

# Software Release Notes for STORET Central Warehouse 2.0.5

United States Environmental Protection Agency

Office of Wetlands, Oceans, and Watersheds

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# SOFTWARE RELEASE NOTES FOR STORET CENTRAL WAREHOUSE 2.0.5

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## Prepared for:

United States Environmental Protection Agency Office of Wetlands, Oceans, and Watersheds Assessment and Watershed Protection Division 401 M Street SW Washington, DC 20460

Job Assignment Manager:

**Kevin Christian** 

Prepared by:

Solutions Delivery Center
Science Applications International Corporation
6565 Arlington Boulevard
Falls Church, VA 22042

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#### 1.0 INTRODUCTION

The STORET Central Warehouse operates as a retrieval mechanism for data submitted to the Environmental Protection Agency (EPA). The STORET Central Warehouse is composed of Extract, Transform, and Load (ETL) software which populates the STORET Central Warehouse with data, and an associated Web Interface which allows selective retrieval of data. This release provides enhancements to this functionality.

This release is identified and tracked under the configuration identifier C2.0.5, and is being provided to the Office of Wetlands, Oceans, and Watersheds (OWOW), Assessment and Watershed Protection Division, Monitoring Branch, STORET Job Assignment Manager (JAM).

#### 2.0 REFERENCES

The STORET Project Plan dated April 13, 2004, provides tasks for developing the STORET Central Warehouse enhancements. The requirements were initiated and documented through the Change Control Board (CCB) process.

#### 3.0 SUMMARY OF FUNCTIONALITY

The requirements associated with this release have been integrated with prior releases of the STORET Central Warehouse. The software for creating tables, populating data, and creating the Web interface is included in this deliverable. The requirements specific to this release are described below.

## 3.1 New Functionality

This release includes the following new functionality:

- Develop batch report system to process large data requests. Key features include:
  - Email notification when request is submitted and when request is complete.
  - Request retrieval via Uniform Resource Locator (URL) hyperlink in email notification to user.
  - Request retrieval via Web Page as secondary/backup mechanism for user.
  - Email report of pending jobs automatically generated daily to STORET Technical Support.
  - Ability to generate submitted requests upon demand by EPA Administrator.

- Immediate or Overnight processing determined by the number of retrieved rows.
- Provide ability to retrieve data based on nationally recognized Project IDs.
- Add an additional column to store generated Hydrologic Unit Codes (HUCs) and populate with HUC data submitted by user.
- Create a Batch Activity Log, executable upon demand, to show all information from DW\_DATA\_REQUESTS table for batch jobs.
- Create a Monthly Statistic Report executed automatically each month to show summary counts of data requests. Email report to STORET Technical Support.
- Add Habitat Assessment Category Type Code and Replicate number to ETL, Web Interface as a selectable report column, and Habitat Assessment download.

## 3.2 Improved Functionality

This release includes the following improved functionality:

- Modify the ETL process as follows:
  - Create indexes that are used during ETL.
  - Use DI\_CHARACTERISTIC table instead of TSRCHAR table when possible.
  - Move creation of alias tables to the beginning of ETL and use them instead of TSRCHALS.
- Make the concatenated fields Category Type Code and Replicate Number default columns for the Regular, Biological, and Habitat Assessment downloads.
- Modify unit conversion to utilize TSRUOM table and incorporate reference table changes through dbfix020.
- Correct the conversion of Portable Data Logger Activity Start Times during ETL.

## 4.0 DEGREE OF FUNCTIONALITY

The software provided by this release fulfills the requirements agreed to with the JAM, and has been developed in accordance with the approved design specifications (Appendix A). No unresolved discrepancies are known to exist upon conclusion of testing.

## 5.0 INSTALLATION INSTRUCTION

This section contains the step-by-step installation instruction to create the STORET Central Warehouse. There are several noteworthy items regarding installation and batch processing:

#### **Installation Notes:**

- This release of the Central Warehouse requires Oracle 9i and JServer.
- Modify connect statements for database usernames, passwords, and connect strings as necessary.
- Edit all ETL scripts for tablespace names.
- Scripts must be run in the order listed to ensure correct software installation.
- A rollback segment named RBSBIG must exist and be on-line.
- Oracle archiving should be turned off when running the ETL scripts.
- Log files are created for each of the Structured Query Language (SQL) scripts listed in these instructions. These log files have parallel names and directory locations as the scripts that create them. Log files should be checked for errors after each step of the installation process to ensure the installation completes successfully.
- Copy the storetw directory from the "Release C2.0.5\software" directory to your C:\ drive.
- Install Oracle Spatial into the ETL database before running this ETL.
- An optional script has been provided (i.e., tbs\_coalesce.sql) to coalesce the STORETDATA and STORETINDX tablespaces for improved performance. Execute this script if the storetw schema is being imported into another database (e.g., storetw schema is moved to a different production database). Connect to the database with Database Administrator (DBA) privileges to run the tbs\_coalesce.sql script.
- The following two objects store data request history. Do not drop/modify them in production during the refresh cycle.
  - Table: dw data requests.
  - Sequence: seq\_dw\_data\_request\_id.

#### **Batch Processing Notes:**

- To report on batch activity, run "dw\_batch\_activity\_report.sql" to generate the dw\_batch\_activity\_report.log file. Provide report start and end dates.
- To manually process all pending Immediate batch jobs, run "exec dw\_process\_pendingbatch\_imm".
- To manually process submitted batch jobs by request\_id, run "exec dw\_process\_data\_request\_list('x')" where x is a comma separated list of request\_ID(s).
- Monthly Statistic (dw\_monthly\_stats) and Pending Request
   (dw\_report\_pending\_requests) reporting, and Overnight batch processing
   (dw\_process\_batch\_requests) are scheduled activities and run periodically without
   manual intervention. They can also be run manually using the following:
  - To manually report statistics for a given month, run "exec dw\_monthly\_stats(x)" where x is a valid date for the desired month.
  - To manually report pending requests, run "exec dw\_report\_pending\_requests".
  - To manually process batch jobs submitted for overnight, run "exec dw\_process\_batch\_requests".
- To change scheduled job timings, modify appropriate variable values in dw\_glob\_var.sql, run dw\_glob\_var.sql, then run dw\_schedule\_batch\_jobs.sql.
- To change online and batch processing thresholds, modify appropriate variable values in the dw\_glob\_var.sql, then run dw\_glob\_var.sql.

#### Step-by-Step Installation:

The installation package is not dependent upon a specific drive letter. If the installation package is placed on a different drive, replace "C:" with the letter of that drive in the following instructions.

1. Open a SQL\*Plus session.

2a. Create storetw schema with appropriate system and object privileges.

CONNECT SYSTEM/STO2ET@STORET.SDC

@C:\storetw\storetw\create\_storetw.sql;

CONNECT STORET/STO2ET@STORET.SDC

@C:\storetw\storet\_grants.sql;

#### CONNECT STORET1/STO2ET1@STORET.SDC

@C:\storetw\storet1\_grants.sql;

#### CONNECT SYSTEM/STO2ET@STORET.SDC

revoke create session from storet, storet1;

2b. Update STORET.TSRUOM table.

 $@C: \label{lem:condition} @C: \label{lem:condition} \\$ 

2c. Create STORET and STORET1 indexes if they are missing.@C:\storetw\cr appl inds.sql;

3. Create the functions used by the ETL scripts.

## CONNECT STORETW/STORETW@STORET.SDC

- @C:\storetw\functions\etl\_glob\_var.sql;
- @C:\storetw\functions\f\_createflbrmk.sql;
- @C:\storetw\functions\f\_estry.sql;
- @C:\storetw\functions\f\_mad.sql;
- @C:\storetw\functions\f\_station\_visited.sql;
- @C:\storetw\functions\f\_fieldset.sql;
- @C:\storetw\functions\f\_createFNAICS.sql;
- @C:\storetw\functions\f biopt.sql;
- @C:\storetw\functions\f\_prmvl.sql;
- @c:\storetw\functions\f char name.sql;
- 4. Create FA STATION table.

@C:\storetw\fa\_statn\fa\_station\_table.sql;

- 5a. Create Characteristic tables.
  - @C:\storetw\char\_stn\char\_stn\_table.sql;
  - @C:\storetw\char\_stn\char\_table.sql;
- 5b. Create LU\_CHAR\_ALIAS AND LU\_CHAR\_ALIAS\_TYPE tables.

@C:\storetw\lu\_char\_alias\lu\_char\_alias.sql;

6. Create Drainage Basin tables.

@C:\storetw\drainagebasin\db\_tables.sql;

- 7. Create Geographical tables (state/county).
  - @C:\storetw\geopa\geo\_tables.sql;
- 8. Create Method and Datum (MAD) code tables.
  - @C:\storetw\mad\mad\_tables.sql;
  - @C:\storetw\mad\stn std datum.sql;

- 9. Create Organization table.@C:\storetw\org\org\_tables.sql;
- 10. Create Station Types table.@C:\storetw\statn types\statn types tables.sql;
- 11. Create Estuary tables.@C:\storetw\estuary\estry\_tables.sql;
- 12. Create DI\_DATE table.@C:\storetw\di\_date\di\_date\_table.sql;
- 13. Create UOM table with Unit Conversion factors. @C:\storetw\unit\_conversion.sql;
- 14. Create FA\_REGULAR\_RESULT table.
  - @C:\storetw\fa\_regular\_result\fa\_regular\_result\_table.sql;
  - @C:\storetw\fa\_regular\_result\fa\_regular\_result\_data1.sql;
  - @C:\storetw\fa\_regular\_result\fa\_regular\_result\_pdl\_data1.sql;
  - @C:\storetw\fa\_regular\_result\create\_temp\_tables.sql;
  - @C:\storetw\fa\_regular\_result\update\_temp\_tables.sql;
  - @C:\storetw\fa\_regular\_result\fa\_regular\_result\_data2.sql;
- 15. Create FA\_BIOLOGICAL\_RESULT table.
  - @C:\storetw\fa biological result\fa bio result table.sql;
  - @C:\storetw\fa\_biological\_result\fa\_bio\_result\_data1.sql;
  - @C:\storetw\fa\_biological\_result\create\_bio\_temp\_tables.sql;
  - @C:\storetw\fa\_biological\_result\update\_bio\_temp\_tables.sql;
  - @C:\storetw\fa\_biological\_result\update\_bio\_temp\_tables2.sql;
  - @C:\storetw\fa\_biological\_result\fa\_bio\_result\_data2.sql;
- 16. Create FA\_HABITAT\_RESULT table.
  - @C:\storetw\fa\_habitat\_result\fa\_habitat\_result\_table.sql;
  - @C:\storetw\fa\_habitat\_result\fa\_habitat\_result\_data1.sql;
  - @C:\storetw\fa\_habitat\_result\create\_habitat\_temp\_tables.sql;
  - @C:\storetw\fa\_habitat\_result\update\_habitat\_temp\_tables.sql;
  - @C:\storetw\fa\_habitat\_result\fa\_habitat\_result\_data2.sql;
- 17. Create DI\_ACT\_MEDIUM table.
  - @C:\storetw\di act medium\di act medium.sql;

- 18. Create result fact table indexes.
  - @C:\storetw\fa\_regular\_result\fa\_regular\_result\_index.sql;
  - @C:\storetw\fa biological result\fa bio result index.sql;
  - @C:\storetw\fa\_habitat\_result\fa\_habitat\_result\_index.sql;
- 19. Create LU\_CHAR\_ALIAS AND LU\_CHAR\_ALIAS\_TYPE tables. @C:\storetw\lu\_char\_alias\lu\_char\_alias.sql;
- 20. Create DI PROJECT table and the associated relationship tables.
  - @C:\storetw\di\_project\di\_project\_table.sql;
  - @C:\storetw\di\_project\project\_rel\_tables.sql;
- 21. Create the LU STATION ALIAS table.
  - @C:\storetw\lu\_station\_alias\lu\_station\_alias.sql;
- 22. Create the remaining dimension tables (i.e., DI\_ACTIVITY\_INTENT, DI\_COMMUNITY\_SAMPLED, DI\_SUBJECT\_TAXON, DI\_GROUP\_TYPE, DI\_BIOPART, and DI\_ACTIVITY\_MATRIX).
  - @C:\storetw\di\_activity\_intent\di\_activity\_intent.sql;
  - @C:\storetw\di\_community\_sampled\di\_community\_sampled.sql;
  - @C:\storetw\di subject taxon\di subject taxon.sql;
  - @C:\storetw\di\_group\_type\di\_group\_type.sql;
  - @C:\storetw\di\_biopart\di\_biopart.sql;
  - @C:\storetw\di\_activity\_matrix\di\_activity\_matrix.sql;
- 23. Create the BLOB table and add BLOB IDs to the fact tables. @C:\storetw\fa\_blob\fa\_blob.sql;
- 24. Finish building the FA\_REGULAR\_RESULT table.
  - @C:\storetw\fa regular result\fa regular result const.sql;
  - @C:\storetw\fa\_regular\_result\fa\_regular\_result\_drop\_cols.sql;
- 25. Finish building the FA BIOLOGICAL RESULT table.
  - @C:\storetw\fa\_biological\_result\fa\_bio\_result\_const.sql;
  - @C:\storetw\fa biological result\fa bio result drop cols.sql;
- 26. Finish building the FA\_HABITAT\_RESULT table.
  - @C:\storetw\fa\_habitat\_result\fa\_habitat\_result\_const.sql;
  - @C:\storetw\fa\_habitat\_result\fa\_habitat\_result\_drop\_cols.sql;
- 27. Drop unnecessary columns from FA\_STATION table.
  - @C:\storetw\fa\_statn\fa\_station\_drop\_cols.sql;

- 28. Analyze database objects and performance tune.
  - @C:\storetw\analyze\_objects.sql;
  - @C:\storetw\performance\_tuning.sql;
- 29. Delete temporary tables.
  - @C:\storetw\drop\_temp\_tables.sql;
- 30. Update User Defined Habitat Result columns.

  @C:\storetw\fa habitat result\DW user def hab.sql;
- 31. Update tables and indexes storage parameters.
  - @C:\storetw\gen\_tblstrg.sql;
  - @C:\storetw\gen\_idxstrg.sql;

The ETL process is now complete. Perform the remaining steps for installing the web interface.

32. Create report customization related table and materialized views.

#### CONNECT STORETW/STORETW@STORET.SDC

- @C:\storetw\application\APP\_COLUMN\_NAME.sql;
- @C:\storetw\application\DW\_data\_requests\_table.sql;
- @C:\storetw\materialized\_views.sql;
- 33. Alter the file C:\storetw\application\DW\_glob\_var.sql to reflect the directory structure of the environment where the software is being installed. The global variables established in this package should have values identical to the values in the glob\_var.sql file included with the existing STORET Web application with one exception; the file name section of the variable lv\_script\_path should be set to "DW\_storet.js". Update threshold values for batch processing and national projects. Provide timings for scheduled jobs, STORET email address, SMTP Host, and SMTP Port information.
- 34. Create the global variables package as storetw.
  - @C:\storetw\application\DW\_glob\_var.sql;
- 35. Compile Java procedures used by the web application procedures.
  - @C:\storetw\application\procedures\DW\_exec\_os.java;
  - @C:\storetw\application\procedures\DW\_blob\_handler.java;
- 36. Create the web application procedures as storetw.
  - @C:\storetw\application\procedures\DW\_mail\_pkg.sql;
  - @C:\storetw\application\procedures\DW record data request.sql;
  - @C:\storetw\application\procedures\DW\_huc\_popup.sql;
  - @C:\storetw\application\procedures\DW\_counties\_popup.sql;
  - @C:\storetw\application\procedures\DW\_top\_of\_page.sql;

```
@C:\storetw\application\procedures\DW bottom of page.sql;
@C:\storetw\application\procedures\DW_display_calendar.sql;
@C:\storetw\application\procedures\DW geo select.sql;
@C:\storetw\application\procedures\DW date select.sql;
@C:\storetw\application\procedures\DW char select.sql;
@C:\storetw\application\procedures\DW_project_select.sql;
@C:\storetw\application\procedures\DW_station_select.sql;
@C:\storetw\application\procedures\DW medium select.sql;
@C:\storetw\application\procedures\DW_community_select.sql;
@C:\storetw\application\procedures\DW selection criteria.sql;
@C:\storetw\application\procedures\DW selection criteria station.sql;
@C:\storetw\application\procedures\DW_station_count.sql;
@C:\storetw\application\procedures\DW station download custom.sql;
@C:\storetw\application\procedures\DW_station_hub_custom.sql;
@C:\storetw\application\procedures\DW proj popup.sql;
@C:\storetw\application\procedures\DW_char_alias_popup.sql;
@C:\storetw\application\procedures\DW station popup.sql;
@C:\storetw\application\procedures\DW extref popup.sql;
@C:\storetw\application\procedures\DW_result_criteria_geo.sql;
@C:\storetw\application\procedures\DW result criteria project.sql;
@C:\storetw\application\procedures\DW result criteria station.sql;
@C:\storetw\application\procedures\DW_bio_result_criteria_geo.sql;
@C:\storetw\application\procedures\DW bio result criteria project.sql;
@C:\storetw\application\procedures\DW_bio_result_criteria_station.sql;
@C:\storetw\application\procedures\DW hab result criteria geo.sql;
@C:\storetw\application\procedures\DW hab result criteria project.sql;
@C:\storetw\application\procedures\DW_hab_result_criteria_station.sql;
@C:\storetw\application\procedures\DW_result_count.sql;
@C:\storetw\application\procedures\DW_result_download_custom.sql;
@C:\storetw\application\procedures\DW result hub custom.sql;
@C:\storetw\application\procedures\DW home.sql;
@C:\storetw\application\procedures\DW_blob_download.sql;
@C:\storetw\application\procedures\DW station download zip.sql;
@C:\storetw\application\procedures\DW_result_download_zip.sql;
-- batch related scripts.
@C:\storetw\application\procedures\DW_process_data_request.sql;
@C:\storetw\application\procedures\DW_process_batch_requests.sql;
@C:\storetw\application\procedures\DW_report_pending_requests;
@C:\storetw\application\procedures\DW process data request list.sql;
@C:\storetw\application\procedures\DW batch download pickup.sql;
@C:\storetw\application\procedures\DW_process_pendingbatch_imm.sql;
@C:\storetw\application\procedures\DW_monthly_stats.sql;
```

@C:\storetw\application\DW schedule batch jobs.sql;

- 37. Copy the application's JavaScript library file into the scripts directory indicated in the global variables script (see step 33).
  - --C:\storetw\application\scripts\DW\_storet.js
- 38. Copy the application's Help and the associated image files into the Hyper-Text Markup Language (HTML) documents directory indicated in the global variables script (see step 33).
  - $--C:\storetw\application\doc\DW\_storet\_help.html$
  - --C:\storetw\application\doc\lat\_long\_ex.gif
- 39. Alter the file C:\storetw\application\DW\_PERMISSIONS.sql to reflect the environment where the software is being installed. This script includes JAVA permissions that require a username/password with DBA privileges. The script must also be modified to include the correct directory location of the GZIP file compression utility and the location of the user reports directory (established in DW\_glob\_var).
- 40. Grant appropriate privileges and create required synonyms.
  - @C:\storetw\application\DW\_GRANTS.sql;
- CONNECT STORETWEB/STORETWEB@STORET.SDC
  - @C:\storetw\application\DW\_SYNONYMS.sql;
- CONNECT SYSTEM/STO2ET@STORET.SDC
  - @C:\storetw\application\DW\_PERMISSIONS.sql;
- DISCONNECT

# APPENDIX A

**Technical Specifications** 

# **STORET Central Warehouse Specification**

**SIR:** 1633

Package Name: SDW (STORET Data Warehouse)

Procedure Name: DW\_Batch\_Download\_Pickup

Web Page Name: Batch Data Requests

# **Processing Overview/Description:**

This is a Web page that lists batch data requests. It includes Request ID, Filename and other related information. The filename is a hyper link to download the file.

#### **Tables Used:**

(Display Fields are listed in the order they are displayed)

Entity	Attribute	Display
DW_DATA_REQUESTS	REQUEST_ID	N
	FILENAME	Y
	REQUEST_STATUS	N
	REQUEST_MODE	Y
	DATETIME	Y

Lin		

None.

## **Input Parameters:**

Natural Language	Parameter
Number of Days. Used to provide the list of Batch jobs recorded in the past P_DAYS. A default value of 30 is used.	P_DAYS

## **Links To:**

Data files listed on the page have hyperlinks that allow users to download the appropriate data file.

<b>Output Parameters:</b>		

None.

## **Internal Procedure Events:**

#### Onload

- Query the list of Batch data requests that were submitted in the past number of days defined by P\_DAYS input parameter.
- Check for existence of the file on the file system.
- C Present the list in a tabular format with hyperlinks to the filename. The hyperlinks should download the data file when clicked.

<b>Images</b> :
-----------------

None.

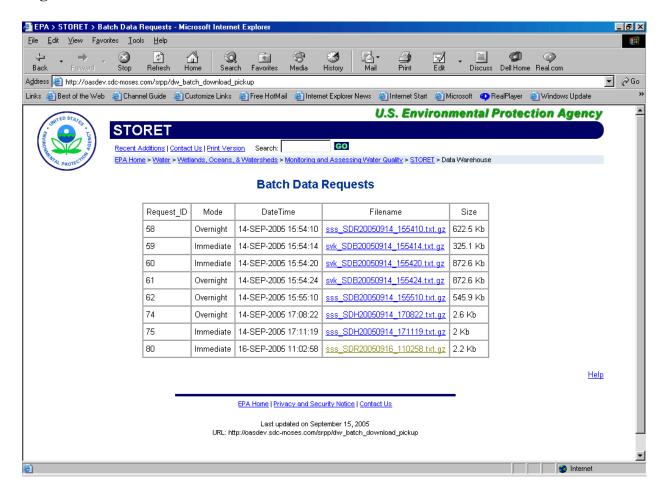
#### **Business Rules:**

Check for the file before presenting on the page.

## **Error Handling:**

None

## **Page Print:**



## **STORET Central Warehouse Specification**

**SIR:** 1502, 1532, 1563

Package Name: SDW (STORET Data Warehouse)

Procedure Name: DW\_Bio\_Result\_Criteria\_Geo

Web Page Name: Biological Results by Geographic Location

## **Processing Overview/Description:**

The Biological Results by Geographic Location page is the first Biological Result search page of the STORET Central Warehouse and provides four major search areas: Geographic Location, Date, Activity Intent and Community Sampled, and Characteristic. A user is able to accept default values or enter specific selection criteria for each of these query dimensions. In addition, the Geographic Location dimension is divided into three sub-dimensions: State/County, Latitude/Longitude, and Hydrologic Unit Code (HUC). The user is able to select one of these three location sub-dimensions per Result query. The user is able to select up to four date ranges and 50 Characteristics per query.

#### **Tables Used:**

(Display Fields are listed in the order they are displayed)

Entity	Attribute	Display
State (DI_GEO_STATE)	STATE_NAME	Y
	PK_ISN	N

#### **Links From:**

Procedure	Web_Page	Button/Text
DW_Home	STORET: Central Warehouse	Results by Geographic Location

# **Input Parameters:**

These parameters are passed from the three Popup windows (DW\_County\_Popup, DW\_HUC\_Popup, and DW\_Char\_Alias\_Popup) back to this procedure.

Natural Language	Parameter
The names of the selected County(s) in a comma separated string. By default this value is 'ALL'.	AS_COUNTY
The codes of the selected County(s) in a comma separated string. By default this value is 'ALL'.	V_COUNTY_CODE
The Hydrologic Unit Code value. By default this value is 'ALL'.	AS_HUC
A Pl/Sql table of selected Characteristics (Characteristic Key List). By default this value is 'DUMMY'.	CHAR_LIST

# Links To:

Procedure	Web_Page	Button/Text
DW_County_Popup	STORET: Select Counties	Look Up
DW_HUC_Popup	STORET: Select a Hydrologic Unit Code (HUC)	Look Up
DW_Char_Alias_Popup	STORET: Characteristic Search Results	Search
DW_Result_Count	Result Search Summary	Continue

# **Output Parameters:**

Natural Language	Parameter
Identifies the geographic location parameter being used for the search. By default this value is 'StateCounty'.	GEOGRAPHIC
The name of the selected State. By default this value is 'ALL'.	AS_STATE

Natural Language	Parameter
The names of the selected County(s) in a comma separated string. By default this value is 'ALL'.	AS_COUNTY
The codes of the selected County(s) in a comma separated string. By default this value is 'ALL'.	V_COUNTY_CODE
The Northern Limit of a Latitude/Longitude query in decimal degrees. By default this value is 90.	MAX_LAT_DD
The Western Limit of a Latitude/Longitude query in decimal degrees. By default this value is 180.	MIN_LONG_DD
The Eastern Limit of a Latitude/Longitude query in decimal degrees. By default this value is 0.	MAX_LONG_DD
The Southern Limit of a Latitude/Longitude query in decimal degrees. By default this value is 0.	MIN_LAT_DD
The direction of the Northern Limit. By default this value is N.	DIR_MAXLAT
The direction of the Southern Limit. By default this value is N.	DIR_MINLAT
The direction of the Eastern Limit. By default this value is W.	DIR_MAXLONG
The direction of the Western Limit. By default this value is W.	DIR_MINLONG
The Hydrologic Unit Code value. By default this value is 'ALL'.	AS_HUC
The month of the beginning date of the first query date range. By default this value is Jan.	FROM_MON1
The day of the month of the beginning date of the first query date range. By default this value is 1.	FROM_DD1
The year of the beginning date of the first query date range. By default this value is 1900.	FROM_YYYY1
The month of the ending date of the first query date range. By default this value is the current month.	END_MON1
The day of the month of the ending date of the first query date range. By default this value is the current day of the month.	END_DD1
The year of the ending date of the first query date range. By default this value is the current year.	END_YYYY1

Natural Language	Parameter
The month of the beginning date of the second query date range. By default this value is NULL (displayed as "—").	FROM_MON2
The day of the month of the beginning date of the second query date range. By default this value is NULL (displayed as "—").	FROM_DD2
The year of the beginning date of the second query date range. By default this value is NULL (displayed as "—").	FROM_YYYY2
The month of the ending date of the second query date range. By default this value is NULL (displayed as "—").	END_MON2
The day of the month of the ending date of the second query date range. By default this value is NULL (displayed as "—").	END_DD2
The year of the ending date of the second query date range. By default this value is NULL (displayed as "—").	END_YYYY2
The month of the beginning date of the third query date range. By default this value is NULL (displayed as "—").	FROM_MON3
The day of the month of the beginning date of the third query date range. By default this value is NULL (displayed as "—").	FROM_DD3
The year of the beginning date of the third query date range. By default this value is NULL (displayed as "—").	FROM_YYYY3
The month of the ending date of the third query date range. By default this value is NULL (displayed as "—").	END_MON3
The day of the month of the ending date of the third query date range. By default this value is NULL (displayed as "—").	END_DD3
The year of the ending date of the third query date range. By default this value is NULL (displayed as "—").	END_YYYY3

Natural Language	Parameter
The month of the beginning date of the fourth query date range. By default this value is NULL (displayed as "—").	FROM_MON4
The day of the month of the beginning date of the fourth query date range. By default this value is NULL (displayed as "—").	FROM_DD4
The year of the beginning date of the fourth query date range. By default this value is NULL (displayed as "—").	FROM_YYYY4
The month of the ending date of the fourth query date range. By default this value is NULL (displayed as "—").	END_MON4
The day of the month of the ending date of the fourth query date range. By default this value is NULL (displayed as "—").	END_DD4
The year of the ending date of the fourth query date range. By default this value is NULL (displayed as "—").	END_YYYY4
The names of the selected Characteristic(s) in a string separated by HTML break tags( ). By default this value is NULL.	V_CHAR_NAMES
The search string used to identify available Characteristics. By default this value is NULL.	AS_CHAR
The Characteristic naming convention being used for the Characteristic Search. By default this value is 0 (STORET DEFAULT).	AS_CHAR_ALIAS_TYPE
A Pl/Sql table of selected Characteristics (Characteristic Key List). By default this value is 'DUMMY'.	CHAR_LIST
Boolean flag used to signal whether taxonomic names should be included in characteristic searches. By default this value is 'ON'.	TAXON_FILTER
A Pl/Sql table of selected Organizations (Organization Key List).	D_ORG_LIST
Used to identify which type of result data to query against.	RESULT_TYPE

Natural Language	Parameter
A Pl/Sql table of selected Activity Intent (Intent Key List).	D_INTENT_LIST
A Pl/Sql table of selected Community Sampled (Community Sampled Key List).	D_COMMUNITY_LIST

#### **Internal Procedure Events:**

#### Onload

- Populate the State Name list box with State Names organized alphabetically by country (with the U. S. first followed by Mexico and Canada).
- For Date Range 1, select default values of FROM = 'Jan-1-1900' and TO = the current date. The other three date values should be unselected by default and will contain line spaces (i.e., '—') to denote this.
- C Populate and format the Activity Intent list box with Activity Intent names.
- C Populate and format the Community Sampled list box with Community Sampled names.
- C Ensure that all selection criteria and hidden text fields are set to the appropriate default values.

## **Geographic Location Section**

- State/County 'Lookup' onclick: Display a pop-up window showing the available counties for the state currently selected from the drop-down list. Populate the County Name(s) text area with the Counties that the user selects from the pop-up window.
- HUC 'Lookup' onclick: Display a pop-up window showing all available HUC codes and their corresponding names. Populate the Cataloging Unit text box with the HUC code that the user selects from the pop-up window.

### **Date Section**

Block the selection of invalid dates by altering the day list box to reflect the correct number of days in the month each time the month or year is changed.

#### **Characteristic Section**

<sup>°</sup>Search' onclick: Display a pop-up window showing the characteristics that match the search string and Search By choice entered by the user. The user may choose to hide or display taxonomic name characteristics by selecting the checkbox next to the search

- string textbox. If the user has not entered a search string, display an alert message prompting them to do so. Populate the Characteristics listbox with the characteristics the user selects from the pop-up window. No more than 50 Characteristics can be added to the Selected Characteristics list.
- C 'Clear Selected' onclick: All selected characteristics are removed from the characteristic select list.
- C 'Clear All' onclick: All characteristics are removed from the characteristic select list.

