Multiple Waterbody Query Detailed Instructions

For discussion & explanatory purposes, the Multiple Waterbodies Query page has been divided into 13 Areas or segments. Image One below shows each Area of the page.

Area 1: Query Help - Help Button

Each query page has a query help button specific to the query on that page. (Note: The button itself is shown beside the red number one in the top right corner of *Image One*. Image Two shows the open help information box for Multiple Waterbodies).

1 query help @ **Multiple Waterbodies Query** The Multiple Waterbodies Query is designed to get themed information for multiple waterbodies. Due to the nature and size of these queries, and the length of time to process them, the results will be emailed to you. Fish Observations V Query: Watershed Code: Waterbody Type: All Waterbody Types V 5 ALBN - Alberni Inlet Watershed Group: Fish Species: All Fish Species V tt Forest District: 7 All Forest Districts From Date: V TRIM Mapsheet: All TRIM Mapsheets V To Date: Order Results By: 11 Email Address: Watershed Code Preview **Email Results**

Image 1: Numbered component areas of the Multiple Waterbodies Query.

Clicking on the Multiple Waterbody Query help button brings up this information box:

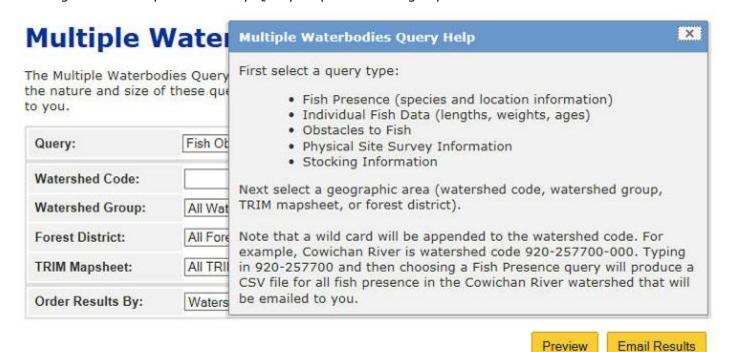


Image 2: Web page Query Help Information.

General Information:

Because of the nature and quantity of information available, the multiple waterbodies query is functionally different from most of the other queries on the FIDQ page. Users first select the type of information they are seeking and next define the parameters of either a watershed (using watershed code), and/or a combination of pick list choices from Watershed Group, Fish Species, Waterbody Type, Trim Mapsheet and by date periods.

Results are then emailed to users due to the size and complexity potential of the queries. Most queries are received within 10 to 30 seconds of submitting the query. If you have not received an email after a minute, check your junk mail box to see if your email filter moved the email to your junk box.

How to search by watershed is described in detail below this section but users must make a selection from Box 2 pick list labelled "Query" in the *Image One* above prior to submitting any query. The default pick list query set to query "fish presence".

General Tip for Pick List Boxes: Pick list selections can be combined to refine your query but, the selected combinations must make sense or the query will run but no results are returned.



This query will run and produce results because the Watershed Group and the Forest District selected are in the same geographical area & many waterbodies meet both selection criteria.

For example, above, selecting ALBN- Alberni Inlet from Watershed Groups (#5) and DSI – South Island Forest District from Forest District (#7) and leaving boxes #4 and #6 at their default values, search for and returns all fish presence records that meet all pick list selections.

If only lakes are wanted then change box #4 in the following image to select "lakes" instead of the default "All Waterbody Types":

