



JEFFERSON COUNTY
DEPARTMENT OF COMMUNITY DEVELOPMENT
621 Sheridan Street | Port Townsend, WA 98368
360-379-4450 | email: dcd@co.jefferson.wa.us
www.co.jefferson.wa.us/commdevelopment

**JEFFERSON COUNTY DEPARTMENT OF COMMUNITY DEVELOPMENT
OFFICIAL MERU RECORD**

Ordinance No. 08-1004-99 adopting development regulations for the Port Ludlow Master Planned Resort effective October 4, 1999

Jefferson County Code (JCC) 17.45.020 requires the Department of Community Development to maintain a count of Measurement Equivalent Residential Units (MERUs) and of residential dwelling units.

Total residential dwelling units are not to exceed 2250. Total MERUs are not to exceed 2575.

Allocations of MERUs are to be determined according to the provisions of JCC 17.45.030. The department is to maintain a matrix showing allocation of residential and commercial MERUs.

Table 1 the total MERU cap, the allocation of residential and commercial MERUs and the total MERUs remaining to be allocated

Table 2 the matrix for tracking MERUs that revert and/or are assigned to new uses, conversions from residential to commercial or adjustments due to subdivision, lot consolidation, etc.

Table 3 a detailed allocation of residential MERUs

Table 4 a detailed allocation of commercial and public facility MERUs

Explanation of Table 2 Conversion Matrix – helps to explain what was changed and why

Questions should be referred to:

David Wayne Johnson, Associate Planner
Department of Community Development
621 Sheridan Avenue
Port Townsend, WA 98368
(360) 379-4465

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Patty Charnas,
Director, DCD

A blue ink signature of David Wayne Johnson, written in a cursive style.

David Wayne Johnson,
Associate Planner, Port Ludlow Lead

Updated as of February 6, 2018

Table 1 Calculation of Available MERUs Based on JCC 17.45.010 & 050

Total MERUs Allowed		2575
Total Residential MERUs not to exceed		2250
<i>Current Total Platted Lots – see table 3</i>	<i>each lot is equivalent to one MERU</i>	<i>1956</i>
<i>Lots with Preliminary Approval – table 3</i>		<i>39</i>
MERUs Allocated to Residential <i>(See table 3)</i>	<i>Total Platted Lots and Lots with Preliminary Approval</i>	1995
Residential MERUs available for use	<i>subtract allocated from 2250</i>	255
MERUs Allocated to Commercial	<i>See table 4</i>	279.08
Total Allocated MERUs	<i>Allocated Residential plus Allocated Commercial</i>	2274.08
Unallocated MERUs	<i>available for residential or commercial use</i>	300.92

Per 17.45.030 MERU Allocation and Assignment:

1. Each MERU is assumed to generate 200 gallons per day (GPD) of sewer wastewater flow.
2. Each single family dwelling unit or recorded, platted lot counts as one MERU
3. Each multi-family dwelling unit counts as one MERU
4. Assisted living, congregate care, and similar facilities are assigned MERUs based on the number of bedrooms, beds, and type of care or assistance provided based on Department of Ecology standards in effect at the time of application.
5. Commercial development is assigned MERUs based on Department of Ecology standards as of the effective date of Ordinance NO. 08-1004-99.
6. If the use is not assigned a flow rate by DOE, the required gpd will be assigned based on actual use or other comparative process approved by the Department.
7. Residential lots approved by a preliminary subdivision are allocated MERUs based on the preliminary approval. If the subdivision expires or is withdrawn, the MERU allocation shall revert to unallocated status.
8. If a recorded subdivision is vacated or if platted lots are consolidated in a manner that precludes development of one or more residential uses, unusable MERUs will revert to unallocated status.

