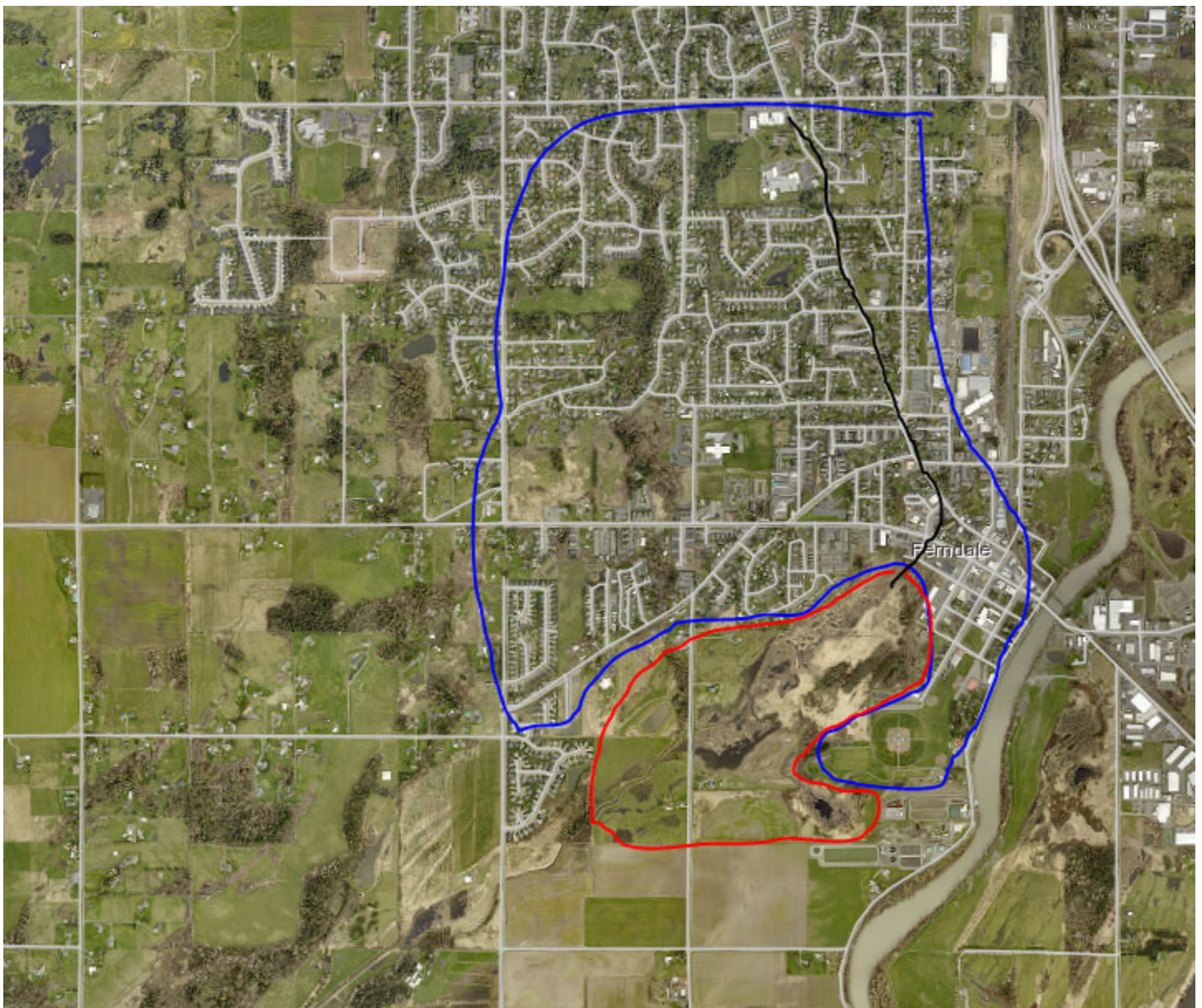
Greg Steindorf, P.E.
Project Engineer

 **Reichhardt & Ebe**
ENGINEERING INC
p: 360.354.3687 | c: 425.591.5379
a: PO Box 978 | 423 Front St., Lynden, WA 98264
www.recivil.com