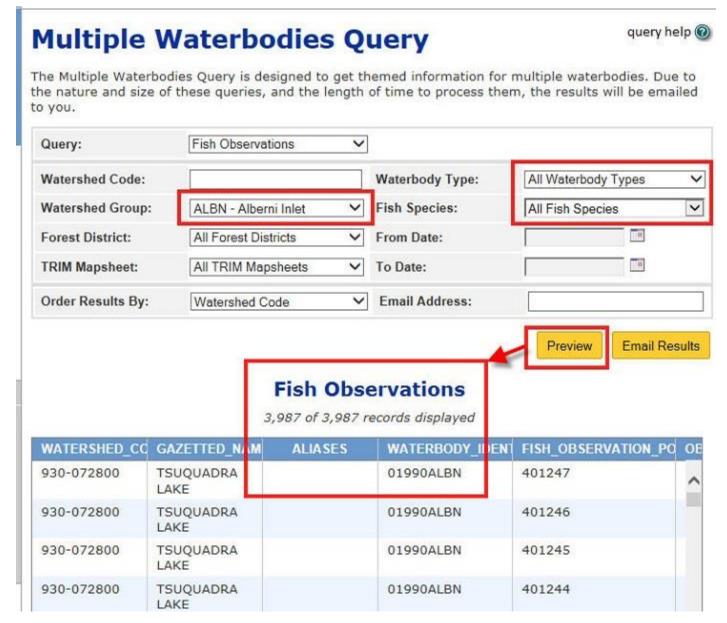


The next image is an example of a combination of selection choices that does not make sense as a query for fish presence for all fish species in "ALBN – Alberni Inlet" Watershed Group and in "DKA – Kamloops Forest District" because they are in completely different parts of the province and do not overlap spatially. Consequently the query still runs but no records are returned. In this case you will receive an email with only the column headers but no records will be present.



Because the selected Watershed Group and Forest District are in different parts of the province, this query will run but no records will be returned because it is physically impossible for any of the records to meet both selection criteria.

Please note that you can now PREVIEW any data requested prior to having it emailed as CSV formatted file which can be manipulated in MS ExCel. You must provide a valid email address if selecting the email choice.



Area 2: "Query" Pick List Box

First select one of the query types (# 2 in the above image). The choices are Fish Presence, Individual Fish Data, Obstacles, Stream Physical Site Survey Information, and Stocking Information. The default value for the query is "Fish Presence" which is the first available choice on the list.

Fish Presence lists: Watershed code, Gazetted Name, Alias names, waterbody identifier, fish observation point id, Observation date, species code, species name, activity code, activity, life stage, agency id, agency name, source, source reference, point type code, UTM zone, UTM Easting and UTM northing.

Example: A very small portion of the records available for all waterbodies in the Cowichan River Watershed:

For *Fish presence records* it is important to note that two types of point types exist, Summary and Observation point types.

Observation point type records are actual observations or captures at the location indicated by the UTM coordinates in each record.

Summary point type records list a single summary record for each species in the waterbody from all surveys. All summary records report their UTM coordinates as being located at the mouth of the stream for rivers and streams. Lake summary records are positioned at outlet of the lake. Lake centres are used in those instances where the has no outlet.

The Individual Fish Data Query returns the following fields of information: Watershed Code, Gazetted Name, Alias Names, waterbody identifier, species name, Start date time, end date time, description, length, weight, maturity code, comments, age and data source for all individual fish measured.

The report is exported and emailed to the user as a .txt (TEXT) file which can be opened and used in a text editor or spreadsheet program such as Notepad or MS Excel.

Note that exact locations for individual fish measurements are not available.

e.g. The Cowichan River watershed (not just the main stem) has several hundred individual fish records. For demonstration purposes, the following image shows a very small percentage of the records available in the file format returned:

```
WATERSHED_CODE, GAZETTED_NAME, ALIASES, WATERBODY_IDENTIFIER, SPECIES_NAME, START_DATE_TIME, END_DATE_TIME, DESCRIPTION, LENGTH, WEIGHT, MATURITY_CODE, SEX_CODE, COMMENTS, AGE, DATA_SOURCE
920-257700, COWICHAN RIVER, "", 00000COWN, Coho Salmon, 13-SEP-12, 14-SEP-12, Seining, 64, ., . . "", FDIS
920-257700, COWICHAN RIVER, "", 00000COWN, Rainbow Trout, 13-SEP-12, 14-SEP-12, Seining, 62, ., . . "", FDIS
920-257700, COWICHAN RIVER, "", 00000COWN, Coho Salmon, 13-SEP-12, 14-SEP-12, Seining, 62, ., . . ", FDIS
920-257700, COWICHAN RIVER, "", 00000COWN, Coho Salmon, 13-SEP-12, 14-SEP-12, Seining, 65, ., . ", FDIS
920-257700, COWICHAN RIVER, "", 00000COWN, Coho Salmon, 13-SEP-12, 14-SEP-12, Seining, 65, ., . ", FDIS
920-257700, COWICHAN RIVER, "", 00000COWN, Coho Salmon, 13-SEP-12, 14-SEP-12, Seining, 65, ., . ", FDIS
920-257700, COWICHAN RIVER, "", 00000COWN, Coho Salmon, 13-SEP-12, 14-SEP-12, Seining, 60, ., . ", FDIS
920-257700, COWICHAN RIVER, "", 00000COWN, Coho Salmon, 13-SEP-12, 14-SEP-12, Seining, 58, ., "", FDIS
920-257700, COWICHAN RIVER, "", 00000COWN, Coho Salmon, 13-SEP-12, 14-SEP-12, Seining, 58, ., "", FDIS
920-257700, COWICHAN RIVER, "", 00000COWN, Coho Salmon, 13-SEP-12, 14-SEP-12, Seining, 58, ., "", FDIS
920-257700, COWICHAN RIVER, "", 00000COWN, Coho Salmon, 13-SEP-12, 14-SEP-12, Seining, 58, ., "", FDIS
```

