



Maryland
Department of
the Environment

Groundwater Discharge: Populations

Wastewater Treatment Workgroup
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Groundwater Discharge in MD

- **Spray Irrigation on crop**
 - 20 to 25 facilities
 - ~70 M gallons/month
- **Spray irrigation on turf**
 - 5 to 10 facilities
 - ~0.2 M gallons/month
- **Rapid Infiltration**
 - < 5 facilities
 - ~3 M gallons/month



Sewer Systems for Groundwater Dischargers

- Similar to any other sewer system
- Sewer coverage for groundwater dischargers was provided to CBP as part of the WWTP sewer overlay



Conclusions

- **Rapid infiltration loads**
 - Input like wastewater loads:
 - Load input:
 - $\text{DMR-based flow} \times \text{DMR-based concentration}$
 - Input as a septic system load
 - Population estimates like wastewater
 - Spray irrigation loads
 - Load input:
 - $\text{DMR-based flow} \times \text{DMR-based concentration}$
 - Input as NPS nutrient application to crop or turf
 - Population estimates like wastewater
- **Recommendation:** For population estimate purposes, groundwater dischargers should be included with wastewater treatment plants