From: Greg Steindorf
Sent: Tuesday, September 26, 2023 10:38
To: Melton, Mark (ECY) <mmel461@ECY.WA.GOV>
Cc: Howie, Douglas (ECY) <doho461@ECY.WA.GOV>; Heye, Amanda (ECY) <ahey461@ECY.WA.GOV>; Paul Knippel <PaulKnippel@cityofferndale.org>
Subject: RE: Wetland Mitigation Downstream Distance

Mark,

I do most of the stormwater review for the private developments in Ferndale so I am anticipating I will run into this several times. In the image below, the approximate wetland boundary is circled in red, the approximate contributing basin is circled in blue, and the black line is a flow path to the wetland that is approximately 1.2 miles long. I am not looking for site specific design guidance but considering the size of the contributing basin and the potential for numerous projects that currently contribute to the wetland, I would like to know what Ecology's opinion is on how detailed a small or large project in this area needs to get to address their potential wetland impacts? The City (Paul Cc'd here) and I are wanting to provide consistent guidance to all design engineers that may submit a project within this large contributing basin and we want to make sure we are following the manual as Ecology is intending for this requirement.



Thank you,

Greg Steindorf, P.E.
Project Engineer

From: Melton, Mark (ECY) <mmel461@ECY.WA.GOV>
Sent: Friday, September 22, 2023 14:50
To: Greg Steindorf <gsteindorf@recivil.com>
Cc: Howie, Douglas (ECY) <doho461@ECY.WA.GOV>; Heye, Amanda (ECY) <ahey461@ECY.WA.GOV>
Subject: RE: Wetland Mitigation Downstream Distance

Hi Greg,

Doug forwarded your question to me as I am the designated person to answer wetland questions about the SWMMWW.

In reviewing your email it appears that you have a site specific design question. Our general policy is that we do not provide site specific design guidance and ask that you work with the permitting agency as they may have additional criteria or preferences beyond what is in the SWMMWW. The focus for the modeling is on the receiving water. If the wetland is the receiving water then the flows should be included. As to how the upstream components are modeled or potentially simplified in the model would be a question best discussed with the permitting agency as they are able to look closer at the site specific details.

Thanks,

Mark Melton, PE
Senior Stormwater Engineer
WA State Department of Ecology
Water Quality Program
Mark.Melton@ecy.wa.gov
360-701-5580 (cell)

From: Greg Steindorf <gsteindorf@recivil.com>
Sent: Friday, September 15, 2023 10:10 AM
To: Howie, Douglas (ECY) <doho461@ECY.WA.GOV>
Subject: Wetland Mitigation Downstream Distance

Doug,

For Minimum Requirement 8 it states this requirement applies to TDAs that discharge directly or indirectly through a conveyance system into a wetland. I was wondering if there is a maximum downstream distance before this requirement no longer applies? For example, there is a large wetland complex that borders the south side of the city of Ferndale that receives stormwater from Schell Ditch and several conveyance systems. The ditch and the conveyance system are over 1 mile long upstream from the wetland and has a very large contributing basin. While reviewing the draft 2024 manual it states you need to model the entire contributing basin to the wetland along with any flow control facilities. This would be extremely difficult and complicated as there could be upwards of 50 flow control facilities that contribute to the wetland. If I have a project that will discharge to this wetland and is 1 mile upstream from the wetland,

do I need to model the entire wetland basin and all flow control facilities that contribute to the wetland? Is there a maximum contributing conveyance length where MR 8 is applicable?

Thank you,

Greg Steindorf, P.E.

Project Engineer



p: 360.354.3687 | c: 425.591.5379

a: PO Box 978 | 423 Front St., Lynden, WA 98264

www.recivil.com