#### Form Level

- Continue' onclick: The users inputs are validated and their selection criteria is passed to the next page of the web application for processing.
- C 'Clear Form' onclick: All values on the form are returned to their default values.

#### General

- C See DW\_Top\_of\_Page Specifications for a description of the standard header links on each page.
- C See DW\_Bottom\_of\_Page Specifications for a description of the standard footer links on each page.

## **Images:**

The only images used on the STORET Central Warehouse web site are those that are included in the EPA Standard Web Template.

#### **Business Rules:**

- Only taxonomic characteristics that have been recorded will be displayed.
- Characteristics can not be added to the Selected Characteristics list more than once (even if the same Characteristic is selected multiple times using different naming conventions).
- C The user may add no more than 50 Characteristics to the Selected Characteristics list. The attempted addition of Characteristics in excess of this limit are blocked and an alert is displayed.
- If the user selects 'All' State/Counties, all result records are included in the search.
- If the user selects 'All' HUCs, all result records are included in the search.
- If the user selects default latitude/longitude values (i.e., N=90, S=0, E=0, W=180), all result records are included in the search.

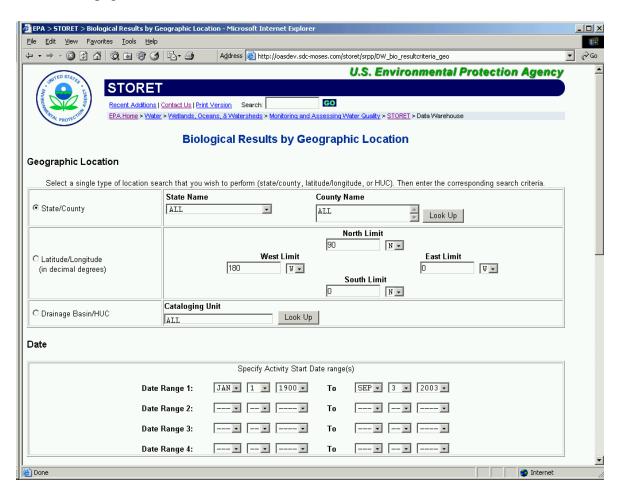
- If the user selects default date values (i.e., From Date = Jan 1, 1900, To Date = current date), all result records are included in the search.
- C Selected Community Sampled are included in the search only if Intent is 'Select All' or 'Taxon Abundance'.

## **Error Handling:**

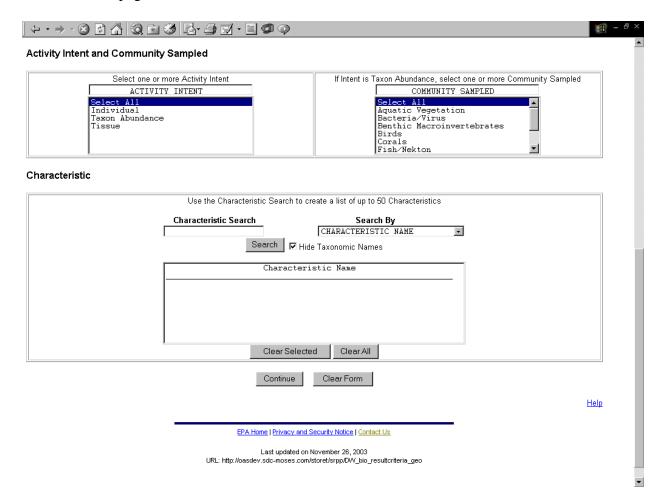
- C A standard Error Page should be displayed when this page does not load upon request.
- The user will not be allowed to proceed to the next page if a non-numeric character is entered in the Latitude/Longitude fields or if the entry is outside the Latitude/Longitude permitted value range.
- An alert is displayed if the user attempts to perform a Characteristic search before entering a search string.
- An alert is displayed if the user attempts to perform a County look-up before selecting a State.
- The county field is reset to 'All' if the selected State is changed.
- The user will not be allowed to proceed to the next page if an invalid date range is entered in the month-day-year selection boxes (e.g. Jan 1, 2003 Jan 1, 1900).

## **Page Print:**

First half of page.



# Second half of page.



## **STORET Central Warehouse Specification**

**SIR:** 1502, 1532, 1563

Package Name: SDW (STORET Data Warehouse)

Procedure Name: DW\_Bio\_Result\_Criteria\_Project

Web Page Name: Biological Results by Project

## **Processing Overview/Description:**

The Biological Results by Project page is the third Biological Result search page of the STORET Central Warehouse and provides four major search areas: Organization/Project, Date, Activity Intent and Community Sampled, and Characteristic. A user is able to accept default values or enter specific selection criteria for each of these query dimensions. The user is able to select a single Project from a single Organization. The user is able to select up to four date ranges and 50 Characteristics per query.

### **Tables Used:**

(Display Fields are listed in the order they are displayed)

Entity	Attribute	Display
Organization (DI_ORG)	ORGANIZATION_NAME	Y
	ORGANIZATION_ID	Y
	PK_ISN	N

## **Links From:**

Procedure	Web_Page	Button/Text
DW_Home	STORET: Central Warehouse	Results by Project

# **Input Parameters:**

These parameters are passed from the two Popup windows (DW\_Project\_Popup and DW\_Char\_Alias\_Popup) back to this procedure.

Natural Language	Parameter
The name of the selected Project. By default this value is 'Select a Project'.	AS_PROJ
The key of the selected Project. By default this value is 0.	D_PROJ_LIST
A Pl/Sql table of selected Characteristics (Characteristic Key List). By default this value is 'DUMMY'.	CHAR_LIST

# Links To:

Procedure	Web_Page	Button/Text
DW_Project_Popup	STORET: Select Project	Look Up
DW_Char_Alias_Popup	STORET: Characteristic Search Results	Search
DW_Result_Count	Result Search Summary	Continue

# **Output Parameters:**

Natural Language	Parameter
The name of the selected Project. By default this value is 'Select a Project'.	AS_PROJ
The key of the selected Project. By default this value is 0.	D_PROJ_LIST
The month of the beginning date of the first query date range. By default this value is Jan.	FROM_MON1
The day of the month of the beginning date of the first query date range. By default this value is 1.	FROM_DD1
The year of the beginning date of the first query date range. By default this value is 1900.	FROM_YYYY1

Natural Language	Parameter
The month of the ending date of the first query date range. By default this value is the current month.	END_MON1
The day of the month of the ending date of the first query date range. By default this value is the current day of the month.	END_DD1
The year of the ending date of the first query date range. By default this value is the current year.	END_YYYY1
The month of the beginning date of the second query date range. By default this value is NULL (displayed as "—").	FROM_MON2
The day of the month of the beginning date of the second query date range. By default this value is NULL (displayed as "—").	FROM_DD2
The year of the beginning date of the second query date range. By default this value is NULL (displayed as "—").	FROM_YYYY2
The month of the ending date of the second query date range. By default this value is NULL (displayed as "—").	END_MON2
The day of the month of the ending date of the second query date range. By default this value is NULL (displayed as "—").	END_DD2
The year of the ending date of the second query date range. By default this value is NULL (displayed as "—").	END_YYYY2
The month of the beginning date of the third query date range. By default this value is NULL (displayed as "—").	FROM_MON3
The day of the month of the beginning date of the third query date range. By default this value is NULL (displayed as "—").	FROM_DD3
The year of the beginning date of the third query date range. By default this value is NULL (displayed as "—").	FROM_YYYY3
The month of the ending date of the third query date range. By default this value is NULL (displayed as "—").	END_MON3

Natural Language	Parameter
The day of the month of the ending date of the third query date range. By default this value is NULL (displayed as "—").	END_DD3
The year of the ending date of the third query date range. By default this value is NULL (displayed as "—").	END_YYYY3
The month of the beginning date of the fourth query date range. By default this value is NULL (displayed as "—").	FROM_MON4
The day of the month of the beginning date of the fourth query date range. By default this value is NULL (displayed as "—").	FROM_DD4
The year of the beginning date of the fourth query date range. By default this value is NULL (displayed as "—").	FROM_YYYY4
The month of the ending date of the fourth query date range. By default this value is NULL (displayed as "—").	END_MON4
The day of the month of the ending date of the fourth query date range. By default this value is NULL (displayed as "—").	END_DD4
The year of the ending date of the fourth query date range. By default this value is NULL (displayed as "—").	END_YYYY4
The names of the selected Characteristic(s) in a string separated by HTML break tags ( ). By default this value is NULL.	V_CHAR_NAMES
The search string used to identify available Characteristics. By default this value is NULL.	AS_CHAR
The Characteristic naming convention being used for the Characteristic Search. By default this value is 0 (STORET DEFAULT).	AS_CHAR_ALIAS_TYPE
A Pl/Sql table of selected Characteristics (Characteristic Key List). By default this value is 'DUMMY'.	CHAR_LIST
Boolean flag used to signal whether taxonomic names should be included in characteristic searches. By default this value is 'ON'.	TAXON_FILTER

Natural Language	Parameter
A Pl/Sql table of selected Organizations (Organization Key List).	D_ORG_LIST
Used to identify which type of result data to query against.	RESULT_TYPE
A Pl/Sql table of selected Activity Intent (Intent Key List).	D_INTENT_LIST
A Pl/Sql table of selected Community Sampled (Community Sampled Key List).	D_COMMUNITY_LIST

#### **Internal Procedure Events:**

#### Onload

- C Populate and format the Organization list box with Organization IDs and Names organized by Organization ID.
- For Date Range 1, select default values of FROM = 'Jan-1-1900' and TO = the current date. The other three date values should be unselected by default and will contain line spaces (i.e., '—') to denote this.
- C Populate and format the Activity Intent list box with Activity Intent names.
- C Populate and format the Community Sampled list box with Community Sampled names.
- Ensure that all selection criteria and hidden text fields are set to the appropriate default values.

## **Organization/Project Section**

Project 'Lookup' onclick: Display a pop-up window showing the available Projects for the Organization currently selected from the drop-down list. Populate the Project Name textbox with the Project that the user selects from the pop-up window and populate the hidden variable D\_PROJ\_LIST with the corresponding key.

#### **Date Section**

Block the selection of invalid dates by altering the day list box to reflect the correct number of days in the month each time the month or year is changed.

#### **Characteristic Section**

- 'Search' onclick: Display a pop-up window showing the characteristics that match the search string and Search By choice entered by the user. The user may choose to hide or display taxonomic name characteristics by selecting the checkbox next to the search string textbox. If the user has not entered a search string, display an alert message prompting them to do so. Populate the Characteristics listbox with the characteristics the user selects from the pop-up window. No more than 50 Characteristics can be added to the Selected Characteristics list.
- C 'Clear Selected' onclick: All selected characteristics are removed from the characteristic select list.
- Clear All' onclick: All characteristics are removed from the characteristic select list.

#### Form Level

- C 'Continue' onclick: The users inputs are validated and their selection criteria is passed to the next page of the web application for processing.
- Clear Form' onclick: All values on the form are returned to their default values.

#### General

- C See DW\_Top\_of\_Page Specifications for a description of the standard header links on each page.
- C See DW\_Bottom\_of\_Page Specifications for a description of the standard footer links on each page.

#### **Images:**

The only images used on the STORET Central Warehouse web site are those that are included in the EPA Standard Web Template.

## **Business Rules:**

- Only taxonomic characteristics that have been recorded will be displayed.
- Characteristics can not be added to the Selected Characteristics list more than once (even if the same Characteristic is selected multiple times using different naming conventions).
- C The user may add no more than 50 Characteristics to the Selected Characteristics list. The attempted addition of Characteristics in excess of this limit are blocked and an alert is displayed.

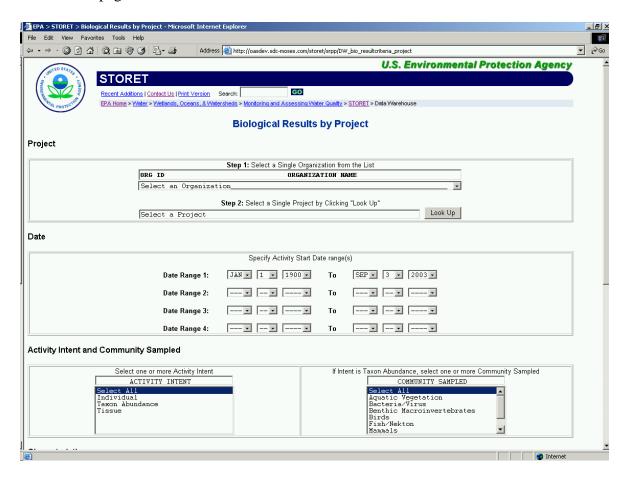
- C If the user has selected an Organization but does not select a Project, data for the selected Organization is retrieved for the report.
- If the user selects default date values (i.e., From Date = Jan 1, 1900, To = current date), all result records are included in the search.
- C Selected Community Sampled are included in the search only if Intent is 'Select All' or 'Taxon Abundance'.

## **Error Handling:**

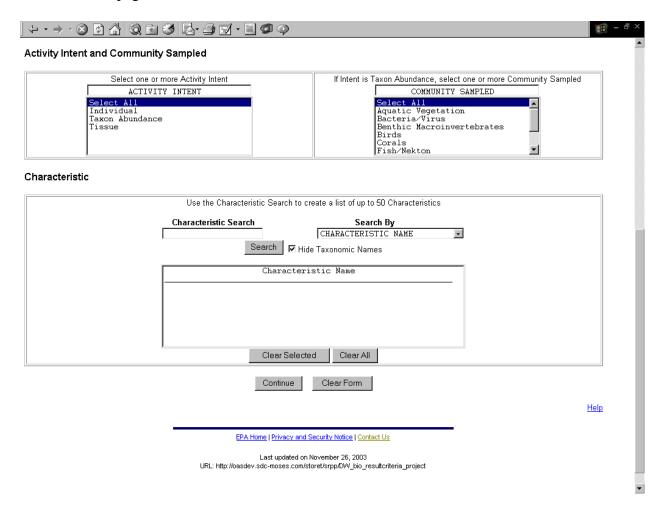
- C A standard Error Page should be displayed when this page does not load upon request.
- C An alert is displayed if the user attempts to perform a Characteristic search before entering a search string.
- An alert is displayed if the user attempts to perform a Project look-up before selecting an Organization.
- The Project field is reset to 'Select a Project' if the selected Organization is changed.
- The user will not be allowed to proceed to the next page if an invalid date range is entered in the month-day-year selection boxes (e.g., Jan 1, 2003 Jan 1, 1900).

## **Page Print:**

First half of page.



# Second half of page.



**SIR:** 1502, 1532, 1563

Package Name: SDW (STORET Data Warehouse)

Procedure Name: DW\_Bio\_Result\_Criteria\_Station

Web Page Name: Biological Results by Station

### **Processing Overview/Description:**

The Biological Results by Station page is the second Biological Result search page of the STORET Central Warehouse and provides four search areas: Organization/Station, Date, Activity Intent and Community Sampled, and Characteristic. A user is able to accept default values or enter specific selection criteria for each of these query dimensions. The user is able to select Stations from multiple Organizations, but is limited to selecting a maximum of 100 Stations per query. The user is able to select up to four date ranges and 50 Characteristics per query.

#### **Tables Used:**

(Display Fields are listed in the order they are displayed)

Entity	Attribute	Display
Organization (DI_ORG)	ORGANIZATION_NAME	Y
	ORGANIZATION_ID	Y
	PK_ISN	N

### **Links From:**

Procedure	Web_Page	Button/Text
DW_Home	STORET: Central Warehouse	Results by Station

# **Input Parameters:**

These parameters are passed from the three Popup windows (DW\_Extref\_Popup, DW\_Station\_Popup and DW\_Char\_Alias\_Popup) back to this procedure.

Natural Language	Parameter
The name of the selected Station Alias Type. By default this value is 'STANDARD'.	AS_EXTREF
The key of the selected Station Alias Type. By default this value is 0.	D_EXTREF_LIST
A Pl/Sql table of selected Stations (Station Key List). By default this value is 'DUMMY'.	STATION_LIST
A Pl/Sql table of selected Characteristics (Characteristic Key List). By default this value is 'DUMMY'.	CHAR_LIST

### Links To:

Procedure	Web_Page	Button/Text
DW_Extref_Popup	STORET: Select a Station Alias Type	Look Up
DW_Station_Popup	STORET: Station Search Results	Search Stations
DW_Char_Alias_Popup	STORET: Characteristic Search Results	Search
DW_Result_Count	Result Search Summary	Continue

# **Output Parameters:**

Natural Language	Parameter
The name of the selected Station Alias Type. By default this value is 'STANDARD'.	AS_EXTREF
The key of the selected Station Alias Types. By default this value is 0.	D_EXTREF_LIST
The search string used to find Stations within the Organization. By default this value is 'DUMMY'.	AS_STATION
A Pl/Sql table of selected Stations (Station Key List). By default this value is 'DUMMY'.	STATION_LIST
The names of the selected Station(s) string separated by HTML break tags ( ). By default this value is NULL.	V_STATION_NAMES
The month of the beginning date of the first query date range. By default this value is Jan.	FROM_MON1
The day of the month of the beginning date of the first query date range. By default this value is 1.	FROM_DD1
The year of the beginning date of the first query date range. By default this value is 1900.	FROM_YYYY1
The month of the ending date of the first query date range. By default this value is the current month.	END_MON1
The day of the month of the ending date of the first query date range. By default this value is the current day of the month.	END_DD1
The year of the ending date of the first query date range. By default this value is the current year.	END_YYYY1
The month of the beginning date of the second query date range. By default this value is NULL (displayed as "—").	FROM_MON2
The day of the month of the beginning date of the second query date range. By default this value is NULL (displayed as "—").	FROM_DD2
The year of the beginning date of the second query date range. By default this value is NULL (displayed as "—").	FROM_YYYY2

Natural Language	Parameter
The month of the ending date of the second query date range. By default this value is NULL (displayed as "—").	END_MON2
The day of the month of the ending date of the second query date range. By default this value is NULL (displayed as "—").	END_DD2
The year of the ending date of the second query date range. By default this value is NULL (displayed as "—").	END_YYYY2
The month of the beginning date of the third query date range. By default this value is NULL (displayed as "—").	FROM_MON3
The day of the month of the beginning date of the third query date range. By default this value is NULL (displayed as "—").	FROM_DD3
The year of the beginning date of the third query date range. By default this value is NULL (displayed as "—").	FROM_YYYY3
The month of the ending date of the third query date range. By default this value is NULL (displayed as "—").	END_MON3
The day of the month of the ending date of the third query date range. By default this value is NULL (displayed as "—").	END_DD3
The year of the ending date of the third query date range. By default this value is NULL (displayed as "—").	END_YYYY3
The month of the beginning date of the fourth query date range. By default this value is NULL (displayed as "—").	FROM_MON4
The day of the month of the beginning date of the fourth query date range. By default this value is NULL (displayed as "—").	FROM_DD4
The year of the beginning date of the fourth query date range. By default this value is NULL (displayed as "—").	FROM_YYYY4

Natural Language	Parameter
The month of the ending date of the fourth query date range. By default this value is NULL (displayed as "—").	END_MON4
The day of the month of the ending date of the fourth query date range. By default this value is NULL (displayed as "—").	END_DD4
The year of the ending date of the fourth query date range. By default this value is NULL (displayed as "—").	END_YYYY4
The names of the selected Characteristic(s) in a string separated by HTML break tags ( ). By default this value is NULL.	V_CHAR_NAMES
The search string used to identify available Characteristics. By default this value is NULL.	AS_CHAR
The Characteristic naming convention being used for the Characteristic Search. By default this value is 0 (STORET DEFAULT).	AS_CHAR_ALIAS_TYPE
A Pl/Sql table of selected Characteristics (Characteristic Key List). By default this value is 'DUMMY'.	CHAR_LIST
Boolean flag used to signal whether taxonomic names should be included in characteristic searches. By default this value is 'ON'.	TAXON_FILTER
A Pl/Sql table of selected Organizations (Organization Key List).	D_ORG_LIST
Used to identify which type of result data to query against.	RESULT_TYPE
A Pl/Sql table of selected Activity Intent (Intent Key List).	D_INTENT_LIST
A Pl/Sql table of selected Community Sampled (Community Sampled Key List).	D_COMMUNITY_LIST

#### **Internal Procedure Events:**

#### Onload

- C Populate and format the Organization list box with Organization IDs and Names organized by Organization ID.
- For Date Range 1, select default values of FROM = 'Jan-1-1900' and TO = the current date. The other three date values should be unselected by default and will contain line spaces (i.e., '—') to denote this.
- C Populate and format the Activity Intent list box with Activity Intent names.
- C Populate and format the Community Sampled list box with Community Sampled names.
- C Ensure that all selection criteria and hidden text fields are set to the appropriate default values.

#### **Station Section**

- C 'Look Up' onclick: Display a popup window showing the Station Alias Types that match the Organization selected by the user. If the user has not selected an Organization, display an alert message prompting them to do so. Populate the Station Alias Type display field with the Station Alias the user selects from the pop-up window.
- Search Stations' onclick: Display a pop-up window showing the Stations that match the search string, search type, Station Alias Type and Organization entered by the user. If the user has not entered a search string, display an alert message prompting them to do so. Populate the Station listbox with the Stations the user selects from the pop-up window. No more than 100 Stations can be added to the stations selected list.
- C 'Clear Selected' onclick: All selected Stations are removed from the stations selected list.
- Clear All' onclick: All Stations are removed from the stations selected list.

#### **Date Section**

Block the selection of invalid dates by altering the day list box to reflect the correct number of days in the month each time the month or year is changed.

#### **Characteristic Section**

Search' onclick: Display a pop-up window showing the characteristics that match the search string and Search By choice entered by the user. The user may choose to hide or display taxonomic name characteristics by selecting the checkbox next to the search string textbox. If the user has not entered a search string, display an alert message prompting them to do so. Populate the Characteristics listbox with the characteristics the

- user selects from the pop-up window. No more than 50 Characteristics can be added to the characteristics selected list.
- C 'Clear Selected' onclick: All selected characteristics are removed from the characteristics selected list.
- <sup>°</sup>Clear All' onclick: All characteristics are removed from the characteristics selected list.

#### Form Level

- Continue' onclick: The users inputs are validated and their selection criteria is passed to the next page of the web application for processing.
- C'Clear Form' onclick: All values on the form are returned to their default values.

#### General

- C See DW\_Top\_of\_Page Specifications for a description of the standard header links on each page.
- C See DW\_Bottom\_of\_Page Specifications for a description of the standard footer links on each page.

## **Images:**

The only images used on the STORET Central Warehouse web site are those that are included in the EPA Standard Web Template.

#### **Business Rules:**

- Only taxonomic characteristics that have been recorded will be displayed.
- Characteristics can not be added to the Selected Characteristics list more than once (even if the same Characteristic is selected multiple times using different naming conventions).
- C The user may add no more than 50 Characteristics to the Selected Characteristics list. The attempted addition of Characteristics in excess of this limit are blocked and an alert is displayed.
- C If the user has selected an Organization but does not select any Stations, data for the selected Organization is retrieved for the report.
- C Stations can not be added to the Selected Stations list more than once.
- If the user selects 'Search by Station Alias Type' but does not change the selected Station Alias Type (i.e., default of 'STANDARD'), then Stations will be searched by ID.
- C The user may add no more than 100 Stations to the Selected Stations list. The attempted addition of Stations in excess of this limit is blocked and an alert is displayed.

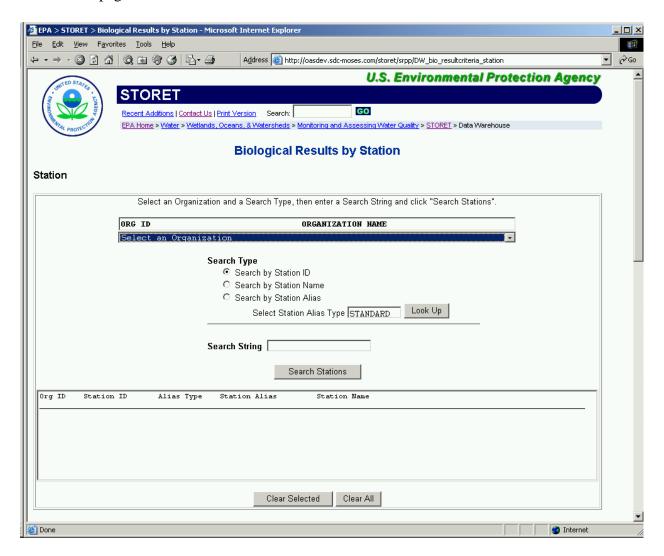
- If the user selects default date values (i.e., From Date = Jan 1, 1900, To = current date), all result records are included in the search.
- C Selected Community Sampled are included in the search only if Intent is 'Select All' or 'Taxon Abundance'.

### **Error Handling:**

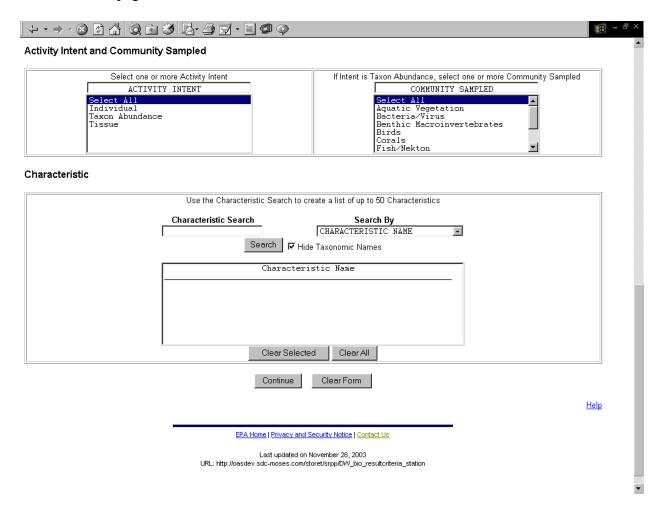
- C A standard Error Page should be displayed when this page does not load upon request.
- An alert is displayed if the user attempts to perform a Characteristic search before entering a search string.
- C An alert is displayed if the user attempts to perform a Station search before entering a search string.
- C An alert is displayed if the user attempts to perform a Station search before selecting an Organization.
- An alert is displayed if the user attempts to perform a Station Alias Type lookup before selecting an Organization.
- The user will not be allowed to proceed to the next page if an invalid date range is entered in the month-day-year selection boxes (e.g., Jan 1, 2003 Jan 1, 1900).

# **Page Print:**

First half of page.



# Second half of page.



**SIR:** 1559

Package Name: SDW (STORET Data Warehouse)

Procedure Name: DW\_Blob\_Download

Web Page Name: Download Document/Graphic

## **Processing Overview/Description:**

The DW\_Blob\_Download procedure processes Document/Graphic Uniform Resource Locators (URLs) referenced in Central Warehouse reports. The Document/Graphic that corresponds to the requested identifier is retrieved from the database and written to a file for download. A link to this file is then presented to the requesting user.

#### **Tables:**

(Display Fields are listed in the order they are displayed)

Entity	Attribute	Display
BLOB (FA_BLOB)	BLOB_TYPE	N
	ORGANIZATION_IS_NUMBER	N
	TSMBLOB_IS_NUMBER	N
	BLOB_CONTENT	N

### **Links From:**

URLs embedded in Result and Station Reports.

# **Input Parameters:**

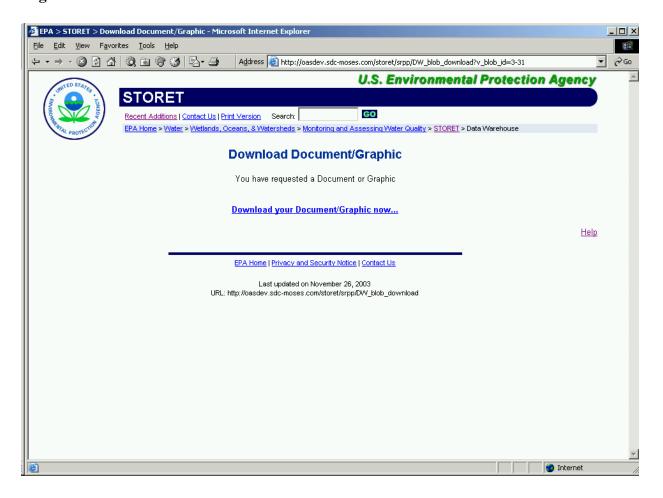
Natural Language	Parameter
The internal code corresponding to a single document or graphic that has been stored in the system.	V_BLOB_ID

	nternal code corresponding to a single document phic that has been stored in the system.	V_BLOB_ID
Links	· To:	
None.		
Outp	ut Parameters:	
None.		
Interi	nal Procedure Events:	
Onloa	nd	
С	Call DW_Blob_Handler JAVA procedure Document/Graphic files.	e to control file I/O for creation of the
Gener	ral	
C C	See DW_Top_of_Page Specifications for See DW_Bottom_of_Page Specifications	standard header and sidebar links on each page. for standard footer links on each page.
Imago	es:	
	nly images used on the STORET Data War PA Standard Web Template.	rehouse web site are those that are included in
Busin	ess Rules:	
None.		

# **Error Handling:**

- A standard Error Page should be displayed when this page is not loaded upon request.
- If an invalid code is sent to the procedure (one for which a graphic/document object does not exist) the user is prompted with an error message.

# **Page Print:**



SIR: Global

Package Name: SDW (STORET Data Warehouse)

Procedure Name: DW\_Bottom\_of\_Page

Web Page Name: EPA standard web template footer

## **Process Overview/Description:**

The DW\_Bottom\_of\_Page procedure is used to create the standard footer used by all pages of the Central Warehouse application. This footer provides a links to several EPA web pages. In addition, this procedure creates the link used to open application help.

### **Tables:**

(Display Fields are listed in the order they are displayed)

None.

