BC
Water Use
Reporting Centre



www.bcwaterusereporting.ca

Information Guide
For Utilities

March 2012

Okanagan Basin
WATER BOARD

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ACKNOWLEDGEMENTS

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Nelson Jatel, Water Stewardship Director at the Okanagan Basin Water Board, was the Project Manager for the BC WATER USE REPORTING CENTRE imitative. David Morton and his team at Spot Solutions developed the BC WATER USE REPORTING CENTRE software. Kellie Garcia of Insight Environmental Consulting and Bruce Wilson provided outreach and extension support.

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INTRODUCTION

The BC Water Use Reporting Centre – Okanagan Pilot (THE CENTRE) is a simple and user-friendly online interface for large volume water users in the Okanagan watershed to report their water use. THE CENTRE improves efficiency for both the water user and government agencies by standardizing data collection, organizing the information, and providing it back in a useable form. The system also provides a platform to audit reporting compliance and data quality. The system has distinct benefits at two levels: for local and senior government staff and regional water and infrastructure planners interested in patterns of use at a large geographic scale; and for individual water users to improve their knowledge of their own water use patterns and how they compare to neighbouring users and other sectors.

THE CENTRE consists of five key areas (see Figure 1):

Profile allows water purveyors to enter information about their water systems and configure the way they will view information in THE CENTRE.

Data Entry provides screens to enter information in the following categories, each presented on a separate tab:

- Water Usage (surface and ground water)
- Snow Course depth
- Reservoir/Lake Levels
- Return Flows

The **Dashboard** is a management tool that enables water purveyors at a glance to compare their usage and lake/reservoir levels against other purveyors. It also includes climate and evapotranspiration information.

The **Reports** provide water purveyors with the ability to view and print data that they have input into the system. They also provide OBWB staff with the ability to view information about the number of users in the system, last sign-on, last period for which data is entered, etc.

Help provides definitions of the data fields in the CENTRE and explains the various functions.

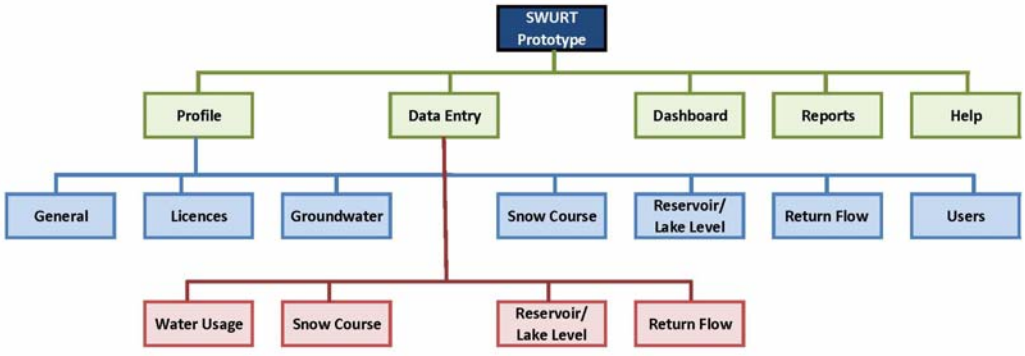
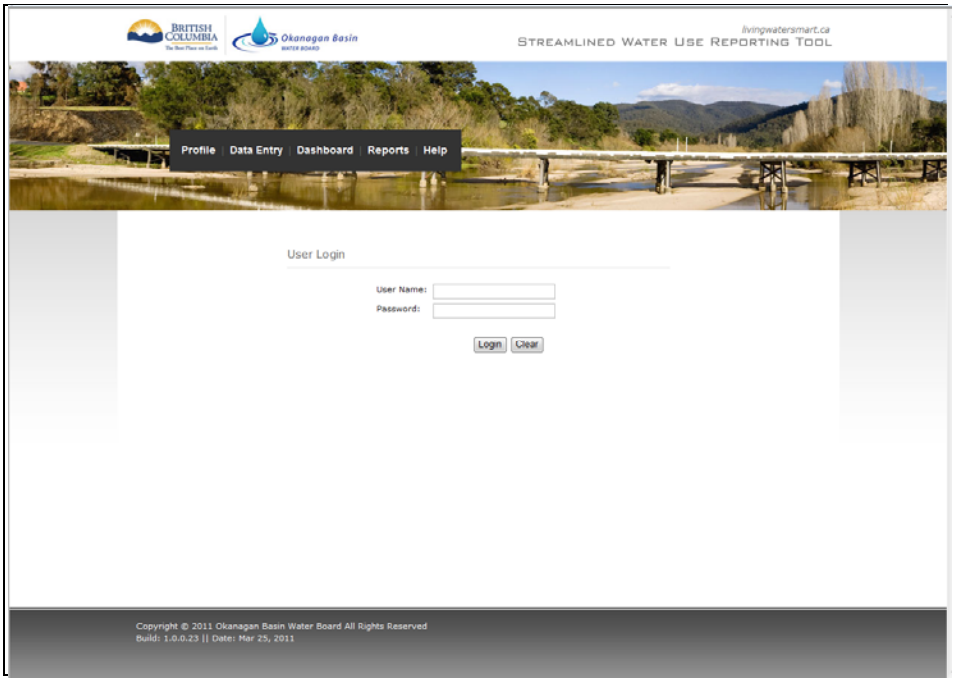


Figure 1. THE CENTRE Site Map

GETTING STARTED

User Login

URL: www.bcwaterusereporting.ca
User name and temporary password: these can be obtained from Nelson Jatel at the Okanagan Basin Water Board (250-469-6295, njatel@obwb.ca)



Screen shot 1: User Login Page

Managing Users

There are **three** types of Users in THE CENTRE:

- **Utility Viewer -** May only view user's organization utility profile, dashboard and users. Can also access and generate organization reports.
- **Utility Data Entry User** - Utility viewer rights plus full data entry privileges.
- **Utility Administrator** - Utility Data Entry User rights plus add and change profile information and users and roles within its own organization and add utilities to its own organization.

IMPORTANT: The OBWB sets up the Utility Administrator role for each organization by assigning them a user ID and temporary password, and entering generic name and email address information on the Users page. During the utility's **first BC Water Use Reporting Centre session** the administrator **must update** the First Name, Last Name, and Email fields for the Utility Administrator user and change the temporary password. Once this information has been changed, the administrator can start adding new users to the profile.

Directions on how to add and edit THE CENTRE users are provided on the next page.

Steps to edit Utility Administrator User information:

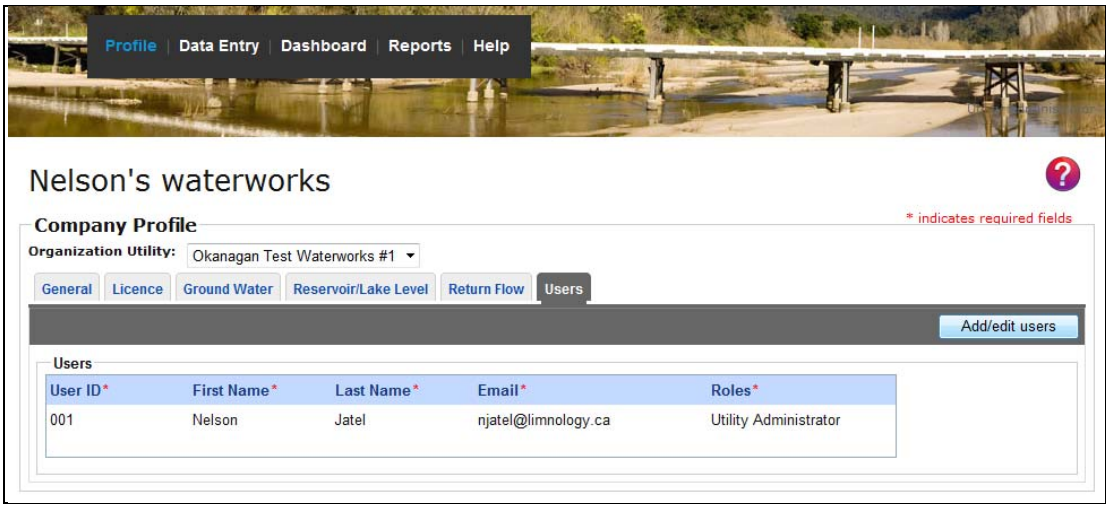
See screen shots 2, 3 and 4

1) Go to the "Profile" tab
2) Select the "Users" tab
3) Click the "Add/edit users" button
4) Click the "Edit" button beside the Utility Administrator entry
5) Update the First Name, Last Name and Email fields with your information (you can keep the name generic as "Utility Administrator" if you prefer)
6) Click the box beside Change Password
7) Enter a new password – choose one that you will remember!
8) Click "Update"
9) Click "Save"

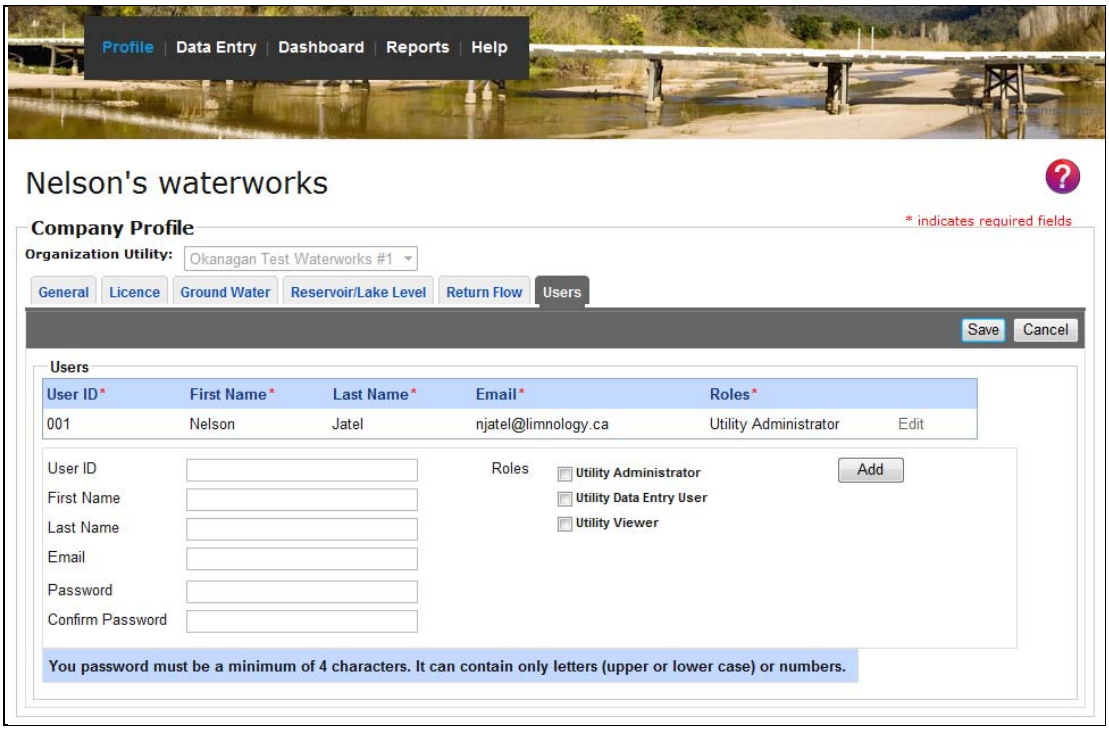
Steps to add/edit Users:

