

## Mackil, Molly J. (DNREC)

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**From:** Stiller, Kathleen M. (DNREC)  
**Sent:** Monday, January 28, 2013 10:35 AM  
**To:** Davis, Glenn F. (DNREC); Small, David (DNREC); Schepens, Dave J. (DNREC)  
**Subject:** RE: Harim

All,  
Thank you for the calculations.

I checked on the allocation permits for the facility and they would need to be amended to meet the water needs. The current maximum daily allocation is sufficient but the yearly allocation would only supply this amount for three months. Calculation would need to be done to see if the aquifers being used could pump at the desired rates needed or if new wells would be needed to meet the capacity.

Thanks  
Kathy

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**From:** Davis, Glenn F. (DNREC)  
**Sent:** Monday, January 28, 2013 10:23 AM  
**To:** Small, David (DNREC); Stiller, Kathleen M. (DNREC); Schepens, Dave J. (DNREC)  
**Subject:** RE: Harim

Dave/Kathy

Dave Schepens & I sat down and discussed the information supplied by Harim, and would like to just mention the following:

The loading equation is expressed at  $\text{MGD} \times \text{concentration} \times 8.34 \text{ \#/gal} = \text{lbs/day discharged}$

For Nitrogen at 5 mg/l the discharge would be  $15\text{MGD} \times 5.0 \text{ mg/l} \times 8.34 = 625.5 \text{ lbs/week} \times 52 \text{ weeks} = 32,526 \text{ lbs./yr. N}$   
For Phosphorus at 1 mg/l the discharge would be  $15 \text{ MGD} \times 1.0 \text{ mg/l} \times 8.34 = 125.1 \text{ lbs./week} \times 52 \text{ weeks} = 6,505 \text{ lbs./yr. P}$

That's still quite a bit of nutrient

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