### **Links From:**

Procedure	Web_Page	Button/Text
DW_Home	STORET Central Warehouse	onLoad
DW_Result_Criteria_Geo	Regular Results by Geographic Location	onLoad
DW_Result_Criteria_Station	Regular Results by Station	onLoad
DW_Result_Criteria_Project	Regular Results by Project	onLoad
DW_Result_Count	Result Search Summary	onLoad
DW_Result_Hub_Custom	Download Results	onLoad
DW_Station_Criteria	Station Search Criteria	onLoad
DW_Station_Count	Station Search Summary	onLoad

Procedure	Web_Page	Button/Text
DW_Station_Hub_Custom	Download Site Descriptions	onLoad
DW_Bio_Result_Criteria_Geo	Biological Results by Geographic Location	onLoad
DW_Bio_Result_Criteria_Station	Biological Results by Station	onLoad
DW_Bio_Result_Criteria_Project	Biological Results by Project	onLoad
DW_Hab_Result_Criteria_Geo	Habitat Results by Geographic Location	onLoad
DW_Hab_Result_Criteria_Station	Habitat Results by Station	onLoad
DW_Hab_Result_Criteria_Project	Habitat Results by Project	onLoad
DW_Result_Download_Zip	Download Results	onLoad
DW_Station_Download_Zip	Download Site Descriptions	onLoad
DW_Blob_Dowload	Download Document/Graphic	onLoad

multicut i al ametici s	Input	<b>Parameters</b>	
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None.

# Links To:

Uniform Resource Locator	Web_Page	Hyperlink Text
http://www.epa.gov/	EPA home page	'EPA Home'
http://www.epa.gov/epafiles/usenotice.htm	EPA privacy and security page	'Privacy and Security Notice'
http://www.epa.gov/storet/contact.h tml	STORET contact us page	'Contact Us'

# **Output Parameters:**

None.

### **Internal Procedure Events:**

### **Onload**

- C Display the date of the release.
- C Display the URL of the current page.

### Form Level

C 'Help' onclick: Call the Javascript function used to display the application's help documentation.

# **Images:**

The only images used on the STORET Data Warehouse web site are those that are included in the EPA Standard Web Template.

### **Business Rules:**

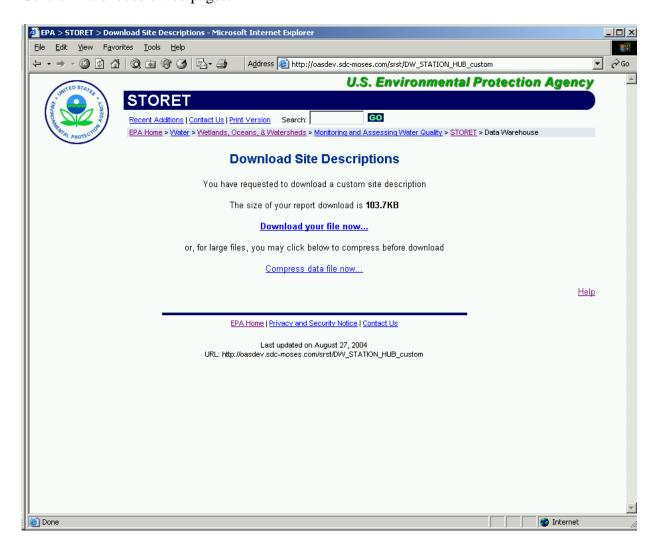
None.

# **Error Handling:**

• See specifications for the Web pages that call this procedure.

# **Page Print:**

The DW\_Bottom\_of\_Page procedure produces the standard footer found at the bottom of the Central Warehouse's web pages.



**SIR:** 1437, 1595

Package Name: SDW (STORET Data Warehouse)

Procedure Name: DW\_Char\_Alias\_Popup

Web Page Name: STORET: Characteristic Search Results

### **Processing Overview/Description:**

The Characteristic Search Results pop-up is called by all Result Search Criteria pages and the Station Search Criteria page. It is used to display a list of available Characteristics that conform to the user's search string. The user can search by the standard STORET name (STORET DEFAULT), or by Characteristic Alias such as CAS Number (CAS NUMBER) and STORET Parameter Code (STORET PARM CODE). If the user has chosen to search by Characteristic Alias, the pop-up window will display both the Characteristic Alias name and standard STORET name. The user is able to select one or more Characteristics from this list. The names and codes of the selected Characteristics are passed to the calling Result Search Criteria page where the appropriate fields are populated with the standard STORET names and corresponding codes.

#### Tables:

(Display Fields are listed in the order they are displayed)

Entity	Attribute	Display
Characteristic (DI_CHARACTERISTIC)	DISPLAY_NAME	Y
	SEARCH_NAME	N
	PK_ISN	N
	TYPE_CODE	N
Characteristic Alias (LU_CHAR_ALIAS)	CHAR_ALIAS	Y
	FK_CHARACTERISTIC	N

Entity	Attribute	Display
	FK_CHAR_ALIAS_TYPE	N

# **Links From:**

Procedure	Web_Page	Button/Text
DW_Result_Criteria_Geo	Regular Results by Geographic Location	<select></select>
DW_Result_Criteria_Station	Regular Results by Station	<select></select>
DW_Result_Criteria_Project	Regular Results by Project	<select></select>
DW_Bio_Result_Criteria_Geo	Biological Results by Geographic Location	<select></select>
DW_Bio_Result_Criteria_Station	Biological Results by Station	<select></select>
DW_Bio_Result_Criteria_Project	Biological Results by Project	<select></select>
DW_Hab_Result_Criteria_Geo	Habitat Results by Geographic Location	<select></select>
DW_Hab_Result_Criteria_Station	Habitat Results by Station	<select></select>
DW_Hab_Result_Criteria_Project	Habitat Results by Project	<select></select>

# **Input Parameters:**

Natural Language	Parameter
The text string used to search available Characteristics.	V_CHARSTRING
Boolean flag used to signal whether taxonomic names should be included in characteristic searches.	TAXON_FILTER
The key of the Characteristic Alias Type being used for the search. By default this is set to '0', 'STORET DEFAULT'.	AS_CHAR_ALIAS_TYPE

### Links To:

Procedure	Web_Page	Button/Text
DW_Result_Criteria_Geo	Regular Results by Geographic Location	<select></select>
DW_Result_Criteria_Station	Regular Results by Station	<select></select>
DW_Result_Criteria_Project	Regular Results by Project	<select></select>
DW_Bio_Result_Criteria_Geo	Biological Results by Geographic Location	<select></select>
DW_Bio_Result_Criteria_Station	Biological Results by Station	<select></select>
DW_Bio_Result_Criteria_Project	Biological Results by Project	<select></select>
DW_Hab_Result_Criteria_Geo	Habitat Results by Geographic Location	<select></select>
DW_Hab_Result_Criteria_Station	Habitat Results by Station	<select></select>
DW_Hab_Result_Criteria_Project	Habitat Results by Project	<select></select>

## **Output Parameters:**

Natural Language	Parameter
A PL/SQL table of selected Characteristics (Characteritic ID List).	CHAR_LIST
The names of the selected Characteristic(s) in a string separated by a break.	V_CHAR_NAMES

### **Internal Procedure Events:**

#### Onload

C Populate the select list with the Characteristics that conform to the Characteristic Search Criteria.

### **Form Level**

Select' onclick: Populate the Selected Characteristics list on the calling Selection Criteria page with the Characteristic names and hidden Ids that the user selects from this pop-up window. If Characteristics were previously added, insert the new Characteristics at the end of the existing Selected Characteristics list.

Cancel' onclick: Close this pop-up window and return focus to the calling Result Selection Criteria page. Do not alter the value of the Selected Characteristics list.

Im	aσ	es:
<b>A</b>	46	CD.

None.

### **Business Rules:**

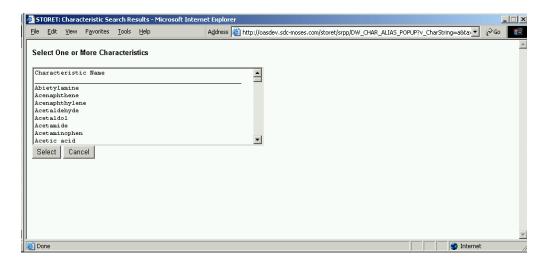
- Only display Taxonomic Characteristics if the user has requested to see them.
- If Taxonomic Characteristics are requested, only display those that have recorded result data.
- C Allow multiple Characteristics to be selected.
- If a Characteristic is selected multiple times, include it only once on the calling Result Selection Criteria page.
- C Do not show the User Defined Habitat Assessment Characteristic as a selection option.

## **Error Handling:**

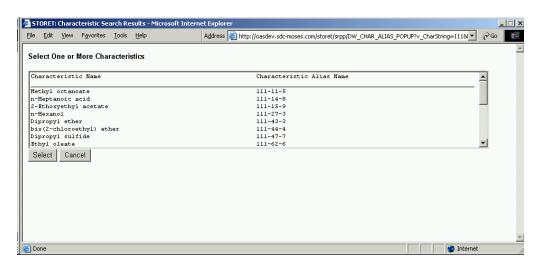
- C A standard Error Page should be displayed when this page does not load upon request.
- Only valid Characteristic Codes are returned to the Result Selection Criteria page.

# **Page Print:**

### STORET Default



# Characteristic Alias (e.g., CAS NUMBER)



**SIR:** 1363

Package Name: SDW (STORET Data Warehouse)

**Procedure Name:** DW\_County\_Popup

Web Page Name: STORET: Select Counties

## **Processing Overview/Description:**

The Select Counties page is called by the Station Search Criteria page and the Results by Geographic Location pages and is used to display a list of all available Counties for the State the user has selected. The user is able to select one or more Counties from this list. The names and codes of the selected Counties are passed to the calling page where the appropriate fields are populated with this information.

#### **Tables:**

(Display Fields are listed in the order they are displayed)

Entity	Attribute	Display
State (DI_GEO_STATE)	STATE_NAME	Y
	STATE_CODE	N
	PK_ISN	N
County (DI_GEO_COUNTY)	COUNTY_NAME	Y
	COUNTY_CODE	N
	FK_GEO_STATE	N
	PK_ISN	N

# **Links From:**

Procedure	Web_Page	Button/Text
DW_Station_Criteria	Station Search Criteria	<look up=""></look>
DW_Results_Criteria_Geo	Regular Results by Geographic Location	<look up=""></look>
DW_Bio_Results_Criteria_Geo	Biological Results by Geographic Location	<look up=""></look>
DW_Hab_Results_Criteria_Geo	Habitat Results by Geographic Location	<look up=""></look>

# **Input Parameters:**

Natural Language	Parameter
The internal code corresponding to the State the user has selected.	V_STATECODE

# Links To:

Procedure	Web_Page	Button/Text
DW_Station_Criteria	Station Search Criteria	<look up=""></look>
DW_Results_Criteria_Geo	Regular Results by Geographic Location	<look up=""></look>
DW_Bio_Results_Criteria_Geo	Biological Results by Geographic Location	<look up=""></look>
DW_Hab_Results_Criteria_Geo	Habitat Results by Geographic Location	<look up=""></look>

# **Output Parameters:**

Natural Language	Parameter
The names of the selected County(s) in a comma separated string.	AS_COUNTY
The codes of the selected County(s) in a comma separated string.	V_COUNTY_CODE

### **Internal Procedure Events:**

- <sup>c</sup> 'Select' onclick: Populate the County Name text area on the calling page with the County names that the user selects from this pop-up window. Write the corresponding County codes in the hidden field V\_COUNTY\_CODE.
- Cancel' onclick: Close this pop-up window and return focus to the calling page. Do not alter the value of the County Name text area.

None.

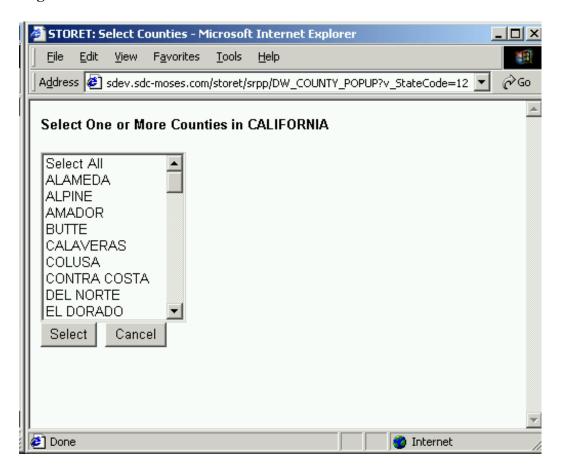
#### **Business Rules:**

- C All Counties for the selected state are displayed.
- Multiple Counties can be selected per search but all selected Counties must belong to the same State.

## **Error Handling:**

- A standard Error Page should be displayed when this page is not loaded upon request.
- Only valid County Names and County Codes are returned to the calling page.

# **Page Print:**



**SIR:** 1438

Package Name: SDW (STORET Data Warehouse)

**Procedure Name:** DW\_Extref\_Popup

Web Page Name: STORET: Select a Station Alias Type

### **Processing Overview/Description:**

The Select a Station Alias Type page is called by the Results by Station pages and is used to display a list of all available Station Alias Types for the Organization the user has selected. The user is able to select a single Station Alias Type from this list. The name and code of the selected Station Alias Type are passed to the calling Results by Station page where the appropriate fields are populated with this information.

#### **Tables:**

(Display Fields are listed in the order they are displayed)

Entity	Attribute	Display
External Ref Scheme (LU_EXTERNAL_REF_SCHEME)	REF_SCHEME_ACRONYM	Y
	REF_SCHEME_NAME	Y
	PK_ISN	N
	ORGANIZATION_ID	N
Organization (DI_ORG)	ORGANIZATION_ID	N
	PK_ISN	N

### **Links From:**

Procedure	Web_Page	Button/Text
DW_Result_Criteria_Station	Results by Station	<look up=""></look>

### **Input Parameters:**

Natural Language	Parameter
A Pl/Sql table of selected Organizations (Organization Key List).	V_ORG

#### Links To:

Procedure	Web_Page	Button/Text
DW_Result_Criteria_Station	Results by Station	<select></select>

# **Output Parameters:**

Natural Language	Parameter
The name of the selected Station Alias Type. By default this value is 'STANDARD'.	AS_EXTREF
The key of the selected Station Alias Type. By default this value is 0.	D_EXTREF_LIST

### **Internal Procedure Events:**

- <sup>°</sup> Select' onclick: Populate the Station Alias Type text area on the calling Results by Station page with the REF\_SCHEME\_ACRONYM (Station Alias Type) that the user selects from this pop-up window. Write the corresponding Ref Scheme code in the hidden field D\_EXTREF\_LIST.
- Cancel' onclick: Close this pop-up window and return focus to the calling Results by Station page. Do not alter the value of the Station Alias Type text area.

Images:		
None.		

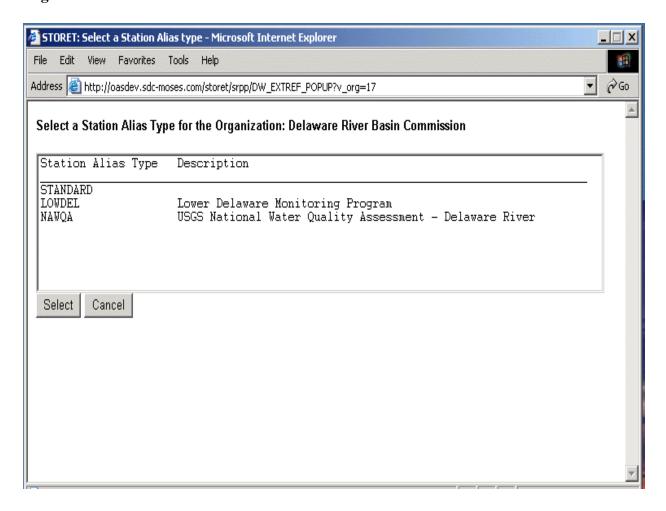
### **Business Rules:**

C Only one Station Alias Type may be selected at a time.

# **Error Handling:**

- C A standard Error Page should be displayed when this page is not loaded upon request.
- Only valid Ref Scheme Acronyms and Ref Scheme Codes are returned to the Results by Station page.

# **Page Print:**



**SIR:** 1503, 1563

Package Name: SDW (STORET Data Warehouse)

**Procedure Name:** DW\_Hab\_Result\_Criteria\_GEO

Web Page Name: Habitat Results by Geographic Location

### **Processing Overview/Description:**

The Habitat Results by Geographic Location page is the first Habitat Result search page of the STORET Central Warehouse and provides three major search areas: Geographic Location, Date, and Characteristic. A user is able to accept default values or enter specific selection criteria for each of these query dimensions. In addition, the Geographic Location dimension is divided into three sub-dimensions: State/County, Latitude/Longitude, and Hydrologic Unit Code (HUC). The user is able to select one of these three location sub-dimension per Result query. The user is able to select up to four date ranges and 50 Characteristics per query.

#### **Tables Used:**

(Display Fields are listed in the order they are displayed)

Entity	Attribute	Display
State (DI_GEO_STATE)	STATE_NAME	Y
	PK_ISN	N

#### **Links From:**

Procedure	Web_Page	Button/Text
DW_Home	STORET: Central Warehouse	Habitat Results by Geographic Location

# **Input Parameters:**

These parameters are passed from the three Popup windows (DW\_County\_Popup, DW\_HUC\_Popup, and DW\_Char\_Alias\_Popup) back to this procedure.

Natural Language	Parameter
The names of the selected County(s) in a comma separated string. By default this value is 'ALL'.	AS_COUNTY
The codes of the selected County(s) in a comma separated string. By default this value is 'ALL'.	V_COUNTY_CODE
The Hydrologic Unit Code value. By default this value is 'ALL'.	AS_HUC
A Pl/Sql table of selected Characteristics (Characteristic Key List). By default this value is 'DUMMY'.	CHAR_LIST

### Links To:

Procedure	Web_Page	Button/Text
DW_County_Popup	STORET: Select Counties	Look Up
DW_HUC_Popup	STORET: Select a Hydrologic Unit Code (HUC)	Look Up
DW_Char_Alias_Popup	STORET: Characteristic Search Results	Search
DW_Result_Count	Result Search Summary	Continue

# **Output Parameters:**

Natural Language	Parameter
Identifies the geographic location parameter being used for the search. By default this value is 'StateCounty'.	GEOGRAPHIC
The name of the selected State. By default this value is 'ALL'.	AS_STATE

Natural Language	Parameter	
The names of the selected County(s) in a comma separated string. By default this value is 'ALL'.	AS_COUNTY	
The codes of the selected County(s) in a comma separated string. By default this value is 'ALL'.	V_COUNTY_CODE	
The Northern Limit of a Latitude/Longitude query in decimal degrees. By default this value is 90.	MAX_LAT_DD	
The Western Limit of a Latitude/Longitude query in decimal degrees. By default this value is 180.	MIN_LONG_DD	
The Eastern Limit of a Latitude/Longitude query in decimal degrees. By default this value is 0.	MAX_LONG_DD	
The Southern Limit of a Latitude/Longitude query in decimal degrees. By default this value is 0.	MIN_LAT_DD	
The direction of the Northern Limit. By default this value is N.	DIR_MAXLAT	
The direction of the Southern Limit. By default this value is N.	DIR_MINLAT	
The direction of the Eastern Limit. By default this value is W.	DIR_MAXLONG	
The direction of the Western Limit. By default this value is W.	DIR_MINLONG	
The Hydrologic Unit Code value. By default this value is 'ALL'.	AS_HUC	
The month of the beginning date of the first query date range. By default this value is Jan.	FROM_MON1	
The day of the month of the beginning date of the first query date range. By default this value is 1.	FROM_DD1	
The year of the beginning date of the first query date range. By default this value is 1900.	FROM_YYYY1	
The month of the ending date of the first query date range. By default this value is the current month.	END_MON1	
The day of the month of the ending date of the first query date range. By default this value is the current day of the month.	END_DD1	
The year of the ending date of the first query date range. By default this value is the current year.	END_YYYY1	

Natural Language	Parameter
The month of the beginning date of the second query date range. By default this value is NULL (displayed as "—").	FROM_MON2
The day of the month of the beginning date of the second query date range. By default this value is NULL (displayed as "—").	FROM_DD2
The year of the beginning date of the second query date range. By default this value is NULL (displayed as "—").	FROM_YYYY2
The month of the ending date of the second query date range. By default this value is NULL (displayed as "—").	END_MON2
The day of the month of the ending date of the second query date range. By default this value is NULL (displayed as "—").	END_DD2
The year of the ending date of the second query date range. By default this value is NULL (displayed as "—").	END_YYYY2
The month of the beginning date of the third query date range. By default this value is NULL (displayed as "—").	FROM_MON3
The day of the month of the beginning date of the third query date range. By default this value is NULL (displayed as "—").	FROM_DD3
The year of the beginning date of the third query date range. By default this value is NULL (displayed as "—").	FROM_YYYY3
The month of the ending date of the third query date range. By default this value is NULL (displayed as "—").	END_MON3
The day of the month of the ending date of the third query date range. By default this value is NULL (displayed as "—").	END_DD3
The year of the ending date of the third query date range. By default this value is NULL (displayed as "—").	END_YYYY3

Natural Language	Parameter	
The month of the beginning date of the fourth query date range. By default this value is NULL (displayed as "—").	FROM_MON4	
The day of the month of the beginning date of the fourth query date range. By default this value is NULL (displayed as "—").	FROM_DD4	
The year of the beginning date of the fourth query date range. By default this value is NULL (displayed as "—").	FROM_YYYY4	
The month of the ending date of the fourth query date range. By default this value is NULL (displayed as "—").	END_MON4	
The day of the month of the ending date of the fourth query date range. By default this value is NULL (displayed as "—").	END_DD4	
The year of the ending date of the fourth query date range. By default this value is NULL (displayed as "—").	END_YYYY4	
The names of the selected Characteristic(s) in a string separated by HTML break tags( ). By default this value is NULL.	V_CHAR_NAMES	
The search string used to identify available Characteristics. By default this value is NULL.	AS_CHAR	
The Characteristic naming convention being used for the Characteristic Search. By default this value is 0 (STORET DEFAULT).	AS_CHAR_ALIAS_TYPE	
A Pl/Sql table of selected Characteristics (Characteristic Key List). By default this value is 'DUMMY'.	CHAR_LIST	
Boolean flag used to signal whether taxonomic names should be included in characteristic searches. By default this value is 'ON'.	TAXON_FILTER	
A Pl/Sql table of selected Organizations (Organization Key List).	D_ORG_LIST	
Used to identify which type of result data to query against.	RESULT_TYPE	

### **Internal Procedure Events:**

### Onload

- Populate the State Name list box with State Names organized alphabetically by country (with the U. S. first followed by Mexico and Canada).
- For Date Range 1, select default values of FROM = 'Jan-1-1900' and TO = the current date. The other three date values should be unselected by default and will contain line spaces (i.e., '—') to denote this.
- C Ensure that all selection criteria and hidden text fields are set to the appropriate default values.

## **Geographic Location Section**

- State/County 'Lookup' onclick: Display a pop-up window showing the available counties for the state currently selected from the drop-down list. Populate the County Name(s) textarea with the Counties that the user selects from the pop-up window.
- HUC 'Lookup' onclick: Display a pop-up window showing all available HUC codes and their corresponding names. Populate the Cataloging Unit text box with the HUC code that the user selects from the pop-up window.

## **Date Section**

Block the selection of invalid dates by altering the day list box to reflect the correct number of days in the month each time the month or year is changed.

### **Characteristic Section**

- 'Search' onclick: Display a pop-up window showing the characteristics that match the search string and Search By choice entered by the user. The user may choose to hide or display taxonomic name characteristics by selecting the checkbox next to the search string textbox. If the user has not entered a search string, display an alert message prompting them to do so. Populate the Characteristics listbox with the characteristics the user selects from the pop-up window. No more than 50 Characteristics can be added to the Selected Characteristics list.
- C 'Clear Selected' onclick: All selected characteristics are removed from the characteristic select list.
- C 'Clear All' onclick: All characteristics are removed from the characteristic select list.

### Form Level

- Continue' onclick: The users inputs are validated and their selection criteria is passed to the next page of the web application for processing.
- Clear Form' onclick: All values on the form are returned to their default values.

#### General

- C See DW\_Top\_of\_Page Specifications for a description of the standard header links on each page.
- C See DW\_Bottom\_of\_Page Specifications for a description of the standard footer links on each page.

## **Images:**

The only images used on the STORET Central Warehouse web site are those that are included in the EPA Standard Web Template.

#### **Business Rules:**

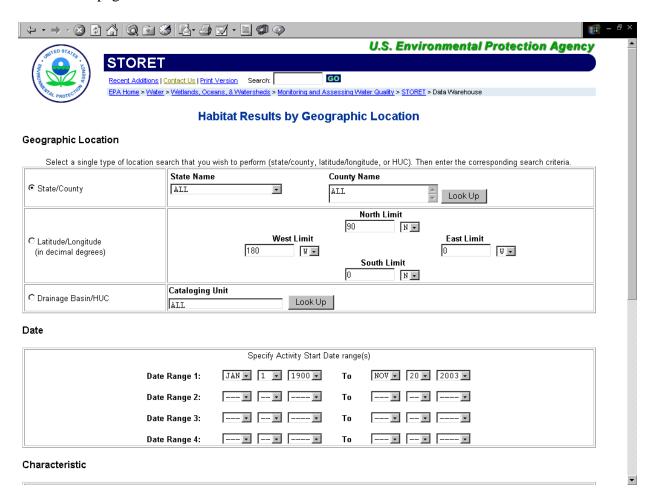
- Only taxonomic characteristics that have been recorded will be displayed.
- Characteristics can not be added to the Selected Characteristics list more than once (even if the same Characteristic is selected multiple times using different naming conventions).
- C The user may add no more than 50 Characteristics to the Selected Characteristics list. The attempted addition of Characteristics in excess of this limit are blocked and an alert is displayed.
- If the user selects 'All' State/Counties, all result records are included in the search.
- If the user selects 'All' HUCs, all result records are included in the search.
- If the user selects default latitude/longitude values (i.e., N=90, S=0, E=0, W=180), all result records are included in the search.
- If the user selects default date values (i.e., From Date = Jan 1, 1900, To Date = current date), all result records are included in the search.

## **Error Handling:**

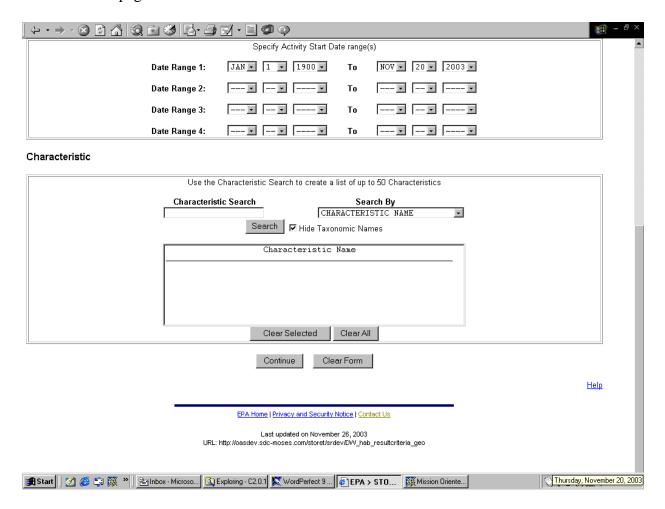
C A standard Error Page should be displayed when this page does not load upon request.

- C The user will not be allowed to proceed to the next page if a non-numeric character is entered in the latitude/longitude fields or if the entry is outside the Latitude/Longitude permitted value range.
- C An alert is displayed if the user attempts to perform a Characteristic search before entering a search string.
- An alert is displayed if the user attempts to perform a County look-up before selecting a State.
- The county field is reset to 'All' if the selected State is changed.
- The user will not be allowed to proceed to the next page if an invalid date range is entered in the month-day-year selection boxes (e.g. Jan 1, 2003 Jan 1, 1900).

First half of page.



# Second half of page.



# **STORET Central Warehouse Specification**

**SIR:** 1503, 1563

Package Name: SDW (STORET Data Warehouse)

Procedure Name: DW\_Hab\_Result\_Criteria\_Project

Web Page Name: Habitat Results by Project

## **Processing Overview/Description:**

The Habitat Results by Project page is the third Habitat Result search page of the STORET Central Warehouse and provides three major search areas: Organization/Project, Date, and Characteristic. A user is able to accept default values or enter specific selection criteria for each of these query dimensions. The user is able to select a single Project from a single Organization. The user is able to select up to four date ranges and 50 Characteristics per query.

### **Tables Used:**

(Display Fields are listed in the order they are displayed)

Entity	Attribute	Display
Organization (DI_ORG)	ORGANIZATION_NAME	Y
	ORGANIZATION_ID	Y
	PK_ISN	N

### **Links From:**

Procedure	Web_Page	Button/Text
DW_Home	STORET: Central Warehouse	Habitat Results by Project

# **Input Parameters:**

These parameters are passed from the two Popup windows (DW\_Project\_Popup and DW\_Char\_Alias\_Popup) windows back to this procedure.

