



# **Western Canada Onsite Wastewater Management Association**

## **OWTS Site Evaluation and Design Worksheet Package**

This package has been developed as a resource for WCOWMA members to use when performing site evaluation and design for Private Sewage Treatment Systems.

Use of these forms is not required, however ROWPs may find it more expedient to utilize the provided documents rather than to create their own.

Documents are available either in print or electronically for the convenience of the WCOWMA member and may be amended to include the member installer's company logo and information.

## Filing Support Documents and Information

### **This checklist is for the use of the designer/installer and not to be included with the filing.**

The following site evaluation support documents must be included with your filing:

- ☐ Plot Plan indicating
- ☐ System drawing – complete drawing of proposed system showing system layout, number of laterals, location of tank, feet of lift, etc.
- ☐ Soil laboratory analysis reports

**The following documents will provide valuable information on which to base the system design. These documents should be available to the Health Authority upon request. Copies of these documents should be included in the Homeowner's Manual along with a copy of the filing and any support documentation.**

- ☐ Homeowner interview/information sheet
  - ✓ Description of the development being served – characteristics affecting the determination of peak and average wastewater flows to be used in the design and anticipated influent wastewater strength
  - ✓ Number of occupants
  - ✓ Number of bedrooms/bathrooms
  - ✓ Appliances that affect system sizing and design such as, but not limited to: garbage grinders, dog baths, rain showers, steam showers, surround /body spray showers, water softeners, iron filters, reverse osmosis systems, jet tubs, hot tubs
  - ✓ Additional bathrooms in adjoining buildings – plumbing in garage/barn etc.
  - ✓ Home based business – kennels, catering, hairdressing etc.
  - ✓ Hobbies that affect system sizing and design such as, but not limited to: bear/wine making, canning etc.
  - ✓ Lifestyle that promotes higher water usage or higher grease/cleaners entering system– entertaining, gourmet cooking, maid service etc.
- ☐ Plot Plan indicating
  - ✓ Setbacks from all property boundaries, buildings, roads, driveways, and other property improvements existing & proposed
  - ✓ Landscape positioning of system (north, south, east, west)
  - ✓ Existing easements
  - ✓ Wells or proposed well locations on both the subject property and any adjacent properties within 50m (165 ft) or 100m (330 ft) if a lagoon is to be utilized for the proposed system
  - ✓ Topography of the proposed treatment site(s) OR degree of slope and slope aspect if the site topography is a simple planer slope
  - ✓ Surface waters, rock outcrops and drainage features
  - ✓ Swales, depressions & other drainage features which may impact system selection and design
  - ✓ Soil pit or boring locations with surface elevations
  - ✓ Location of a permanent bench mark and its elevation
  - ✓ Outline of available treatment areas
- ☐ Soil Evaluations
  - ✓ Attach Soils Reports from an accredited laboratory
  - ✓ Number and size (depth, height, width) of test pits – locations must be shown on plot plan
  - ✓ Test pits will not be less than 300mm (12") deeper than the vertical distance required below the proposed soil-based treatment system
  - ✓ Descriptions of each soil profile investigated
  - ✓ Identification of the soil horizons
  - ✓ Identification of the soil colour
  - ✓ Analysis of the soil texture
  - ✓ Analysis of the soil structure and consistence for each structure identified
  - ✓ Identification of any signs of soil compaction
  - ✓ Identification of any saturated zones, areas of bedrock and near impermeable soil layers or flow restricting horizons
  - ✓ Vegetation – location and type
  - ✓ Summary of the significant limiting features of the soil profile and site
  - ✓ Justification of the locations and number of soils profiles investigated
- ☐ All applicable worksheets – pressure distribution, field & trench bottom, mound etc.

