

## **NOTICE OF PUBLIC HEARING**

### **Proposed Revisions**

### **Table of Equivalent Dwelling Units**

### **St. Mary's County Metropolitan Commission**

Pursuant to Section 27D of Article 113 of the Public Local Laws of St. Mary's County, notice is hereby given that a Public Hearing will be held on September 12, 2007, at 2:00 pm at the offices of the St. Mary's County Metropolitan Commission, located at 43990 Commerce Ave, Hollywood, Maryland, 20636. The Public Hearing will be held to discuss proposed changes to the Table of Equivalent Dwelling Units, which is used by the Metropolitan Commission to estimate the volume of wastewater that will be produced by, and the volume of potable water that will be used by, various types of non-residential users of the public water and sewerage systems in St. Mary's County. The Table of Equivalent Dwelling Units equates the estimated volumes of wastewater produced and potable water used by non-residential users to those of a single family house and is used for designing the public water and sewerage systems, allocating wastewater treatment and water supply capacity and for the billing of water and sewerage charges.

Copies of the report entitled "Proposal To Revise Table of Equivalent Dwelling Units", which explains the purpose of the proposed revisions, as well as a copy of the current Table of Equivalent Dwelling Units, dated July 1, 1981, and the proposed revised Table of Equivalent Dwelling Units, dated August 2007, may be obtained from the Commission website at [www.metcom.org](http://www.metcom.org) or by visiting the Commission business office at the address listed above or by calling 301-373-4733, Monday – Friday, 8:00am-4:30pm. All interested persons are invited to attend the Public Hearing to present their comments and suggestions or to submit comments in writing by hardcopy or by e-mail to [comments@metcom.org](mailto:comments@metcom.org) by 4:30pm EST on September, 2007.

Steven L. King, Director  
St. Mary's County Metropolitan Commission

**ST. MARY'S COUNTY METROPOLITAN COMMISSION,  
PROPOSAL TO REVISE**

**TABLE OF EQUIVALENT DWELLING UNITS**

**Discussion** - The attached Table of Equivalent Dwelling Units (the "Existing Table"), Exhibit A, is the existing equivalency table used to estimate the amount of sewage that could be generated by, and the amount of water that could be consumed by, all of the various users of public water and sewerage systems. This information is then used to design public water and sewerage facilities; to officially allocate capacity to proposed users; and to equitably distribute the costs of operating and constructing the facilities to the various types of users. This is accomplished by way of equating the expected volume of sewage to be produced and water to be consumed by each of the various users to the volumes that would be expected from a single family house. This unit of measurement is referred to as an Equivalent Dwelling Unit (EDU).

The Existing Table has not been revised since 1981. Since that time the volume of water used by some types of development has changed considerably due to the introduction of water saving fixtures, changes in retail sale and food service marketing, etc. In addition, entirely new types of public water and sewer users have evolved which do not fit the traditional water and sewer use patterns in the Existing Table. Lastly, over the past year or so two new phenomena have developed which make it very difficult at the site plan approval stage to predict what the ultimate water and sewage flows will be from new office buildings. These phenomena involve: 1) the increasingly popular practice of converting rental office space into privately owned office condos, sometimes after the building is constructed; as well as 2) designing and constructing the office building before the ultimate number and types of tenants are identified. Both of these practices makes it difficult to predict the ultimate water and sewer capacities that will be required for a new building, because there is no way of knowing exactly how many offices or employees will reside in the building, or the number of owners, until such time as the building is completed. In some cases, the eventual users turn out to require greater capacity, i.e., medical offices, veterinary offices, a beauty parlor, etc., than was originally envisioned by the designer. This could cause the ultimate flow to be significantly higher than originally expected. To further complicate the problem, subsequent changes in the building ownership through condo conversions, changes in the types of users, significant renovations and subdividing into additional office space sometimes occurs many years after the original construction. All of these changes can significantly alter the water and sewerage capacity requirements of the building, cause associated public water and sewerage facilities to become inadequate, and result in billing discrepancies.