Natural Language	Parameter
The name of the selected Project. By default this value is 'Select a Project'.	AS_PROJ
The key of the selected Project. By default this value is 0.	D_PROJ_LIST
A Pl/Sql table of selected Characteristics (Characteristic Key List). By default this value is 'DUMMY'.	CHAR_LIST

# Links To:

Procedure	Web_Page	Button/Text
DW_Project_Popup	STORET: Select Project	Look Up
DW_Char_Alias_Popup	STORET: Characteristic Search Results	Search
DW_Result_Count	Result Search Summary	Continue

# **Output Parameters:**

Natural Language	Parameter
The name of the selected Project. By default this value is 'Select a Project'.	AS_PROJ
The key of the selected Project. By default this value is 0.	D_PROJ_LIST
The month of the beginning date of the first query date range. By default this value is Jan.	FROM_MON1
The day of the month of the beginning date of the first query date range. By default this value is 1.	FROM_DD1
The year of the beginning date of the first query date range. By default this value is 1900.	FROM_YYYY1

Natural Language	Parameter	
The month of the ending date of the first query date range. By default this value is the current month.	END_MON1	
The day of the month of the ending date of the first query date range. By default this value is the current day of the month.	END_DD1	
The year of the ending date of the first query date range. By default this value is the current year.	END_YYYY1	
The month of the beginning date of the second query date range. By default this value is NULL (displayed as "—").	FROM_MON2	
The day of the month of the beginning date of the second query date range. By default this value is NULL (displayed as "—").	FROM_DD2	
The year of the beginning date of the second query date range. By default this value is NULL (displayed as "—").	FROM_YYYY2	
The month of the ending date of the second query date range. By default this value is NULL (displayed as "—").	END_MON2	
The day of the month of the ending date of the second query date range. By default this value is NULL (displayed as "—").	END_DD2	
The year of the ending date of the second query date range. By default this value is NULL (displayed as "—").	END_YYYY2	
The month of the beginning date of the third query date range. By default this value is NULL (displayed as "—").	FROM_MON3	
The day of the month of the beginning date of the third query date range. By default this value is NULL (displayed as "—").	FROM_DD3	
The year of the beginning date of the third query date range. By default this value is NULL (displayed as "—").	FROM_YYYY3	
The month of the ending date of the third query date range. By default this value is NULL (displayed as "—").	END_MON3	

Natural Language	Parameter
The day of the month of the ending date of the third query date range. By default this value is NULL (displayed as "—").	END_DD3
The year of the ending date of the third query date range. By default this value is NULL (displayed as "—").	END_YYYY3
The month of the beginning date of the fourth query date range. By default this value is NULL (displayed as "—").	FROM_MON4
The day of the month of the beginning date of the fourth query date range. By default this value is NULL (displayed as "—").	FROM_DD4
The year of the beginning date of the fourth query date range. By default this value is NULL (displayed as "—").	FROM_YYYY4
The month of the ending date of the fourth query date range. By default this value is NULL (displayed as "—").	END_MON4
The day of the month of the ending date of the fourth query date range. By default this value is NULL (displayed as "—").	END_DD4
The year of the ending date of the fourth query date range. By default this value is NULL (displayed as "—").	END_YYYY4
The names of the selected Characteristic(s) in a string separated by HTML break tags ( ). By default this value is NULL.	V_CHAR_NAMES
The search string used to identify available Characteristics. By default this value is NULL.	AS_CHAR
The Characteristic naming convention being used for the Characteristic Search. By default this value is 0 (STORET DEFAULT).	AS_CHAR_ALIAS_TYPE
A Pl/Sql table of selected Characteristics (Characteristic Key List). By default this value is 'DUMMY'.	CHAR_LIST
Boolean flag used to signal whether taxonomic names should be included in characteristic searches. By default this value is 'ON'.	TAXON_FILTER

Natural Language	Parameter
A Pl/Sql table of selected Organizations (Organization Key List).	D_ORG_LIST
Used to identify which type of result data to query against.	RESULT_TYPE

### **Internal Procedure Events:**

### Onload

- C Populate the Organization list box with Organization IDs and Names organized by Organization ID.
- For Date Range 1, select default values of FROM = 'Jan-1-1900' and TO = the current date. The other three date values should be unselected by default and will contain line spaces (i.e., '—') to denote this.
- C Ensure that all selection criteria and hidden text fields are set to the appropriate default values

## **Organization/Project Section**

Project 'Lookup' onclick: Display a pop-up window showing the available Projects for the Organization currently selected from the drop-down list. Populate the Project Name textbox with the Project that the user selects from the pop-up window and populate the hidden variable D PROJ LIST with the corresponding key.

### **Date Section**

Block the selection of invalid dates by altering the day list box to reflect the correct number of days in the month each time the month or year is changed.

### **Characteristic Section**

'Search' onclick: Display a pop-up window showing the characteristics that match the search string and Search By choice entered by the user. The user may choose to hide or display taxonomic name characteristics by selecting the checkbox next to the search string textbox. If the user has not entered a search string, display an alert message prompting them to do so. Populate the Characteristics listbox with the characteristics the user selects from the pop-up window. No more than 50 Characteristics can be added to the Selected Characteristics list.

- C 'Clear Selected' onclick: All selected characteristics are removed from the characteristic select list.
- C 'Clear All' onclick: All characteristics are removed from the characteristic select list.

#### Form Level

- C 'Continue' onclick: The users inputs are validated and their selection criteria is passed to the next page of the web application for processing.
- Clear Form' onclick: All values on the form are returned to their default values.

### General

- C See DW\_Top\_of\_Page Specifications for a description of the standard header links on each page.
- C See DW\_Bottom\_of\_Page Specifications for a description of the standard footer links on each page.

## **Images:**

The only images used on the STORET Central Warehouse web site are those that are included in the EPA Standard Web Template.

### **Business Rules:**

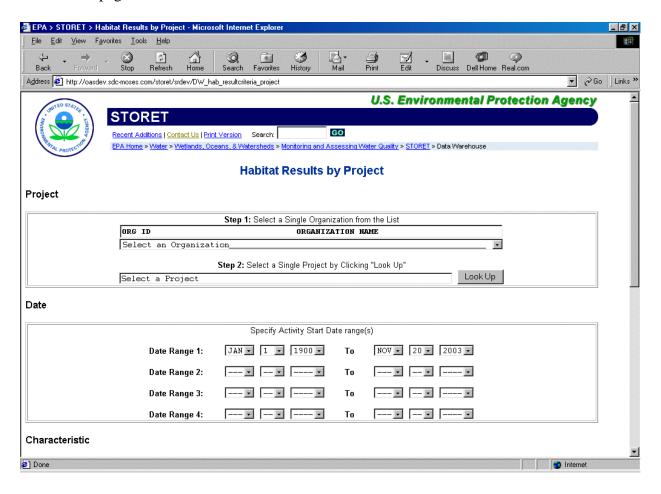
- Only taxonomic characteristics that have been recorded will be displayed.
- Characteristics can not be added to the Selected Characteristics list more than once (even if the same Characteristic is selected multiple times using different naming conventions).
- The user may add no more than 50 Characteristics to the Selected Characteristics list. The attempted addition of Characteristics in excess of this limit are blocked and an alert is displayed.
- If the user has selected an Organization but does not select a Project, data for the selected Organization is retrieved for the report.
- If the user selects default date values (i.e., From Date = Jan 1, 1900, To = current date), all result records are included in the search.

## **Error Handling:**

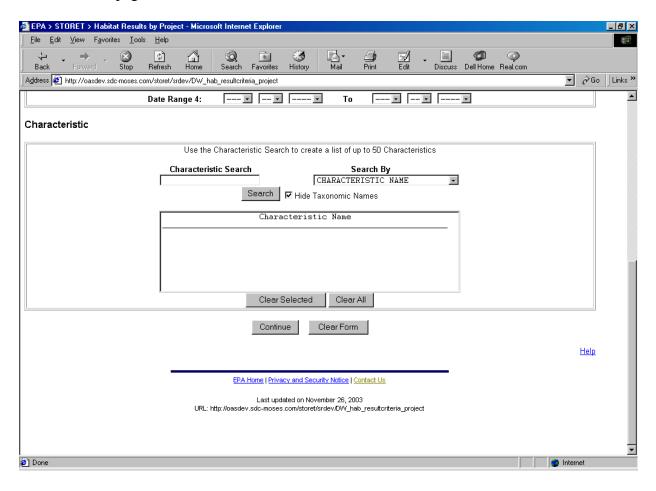
C A standard Error Page should be displayed when this page does not load upon request.

- C An alert is displayed if the user attempts to perform a Characteristic search before entering a search string.
- C An alert is displayed if the user attempts to perform a Project look-up before selecting an Organization.
- C The Project field is reset to 'Select a Project' if the selected Organization is changed.
- The user will not be allowed to proceed to the next page if an invalid date range is entered in the month-day-year selection boxes (e.g., Jan 1, 2003 Jan 1, 1900).

First half of page.



# Second half of page.



## **STORET Central Warehouse Specification**

**SIR:** 1503, 1563

Package Name: SDW (STORET Data Warehouse)

**Procedure Name:** DW\_Hab\_Result\_Criteria\_Station

Web Page Name: Habitat Results by Station

## **Processing Overview/Description:**

The Habitat Results by Station page is the second Habitat Result search page of the STORET Central Warehouse and provides three major search areas: Organization/Station, Date, and Characteristic. A user is able to accept default values or enter specific selection criteria for each of these query dimensions. The user is able to select Stations from multiple Organizations, but is limited to selecting a maximum of 100 Stations per query. The user is able to select up to four date ranges and 50 Characteristics per query.

### **Tables Used:**

(Display Fields are listed in the order they are displayed)

Entity	Attribute	Display
Organization (DI_ORG)	ORGANIZATION_NAME	Y
	ORGANIZATION_ID	Y
	PK_ISN	N

## **Links From:**

Procedure	Web_Page	Button/Text
DW_Home	STORET: Central Warehouse	Habitat Results by Station

# **Input Parameters:**

These parameters are passed from the three Popup windows (DW\_Extref\_Popup, DW\_Station\_Popup and DW\_Char\_Alias\_Popup) back to this procedure.

Natural Language	Parameter
The name of the selected Station Alias Type. By default this value is 'STANDARD'.	AS_EXTREF
The key of the selected Station Alias Type. By default this value is 0.	D_EXTREF_LIST
A Pl/Sql table of selected Stations (Station Key List). By default this value is 'DUMMY'.	STATION_LIST
A Pl/Sql table of selected Characteristics (Characteristic Key List). By default this value is 'DUMMY'.	CHAR_LIST

## **Links To:**

Procedure	Web_Page	Button/Text
DW_Extref_Popup	STORET: Select a Station Alias Type	Look Up
DW_Station_Popup	STORET: Station Search Results	Search Stations
DW_Char_Alias_Popup	STORET: Characteristic Search Results	Search
DW_Result_Count	Result Search Summary	Continue

# **Output Parameters:**

Natural Language	Parameter
The name of the selected Station Alias Type. By default this value is 'STANDARD'.	AS_EXTREF
The key of the selected Station Alias Types. By default this value is 0.	D_EXTREF_LIST
The search string used to find Stations within the Organization. By default this value is 'DUMMY'.	AS_STATION

Natural Language	Parameter
A Pl/Sql table of selected Stations (Station Key List). By default this value is 'DUMMY'.	STATION_LIST
The names of the selected Station(s) string separated by HTML break tags ( ). By default this value is NULL.	V_STATION_NAMES
The month of the beginning date of the first query date range. By default this value is Jan.	FROM_MON1
The day of the month of the beginning date of the first query date range. By default this value is 1.	FROM_DD1
The year of the beginning date of the first query date range. By default this value is 1900.	FROM_YYYY1
The month of the ending date of the first query date range. By default this value is the current month.	END_MON1
The day of the month of the ending date of the first query date range. By default this value is the current day of the month.	END_DD1
The year of the ending date of the first query date range. By default this value is the current year.	END_YYYY1
The month of the beginning date of the second query date range. By default this value is NULL (displayed as "—").	FROM_MON2
The day of the month of the beginning date of the second query date range. By default this value is NULL (displayed as "—").	FROM_DD2
The year of the beginning date of the second query date range. By default this value is NULL (displayed as "—").	FROM_YYYY2
The month of the ending date of the second query date range. By default this value is NULL (displayed as "—").	END_MON2
The day of the month of the ending date of the second query date range. By default this value is NULL (displayed as "—").	END_DD2
The year of the ending date of the second query date range. By default this value is NULL (displayed as "—").	END_YYYY2

Natural Language	Parameter
The month of the beginning date of the third query date range. By default this value is NULL (displayed as "—").	FROM_MON3
The day of the month of the beginning date of the third query date range. By default this value is NULL (displayed as "—").	FROM_DD3
The year of the beginning date of the third query date range. By default this value is NULL (displayed as "—").	FROM_YYYY3
The month of the ending date of the third query date range. By default this value is NULL (displayed as "—").	END_MON3
The day of the month of the ending date of the third query date range. By default this value is NULL (displayed as "—").	END_DD3
The year of the ending date of the third query date range. By default this value is NULL (displayed as "—").	END_YYYY3
The month of the beginning date of the fourth query date range. By default this value is NULL (displayed as "—").	FROM_MON4
The day of the month of the beginning date of the fourth query date range. By default this value is NULL (displayed as "—").	FROM_DD4
The year of the beginning date of the fourth query date range. By default this value is NULL (displayed as "—").	FROM_YYYY4
The month of the ending date of the fourth query date range. By default this value is NULL (displayed as "—").	END_MON4
The day of the month of the ending date of the fourth query date range. By default this value is NULL (displayed as "—").	END_DD4
The year of the ending date of the fourth query date range. By default this value is NULL (displayed as "—").	END_YYYY4

Natural Language	Parameter
The names of the selected Characteristic(s) in a string separated by HTML break tags ( ). By default this value is NULL.	V_CHAR_NAMES
The search string used to identify available Characteristics. By default this value is NULL.	AS_CHAR
The Characteristic naming convention being used for the Characteristic Search. By default this value is 0 (STORET DEFAULT).	AS_CHAR_ALIAS_TYPE
A Pl/Sql table of selected Characteristics (Characteristic Key List). By default this value is 'DUMMY'.	CHAR_LIST
Boolean flag used to signal whether taxonomic names should be included in characteristic searches. By default this value is 'ON'.	TAXON_FILTER
A Pl/Sql table of selected Organizations (Organization Key List).	D_ORG_LIST
Used to identify which type of result data to query against.	RESULT_TYPE

### **Internal Procedure Events:**

### **Onload**

- C Populate the Organization list box with Organization IDs and Names organized by Organization ID.
- C For Date Range 1, select default values of FROM = 'Jan-1-1900' and TO = the current date. The other three date values should be unselected by default and will contain line spaces (i.e., '—') to denote this.
- C Ensure that all selection criteria and hidden text fields are set to the appropriate default values.

### **Station Section**

C 'Look Up' onclick: Display a popup window showing the Station Alias Types that match the Organization selected by the user. If the user has not selected an Organization, display an alert message prompting them to do so. Populate the Station Alias Type display field with the Station Alias Type the user selects from the pop-up window.

- Search Stations' onclick: Display a pop-up window showing the Stations that match the search string, search type, Station Alias Type, and Organization entered by the user. If the user has not entered a search string, display an alert message prompting them to do so. Populate the Station listbox with the Stations the user selects from the pop-up window. No more than 100 Stations can be added to the Selected Stations list.
- C 'Clear Selected' onclick: All selected Stations are removed from the characteristic select list.
- Clear All' onclick: All Stations are removed from the characteristic select list.

### **Date Section**

Block the selection of invalid dates by altering the day list box to reflect the correct number of days in the month each time the month or year is changed.

### **Characteristic Section**

- 'Search' onclick: Display a pop-up window showing the characteristics that match the search string and Search By choice entered by the user. The user may choose to hide or display taxonomic name characteristics by selecting the checkbox next to the search string textbox. If the user has not entered a search string, display an alert message prompting them to do so. Populate the Characteristics listbox with the characteristics the user selects from the pop-up window. No more than 50 Characteristics can be added to the Selected Characteristics list.
- C 'Clear Selected' onclick: All selected characteristics are removed from the characteristic select list.
- Clear All' onclick: All characteristics are removed from the characteristic select list.

### Form Level

- Continue' onclick: The users inputs are validated and their selection criteria is passed to the next page of the web application for processing.
- C 'Clear Form' onclick: All values on the form are returned to their default values.

### General

- C See DW\_Top\_of\_Page Specifications for a description of the standard header links on each page.
- C See DW\_Bottom\_of\_Page Specifications for a description of the standard footer links on each page.

### **Images:**

The only images used on the STORET Central Warehouse web site are those that are included in the EPA Standard Web Template.

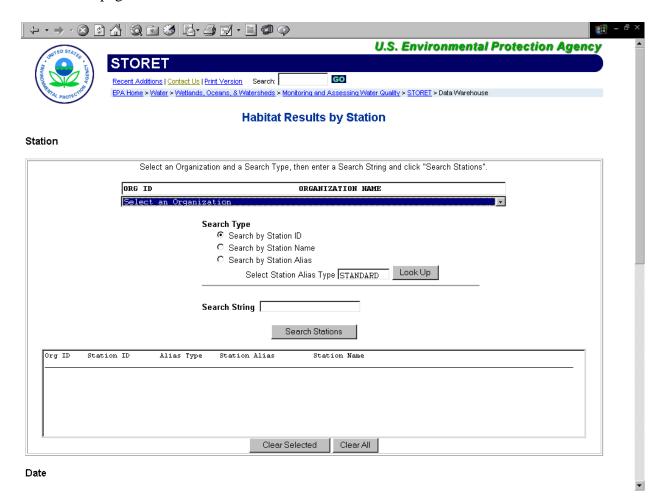
#### **Business Rules:**

- Only taxonomic characteristics that have been recorded will be displayed.
- Characteristics can not be added to the Selected Characteristics list more than once (even if the same Characteristic is selected multiple times using different naming conventions).
- C The user may add no more than 50 Characteristics to the Selected Characteristics list. The attempted addition of Characteristics in excess of this limit are blocked and an alert is displayed.
- If the user has selected an Organization but does not select any Stations, data for the selected Organization is retrieved for the report.
- C Stations can not be added to the Selected Stations list more than once.
- If the user selects 'Search by Station Alias Type' but does not change the selected Station Alias Type (i.e., default of 'STANDARD'), then Stations will be searched by ID.
- C The user may add no more than 100 Stations to the Selected Stations list. The attempted addition of Stations in excess of this limit is blocked and an alert is displayed.
- If the user selects default date values (i.e., From Date = Jan 1, 1900, To = current date), all result records are included in the search.

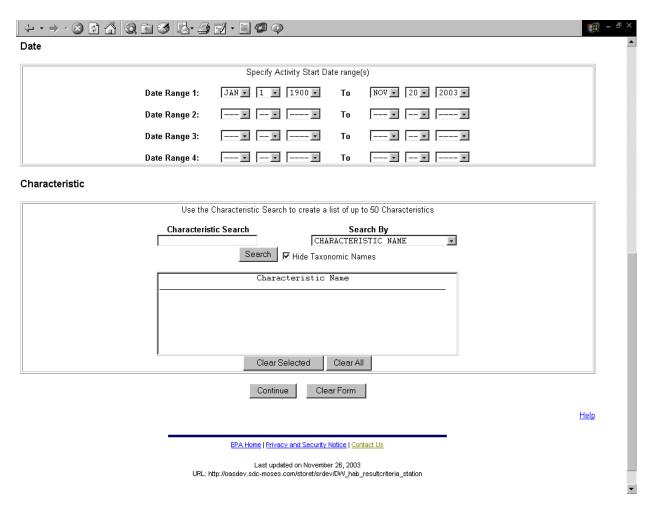
## **Error Handling:**

- C A standard Error Page should be displayed when this page does not load upon request.
- An alert is displayed if the user attempts to perform a Characteristic search before entering a search string.
- An alert is displayed if the user attempts to perform a Station search before entering a search string.
- C An alert is displayed if the user attempts to perform a Station search before selecting an Organization.
- C An alert is displayed if the user attempts to perform a Station Alias Type lookup before selecting an Organization.
- The user will not be allowed to proceed to the next page if an invalid date range is entered in the month-day-year selection boxes (e.g., Jan 1, 2003 Jan 1, 1900).

First half of page.



# Second half of page.



## **STORET Central Warehouse Specification**

**SIR:** 1530

Package Name: SDW (STORET Data Warehouse)

Procedure Name: DW\_Home

Web Page Name: STORET Central Warehouse

## **Processing Overview/Description:**

This serves as the cover page to the STORET Central Warehouse Web Application. It provides links to the nine Result Search Criteria pages and the two Station Search Criteria pages. It also provides users with the STORET User Assistance 800 number and email address. The STORET 'rain-drop' logo is also displayed on this page.

### **Tables Used:**

(Display Fields are listed in the order they are displayed)

None.

**Links From:** 

None.

**Input Parameters:** 

None.

## Links To:

Procedure	Web_Page	Button/Text
DW_Selection_Criteria	Station Search Criteria	Stations by Geographic Location

Procedure	Web_Page	Button/Text
DW_Selection_Criteria_Stn	Stations by Organization and Station ID	Stations by Organization and Station ID
DW_Result_Criteria_Geo	Results by Geographic Location	Regular Results by Geographic Location
DW_Result_Criteria_Station	Results by Station	Regular Results by Station
DW_Result_Criteria_Project	Results by Project	Regular Results by Project
DW_Bio_Result_Criteria_Geo	Results by Geographic Location	Regular Results by Geographic Location
DW_Bio_Result_Criteria_Station	Results by Station	Biological Results by Station
DW_Bio_Result_Criteria_Project	Results by Project	Biological Results by Project
DW_Hab_Result_Criteria_Geo	Results by Geographic Location	Habitat Results by Geographic Location
DW_Hab_Result_Criteria_Station	Results by Station	Habitat Results by Station
DW_Hab_Result_Criteria_Project	Results by Project	Habitat Results by Project

# **Output Parameters:**

None.

### **Internal Procedure Events:**

## General

- C See DW\_Top\_of\_Page Specifications for a description of the standard header links on each page.
- C See DW\_Bottom\_of\_Page Specifications for a description of the standard footer links on each page.

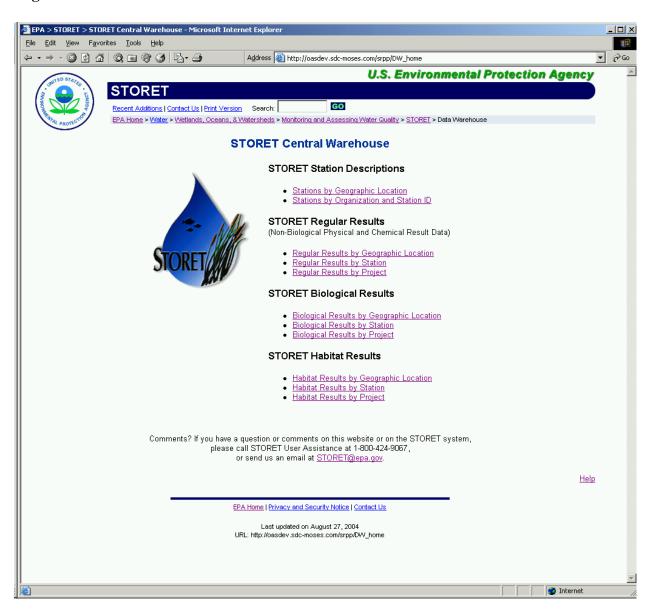
## **Images:**

This page contains the images included in the EPA Standard Web Template. This page also references the STORET 'rain-drop' logo stored at the location: 'http://www.epa.gov/storet/images/logo.gif'.

**Error Handling:** 

<b>Business Rules:</b>	
None.	

C A standard Error Page should be displayed when this page does not load upon request.



## **STORET Central Warehouse Specification**

**SIR:** 1366

Package Name: SDW (STORET Data Warehouse)

Procedure Name: DW\_HUC\_Popup

**Web Page Name:** STORET: Select a Hydrologic Unit Code (HUC)

## **Processing Overview/Description:**

The Select a Hydrologic Unit Code (HUC) page is called by the Station Search Criteria page and the Results By Geographic Location pages, and is used to display a list of all available Hydrologic Unit Names and their associated codes in a pop-up window. The user may select one Hydrologic Unit from this list. The code of the selected Hydrologic Unit is passed to the calling page where the appropriate field is populated.

### **Tables:**

(Display Fields are listed in the order they are displayed)

Entity	Attribute	Display
HUC Code (DI_DB_CAT)	HYDROLOGIC_UNIT_CODE	Y
	HYDROLOGIC_UNIT_NAME	Y

Note: Although this web page is initially generated from the DI\_DB\_CAT table, the HUC list is static and must be manually refreshed if changes are made to that table.

### **Links From:**

Procedure	Web_Page	Button/Text
DW_Station_Criteria	Station Search Criteria	<look up=""></look>
DW_Results_Criteria_Geo	Regular Results by Geographic Location	<look up=""></look>

Procedure	Web_Page	Button/Text
DW_Bio_Results_Criteria_Geo	Biological Results by Geographic Location	<look up=""></look>
DW_Hab_Results_Criteria_Geo	Habitat Results by Geographic Location	<look up=""></look>

Input	<b>Param</b>	eters:
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None.

## Links To:

Procedure	Web_Page	Button/Text
DW_Station_Criteria	Station Search Criteria	<look up=""></look>
DW_Results_Criteria_Geo	Regular Results by Geographic Location	<look up=""></look>
DW_Bio_Results_Criteria_Geo	Biological Results by Geographic Location	<look up=""></look>
DW_Hab_Results_Criteria_Geo	Habitat Results by Geographic Location	<look up=""></look>

# **Output Parameters:**

Natural Language	Parameter
The Hydrologic Unit Code value.	AS_HUC

## **Internal Procedure Events:**

- Select' onclick: Populate the Cataloging Unit text box on the calling page with the HUC code that the user selects from this pop-up window.
- C 'Cancel' onclick: Close this pop-up window and return focus to the calling page. Do not alter the value of the Cataloging Unit text box.

<b>Images:</b>
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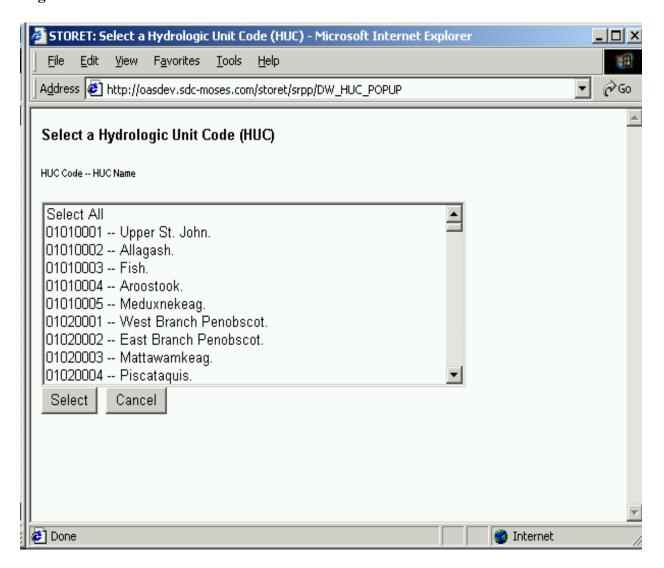
None.

## **Business Rules:**

- C All Hydrologic Units are displayed.
- C Only one Hydrologic Unit can be selected per search.

# **Error Handling:**

- C A standard Error Page should be displayed when this page does not load upon request.
- C Only valid Hydrologic Unit Codes are returned to the Station Search Criteria page.



**SIR:** 1633

Package Name: DW\_Mail\_Pkg for SDW (STORET Data Warehouse)

Procedure Name: DW\_Mail\_Pkg.Send

Web Page Name: None

## **Processing Overview/Description:**

Sends an email to the requestor by utilizing Oracle UTL\_SMTP package.

#### **Tables Used:**

(Display Fields are listed in the order they are displayed)

None.

#### **Links From:**

Procedure	Web_Page	Button/Text
DW_process_data_request	None	
DW_REPORT_pending_requests	None	
DW_station_download_custom	None	

### **Input Parameters:**

Natural Language	Parameter
Sender Email address	P_SENDER_EMAIL
Sender Name	P_FROM

Natural Language	Parameter
To address list	P_TO
Copy list	P_CC
Blind Copy list	P_BCC
Subject of the email	P_SUBJECT
Body of the email.	P_BODY

Procedure	Web_Page	Button/Text
DW_mail_pkg.address_email	None (procedure call)	

## **Output Parameters:**

None.

### **Internal Procedure Events:**

### **Onload**

- C Establish To, CC, BCC address list.
- Call utl\_smtp.open\_data procedure.
- Call Utl\_smtp.write\_data procedure to write the address lists, subject and body.
- Call utl\_smtp.close\_data procedure.
- Call utl\_smtp.quit procedure.

None.

## **Business Rules:**

C	Read SMTP host and port should be read from DW_Glob_var package for minimizing
	edits to procedures.

Error Handling:		
None.		
Page Print:		
None.		

**SIR:** 1633

Package Name: SDW (STORET Data Warehouse)

**Procedure Name:** DW\_Monthly\_Stats

Web Page Name: None

## **Processing Overview/Description:**

Generate and email a monthly statistical report on data requests from the STORET Central Warehouse.

### **Tables:**

(See Business Rules section for additional display information.)

Entity	Attribute	Display
DW_DATA_REQUESTS	REQUEST_TYPE	Y
	DATETIME	N
	F_STATE	Y
	F_COUNTY	Y
	F_LATLONG	Y
	F_HUC	Y
	F_STATIONTYPE	Y
	F_CHARACTERISTIC	Y
	F_ORGANIZATION	Y
	F_STATION	Y
	F_ACT_STARTDATE	Y
	F_ACT_MEDIUM	Y

Entity	Attribute	Display
	F_PROJECT	Y
	F_ACT_INTENT	Y
	F_COMMUNITY_SAMPLED	Y
	REQUEST_MODE	Y

•	•		•	
	ır	ZC	From:	
1	<b>/II</b>	ID.3	1 1 (7)111.	

None.

## **Input Parameters:**

Natural Language	Parameter
Any valid date in the month for which a monthly report is required	P_MONTH

Links	To:
-------	-----

None.

# **Output Parameters:**

None

#### **Internal Procedure Events:**

#### **Onload**

- Query DW\_DATA\_REQUESTS table for monthly statistics. Formulate the statistics into a message and store in a variable.
- C Send an email using dw\_mail\_pkg.send procedure to the address stored in dw\_glob\_var.gv\_storet\_email variable.

Image	s:
None.	
Busine	ess Rules:
C	Provide totals for download types.
C	Provide totals for request modes.
C	Provide totals for the each distribution of filters used for the request.
C	Provide data in the statistics report for a one month period.
Error None.	Handling:
Page I	Print:

**SIR:** 1633

Package Name: SDW (STORET Data Warehouse)

**Procedure Name:** DW\_Process\_Batch\_Requests

Web Page Name: None

## **Processing Overview/Description:**

Identifies all STORET data requests via Overnight Batch processing that are in 'New' status or pending Immediate Batch jobs submitted 8 hours prior, and runs them sequentially. This procedure may be scheduled to run periodically in the night.