Table 2 Conversion Matrix Based on JCC 17.45.030 & 060

Use being converted or adjusted	Allocated MERUs Reverting to unallocated status	New Count	Prior Assigned MERUs	Available MERUs
			from last count 289.6	
Port Ludlow Yacht Club	0	0.28	0	-0.28
General Office Space – 9481 & 83 Oak Bay Road	19.26	0.74	20	19.26
Kitsap Bank	3.34	0.16	3.5	3.34
Jefferson Healthcare Medical Building	-11	11	0	-11
Adjustment	11.6			
			Total	300.92

Table 3 Residential Measurement Equivalent Residential Units (MERUs)

Plat Totals	Lot Count
Admiralty	64
North Bay Condominiums	54
Fairway Village	14
Highland Greens	38
Inner Harbor Village	46
Loomis Short Plat	22
Port Ludlow No. 1-1	72
Port Ludlow No. 1-2	63
Port Ludlow No. 1-3	54
Port Ludlow No. 1-4	106
Port Ludlow No. 1-5	29
Port Ludlow No. 2-1	63
Port Ludlow No. 2-2	103
Port Ludlow No. 2-3	233
Port Ludlow No. 3	87
Port Ludlow No. 4	80
Port Ludlow No. 5	17
Port Ludlow No. 6	19
Port Ludlow No. 7	20
Bayside Short Plat	4
Bayview Village	55
Edgewood Village	27
Fairwood Village	19
Greenview Village	16
Ludlow Bay Village TH & Marina Lots	58
Ludlow Beach Tracts	18
Ludlow Point Tracts	14
Ludlow Cove I	17
Ludlow Cove II	42
Ludlow Point Village – Div 1	35
Ludlow Point Village – Div 2	14
Ludlow Point Village – Div 3	18
Ludlow Point Village – Div 4	21
Oak Bay and Great Scott Short Plats	6
Olympic Terrace Division I	41
Olympic Terrace Division II Phase I	41
South Bay No. 1	57
South Bay No. 2	18
South Bay No. 3	35
Teal Lake Village	98
Timberton Village Phase I & II/Creekside Village Div I	59
Timberton Village III/Creekside Village Div II	19
Wedgewood Short Plat	3
Woodridge Village	35
Vittuli Short Plat	2
Total Platted Properties	1956
<i>Platted undeveloped lots</i>	<i>347</i>
Preliminary Plat Approval	
Olympic Terrace Division II Phase II	39
Total Lots with Preliminary Plat Approval	39
Total Residential MERUs	1995

Table 4 Commercial and Public Facility Measurement Equivalent Residential Units (MERUs)

Use	Address	MERU Allocation	MERUs
Existing Uses			Last count 290.4
Fire Hall	7650 Oak Bay Road	10,000 sf @ 200 gpd/1000 sf est max potential	1
Treatment Plant and Pump Stations	8481 Oak Bay Road	1993 FEIS	5
Conference Center - (Grace Christian Church)	200 Olympic Place	1993 FEIS	4
Beach Club & Bridge Deck	121 Marine View Drive & 21 Harbor Drive	1993 FEIS	25
The Inn - Hotel	1 Heron Road	130 gpd per room (37 rooms)	24
The Inn - Restaurant/lounge	1 Heron Road	50 gpd per seat (72 seats)	18
Marina	1 Gull Drive	1993 FEIS	15.5
Port Ludlow Yacht Club	55 Heron Road	Actual Flows	0.28
Resort Commercial (future use)		2500 sf @ 200 gpd/1000 sf 1993 FEIS	3
Resort Revision		TBD	
Village Center - Moriarty (Wells Fargo Home Mortgage)	9401 Oak Bay Road	4074 sf @ 200 gpd/1000 sf	4
Village Center – Moriarty #2 (Sun Microsystems)	9405 Oak Bay Road	5000 sf @ 200 gpd/1000 sf est max potential	5
General Office Space (Active Live, Sonya's Barber, Windemere)	9481 & 83 Oak Bay Road	Actual Flows	0.74
Village Center (Village Store, Dana Pointe Interiors, One Cut Above, Glessing & Assoc. CPAs, Jon Frowla CPA, Cacina Pizza, Post Office, Once Upon a Time)	60 Paradise Bay Road	15,000 sf @ 200 gpd/1000 sf (1993 FEIS)	15
Village Center Expansion	Village Way	45,000 sf @ 200 gpd/1000 sf 1993 FEIS	45
Village Center - Loomis (Columbia Bank, Art Gallery)	9500 Oak Bay Road	3000 sf @ 200 gpd/1000 sf	3
Village Center – Loomis (Snug Harbor Café, Edward Jones, Windemere real estate)	9526 Oak Bay Road	50 seat Café x 50 gpd per seat / 200	12.5
Coldwell Banker Bldg (Dentist)	9522 Oak Bay Road	4000 sf @ 200 gpd/1000 sf	4
Port Ludlow Community Church	9534 Oak Bay Road	Actual Flows	0.5
RV Park	44 Breaker Lane	1993 FEIS	10
Port Ludlow Associates Offices	70 Breaker Lane	Actual Flows	0.5
Port Ludlow Health Clinic (Brady Chiropratic, Hear for Life, Ludlow Bay Massage)	111, 115, 119 Village Way	Included with allocations for Village Center/Store @ 60 Paradise Bay Road	
Kitsap Bank	74 Breaker Lane	3500 sf @ 200 gpd/1000 (Actual Flows TBD)	0.16
Bay Club (Recreation Center)	120 Spinnaker Place	1993 FEIS	22.5
Ludlow Bay Realty (John L Scott)	40 Teal Lake Road	Actual Flows	0.4
Pro Shop/Golf Course facilities	751 Highland Drive	1993 FEIS	8