**Proposal:** For the reasons mentioned above, it is recommended that the Commission adopt the following policy changes:

1. Revise the 1981 Existing Table to reflect the design flow changes listed on the attached proposed new table (“New Table”) dated August 2007 and attached as Exhibit B. The New Table retains the previous document’s flow standards that are believed to still be relevant, and replaces those that are not with standards have been taken from both the Maryland Department of the Environment, “Wastewater Capacity Management Plan Guidance Document and the Anne Arundel County, Maryland, Flow estimates for Capital Facility Connection Charges.” The MDE standards have been used throughout the State for both on-site systems and community systems. Anne Arundel County standards have been inserted in the New Table where MDE standards are not available and where it is believed that Anne Arundel County has more practical experience applying the standards for community systems than does the State.
2. Require that all plans for commercial office building projects be required to demonstrate the allocation of at least one (1) EDU per proposed or planned office unit, including condominium units. In the event any office unit or condo is planned or proposed to encompass more than 3,333 square feet (sf), one (1) additional EDU shall be required for every additional 3,333 sf, or fraction thereof. In the event that no particular number of individual office units or condos is specified by the developer, the total square footage of the proposed building will be divided by 3,333 sf, and rounded up to the next whole number, to determine the minimum number of required EDU’s for the project. All future development of the project will be limited to one (1) office space or condo per EDU, unless additional EDU’s are allocated for the project by the St. Mary’s County Office of Land Use and Growth Management. The design factor of 3,333 sf per office space or condo is a minimum standard based on 300 gpd per EDU divided by 0.09 gallons per sf per day. Permitted uses that require greater capacity, as specified under the “Guiding Factors for Flow Projection Related to Commercial Establishments and Public Service Buildings” section of the New Table, shall multiply the total square feet of the proposed building by the factor associated with that use to determine the total gallons per day of capacity required. The total gallons per day of capacity shall then be divided by 300 gpd to determine the number of EDU that will be required for capacity allocation and billing purposes.

**ST. MARY'S COUNTY METROPOLITAN COMMISSION  
TABLE OF EQUIVALENT DWELLING UNITS<sup>1</sup>**

<b>CLASSIFICATIONS</b>	<b>NO. OF EDU'S</b>
<b>INSTITUTIONAL</b>	
Elementary School and Child Day Care – each 40 people or fraction thereof	<b>1</b>
Middle & High Schools – each 20 people or fraction thereof	<b>1</b>
Hospital or Nursing/Group Home – each 2 beds	<b>1</b>
<b>SUBDIVISION RESIDENTIAL – One Dwelling Unit</b>	
<b>MULTI-UNIT RESIDENTIAL</b>	
1 Trailer Space	<b>1</b>
1 Apartment	<b>1</b>
1 Condominium	<b>1</b>
<b>COMMERCIAL/INDUSTRIAL<sup>2</sup></b>	
Car Wash – each self service bay	<b>1</b>
– Recycling - each tunnel bay	<b>4</b>
Churches (per seat)	<b>3 gpd/seat</b>
Dance Hall/Night Club (per seat) (add for food service)	<b>5 gpd/seat</b>
Funeral Home	<b>2</b>
Marinas (per slip)	<b>25 gpd/slip</b>
Motel/Hotel Units – 4 Rooms	<b>1</b>
Motel/Hotel Efficiencies (with kitchen facilities; extended stay) – 2 Rooms	<b>1</b>
Recreational Facilities – each 20 people or fraction thereof	<b>1</b>
Restaurants, Bars and/or Cocktail Lounges – each 20 seats or fraction thereof	<b>1</b>
Sports Arena (per seat) (add for food service)	<b>5 gpd/seat</b>
Public Swimming Pools (per swimmer based on pool capacity)	<b>10 gpd/ swimmer</b>
Private Swimming Pools (community/hotel only)	<b>2</b>
Theatres – each 100 seats or fraction thereof	<b>1</b>
<b>MULTI-UNIT BUSINESS – A combination of uses of the same property</b>	<b>Total number of EDU's for the property</b>
<b>AGRICULTURAL – No properties currently being served</b>	

An alternative method used to project average daily flows generated from commercial establishments, public service buildings or dwelling units can be figured on the basis of total floor area, number of building units or service seats multiplied by a statistical factor. Guiding factors are given below.<sup>3</sup>

<sup>1</sup> Equivalent Dwelling Unit (EDU) is based on the average daily usage of water by a housing unit consisting of 3.0 people. The total has been determined to be 300 gallons per day per unit.

<sup>2</sup> Fraction of an EDU gets rounded up to the nearest whole number

<sup>3</sup> Adopted from the MDE “Wastewater Capacity Management Plan Guidance Document” and the Anne Arundel County “Flow Estimates for Capital Facility Connection Charges”

