

Industrial User Survey SOP

City of Spokane, Riverside Park Water Reclamation Facility
4401 N. Aubrey L. White Parkway
Spokane, WA 99205

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Overview

The purpose of this SOP is to provide guidance on how to perform the Industrial User (IU) Survey to satisfy requirements of the NPDES permit regulations passed down from the Department of Ecology and to prevent negative impacts to infrastructure and the environment. Even though this SOP provides the simplest path to accomplishing this task, there are other ways to accomplish it, which will be mentioned in this SOP.

Background

To comply with the EPA's guidelines, the Washington State Department of Ecology requires Publicly Owned Treatment Works (POTW) to conduct an IU Survey every 5 years to assist pretreatment programs. The IU Survey is a list of the businesses in the Spokane jurisdictional area that have a potential to discharge wastewater that is not domestic equivalent. The Riverside Park Water Reclamation Facility (RPWRF) is a POTW operated by the City of Spokane. Therefore, to comply with Ecology's guidelines, the RPWRF pretreatment team must perform an IU Survey. Every IU in the City of Spokane must be surveyed every 5 years and within 5 years of being established. The City of Spokane has more than 1,000 businesses that have a potential to discharge nondomestic wastewater. To effectively manage the IU Survey with one member of the pretreatment team, the IU Survey is divided up so that 20% of the IU Survey can be performed each year.

Scope/Application

The IU Survey is utilized to comply with Ecology guidelines and find potential Significant Industrial Users (SIUs). Additionally, the IU Survey is utilized to find potential users that are unaware of Best Management Practices (BMPs) to help educate and, if needed, enforce on violating users to prevent illegal discharges and a negative impact to city sewer infrastructure, RPWRF, the environment, and/or aquatic life.

Required Software

- ArcGIS with the Business License and the Spokane City Boundary layers selected (this might require a download to select the correct library)
- Enquesta
- Excel
- Access to W:/PRETREAT

Procedure

Classifying an IU

When conducting the IU Survey, businesses need to be classified under three categories:


- Category A is a designation for Significant IUs (SIUs), which are the IUs with the highest priority. An IU is considered an SIU if they meet one or more of the following criteria:
 - The user is subject to categorical pretreatment standards (Refer to Appendix A for a snapshot of those standards).
 - The user discharges an average of 25,000 gallons per day (GPD) or more of process wastewater to the POTW.
 - The user contributes a process waste stream which makes up five percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant.
 - The user is designated as such by the Plant Manager on the basis that it has a reasonable potential to cause an adverse effect on the POTW's operation, adverse impact on the City's ability to comply with its NPDES permit, cause the POTW to violate any pretreatment standard or requirement or because of other regulatory control needs.
- Category B is a designation for Minor IUs (MIUs), which are users that have the potential to adversely affect the POTW or city infrastructure but do not meet the category A requirements nor category C requirements. MIUs could be users that keep chemicals in drums, generate dangerous waste, are known violators, need to be kept track of, and/or meet other specifications that could affect the POTW.
- Category C is a designation for any users that are either closed or are domestic equivalent. Domestic equivalent users include retail businesses, office buildings that do not have any process water, establishments that do not have a connection to the sewer, or any other user that only use water for domestic purposes. Domestic equivalent users only use water for "Domestic Uses" and "Boilers, cooling or other unpolluted waste waters" as denoted on the IU survey. Category C users can be removed from future surveys and while an attempt to collect an initial survey is recommended, it is not a requirement to obtain a survey from them. To remove a category C user from the IU survey, their designation as category C must be accompanied by an explanation.

Obtaining the IU Survey list with ArcGIS

To conduct the IU Survey, the technician or analyst performing it must collect the business names and addresses of the users to be surveyed. While there are many ways to find users in the City of Spokane, the most comprehensive and easiest way to collect a list of businesses is through a download from ArcGIS.

Before downloading the list of businesses for the year, the technician or analyst performing the IU survey must determine the parameters that they will use for that year. It is important to keep this consistent throughout the 5-year period to ensure surveys do not go overdue. Currently, the yearly list is downloaded based on zip codes. Refer to Appendix B to view the table that details what zip codes to base the survey on each year.