See screen shots 2, 3 and 4

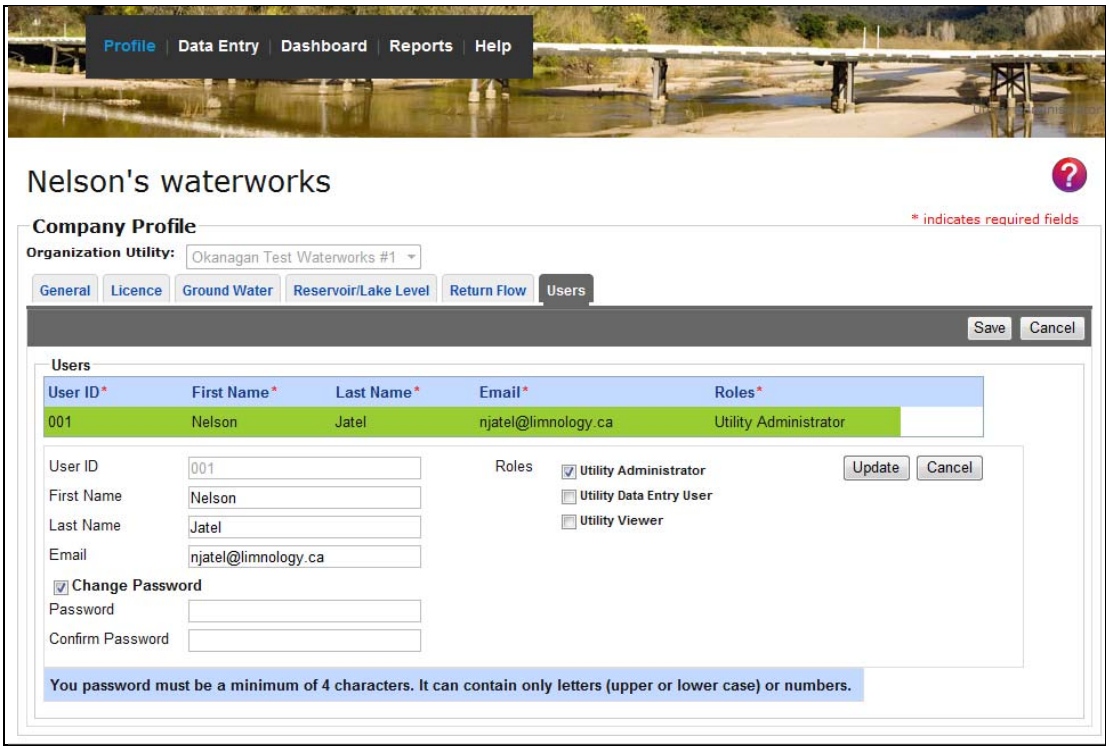
1) Go to the "Profile" tab
2) Select the "Users" tab
3) Click the "Add/edit users" button
4) Fill in the User ID, First Name, Last Name, Email and Password fields (you can use a name like "Operations" if you prefer)
5) Update the First Name, Last Name and Email fields with your information
6) Choose the User Role
7) Click "Add"
9) Click "Save" when you are finished adding users



Screen shot 2: Users page



Screen shot 3: Users page in Edit mode



Screen shot 4: Editing Utility Administrator name, email and password

SETTING UP YOUR PROFILE

The Profile area in THE CENTRE includes six sections:

- General
- Licence
- Ground Water
- Reservoir/Lake Level
- Return Flow
- Users

Profile – General

PURPOSE: Displays general information about the company and contains customizable parameters that are shared by all users within an organization.

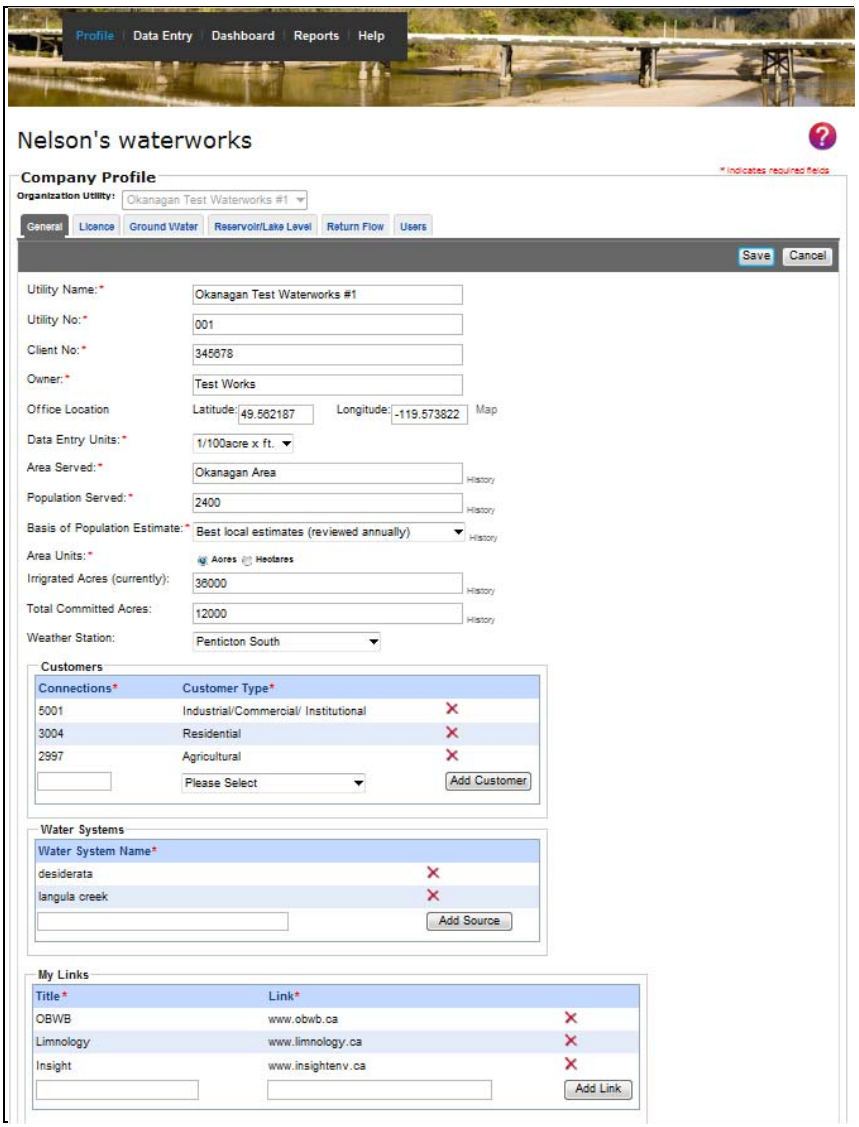
IMPORTANT: The user's organization may be required by the Ministry of Environment to report on more than one water utility. If so, on this, and all other BC WATER USE REPORTING CENTRE screens, the user must select which utility they are currently setting profile information for, viewing dashboard information for, or reporting on. This is done using the "Organization Utility" dropdown menu.

Information that must be entered on the General Profile page includes:

- **Utility No** is the number given to the Utility by the Ministry of Environment and used on the Annual Water System Return Form (called the "Water System No" on the MoE form).
- **Client No** is the number given to the reporting client by the Ministry of Environment and used on the Annual Water System Return Form.
- **Owner** is the name of the organization that is legally responsible for the water licence and the legal duties of the water system.
- **Office Location** is either lat/long is provided by the user, or they can select the location from a map. The map can be accessed by clicking "Map".
- **Data Entry Units** that the user will be using to enter data. All entered data is converted to a common format for storage, but is received and viewed in the units selected by the user. The units can be changed at any time.
- **Area Served** is a descriptive name for the area that their utility serves, i.e. "Rutland".
- **Population Served** is the number of people served by the utility
- **Basis of Population Estimate** is one of:
    - Apply Canada census information where available
    - Best local estimates (reviewed annually)
    - No. of connections * 3 people/connection
    - Specify population calculation method

  If the user selects the last selection "Specify population calculation method", a box will appear that allows the user to specify.
- **Area Units** is the unit of "land mass" (either hectares or acres) that the reporting organization uses to describe the land area serviced by this organization.
- **Irrigated Acres/Hectares (currently)** is the area of land in the area served by the utility that is irrigated.

- **Total Committed Acres/Hectares** is the total land area served by the utility. The user may select either acres or hectares for data entry.
- **Weather Station** default is the closest (calculated on a straight line basis, without regard for elevation or water bodies) weather station. The long/lat of the organization as entered on the general profile page will be used. The user may alternatively select any other weather station.
- **Customers** enables the user to enter the number of customers served and which of three types they are:
    - Industrial/Commercial
    - Agricultural
    - Residential
- **Water Systems** are the name or names of the water systems the organization reports on to the Ministry of Environment (e.g., Rose Valley Reservoir, Mission Creek). **IMPORTANT:** You will be required to match the water system names entered on the General Profile page with your points of diversion/licence numbers on the Licence Profile page.
- **My Links** are web links that are useful to the utility, for example the home page of the Utility's website.



Screen shot 5: General Profile tab

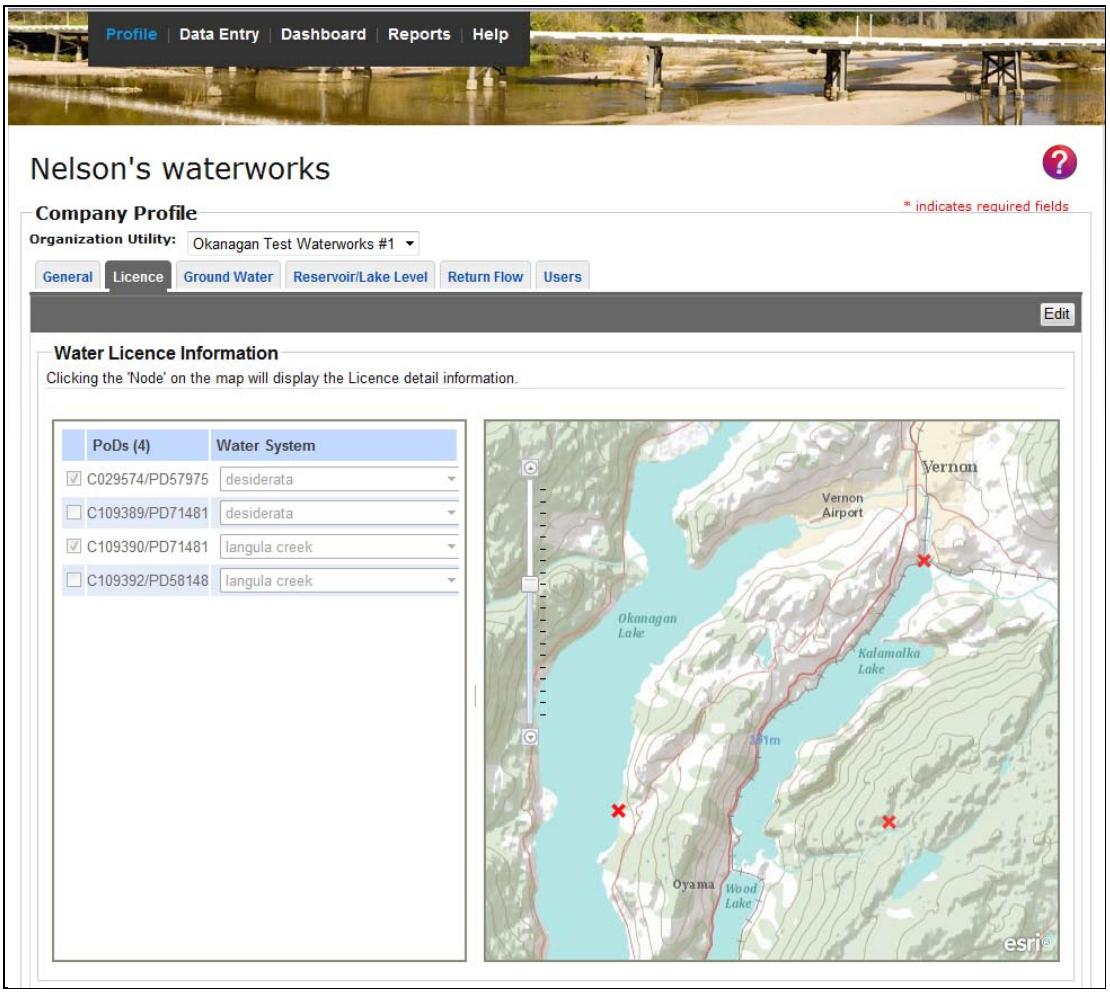
The General Profile data must be reviewed, and, if required, updated annually. In order to assist the user to comply with this requirement, they will be required to provide confirmation that they have done so each January. Until confirmation is given, they will not be able to enter any water use data.

