Public Works and Environmental Services Department
WATER AND WASTEWATER SERVICES - ENGINEERING
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EQUIVALENT RESIDENTIAL UNIT FACTORS

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Broward County Water and Wastewater Services (WWS) uses Equivalent Residential Unit (ERU) factors for sizing water meters and determining certain fees and charges. By definition, one ERU equals a single family residence with a standard (5/8") meter. The following EQUIVALENT RESIDENTIAL UNIT FACTOR SCHEDULE lists ERU factors in terms of ERU per Unit for common types of use. To determine the ERU per Unit factor, locate the Type of Use in the table and note the Unit of Measure and ERU per Unit. For example, The Type of Use of Condominium/ Apartment is 0.707 ERU each and Merchandising is 0.185 ERU per 1000 SF (square feet of gross building area).

EQUIVALENT RESIDENTIAL UNIT FACTOR SCHEDULE

TYPE OF USE	UNIT OF MEASURE	ERU per UNIT	REF. CODE
Equivalent Residential Unit	----	1.000	----
Single Family House (5/8" meter)	each	1.000	R01
Single Family House (larger than 5/8" meter)	each	2.880	R02
Condominium/Apartment/Dulplex/Triplex	each	0.707	R03
Mobile Home	lot	0.783	R04
Vehicular Repair	1000 SF	0.489	C01
Gas Station (fueling only)	fuel pump	0.353	C02
Laundry / Dry Cleaning (staff operated)	1000 SF	9.481	C03
Laundry (coin operated machines)	1000 SF	6.560	C04
Merchandising	1000 SF	0.185	C05
Warehouse (mixed use)	1000 SF	0.168	C06
Warehouse (homogenous, bulk storage use)	1000 SF	0.130	C07

TYPE OF USE	UNIT OF MEASURE	ERU per UNIT	REF. CODE
Self-Service Storage	1000 SF	0.043	C08
Restaurant	1000 SF	1.788	C09
Fast Food Service	1000 SF	2.375	C10
Bar, Cocktail Lounge	no longer a part of the schedule		C11
Office	1000 SF	0.212	C12
Day Child Care	1000 SF	0.625	C13
Place of Worship	1000 SF	0.234	C14
School	student	0.043	C15
Hotel (with restaurant and/or meeting rooms)	has been replaced by C19		C16
Hotel (without restaurant and meeting rooms)	has been replaced by C19		C17
Movie Theater	no longer a part of the schedule		C18
Hotel	rental room	0.473	C19
Gym, Exercise Facility	1000 SF	0.211	C20
Fire Station	1000 SF	0.567	C21
Convenience Store	1000 SF	0.614	C22
Single Family Lot Irrigation	lot	2.282	I01
Landscape and Lawn Irrigation (under 20 acres)	1000 SF	0.549 less credit	I02
Road ROW Irrigation	1000 SF	0.538	I03

Most of the data for the Schedule was obtained in 2011 by determining the water usage characteristics for actual WWS customers for July 2009 through June 2010. An update was performed in 2016 to include new usages C03, C20, C21, and C22. The 2011 study included 21,894 apartments and condominiums; 4,493 mobile homes; 43,000 square feet of coin operated laundries; 158,843 square feet of staff operated laundry facilities, 819,000 square feet of merchandising; 3,865,000 square feet of warehousing; 710,000 square feet of self-service storage; 5,579,000 square feet of office space; 25,808 school students; 2,228 hotel rooms; and 952,000 square feet of landscape and lawn irrigation. In total, the 2011 study, with the 2016 update to include new usages, considered commercial customers with a total potable water consumption of 1,322,003 gallons per day, non-single family residential customers with a total potable water consumption of 3,494,000 gallons per day and irrigation with a total potable water consumption of 166,000 gallons per day.

The raw data used in the study contained a range of data points. To mitigate a small number of low or high data points skewing the result, WWED used the average of the 10^{th} percentile through 90^{th} percentile gallons per day per unit data points to calculate the values in the Schedule. Even so, the middle range of data used to calculate the

ERU factor routinely had low values lower than 70% of the average and high values higher that 130% of the average.

ERUs are determined based on final build-out design capacity. For example, a partially completed office building would be based upon the total square feet under roof, not the square feet of finished space.