**\*\*Forms and worksheets are available in the through the Western Canada Onsite Wastewater Management Association**



# FILING DESIGN SUMMARY – PRIVATE SEWAGE

(Please Print)

## LEGAL LAND DESCRIPTION

L.S.D.		¼ Section	Section	TWP	Range	West of Meridian
Lot	Block	Plan	County/M.D.		GPS Co-ordinates	

**OR**

Property Address	Street/Avenue	City/Village/Town
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## USE OF PROPERTY INFORMATION

Type of Building	<input type="checkbox"/> Residential	<input type="checkbox"/> Commercial	<input type="checkbox"/> Other
Construction Information	<input type="checkbox"/> New build	<input type="checkbox"/> Renovation/Repair	<input type="checkbox"/> Temporary System
Number of Bedrooms	Number of Occupants	Estimated (Average) Daily Sewage Flow (gallons)	
Estimated (Peak) Daily Sewage Flow (gallons)		Anticipated Influent Wastewater Strength:	
System Components	<input type="checkbox"/> Septic Tank <input type="checkbox"/> Sand Filter <input type="checkbox"/> Other Primary Treatment <input type="checkbox"/> Dispersal Field <input type="checkbox"/> Holding Tank <input type="checkbox"/> Open Discharge <input type="checkbox"/> Packaged Treatment Plant <input type="checkbox"/> Lagoon <input type="checkbox"/> Mound <input type="checkbox"/> Other (please specify)		

## SITE EVALUATION DETAILS

Date of Site Evaluation	Time of Day Evaluation Performed	Weather Conditions	Name of Certified Laboratory
Number of soils test pits – minimum 2	Design Soil Texture Classification (attach lab reports and soil borehole logs)	Design Effluent Loading Rate (gal/sq ft/day)	Design Linear Loading Rate (gal/l ft/day)
Soil Texture	Soil Structure – see soils log attached		

## PROPOSED TREATMENT AND DISPOSAL SYSTEM

Tank Information			
<input type="checkbox"/> Septic <input type="checkbox"/> Holding <input type="checkbox"/> Packaged Treatment			
Tank Size: Working _____ gallons		Dose _____ gallons	
Type of measurement used: <input type="checkbox"/> Imperial <input type="checkbox"/> U.S.			
Discharge Information		Design Flow Volume	
<input type="checkbox"/> Pump <input type="checkbox"/> Siphon		_____gal/min.                      _____Ft of Head	
Type of measurement used: <input type="checkbox"/> Imperial <input type="checkbox"/> U.S.			