To download the list of surveys, the technician or analyst performing the IU survey should perform the following steps to obtain the needed list:

1. Open ArcGIS and allow the map to populate.
2. Select the "Selection" drop down menu and select "Select by Attributes."
3. Under the "Layer" drop down menu select "Business License."
4. To select the users based on zip code, select the following in order:
 - a. Double click "Phys_Zip" under the "OBJECTID" scroll down menu (only double click on "Phys_Zip", do not double click on "OBJECTID").
 - b. Select "Get Unique Values".
 - c. Select the "In" icon.
 - d. Select the "()" symbol.
 - e. And then double click the desired zip code(s) from the menu that populated after the selection of unique values. If selecting more than one zip code, add a comma in between each zip code and ensure all zip codes are enclosed in the parentheses. Once the zip codes are selected, the dialogue box should look like "Phys_Zip IN ('99212', '99217', '99218', '99223') for the zip codes for 2024. The apostrophe on each side of the zip code is automatically included with the selections.
5. To populate the attributes, select OK.
6. To open the attribute table, right click on "Business License" under the Table of Contents and select "Open Attribute Table".
7. To download an Excel file from the attributes table, follow the next steps in order (ensure the attributes table is open):
 - a. Open the drop-down menu from the  icon and select "Export...".
 - b. Select the folder icon under Output table.
 - c. Under "Look in" ensure the desired destination folder is selected.
 - d. Under the "Save as type" drop down menu select "Text File".
 - e. Under "Name" rename the file but ensure the ".txt" is at the end.
 - f. Select "Save".
 - g. Select "OK".
 - h. When the message "Do you want to add the new table to the current map?" pops up, select "No". If you select "Yes", it is not a big deal.
 - i. Open a blank Excel workbook, select "Data", and select from "Text/CSV".
 - j. Find the text file that was saved under the name from step e in this list and select that file.
 - k. Select "Import".
 - l. From the new menu, select "Based on entire dataset" under the "Data Type Detection" drop down menu.
 - m. Select "Load".
 - n. Close the "Queries & Connections" window.
8. Once the previous steps are followed, the excel file will be populated with the information from the attributes table.
9. The next step is to eliminate businesses that do not need to be surveyed. Home Operated businesses do not need to be surveyed. In Excel, select the drop-down menu next to

“Home_Operated_Business” and sort from A to Z. Deleted the rows that have a “Y” under the “Home_Operated_Business” column. Additionally, you can delete businesses that qualify as a Category C, business. Finally, the users that can be deleted are SIUs, Waste Haulers, IDAs, or any user that is permitted.

10. Step 10 details a simple way to perform this task, but another way would be to exclude users that meet a certain criterion when populating the Attributes Table. Under step 4, the list could be continued as the following to exclude users from the Attributes Table:
 - a. After number 4, step e, continue the Attributes by Selecting “Not” to exclude values with certain attributes, select “Or” if you want to include more values than the first attributes, or select “And” for values that need to include more than one attribute. For this example, we will exclude home operated businesses from the selection.
 - b. After selecting “Not”, select “Home_Operated_Business” from the “OBJECTID” menu.
 - c. Select “Get Unique Values”.
 - d. Select “In” and the “()” symbol.
 - e. Select “Y” since we want to exclude home operated businesses.
 - f. Follow steps 5 through 8 to populate the excel file.
11. The final step would be to compare the users from the previously eliminated database. This database should be updated each year with users that are not obviously a category C user but can be classified as such once their survey is filed. There is no current way to compare the lists easily other than by hand. Ensuring that the database of eliminated businesses is ordered by zip codes will ensure that these users are easy to identify on the IU survey. Include the year in which the business was deleted along with the reason.

Mailing the IU Surveys

Once the list of surveys is populated, corresponding 5-year review surveys need to be printed on plain paper for each user. The surveys can be found on the Pretreatment website. Each user will have a survey. The users that do not fall under the specialized criteria will be sent a review for non-residential establishments. If in doubt of which survey to send, always send the survey for non-residential establishments to gain more understanding of the business.

BMPs also need to be printed on plain paper for each user. However, while some users might not get a BMP, others might get multiples. BMPs are selected first on type of business and then on what the technician or analyst performing the IU survey thinks applies to the user. BMPs are also found in the Pretreatment website.