#### **Tables Used:**

Entity	Attribute	Display
DW_DATA_REQUESTS	REQUEST_MODE	N
	REQUEST_STATUS	N
	DATETIME	N

		1
	DATETIME	N
Links From:		
None.		
Input Parameters:		
None.		

Procedure	Web_Page	Button/Text
DW_Process_Data_Request	None (Procedure call)	

Procee	dure	Web_Page	Button/Text
DW_P	Process_Data_Request	None (Procedure call)	
Outpu	t Parameters:		
None.			
Intern	al Procedure Events:		
Onloa	d		
С	Read the list of Overnigh	t Batch jobs with 'New' status ar	nd Immediate Batch jobs that do
С	not have a status of 'Completed' and were submitted 8 hours ago.  Sequentially call DW_Process_Data_Request for each request_id read above.		
J	sequentially can bw_110	occos_Data_request for each fee	acot_ia icaa acove.
Image	s:		
None.			
Busine	ess Rules:		
С	Pending Immediate Batch do not have a status of 'C	n Jobs are defined as those that wondered'.	vere submitted 8 hours prior and
Error	Handling:		
None.			
Page I	Print:		
None.			

**SIR:** 1633

Package Name: SDW (STORET Data Warehouse)

Procedure Name: DW\_Process\_Data\_Request

Web Page Name: None

#### **Processing Overview/Description:**

The procedure processes the data request for a given request\_id. It fetches the request query text and other request information stored in DW\_DATA\_REQUESTS table for the given request\_id, performs the query, and writes the fetched data to the file. The generated file is compressed and the file attributes are read to update the status of the request record in DW\_DATA\_REQUESTS table. The procedure then sends an email to the user.

#### **Tables Used:**

(Display Fields are listed in the order they are displayed)

Entity	Attribute	Display
DW_Data_Requests	REQUEST_ID	N
	REQUEST_TYPE	N
	REQUEST_MODE	N

#### **Links From:**

Procedure	Web_Page	Button/Text/Action
DW_Process_Batch_Requests	Not a web page (Scheduled Job)	Scheduler
DW_Process_Pending_Reqs	None	Manual execution
DW_Process_Request_List	None	Manual execution

Procedure	Web_Page	Button/Text/Action
DW_Station_Download_Custom	None	Procedure Call

### **Input Parameters:**

Natural Language	Parameter
Request ID as recorded in DW_DATA_REQUESTS table. Each request is stored in this table with a unique request_id.	p_req_id

#### Links To:

Procedure	Web_Page	Button/Text/Action
DW_Mail_Pkg.send	none	procedure call

### **Output Parameters:**

None.

#### **Internal Procedure Events:**

#### **Onload**

- C Read the record from DW\_DATA\_REQUESTS table for the given request\_id.
- C Open the ref cursor with query\_text.
- Create a file in the download directory with a filename as read from above.
- C Write the record\_title to the created file.
- C Fetch data from the database using the ref cursor and append it to the created file.
- Close the file and compress the file using gzip utility.
- Read the file size and update the DW\_DATA\_REQUESTS table with the file size, status and timestamp.
- Send an email to the user using dw\_mail\_pkg package. The email address is part of the record read earlier.
- Update the table with the notification status.

Image	S:
None.	
Busin	ess Rules:
C C	The record title should be written first to the file.  The data fetched should be appended to the file.
Error	Handling:
C	Update the request record with Failed status.
Page I	Print:
None.	

**SIR:** 1633

Package Name: SDW (STORET Data Warehouse)

Procedure Name: DW\_Process\_Data\_Request\_List

Web Page Name: None

## **Processing Overview/Description:**

Processes the batch data requests provided from a list of previously submitted request\_ids. This procedure is intended for running any failed batch data request jobs.

Tables Used	T	abl	les	U	sed	:
-------------	---	-----	-----	---	-----	---

None.

#### **Links From:**

None.

### **Input Parameters:**

Natural Language	Parameter
A comma separated string of request_ids that need to processed.	P_REQ_LIST

Procedure	Web_Page	Button/Text
DW_Process_Data_Request	None (Procedure call)	

DW_F	Process_Data_Request	None (Procedure call)		
Outpu None.	nt Parameters:			
Intern	al Procedure Events:			
Onloa	d			
C C	-	) by checking them in the DW_D Request for each request_id sequ	=	
Image	s:			
None.				
Busin	ess Rules:			
С	For manual invocation.			
Error	Error Handling:			
None.				
Page I	Page Print:			
None.				

**SIR:** 1633

Package Name: SDW (STORET Data Warehouse)

**Procedure Name:** DW\_Process\_PendingBatch\_Imm

Web Page Name: None

## **Processing Overview/Description:**

Identify Immediate Batch Process requests that do not have a 'Completed' status and were submitted 8 hours prior. Process these requests sequentially.

#### **Tables Used:**

Entity	Attribute	Display
DW_DATA_REQUESTS	REQUEST_MODE	N
	REQUEST_STATUS	N
	DATETIME	N

Links From:	
None.	
Input Parameters:	
None.	

Procedure	Web_Page	Button/Text
DW_Process_Data_Request	None (Procedure call)	

DW_Process	_Data_Request	None (Procedure call)		
Output Par	rameters:			
None.				
Internal Pr	ocedure Events:			
Onload				
		te batch requests that do not have	e a status of 'Completed' and	
	submitted 8 hours a DW Process Data	go. Request to process the pending r	equests identified sequentially.	
			7	
Images:				
None.				
Business R	ules:			
C Proc	ess the requests sequ	entially.		
Error Handling:				
None.				
Page Print:				
None.				

**SIR:** 1442, 1707

Package Name: SDW (STORET Data Warehouse)

Procedure Name: DW\_Proj\_Popup

Web Page Name: Select a Project

#### **Processing Overview/Description:**

The Select a Project page is called by the Results by Project pages and is used to display a list of all available Projects for the Organization the user has selected. The user is able to select a single Project selection from this list. The name and code of the selected Project are passed to the calling Results by Project page where the appropriate fields are populated with this information. National Project selections represent a single Project ID common across Organizations.

#### Tables:

Entity	Attribute	Display
Project (DI_PROJECT)	PROJECT_CD	Y
	PROJECT_NAME	Y
	PK_ISN	N
	FK_ORG	N
Organization (DI_ORG)	ORGANIZATION_NAME	Y
	PK_ISN	N

### **Links From:**

Procedure	Web_Page	Button/Text
DW_Project_Select	Regular Results by Project Biological Results by Project Habitat Results by Project	<look up=""></look>

# **Input Parameters:**

Natural Language	Parameter
The key of the selected Organizations. This value will be -1 for National Projects	V_ORG
This value is passed from the DW_Project_Select procedure for Organizational National Projects selections. This value is null for non-National Projects.	V_ORG_NAME

### **Links To:**

Procedure	Web_Page	Button/Text
DW_Project_Select	Regular Results by Project Biological Results by Project Habitat Results by Project	<select></select>

# **Output Parameters:**

Natural Language	Parameter
The ID and name of the selected Project. By default this value is 'Select a Project'.	AS_PROJ
The key of the selected Project. By default this value is 0.	D_PROJ_LIST

#### **Internal Procedure Events:**

- 'Select' onclick: Populate the Project Name text area on the calling Results by Project page with the Project ID and Project name that the user selects from this pop-up window. Write the corresponding Project primary key to the hidden field D\_PROJ\_LIST. The project primary key will be the minimum pk\_isn found for a National Project group. For National Projects, the Project Name is set as 'National Project (e.g.,' concatenated with the Project Name associated with the minimum pk\_isn.
- C 'Cancel' onclick: Close this pop-up window and return focus to the calling Results by Project page. Do not alter the value of the Project Name text area.

<b>Images:</b>
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None.

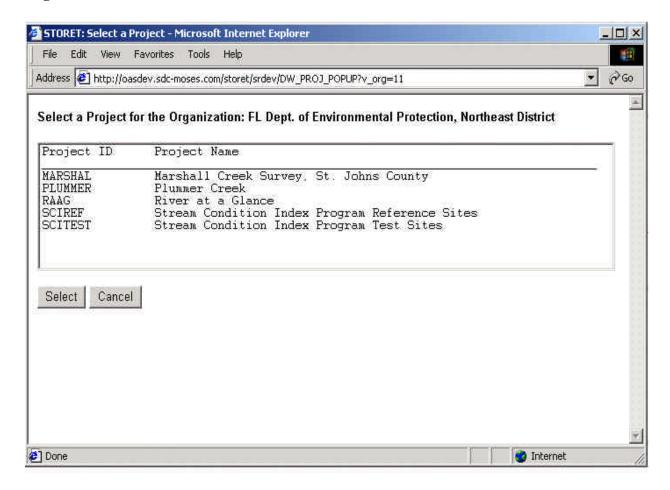
#### **Business Rules:**

C Only one Project row may be selected.

### **Error Handling:**

- C A standard Error Page should be displayed when this page is not loaded upon request.
- Only valid Project Names and Project Codes are returned to the Results by Project page.

### **Page Print:**



**SIR:** 1633

Package Name: SDW (STORET Data Warehouse)

Procedure Name: DW\_Record\_Data\_Request

Web Page Name: None

### **Processing Overview/Description:**

User data requests including Online or Batch processing are recorded in a table (DW\_DATA\_REQUESTS). The data includes flags for each type of applied filter, filename, report type, time stamp, file size, request mode, user contact information, record count, query text, title. This information is required for Immediate and Overnight batch processing.

#### **Tables Used:**

Entity	Attribute	Display
DW_DATA_REQUESTS	REQUEST_ID	N
	REQUEST_TYPE	N
	DATETIME	N
	FILESIZE_KB	N
	F_STATE	N
	F_COUNTY	N
	F_LATLONG	N
	F_HUC	N
	F_STATIONTYPE	N
	F_CHARACTERISTIC	N
	F_ORGANIZATION	N

Entity	Attribute	Display
	F_STATION	N
	F_ACT_STARTDATE	N
	F_ACT_MEDIUM	N
	F_PROJECT	N
	F_ACT_INTENT	N
	F_COMMUNITY_SAMPLED	N
	REQUEST_MODE	N
	REQUEST_STATUS	N
	EMAIL_ADDRESS	N
	QUERY_TEXT	N
	QUERY_TEXT2	N
	FILENAME	N
	RECORD_COUNT	N
	NOTIFIED	N
	RECORD_TITLE	N

## **Links From:**

Procedure	Web_Page	Button/Text
DW_Station_Download_Custom	Station Download Request	Continue or Immediate/Overnight Batch Processing buttons
DW_Result_Hub_Custom/ DW_Station_Download_Custom	Result Download Request	Continue or Immediate/Overnight Batch Processing buttons

# **Input Parameters:**

Natural Language	Parameter
List of filters used for the query. A comma separated string.	P_FILTERS

Natural Language	Parameter
SDS, SDR, SDB, SDH for different request types.	P_FILETYPE
Time stamp of the request.	P_TIMESTAMP
File size in KB for Online. For Batch processing a null value is sent.	P_FILE_LENGTH
The title of the download file. Used only for Batch processing.	P_RECORD_TITLE
Batch processing request mode. Immediate or Overnight.	P_REQUEST_MODE
User Email address for sending report status.	P_EMAIL
Query text in entirety.	P_QUERY
File name to be created for Batch processing.	P_FILENAME
Number of records (stations/results) of the query.	P_RECORD_COUNT

None.

### **Output Parameters:**

Natural Language	Parameter
Unique Request_ID used in DW_DATA_REQUESTS table.	P_REQUEST_ID

### **Internal Procedure Events:**

#### **Onload**

- C Parse the value of lv\_filters input parameter to identify the filters used for the query.
- C Fetch next value from seq\_dw\_data\_request\_id for use as request\_id.
- C Substring first 4000 characters of query into query\_text, load remainder into query\_text2.
- C Insert the request to DW\_DATA\_REQUESTS table.

Image	s:	
None.		
Busine	ess Rules:	
С	Nullify the batch related attributes for Online requests.	
Error	Handling:	
С	Handled by calling procedure.	
Page Print:		
None.		

**SIR:** 1633

Package Name: SDW (STORET Data Warehouse)

Procedure Name: DW\_Report\_Pending\_Request

Web Page Name: None

#### **Processing Overview/Description:**

Report the Immediate Batch data requests that were submitted more than 8 hours prior and are not yet completed. Also include the Overnight Batch requests that are not complete and were submitted prior to the last Overnight Batch job scheduled time. Send the list to an email address as defined by dw\_glob\_var.gv\_email4pend\_report variable.

#### **Tables Used:**

(Display Fields are listed in the order they are displayed)

Entity	Attribute	Display
DW_DATA_REQUESTS	REQUEST_ID	N
	REQUEST_MODE	N
	REQUEST_STATUS	N
	DATETIME	N

#### **Links From:**

Procedure	Web_Page	Button/Text/Action
DBMS_JOB	None	Job scheduler

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None.

#### Links To:

Procedure	Web_Page	Button/Text
DW_MAIL_PKG	None (Procedure call)	Calls to send email

### **Output Parameters:**

None.

#### **Internal Procedure Events:**

#### Onload

- Read the pending requests. Run requests that are not completed and submitted 8 hours prior, or Overnight batch requests that were submitted prior to last Overnight Batch process time.
- C Send an email with the above information to the address in dw\_glob\_var.gv\_email4pend\_report variable.

### **Images:**

None.

#### **Business Rules:**

- Rune Immediate Batch jobs that were submitted 8 hours prior and are not completed.
- Run Overnight Batch jobs that were submitted prior to last Overnight Batch process time.

Error Handling:	
None.	
Page Print:	
None.	

**SIR:** 1445, 1500, 1502, 1503, 1638, 1631, 1707, 1633, 1706

Package Name: SDW (STORET Data Warehouse)

**Procedure Name:** DW\_Result\_Count

Web Page Name: Result Search Summary

#### **Processing Overview/Description:**

The Result Search Summary page receives and processes a user's search parameters from the nine Result Search Criteria pages, displays a summary of this information, and provides a count of the number of Results that satisfy the search criteria. Based on this count, a user is able to decide whether they wish to create a report or return to the Result Search Criteria page to refine their query. This page also allows a user to customize the reports they create by selecting the data elements they wish to include in their report. Based on the number of Stations, this procedure allows Online or Batch processing for the data request. The Batch processing can be both Immediate or Overnight. The limits that decide the range for different types of processing are enforced using global variables in DW\_GLOB\_VAR package. If a report exceeds the permitted number of Results, the user is told that they must refine their query and is unable to generate a report. If there are no Results for a report, the user is told that they must refine their query and is unable to generate a report.

#### **Tables:**

Entity	Attribute	Display
Date (DI_DATE)	FULL_DATE	Y
	PK_ISN	N
State (DI_GEO_STATE)	STATE_NAME	Y
	PK_ISN	N
Organization (DI_ORG)	ORGANIZATION_ID	Y

Entity	Attribute	Display
	PK_ISN	N
Project (DI_PROJECT)	PROJECT_CD	Y
	PROJECT_NAME	Y
	PK_ISN	N
	FK_ORG	N
Activity Medium (DI_ACTIVITY_MEDIUM)	PK_ISN	N
	ACTIVITY_MEDIUM	Y
Activity Intent (DI_ACTIVITY_INTENT)	PK_ISN	N
	ACTIVITY_INTENT	Y
Community Sampled (DI_COMMUNITY_SAMPLED)	PK_ISN	N
	ACTIVITY_COMMUNITY	Y
Non-Biological Result (FA_REGULAR_RESULT)	STN_LATITUDE	N
	STN_LONGITUDE	N
	PK_ISN	N
	FK_GEO_COUNTY	N
	FK_GEO_STATE	N
	GENERATED_HUC	N
	FK_DATE_ACT_START	N
	FK_CHAR	N
	FK_ORG	N
	FK_STATION	N
	FK_ACT_MEDIUM	N
	FK_STATN_TYPES	N
REGULAR_RESULT_PROJECT	FK_PROJECT	N
	FK_RESULT	N

Entity	Attribute	Display
Biological Result (FA_BIOLOGICAL_RESULT)	STN_LATITUDE	N
	STN_LONGITUDE	N
	PK_ISN	N
	FK_GEO_COUNTY	N
	FK_GEO_STATE	N
	GENERATED_HUC	N
	FK_DATE_ACT_START	N
	FK_CHAR	N
	FK_ORG	N
	FK_STATION	N
BIOLOGICAL_RESULT_PROJECT	FK_PROJECT	N
	FK_ACT_INTENT	N
	FK_COMMUNITY_SAMPLED	N
	FK_RESULT	N
Habitat Assessment (FA_HABITAT_RESULT)	STN_LATITUDE	N
	STN_LONGITUDE	N
	PK_ISN	N
	FK_GEO_COUNTY	N
	FK_GEO_STATE	N
	GENERATED_HUC	N
	FK_DATE_ACT_START	N
	FK_CHAR	N
	FK_ORG	N
	FK_STATION	N
HABITAT_RESULT_PROJECT	FK_PROJECT	N
	FK_RESULT	N

Entity	Attribute	Display
APP_COLUMN_NAME	ELEMENT_NAME	Y
	REG_REPORT_NUMBER	N
	REG_ELEMENT_DEFAULT	N
	BIO_REPORT_NUMBER	N
	BIO_REPORT_DEFAULT	N
	HAB_REPORT_NUMBER	N
	HAB_REPORT_DEFAULT	N

# **Links From:**

Procedure	Web_Page	Button/Text
DW_Result_Criteria_Geo	Regular Result by Geographic Location	<continue></continue>
DW_Result_Criteria_Station	Regular Result by Station	<continue></continue>
DW_Result_Criteria_Project	Regular Result by Project	<continue></continue>
DW_Bio_Result_Criteria_Geo	Biological Result by Geographic Location	<continue></continue>
DW_Bio_Result_Criteria_Station	Biological Result by Station	<continue></continue>
DW_Bio_Result_Criteria_Project	Biological Result by Project	<continue></continue>
DW_Hab_Result_Criteria_Geo	Habitat Result by Geographic Location	<continue></continue>
DW_Hab_Result_Criteria_Station	Habitat Result by Station	<continue></continue>
DW_Hab_Result_Criteria_Project	Habitat Result by Project	<continue></continue>

# **Input Parameters:**

Natural Language	Parameter
Identifies the geographic location parameter being used for the search. By default this value is 'StateCounty'.	GEOGRAPHIC

Natural Language	Parameter
The code of the selected State. By default this value is 0.	AS_STATE
The names of the selected County(s) in a comma separated string. By default this value is 'ALL'.	AS_COUNTY
The codes of the selected County(s) in a comma separated string. By default this value is 'ALL'.	V_COUNTY_CODE
The Northern Limit of a Latitude/Longitude query in decimal degrees. By default this value is 90.	MAX_LAT_DD
The Western Limit of a Latitude/Longitude query in decimal degrees. By default this value is 180.	MIN_LONG_DD
The Eastern Limit of a Latitude/Longitude query in decimal degrees. By default this value is 0.	MAX_LONG_DD
The Southern Limit of a Latitude/Longitude query in decimal degrees. By default this value is 0.	MIN_LAT_DD
The direction of the Northern Limit. By default this value is NULL.	DIR_MAXLAT
The direction of the Southern Limit. By default this value is NULL.	DIR_MINLAT
The direction of the Eastern Limit. By default this value is NULL.	DIR_MAXLONG
The direction of the Western Limit. By default this value is NULL.	DIR_MINLONG
The Hydrologic Unit Code value. By default this value is 'ALL'	AS_HUC
The month of the beginning date of the first query date range. By default this value is Jan.	FROM_MON1
The day of the month of the beginning date of the first query date range. By default this value is 1.	FROM_DD1
The year of the beginning date of the first query date range. By default this value is 1900.	FROM_YYYY1
The month of the ending date of the first query date range. By default this value is the current month.	END_MON1
The day of the month of the ending date of the first query date range. By default this value is the current day of the month.	END_DD1

Natural Language	Parameter
The year of the ending date of the first query date range. By default this value is the current year.	END_YYYY1
The month of the beginning date of the second query date range. By default this value is NULL or dummy (displayed as "—").	FROM_MON2
The day of the month of the beginning date of the second query date range. By default this value is NULL or 0 (displayed as "—").	FROM_DD2
The year of the beginning date of the second query date range. By default this value is NULL or 0 (displayed as "—").	FROM_YYYY2
The month of the ending date of the second query date range. By default this value is NULL or dummy (displayed as "—").	END_MON2
The day of the month of the ending date of the second query date range. By default this value is NULL or 0 (displayed as "—").	END_DD2
The year of the ending date of the second query date range. By default this value is NULL or 0 (displayed as "—").	END_YYYY2
The month of the beginning date of the third query date range. By default this value is NULL or dummy (displayed as "—").	FROM_MON3
The day of the month of the beginning date of the third query date range. By default this value is NULL or 0(displayed as "—").	FROM_DD3
The year of the beginning date of the third query date range. By default this value is NULL or 0 (displayed as "—").	FROM_YYYY3
The month of the ending date of the third query date range. By default this value is NULL or dummy (displayed as "—").	END_MON3
The day of the month of the ending date of the third query date range. By default this value is NULL or 0 (displayed as "—").	END_DD3
The year of the ending date of the third query date range. By default this value is NULL or 0 (displayed as "—").	END_YYYY3

Natural Language	Parameter
The month of the beginning date of the fourth query date range. By default this value is NULL or dummy (displayed as "—").	FROM_MON4
The day of the month of the beginning date of the fourth query date range. By default this value is NULL or 0 (displayed as "—").	FROM_DD4
The year of the beginning date of the fourth query date range. By default this value is NULL or 0 (displayed as "—").	FROM_YYYY4
The month of the ending date of the fourth query date range. By default this value is NULL or dummy (displayed as "—").	END_MON4
The day of the month of the ending date of the fourth query date range. By default this value is NULL or 0 (displayed as "—").	END_DD4
The year of the ending date of the fourth query date range. By default this value is NULL or 0 (displayed as "—").	END_YYYY4
The names of the selected Characteristic(s) in a string separated by HTML break tags ( ). By default this value is NULL.	V_CHAR_NAMES
The search string used to identify available Characteristics. By default this value is NULL.	AS_CHAR
The Characteristic naming convention being used for the Characteristic Search. By default this value is 0 (STORET DEFAULT).	AS_CHAR_ALIAS_TYPE
A Pl/Sql table of selected Characteristics (Characteristic Key List).	CHAR_LIST
Boolean flag used to signal whether taxonomic names should be included in characteristic searches. By default this value is 'ON'.	TAXON_FILTER
A Pl/Sql table of selected Organizations (Organization Key List).	D_ORG_LIST
The number (PK_ISN) that identifies the project the user selected. Default is 0.	D_PROJ_LIST

Natural Language	Parameter
The user selected project name. Default is NULL. Although passed in, this variable is replaced by proj_cd within the procedure.	AS_PROJ
The names of the selected Station(s) in a string separated by HTML break tags ( ). By default this value is NULL.	V_STATION_NAMES
The Station Ids of the selected Station(s) in a string separated by a break. By default this value is DUMMY.	AS_STATION
A Pl/Sql table of selected Stations.	STATION_LIST
The search string used to identify available Station Alias Type.	AS_EXTREF
The user selected Station Alias Type.	D_EXTREF_LIST
A Pl/Sql table of selected Activity Mediums (Medium Key List).	D_MEDIUM_LIST
A Pl/Sql table of selected Activity Intents (Intent Key List).	D_INTENT_LIST
A Pl/Sql table of selected Sample Communities (Community Key List).	D_COMMUNITY_LIST
The type of Result being searched (Regular, Biological, or Habitat).	RESULT_TYPE

# Links To:

Procedure	Web_Page	Button/Text
DW_Result_Hub_Custom	Download Result Report	<continue></continue>

# **Output Parameters:**

Natural Language	Parameter
The From clause of the SQL statement that will be used for selecting results.	V_FROMSTMT

Natural Language	Parameter
The Where clause of the SQL statement that will be used for selecting results.	V_WHERESTMT
A Pl/Sql table of selected Columns for the report (Column Name List).	V_COLUMNS
The number of results matching the search criteria (this is the same number that is displayed on the DW_Result_Count page).	V_RESULTCOUNT
Search criteria used in the query. A tilda delimited string.	V_FILTERS
Indicates whether RULE BASED query optimization should be employed (this is for performance tuning).	V_RULE_OPTIMIZATION
The type of Result Report being generated (Regular, Biological, or Habitat).	V_REPORT_TYPE

### **Internal Procedure Events:**

#### Onload

- C Display titles and values for the search criteria that the user selected on the previous page.
- C Display the number of Results that match the search criteria that the user selected on the previous page.
- C Display the report elements that comprise the selected Result Report type (defined in the APP\_COLUMN\_NAMES table).
- Check the default report element check boxes based on the type of Result Report being generated.
  - For Regular Result Reports: Org Name, Station ID, Station Location Info, Station Lat/Long, Visit Num, Activity Id, Activity Start [date], Activity Medium, Activity Type, Activity Category-Rep Num, Activity Depth, Activity Depth Unit, Characteristic Name, Sample Fraction, Value Type, Statistic Type, Result Value as Text, Units, Analytical Proc ID.
  - n <u>For Biological Result Reports:</u> Org Name, Station ID, Station Location Info, Station Lat/Long, Visit Num, Activity Id, Activity Start [date], Activity Medium, Activity Type, Activity Category-Rep Num, Subject Taxon, Biopart, Activity Depth, Activity Depth Unit, Characteristic Name, Sample Fraction, Value Type, Statistic Type, Result Value as Text, Units, Analytical Proc ID.

n <u>For Habitat Result Reports:</u> Org Name, Station ID, Station Location Info, Station Lat/Long, Visit Num, Activity Id, Activity Start [date], Activity Type, Activity Category-Rep Num, Characteristic Name, Sample Fraction, Value Type, Statistic Type, Result Value as Text, Units, Analytical Proc ID.

## **Custom Report Section**

- <sup>°</sup> Select All' onclick: Check all report element check boxes.
- C 'Clear All' onclick: Uncheck all report element check boxes.
- C 'Restore Defaults' onclick: Check only the default report elements.

### Form Level

- 'Continue>>' onclick: Call the procedure DW\_Result\_Hub\_Custom and pass it the processed Result search criteria (in the form of a SQL From clause and Where clause), the number of results that match the selection criteria, the list of columns that the user has selected for their report, the type of Result Report being requested, and whether RULE BASED query optimization should be used (this is currently only used for reports that include PROJECT search criteria).
- (<Back' onclick: Closes the page and returns to the selected Result Criteria page.

## General

- C See DW\_Top\_of\_Page Specifications for a description of the standard header links on each page.
- C See DW\_Bottom\_of\_Page Specifications for a description of the standard footer links on each page.

### **Images:**

The only images used on the STORET Central Warehouse web site are those that are included in the EPA Standard Web Template.

## **Business Rules:**

Only display location information for the geographic search option that has been selected (State/County (which is the default), Latitude/Longitude, or HUC). Do not display for Station or Project searches.

- Display Organization(s) for Project and Organization searches (these occur on the Project and Station search pages when the user selects an Organization but does not select either a specific Project or specific Stations).
- C Display Project ID and Project Name. Concatenate 'National Project (e.g., ' to the beginning of the National Project Name, and ')' to the end of the Project Name for National Projects.
- C Always display the Station(s) that have been selected. Display 'All' if the user has not chosen specific Stations to base search on.
- C Always display the Date range(s) that have been selected. Display 'All' if the user has selected the default Date values (From = Jan 1, 1900, To =Current date).
- Always display the Characteristics that have been selected. Display 'All' if the user has not chosen specific Characteristics to base search on.
- For Regular Result Searches, always display the Medium that have been selected.

  Display 'All' if the user has not chosen specific Activity Medium so search based upon.
- C For Biological Result Searches, always display the Intents that have been selected.

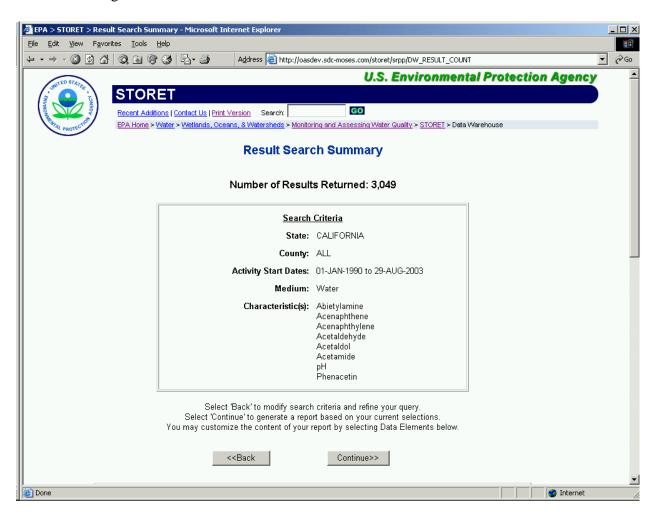
  Display 'All' if the user has not chosen specific Activity Intents to search based upon.
- For Biological Result Searches, display the Communities that have been selected if the Activity Intent is 'Taxon Abundance' or 'All'. Display 'All' if the user has not chosen specific Communities to base search on.
- Provide Online download for all result counts less than or equal to the value set by dw\_glob\_var.gv\_rslt\_online\_lmt.
- Provide Batch download option for all result counts between dw\_glob\_var.gv\_rslt\_online\_lmt and dw\_glob\_var.gv\_rslt\_Immediate\_lmt. This includes both Immeidate and Overnight Batch processing.
- C Provide Overnight Batch download option for all result counts between dw\_glob\_var.gv\_rslt\_Immediate\_lmt and dw\_glob\_var.gv\_rslt\_Overnight\_lmt. This include Overnight Batch processing only.
- C Do not provide any download option when station count is greater than dw glob var.gv rslt overnight\_lmt.