Profile – Licence

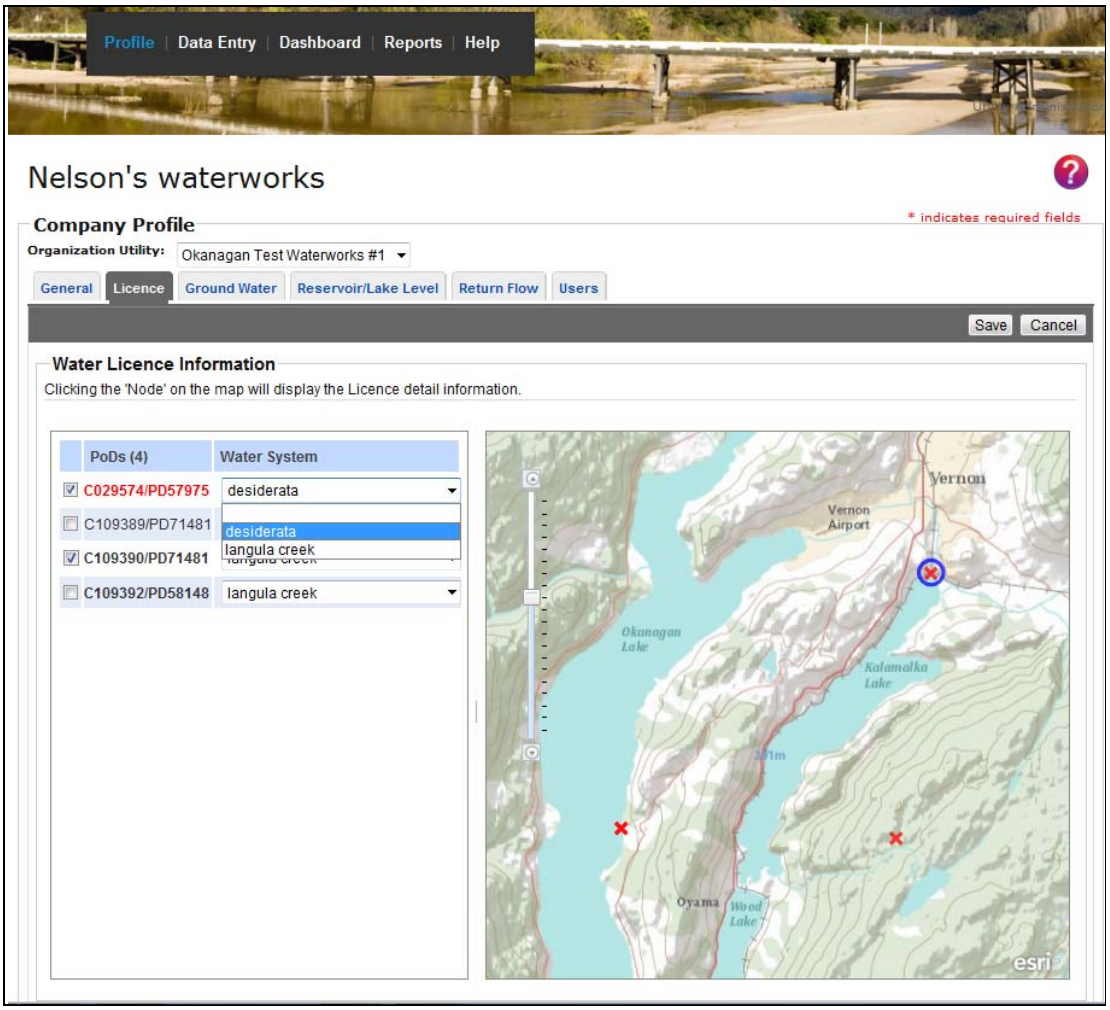
The "Licence" tab provides "read-only" information. It shows the licences held by the purveyor. The information is sourced from GeoBC. Points of Diversion are represented as points on the map. Clicking on a point populates the licence information for the POD in the table at the left.

IMPORTANT: The user must link water systems added on the General Profile page to PoDs listed here by clicking "Edit" and then choosing the appropriate system from the drop down menu. The user must also specify whether or not the PoD is a consumptive licence by checking the box beside those that are consumptive. "Save" must be clicked when the edits are completed. See screen shot 7.

IMPORTANT: If there are any issues with your licence information (e.g., incorrect licence location), please note them on the User Issues & Feedback Form in Appendix D.



Screen shot 6: Licence Profile tab



Screen shot 7: Linking water systems to PoDs and selecting consumptive PoDs

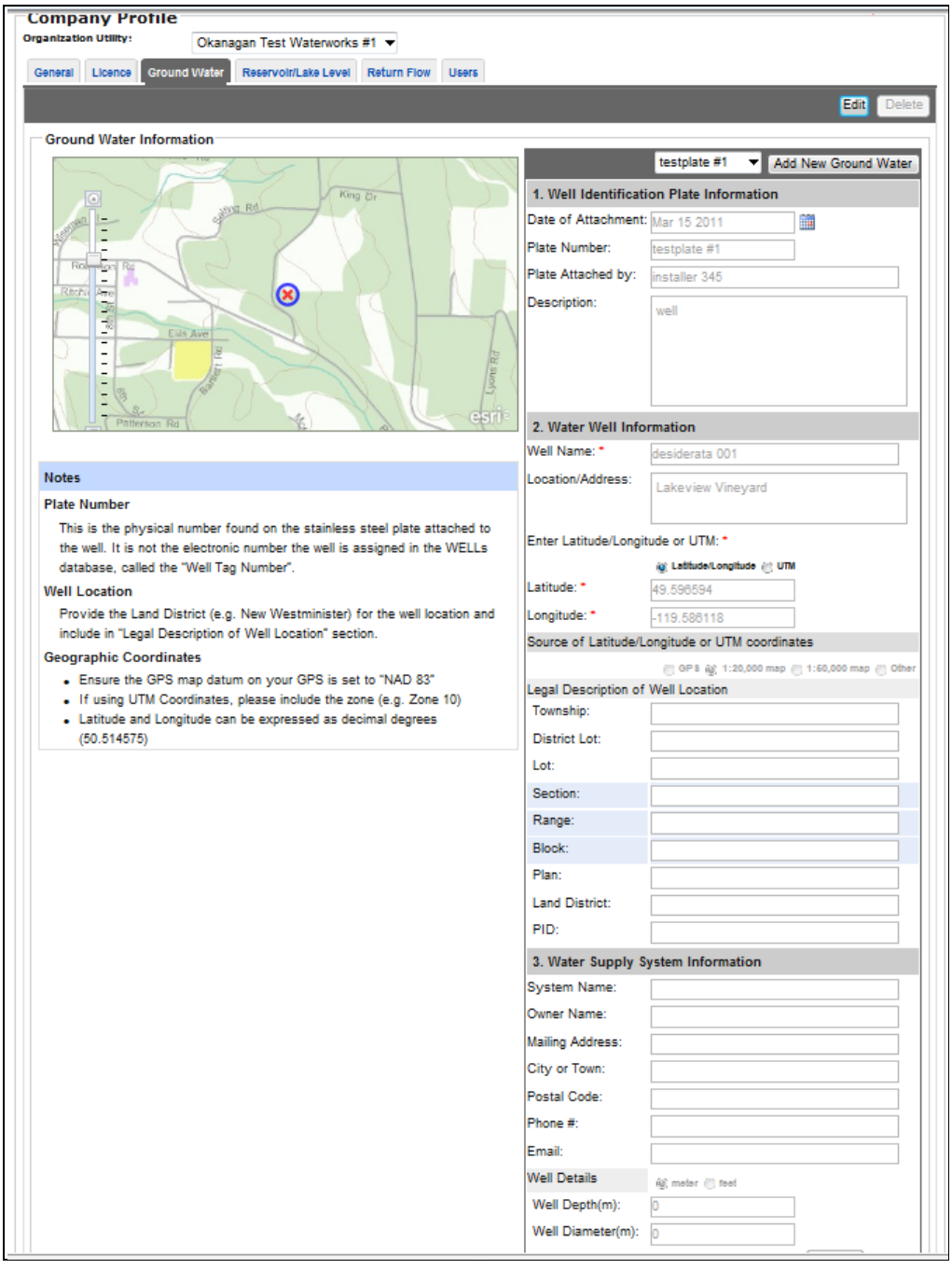
Profile – Ground Water

The "Ground Water" tab shows information about wells registered to the utility. The information is sourced from the Wells database at the Ministry of Environment.

Wells are represented as points on the map. Clicking on a point populates the information for that well in the table at the right.

IMPORTANT: If a well is missing, the user can click on the "Add New Ground Water" button, and they can then enter information about the well (equivalent to a "Schedule 2"). Once entered and saved, the data is transmitted to the Ministry of Environment in a nightly batch process for entry into the wells database. The new data will appear in THE CENTRE following the next download of well information.

IMPORTANT: If there are any issues with your well information, please note them on the User Issues & Feedback Form in Appendix D.

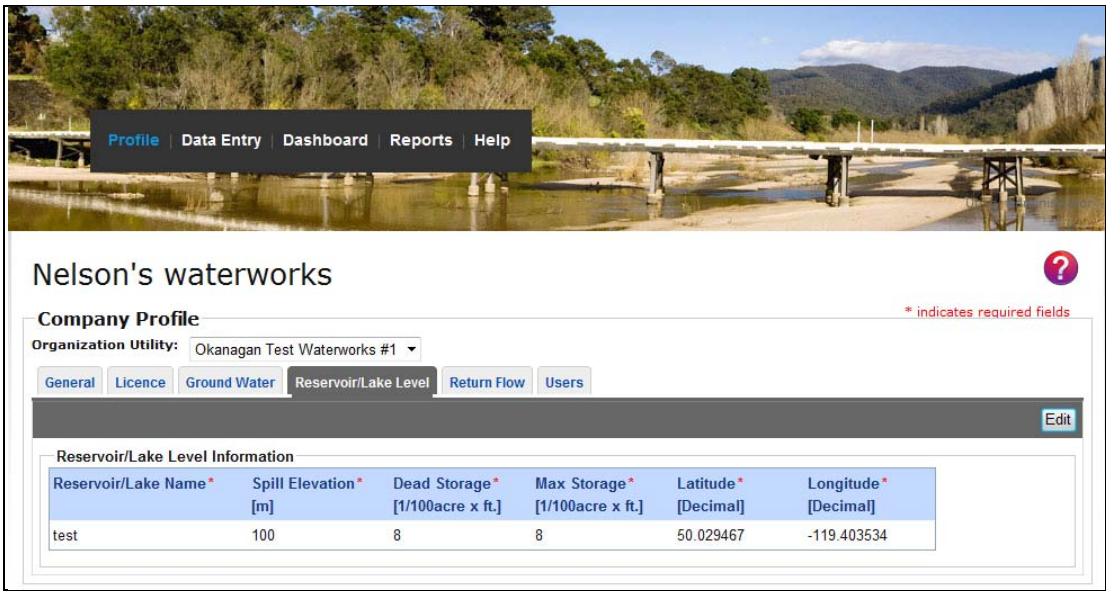


Screen shot 8: Ground Water Profile page

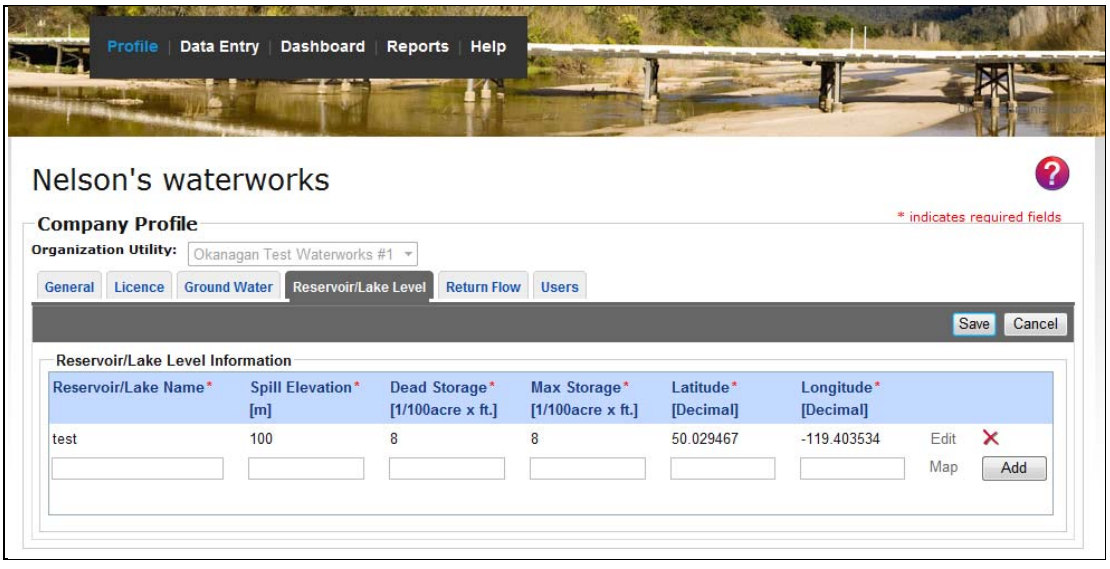
Profile – Reservoir/Lake Level

If a user manages a reservoir, they must first identify each location that they are reporting on. The user must select "Edit" and then enter the following information:

- **Reservoir name** is the name of the reservoir or lake that supplies water for the utility.
- **Spill Elevation** is the known geodetic elevation of the top of the spillway lip. If the geodetic elevation is not known use the local datum elevation that your utility normally uses for referencing a Full Reservoir Pool (or spill elevation).
- **Dead Storage** is the volume of water that is in the reservoir that is not accessible without major infrastructure changes to the intake works i.e. below the intake or diversion elevation. May be an estimate. This dead storage volume may assist with planning during a severe drought scenario where emergency water supplies could be accessed by pumping into the existing intake works.
- **Max storage** is the volume of water that is actually usable and accessible to the water system under current physical conditions.
- **Latitude and longitude** is the geographical location of the reservoir or lake. Can be entered manually or selected from the map.



