



# MARYLAND DEPARTMENT OF THE ENVIRONMENT

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To: All Local Approving Authorities and Environmental Health Directors

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Subject: Decision Framework for Evaluating Project Flows utilizing Onsite Systems

Copies: Onsite Systems Division, Groundwater Discharge Permits Division

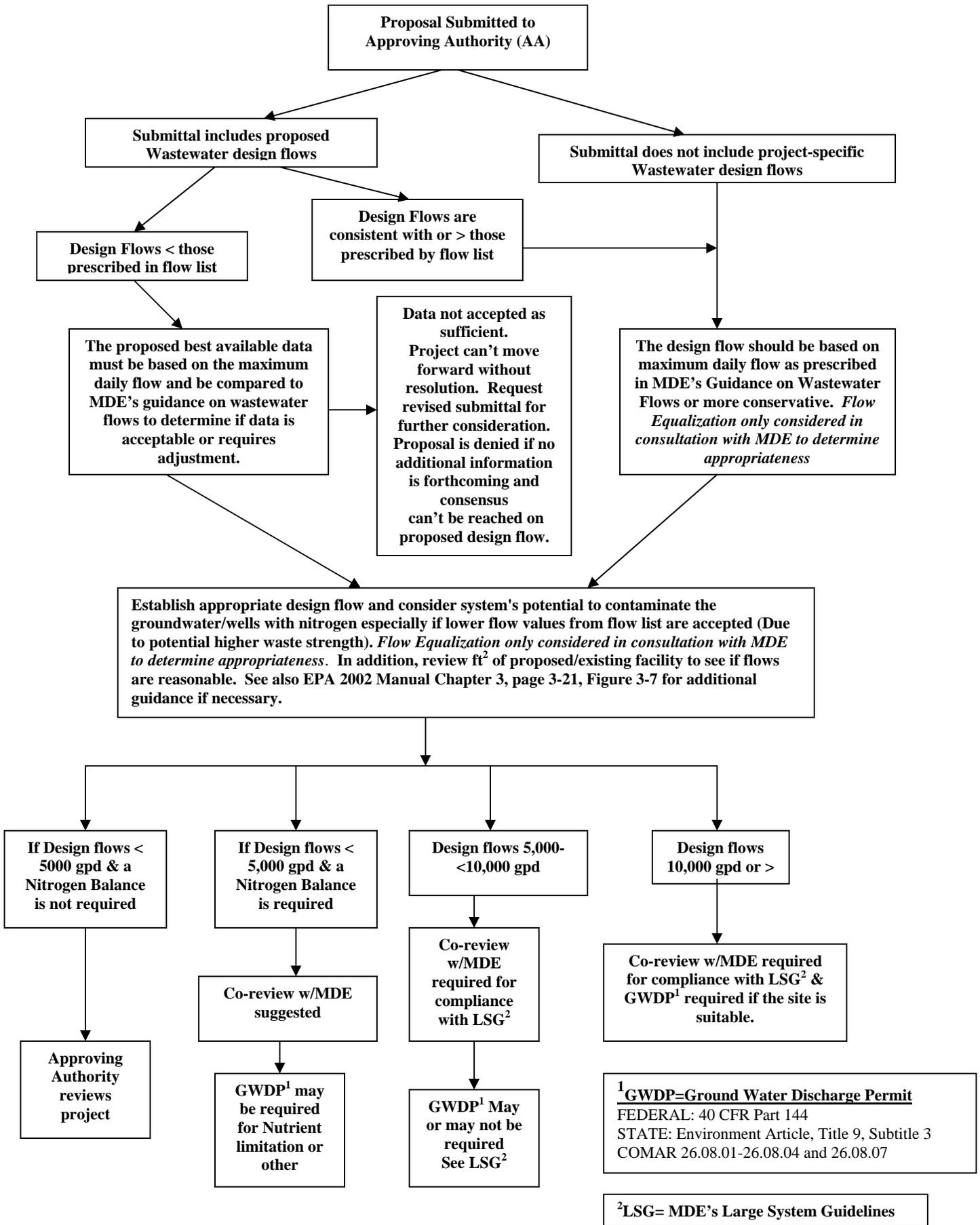
Attachments: Decision Framework Flow Chart, Revised Wastewater Flow List

The attached decision framework is the Onsite System Division's guidance on evaluating project flows from existing or proposed sources to determine appropriate design flow number. It is assumed that most approving authorities have a method to properly categorize these projects, however due to the nature of certain projects, a more established decision making process can help categorize these systems.