# **Error Handling:**

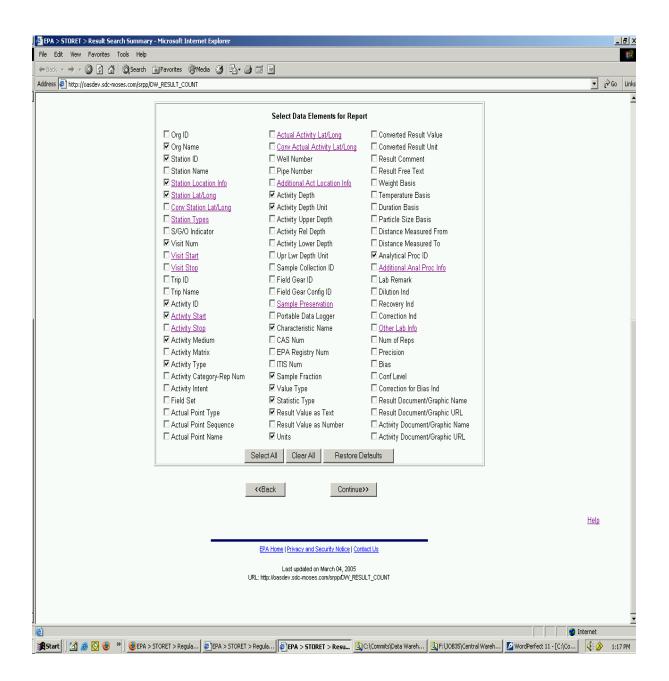
- C A standard Error Page should be displayed when this page is not loaded upon request.
- An alert is displayed if the user attempts to generate a report without having at least one report element selected.
- C Enforces report size restrictions as handled by global variables.

# **Page Print:**

First half of Page:



# Second half of page:



## **STORET Central Warehouse Specification**

**SIR:** 1441, 1440, 1439, 1437, 1435, 1443, 1500, 1563

Package Name: SDW (STORET Data Warehouse)

Procedure Name: DW\_Result\_Criteria\_GEO

Web Page Name: Regular Results by Geographic Location

## **Processing Overview/Description:**

The Regular Results by Geographic Location page is the first Regular Result search page of the STORET Central Warehouse and provides four major search areas: Geographic Location, Date, Activity Medium, and Characteristic. A user is able to accept default values or enter specific selection criteria for each of these query dimensions. In addition, the Geographic Location dimension is divided into three sub-dimensions: State/County, Latitude/Longitude, and Hydrologic Unit Code (HUC). The user is able to select one of these three location sub-dimension per Result query. The user is able to select up to four date ranges and 50 Characteristics per query.

### **Tables Used:**

(Display Fields are listed in the order they are displayed)

Entity	Attribute	Display
State (DI_GEO_STATE)	STATE_NAME	Y
	PK_ISN	N

### **Links From:**

Procedure	Web_Page	Button/Text
DW_Home	STORET: Central Warehouse	Regular Results by Geographic Location

# **Input Parameters:**

These parameters are passed from the three Popup windows (DW\_County\_Popup, DW\_HUC\_Popup, and DW\_Char\_Alias\_Popup) back to this procedure.

Natural Language	Parameter
The names of the selected County(s) in a comma separated string. By default this value is 'ALL'.	AS_COUNTY
The codes of the selected County(s) in a comma separated string. By default this value is 'ALL'.	V_COUNTY_CODE
The Hydrologic Unit Code value. By default this value is 'ALL'.	AS_HUC
A Pl/Sql table of selected Characteristics (Characteristic Key List). By default this value is 'DUMMY'.	CHAR_LIST

# Links To:

Procedure	Web_Page	Button/Text
DW_County_Popup	STORET: Select Counties	Look Up
DW_HUC_Popup	STORET: Select a Hydrologic Unit Code (HUC)	Look Up
DW_Char_Alias_Popup	STORET: Characteristic Search Results	Search
DW_Result_Count	Result Search Summary	Continue

# **Output Parameters:**

Natural Language	Parameter
Identifies the geographic location parameter being used for the search. By default this value is 'StateCounty'.	GEOGRAPHIC
The name of the selected State. By default this value is 'ALL'.	AS_STATE

Natural Language	Parameter
The names of the selected County(s) in a comma separated string. By default this value is 'ALL'.	AS_COUNTY
The codes of the selected County(s) in a comma separated string. By default this value is 'ALL'.	V_COUNTY_CODE
The Northern Limit of a Latitude/Longitude query in decimal degrees. By default this value is 90.	MAX_LAT_DD
The Western Limit of a Latitude/Longitude query in decimal degrees. By default this value is 180.	MIN_LONG_DD
The Eastern Limit of a Latitude/Longitude query in decimal degrees. By default this value is 0.	MAX_LONG_DD
The Southern Limit of a Latitude/Longitude query in decimal degrees. By default this value is 0.	MIN_LAT_DD
The direction of the Northern Limit. By default this value is N.	DIR_MAXLAT
The direction of the Southern Limit. By default this value is N.	DIR_MINLAT
The direction of the Eastern Limit. By default this value is W.	DIR_MAXLONG
The direction of the Western Limit. By default this value is W.	DIR_MINLONG
The Hydrologic Unit Code value. By default this value is 'ALL'	AS_HUC
The month of the beginning date of the first query date range. By default this value is Jan.	FROM_MON1
The day of the month of the beginning date of the first query date range. By default this value is 1.	FROM_DD1
The year of the beginning date of the first query date range. By default this value is 1900.	FROM_YYYY1
The month of the ending date of the first query date range. By default this value is the current month.	END_MON1
The day of the month of the ending date of the first query date range. By default this value is the current day of the month.	END_DD1
The year of the ending date of the first query date range. By default this value is the current year.	END_YYYY1

Natural Language	Parameter
The month of the beginning date of the second query date range. By default this value is NULL (displayed as "—").	FROM_MON2
The day of the month of the beginning date of the second query date range. By default this value is NULL (displayed as "—").	FROM_DD2
The year of the beginning date of the second query date range. By default this value is NULL (displayed as "—").	FROM_YYYY2
The month of the ending date of the second query date range. By default this value is NULL (displayed as "—").	END_MON2
The day of the month of the ending date of the second query date range. By default this value is NULL (displayed as "—").	END_DD2
The year of the ending date of the second query date range. By default this value is NULL (displayed as "—").	END_YYYY2
The month of the beginning date of the third query date range. By default this value is NULL (displayed as "—").	FROM_MON3
The day of the month of the beginning date of the third query date range. By default this value is NULL (displayed as "—").	FROM_DD3
The year of the beginning date of the third query date range. By default this value is NULL (displayed as "—").	FROM_YYYY3
The month of the ending date of the third query date range. By default this value is NULL (displayed as "—").	END_MON3
The day of the month of the ending date of the third query date range. By default this value is NULL (displayed as "—").	END_DD3
The year of the ending date of the third query date range. By default this value is NULL (displayed as "—").	END_YYYY3

Natural Language	Parameter
The month of the beginning date of the fourth query date range. By default this value is NULL (displayed as "—").	FROM_MON4
The day of the month of the beginning date of the fourth query date range. By default this value is NULL (displayed as "—").	FROM_DD4
The year of the beginning date of the fourth query date range. By default this value is NULL (displayed as "—").	FROM_YYYY4
The month of the ending date of the fourth query date range. By default this value is NULL (displayed as "—").	END_MON4
The day of the month of the ending date of the fourth query date range. By default this value is NULL (displayed as "—").	END_DD4
The year of the ending date of the fourth query date range. By default this value is NULL (displayed as "—").	END_YYYY4
The names of the selected Characteristic(s) in a string separated by HTML break tags( ). By default this value is NULL.	V_CHAR_NAMES
The search string used to identify available Characteristics. By default this value is NULL.	AS_CHAR
The Characteristic naming convention being used for the Characteristic Search. By default this value is 0 (STORET DEFAULT).	AS_CHAR_ALIAS_TYPE
A Pl/Sql table of selected Characteristics (Characteristic Key List). By default this value is 'DUMMY'.	CHAR_LIST
Boolean flag used to signal whether taxonomic names should be included in characteristic searches. By default this value is 'ON'.	TAXON_FILTER
A Pl/Sql table of selected Organizations (Organization Key List).	D_ORG_LIST
Used to identify which type of result data to query against.	RESULT_TYPE

Natural Language	Parameter
A Pl/Sql table of selected Activity Mediums (Medium Key List).	D_MEDIUM_LIST

#### **Internal Procedure Events:**

### **Onload**

- Populate the State Name list box with State Names organized alphabetically by country (with the U. S. first followed by Mexico and Canada).
- For Date Range 1, select default values of FROM = 'Jan-1-1900' and TO = the current date. The other three date values should be unselected by default and will contain line spaces (i.e., '—') to denote this.
- C Populate the Activity Medium list box.
- C Ensure that all selection criteria and hidden text fields are set to the appropriate default values.

## **Geographic Location Section**

- State/County 'Lookup' onclick: Display a pop-up window showing the available counties for the state currently selected from the drop-down list. Populate the County Name(s) textarea with the Counties that the user selects from the pop-up window.
- C HUC 'Lookup' onclick: Display a pop-up window showing all available HUC codes and their corresponding names. Populate the Cataloging Unit text box with the HUC code that the user selects from the pop-up window.

### **Date Section**

Block the selection of invalid dates by altering the day list box to reflect the correct number of days in the month each time the month or year is changed.

#### **Characteristic Section**

Search' onclick: Display a pop-up window showing the characteristics that match the search string and Search By choice entered by the user. The user may choose to hide or display taxonomic name characteristics by selecting the checkbox next to the search string textbox. If the user has not entered a search string, display an alert message prompting them to do so. Populate the Characteristics listbox with the characteristics the

- user selects from the pop-up window. No more than 50 Characteristics can be added to the Selected Characteristics list.
- C 'Clear Selected' onclick: All selected characteristics are removed from the characteristic select list.
- C 'Clear All' onclick: All characteristics are removed from the characteristic select list.

#### Form Level

- Continue' onclick: The users inputs are validated and their selection criteria is passed to the next page of the web application for processing.
- C'Clear Form' onclick: All values on the form are returned to their default values.

#### General

- C See DW\_Top\_of\_Page Specifications for a description of the standard header links on each page.
- C See DW\_Bottom\_of\_Page Specifications for a description of the standard footer links on each page.

## **Images:**

The only images used on the STORET Central Warehouse web site are those that are included in the EPA Standard Web Template.

### **Business Rules:**

- Only taxonomic characteristics that have been recorded will be displayed.
- Characteristics can not be added to the Selected Characteristics list more than once (even if the same Characteristic is selected multiple times using different naming conventions).
- C The user may add no more than 50 Characteristics to the Selected Characteristics list. The attempted addition of Characteristics in excess of this limit are blocked and an alert is displayed.
- If the user selects 'All' State/Counties, all result records are included in the search.
- If the user selects 'All' HUCs, all result records are included in the search.
- If the user selects default latitude/longitude values (i.e., N=90, S=0, E=0, W=180), all result records are included in the search.
- If the user selects default date values (i.e., From Date = Jan 1, 1900, To Date = current date), all result records are included in the search.

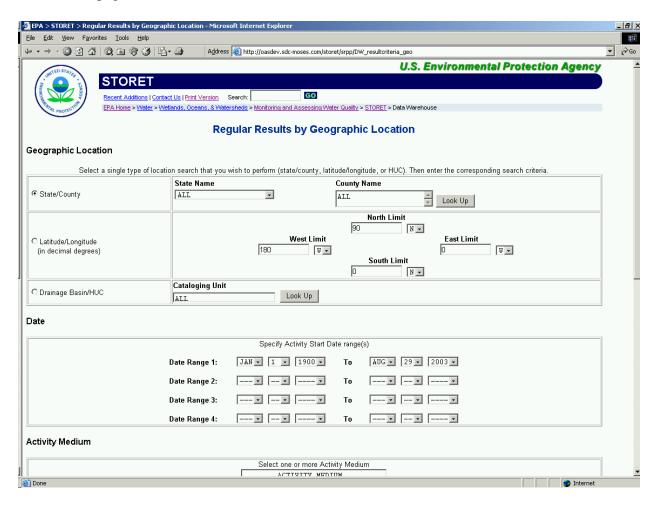
If a list of Activity Mediums is selected that includes 'Select All', all Activity Mediums are included in the search.

## **Error Handling:**

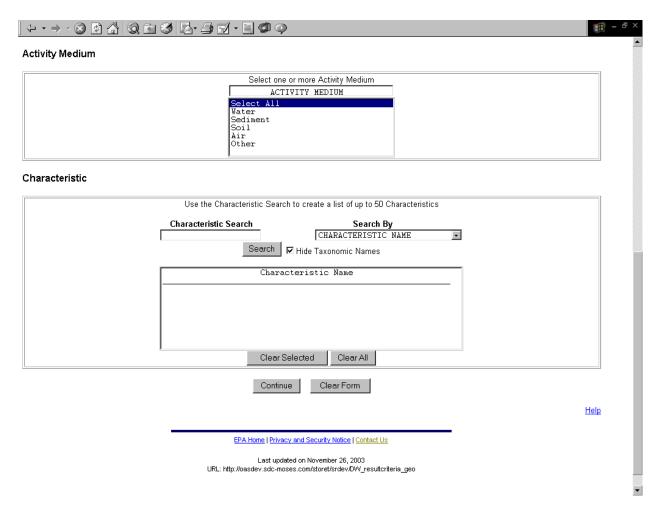
- C A standard Error Page should be displayed when this page does not load upon request.
- C The user will not be allowed to proceed to the next page if a non-numeric character is entered in the latitude/longitude fields or if the entry is outside the Latitude/Longitude permitted value range.
- C An alert is displayed if the user attempts to perform a Characteristic search before entering a search string.
- An alert is displayed if the user attempts to perform a County look-up before selecting a State.
- The county field is reset to 'All' if the selected State is changed.
- The user will not be allowed to proceed to the next page if an invalid date range is entered in the month-day-year selection boxes (e.g. Jan 1, 2003 Jan 1, 1900).

## **Page Print:**

First half of page.



# Second half of page.



## **STORET Central Warehouse Specification**

**SIR:** 1435, 1436, 1437, 1442, 1443, 1500, 1563, 1707

Package Name: SDW (STORET Data Warehouse)

Procedure Names: DW\_Result\_Criteria\_Project, DW\_Project\_Select

Web Page Name: Regular Results by Project

## **Processing Overview/Description:**

The Regular Results by Project page is the third Regular Result search page of the STORET Central Warehouse and provides four major search areas: Organization/Project, Date, Activity Medium, and Characteristic. A user is able to accept default values or enter specific selection criteria for each of these query dimensions. The user is able to select a single Project from a single Organization; or, a National Project selection with retrieve data spanning all Organizations that share a common Project ID. The user is able to select up to four date ranges and 50 Characteristics per query.

#### **Tables Used:**

(Display Fields are listed in the order they are displayed)

Entity	Attribute	Display
Organization (DI_ORG)	ORGANIZATION_NAME	Y
	ORGANIZATION_ID	Y
	PK_ISN	N
Project (DI_PROJECT)	PROJECT_CD	Y
	PROJECT_NAME	Y
	PK_ISN	N

## **Links From:**

Procedure	Web_Page	Button/Text
DW_Home	STORET: Central Warehouse	Regular Results by Project

# **Input Parameters:**

These parameters are passed from the two Popup windows (DW\_Project\_Popup and DW\_Char\_Alias\_Popup) back to this procedure.

Natural Language	Parameter
The name of the selected Project. By default this value is 'Select a Project'.	AS_PROJ
The key of the selected Project. By default this value is 0.	D_PROJ_LIST
The key of the selected Organization. By default this value is 0. The Organization selection for National Projects is given the value of -1.	D_ORG_LIST
A Pl/Sql table of selected Characteristics (Characteristic Key List). By default this value is 'DUMMY'.	CHAR_LIST

# Links To:

Procedure	Web_Page	Button/Text
DW_Project_Popup	STORET: Select Project	Look Up
DW_Char_Alias_Popup	STORET: Characteristic Search Results	Search
DW_Result_Count	Result Search Summary	Continue

# **Output Parameters:**

Natural Language	Parameter
The ID and name of the selected Project. By default this value is 'Select a Project'.	AS_PROJ
The key of the selected Organization. By default this value is 0. The Organization selection for National Projects is given the value of -1.	D_ORG_LIST
The key of the selected Project. By default this value is 0. For National Projects, this value is the minimum DI_PROJECT.PK_ISN across all contributing Organizations.	D_PROJ_LIST
The month of the beginning date of the first query date range. By default this value is Jan.	FROM_MON1
The day of the month of the beginning date of the first query date range. By default this value is 1.	FROM_DD1
The year of the beginning date of the first query date range. By default this value is 1900.	FROM_YYYY1
The month of the ending date of the first query date range. By default this value is the current month.	END_MON1
The day of the month of the ending date of the first query date range. By default this value is the current day of the month.	END_DD1
The year of the ending date of the first query date range. By default this value is the current year.	END_YYYY1
The month of the beginning date of the second query date range. By default this value is NULL (displayed as "—").	FROM_MON2
The day of the month of the beginning date of the second query date range. By default this value is NULL (displayed as "—").	FROM_DD2
The year of the beginning date of the second query date range. By default this value is NULL (displayed as "—").	FROM_YYYY2
The month of the ending date of the second query date range. By default this value is NULL (displayed as "—").	END_MON2

Natural Language	Parameter
The day of the month of the ending date of the second query date range. By default this value is NULL (displayed as "—").	END_DD2
The year of the ending date of the second query date range. By default this value is NULL (displayed as "—").	END_YYYY2
The month of the beginning date of the third query date range. By default this value is NULL (displayed as "—").	FROM_MON3
The day of the month of the beginning date of the third query date range. By default this value is NULL (displayed as "—").	FROM_DD3
The year of the beginning date of the third query date range. By default this value is NULL (displayed as "—").	FROM_YYYY3
The month of the ending date of the third query date range. By default this value is NULL (displayed as "—").	END_MON3
The day of the month of the ending date of the third query date range. By default this value is NULL (displayed as "—").	END_DD3
The year of the ending date of the third query date range. By default this value is NULL (displayed as "—").	END_YYYY3
The month of the beginning date of the fourth query date range. By default this value is NULL (displayed as "—").	FROM_MON4
The day of the month of the beginning date of the fourth query date range. By default this value is NULL (displayed as "—").	FROM_DD4
The year of the beginning date of the fourth query date range. By default this value is NULL (displayed as "—").	FROM_YYYY4
The month of the ending date of the fourth query date range. By default this value is NULL (displayed as "—").	END_MON4

Natural Language	Parameter
The day of the month of the ending date of the fourth query date range. By default this value is NULL (displayed as "—").	END_DD4
The year of the ending date of the fourth query date range. By default this value is NULL (displayed as "—").	END_YYYY4
The names of the selected Characteristic(s) in a string separated by HTML break tags ( ). By default this value is NULL.	V_CHAR_NAMES
The search string used to identify available Characteristics. By default this value is NULL.	AS_CHAR
The Characteristic naming convention being used for the Characteristic Search. By default this value is 0 (STORET DEFAULT).	AS_CHAR_ALIAS_TYPE
A Pl/Sql table of selected Characteristics (Characteristic Key List). By default this value is 'DUMMY'.	CHAR_LIST
Boolean flag used to signal whether taxonomic names should be included in characteristic searches. By default this value is 'ON'.	TAXON_FILTER
A Pl/Sql table of selected Organizations (Organization Key List).	D_ORG_LIST
Used to identify which type of result data to query against.	RESULT_TYPE
A Pl/Sql table of selected Activity Mediums (Medium Key List).	D_MEDIUM_LIST

## **Internal Procedure Events:**

## **Onload**

- C Populate the Organization list box with Organization IDs and Names organized by Organization ID.
- For Date Range 1, select default values of FROM = 'Jan-1-1900' and TO = the current date. The other three date values should be unselected by default and will contain line spaces (i.e., '—') to denote this.
- C Populate the Activity Medium list box.

C Ensure that all selection criteria and hidden text fields are set to the appropriate default values.

## **Organization/Project Section**

Project 'Lookup' onclick: Display a pop-up window showing the available Projects for the Organization currently selected from the drop-down list. Populate the Project textbox with the Project ID and Project Name that the user selects from the pop-up window and populate the hidden variable D\_PROJ\_LIST with the corresponding key; or minimum DI\_PROJECT.PK\_ISN value for National Projects.

#### **Date Section**

Block the selection of invalid dates by altering the day list box to reflect the correct number of days in the month each time the month or year is changed.

#### **Characteristic Section**

- Search' onclick: Display a pop-up window showing the characteristics that match the search string and Search By choice entered by the user. The user may choose to hide or display taxonomic name characteristics by selecting the checkbox next to the search string textbox. If the user has not entered a search string, display an alert message prompting them to do so. Populate the Characteristics listbox with the characteristics the user selects from the pop-up window. No more than 50 Characteristics can be added to the Selected Characteristics list.
- C 'Clear Selected' onclick: All selected characteristics are removed from the characteristic select list.
- C 'Clear All' onclick: All characteristics are removed from the characteristic select list.

#### Form Level

- C 'Continue' onclick: The users inputs are validated and their selection criteria is passed to the next page of the web application for processing.
- Clear Form' onclick: All values on the form are returned to their default values.

### General

- See DW\_Top\_of\_Page Specifications for a description of the standard header links on each page.
- C See DW\_Bottom\_of\_Page Specifications for a description of the standard footer links on each page.

## **Images:**

The only images used on the STORET Central Warehouse web site are those that are included in the EPA Standard Web Template.

#### **Business Rules:**

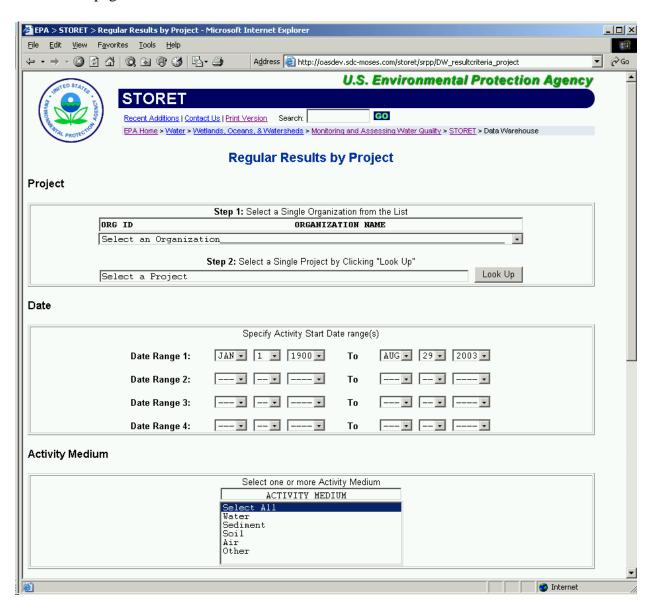
- Only taxonomic characteristics that have been recorded will be displayed.
- Characteristics can not be added to the Selected Characteristics list more than once (even if the same Characteristic is selected multiple times using different naming conventions).
- The user may add no more than 50 Characteristics to the Selected Characteristics list. The attempted addition of Characteristics in excess of this limit are blocked and an alert is displayed.
- C If the user has selected an Organization but does not select a Project, data for the selected Organization is retrieved for the report.
- If the user selects default date values (i.e., From Date = Jan 1, 1900, To = current date), all result records are included in the search.
- If a list of Activity Mediums is selected that includes 'Select All', all Activity Mediums are included in the search.

## **Error Handling:**

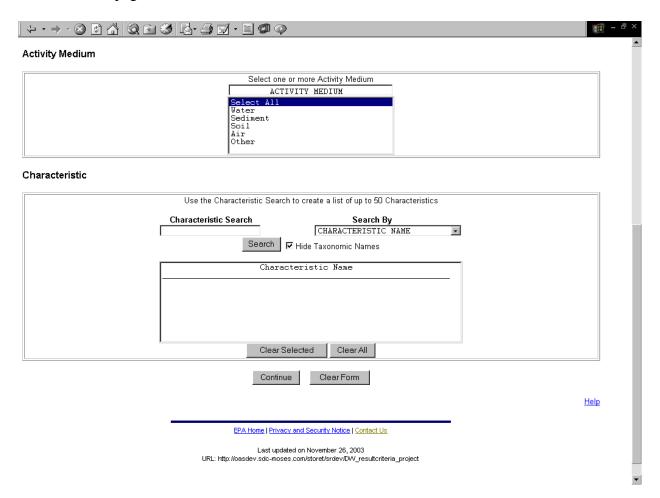
- C A standard Error Page should be displayed when this page does not load upon request.
- C An alert is displayed if the user attempts to perform a Characteristic search before entering a search string.
- An alert is displayed if the user attempts to perform a Project look-up before selecting an Organization.
- An alert is displayed if the user attempts to 'Continue' if the National Organization Selection is made without selecting a Project.
- The Project field is reset to 'Select a Project' if the selected Organization is changed.
- The user will not be allowed to proceed to the next page if an invalid date range is entered in the month-day-year selection boxes (e.g., Jan 1, 2003 Jan 1, 1900).

## **Page Print:**

First half of page.



# Second half of page.



## **STORET Central Warehouse Specification**

**SIR:** 1435, 1436, 1437, 1438, 1443, 1500, 1563

Package Name: SDW (STORET Data Warehouse)

Procedure Name: DW\_Result\_Criteria\_Station

Web Page Name: Regular Results by Station

## **Processing Overview/Description:**

The Regular Results by Station page is the second Regular Result search page of the STORET Central Warehouse and provides four major search areas: Organization/Station, Date, Activity Medium and Characteristic. A user is able to accept default values or enter specific selection criteria for each of these query dimensions. The user is able to select Stations from multiple Organizations, but is limited to selecting a maximum of 100 Stations per query. The user is able to select up to four date ranges and 50 Characteristics per query.

### **Tables Used:**

(Display Fields are listed in the order they are displayed)

Entity	Attribute	Display
Organization (DI_ORG)	ORGANIZATION_NAME	Y
	ORGANIZATION_ID	Y
	PK_ISN	N

### **Links From:**

Procedure	Web_Page	Button/Text
DW_Home	STORET: Central Warehouse	Regular Results by Station

# **Input Parameters:**

These parameters are passed from the three Popup windows (DW\_Extref\_Popup, DW\_Station\_Popup and DW\_Char\_Alias\_Popup) back to this procedure.

Natural Language	Parameter
The name of the selected Station Alias Type. By default this value is 'STANDARD'.	AS_EXTREF
The key of the selected Station Alias Type. By default this value is 0.	D_EXTREF_LIST
A Pl/Sql table of selected Stations (Station Key List). By default this value is 'DUMMY'.	STATION_LIST
A Pl/Sql table of selected Characteristics (Characteristic Key List). By default this value is 'DUMMY'.	CHAR_LIST

# Links To:

Procedure	Web_Page	Button/Text
DW_Extref_Popup	STORET: Select a Station Alias Type	Look Up
DW_Station_Popup	STORET: Station Search Results	Search Stations
DW_Char_Alias_Popup	STORET: Characteristic Search Results	Search
DW_Result_Count	Result Search Summary	Continue

# **Output Parameters:**

Natural Language	Parameter
The name of the selected Station Alias Type. By default this value is 'STANDARD'.	AS_EXTREF
The key of the selected Station Alias Types. By default this value is 0.	D_EXTREF_LIST
The search string used to find Stations within the Organization. By default this value is 'DUMMY'.	AS_STATION

Natural Language	Parameter
A Pl/Sql table of selected Stations (Station Key List). By default this value is 'DUMMY'.	STATION_LIST
The names of the selected Station(s) string separated by HTML break tags ( ). By default this value is NULL.	V_STATION_NAMES
The month of the beginning date of the first query date range. By default this value is Jan.	FROM_MON1
The day of the month of the beginning date of the first query date range. By default this value is 1.	FROM_DD1
The year of the beginning date of the first query date range. By default this value is 1900.	FROM_YYYY1
The month of the ending date of the first query date range. By default this value is the current month.	END_MON1
The day of the month of the ending date of the first query date range. By default this value is the current day of the month.	END_DD1
The year of the ending date of the first query date range. By default this value is the current year.	END_YYYY1
The month of the beginning date of the second query date range. By default this value is NULL (displayed as "—").	FROM_MON2
The day of the month of the beginning date of the second query date range. By default this value is NULL (displayed as "—").	FROM_DD2
The year of the beginning date of the second query date range. By default this value is NULL (displayed as "—").	FROM_YYYY2
The month of the ending date of the second query date range. By default this value is NULL (displayed as "—").	END_MON2
The day of the month of the ending date of the second query date range. By default this value is NULL (displayed as "—").	END_DD2
The year of the ending date of the second query date range. By default this value is NULL (displayed as "—").	END_YYYY2

Natural Language	Parameter
The month of the beginning date of the third query date range. By default this value is NULL (displayed as "—").	FROM_MON3
The day of the month of the beginning date of the third query date range. By default this value is NULL (displayed as "—").	FROM_DD3
The year of the beginning date of the third query date range. By default this value is NULL (displayed as "—").	FROM_YYYY3
The month of the ending date of the third query date range. By default this value is NULL (displayed as "—").	END_MON3
The day of the month of the ending date of the third query date range. By default this value is NULL (displayed as "—").	END_DD3
The year of the ending date of the third query date range. By default this value is NULL (displayed as "—").	END_YYYY3
The month of the beginning date of the fourth query date range. By default this value is NULL (displayed as "—").	FROM_MON4
The day of the month of the beginning date of the fourth query date range. By default this value is NULL (displayed as "—").	FROM_DD4
The year of the beginning date of the fourth query date range. By default this value is NULL (displayed as "—").	FROM_YYYY4
The month of the ending date of the fourth query date range. By default this value is NULL (displayed as "—").	END_MON4
The day of the month of the ending date of the fourth query date range. By default this value is NULL (displayed as "—").	END_DD4
The year of the ending date of the fourth query date range. By default this value is NULL (displayed as "—").	END_YYYY4

Natural Language	Parameter
The names of the selected Characteristic(s) in a string separated by HTML break tags ( ). By default this value is NULL.	V_CHAR_NAMES
The search string used to identify available Characteristics. By default this value is NULL.	AS_CHAR
The Characteristic naming convention being used for the Characteristic Search. By default this value is 0 (STORET DEFAULT).	AS_CHAR_ALIAS_TYPE
A Pl/Sql table of selected Characteristics (Characteristic Key List). By default this value is 'DUMMY'.	CHAR_LIST
Boolean flag used to signal whether taxonomic names should be included in characteristic searches. By default this value is 'ON'.	TAXON_FILTER
A Pl/Sql table of selected Organizations (Organization Key List).	D_ORG_LIST
Used to identify which type of result data to query against.	RESULT_TYPE
A Pl/Sql table of selected Activity Mediums (Medium Key List).	D_MEDIUM_LIST

### **Internal Procedure Events:**

### Onload

- C Populate the Organization list box with Organization IDs and Names organized by Organization ID.
- For Date Range 1, select default values of FROM = 'Jan-1-1900' and TO = the current date. The other three date values should be unselected by default and will contain line spaces (i.e., '—') to denote this.
- C Populate the Activity Medium list box.
- C Ensure that all selection criteria and hidden text fields are set to the appropriate default values.