Cover letters are printed on Letterhead. The cover letters can be found in W:\AWTP\PRETREAT\Industrial User Survey\IUS_Forms & cover letters\Current\Cover letters. However, how cover letters are formatted is up to the technician or analyst performing the survey. If the cover letter is changed, it needs to be approved by the Pretreatment Supervisor. If the current cover letter is used, ensure that the dates are updated; the due date should be about 2 weeks from the mailing date. The current cover letter was designed to be broad to ensure an easier process when sending mailing to the mail center for folding. For the current cover letters, there is a cover letter specialized for Dental Practices who might also need to submit a One-Time Compliance Form.

Return Envelopes are included in each mailing and need to have postage on them. To add postage, stamps can be acquired by Richard Czernik who gets them from the Post Office, or the envelopes can be

sent to the IT Mail Center at City Hall for Postage. Ensure to let the Mail Center know that the envelopes will be returned with about 2 documents.

#10 envelopes also need to be addressed with the mailing addresses of each business. To address the envelopes, the envelopes can either be addressed by printing labels (look up a video on YouTube for how to do this properly) or by sending an excel file and the envelopes to the IT Mail Center that is in City Hall. These envelopes can be addressed at the same time as the Mail Center is inserting the documents. So, if not stuffing by hand, wait to send these envelopes until the next step. Reach out to this department before dropping anything off.

Once the 5-year review surveys, BMPs, cover letters and One-Time Compliance forms (only for Dental Offices) are printed, all of the documents can be inserted into an addressed #10 envelope. The technician or analyst performing the IU survey can either fold and insert the documents by hand or can deliver them to the IT Mail Center to do this with the machines. There are a few criteria for the IT Mail center to stuff envelopes:

1. All documents to be inserted must be printed and collated. Collating the envelopes can be easily done by hand since the documents are not all printed by hand.
2. Each envelope in a group must get the same number of documents so ensure that each envelope has the same number of documents or provide them with groups of mailings where each group has its own list of addresses. The Mail Center needs to know how many documents to add into each envelope.
3. The IT Mail Center will need a list of all the addresses. Currently, the list of addresses sent includes the LE name (designated by the download IUs list), the Firm Name, and the Mailing Address for each user.
4. The IT Mail Center cannot fold a document without stuffing it into the envelope, but all the other processes can be done separately. The IT Mail Center can also seal and add postage to each envelope.
5. The It Mail Center can add the return envelopes into the #10 envelopes without needing to collate them with the other documents.
6. If the cover letters are designated for specific users, then the #10 envelopes must be switched with window envelopes to ensure the address is viewed from the cover letter.

If the technician or analyst performing the IU survey will be utilizing the IT Mail Center to stuff envelopes, send everything at once to have them postage, stuff, label, and any other task that they could do. Currently, the survey is sent out in two batches where one is for the Dental Practices and the other is for the rest of the users being surveyed.

- For the Dental Practices, all the documents (cover letter, one-time compliance forms for all dental practices, 5-year review survey, and BMPs) get printed and collated and the collated documents, return envelopes, and #10 envelopes are delivered so that the IT Mail Center can add postage to the return envelopes, trifold the documents, stuff and label the #10 envelopes, seal the #10 envelopes, add postage to the stuffed envelopes, and mail the surveys. In an email, send the addresses to the Mail Center with instructions.
- For the rest of the users, the current procedure is to send cover letters, return envelopes, and #10 envelopes to the IT Mail Center. The 5-year review surveys and BMPs do not get included

because they are specific to the type of business. The Mail Center is then asked to fold the letters and add one page to each #10 envelope and a return envelope with postage. The Mail Center is also asked to address and postage each #10 envelope but is asked to not seal the envelopes. The Mail Center is then asked to send these envelopes back to RPWRF or to notify the technician or analyst performing the IU survey when they are ready for pickup. In an email, send the addresses to the Mail Center with instructions.

Once the surveys are mailed, ensure to record the date that they were sent out in the IU Survey database for the year.