Screen shot 9: Reservoir/Lake Level Profile page

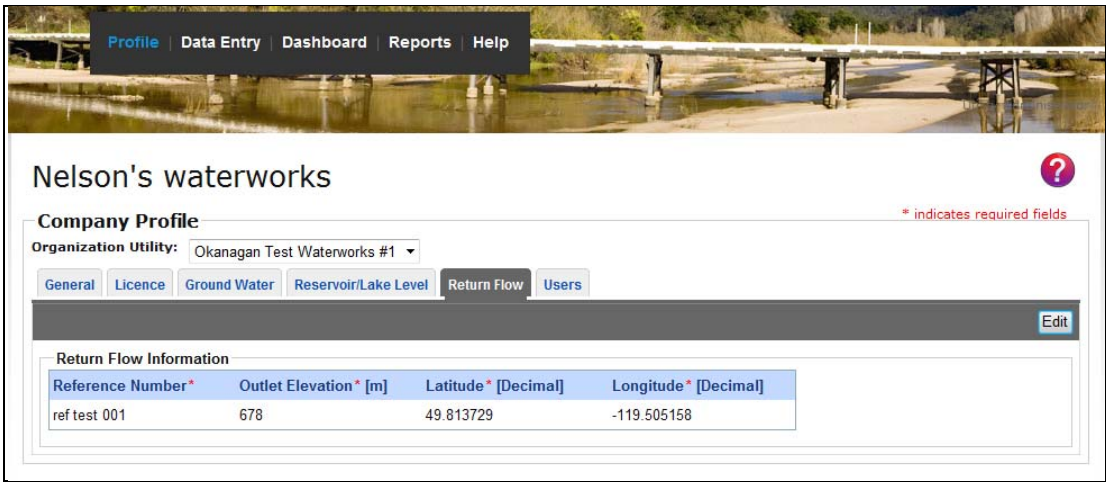


Screen shot 10: Reservoir/Lake Level Profile page in Edit mode

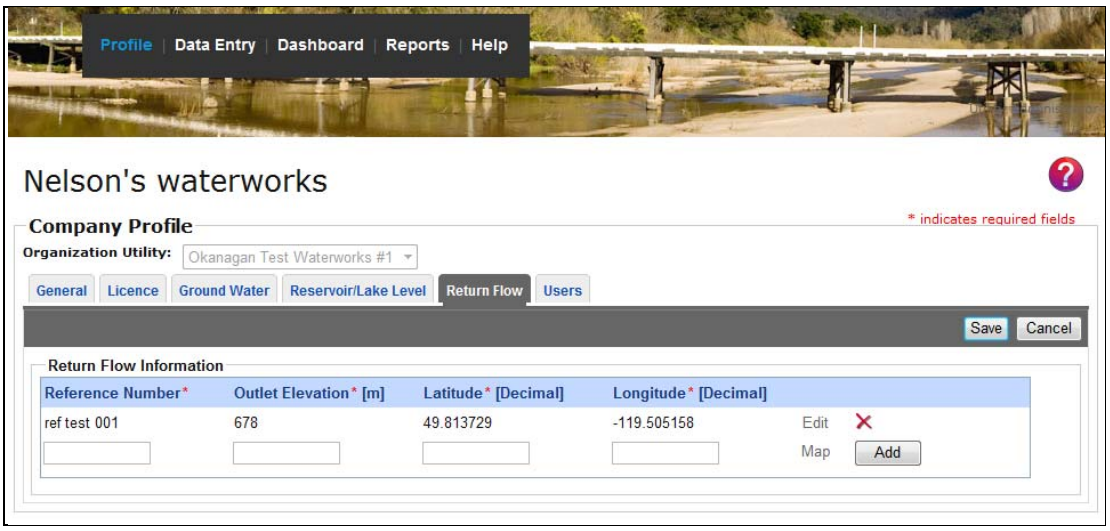
Profile – Return Flow

If a user returns water to a lake, reservoir or stream, they must first identify each location that they are reporting on. The user must select "Edit" and then enter the following information:

- **Reference Number** is the numerical identity given to the Return Flow location, plant or area that is used for identification and recording purposes.
- **Outlet Elevation** is the elevation of the return flow outlet in metres.
- **Latitude and longitude** is the geographical location of the reservoir or lake. Can be entered manually or selected from the map.



Screen shot 11: Return Flow Profile page



Screen shot 12: Return Flow Profile page in Edit mode

Profile – Users

See the **Managing Users** section on page 3.

ENTERING WATER DATA

Data Entry – Water Usage

The Water Usage tab only appears if the user's organization is a licence holder or has wells associated with it.

Water use is entered monthly on this tab. The month for which the data is entered is selected from the dropdown list at the top. Data for previous months can be re-edited as long as that data has not been provided to the Water Stewardship Division.

Each water system is listed, and the user enters how much water is drawn from each. Similarly, the amount of water drawn from each well is entered.

IMPORTANT: Water usage data can also be imported in an **Excel spreadsheet**. See page 16 for a list of the steps involved. Water usage data can also be linked from your **SCADA** system using a SOAP/XML Web Service interface. See Appendix C for instructions on how to do this.

At the bottom right, summary information is entered:

- A breakdown of usage by category (Industrial/Commercial; Residential; Agricultural)
- The maximum and minimum daily demand for that month and the date on which that max/min was realized.

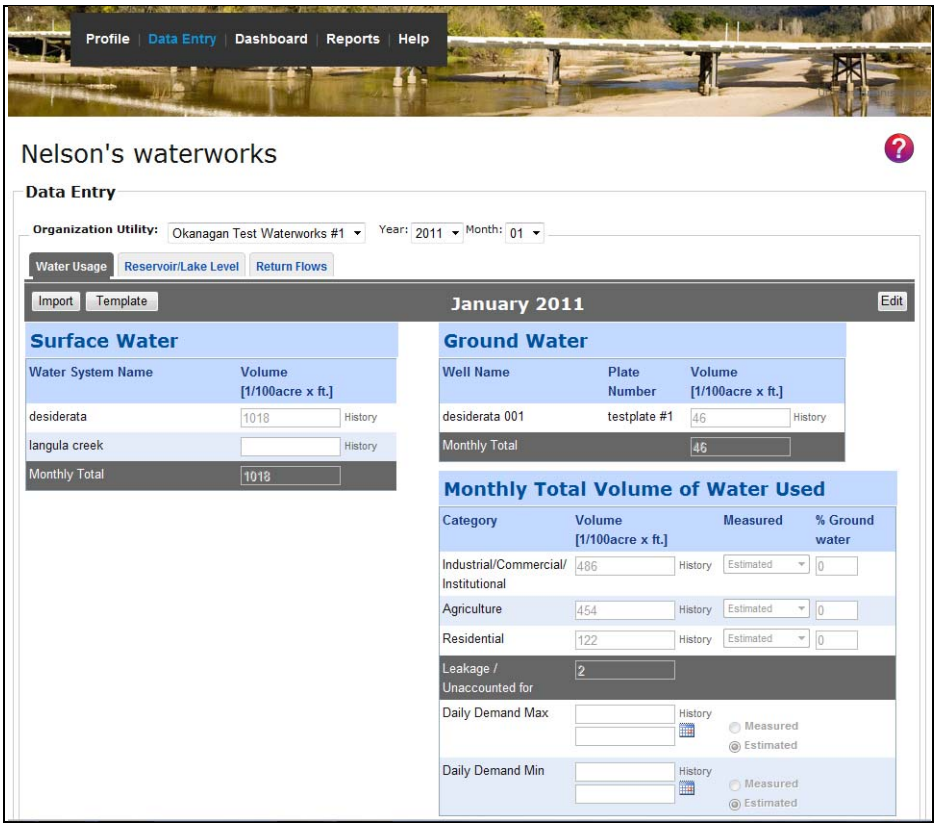
THE CENTRE calculates the difference, if any, between the sum of the summary usage and the sum of the water drawn from each POD and well, and displays that as "unaccounted for".

In addition, the user must indicate, for each data point entered in the summary table, whether the amount is measured or estimated.

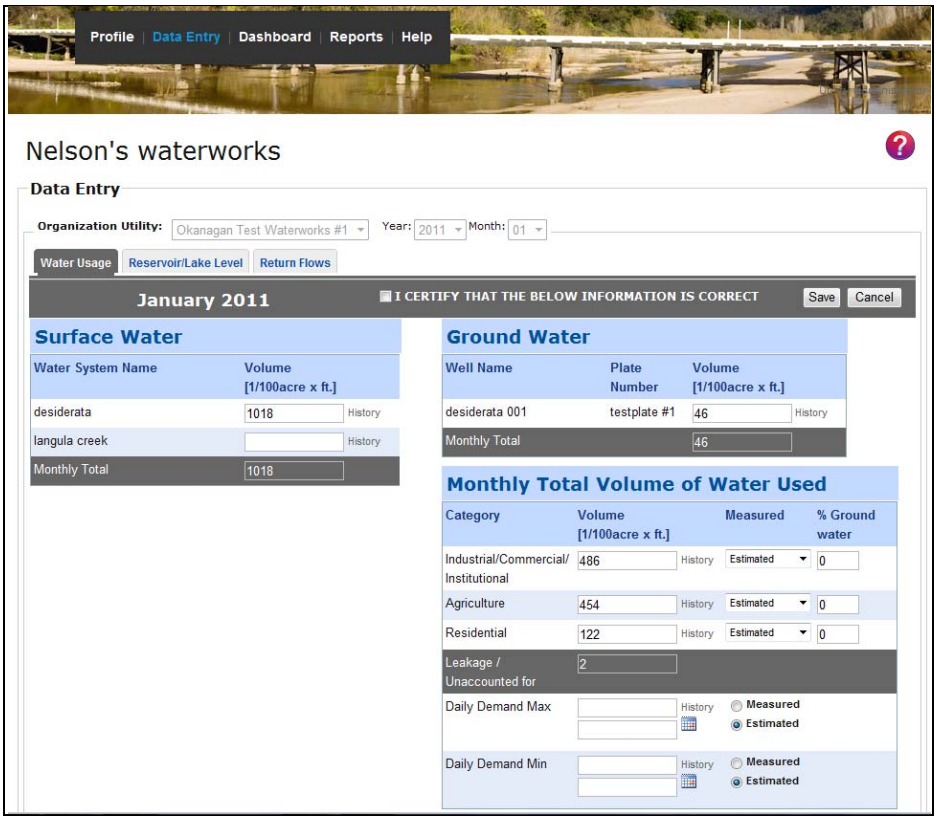
The Certification checkbox must be checked before that month's data can be saved in THE CENTRE (see screen shot 14).

Annually, the water use data entered is provided to the Water Stewardship Division of the Ministry of Environment for entry into their tracking system and calculation of usage fees owed. THE CENTRE keeps track of what data has been provided.

Users will be provided with a monthly email prompt to enter data. The email will go to all users in the role of administrator and data entry.