The Schedule does not cover all possible Types of Use. For each Type of Use listed on the Schedule, the ERU per Unit for that Type of Use applies. If the Schedule does not list a Type of Use, the Water and Wastewater Engineering Division (WWED) will first determine if the Schedule lists a sufficiently similar Type of Use. For example, a retirement home is sufficiently similar to an apartment to utilize the apartment ERU factor for that retirement home. In the case where a sufficiently similar Type of Use cannot be identified, WWED may elect to perform a usage study of existing customers. For the usage study, ERUs for the subject Type of Use will be based upon the conversion of one ERU equal to 185 gallons per day average water demand, or one ERU equal to 246 gallons per day maximum day water demand. Whichever calculation results in the greater number of ERUs, as measured at the point of service, will become the value used to determine the water meter size and to calculate fees and other charges. WWED may require the potential customer to supply data for the usage study which should include three years of good potable water consumption information for at least 7 but no more than 20 similar locations. WWED will use the 10^{th} percentile through 90^{th} percentile gallons per day per unit data points in its analysis.

For Types of Use that utilize water, wastewater ERUs are based on water consumption so the number of water and wastewater ERUs are the same value. For Types of Use that do not utilize water but generate sewage, one ERU equals 147 gallons per day average sewage generated as measured at the point of service.

On occasion, a WWS non-residential customer may want to connect a structure(s) to the wastewater system that has been historically served by the water system. In this case, WWED will use the most current three years of actual water usage records for the structure(s) to determine the wastewater ERUs if the following conditions exist:

- The water records indicate continuous, consistent usage of water;
- No other water source is used on the property, except for irrigation; and
- The customer provides a signed statement that:
  (a) The structures have been consistently occupied over the last three years;
  (b) The type of use has not varied over the last three years; and
  (c) The type of use will not change in the foreseeable future.

This approach to calculate wastewater ERUs will only apply for structures that have been connected to the water system and are located on the same property. Similar structures on the same property that are not connected to the water system do not qualify for this approach.

ERU credit will be given when a proposed Type of Use replaces an existing Type of Use, if the account has remained open. The amount of the credit may not exceed the ERU charge for the proposed Type of Use. For example, if mixed use warehouse space was to be converted to office, credit for the warehouse space ERU would be applied to the office ERU. Credits are determined using the Schedule.

ERUs stay with the property referenced in the Broward County Utility Connection Permit or developer's agreement. They are not transferrable between two different properties, even if the properties are owned by the same entity. Unused ERUs can or cannot, at the option of the seller, transfer from one owner to another in conjunction with a sale of property. If the seller does transfer unused ERUs with a property sale, documentation will be required in order for the new property owner to receive credit for the unused ERUs. The documentation must come from the seller, include a legal description and a drawing of the property associated with the transfer of ERUs, and clearly indicate the number of ERUs transferred with the sale.

WWED reserves the right to require submission of appropriate information to resolve any dispute.

The following is a description of the features included and excluded for each Type of Use listed in the Schedule. In each case, no credit is given if a specific Type of Use does not have some of the included features. For example, no credit would be given to a single family house that does not have a pool. Conversely the same single family house will not be charged for additional ERU if a pool is installed later. Features not included in each Type of Use are considered a separate Type of Use.

R01 - Single Family House (5/8 " meter). R01 includes a pool and lawn and landscape irrigation of the lot as long as there is no separate irrigation meter. See I01 below for more information concerning single family irrigation. Town homes are sufficiently similar to single family homes to utilize the single family house ERU factor for each town home. Town homes are distinguishable from condominiums in that each town home has a private yard. Structures used for non-residential purposes do not qualify for R01. The unit for R01 is each single family house.

R02 - Single Family House (larger than 5/8 " meter). R02 includes a pool and lawn and landscape irrigation of the lot as long as there is no separate irrigation meter. Irrigation with separate irrigation meter is a separate Type of Use. Town homes are sufficiently similar to single family homes to utilize the single family house ERU factor for each town home. Town homes are distinguishable from condominiums in that each town home has a private yard. Structures used for non-residential purposes do not qualify for R02. The unit for R02 is each single family house.

R03 – Condominium/Apartment/Duplex/Triplex. R03 includes laundry facilities in individual units and/or central laundry facilities, and common facilities such as a clubhouse, pool or office. Duplexes and triplexes are sufficiently similar to condominium/apartments so that a duplex equals twice the ERU of a condominium/apartment and a triplex equals three times the ERU of a condominium/apartment. This usage does not include Town homes. For Town homes, see R01 and R02. R03 includes lawn and landscape irrigation as long as there is no separate irrigation meter. Irrigation with a separate irrigation meter is a separate Type of Use. The unit for R03 is each condominium or apartment.