## TABLE OF EQUIVALENT DWELLING UNITS

### GUIDING FACTORS FOR FLOW PROJECTION RELATED TO COMMERCIAL ESTABLISHMENTS AND PUBLIC SERVICE BUILDINGS

Auto Dealership	Gross Sq. Ft. x 0.08 = _____ gpd
Banks	Gross Sq. Ft. x 0.04 = _____ gpd
Bakery	Gross Sq. Ft. x 0.15 = _____ gpd
Barber Shops	Gross Sq. Ft. x 0.20 = _____ gpd
Beauty Salons	Gross Sq. Ft. x 0.35 = _____ gpd
Car Wash w/o Wastewater Recirculation Equipment	Gross Sq. Ft. x 4.90 = _____ gpd
Department Store with Lunch Counter	Gross Sq. Ft. x 0.08 = _____ gpd
Department Store without Lunch Counter	Gross Sq. Ft. x 0.04 = _____ gpd
Drug Stores (not to exceed 2 EDUs)	Gross Sq. Ft. x 0.13 = _____ gpd
Dry Goods Stores	Gross Sq. Ft. x 0.05 = _____ gpd
Garage (Auto-Truck Repair)	Gross Sq. Ft. x 0.03 = _____ gpd
Laundries & Cleaners	Gross Sq. Ft. x 0.31 = _____ gpd
Laundromats (self-served)	Gross Sq. Ft. x 3.68 = _____ gpd
Library	Gross Sq. Ft. x 0.10 = _____ gpd
Medical Office Buildings <sup>4</sup>	Gross Sq. Ft. x 0.13 = _____ gpd
Office Buildings <sup>5</sup>	Gross Sq. Ft. x 0.09 = _____ gpd
Post Office (Community – not to exceed 2 EDUs)	Gross Sq. Ft. x 0.09 = _____ gpd
Retail Stores (stand-alone pad)	Gross Sq. Ft. x 0.05 = _____ gpd
Supermarkets	Gross Sq. Ft. x 0.20 = _____ gpd
Service Stations	Gross Sq. Ft. x 0.18 = _____ gpd
Shopping Centers/Strip Mall (mixed use or uncertain) <sup>6</sup>	Gross Sq. Ft. x 0.18 = _____ gpd
Warehouses	Gross Sq. Ft. x 0.02 = _____ gpd

Flow Projection for country clubs and similar type establishments may be made on the basis of plumbing fixtures with the approval of the Chief Engineer. The related statistical flow figures per unit of plumbing fixture are shown in the tables below.

#### FLOW PROJECTION FOR USES WHERE THE SIZE OF THE FACILITY MAY NOT BE PROPORTIONAL TO THE POTENTIAL FLOWS

Type of Fixture	Gallons per Day per Fixture
Showers	500
Baths	300
Lavatories	100
Toilets	150
Urinals	100
Sinks	50

**Determination of EDUs for proposed uses not listed in this document will be determined on a case by case basis by the Chief Engineer. The final amount of EDUs for a project to be approved by the Chief Engineer.**

<sup>4</sup> Includes doctor, dental and veterinary offices

<sup>5</sup> Each condominium office unit to be a minimum of 1 EDU

<sup>6</sup> EDUs assigned for individual units within a shopping center to be adjusted based upon actual occupancy

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Exhibit A

<u>CLASSIFICATION</u>	<u>NO. OF EDU'S</u>
<u>INSTITUTIONAL</u>	
Elementary School – each 40 people or fraction thereof	= 1
Middle & High Schools – each 20 people or fraction thereof	= 1
<u>MULTI-UNIT RESIDENTIAL</u>	
1 Trailer Space	= 1
1 Apartment	= 1
<u>INDUSTRIAL OR BUSINESS</u>	
4 Motel/Hotel Units	= 1
2 Motel/Hotel Efficiencies (with kitchen facilities)	= 1
1 Grocery store – up to five employees	= 1
1 Barber Shop	= 1
1 Beauty Shop	= 1
1 Department Store – each 20 people or fraction thereof	= 1
1 Retail Store – each 20 people or fraction thereof w/prepared food service With prepared food service	= 1
1 Gas Station	= 1
Car Wash – each self service bay	= 1
Each tunnel bay	= 4
1 Flower Shop	= 1
Restaurants, Bars, and/or Cocktail Lounges – each 20 seats Or fraction thereof	= 1
Veterinary	= 3
Laundromat – each 2 washers (20lbs. Or less)	= 1
Each 1 washer (over 20 lbs.)	= 1
Office Building – each 20 people or fraction thereof	= 1
Theatres – each 100 seats or fraction thereof	= 1
Recreational Facilities – each 20 people or fraction thereof	= 1
<u>SUBDIVISION RESIDENTIAL</u> - One Dwelling Unit	= 1
<u>MULTI-UNIT BUSINESS</u> – A combination of uses of the same property	= Total number EDU's for Property
<u>SMALL ACREAGE</u> – One Dwelling Unit	= 1
<u>AGRICULTURAL</u> – No properties currently being served	

\*Equivalent Dwelling Unit (EDU) is based on the average daily usage of water by a Housing unit consisting of 3.5 people. The total has been determined to be 250 Gallons per day per unit.

This table is applicable to Service Charges only and supercedes the Table of Equivalent Dwelling Units dated October 1, 1977 for that purpose.

Revised July 1, 1981