Reviewing and filing the IU Survey

Once the IU surveys are returned, the next step is to review the surveys. One requirement for all the surveys is for them to have a wet signature. Therefore, an original document is needed, and the surveys can only be received via mail or in person.

Ensure that the date of receipt for a survey is recorded in the IU Survey database for the year.

If the technician or analyst performing the IU survey needs to make notes on a survey, they may do so, but only with a red pen.

A few instances may require further investigation from the technician or analyst performing the survey. Although the technician or analyst performing the IU survey cannot provide recommendations or let the user know that they are doing something wrong (that is the Chemists' job), they can reach out to the user for further clarification and to ensure that the user was not confused when filling the survey out. By making the phone call, the technician or analyst performing the IU survey ensures that they reduce the workload on the Chemists. To reach out, the technician or analyst performing the IU survey can call the user and ask for clarification. The instances that may require more information are the following:

- If a survey did not reach a user and the mail was returned, double check the address and send again. If the address was correct, try reaching out to the user through the phone number provided from the business license list from ArcGIS.
- Users are not allowed to dispose of wastewater to the storm sewer, ground, or open waters. Therefore, the technician or analyst performing the IU survey may ask the user what they meant when they selected either of those options on the IU survey.
- Important sections might have been left out so the technician or analyst performing the IU survey can call to ask for an answer to the section(s) missed.
- If a signature is not acquired, the technician or analyst performing the IU survey would reach out to the user to ask that they sign the survey. Work with the user to figure out how to do that. A survey is not completed until the form is signed.
- The technician or analyst performing the IU survey can call the user for any clarification that they might need.

If surveys need further review, then provide a copy of those surveys to the Pretreatment Supervisor so that they can distribute the surveys to the Chemists. Further review is needed under the following circumstances, but the list may be more extensive:

- The user selected and meant to select that they dispose of wastewater or wash water (from washing vehicles”) to the storm sewer, ground, or open waters.
- The user selected that they have drains in the work area but do not have an oil/water separator when one should be installed. Businesses that need oil/water separators include, but are not limited to, vehicle repair shops, autobody shops, dealerships with service centers, gas stations, etc.
- The user could potentially meet requirements to be a category C user.
- The user allows potentially harmful waste to go down the drains.

For the surveys that are compliant, and no further action is required, ensure to record the classification for the user in the IU Survey database for the year and file the survey. All surveys are filed in a 3-ring binder with the title “Industrial User Survey Year” where “Year” stands for the year in which the survey was performed. The surveys should be filed in alphabetical order within the binder. When reviewing the surveys, ensure to check water usage with Enquesta for any industries of concern (instructions for how to check water usage can be found in the next section).

If all surveys were not returned from the first round of mailings, a second round should be sent within 60 days of the due date from the first mailing with a past due notice cover letter. The past due cover notices should be sent via Certified Mail, and have a due date that is about 2 weeks from the mailing date. For the second round of mailings, do not include BMPs or the return envelopes as these are only provided to each user once. The Past Due notices can be found in W:\AWTP\PRETREAT\Industrial User Survey\IUS_Forms & cover letters\Current\Cover letters. The Certified mailings for past due notices should only include a cover letter and the respective survey.

If surveys are not received within a week of the due date from the second round of mailings, then call each user that did not fill out a survey to ensure they fill the surveys out. Assist in what the user might need to complete this task.

Unfortunately, not all users send in an IU Survey. The surveys that were received should be filed and it should be noted on the database when those were received. The Enforcement Response Plan should be consulted for next steps in addressing the noncompliant users.

While the technician or analyst performing the IU survey can have additional files to perform the survey, once the survey is complete, the information needs to be added to a central file. An excel file should be saved for every five years with a tab for each of the five years. To correspond with the zip codes distribution, a new excel file will be started for the years ending in 0 and 5. For example, an excel file can be found for years 2025-2029 and a new one will be started for 2030-2034. These excel files should be saved in the Industrial User Survey folder in the W Drive and archived when a new file is created.

Checking Water Usage with Enquesta

Part of the IU Survey is to check water usage to ensure users are below the average water discharge limit of 25,000 GPD. Water usage is utilized because most sewer lines do not have flow meters to measure water discharge. To check water usage, follow the next steps.

