Rock River Recovery

WPDES Permit Limits

Rock River Basin

Total Maximum Daily Load

- Total Suspended Solids Allocations
- Total Phosphorus Allocations

TSS and Phosphorus

- Wasteload allocations are Water Quality Based Limits
- Monthly Wasteload allocations will be reflected in WPDES permits
- Allocated by month – mass limits

Phosphorus Permit Limits

- Technology Based NR 217.04
- WQBELs Based NR 217.13
- TMDL relationship NR 217.16
- Specified in Limits Memo or Fact Sheet

Phosphorus Permit Limits

Technology Based NR 217.04

- Cannot be greater than existing limit (antideg)

* Alternative limits recalculated each permit term based on current performance

Phosphorus Permit Limits

WQBELs Based NR 217.13(2)

* Need minimum of 11 data points – more is better

* Preferred to be collected over one year

Phosphorus Permit Limits

- What Limits apply for whom?
- Concentration/Mass Limits
- TMDL Allocations and/or NR 217 limits
- NR 217.16 – 'The TMDL based limitation may be included in a permit <u>in addition to, or in lieu of</u>, the water quality based limit calculated under NR 217.13.'

Phosphorus Permit Limits – Interim Limits

- Cannot be greater than existing limit (antideg)

* Recalculated each permit term based on <u>current</u> performance

*Calculated based on effluent P data (upper 99th percentile of monthly averages or other procedures – in WQBEL memo or fact sheet)

Table 1 of Handouts

- TMDL Wasteload Allocations Take Precedence for Future Permits
- Wasteload Allocations protective of receiving water
- Technology based limits already in permits

Delafield-Hartland WPCC – Design Flow 3.114 MGD
Current P limit 1.0 mg/l, monthly avg

Month	Monthly WLA for Phosphorus (lb)	Equivalent P 'Concentration' at design flow (mg/l)
Jan	129.89	0.16
Feb	198.21	0.27
Mar	207.67	0.26
Apr	257.5	0.33
May	227.26	0.28
Jun	225.57	0.29
Jul	176.19	0.22
Aug	154.03	0.19
Sep	122.43	0.16
Oct	99.81	0.12
Nov	104.15	0.13
Dec	129.78	0.16

Table 2 of Handouts

- Mass Balance Calculations (NR 217) Take Precedence for Future Permits
- Wasteload Allocations <u>not</u> protective of receiving water or downstream lake
- Technology based limits already in permits

Table 3 of Handouts

- TMDL Wasteload Allocations Take Precedence for Future Permits
- Wasteload Allocations protective of receiving water
- Technology based limits not in current permits

Reeseville WTP – Design Flow 0.1 MGD, no Current P limit

Month	Monthly WLA for Phosphorus (lb/)	Equivalent P 'Concentration at Design flow (mg/l)
Jan	49.84	1.93
Feb	60.25	2.58
Mar	68.37	2.64
Apr	52.9	2.11
May	50.86	1.97
Jun	48.06	1.92
Jul	41.41	1.60
Aug	50.12	1.94
Sep	52.81	2.11
Oct	54.48	2.11
Nov	47.79	1.91
Dec	43.27	1.67

Table 4 of Handouts

- Mass Balance Calculations (NR 217) Take Precedence for Future Permits
- Wasteload Allocations <u>not</u> protective of receiving water or downstream lake
- Technology based limits not in current permits

TABLE 5
Determinations Pending

Total Suspended Solids

- For most dischargers, wasteload allocations back-calculate to concentrations similar to those in existing permits

punchsnack