R04 - Mobile Home. R04 includes individual laundry facilities in the mobile home and/or central laundry facilities, and common facilities such as a clubhouse, pool or office. R04 includes lawn and landscape irrigation as long as there is no separate irrigation meter. Irrigation with a separate irrigation meter is a separate Type of Use. The unit for R04 is individual mobile home lots.

C01 - Vehicular Repair. C01 includes auxiliary functions directly supporting vehicular repair like storage, office space and customer waiting area. Oil change and tire service facilities are included in C01. The portion of gas stations dedicated to vehicular repair is included in C01. C01 includes lawn and landscape irrigation as long as there is no separate irrigation meter. Irrigation with separate irrigation meter is a separate Type of Use. C01 does not include fueling activities. The unit for C01 is 1000 SF of gross area as measured by the outside walls and number of stories of each and every building.

C02 - Gas Station (fueling only). C02 includes auxiliary functions directly supporting fueling only gas stations like storage, office space, and merchandising. C02 includes a recycled water car wash facility capable of handling one car at a time. C02 includes lawn and landscape irrigation as long as there is no separate irrigation meter. Irrigation with separate irrigation meter is a separate Type of Use. C02 does not include any vehicular repair activities. The unit for C02 is 'Fuel Pump'. A Fuel Pump is defined by the number of fueling nozzles that can be active at one time. Separate nozzles for regular and premium fuel that operate in an either/or mode are considered one pump.

C03 - Laundry and/or Dry Cleaning (staff operated machines) C03 includes auxiliary functions supporting laundry and dry cleaning operations such as office space, storage, and loading/unloading areas. This factor is strictly for laundry and dry cleaning activities that will be conducted by staff, such as a linen service or clothing drop-off type service. The unit for C03 is 1000 SF of gross area as measured by the outside walls and number of stories of each and every building.

C04 - Laundry (coin operated machines). C04 includes auxiliary functions directly supporting a coin operated laundry; like storage, office space and customer waiting area, except food/beverage service. C04 includes lawn and landscape irrigation as long as there is no separate irrigation meter. Irrigation with separate irrigation meter is a separate Type of Use. The unit for C04 is 1000 SF of gross area as measured by the outside walls and number of stories of each and every building.

C05 - Merchandising. C05 includes auxiliary functions directly supporting merchandizing, like storage and office space for staff. C05 includes lawn and landscape irrigation as long as there is no separate irrigation meter. Irrigation with separate irrigation meter is a separate Type of Use. C05 does not include food/beverage service. The unit for C05 is 1000 SF of gross area as measured by the outside walls and number of stories of each and every building.

C06 - Warehouse (mixed use). C06 includes buildings with actual or potential mixed use such as storage, some merchandising and light non-water intensive manufacturing. C06 includes auxiliary functions directly supporting mixed use warehousing, like office space for staff. C06 includes lawn and landscape irrigation as long as there is no separate irrigation meter. Irrigation with separate irrigation meter is a separate Type of Use. C06 does not include food/beverage service or significant merchandising. The unit for C06 is 1000 SF of gross area as measured by the outside walls and number of stories of each and every building.

C07 - Warehouse (homogeneous, bulk storage use). C07 is for non-public access bulk storage where the entire structure is used for essentially the same purpose. Qualifying structures must have grade separated loading docks. C07 includes auxiliary functions directly supporting bulk storage warehousing like office space and showers for staff. C07 includes lawn and landscape irrigation as long as there is no separate irrigation meter. Irrigation with separate irrigation meter is a separate Type of Use. C07 does not include food/beverage service, merchandising or manufacturing. The unit for C07 is 1000 SF of gross area as measured by the outside walls and number of stories of each and every building.

C08 – Self-Service Storage. C08 is for public storage available on a monthly rental basis. C08 includes auxiliary functions directly supporting self-service storage like office space. C08 includes lawn and landscape irrigation as long as there is no separate irrigation meter. Irrigation with separate irrigation meter is a separate Type of Use. C08 does not include food/beverage service, merchandising or manufacturing. The unit for C08 is 1000 SF of gross building area as measured by the outside walls and number of stories of each and every building.

C09 - Restaurant. C09 includes bar or cocktail lounge and auxiliary functions directly supporting a restaurant like storage and office space for staff. C09 includes lawn and landscape irrigation as long as there is no separate irrigation meter. Irrigation with separate irrigation meter is a separate Type of Use. The unit for C09 is 1000 SF of gross area as measured by the outside walls and number of stories of each and every building.