1. Open Enquesta and sign in. The log in username and password are the same as the log in information for your desktop. Appendix C demonstrates a screenshot of the Enquesta homepage.

2. To find a specific user, click on the magnifying glass with a plus sign in the middle icon that is next to the Account # search box (Appendix D demonstrates a screenshot of the icon).
3. Once the icon is selected, the user can be found by business name or address by typing the parameter in the "Search All Data (Name, Address, Account, etc.)" search box.
4. Once the user is found, double click on the user's name.
5. Ensure that "WATER" is selected in the menu under the search box for "Account #" and select "USAGE" (the word "USAGE", not the arrow for the drop-down menu) in the next tab. Appendix E demonstrates a screenshot of the homepage with "WATER" and "USAGE" circled in red to demonstrate where those menus are.
6. Under the "CFs" column in the "Usage Details" results, the water usage can be found for each month in cubic feet (CF), but sometimes the values need to be multiplied by 1,000 to get the actual CF value. However, for the IU Survey, it is important to convert from CF to GPD. One can calculate, but it is also possible to get those values by double clicking on the row of interest. After double clicking on the row of interest, a "Consumption Read Detail" pop-up will populate. Towards the bottom of this pop-up, the CFs are converted to GPD.
7. Many users will have multiple Meters and Registers for the same dates. Some of these meters correspond to irrigation meters or subtraction meters (this happens when the water usage was recorded as one value, but that value was too large). To know what kind of meter the CFs corresponds to, double click on the row of interest and the "Service" line at the top of the "Consumption Read Detail" pop-up will describe what type of meter that line corresponds to. "Normal/Domestic" meters are the usual meters of interest. Irrigation meters are not meters of interest so do not account for the water usage from irrigation meters.

Water usage can also be downloaded by clicking on the Excel or Adobe icons on the "Usage Details" header.

Reporting the IU Survey to Department of Ecology

Once all tasks are completed and no further outreach for the annual survey will be performed, the next step is to prepare the report for the Department of Ecology. The form that is filled out for the IU Survey portion of the report is called Form 5 Industrial User Survey. The City Report Year (where "Year" stands for the year the survey is performed in) folder can be found at W:\AWTP\PRETREAT\Annual Report, City. The following steps need to be taken to complete this form:

- Open and download Form 5 Industrial User Survey excel file. The Form 5 will have three sheets: one labeled "Controlled", a second labeled "Surveyed" (in previous Form 5 files, this was labeled "new"), and a third labeled "eliminated".
- Update the users in the eliminated tab. The users included here will be the ones that were deleted in that year's IU survey. Ensure to look at the master list of deleted businesses to only include the ones deleted for that year.
- The "Surveyed" tab is designated for all the users that were surveyed and sent back a survey.
- The Controlled tab is for all the users that have a permit. This list is updated by the Chemists.
- Once the "eliminated" and "surveyed" tabs are filled out, send an email to the Pretreatment Chemists and the Pretreatment Supervisor so that the Chemists know to fill out the "Controlled" tab of Form 5.

The Form 5 file needs to be updated in the shared drive to ensure everyone can access the information.

Other Resources/Information

While ArcGIS is sufficient to download a list of IUs, other resources can be utilized. The Licensing department sends a list of business licenses every week. The technician or analyst performing the IU survey needs to ask to be included in the mailing list for that. Additionally, the Pretreatment Supervisor will ask the Development Services Center to add the technician or analyst performing the IU survey to the Pre-Development emails. Each year, the pretreatment team will also get a Master Book of Lists from the Journal of Business. Finally, collaborations with other organizations, such as the Department of Health, can be made and public records requests can be done through the state to get updated lists of businesses.

It is also important to note that while the Department of Ecology suggests surveying restaurants and other food establishments, RPWRF does not survey those users because RPWRF treats for FOG and we know what kind of waste to expect from such establishments. The Department of Health performs inspections of these establishments and delivers BMPs to help prevent issues.

Appendix A

Snapshot of Categorical Standards.