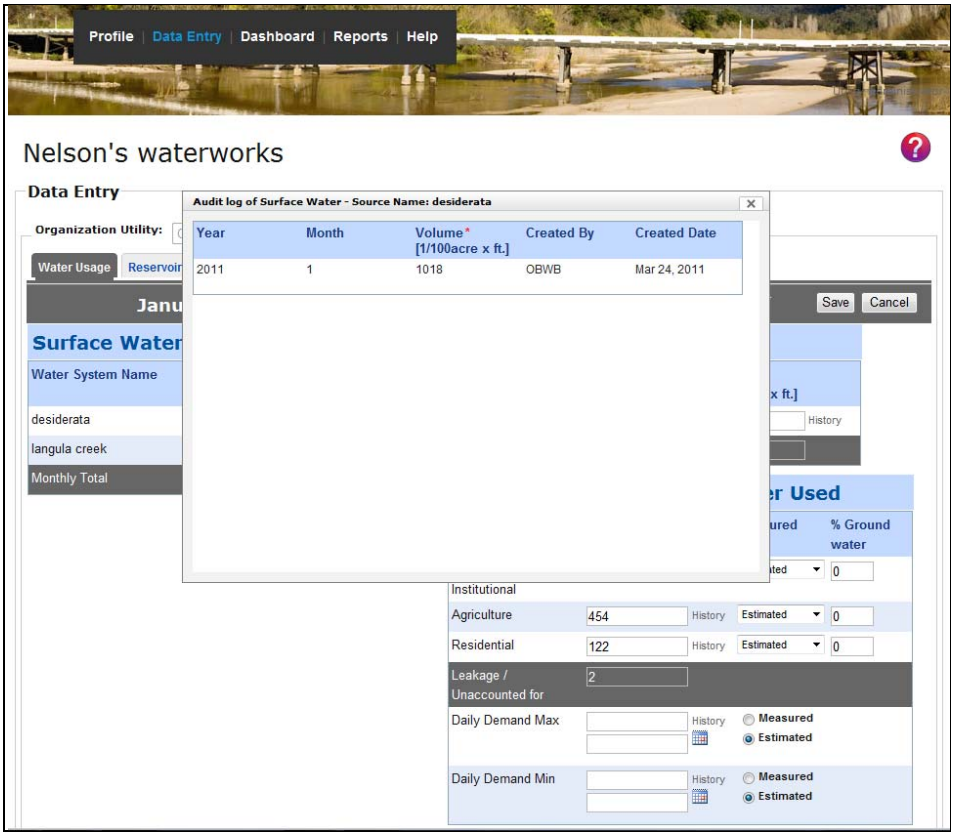


Screen shot 13: Water Usage Data Entry page



Screen shot 14: Water Usage Data Entry page in Edit mode showing Certification Box

Since historical data may be changed by the user, THE CENTRE maintains an audit log for all data entered. The log is accessible by clicking on the "History" link that is provided beside each data value. The History view is read only and may not be modified.



Screen shot 15: Water Usage Data Entry page audit log

IMPORTING MONTHLY WATER USAGE DATA FROM EXCEL

Steps to import water use data in Excel format:

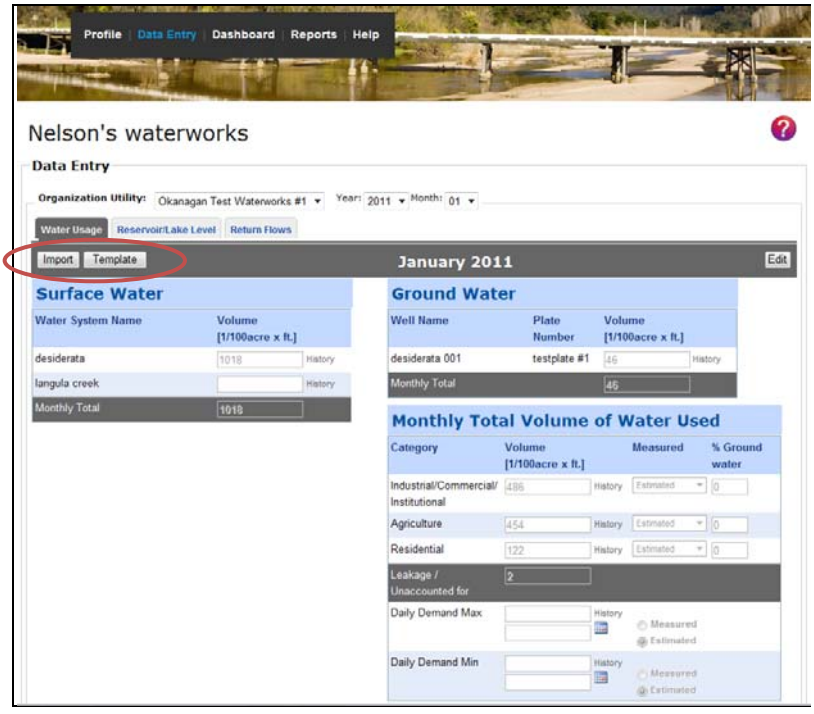
See screen shots 16 and 17

1) Download the sample spreadsheet by clicking on the template button and saving the spreadsheet to an appropriate folder on your computer.
2) Enter data into the spreadsheet. A description of what to put in the columns is included below. See screen shot 17

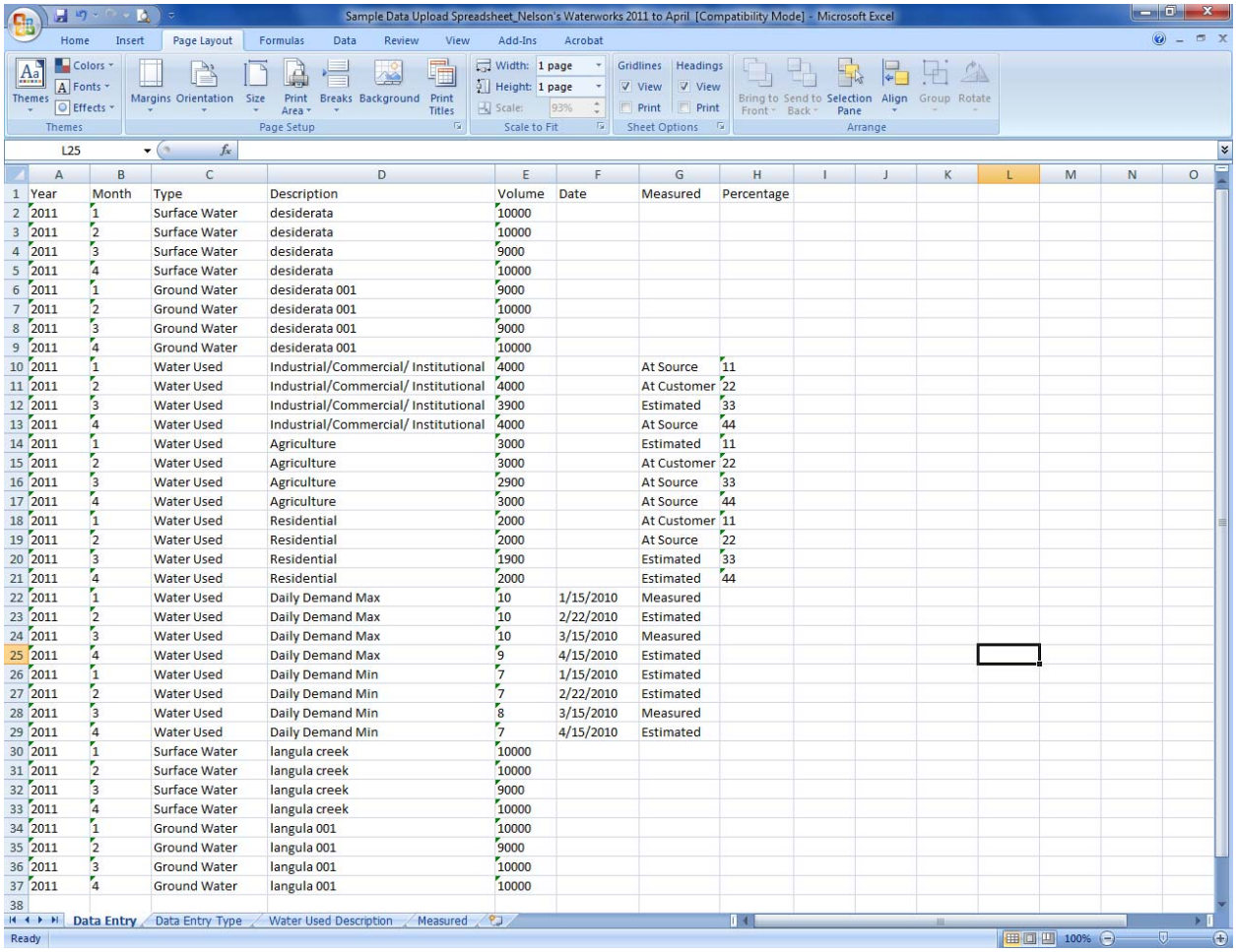
- Year – year that the data refers to in the format: 20XX (e.g. 2011)
- Month – month that the data refers to in the format: 1 for Jan, 2 for Feb, 3 for Mar, etc.
- Type – surface water, ground water, or water used
- Description – name of water system; name of well; name of customer i.e., Industrial/Commercial/Institutional, Agriculture, Residential; Daily Demand Max; Daily Demand Min
- Volume – the volume associated with year, month, type and description
- Date – the date the volume was measured, only enter for Daily Demand Max and Daily Demand Min (format = mm/dd/yy)
- Measured – where the measurement was taken for the customer: at source, estimated, at customer, measured
- Percentage – the percentage of the total monthly volume that went to each customer

3) Click the import button
4) Browse to the spreadsheet you saved
5) Click validate, system will show you if you have an errors to correct
6) Click import when system tells you the spreadsheet is ready

IMPORTANT: Many utilities have historical water usage data in an Excel spreadsheet format. To upload this historical data, the spreadsheet must be re-formatted to match the template (see screen shot 17).



Screen shot 16: Water Usage Data Entry page with import and template buttons circled



Year	Month	Type	Description	Volume	Date	Measured	Percentage
2011	1	Surface Water	desiderata	10000			
2011	2	Surface Water	desiderata	10000			
2011	3	Surface Water	desiderata	9000			
2011	4	Surface Water	desiderata	10000			
2011	1	Ground Water	desiderata 001	9000			
2011	2	Ground Water	desiderata 001	10000			
2011	3	Ground Water	desiderata 001	9000			
2011	4	Ground Water	desiderata 001	10000			
2011	1	Water Used	Industrial/Commercial/ Institutional	4000		At Source	11
2011	2	Water Used	Industrial/Commercial/ Institutional	4000		At Customer	22
2011	3	Water Used	Industrial/Commercial/ Institutional	3900		Estimated	33
2011	4	Water Used	Industrial/Commercial/ Institutional	4000		At Source	44
2011	1	Water Used	Agriculture	3000		Estimated	11
2011	2	Water Used	Agriculture	3000		At Customer	22
2011	3	Water Used	Agriculture	2900		At Source	33
2011	4	Water Used	Agriculture	3000		At Source	44
2011	1	Water Used	Residential	2000		At Customer	11
2011	2	Water Used	Residential	2000		At Source	22
2011	3	Water Used	Residential	1900		Estimated	33
2011	4	Water Used	Residential	2000		Estimated	44
2011	1	Water Used	Daily Demand Max	10	1/15/2010	Measured	
2011	2	Water Used	Daily Demand Max	10	2/22/2010	Estimated	
2011	3	Water Used	Daily Demand Max	10	3/15/2010	Measured	
2011	4	Water Used	Daily Demand Max	9	4/15/2010	Estimated	
2011	1	Water Used	Daily Demand Min	7	1/15/2010	Estimated	
2011	2	Water Used	Daily Demand Min	7	2/22/2010	Estimated	
2011	3	Water Used	Daily Demand Min	8	3/15/2010	Measured	
2011	4	Water Used	Daily Demand Min	7	4/15/2010	Estimated	
2011	1	Surface Water	langula creek	10000			
2011	2	Surface Water	langula creek	10000			
2011	3	Surface Water	langula creek	9000			
2011	4	Surface Water	langula creek	10000			
2011	1	Ground Water	langula 001	10000			
2011	2	Ground Water	langula 001	9000			
2011	3	Ground Water	langula 001	10000			
2011	4	Ground Water	langula 001	10000			