C10 - Fast Food Service. C10 includes drive through facilities and auxiliary functions directly supporting fast food service, like storage and office space for staff. C10 includes lawn and landscape irrigation as long as there is no separate irrigation meter. Irrigation with separate irrigation meter is a separate Type of Use. The unit for C10 is 1000 SF of gross area as measured by the outside walls and number of stories of each and every building.

C11 - Bar, Cocktail Lounge is no longer a part of the Schedule. C09 is now used for bar or cocktail lounge.

C12 - Office. C12 includes lawn and landscape irrigation as long as there is no separate irrigation meter. Irrigation with separate irrigation meter is a separate Type of Use. The unit for C12 is 1000 SF of gross area as measured by the outside walls and number of stories of each and every building.

C13 - Day Child Care. C13 includes auxiliary functions directly supporting day child care, like storage and office space for staff. C13 includes lawn and landscape irrigation as long as there is no separate irrigation meter. Irrigation with separate irrigation meter is a separate Type of Use. The unit for C13 is 1000 SF of gross area as measured by the outside walls and number of stories of each and every building.

C14 - Place of Worship. C14 includes auxiliary functions directly supporting a place of worship, like storage, office space, kitchen area and meeting rooms. C14 includes religious schooling and child care during worship activities. C14 includes lawn and landscape irrigation as long as there is no separate irrigation meter. Irrigation with separate irrigation meter is a separate Type of Use. C14 does not include utilization of the facility as a school or child care. The unit for C14 is 1000 SF of gross area as measured by the outside walls and number of stories of each and every building.

C15 - School. Includes functions defined as educational plant in Florida Statute 235.011. C15 includes lawn and landscape irrigation as long as there is no separate irrigation meter. Irrigation with separate irrigation meter is a separate Type of Use. The unit for C15 is the state certified capacity of number of students of the school.

C16 - Hotel (with restaurant and/or meeting rooms) has been replaced by C19.

C17 - Hotel (without restaurant and meeting rooms) has been replaced by C19.

C18 - Movie Theater is no longer a part of the Schedule.

C19 – Hotel/Motel. C19 includes auxiliary functions directly supporting a hotel or motel, like storage, laundry and office space for staff. C19 may or may not contain a restaurant, bar, cocktail lounge, meeting room or banquet room. C19 includes lawn and landscape irrigation as long as there is no separate irrigation meter. Irrigation with separate irrigation meter is a separate Type of Use. The unit for C19 is the number of rooms for rent.

C20 – Gym, Exercise Facility. Includes auxiliary functions directly supporting this usage. The unit for C20 is 1000 SF of gross area as measured by the outside walls and number of stories of each and every building. C20 includes lawn and landscape irrigation as long as there is no separate irrigation meter. Irrigation with separate irrigation meter is a separate Type of Use.

C21 – Fire Station. Includes auxiliary functions directly supporting this usage. The unit for C21 is 1000 SF of gross area as measured by the outside walls and number of stories of each and every building. C21 includes lawn and landscape irrigation as long as there is no separate irrigation meter. Irrigation with separate irrigation meter is a separate Type of Use.

C22 – Convenience Store. Includes auxiliary functions directly supporting this usage, like food preparation and office space. The unit for C22 is 1000 SF of gross area as measured by the outside walls and number of stories of each and every building. C22 includes lawn and landscape irrigation as long as there is no separate irrigation meter. Irrigation with separate irrigation meter is a separate Type of Use.

I01 - Single Family Lot Irrigation. I01 is applicable to the irrigation of one single family lot of greater than approximately one quarter acre in size, and/or with the utilization of a 1” or greater meter size, or as determined by the discretion of WWED. The unit for I01 is a single family lot. Since the ERU for single family house already includes some irrigation, a credit equal to 30% of the ERU for a single family house has already been incorporated into the value for this Type of Use. Average single family lots of approximately one quarter acre in size or less are not assessed ERUs since one ERU already includes irrigation.

I02 - Landscape and Lawn Irrigation (under 20 acres). I02 is applicable to irrigation of an area under 20 acres. I02 does not include single family lots, nursery or sod farming. The unit for I02 is 1000 SF of irrigated area. Usually this irrigation is in

conjunction with a building, merchandising or office. Since the ERU for the building already includes some irrigation, a credit equal to 20% of the ERU for the building will be applied toward this Type of Use. Existing irrigation customers who have historically been irrigating through a domestic meter with sewer charges will not incur Capital Recovery Charges for a new separate irrigation only meter, so long as the area to be irrigated or the demand will not increase.

I03 - Road ROW Irrigation. I03 is applicable to irrigation of road right of ways only. The unit for I03 is 1000 SF of irrigated area.