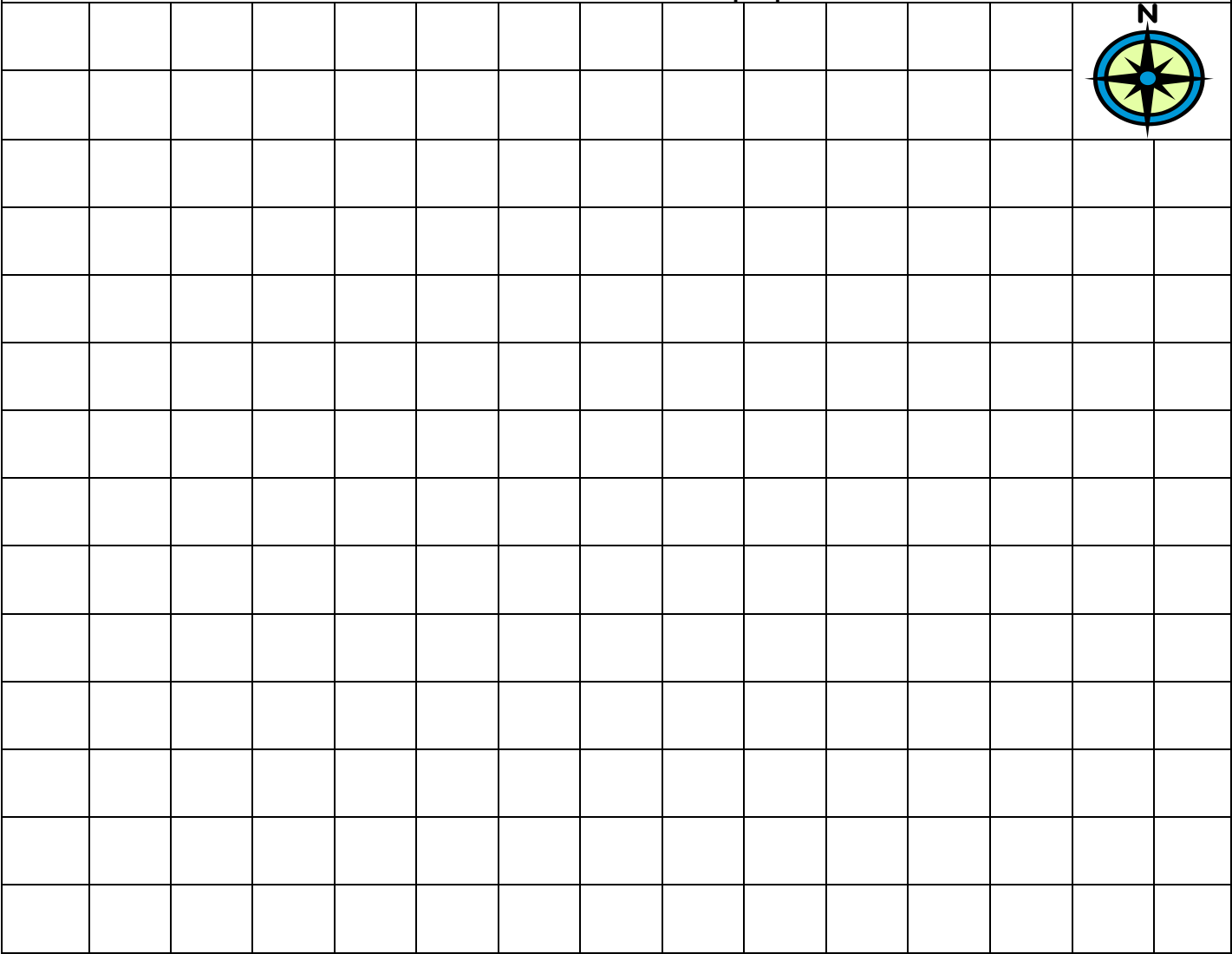



## PLOT PLAN

**Complete a comprehensive site drawing showing the layout including:**

- ✓ **Location and distances of the septic/holding tank/package treatment plant from the house or building, any water sources, any bodies of water, property lines, driveways or roadways.**

- ✓ **Location and distances of the disposal field from the house or building, any water sources, any bodies of water, property lines and driveways or roadways.**
- ✓ **Determine benchmarks and tie in elevations to all relevant items on plot plan.**



SYSTEM DRAWING													
✓ Complete drawing of proposed system, layout of laterals, position and location of tank etc.													
													

**Comments:**  

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## HOMEOWNER USE OF SYSTEM INFORMATION

Date of Homeowner Interview

Owner/Client Name

Mailing Address

Owner/Client Info:

Work Phone  
(      )

Home Phone  
(      )

Email

House size	Sq. Ft	Sq. M	Number of bedrooms	Number of bathrooms
Water softener	Yes	No		
Iron filter	Yes	No		
Reverse osmosis	Yes	No		
Garburator	Yes	No		
Additional high water use fixtures *	Yes	No		
If yes, please list	Size of tub(s)		Pool dimensions:	
Walk in steam shower	# of standard heads  # of rain cans		# of body sprays	
Other buildings				
Home based business**	Yes	No	If yes, type of business	
Hobbies	Beer/wine making, canning,			
Lifestyle	Entertaining, gourmet cooking = excess grease and water Maid service = use of higher strength cleaners			
Location of neighbouring wells				
Any covenants or easements				

**\*Additional High Water Use Fixtures might include: Jet tubs, hot tubs, pools, steam showers, multi-head showers, rain showers, doggy baths etc.**

**\*\* Businesses such as hairdressing, dog kennels, catering etc. put a heavier load on onsite systems and must be considered in the design.**





**PRIVATE SEWAGE TREATMENT SYSTEM SOIL LOG FORM**

**Owner Name or Job I.D.**

**Legal Land Location**

**Plan**

**Block**

**Lot**

**GPS Coordinates**

**LSD ¼**

**Sec**

**TWP**

**RG**

**M**

**Easting**

**Northing**

**Aerial Photos:**

**Topography:**

**General Vegetation:**

Overall Site Slope %

Slope position of system:

**Test Hole #**

**Soil Subgroup**

**Parent Material**

**Drainage**

**Depth of Sample #1**

**Depth of Sample #2**

**Horizon**

**Depth (cm)**

**Texture**

**Colour**

**Gleyed**

**Mottled**

**Structure**

**Consistence**

**Moisture**

**% CF**

Depth to Groundwater

Limiting Soil Layer Characteristic, describe

Depth to Seasonally Saturated Soil

Depth to Limiting Soil Layer

Limiting Topography

Depth to Highly Permeable Layer

Key Limiting System Design Characteristic

**Comments - Justify the locations and numbers of soil profiles investigated.**