Obstacles are defined as obstacles to fish. The Obstacles query returns the following fields of information: Watershed code, gazetted name, alias names, waterbody identifier, waterbody type, waterbody id, obstacle code, obstacle name, height, source, source reference, UTM coordinates and length of obstacle.

```
WATERSHED_CODE, GAZETTED_NAME, ALIASES, WATERBODY_IDENTIFIER, WATERBODY_TYPE, WBODY_ID, OBSTACLE_CODE, OBSTACLE_NAME, HEIGHT SOURCE, SOURCE_REF, UTM_ZODE, UTM_EASTING, UTM_NORTHING, LENGTH 920-257700, COWICHAN RIVER, "", 00000COWN, Stream, 306332, F, Falls, 20, FISS Database: survey_id 15253, "01-JAN-95 SISS map information (source not indicated)", 10, 432334, 5403104, 0 920-257700, COWICHAN RIVER, "", 00000COWN, stream, 306332, CV, Culvert, 0, FISS Database: survey_id 13265, "01-JAN-95 SISS map information (source not indicated)", 10, 429739, 5403662, 0 1920-257700, COWICHAN RIVER, "", 00000COWN, Stream, 306332, F, Falls, 0, FISS Database: survey_id 21733, "01-MAR-85 STEELHEAD TROUT - DISTRIBUTION AND POTENTIAL DISTRIBUTION MAP OF THE COWICHAN WATERSHED", 10, 429806, 5403766, 0
```

The Stream Physical Site Survey Information Query returns the following fields of information: Watershed code, gazetted name, alias names, waterbody identifier, waterbody type, reach survey id, survey date, stream order, project id, project name, reach number, site number, agency name, site length, Environmental Monitoring Station number, no visible channel indicator, confinement code, maximum channel width, minimum channel width, average channel width, maximum wetted width, minimum wetted width, average wetted width, maximum gradient, minimum gradient, average gradient, maximum pool depth, minimum pool depth, average pool depth, maximum depth, minimum depth, average depth, point id, map sheet number, UTM method code, UTM coordinates.

*Important note: Stream Physical Site Survey Information is for stream information only. Ensure that the

Waterbody Type pick list is set to either the default "All Waterbodies" or "Streams". If set to "Lakes" or "Wetlands" no results will be returned.

```
WATERSHED_CODE, GAZETTED_NAME, ALIASES, WATERBODY_IDENTIFIER, WATERBODY_TYPE, REACH_SURVEY_ID, SURVEY_DATE, STREAM_ORDER, PROJECT_ID, PROJECT_NAME, REACH_NUMBER, SITE_NUMBER, AGENCY_NAME, SITE_LENGTH, HYDROLOGY_PH, EMS_NUMBER, NO_VISIBLE_CHANNEL_IND, CONFINEMENT_CODE, MAX_CHANNEL_WIDTH, MIN_CHANNEL_WIDTH, AVG_CHANNEL_WIDTH, MAX_METTED_WIDTH, MIN_WETTED_WIDTH, MAX_GRADIENT, MIN_GRADIENT, MIN_
```

The Stocking Information Query returns the following fields of information: watershed code, gazetted name, aliases, waterbody identifier, waterbody type, release date, container id, release id, species code, brood year, hatchery code, hatchery name, eggs indicator, strain name, strain waterbody id, source name, source waterbody id, origin, life stage, life stage code, mark description, mark description code, released quantity, average weight, release mechanism, release mechanism code, release site name, release site code, genotype name, genotype code, water temperature, pH level, witnessed indicatory, agency name, agency code, primary region code, primary region name, species name and comments.