Also attached is a revised wastewater flow list which replaces the October 30, 1990 "Wastewater Flows for Designing On-Site Sewage Systems" memo. This new list is a stand alone document, but also replaces Appendix B of MDE's "Large System Guidelines" and Appendix F from MDE's "Site Evaluation Training Manual for On-Site Sewage Treatment and Disposal Systems" If using these flow numbers from this revised list, these flows should be considered maximum daily flows in accordance with COMAR 26.04.02.05M

Additional questions about the decision framework or the flow guidelines should be directed to your Regional Consultant.

## Decision Framework for Evaluating Project Flows Utilizing OSDS



## MDE GUIDANCE ON WASTEWATER FLOWS FOR USE IN DESIGNING ON-SITE SYSTEMS

<b>ESTABLISHMENT</b>	<b>GPD PER UNIT</b>
<b>AIRPORT</b> , per passenger	5
Per employee	15
(Add for food service facility)	
<b>ANIMAL SHELTER/KENNELS/VETERINARIAN</b>	
Per run (pen, cage, stall etc.)	25
Per grooming station	250
Per procedure room	250
(Consider Waste handling & strength in design)	
<b>ASSISTED LIVING/HOMES FOR THE AGED</b> , per bed space	100
(Consider more flow for Assisted Living facilities that provide more extensive care)	
<b>BARBER SHOP</b> , per seat (station)	50
<b>BEAUTY SALON</b> , per station	250
Consider potential impacts of any chemicals discharged to the onsite system and the potential impacts of backwash from water treatment units.	
<b>BOWLING ALLEY</b>	
Per lane, no bar/food	75
Per lane, with bar only	125
Per lane, bar & food	200
<b>CAMPS, CAMPGROUNDS, &amp; TRAVEL TRAILER/RV PARKS</b>	
Public Campground, per travel trailer space, w/water and sewer hookups	175
Public Campground, per travel trailer space, w/no water & sewer hookup	150
Youth overnight camp, per camper	50
Labor camp, per person	50
Luxury camp, per camper	100
Day camp, per person (add flow for meals, showers or pools)	15
For information on the discharge of RV pump-out wastewater into an OSDS (septic system), please contact the Groundwater Permits Division at (410) 537-3778.	
<b>CHURCH-ASSEMBLY HALL</b>	
Per sanctuary seat	3
With private kitchen (members only)	5
With commercial kitchen (open to general public,	
With Food Service License: see “Food and Beverage Service Facility”	

Classroom space or meeting rooms intended for daily use, per seat	15
(For church space not in a separate building, allocated to Sunday school and other occasional use, an additional flow factor need not always be applied, as long as seating capacity in these areas does not exceed the number of sanctuary seats.)	
<b>DAY CARE</b> , per patron	15
<b>DRIVE IN THEATER</b> , per car space	5
<b>FACTORY (MANUFACTURING PLANT)</b>	
Per employee/per shift	15
Add for showers per employee	10
<b>FAIRGROUND</b> , per person	5
<b>FOOD and BEVERAGE SERVICE FACILITIES*</b>	
Banquet room, per seat (assoc. w/restaurant)	5
Banquet room, per seat, exclusively banquet facility	25
Bar/Tavern/Pub, per bar seat	25
Bar/Tavern/Pub, per table seat	50
Convenience Store, Bakery, Carryout, Deli, w/ <u>no</u> seating:	
Without public restrooms	0.40 gpd/ft <sup>2</sup> 600 minimum
With public restrooms	0.75 gpd/ft <sup>2</sup>
With seats, add flow	Use "Restaurants"
Grocery Store	0.40 gpd/ft <sup>2</sup>
Restaurants: 12 hour operation, per seat	50
24 hour operation or fast food, per seat	75
Interstate or major highway, per seat	150
Tasting Room for Winery or Brewery w/public bathrooms (Add for food service, special events or other amenities)	400 minimum