City of Spokane Industrial Pretreatment Program

*Helping businesses capture pollutants at the source
to protect people, wastewater infrastructure, and the environment.*

SIGNIFICANT INDUSTRIAL USERS

Must have a wastewater discharge permit

- Subject to Categorical Standards (see below) or
- $\geq 25,000$ gallons per day process wastewater discharged or
- 5% treatment capacity of RPWRF or
- Reasonable potential to cause adverse effect

CATEGORICAL INDUSTRIAL USERS

Must have a wastewater discharge permit where applicable

Aluminum Forming	Ink Formulating	Pesticide Chemicals Manufacturing
Battery Manufacturing	Inorganic Chemical Manufacturing	Petroleum Refining
Carbon Black Manufacturing	Iron & Steel Manufacturing	Pharmaceutical Manufacturing
Centralized Waste Treatment	Leather Tanning	Porcelain Enameling
Coil Coating	Metal Finishing	Pulp, Paper & Paperboard Manufacturing
Conc. Animal Feeding Ops	Metal Molding and Casting	Rubber Manufacturing
Copper Forming	Nonferrous Metals Forming & Metal Powders	Soap & Detergent Manufacturing
Electrical & Electronic Components	Nonferrous Metals Manufacturing	Steam Electric Power Generation
Electroplating	Oil & Gas Extracting	Timber Products
Fertilizer Manufacturing	Organic Chemicals, Plastics, Synthetic Fibers	Transportation Equipment Cleaning
Glass Manufacturing	Paint Formulating	Waste Combustors
Grain Mills	Paving and Roofing Materials	

MINOR INDUSTRIAL USERS

Must follow SMC 13.03A - Best Management Practices also in place for some business types:

- Auto Body Shop
- Auto Dealership
- Auto Repair
- Carpet Cleaning
- Car Wash
- Chemical Storage
- Clinical Facility
- Dentist
- Dry Cleaner
- Fermentation Operation
- Food Service
- Laboratory
- Mobile Wash
- Print Shop

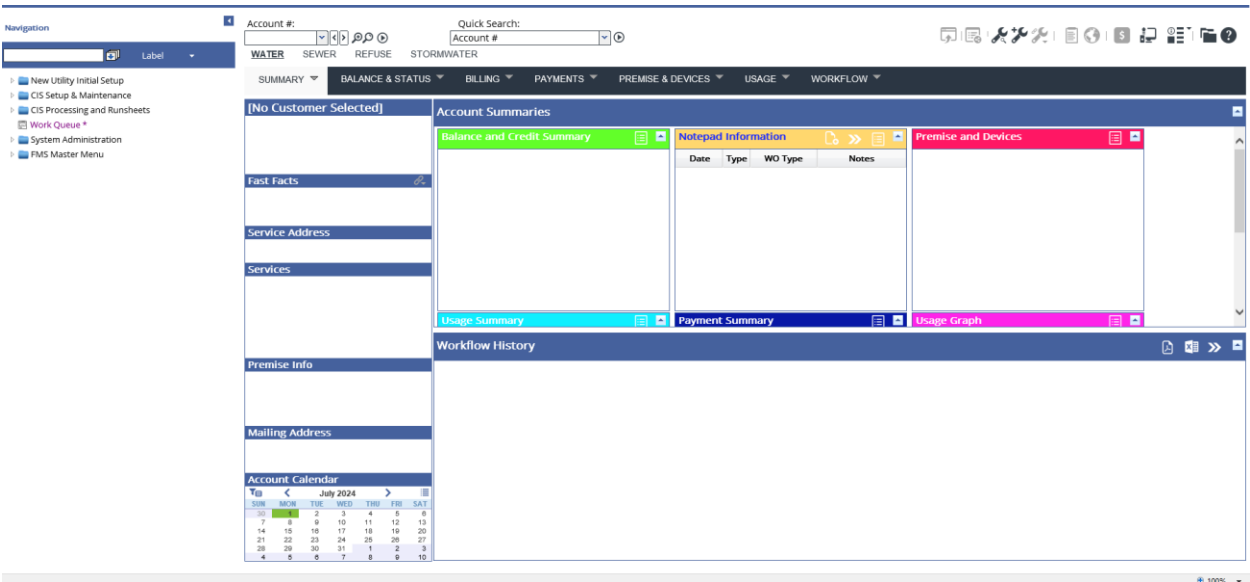
Appendix B

This table details what zip codes to utilize for the yearly download. The column on the left details each year based on what the year ends in and the column on the right details the zip codes to be surveyed for the corresponding year. For example, for a year ending in 4, such as 2024, the zip codes that will be surveyed are 99212, 99217, 99218, and 99223. These same zip codes would be surveyed in 2029 because the survey must be performed every 5 years.