Note: Users can choose to leave the "From Date" and "To Date" fields blank to get all stocking records or they can set dates just to the date range which is of interest to them.

```
WATERSHED_CODE, GAZETTED_NAME, ALIASES, WATERBODY_IDENTIFIER, WBODY_TYPE, WBODY_ID, RELEASE_DATE, CONTAINER_ID, RELEASE_ID, SPECIES_CODE, BROOD_YEAR, HATCHERY_CODE, HATCHERY_NAME, EGGS_IND, STRAIN_NAME, STRAIN_WBODY_ID, SOURCE_MBODY_ID, ORIGIN, LIFE_STAGE_LIFE_STAGE_LODE, MARK_DESCRIPTION_CODE, RELEASE_DUANTITY, AVERAGE_WEIGHT, RELEASE_MECHANISM, RELEASE_MECHANISM, CODE, RELEASE_SITE_NAME, LEASE_SITE_CODE, GENOTYPE_NAME, GENOTYPE_CODE, WATER_TEMPERATURE, PH_LEVEL, WITNESSED_IND, AGENCY_NAME, AGENCY_CODE, PRIMARY_REGION_CODE, PRIMARY_REGION_NAME, SPECIES_NAME, COMMENTS
920-257700, COWICHAN RIVER, "", 00000COWN, S, 306332, 06-MAY-08, 55250, 23030, ST, 2007, VITH, VANCOUVER ISLAND HATCHERY, N, COWICHAN R, 306332, Wild, Smolt, SM, Adipose, AD, 21195, 78.1, TRUCK, T, MAIN - VITH, MAIN, Winter Run, WR, 11, N, FFSBC, F, 1, Vancouver Island & Knight Inlet, Steelhead, 920-257700, COWICHAN R, 306332, Wild, Smolt, SM, 306332, 06-MAY-08, 55251, 23028, ST, 2007, VITH, VANCOUVER ISLAND HATCHERY, N, COWICHAN R, 306332, Wild, Smolt, SM, Adipose, AD, 14932, 48.1, TRUCK, T, MAIN - VITH, MAIN, Winter Run, WR, 11, N, FFSBC, F, 1, Vancouver Island & Knight Inlet, Steelhead, F, 1, Vancouver Island &
```

Area 3: Watershed Code

The main point to keep in mind using watershed code to define the watershed area is that it is the way that the watershed code number is entered which actually defines the area. For example, the Cowichan River watershed code is 920-257700 while its first tributary is the Koksilah River which is watershed code 920-257700-02300.

All watershed codes are 45 digits in length but the assumption is that all zeroes are dropped once there are no non-zero digits between a set of dashes. i.e.: The full watershed codes for the two rivers are:

Entering the Cowichan River watershed code as "920-257700" in the query brings up all information for all waterbodies (all streams and all lakes) in the entire Cowichan River watershed. The exception is that the query category Stream Physical Site Survey Information only brings up information for streams.

Entering the Cowichan River watershed code and including the first grouping of zeroes "920-257700-0000" restricts the query to just waterbodies on the mainstem of the Cowichan River. In this case all records for the Cowichan River and Cowichan Lake will be returned because Cowichan Lake is located on the mainstem of Cowichan River. Again, the exception is that the query category Stream Physical Site Survey Information only brings up information for streams.

Using the Koksilah River watershed code as "920-257700-02300" in the query brings up all information for all waterbodies (all streams and all lakes) in the entire Koksilah River watershed (and none of the waterbodies in the parent Cowichan River Watershed).

