From: BNICKEL
To: June.Bergquist@deq.idaho.gov
Subject: RE: Sandpoint Design flow
Date: Thursday, January 10, 2013 3:57:54 PM

June:

They have to be able to treat the flow stated as the design flow. That much, I think, is clear from the vague definition in the application form and the regs. Again, the application states that the design flow means "the wastewater flow rate that the plant was built to handle." This is written in the past tense and it speaks to the actual, "built" capability of the plant.

If you can document that the plant "was built to handle" 3.62 mgd rather than 5 mgd (or that 5 mgd could only be sustained for a short period of time without affecting treatment capability) that's fine with me. I can recalculate the limits based on the lower design flow. I will need to have copies of this documentation, however, for our record, since it runs counter to what's in the permit application.

Thanks,

Brian Nickel, E.I.T.

Environmental Engineer

US EPA Region 10 | Office of Water and Watersheds | NPDES Permits Unit

Voice: 206-553-6251 | Toll Free: 800-424-4372 ext. 6251 | Fax: 206-553-0165

Nickel.Brian@epa.gov

http://epa.gov/r10earth/waterpermits htm

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From: <June.Bergquist@deq.idaho.gov>

To: Brian Nickel/R10/USEPA/US@EPA

Cc: <June.Bergquist@deq.idaho.gov>

Date: 01/10/2013 03:21 PM

Subject: RE: Sandpoint Design flow

Hi Brian,

I can't find anything that would indicate they can treat more than 3.62 MGD which is the most recent upgrade (2008-2010) projected to meet needs for the next 10 years. I sent you the information I could find (2011 O&M Manual and 2007 Facility Plan) via US mail. Their 2085 build-out projected domestic flow is 4.27 mgd so that may be where the 5 mgd is coming

from. Do they have to be able to treat that much or do they just have to have plans to eventually treat that much? Until that question is answered I am reluctant to continue on the cert because there will be significance tests needed for the increases from 3 to 5 mgd for certain pollutants related to recreational uses. Let me know what you decide.

Thank you for the phosphorus calculations. One more element of concern is that during the delisting process we heard complaints from Murphy Bay residents, located across the river from this discharge, related to excess nutrients. There could be some back eddies or other things happening at this location. A 50% MZ may be okay for the river as a whole but may not be okay for localized effects. I will pursue this question with our modeler to see if we could figure out better what is happening.

June

From: June Bergquist

Sent: Wednesday, January 09, 2013 12:41 PM

To: Nickel.Brian@epamail.epa.gov

Cc: June Bergquist

Subject: RE: Sandpoint Design flow

Got it. Thank you for the explanation. I will do some more digging.

From: Nickel.Brian@epamail.epa.gov [Nickel.Brian@epamail.epa.gov]

Sent: Wednesday, January 09, 2013 11:21 AM

To: June Bergquist

Subject: RE: Sandpoint Design flow

June:

Like everything on the application, the discharger is supposed to be truthful in reporting their design flow, and there can be severe penalties for submitting false information.

The problem is that "design flow" is not defined very will in any EPA rules or guidance. The closest thing to a definition is in the application form itself, which says that the design flow is "the wastewater flow rate that the plant was built to handle" (see also 40 CFR 122.21(j)(1)(vi)). But that, of course, is quite ambiguous, because there are a number of potential "design" flow rates that the facility could specify (e.g. peak hourly flow, peak daily flow, average daily flow, etc.). There can be a lot of variation in those flow rates, especially at a facility like Sandpoint, where daily flow rates are variable, due to I/I issues .

I'm not aware that the EPA has ever taken a more specific position on what "design flow" means, but I think we could reasonably argue that it should not be a peak daily or hourly flow; it should be a flow rate that can be sustained for a reasonably long period of time (I would say at least 30 days) while providing adequate treatment.

So, it's entirely possible that both the 5 mgd figure reported on the application and the 3.62 mgd figure reported in the O&M manual could both be correct in a sense, but, if that's true, the 5 mgd "design flow" could only be sustained for a relatively short period of time. I think what we regulators need to figure out is, what did they really mean when they said 5 mgd in the application and 3.62 mgd in the O&M manual? In other words, what are the averaging periods associated with those "design flows?" Then we can decide which of those is more reasonable as a basis for permit conditions.

Thanks,

Brian Nickel, E.I.T.

Environmental Engineer

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---01/09/2013 01:07:52 AM---Thanks Brian, I guess I should have asked can a discharger ask for just any design flow or does it h

From: <June.Bergquist@deq.idaho.gov>

To: Brian Nickel/R10/USEPA/US@EPA

Date: 01/09/2013 01:07 AM

Subject: RE: Sandpoint Design flow

Thanks Brian, I guess I should have asked can a discharger ask for just any design flow or does it have to be withint their plant capability? The current upgrade at Sandpoint was based on a 10 year projected growth, why would we consider effluent limits beyond this design (3.62 MGD)?

J.

From: Nickel.Brian@epamail.epa.gov [Nickel.Brian@epamail.epa.gov]

Sent: Tuesday, January 08, 2013 4:08 PM

To: June Bergquist

Cc: Daniel Redline

Subject: Re: Sandpoint Design flow

June:

Attached is the City of Sandpoint's application that they submitted to us in September 2006.

The design flow is reported in Part A.6 of Form 2A as 5 mgd.

I'm sure you know more about the design flow history than I do at this point; I don't have any information that runs counter to your statements.

However, I do have at least part of a 2006 facility plan (attached), which states that "the plant has adequate capacity to handle up to 2.5 mgd of average flow" (Section 2.7). But that statement, of course, predates the O&M manual you were referring to.

Thanks,

Brian Nickel, E.I.T.

Environmental Engineer

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(See attached file: Sandpoint_Application_2006.pdf)(See attached file: wastewaterfacilityplan06.pdf)

---01/08/2013 03:38:14 PM---Hi Brian, You recalled correctly, Sandpoint's current permit is for 3 MGD design flow. Sandpoint di

From: <June.Bergquist@deq.idaho.gov>

To: Brian Nickel/R10/USEPA/US@EPA

Cc: <Daniel.Redline@deq idaho.gov>, <June.Bergquist@deq.idaho.gov>

Date: 01/08/2013 03:38 PM

Subject: Sandpoint Design flow

Hi Brian,

You recalled correctly, Sandpoint's current permit is for 3 MGD design flow. Sandpoint did an upgrade between 2008 and 2010 which increased their design flow to 3.62 MGD. I have attached an image of the pertinent section in their new 2011 O&M Manual. The Manual is 26 MB so I couldn't send it to you.

You used a 5 MGD design flow for calculating effluent limits. The 5 MGD must be what they put in their most recent application (could you send that to me?-thanks). I think this means we will treat the amount above 3MGD as a proposed increase in design flow that is subject to antidegradation rules. The waterbody is Tier 2 (high quality) for recreational uses and pollutants significant to recreational uses are mercury, phosphorus, E. coli, arsenic, zinc, cyanide and nickel. Increases of these pollutants beyond the 3 MGD design flow must not decrease assimilative capacity of the river by more than 10%. If they do exceed 10%, Sandpoint would need to provide an alternatives analysis and a socio-economic justification so DEQ can evaluate if the degradation should be allowed. Do you agree with this design flow history? Thanks.

June[attachment "Capture2.JPG" deleted by Brian Nickel/R10/USEPA/US] [attachment "Capture.JPG" deleted by Brian Nickel/R10/USEPA/US]