Years (when a year ends in... the zip codes listed will be surveyed)	Zip Codes to be surveyed
0	99201 99224 Airway heights Spokane Valley that is not covered by this list. Any other zip code not listed (0, 99214, 98202, 99220, 99258, 98034, 98058, 99028, 99206, 99209, 99210, 99219, 99260, 99292)
1	99202
2	99203 99204 99205
3	99207 99208
4	99212 99217 99218 99223
5	99201 99224 Airway heights Spokane Valley that is not covered by this list. Any other zip code not listed (0, 99214, 98202, 99220, 99258, 98034, 98058, 99028, 99206, 99209, 99210, 99219, 99260, 99292)
6	99202
7	99203 99204 99205
8	99207 99208
9	99212 99217 99218 99223

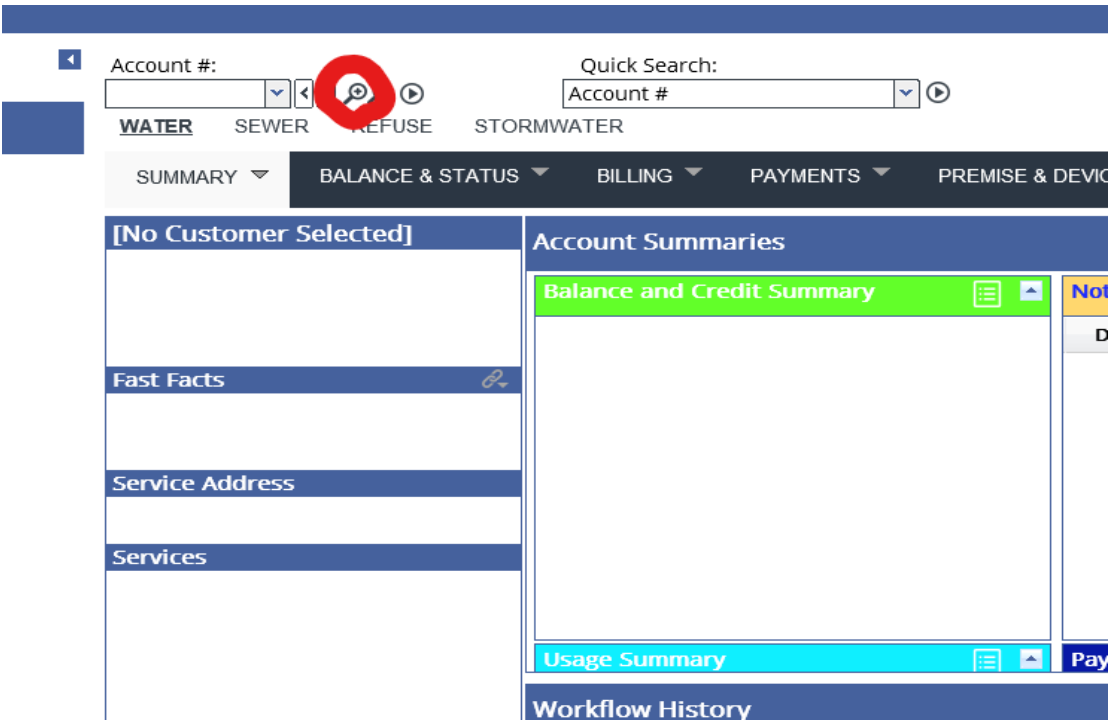
Appendix C

Screenshot of Enquesta homepage. The red circle demonstrates the icon that needs to be selected to check water usage.



Appendix D

Screenshot of closeup for the Enquesta homepage. The red circle marks the magnifying glass icon that needs to be selected to find a user in the system.



Appendix E

Screenshot of Enquesta homepage to demonstrate where the “WATER” and “USAGE” menus are. Circled in red for demonstration.