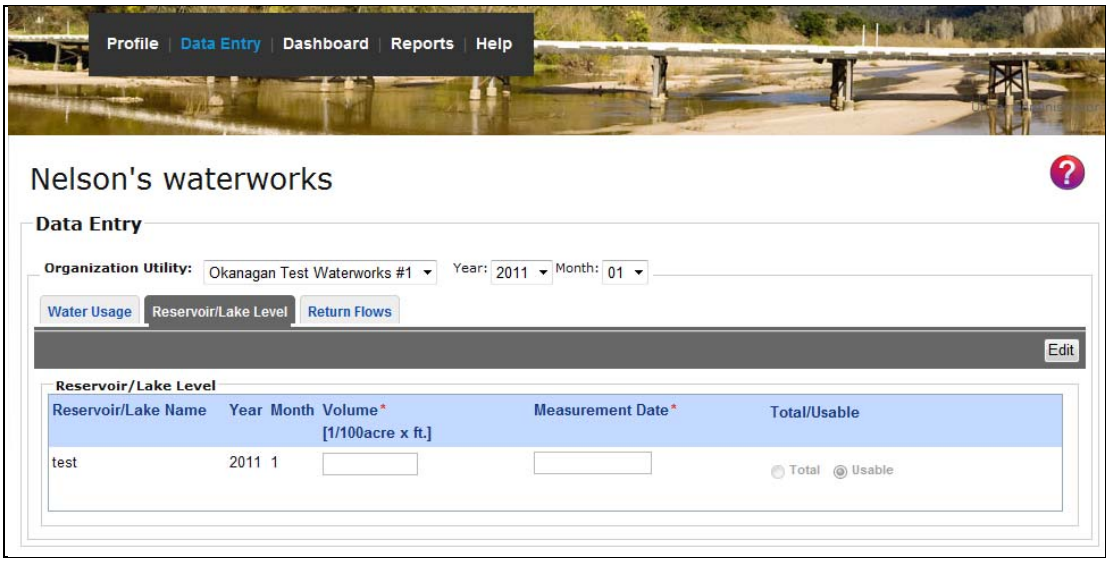
Screen shot 17: Example of an Excel spreadsheet for upload to the Water Usage Data Entry page with 2011 data for water systems "desiderata" and "langula creek" and wells "desiderata 001" and "langula 001"

Data Entry – Reservoir/Lake Level

The "Reservoir/Lake Level" tab will only be visible for purveyors that have entered Reservoir/Lake level information on their profile.

The user must select the month and year of entry from the dropdown lists at the top. THE CENTRE also displays the previous month's value.

The user must specify the volume, what date the measurement was taken on and whether the volume reported is the total volume in the reservoir or lake or the useable volume (i.e., useable or currently accessible to the water system without design or physical infra-structure changes).



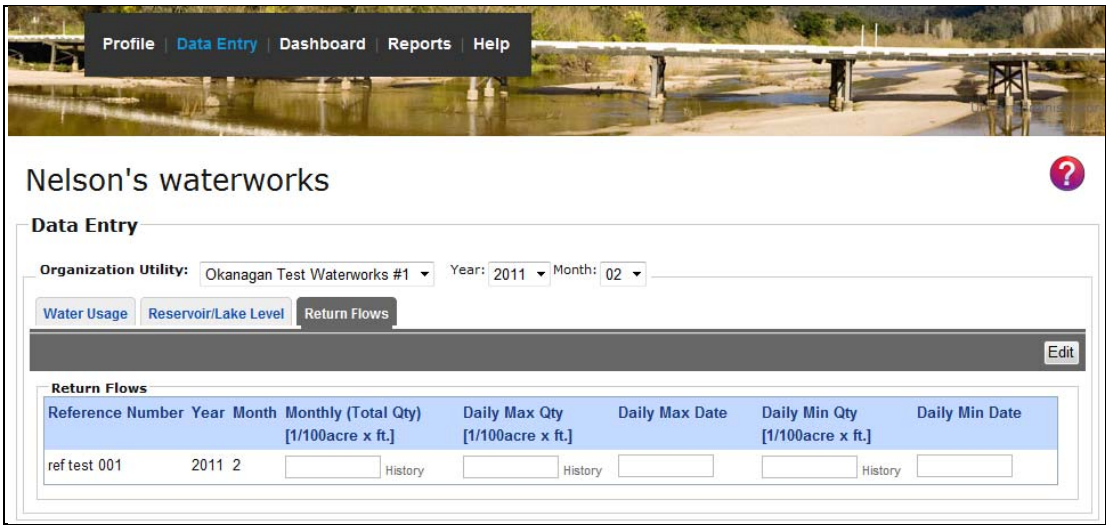
Screen shot 18: Reservoir/Lake Level Data Entry page

Data Entry – Return Flows

The "Return Flow" tab will only be visible for users that have entered Return Flow information on their profile.

The user must select the month and year of entry from the dropdown lists at the top. THE CENTRE also displays the previous month's value.

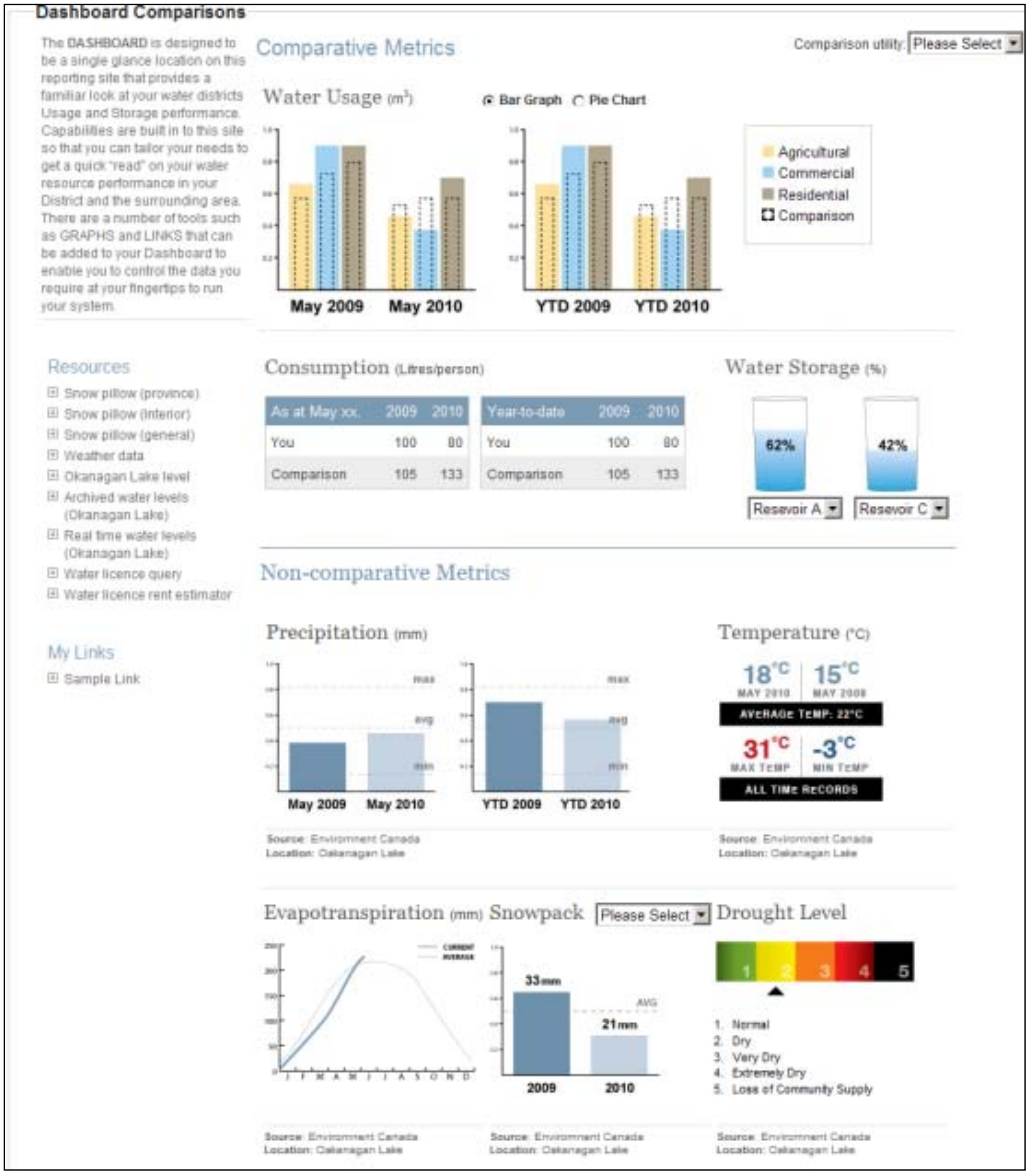
The user must specify the monthly total, daily maximum and minimum flows and the dates that these flows were measured.



Screen shot 19: Return Flow Data Entry page

VIEWING THE DASHBOARD

The Dashboard provides "at a glance" summary information on both water use and associated environmental factors. In addition, the user can select another organization to compare data with. The basis of comparison is the most recent month that both companies have entered data for. For example, if the current date is July 15, and a user has entered June's data and wants to compare to a utility that has not entered data since April, the system will display the comparative metrics for April.



Screen shot 20: Dashboard page

The following sections describe the data displayed on the dashboard.

Comparative Metrics – Water Usage

A comparison of the previous month to the same month last year is displayed. Water consumption, broken down into Agricultural Residential and Industrial/Commercial is shown on either a bar graph or a pie chart. The display mode is selectable by a radio button. If the bar chart is chosen, in dotted lines, the numbers for the chosen comparative utility are shown.

The data for the most recent month entered is shown. In the event that either the user or the comparative utility are not up to date in their data entry, the data for the most recent month that they have both filed data for is shown.

A comparison of the year to date for this year versus year to date for this date last year is displayed. Water consumption, broken down into Agricultural Residential and Industrial/Commercial is shown on either a bar graph or a pie chart. If the bar chart is chosen, in dotted lines, the numbers for the chosen comparative utility are shown.

The data source for the display is the information that the user and other users entered into the BC WATER USE REPORTING CENTRE database.

Comparative Metrics – Consumption

The water consumption data is displayed for the user's own utility versus the chosen comparison utility both "As at May xx" and "Year to Date".

Consumption data is from the CENTRE database and is determined by dividing the water usage recorded by the population served.

Comparative Metrics – Water Storage

The water storage is displayed for any two selected reservoirs. The dropdown for the graphic on the left provides all of the user's reservoirs, while the one on the right displays all of the reservoirs for the comparative utility.

The percentage is calculated from the data in the CENTRE database. It is:

- (Current Usable Volume/Maximum Useable Storage) x 100

Non-Comparative Metrics – Precipitation and Temperature

The following temperature data is displayed:

- Maximum temperature ever recorded for this day
- Minimum temperature ever recorded for this day
- The average temperature for this day
- Yesterday's maximum temperature

- Yesterday's minimum temperature

The following precipitation data is displayed:

- Previous month for this year
- Previous month for the previous year
- The monthly maximum, minimum and average for the previous month
- Year-to-date precipitation to the previous day for the current year
- Year-to-date precipitation to the previous day for the previous year
- The year-to-date maximum, minimum and average for the previous month

The data that is displayed will be for the weather station specified on the General Profile page.

Non-Comparative – Evapotranspiration

This information is obtained from Farmwest and stored in the same manner as precipitation and temperature. The year-to-date values are displayed, compared with the long-term average.

Non-Comparative – Snowpack

Snowpack information is obtained from Snowpillow/Snowpack information in GeoBC.

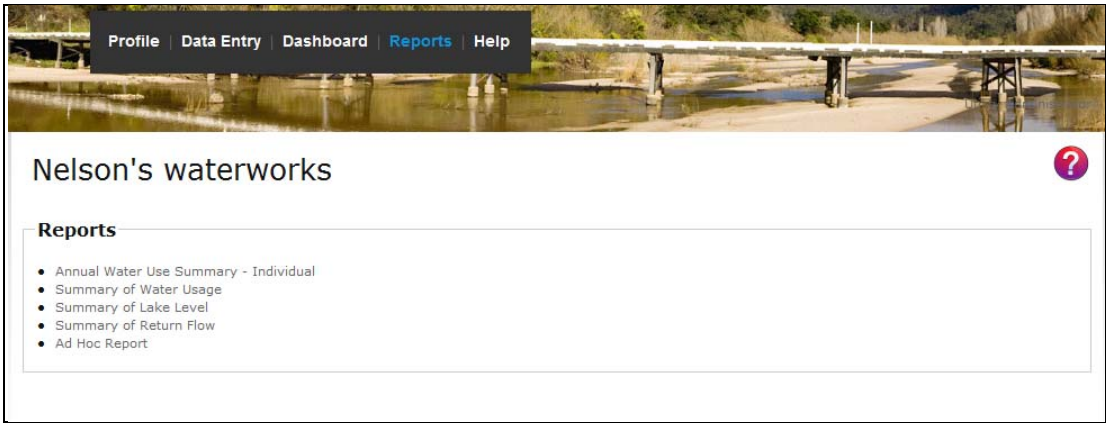
The user may select a Snow Pillow or Snowpack station. The system will remember their choice. The choice is organization-wide, not just for the individual user.