Using the unnamed tributary to the Koksilah River watershed code "920-257700-02300-58200" in the query brings up all waterbodies (all streams and all lakes) in that unnamed tributary watershed to Koksilah River. In this case, 920-257700-02300-58200 has five tributaries that flow into it and, one of those tributaries has four lakes on it.

Finding Watershed Codes that are Unnamed:

The two ways of finding out watershed codes for waterbodies that are not named are to use either the FIDQ Watershed Code query or by locating the waterbody spatially using our Habitat Wizard tool

at: http://www.env.gov.bc.ca/habwiz/ Zoom into the area of interest and use the identify tool to click on the waterbody of interest to get the watershed code and associated information.

To get waterbody watershed codes at a watershed level using the FIDQ Watershed Code query, first enter a known associated waterbody that is named (such as Koksilah River), then run a second query using just the watershed code for the Koksilah River: 920-257700-02300 that is provided by the first query.

The UTM coordinates listed in the records returned are the location of the mouth of each tributary where it runs into each parent stream. i.e.: All tributaries that run directly into the Koksilah River are 920-257700-02300-xxxxx where "xxxxxx" equals at least one non-zero digit.

All tributaries that flow into direct tributaries to the Koksilah would be represented by the "yyyyy" grouping in 920-257700-02300-xxxxx-yyyyy where "yyyyy" equals at least one non-zero digit.

All UTM coordinates listed for streams are for the location of the stream mouth where it enters the parent stream or ocean. Lake coordinates are for the lake outlet. Lakes with no outlets list the centre of the lake as the location.

Area 4: Waterbody Type: The default setting is all waterbodies. Use this box in combination with a watershed code or a selection from another pick list.

*Note:

Stream Physical Sample Sites are for streams only and the query will not work if the user selects "Lakes" or "Wetlands" from the Waterbody Type list in combination with stream sample sites.

Fish Presence and some information exists for a limited number of wetlands but most wetlands do not have information associated with them. Select "All Waterbodies" to include wetlands in queries that also search lakes or run a separate query using the "Wetlands" pick list item.

- **Area 5: Watershed Groups:** If watershed group information is required, select one of the 242 Watershed Groups in the 1:50, 000 Watershed Atlas in combination with the query type. An index map showing all watershed groups in B.C. can be viewed at: http://www.env.gov.bc.ca/fish/pdf/prov_wsgs.pdf
- **Area 6: Fish Species:** Select "All Species" or a single species of interest in combination with one of the other boxes. Note a query type must be selected. The default setting is "All Species"
- **Area 7: Forest District:** If querying by Forest District select the district of interest in combination with one of the other boxes. Note a query type must be selected. A British Columbia Forest Region and District map index is available at: http://www.for.gov.bc.ca/mof/maps/regdis/regdismap.pdf
- **Area 8: From Date and Area 11: To Date:** The date range choice is only available for the fish stocking query. Select the appropriate dates if you wish to restrict your query to a specific range.
- **Area 9: Trim Mapsheet:** Select the Trim Mapsheet of interest from the pick list if that is a query criteria you wish to include. An index map is available at: http://geobc.gov.bc.ca/shared/docs/trim-maps/250KGrid.pdf Because there are over 7,000 TRIM maps for BC, the index above is at a scale of 1:250,000. Click on any of the 1:250,000 grids in the link above will bring up a 1:20,000 TRIM index for that grid segment.
- **Area 12: Order by:** Choose to order your results by either Watershed Code or by Gazetted Name. The default setting is Watershed Code. Most users find this best as it is the easiest way to identify unnamed streams when querying at a watershed level. Sorting by Gazetted Name is not a logical unless all the waterbodies you want have names. **Note:** choosing to sort by Gazetted Name, places all waterbodies with names before any unnamed waterbodies.
- **Area 13: Email address:** This is a mandatory field. Users must provide an email address as this query will not work without one.

Results will be emailed to users due to the size and complexity potential of each query. Most queries are received within 10 to 30 seconds of submitting. Submission confirmation occurs immediately after selecting the "Email Results" button (#14, Image One). If you have not received an email after a minute, it is advisable to check your junk mail box to see if your email filter moved the email to your junk box.