If wine or beer process wastewater is proposed to be combined with domestic wastewater, or planned for a dedicated onsite system, a Groundwater Discharge Permit may be required. Please contact the Groundwater Permits Division at (410) 537-3778.

\* Consider waste strength in design

**FUNERAL HOME** (Domestic wastewater only) 0.62 gpd/ft<sup>2</sup>

For any embalming disposal contact the Groundwater Permits Division at (410) 537-3778

**GOLF COURSE with snack bar (limited food service)**

Per 18 holes 3500

Per 9 holes 1500

(Add for full food service and bar seating; See “Food Service Facility”)

**LAUNDRY/COIN-OPERATED**

Per machine/per 24 hours 600

If # of machines unknown 7.36 gpd/ft<sup>2</sup>

**MARINAS \***

Wet slip with toilet facilities (gpd/slip) 20

Wet slip with toilet facilities and bathhouse 32

Dry slips with toilet facilities 7

Dry slips with toilet facilities and bathhouse 11

Launch Ramp only, per parking space 10

\*Add for other amenities such as food service, laundry service, swimming pool, etc.

Pump-out station sizing: 35 gpd per slip, or as dictated by DNR. Storage volume only, no discharge into OSDS

**MEDICAL FACILITIES**

Dental office, per chair 150

Doctor’s office 0.62 gpd/ft<sup>2</sup>

Hospital, per bed 350

Nursing home, per bed 200

Physical therapy 0.62 gpd/ft<sup>2</sup>

**MOBILE HOME PARKS**, per lot 300 minimum

**MOTEL-HOTEL-BED & BREAKFAST**

Per unit, no food, no kitchen 125

Per unit, with food/kitchen in room 200

Bed and Breakfast, per Bedroom 150

**OFFICES**

Per employee/8 hr. shift 15

If # of employees is unknown 0.18 gpd/ft<sup>2</sup>

**PARKS**

Per person, with toilets provided 10

Add for showers 10

Visitor Center, per parking space 45

<b>PRISON/JAIL</b>	
Per bed space	125
Per employee/shift	15
<b>RESIDENTIAL UNITS (APARTMENTS/CONDOMINIUMS)</b>	
Per bedroom	150
Rooming/boarding, per bed	75
<b>REST AREA (HIGHWAY)</b>	
State highway rest area (mini-station)	2000 minimum
<b>SCHOOLS &amp; COLLEGES (PER STUDENT)</b>	
Without food or showers	15
Add for food	5
Add for showers	10
Boarding	100
Day care, per student	15
<b>STORE/COMMERCIAL SPACE</b>	0.10 gpd/ft <sup>2</sup> 400 minimum
<b>SWIMMING POOLS</b>	
Per swimmer (add for food service)	10
<b>THEATER OR SPORTS ARENA, per seat (add for food service)</b>	5
<b>THEATER-DINNER, per seat</b>	20
<b>WAREHOUSES</b>	0.06 gpd/ft <sup>2</sup>

**NON-DOMESTIC PROCESS WASTEWATER**

If a facility discharges non-domestic process wastewater, the facility may require a Groundwater Discharge Permit. Please contact the Groundwater Permits Division at (410) 537-3778.

For example:

- Vehicle Maintenance facilities
- Car Washing facilities
- Dry Cleaners
- Butcher Shops
- Food processing facilities

[Disposal options for food processing and other nutrient containing wastewater, such as Wineries, Breweries and Milk Products processing facilities, are addressed in a separate MDE memo “Options for the Management of Food Processing Wastewater”.]