### **Station Section**

- C 'Look Up' onclick: Display a popup window showing the Station Alias Types that match the Organization selected by the user. If the user has not selected an Organization, display an alert message prompting them to do so. Populate the Station Alias Type display field with the Station Alias Type the user selects from the pop-up window.
- Search Stations' onclick: Display a pop-up window showing the Stations that match the search string, search type, Station Alias Type, and Organization entered by the user. If the user has not entered a search string, display an alert message prompting them to do so. Populate the Station listbox with the Stations the user selects from the pop-up window. No more than 100 Stations can be added to the Selected Stations list.
- <sup>°</sup>Clear Selected' onclick: All selected Stations are removed from the stations selected list.
- Clear All' onclick: All Stations are removed from the stations selected list.

### **Date Section**

Block the selection of invalid dates by altering the day list box to reflect the correct number of days in the month each time the month or year is changed.

#### **Characteristic Section**

- 'Search' onclick: Display a pop-up window showing the characteristics that match the search string and Search By choice entered by the user. The user may choose to hide or display taxonomic name characteristics by selecting the checkbox next to the search string textbox. If the user has not entered a search string, display an alert message prompting them to do so. Populate the Characteristics listbox with the characteristics the user selects from the pop-up window. No more than 50 Characteristics can be added to the Selected Characteristics list.
- C 'Clear Selected' onclick: All selected characteristics are removed from the characteristic select list.
- C 'Clear All' onclick: All characteristics are removed from the characteristic select list.

## Form Level

- Continue' onclick: The users inputs are validated and their selection criteria is passed to the next page of the web application for processing.
- C 'Clear Form' onclick: All values on the form are returned to their default values.

#### General

- C See DW\_Top\_of\_Page Specifications for a description of the standard header links on each page.
- C See DW\_Bottom\_of\_Page Specifications for a description of the standard footer links on each page.

## **Images:**

The only images used on the STORET Central Warehouse web site are those that are included in the EPA Standard Web Template.

#### **Business Rules:**

- Only taxonomic characteristics that have been recorded will be displayed.
- Characteristics can not be added to the Selected Characteristics list more than once (even if the same Characteristic is selected multiple times using different naming conventions).
- C The user may add no more than 50 Characteristics to the Selected Characteristics list. The attempted addition of Characteristics in excess of this limit are blocked and an alert is displayed.
- If the user has selected an Organization but does not select any Stations, data for the selected Organization is retrieved for the report.
- C Stations can not be added to the Selected Stations list more than once.
- If the user selects 'Search by Station Alias Type' but does not change the selected Station Alias Type (i.e., default of 'STANDARD'), then Stations will be searched by ID.
- C The user may add no more than 100 Stations to the Selected Stations list. The attempted addition of Stations in excess of this limit is blocked and an alert is displayed.
- If the user selects default date values (i.e., From Date = Jan 1, 1900, To = current date), all result records are included in the search.
- If a list of Activity Mediums is selected that includes 'Select All', all Activity Mediums are included in the search.

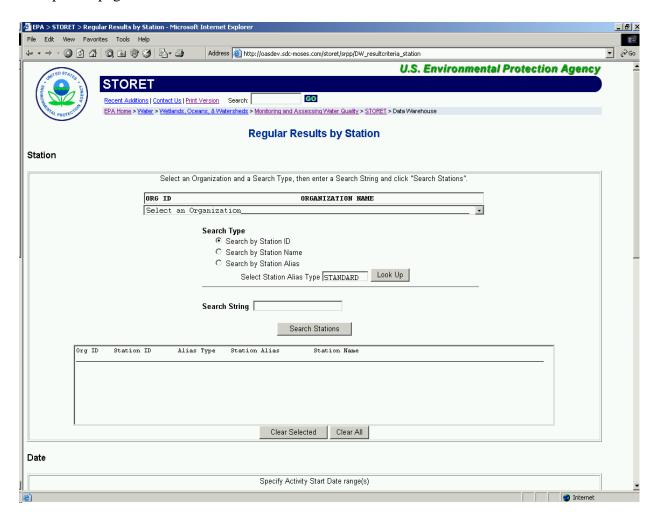
## **Error Handling:**

- C A standard Error Page should be displayed when this page does not load upon request.
- An alert is displayed if the user attempts to perform a Characteristic search before entering a search string.

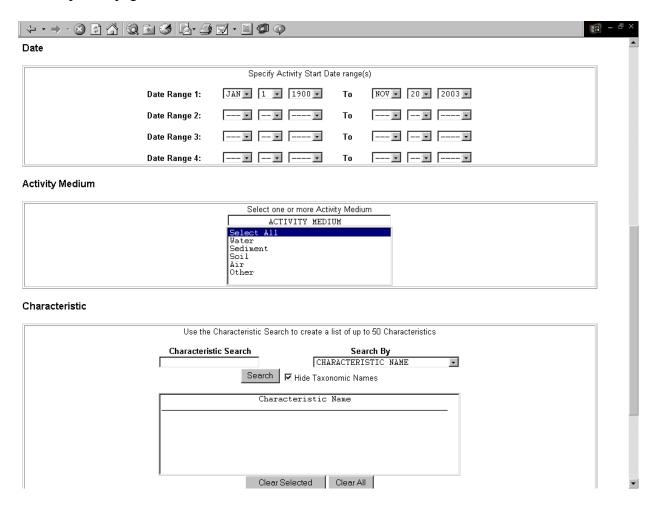
- C An alert is displayed if the user attempts to perform a Station search before entering a search string.
- C An alert is displayed if the user attempts to perform a Station search before selecting an Organization.
- An alert is displayed if the user attempts to perform a Station Alias Type lookup before selecting an Organization.
- C The user will not be allowed to proceed to the next page if an invalid date range is entered in the month-day-year selection boxes (e.g., Jan 1, 2003 Jan 1, 1900).

### **Page Print:**

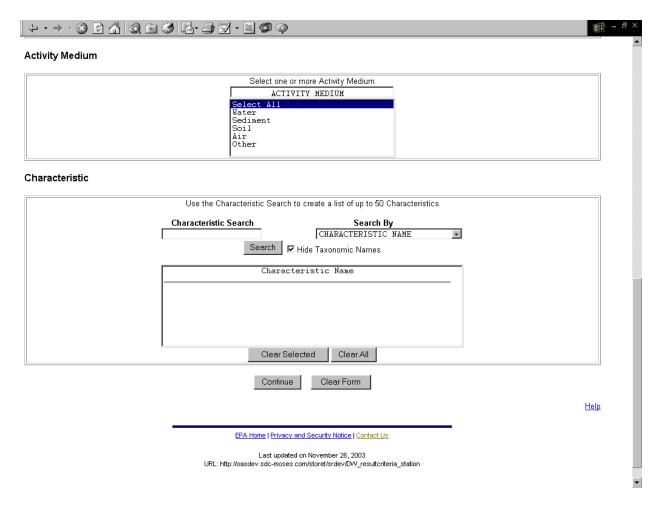
First part of page.



# Second part of page.



# Third part of page.



### **STORET Central Warehouse Specification**

**SIR:** 1446, 1449, 1500, 1502, 1503, 1614, 1638, 1633, 1706, 1713

Package Name: SDW (STORET Data Warehouse)

Procedure Name: DW\_Result\_Download\_Custom

Web Page Name: None

### **Processing Overview/Description:**

The DW\_Result\_Download\_Custom procedure receives processed result search criteria and the list of requested report elements from the DW\_Result\_Hub\_Custom procedure. Records the request in DW\_DATA\_REQUEST table and generates a tilde delimited text file report for online requests. For Batch requests the request is submitted to the job queue and an email is sent to the requester. For online requests, the name of the text file is returned to DW\_Station\_Hub\_Custom so that a link to the file can be displayed to the user. The created report contains only the columns that correspond to the report elements selected by the user. The titles for these columns are displayed as the first line of text in the report.

### **Tables:**

(Display Fields may be included in user generated reports. See Business Rules section for display order)

Entity	Attribute	Display
County (DI_GEO_COUNTY)	COUNTY_NAME	Y
	PK_ISN	N
State (DI_GEO_STATE)	STATE_NAME	Y
	PK_ISN	N
Organization (DI_ORG)	ORGANIZATION_NAME	Y
	PK_ISN	N
Horizontal Datum (LU_MAD_HDATUM)	ID_CODE	Y

Entity	Attribute	Display
	PK_ISN	N
Horizontal Method (LU_MAD_HMETHOD)	GEOPOSITIONING_METHOD	Y
	PK_ISN	N
Station Types (DI_STATN_TYPES)	PRIMARY_TYPE	Y
	SECONDARY_TYPE	Y
FA_REGULAR_RESULT	ORGANIZATION_ID	Y
	STATION_ID	Y
	STATION_NAME	Y
	STN_LATITUDE	Y
	STN_LONGITUDE	Y
	STN_HDATUM	Y
	STN_STD_LATITUDE	Y
	STN_STD_LONGITUDE	Y
	STN_STD_HDATUM	Y
	HYDROLOGIC_UNIT_CODE	Y
	GENERATED_HUC	Y
	SGO_INDICATOR	Y
	STATION_VISIT_ID	Y
	VISIT_START_DATE_TIME	Y
	VISIT_START_TIME_ZONE	Y
	VISIT_STOP_DATE_TIME	Y
	VISIT_STOP_TIME_ZONE	Y
	TRIP_ID	Y
	TRIP_NAME	Y
	ACTIVITY_ID	Y
	ACTIVITY_START_DATE_TIME	Y

Entity	Attribute	Display
	ACT_START_TIME_ZONE	Y
	ACTIVITY_STOP_DATE_TIME	Y
	ACT_STOP_TIME_ZONE	Y
	ACTIVITY_MEDIUM	Y
	ACTIVITY_MATRIX	Y
	ACTIVITY_TYPE	Y
	ACTIVITY_CATEGORY	Y
	REPLICATE_NUMBER	Y
	ACTIVITY_INTENT	Y
	FIELD_SET	Y
	LOCATION_POINT_TYPE	Y
	POINT_SEQUENCE_NUMBER	Y
	POINT_NAME	Y
	ACTIVITY_LATITUDE	Y
	ACTIVITY_LONGITUDE	Y
	ACT_STD_LATITUDE	Y
	ACT_STD_LONGITUDE	Y
	ACT_STD_HDATUM	Y
	WELL_NUMBER	Y
	PIPE_NUMBER	Y
	MAP_SCALE	Y
	ACTIVITY_DEPTH	Y
	ACTIVITY_DEPTH_UNIT	Y
	ACTIVITY_UPPER_DEPTH	Y
	ACTIVITY_REL_DEPTH	Y
	ACTIVITY_LOWER_DEPTH	Y
	UPR_LWR_DEPTH_UNIT	Y

Entity	Attribute	Display
	FIELD_PROCEDURE_ID	Y
	FIELD_GEAR_ID	Y
	GEAR_CONFIG_ID	Y
	CONTAINER_DESC	Y
	TEMP_PRESERVN_TYPE	Y
	PRESRV_STRGE_PRCDR	Y
	PORTABLE_DATA_LOGGER	Y
	CHARACTERISTIC_NAME	Y
	CAS_NUMBER	Y
	EPA_REG_NUMBER	Y
	ITIS_NUMBER	Y
	SAMPLE_FRACTION_TYPE	Y
	RESULT_VALUE_TYPE	Y
	STATISTIC_TYPE	Y
	RESULT_VALUE_TEXT	Y
	RESULT_VALUE	Y
	RESULT_UNIT	Y
	STD_VALUE	Y
	STD_UNIT	Y
	RESULT_COMMENT	Y
	TEXT_RESULT	Y
	WEIGHT_BASIS_TYPE	Y
	TEMPERATURE_BASIS_LEVEL	Y
	DURATION_BASIS	Y
	PARTICLE_SIZE	Y
	DISTANCE_MEASURE_FROM	Y
	DISTANCE_MEASURE_TO	Y

Entity	Attribute	Display
	ANALYTICAL_PROCEDURE_SOURCE	Y
	ANALYTICAL_PROCEDURE_ID	Y
	DETECTION_LIMIT	Y
	DETECTION_LIMIT_DESCRIPTION	Y
	LOWER_QUANTITATION_LIMIT	Y
	UPPER_QUANTITATION_LIMIT	Y
	LAB_REMARK	Y
	DILUTION_INDICATOR	Y
	RECOVERY_INDICATOR	Y
	CORRECTION_INDICATOR	Y
	LAB_ID	Y
	LAB_NAME	Y
	LAB_CERTIFIED	Y
	LAB_BATCH_ID	Y
	ANALYSIS_DATE_TIME	Y
	ANALYSIS_TIME_ZONE	Y
	REPLICATE_ANALYSIS_COUNT	Y
	PRECISION	Y
	BIAS	Y
	CONFIDENCE_LEVEL	Y
	CONF_LVL_CORR_BIAS	Y
	FK_ACT_MAD_HDATUM	N
	FK_ACT_MAD_HMETHOD	N
	FK_ORG	N
	FK_GEO_STATE	N
	FK_GEO_COUNTY	N
	FK_DB_CAT	N

Entity	Attribute	Display
	FK_ACT_MEDIUM	N
	FK_STATN_TYPES	N
	PK_ISN	N
	FK_ACT_START_DATE	N
	BLOB_TITLE	Y
	BLOB_ID	Y
	ACT_BLOB_TITLE	Y
	ACT_BLOB_ID	Y
FA_BIOLOGICAL_RESULT	ORGANIZATION_ID	Y
	STATION_ID	Y
	STATION_NAME	Y
	STN_LATITUDE	Y
	STN_LONGITUDE	Y
	STN_HDATUM	Y
	STN_STD_LATITUDE	Y
	STN_STD_LONGITUDE	Y
	STN_STD_HDATUM	Y
	HYDROLOGIC_UNIT_CODE	Y
	GENERATED_HUC	Y
	SGO_INDICATOR	Y
	STATION_VISIT_ID	Y
	VISIT_START_DATE_TIME	Y
	VISIT_STOP_DATE_TIME	Y
	TRIP_ID	Y
	TRIP_NAME	Y
	ACTIVITY_ID	Y
	ACTIVITY_START_DATE_TIME	Y

Entity	Attribute	Display
	ACTIVITY_STOP_DATE_TIME	Y
	ACTIVITY_MEDIUM	Y
	ACTIVITY_TYPE	Y
	ACTIVITY_CATEGORY	Y
	REPLICATE_NUMBER	Y
	ACTIVITY_INTENT	Y
	ACTIVITY_COMMUNITY	Y
	ACTIVITY_SUBJECT_TAXON	Y
	BIOPART_NAME	Y
	FIELD_SET	Y
	LOCATION_POINT_TYPE	Y
	POINT_SEQUENCE_NUMBER	Y
	POINT_NAME	Y
	ACTIVITY_LATITUDE	Y
	ACTIVITY_LONGITUDE	Y
	ACT_STD_LATITUDE	Y
	ACT_STD_LONGITUDE	Y
	ACT_STD_HDATUM	Y
	WELL_NUMBER	Y
	PIPE_NUMBER	Y
	MAP_SCALE	Y
	ACTIVITY_DEPTH	Y
	ACTIVITY_DEPTH_UNIT	Y
	ACTIVITY_UPPER_DEPTH	Y
	ACTIVITY_REL_DEPTH	Y
	ACTIVITY_LOWER_DEPTH	Y
	UPR_LWR_DEPTH_UNIT	Y

Entity	Attribute	Display
	FIELD_PROCEDURE_ID	Y
	FIELD_GEAR_ID	Y
	GEAR_CONFIG_ID	Y
	CONTAINER_DESC	Y
	TEMP_PRESERVN_TYPE	Y
	PRESRV_STRGE_PRCDR	Y
	CHARACTERISTIC_NAME	Y
	CAS_NUMBER	Y
	EPA_REG_NUMBER	Y
	ITIS_NUMBER	Y
	SAMPLE_FRACTION_TYPE	Y
	RESULT_VALUE_TYPE	Y
	STATISTIC_TYPE	Y
	RESULT_VALUE_TEXT	Y
	RESULT_VALUE	Y
	RESULT_UNIT	Y
	STD_VALUE	Y
	STD_UNIT	Y
	RESULT_COMMENT	Y
	TEXT_RESULT	Y
	WEIGHT_BASIS_TYPE	Y
	TEMPERATURE_BASIS_LEVEL	Y
	DURATION_BASIS	Y
	PARTICLE_SIZE	Y
	DISTANCE_MEASURE_FROM	Y
	DISTANCE_MEASURE_TO	Y
	ANALYTICAL_PROCEDURE_SOURCE	Y

Entity	Attribute	Display
	ANALYTICAL_PROCEDURE_ID	Y
	DETECTION_LIMIT	Y
	DETECTION_LIMIT_DESCRIPTION	Y
	LOWER_QUANTITATION_LIMIT	Y
	UPPER_QUANTITATION_LIMIT	Y
	LAB_REMARK	Y
	DILUTION_INDICATOR	Y
	RECOVERY_INDICATOR	Y
	CORRECTION_INDICATOR	Y
	LAB_ID	Y
	LAB_NAME	Y
	LAB_CERTIFIED	Y
	LAB_BATCH_ID	Y
	ANALYSIS_DATE_TIME	Y
	ANALYSIS_TIME_ZONE	Y
	REPLICATE_ANALYSIS_COUNT	Y
	PRECISION	Y
	BIAS	Y
	CONFIDENCE_LEVEL	Y
	CONF_LVL_CORR_BIAS	Y
	TR_START_POINT_NAME	Y
	TR_START_LATITUDE	Y
	TR_START_LONGITUDE	Y
	TR_START_HDATUM	Y
	TR_START_STD_LATITUDE	Y
	TR_START_STD_LONGITUDE	Y
	TR_START_STD_HDATUM	Y

Entity	Attribute	Display
	TR_START_DEPTH	Y
	TR_STOP_POINT_NAME	Y
	TR_STOP_LATITUDE	Y
	TR_STOP_LONGITUDE	Y
	TR_STOP_HDATUM	Y
	TR_STOP_STD_LATITUDE	Y
	TR_STOP_STD_LONGITUDE	Y
	TR_STOP_STD_HDATUM	Y
	TR_STOP_DEPTH	Y
	FISHED_DURATION	Y
	BOAT_SPEED	Y
	FISHED_DISTANCE	Y
	REL_CURRENT_DIR	Y
	REL_WIND_DIR	Y
	TRAWL_COMMENT	Y
	VOLTAGE_MEASURE	Y
	CURRENT_TYPE_CODE	Y
	AMPERAGE_MEASURE	Y
	PASS_COUNT	Y
	PASS_LENGTH	Y
	PULSE_RATE	Y
	ELECTROSHOCK_COMMENT	Y
	TOTAL_ENERGZD_TIME	Y
	SAMPLING_DURATION	Y
	ORIENTATION_TO_CURRENT	Y
	REL_CURRENT_DIR	Y
	REL_WIND_DIR	Y

Entity	Attribute	Display
	TRAP_NET_COMMENT	Y
	BIO_GROUP_ID	Y
	BIO_GROUP_TYPE	Y
	BIO_GROUP_SUBJECT_TXN	Y
	BIO_GROUP_DESCRIPTION	Y
	FEEDING_GROUP	Y
	POLLUTION_TOLERANCE	Y
	TROPHIC_LEVEL	Y
	HABIT	Y
	VOLTINISM	Y
	CELL_SHAPE	Y
	CELL_FORM	Y
	NUMBER_IN_GROUP	Y
	BIO_GROUP_COUNT_TYPE	Y
	PHYS_BIO_INDICATOR	Y
	GROUP_DESC_SEX	Y
	GROUP_DESC_LIFESTAGE	Y
	COMMON_CLASS_DESC	Y
	PRIMARY_CLASS_DESC	Y
	SECONDARY_CLASS_DESC	Y
	LOWER_BOUND_AMOUNT	Y
	UPPER_BOUND_AMOUNT	Y
	BIO_RCI_UNITS	Y
	NUMBER_IN_GROUP	Y
	INDIVIDUAL_NUMBER	Y
	FK_ACT_MAD_HDATUM	N
	FK_ACT_MAD_HMETHOD	N

Entity	Attribute	Display
	FK_ORG	N
	FK_GEO_STATE	N
	FK_GEO_COUNTY	N
	FK_DB_CAT	N
	FK_ACT_INTENT	N
	FK_STATN_TYPES	N
	PK_ISN	N
	FK_ACT_START_DATE	N
	FK_COMMUNITY_SAMPLED	N
	BLOB_ID	Y
	BLOB_TITLE	Y
	ACT_BLOB_ID	Y
	ACT_BLOB_TITLE	Y
FA_HABITAT_RESULT	ORGANIZATION_ID	Y
	STATION_ID	Y
	STATION_NAME	Y
	STN_LATITUDE	Y
	STN_LONGITUDE	Y
	STN_HDATUM	Y
	STN_STD_LATITUDE	Y
	STN_STD_LONGITUDE	Y
	STN_STD_HDATUM	Y
	HYDROLOGIC_UNIT_CODE	Y
	GENERATED_HUC	Y
	SGO_INDICATOR	Y
	STATION_VISIT_ID	Y
	VISIT_START_DATE_TIME	Y

VISIT_START_TIME_ZONE  VISIT_STOP_DATE_TIME  VISIT_STOP_TIME_ZONE  TRIP_ID  TRIP_NAME  ACTIVITY_ID  ACTIVITY_START_DATE_TIME	Y Y Y Y Y Y Y
VISIT_STOP_TIME_ZONE  TRIP_ID  TRIP_NAME  ACTIVITY_ID	Y Y Y
TRIP_ID TRIP_NAME ACTIVITY_ID	Y Y
TRIP_NAME ACTIVITY_ID	Y
ACTIVITY_ID	
	Y
ACTIVITY START DATE TIME	
	Y
ACT_START_TIME_ZONE	Y
ACTIVITY_STOP_DATE_TIME	Y
ACT_STOP_TIME_ZONE	Y
ACTIVITY_TYPE	Y
ACTIVITY_CATEGORY	Y
FIELD_SET	Y
LOCATION_POINT_TYPE	Y
POINT_SEQUENCE_NUMBER	Y
POINT_NAME	Y
ACTIVITY_LATITUDE	Y
ACTIVITY_LONGITUDE	Y
ACT_STD_LATITUDE	Y
ACT_STD_LONGITUDE	Y
ACT_STD_HDATUM	Y
WELL_NUMBER	Y
PIPE_NUMBER	Y
MAP_SCALE	Y
CHARACTERISTIC_NAME	Y
HABITAT_CLASS_NAME	Y
EPA_REG_NUMBER	Y
	ACTIVITY_STOP_DATE_TIME  ACT_STOP_TIME_ZONE  ACTIVITY_TYPE  ACTIVITY_CATEGORY  FIELD_SET  LOCATION_POINT_TYPE  POINT_SEQUENCE_NUMBER  POINT_NAME  ACTIVITY_LATITUDE  ACTIVITY_LATITUDE  ACT_STD_LATITUDE  ACT_STD_LATITUDE  ACT_STD_HDATUM  WELL_NUMBER  PIPE_NUMBER  MAP_SCALE  CHARACTERISTIC_NAME  HABITAT_CLASS_NAME

Entity	Attribute	Display
	SAMPLE_FRACTION_TYPE	Y
	RESULT_VALUE_TYPE	Y
	STATISTIC_TYPE	Y
	RESULT_VALUE_TEXT	Y
	RESULT_VALUE	Y
	RESULT_UNIT	Y
	STD_VALUE	Y
	STD_UNIT	Y
	RESULT_COMMENT	Y
	TEXT_RESULT	Y
	WEIGHT_BASIS_TYPE	Y
	TEMPERATURE_BASIS_LEVEL	Y
	DURATION_BASIS	Y
	DISTANCE_MEASURE_FROM	Y
	DISTANCE_MEASURE_TO	Y
	ANALYTICAL_PROCEDURE_SOURCE	Y
	ANALYTICAL_PROCEDURE_ID	Y
	DETECTION_LIMIT	Y
	DETECTION_LIMIT_DESCRIPTION	Y
	LOWER_QUANTITATION_LIMIT	Y
	UPPER_QUANTITATION_LIMIT	Y
	LAB_REMARK	Y
	DILUTION_INDICATOR	Y
	RECOVERY_INDICATOR	Y
	CORRECTION_INDICATOR	Y
	LAB_ID	Y
	LAB_NAME	Y

Entity	Attribute	Display
	LAB_CERTIFIED	Y
	LAB_BATCH_ID	Y
	ANALYSIS_DATE_TIME	Y
	ANALYSIS_TIME_ZONE	Y
	REPLICATE_ANALYSIS_COUNT	Y
	PRECISION	Y
	BIAS	Y
	CONFIDENCE_LEVEL	Y
	CONF_LVL_CORR_BIAS	Y
	FK_ACT_MAD_HDATUM	N
	FK_ACT_MAD_HMETHOD	N
	FK_ORG	N
	FK_GEO_STATE	N
	FK_GEO_COUNTY	N
	FK_DB_CAT	N
	FK_ACT_MEDIUM	N
	FK_STATN_TYPES	N
	PK_ISN	N
	FK_ACT_START_DATE	N
	BLOB_ID	Y
	BLOB_TITLE	Y
	ACT_BLOB_ID	Y
	ACT_BLOB_TITLE	Y
Column Names (APP_COLUMN_NAME)	PRINT_NAME	Y
	COL_NAME	N
	REG_COL_ORDER	N
	REG_REPORT_NUMBER	N

Entity	Attribute	Display
	BIO_COL_ORDER	N
	BIO_COL_NUMBER	N
	HAB_COL_ORDER	N
	HAB_COL_NUMBER	N

# **Links From:**

Procedure	Web_Page	Button/Text
DW_Result_Hub_Custom	Download Result	None (called automatically during load)

# **Input Parameters:**

Natural Language	Parameter
The From clause of the SQL statement that will be used for selecting results.	V_FROMSTMT
The Where clause of the SQL statement that will be used for selecting results.	V_WHERESTMT
A Pl/Sql table of selected Columns for the report (Column Name List).	V_COLUMNS
Used to pass a report file name to this procedure. This is set to 'NONE' for non-batched reports.	V_FILENAME
Indicates whether RULE BASED query optimization should be employed (this is for performance tuning).	V_RULE_OPTIMIZATION
The type of Result Report being generated (Regular, Biological, or Habitat).	REPORT_TYPE
User provided email in DW_Result_hub_custom page.	P_EMAIL
User provided 3 letter string for report prefix in DW_Result_hub_custom page.	P_PREFIX
Request mode (Online/Immediate/Overnight)	V_MODE
Number of records requested.	P_RECORD_COUNT

Natural Language	Parameter
Comma separated string of filters used in the query.	V_FILTERS
Request_ID of the request as recorded in DW_Data_Request table.	LV_REQUEST_ID

# Links To:

Procedure	Web_Page	Button/Text
DW_Result_Hub_Custom	Download Result	None (called automatically during load)
DW_RECORD_DATA_REQUEST	None	None (called automatically during load)

# **Output Parameters:**

Natural Language	Parameter
The file name used for report generation. This is passed so that a link to the report can be created.	OUT_FILE
Job Request_ID. (Primary key in DW_DATA_REQUESTS table).	REQUEST_ID
Comma separated string of filters used in the query.	V_FILTERS
Used to pass a report file name to this procedure. This is set to 'NONE' for non-batched reports.	LV_FILETYPE
Timestamp of the request	LV_TIMESTAMP
Download file length.	LV_FILE_LENGTH
Record Title for the download.	V_PRINT_NAMES_LIST
Request Mode (Online/Immediate/Overnight. The later two are Batch processing).	V_MODE
User provided email address	P_EMAIL
Complete SQL statement of the request query	V_SQLSTMT
filename of the download file name	LV_FILE_NAME
Number of records of the request.	P_RECORD_COUNT

#### **Internal Procedure Events:**

#### Onload

- Record the request into DW\_DATA\_REQUESTS table using DW\_Record\_data\_request procedure.
- C For online request, generate report based on received parameters. Update the DW\_DATA\_REQUESTS table with the size of the file. Return file name to the calling procedure.
- For Batch (Immediate) request, submit a job using DBMS\_JOB and update dw\_data\_requests table with the job\_queue\_id. Send an email to user with Request\_ID and return the Request\_ID to calling procedure.
- C For Batch (Overnight) request, send an email to user with Request\_ID and return the Request\_ID to calling procedure. A scheduled job will run these jobs overnight.

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None.

### **Business Rules:**

- C Display Column Titles based on the report elements selected and the contents of the APP\_COLUMN\_NAME table. See chart below for a list of these titles.
- C Display only the columns that correspond to the list of selected report elements.
- C Separate all report columns with the tilde sign ('~').
- C Do not return the name of the report file created until report generation has completed.
- C Display report columns in the order listed below.
- C Display Converted Result Values in scientific notation with 4 decimal places (for example 9.9999E-12).
- C Display dates in the format YYYY-MM-DD HH24:MI:SS (e.g., 1973-04-11 13:30:00).