Non-Comparative – Drought Level

The drought level is set by Ministry of Environment staff, usually between the months of June through September. The index is set on a watershed, or basin, basis.

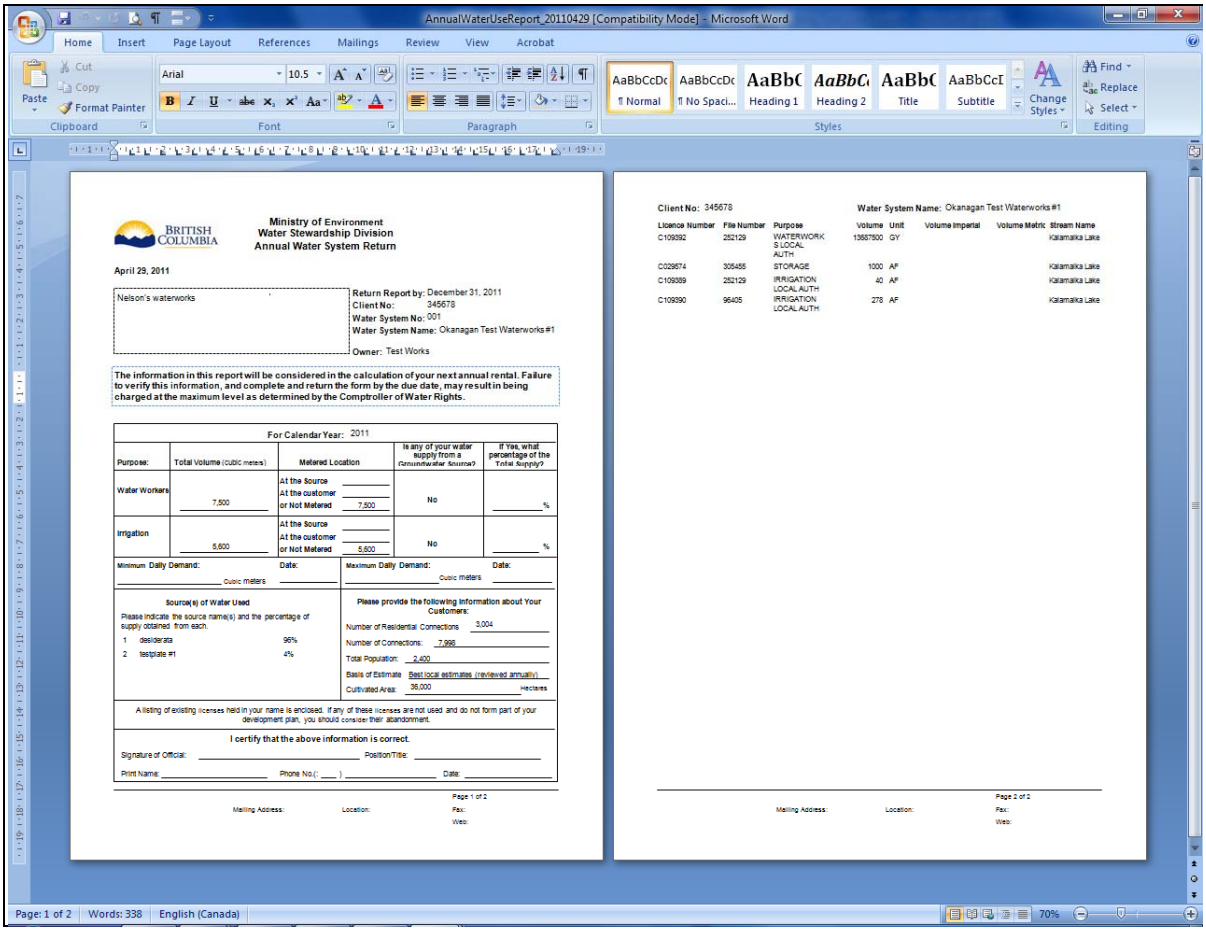
GENERATING REPORTS

Several reporting options are available to users. The user may select the format of the report from either of Excel, PDF or Word. The Excel format is as produced by Crystal reports.



Screen shot 21: Reports page

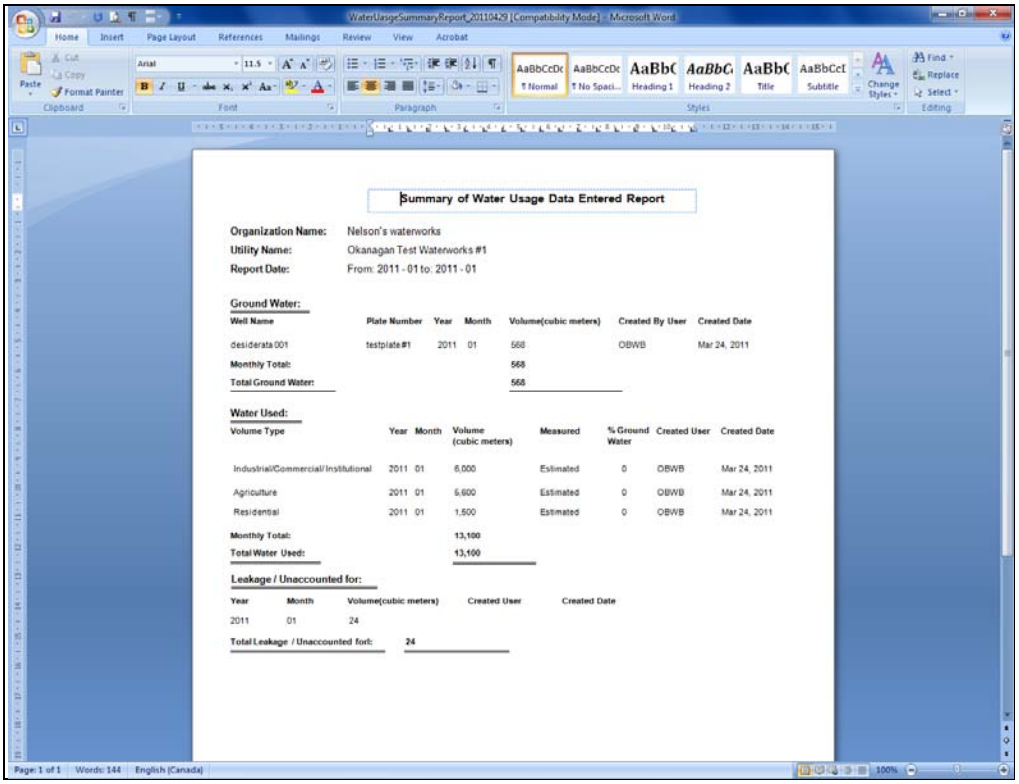
Annual Water Use Summary – Individual



Screen shot 22: Annual Water Use report – Individual

The annual water use survey has historically been filled out on paper by all water licence holders and faxed or mailed to the Ministry of Environment. The CENTRE form must be printed and signed by the Utility Administrator and submitted to the MoE by mail or fax as before.

Other Summary Reports



Summary of Water Usage Data Entered Report

Organization Name: Nelson's waterworks
Utility Name: Okanagan Test Waterworks #1
Report Date: From: 2011 - 01 to: 2011 - 01

Ground Water:

Well Name	Plate Number	Year	Month	Volume(cubic meters)	Created By User	Created Date
desiderata 001	testplate#1	2011	01	568	OBWB	Mar 24, 2011
Monthly Total:				568		
Total Ground Water:				568		

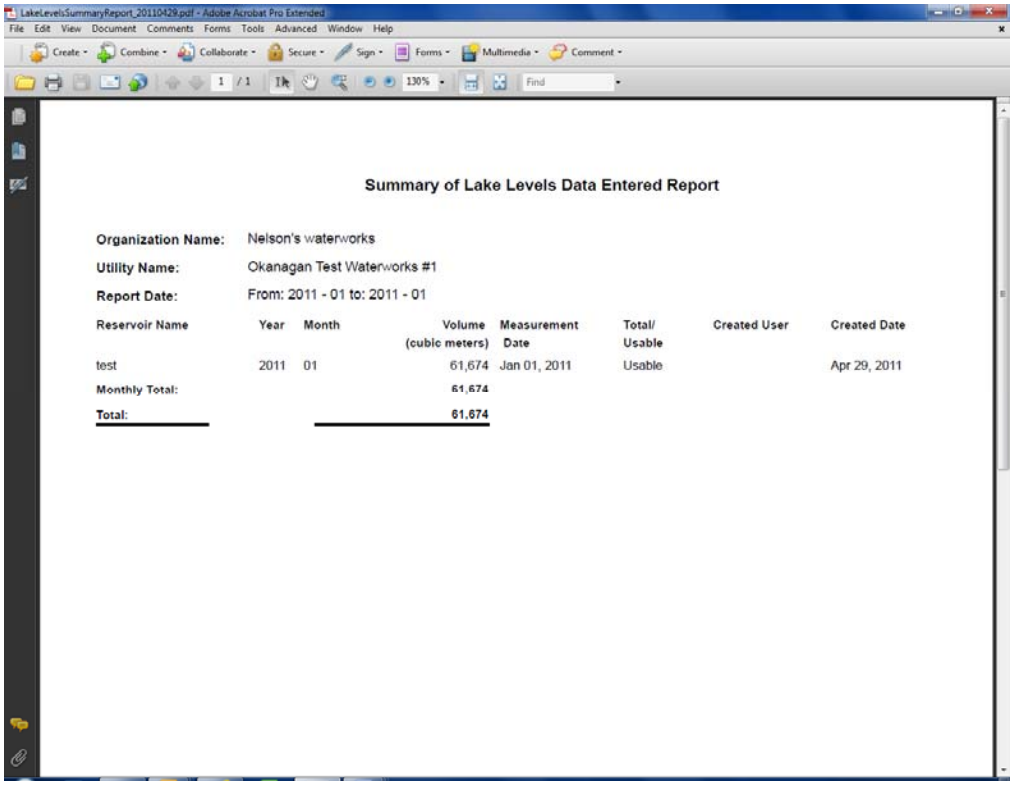
Water Used:

Volume Type	Year	Month	Volume (cubic meters)	Measured	% Ground Water	Created User	Created Date
Industrial/Commercial/Institutional	2011	01	6,000	Estimated	0	OBWB	Mar 24, 2011
Agriculture	2011	01	5,600	Estimated	0	OBWB	Mar 24, 2011
Residential	2011	01	1,500	Estimated	0	OBWB	Mar 24, 2011
Monthly Total:			13,100				
Total Water Used:			13,100				

Leakage / Unaccounted for:

Year	Month	Volume(cubic meters)	Created User	Created Date
2011	01	24		
Total Leakage / Unaccounted for:		24		