Pro Shop/Golf Course expansion	751 Highland Drive	1993 FEIS	41
Total MERUs Allocated to Existing Uses			268.08
New Uses			
Jefferson Healthcare Medical Bld	89 Breaker Lane	4.4k sqft x 500 gpd = 2.2k/200 gpd (4.4 X 2.5)	11
Total Commercial MERUs			279.08

EXPLANATION of Table 2 Conversion Matrix

1. Harbormaster Restaurant closed and converted to Port Ludlow Yacht Club. New count based on actual water usage per JCC 17.45.030(6).
2. General office space at 9481 & 83 Oak Bay Road. New count based on actual water usage per JCC 17.45.030(6).
3. Kitsap Bank. New count based on actual water usage per JCC 17.45.030(6).
4. Jefferson Healthcare Medical Building. New building – count based on Ecology’s flow for a Doctor’s office in a medical center with a flow rate of 500 gpd per 1,000 square feet (4.4k sqft x 500 gpd = 2.2k/200 gpd (4.4 X 2.5))

See attached Olympic Water and Sewer records for actual water usage, and Ecology’s G2-10 *Criteria for Sewage Works Design*.

Measurement Equivalent Residential Units (MERU)
1/30/2018

The Ludlow Bldg
9481 Oak Bay Rd
Acct 2008061

Harbormaster
(PL Yacht Club)
Acct 2009500

Kitsap Bank
74 Breaker Lane
Acct 2008061

<u>Reading Date</u>	<u>Usage, cubic feet</u>	<u>Reading Date</u>	<u>Usage, cubic feet</u>	<u>Reading Date</u>	<u>Usage, cubic feet</u>
12/18/2017	560	12/19/2017	200	12/18/2017	690
10/23/2017	770	10/24/2017	400	10/23/2017	
8/21/2017	1,530	8/21/2017	700	8/21/2017	7,490 Irrigation. Not included in average
6/19/2017	1,310	6/19/2017	600	6/19/2017	7,530 Irrigation. Not included in average
4/17/2017	1,650	4/17/2017	200	4/17/2017	810 Irrigation. Not included in average
2/20/2017	2,210	2/20/2017	200	2/20/2017	
12/19/2016	1,030	12/19/2016	500	12/19/2016	
10/24/2016	1,100	10/24/2016	400	10/24/2016	10,810 Irrigation. Not included in average
8/22/2016	1,540	8/22/2016	900	8/22/2016	8,190 Irrigation. Not included in average
6/21/2016	1,060	6/21/2016	600	6/21/2016	1,480 Irrigation. Not included in average
4/18/2016	870	4/19/2016	500	4/18/2016	
2/15/2016	910	2/15/2016	200	2/15/2016	
Average per billing, cf	1,212		450		263
Average per billing, gallons	9063		3366		1970
Average billing # days	61		61		61
Gallons per day	149		55		32
ERU @ 200 gpd	0.74		0.28		0.16

Data from Olympic Water and Sewer water meter records
One cubic foot = 7.48 gallons

Discharge Facility	Design Units	Flow* (gpd)	BOD (lb/day)	SS (lb/day)	Flow Duration (hr)
Interstate or through-highway restaurants	per seat	180	0.7	0.7	16
Interstate rest areas	per person	5	0.01	0.01	24
Service stations	per vehicle serviced	10	0.01	0.01	16
Factories	per person per 8-hr shift	15-35	0.03-0.07	0.03-0.07	Operating period
Shopping centers	per 1,000 sq ft of ultimate floor space	200-300	0.01	0.01	12
Hospitals	per bed	300	0.6	0.6	24
Nursing homes	per bed	200	0.3	0.3	24
Homes for the aged	per bed	100	0.2	0.2	24
Doctor's office in medical center	per 1,000 sq ft	500	0.1	0.1	12
Laundromats, 9 to 12 machines	per machine	500	0.3	0.3	16
Community colleges	per student and faculty	15	0.03	0.03	12
Swimming pools	per swimmer	10	0.001	0.001	12
Theaters, drive-in type	per car	5	0.01	0.01	4
Theaters, auditorium type	per seat	5	0.01	0.01	12
Picnic areas	per person	5	0.01	0.01	12
Resort camps, day and night, with limited plumbing	per campsite	50	0.05	0.05	24
Luxury camps with flush toilets	per campsite	100	0.1	0.1	24

*Includes normal infiltration

G2-1.3 In-Plant Piping and Channels

All piping and channels should be designed to carry the maximum expected flows. The incoming sewer should be designed for free discharge. Bottom corners of the channels should be filleted and pockets and corners where solids can accumulate should be eliminated. Isolation gates should be placed in channels to seal off unused sections where sewage solids might accumulate.

G2-1.4 Design Flows, Collection Systems

See [C1-3](#) and [Table G2- 2](#).

G2-1.5 Plant Location

G2-1.5.1 General

Treatment plant sites should be located as far as practicable from any existing commercial or residential area or any area that will probably be developed within the plant's design life. The plant site should be separated from adjacent

The hydraulic capacity of the treatment works should be based on the maximum expected flow. The process design of treatment units should be based on either the average design flow or the peak design flow, whichever is controlling. The following items should be determined from the observed rate of flow during the significant period of discharge. Items to be considered in determining design flows are as follows:

- Peak flow rates continuing over a length of time sufficient to adversely affect the detention time of treatment units or the flow characteristics in conduits.
- Applicable data from similar municipalities.
- Wet weather flows.
- Recirculation and inplant recycle flows.

The design organic loading should be computed in the same manner used in determining design flow.

G2-1.2.3 Existing Systems

Treatment plants designed to serve existing sewerage systems should be designed on the basis of characteristics of sewage obtained from the operating records of the treatment works.

The design engineer or owner shall provide a plan acceptable to Ecology for eliminating or handling excessive inflow/infiltration (I/I) so that there will be no discharge of inadequately treated wastewaters or impairment of the treatment process.

G2-1.2.4 New Systems

Sewage treatment plants to serve new sewerage systems should be designed on the basis of information in [Table G2- 2](#). Numbers of persons per dwelling should be based on planning projections derived from an official source. Any deviations should be based on sound engineering judgment substantiated in the engineering report.

Table G2- 2. Design Basis for New Sewage Works

Discharge Facility	Design Units	Flow* (gpd)	BOD (lb/day)	SS (lb/day)	Flow Duration (hr)
Dwellings	per person	100	0.2	0.2	24
Schools with showers and cafeteria	per person	16	.04	.04	8
Schools without showers and with cafeteria	per person	10	.025	.025	8
Boarding schools	per person	75	0.2	0.2	16
Motels at 65 gal/person (rooms only)	per room	130	0.26	0.26	24
Trailer courts at 3 persons/trailer	per trailer	300	0.6	0.6	24
Restaurants	per seat	50	0.2	0.2	16