Screen shot 24: Summary of Water Usage report in Microsoft Word format

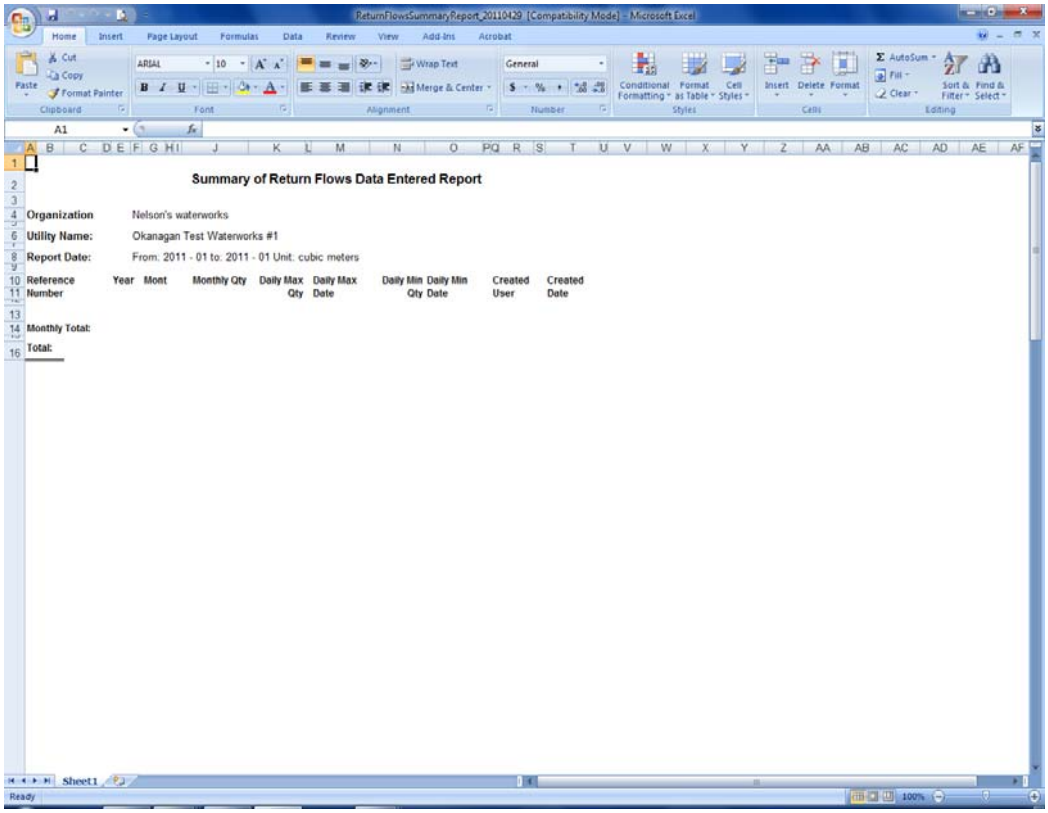


Summary of Lake Levels Data Entered Report

Organization Name: Nelson's waterworks
Utility Name: Okanagan Test Waterworks #1
Report Date: From: 2011 - 01 to: 2011 - 01

Reservoir Name	Year	Month	Volume (cubic meters)	Measurement Date	Total/ Usable	Created User	Created Date
test	2011	01	61,674	Jan 01, 2011	Usable		Apr 29, 2011
Monthly Total:			61,674				
Total:			61,674				

Screen shot 25: Summary of Lake Levels Report in PDF format



Summary of Return Flows Data Entered Report

Organization: Nelson's waterworks
Utility Name: Okanagan Test Waterworks #1
Report Date: From: 2011 - 01 to: 2011 - 01 Unit: cubic meters

Reference Number	Year	Mont	Monthly Qty	Daily Max Qty	Daily Max Date	Daily Min Qty	Daily Min Date	Created User	Created Date
Monthly Total:									
Total:									

Screen shot 26: Summary of Return Flows report in Excel format

Ad Hoc Report

Ad hoc reports can be created upon request. Please contact Nelson Jatel at the OBWB (250-469-6295).

GETTING HELP

BC WATER USE REPORTING CENTRE includes help function text that can be accessed from any page by clicking the question mark in the upper right hand corner of the screen.

Please contact **Nelson Jatel** at the Okanagan Basin Water board if you have any questions regarding THE BC WATER USE REPORTING CENTRE.

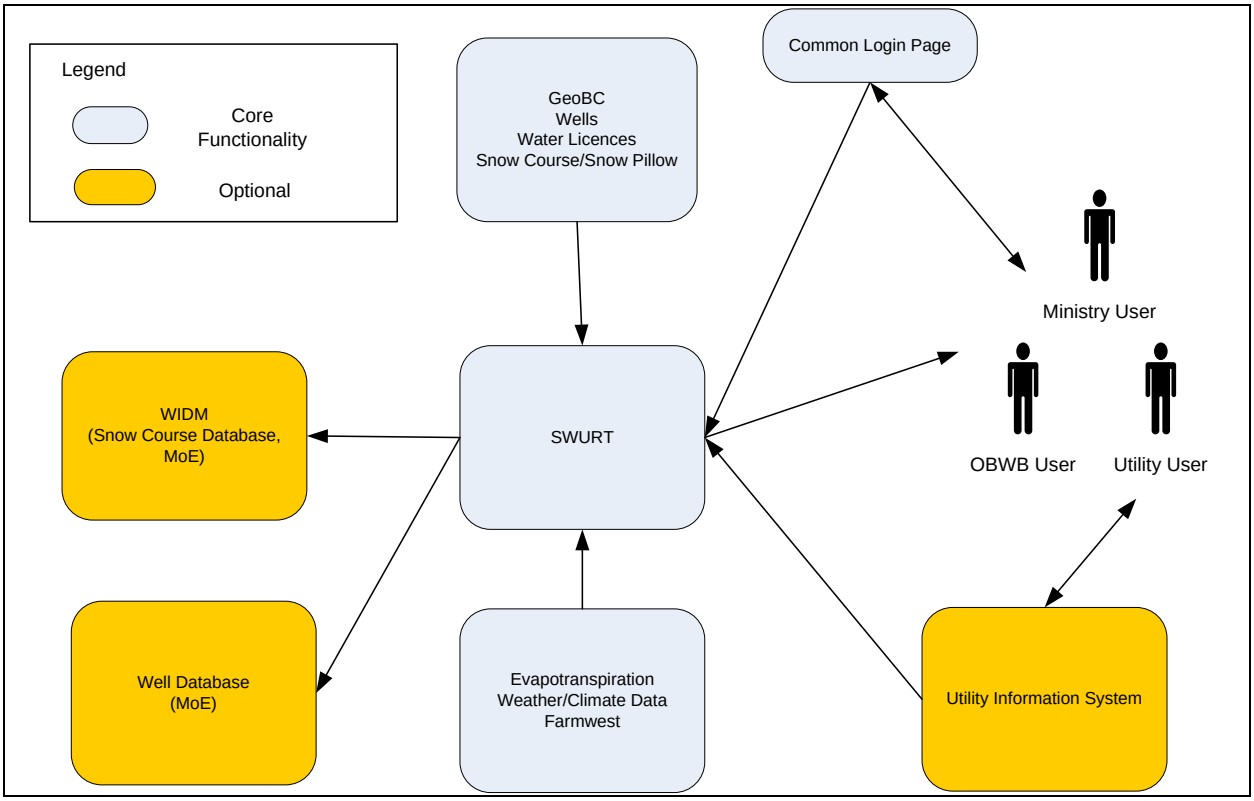
Nelson Jatel
Water Stewardship Director
Okanagan Basin Water Board
Phone: (250) 469-6295
Email: nelson.jatel@obwb.ca
Web: www.obwb.ca

PROVIDING FEEDBACK

Your feedback is very important to making THE BC WATER USE REPORTING CENTRE an effective and accurate tool. If you find any issues with the software in general or with the licence or well data entered for your organization, please note those issues on the User Issues & Feedback Form included in Appendix D. The User Issues and Feedback Form may also be downloaded from www.obwb.ca/bcwaterusereporting/.

When you are ready to submit the form, remove it from your User's Guide and fax it to 250-762-7011, Attention: Nelson Jatel, or email it to nelson.jatel@obwb.ca. The CENTRE team will address your issues promptly.

Appendix A. Context diagram



Appendix B. Other water management resources

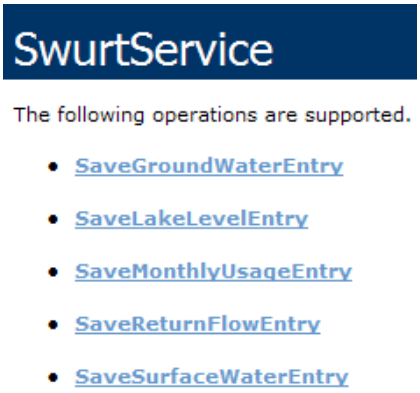
Okanagan Supply & Demand Study	http://www.obwb.ca/wsd/
Okanagan Basin Water Resource Information Database	http://www.obwb.ca/obwrid/
Irrigation Calculators	http://www.irrigationbc.com/
North Okanagan Resource/Habitat Atlas	http://www.shim.bc.ca/atlases/nord/index.cfm
Okanagan Nation Alliance Land Use Tool	http://voicesontheland.org/

Appendix C. Instructions for uploading SCADA data

Creating the XML File

To create the XML file for upload to the web service use the following steps:

1) Go to the Web service is http://www.bcwaterusereporting.ca/Services/SwurtService.asmx



2) Click on the Service you wish to test.
3) Go to the SOAP1.2 section.
4) Copy the XML template.
5) Paste the text into an XML editor.
6) Fill in the desired values e.g.
   <Username>string</Username> *would have the login name with required privileges*
   <Username>jack</Username>
7) Click on save file to save the file at a desired location.

XML Template Values & Tags

The information mentioned below are parts of the templates to explain what sort of data may appear within the tags within the templates and what section is used for data entry of one record.

General Tags

```
<tCredential>
  <Username>string</Username>
  <Password>string</Password>
</tCredential>
```

The login and Password required to login to the BC WATER USE REPORTING CENTRE application. Users should have the appropriate data entry privileges or higher.

```
<tUtility>
```

```
    <UtilityName>string</UtilityName>
    <Year>int</Year>
    <Month>int</Month>
   </tUtility>
```

The **Utility name** should be registered with the mentioned login name.
The **year** is a 4 digit integer e.g. 2011
The **month** is a 2 digit integer e.g. 01

SaveGroundWaterEntry

```
    <typeGroundWaterDataEntry>
     <WellName>string</WellName>
     <Volume>decimal</Volume>
    </typeGroundWaterDataEntry>
```

The Complete set of tags represent the data entry for a particular well. With **Well name** being the name of the well and not the plate number. The **Volume** should be entered in the Units which have been selected in the profile of the Utility.

SaveLakeLevelEntry

```
    <typeLakeLevelDataEntry>
     <ReservoirName>string</ReservoirName>
     <Volume>decimal</Volume>
     <MeasurementDate>dateTime</MeasurementDate>
     <IsUsable>boolean</IsUsable>
    </typeLakeLevelDataEntry>
```

The **Reservoir Name** will have been specified in the profile-> Reservoir/Lake Level section. The **MeasurementDate** will be entered in the format YYYY-MM-DD e.g. 2011-02-25. The **IsUsable** is a Boolean type with will be either “true” or “false”.

SaveMonthlyUsageEntry

```
<typeMonthlyUsageDataEntry>
      <VolumeType>string</VolumeType>
      <Volume>decimal</Volume>
      <PercentageGroundWater>decimal</PercentageGroundWater>
      <DailyDemandDate>dateTime</DailyDemandDate>
      <IsMeasured>boolean</IsMeasured>
      <MeasurementType>string</MeasurementType>
     </typeMonthlyUsageDataEntry>
```

The **VolumeType** values can range from

1) Industrial/Commercial/ Institutional
2) Agriculture

3) Residential
4) Daily Demand Max
5) Daily Demand Min

The **IsMeasured** is Boolean with True= measured & False= Estimated

The **MeasurementType** values range from

1) At Source
2) At Customer
3) Estimated

For **VolumeTypes** 1-3 you donot need to enter the **DailyDemandDate** and **IsMeasured** tags. For **VolumeTypes** 4 & 5 you donot need to enter the **PercentageGroundWater** and **MeasurementType** tags.

SaveReturnFlowEntry

```
<List_tReturnFlowDataEntry>
 <typeReturnFlowDataEntry>
  <ReferenceNumber>string</ReferenceNumber>
  <MonthlyQty>decimal</MonthlyQty>
  <DailyMaxQty>decimal</DailyMaxQty>
  <DailyMaxDate>dateTime</DailyMaxDate>
  <DailyMinQty>decimal</DailyMinQty>
  <DailyMinDate>dateTime</DailyMinDate>
 </typeReturnFlowDataEntry>
```

The **ReferenceNumber** will have been specified in the profile-> Return Flows

SaveSurfaceWaterEntry

```
<typeSurfaceWaterDataEntry>
    <WaterSystemName>string</WaterSystemName>
    <Volume>decimal</Volume>
 </typeSurfaceWaterDataEntry>
```

The **WaterSystemName** will have been specified in the profile-> General-> Water Systems

Appendix D. User Issues and Feedback Reporting Form

Please record any issues with the software or your licence and well data in the form below and submit it by fax or email to Nelson Jatel at 250-762-7011 or nelson.jatel@obwb.ca. Please include a brief sentence outlining the issue (e.g., water licence location incorrect) and then a more in depth description in the second column (water licence should be located at latitude: XXXX and longitude XXXX).

STATEMENT OF ISSUE/ FEEDBACK	DESCRIPTION

For information contact:

Nelson R. Jatel, Water Stewardship Director
Phone: (250) 469-6295
e-mail: nelson.jatel@obwb.ca
web: www.obwb.ca