### For Regular Result Report:

Column Title	Table Name	Column Name
Org ID	FA_REGULAR_RESULT	ORGANIZATION_ID
Org Name	DI_ORG	ORGANIZATION_NAME
Station ID	FA_REGULAR_RESULT	STATION_ID

Column Title	Table Name	Column Name
Station Name	FA_REGULAR_RESULT	STATION_NAME
State Name	DI_GEO_STATE	STATE_NAME
County Name	DI_GEO_COUNTY	COUNTY_NAME
HUC	FA_REGULAR_RESULT	HYDROLOGIC_UNIT_CODE
Generated HUC	FA_REGULAR_RESULT	GENERATED_HUC
Station Latitude	FA_REGULAR_RESULT	STN_LATITUDE
Station Longitude	FA_REGULAR_RESULT	STN_LONGITUDE
Station Horizontal Datum	FA_REGULAR_RESULT	STN_HDATUM
Converted Station Latitude	FA_REGULAR_RESULT	STN_STD_LATITUDE
Converted Station Longitude	FA_REGULAR_RESULT	STN_STD_LONGITUDE
Converted Station Horizontal Datum	FA_REGULAR_RESULT	STN_STD_HDATUM
Primary Type	DI_STATN_TYPES	PRIMARY_TYPE
Secondary Type	DI_STATN_TYPES	SECONDARY_TYPE
S/G/O Indicator	FA_REGULAR_RESULT	SGO_INDICATOR
Visit Num	FA_REGULAR_RESULT	STATION_VISIT_ID
Visit Start	FA_REGULAR_RESULT	VISIT_START_DATE_TIME
	FA_REGULAR_RESULT	VISIT_START_TIME_ZONE
Visit Stop	FA_REGULAR_RESULT	VISIT_STOP_DATE_TIME
	FA_REGULAR_RESULT	VISIT_STOP_TIME_ZONE
Trip ID	FA_REGULAR_RESULT	TRIP_ID
Trip Name	FA_REGULAR_RESULT	TRIP_NAME
Activity ID	FA_REGULAR_RESULT	ACTIVITY_ID
Activity Start	FA_REGULAR_RESULT	ACTIVITY_START_DATE_TIME
	FA_REGULAR_RESULT	ACT_START_TIME_ZONE
Activity Stop	FA_REGULAR_RESULT	ACTIVITY_STOP_DATE_TIME
	FA_REGULAR_RESULT	ACT_STOP_TIME_ZONE
Activity Medium	FA_REGULAR_RESULT	ACTIVITY_MEDIUM

Column Title	Table Name	Column Name
Activity Matrix	FA_REGULAR_RESULT	ACTIVITY_MATRIX
Activity Type	FA_REGULAR_RESULT	ACTIVITY_TYPE
Activity Category-Rep Num	FA_REGULAR_RESULT	ACTIVITY_CATEGORY
	FA_REGULAR_RESULT	REPLICATE_NUMBER
Activity Intent	FA_REGULAR_RESULT	ACTIVITY_INTENT
Field Set	FA_REGULAR_RESULT	FIELD_SET
Actual Location Point Type	FA_REGULAR_RESULT	LOCATION_POINT_TYPE
Actual Point Sequence Num	FA_REGULAR_RESULT	POINT_SEQUENCE_NUMBER
Actual Point Name	FA_REGULAR_RESULT	POINT_NAME
Actual Activity Latitude	FA_REGULAR_RESULT	ACTIVITY_LATITUDE
Actual Activity Longitude	FA_REGULAR_RESULT	ACTIVITY_LONGITUDE
Actual Activity Horizontal Datum	LU_MAD_HDATUM	ID_CODE
Converted Actual Activity Latitude	FA_REGULAR_RESULT	ACT_STD_LATITUDE
Converted Actual Activity Longitude	FA_REGULAR_RESULT	ACT_STD_LONGITUDE
Converted Actual Activity Horizontal Datum	FA_REGULAR_RESULT	ACT_STD_HDATUM
Well Number	FA_REGULAR_RESULT	WELL_NUMBER
Pipe Number	FA_REGULAR_RESULT	PIPE_NUMBER
Geopositioning Method	LU_MAD_HMETHOD	GEOPOSITIONING_METHOD
Map Scale	FA_REGULAR_RESULT	MAP_SCALE
Activity Depth	FA_REGULAR_RESULT	ACTIVITY_DEPTH
Activity Depth Unit	FA_REGULAR_RESULT	ACTIVITY_DEPTH_UNIT
Activity Upper Depth	FA_REGULAR_RESULT	ACTIVITY_UPPER_DEPTH
Activity Rel Depth	FA_REGULAR_RESULT	ACTIVITY_REL_DEPTH
Activity Lower Depth	FA_REGULAR_RESULT	ACTIVITY_LOWER_DEPTH
Upr Lwr Depth Unit	FA_REGULAR_RESULT	UPR_LWR_DEPTH_UNIT
Sample Collection ID	FA_REGULAR_RESULT	FIELD_PROCEDURE_ID

Column Title	Table Name	Column Name
Field Gear ID	FA_REGULAR_RESULT	FIELD_GEAR_ID
Field Gear Config ID	FA_REGULAR_RESULT	GEAR_CONFIG_ID
Container Desc	FA_REGULAR_RESULT	CONTAINER_DESC
Temp Pres Type	FA_REGULAR_RESULT	TEMP_PRESERVN_TYPE
Pres Storage Proc	FA_REGULAR_RESULT	PRESRV_STRGE_PRCDR
Portable Data Logger	FA_REGULAR_RESULT	PORTABLE_DATA_LOGGER
Characteristic Name	FA_REGULAR_RESULT	CHARACTERISTIC_NAME
CAS Num	FA_REGULAR_RESULT	CAS_NUMBER
EPA Registry Num	FA_REGULAR_RESULT	EPA_REG_NUMBER
ITIS Num	FA_REGULAR_RESULT	ITIS_NUMBER
Sample Fraction	FA_REGULAR_RESULT	SAMPLE_FRACTION_TYPE
Value Type	FA_REGULAR_RESULT	RESULT_VALUE_TYPE
Statistic Type	FA_REGULAR_RESULT	STATISTIC_TYPE
Result Value as Text	FA_REGULAR_RESULT	RESULT_VALUE_TEXT
Result Value as Number	FA_REGULAR_RESULT	RESULT_VALUE
Units	FA_REGULAR_RESULT	RESULT_UNIT
Converted Result Value	FA_REGULAR_RESULT	STD_VALUE
Converted Result Unit	FA_REGULAR_RESULT	STD_UNIT
Result Comment	FA_REGULAR_RESULT	RESULT_COMMENT
Result Free Text	FA_REGULAR_RESULT	TEXT_RESULT
Weight Basis	FA_REGULAR_RESULT	WEIGHT_BASIS_TYPE
Temperature Basis	FA_REGULAR_RESULT	TEMPERATURE_BASIS_LEVEL
Duration Basis	FA_REGULAR_RESULT	DURATION_BASIS
Particle Size Basis	FA_REGULAR_RESULT	PARTICLE_SIZE
Distance Measured From	FA_REGULAR_RESULT	DISTANCE_MEASURE_FROM
Distance Measured To	FA_REGULAR_RESULT	DISTANCE_MEASURE_TO
Analytical Proc ID	FA_REGULAR_RESULT	ANALYTICAL_PROC_SOURCE

Column Title	Table Name	Column Name
	FA_REGULAR_RESULT	ANALYTICAL_PROCEDURE_ID
Detection Limit	FA_REGULAR_RESULT	DETECTION_LIMIT
Detection Limit Descript	FA_REGULAR_RESULT	DETECTION_LIMIT_DESCRIPTION
Lower Quantification Limit	FA_REGULAR_RESULT	LOWER_QUANTITATION_LIMIT
Upper Quantification Limit	FA_REGULAR_RESULT	UPPER_QUANTITATION_LIMIT
Lab Remark	FA_REGULAR_RESULT	LAB_REMARK
Dilution Ind	FA_REGULAR_RESULT	DILUTION_INDICATOR
Recovery Ind	FA_REGULAR_RESULT	RECOVERY_INDICATOR
Correction Ind	FA_REGULAR_RESULT	CORRECTION_INDICATOR
Lab ID	FA_REGULAR_RESULT	LAB_ID
Lab Name	FA_REGULAR_RESULT	LAB_NAME
Lab Cert	FA_REGULAR_RESULT	LAB_CERTIFIED
Lab Batch ID	FA_REGULAR_RESULT	LAB_BATCH_ID
Analysis Date	FA_REGULAR_RESULT	ANALYSIS_DATE_TIME
	FA_REGULAR_RESULT	ANALYSIS_TIME_ZONE
Num of Reps	FA_REGULAR_RESULT	REPLICATE_ANALYSIS_COUNT
Precision	FA_REGULAR_RESULT	PRECISION
Bias	FA_REGULAR_RESULT	BIAS
Conf Level	FA_REGULAR_RESULT	CONFIDENCE_LEVEL
Correction for Bias Ind	FA_REGULAR_RESULT	CONF_LVL_CORR_BIAS
Result Document/Graphic Name	FA_REGULAR_RESULT	BLOB_TITLE
Result Document/Graphic URL	FA_REGULAR_RESULT	BLOB_ID
Activity Document/Graphic Name	FA_REGULAR_RESULT	ACT_BLOB_TITLE
Activity Document/Graphic URL	FA_REGULAR_RESULT	ACT_BLOB_ID

# For Biological Result Report:

Column Title	Table Name	Column Name
Org ID	FA_BIOLOGICAL_RESULT	ORGANIZATION_ID
Org Name	DI_ORG	ORGANIZATION_NAME
Station ID	FA_BIOLOGICAL_RESULT	STATION_ID
Station Name	FA_BIOLOGICAL_RESULT	STATION_NAME
State Name	DI_GEO_STATE	STATE_NAME
County Name	DI_GEO_COUNTY	COUNTY_NAME
HUC	FA_BIOLOGICAL_RESULT	HYDROLOGIC_UNIT_CODE
Generated HUC	FA_REGULAR_RESULT	GENERATED_HUC
Station Latitude	FA_BIOLOGICAL_RESULT	STN_LATITUDE
Station Longitude	FA_BIOLOGICAL_RESULT	STN_LONGITUDE
Station Horizontal Datum	FA_BIOLOGICAL_RESULT	STN_HDATUM
Converted Station Latitude	FA_BIOLOGICAL_RESULT	STN_STD_LATITUDE
Converted Station Longitude	FA_BIOLOGICAL_RESULT	STN_STD_LONGITUDE
Converted Station Horizontal Datum	FA_BIOLOGICAL_RESULT	STN_STD_HDATUM
Primary Type	DI_STATN_TYPES	PRIMARY_TYPE
Secondary Type	DI_STATN_TYPES	SECONDARY_TYPE
S/G/O Indicator	FA_BIOLOGICAL_RESULT	SGO_INDICATOR
Visit Num	FA_BIOLOGICAL_RESULT	STATION_VISIT_ID
Visit Start	FA_BIOLOGICAL_RESULT	VISIT_START_DATE_TIME
	FA_BIOLOGICAL_RESULT	VISIT_START_TIME_ZONE
Visit Stop	FA_BIOLOGICAL_RESULT	VISIT_STOP_DATE_TIME
	FA_BIOLOGICAL_RESULT	VISIT_STOP_TIME_ZONE
Trip ID	FA_BIOLOGICAL_RESULT	TRIP_ID
Trip Name	FA_BIOLOGICAL_RESULT	TRIP_NAME
Activity ID	FA_BIOLOGICAL_RESULT	ACTIVITY_ID

Column Title	Table Name	Column Name
Activity Start	FA_BIOLOGICAL_RESULT	ACTIVITY_START_DATE_TIME
	FA_BIOLOGICAL_RESULT	ACT_START_TIME_ZONE
Activity Stop	FA_BIOLOGICAL_RESULT	ACTIVITY_STOP_DATE_TIME
	FA_BIOLOGICAL_RESULT	ACT_STOP_TIME_ZONE
Activity Medium	FA_BIOLOGICAL_RESULT	ACTIVITY_MEDIUM
Activity Type	FA_BIOLOGICAL_RESULT	ACTIVITY_TYPE
Activity Category-Rep Num	FA_BIOLOGICAL_RESULT	ACTIVITY_CATEGORY
	FA_BIOLOGICAL_RESULT	REPLICATE_NUMBER
Activity Intent	FA_BIOLOGICAL_RESULT	ACTIVITY_INTENT
Community Sampled	FA_BIOLOGICAL_RESULT	ACTIVITY_COMMUNITY
Subject Taxon	FA_BIOLOGICAL_RESULT	ACTIVITY_SUBJECT_TAXON
Biopart	FA_BIOLOGICAL_RESULT	BIOPART_NAME
Field Set	FA_BIOLOGICAL_RESULT	FIELD_SET
Actual Location Point Type	FA_BIOLOGICAL_RESULT	LOCATION_POINT_TYPE
Actual Point Sequence Num	FA_BIOLOGICAL_RESULT	POINT_SEQUENCE_NUMBER
Actual Point Name	FA_BIOLOGICAL_RESULT	POINT_NAME
Actual Activity Latitude	FA_BIOLOGICAL_RESULT	ACTIVITY_LATITUDE
Actual Activity Longitude	FA_BIOLOGICAL_RESULT	ACTIVITY_LONGITUDE
Actual Activity Horizontal Datum	LU_MAD_HDATUM	ID_CODE
Converted Actual Activity Latitude	FA_BIOLOGICAL_RESULT	ACT_STD_LATITUDE
Converted Actual Activity Longitude	FA_BIOLOGICAL_RESULT	ACT_STD_LONGITUDE
Converted Actual Activity Horizontal Datum	FA_BIOLOGICAL_RESULT	ACT_STD_HDATUM
Well Number	FA_BIOLOGICAL_RESULT	WELL_NUMBER
Pipe Number	FA_BIOLOGICAL_RESULT	PIPE_NUMBER
Geopositioning Method	LU_MAD_HMETHOD	GEOPOSITIONING_METHOD
Map Scale	FA_BIOLOGICAL_RESULT	MAP_SCALE

Column Title	Table Name	Column Name
Activity Depth	FA_BIOLOGICAL_RESULT	ACTIVITY_DEPTH
Activity Depth Unit	FA_BIOLOGICAL_RESULT	ACTIVITY_DEPTH_UNIT
Activity Upper Depth	FA_BIOLOGICAL_RESULT	ACTIVITY_UPPER_DEPTH
Activity Rel Depth	FA_BIOLOGICAL_RESULT	ACTIVITY_REL_DEPTH
Activity Lower Depth	FA_BIOLOGICAL_RESULT	ACTIVITY_LOWER_DEPTH
Upr Lwr Depth Unit	FA_BIOLOGICAL_RESULT	UPR_LWR_DEPTH_UNIT
Sample Collection ID	FA_BIOLOGICAL_RESULT	FIELD_PROCEDURE_ID
Field Gear ID	FA_BIOLOGICAL_RESULT	FIELD_GEAR_ID
Field Gear Config ID	FA_BIOLOGICAL_RESULT	GEAR_CONFIG_ID
Container Desc	FA_BIOLOGICAL_RESULT	CONTAINER_DESC
Temp Pres Type	FA_BIOLOGICAL_RESULT	TEMP_PRESERVN_TYPE
Pres Storage Proc	FA_BIOLOGICAL_RESULT	PRESRV_STRGE_PRCDR
Characteristic Name	FA_BIOLOGICAL_RESULT	CHARACTERISTIC_NAME
CAS Num	FA_REGULAR_RESULT	CAS_NUMBER
EPA Registry Num	FA_BIOLOGICAL_RESULT	EPA_REG_NUMBER
ITIS Num	FA_BIOLOGICAL_RESULT	ITIS_NUMBER
Sample Fraction	FA_BIOLOGICAL_RESULT	SAMPLE_FRACTION_TYPE
Value Type	FA_BIOLOGICAL_RESULT	RESULT_VALUE_TYPE
Statistic Type	FA_BIOLOGICAL_RESULT	STATISTIC_TYPE
Result Value as Text	FA_BIOLOGICAL_RESULT	RESULT_VALUE_TEXT
Result Value as Number	FA_BIOLOGICAL_RESULT	RESULT_VALUE
Units	FA_BIOLOGICAL_RESULT	RESULT_UNIT
Converted Result Value	FA_BIOLOGICAL_RESULT	STD_VALUE
Converted Result Unit	FA_BIOLOGICAL_RESULT	STD_UNIT
Result Comment	FA_BIOLOGICAL_RESULT	RESULT_COMMENT
Result Free Text	FA_BIOLOGICAL_RESULT	TEXT_RESULT
Weight Basis	FA_BIOLOGICAL_RESULT	WEIGHT_BASIS_TYPE

Column Title	Table Name	Column Name
Temperature Basis	FA_BIOLOGICAL_RESULT	TEMPERATURE_BASIS_LEVEL
Duration Basis	FA_BIOLOGICAL_RESULT	DURATION_BASIS
Particle Size Basis	FA_BIOLOGICAL_RESULT	PARTICLE_SIZE
Distance Measured From	FA_BIOLOGICAL_RESULT	DISTANCE_MEASURE_FROM
Distance Measured To	FA_BIOLOGICAL_RESULT	DISTANCE_MEASURE_TO
Analytical Proc ID	FA_BIOLOGICAL_RESULT	ANALYTICAL_PROC_SOURCE
	FA_BIOLOGICAL_RESULT	ANALYTICAL_PROCEDURE_ID
Detection Limit	FA_BIOLOGICAL_RESULT	DETECTION_LIMIT
Detection Limit Descript	FA_BIOLOGICAL_RESULT	DETECTION_LIMIT_DESCRIPTION
Lower Quantification Limit	FA_BIOLOGICAL_RESULT	LOWER_QUANTITATION_LIMIT
Upper Quantification Limit	FA_BIOLOGICAL_RESULT	UPPER_QUANTITATION_LIMIT
Lab Remark	FA_BIOLOGICAL_RESULT	LAB_REMARK
Dilution Ind	FA_BIOLOGICAL_RESULT	DILUTION_INDICATOR
Recovery Ind	FA_BIOLOGICAL_RESULT	RECOVERY_INDICATOR
Correction Ind	FA_BIOLOGICAL_RESULT	CORRECTION_INDICATOR
Lab ID	FA_BIOLOGICAL_RESULT	LAB_ID
Lab Name	FA_BIOLOGICAL_RESULT	LAB_NAME
Lab Cert	FA_BIOLOGICAL_RESULT	LAB_CERTIFIED
Lab Batch ID	FA_BIOLOGICAL_RESULT	LAB_BATCH_ID
Analysis Date	FA_BIOLOGICAL_RESULT	ANALYSIS_DATE_TIME
	FA_BIOLOGICAL_RESULT	ANALYSIS_TIME_ZONE
Num of Reps	FA_BIOLOGICAL_RESULT	REPLICATE_ANALYSIS_COUNT
Precision	FA_BIOLOGICAL_RESULT	PRECISION
Bias	FA_BIOLOGICAL_RESULT	BIAS
Conf Level	FA_BIOLOGICAL_RESULT	CONFIDENCE_LEVEL
Correction for Bias Ind	FA_BIOLOGICAL_RESULT	CONF_LVL_CORR_BIAS
Trawl Start Point Name	FA_BIOLOGICAL_RESULT	TR_START_POINT_NAME

Column Title	Table Name	Column Name
Trawl Start Latitude	FA_BIOLOGICAL_RESULT	TR_START_LATITUDE
Trawl Start Longitude	FA_BIOLOGICAL_RESULT	TR_START_LONGITUDE
Trawl Start Datum	FA_BIOLOGICAL_RESULT	TR_START_HDATUM
Conv Trawl Start Latitude	FA_BIOLOGICAL_RESULT	TR_START_STD_LATITUDE
Conv Trawl Start Longitude	FA_BIOLOGICAL_RESULT	TR_START_STD_LONGITUDE
Conv Trawl Start Datum	FA_BIOLOGICAL_RESULT	TR_START_STD_HDATUM
Trawl Start Depth	FA_BIOLOGICAL_RESULT	TR_START_DEPTH
Trawl Stop Point Name	FA_BIOLOGICAL_RESULT	TR_STOP_POINT_NAME
Trawl Stop Latitude	FA_BIOLOGICAL_RESULT	TR_STOP_LATITUDE
Trawl Stop Longitude	FA_BIOLOGICAL_RESULT	TR_STOP_LONGITUDE
Trawl Stop Datum	FA_BIOLOGICAL_RESULT	TR_STOP_HDATUM
Conv Trawl Stop Latitude	FA_BIOLOGICAL_RESULT	TR_STOP_STD_LATITUDE
Conv Trawl Stop Longitude	FA_BIOLOGICAL_RESULT	TR_STOP_STD_LONGITUDE
Conv Trawl Stop Datum	FA_BIOLOGICAL_RESULT	TR_STOP_STD_HDATUM
Trawl Stop Depth	FA_BIOLOGICAL_RESULT	TR_STOP_DEPTH
Fished Duration Measure	FA_BIOLOGICAL_RESULT	FISHED_DURATION
Boat Speed	FA_BIOLOGICAL_RESULT	BOAT_SPEED
Fished Distance	FA_BIOLOGICAL_RESULT	FISHED_DISTANCE
Rel Current Dir	FA_BIOLOGICAL_RESULT	REL_CURRENT_DIR
Rel Wind Dir	FA_BIOLOGICAL_RESULT	REL_WIND_DIR
Trawl Comment	FA_BIOLOGICAL_RESULT	TRAWL_COMMENT
Voltage Measure	FA_BIOLOGICAL_RESULT	VOLTAGE_MEASURE
Current Type Code	FA_BIOLOGICAL_RESULT	CURRENT_TYPE_CODE
Amperage Measure	FA_BIOLOGICAL_RESULT	AMPERAGE_MEASURE
Pass Count	FA_BIOLOGICAL_RESULT	PASS_COUNT
Pass Length Measure	FA_BIOLOGICAL_RESULT	PASS_LENGTH
Pulse Rate Measure	FA_BIOLOGICAL_RESULT	PULSE_RATE

Column Title	Table Name	Column Name
Electroshock Comment	FA_BIOLOGICAL_RESULT	ELECTROSHOCK_COMMENT
Total Energzd Time	FA_BIOLOGICAL_RESULT	TOTAL_ENERGZD_TIME
Sampling Duration	FA_BIOLOGICAL_RESULT	SAMPLING_DURATION
Orientation to Current	FA_BIOLOGICAL_RESULT	ORIENTATION_TO_CURRENT
Rel Current Dir	FA_BIOLOGICAL_RESULT	REL_CURRENT_DIR
Rel Wind Dir	FA_BIOLOGICAL_RESULT	REL_WIND_DIR
Trap Net Comment	FA_BIOLOGICAL_RESULT	TRAP_NET_COMMENT
Bio Result Group ID	FA_BIOLOGICAL_RESULT	BIO_GROUP_ID
Bio Result Group Type	FA_BIOLOGICAL_RESULT	BIO_GROUP_TYPE
Bio Result Group Subj Txn	FA_BIOLOGICAL_RESULT	BIO_GROUP_SUBJECT_TXN
Bio Result Group Desc	FA_BIOLOGICAL_RESULT	BIO_GROUP_DESCRIPTION
Feeding Group	FA_BIOLOGICAL_RESULT	FEEDING_GROUP
Pollution Tolerance	FA_BIOLOGICAL_RESULT	POLLUTION_TOLERANCE
Trophic Level	FA_BIOLOGICAL_RESULT	TROPHIC_LEVEL
Habit	FA_BIOLOGICAL_RESULT	HABIT
Voltinism	FA_BIOLOGICAL_RESULT	VOLTINISM
Cell Shape	FA_BIOLOGICAL_RESULT	CELL_SHAPE
Cell Form	FA_BIOLOGICAL_RESULT	CELL_FORM
Number in Group	FA_BIOLOGICAL_RESULT	NUMBER_IN_GROUP
Group Count Type	FA_BIOLOGICAL_RESULT	BIO_GROUP_COUNT_TYPE
Phys/Bio Ind	FA_BIOLOGICAL_RESULT	PHYS_BIO_INDICATOR
Bio Result Group ID (sex)	FA_BIOLOGICAL_RESULT	GROUP_DESC_SEX
Bio Result Group ID (lifestage)	FA_BIOLOGICAL_RESULT	GROUP_DESC_LIFESTAGE
Bio Result Group Class Var	FA_BIOLOGICAL_RESULT	COMMON_CLASS_DESC
Class Prim Desc	FA_BIOLOGICAL_RESULT	PRIMARY_CLASS_DESC
Class Sec Desc	FA_BIOLOGICAL_RESULT	SECONDARY_CLASS_DESC
Class Upper Bound	FA_BIOLOGICAL_RESULT	LOWER_BOUND_AMOUNT

Column Title	Table Name	Column Name
Class Lower Bound	FA_BIOLOGICAL_RESULT	UPPER_BOUND_AMOUNT
Units	FA_BIOLOGICAL_RESULT	BIO_RCI_UNITS
Number in Group	FA_BIOLOGICAL_RESULT	NUMBER_IN_GROUP
Bio Individual Number	FA_BIOLOGICAL_RESULT	INDIVIDUAL_NUMBER
Result Document/Graphic Name	FA_REGULAR_RESULT	BLOB_TITLE
Result Document/Graphic URL	FA_REGULAR_RESULT	BLOB_ID
Activity Document/Graphic Name	FA_REGULAR_RESULT	ACT_BLOB_TITLE
Activity Document/Graphic URL	FA_REGULAR_RESULT	ACT_BLOB_ID

# For Habitat Results:

Column Title	Table Name	Column Name
Org ID	FA_HABITAT_RESULT	ORGANIZATION_ID
Org Name	DI_ORG	ORGANIZATION_NAME
Station ID	FA_HABITAT_RESULT	STATION_ID
Station Name	FA_HABITAT_RESULT	STATION_NAME
State Name	DI_GEO_STATE	STATE_NAME
County Name	DI_GEO_COUNTY	COUNTY_NAME
HUC	FA_HABITAT_RESULT	HYDROLOGIC_UNIT_CODE
Generated HUC	FA_REGULAR_RESULT	GENERATED_HUC
Station Latitude	FA_HABITAT_RESULT	STN_LATITUDE
Station Longitude	FA_HABITAT_RESULT	STN_LONGITUDE
Station Horizontal Datum	FA_HABITAT_RESULT	STN_HDATUM
Converted Station Latitude	FA_HABITAT_RESULT	STN_STD_LATITUDE
Converted Station Longitude	FA_HABITAT_RESULT	STN_STD_LONGITUDE
Converted Station Horizontal Datum	FA_HABITAT_RESULT	STN_STD_HDATUM
Primary Type	DI_STATN_TYPES	PRIMARY_TYPE
Secondary Type	DI_STATN_TYPES	SECONDARY_TYPE

Column Title	Table Name	Column Name
S/G/O Indicator	FA_HABITAT_RESULT	SGO_INDICATOR
Visit Num	FA_HABITAT_RESULT	STATION_VISIT_ID
Visit Start	FA_HABITAT_RESULT	VISIT_START_DATE_TIME
	FA_HABITAT_RESULT	VISIT_START_TIME_ZONE
Visit Stop	FA_HABITAT_RESULT	VISIT_STOP_DATE_TIME
	FA_HABITAT_RESULT	VISIT_STOP_TIME_ZONE
Trip ID	FA_HABITAT_RESULT	TRIP_ID
Trip Name	FA_HABITAT_RESULT	TRIP_NAME
Activity ID	FA_HABITAT_RESULT	ACTIVITY_ID
Activity Start	FA_HABITAT_RESULT	ACTIVITY_START_DATE_TIME
	FA_HABITAT_RESULT	ACT_START_TIME_ZONE
Activity Stop	FA_HABITAT_RESULT	ACTIVITY_STOP_DATE_TIME
	FA_HABITAT_RESULT	ACT_STOP_TIME_ZONE
Activity Type	FA_HABITAT_RESULT	ACTIVITY_TYPE
Activity Category-Rep Num	FA_REGULAR_RESULT	ACTIVITY_CATEGORY
	FA_REGULAR_RESULT	REPLICATE_NUMBER
Field Set	FA_HABITAT_RESULT	FIELD_SET
Actual Location Point Type	FA_HABITAT_RESULT	LOCATION_POINT_TYPE
Actual Point Sequence Num	FA_HABITAT_RESULT	POINT_SEQUENCE_NUMBER
Actual Point Name	FA_HABITAT_RESULT	POINT_NAME
Actual Activity Latitude	FA_HABITAT_RESULT	ACTIVITY_LATITUDE
Actual Activity Longitude	FA_HABITAT_RESULT	ACTIVITY_LONGITUDE
Actual Activity Horizontal Datum	LU_MAD_HDATUM	ID_CODE
Converted Actual Activity Latitude	FA_HABITAT_RESULT	ACT_STD_LATITUDE
Converted Actual Activity Longitude	FA_HABITAT_RESULT	ACT_STD_LONGITUDE
Converted Actual Activity Horizontal Datum	FA_HABITAT_RESULT	ACT_STD_HDATUM

Column Title	Table Name	Column Name
Well Number	FA_HABITAT_RESULT	WELL_NUMBER
Pipe Number	FA_HABITAT_RESULT	PIPE_NUMBER
Geopositioning Method	LU_MAD_HMETHOD	GEOPOSITIONING_METHOD
Map Scale	FA_HABITAT_RESULT	MAP_SCALE
Characteristic Name	FA_HABITAT_RESULT	CHARACTERISTIC_NAME
Habitat Class Name	FA_HABITAT_RESULT	HABITAT_CLASS_NAME
EPA Registry Num	FA_HABITAT_RESULT	EPA_REG_NUMBER
Sample Fraction	FA_HABITAT_RESULT	SAMPLE_FRACTION_TYPE
Value Type	FA_HABITAT_RESULT	RESULT_VALUE_TYPE
Statistic Type	FA_HABITAT_RESULT	STATISTIC_TYPE
Result Value as Text	FA_HABITAT_RESULT	RESULT_VALUE_TEXT
Result Value as Number	FA_HABITAT_RESULT	RESULT_VALUE
Units	FA_HABITAT_RESULT	RESULT_UNIT
Converted Result Value	FA_HABITAT_RESULT	STD_VALUE
Converted Result Unit	FA_HABITAT_RESULT	STD_UNIT
Result Comment	FA_HABITAT_RESULT	RESULT_COMMENT
Result Free Text	FA_HABITAT_RESULT	TEXT_RESULT
Weight Basis	FA_HABITAT_RESULT	WEIGHT_BASIS_TYPE
Temperature Basis	FA_HABITAT_RESULT	TEMPERATURE_BASIS_LEVEL
Duration Basis	FA_HABITAT_RESULT	DURATION_BASIS
Distance Measured From	FA_HABITAT_RESULT	DISTANCE_MEASURE_FROM
Distance Measured To	FA_HABITAT_RESULT	DISTANCE_MEASURE_TO
Analytical Proc ID	FA_HABITAT_RESULT	ANALYTICAL_PROC_SOURCE
	FA_HABITAT_RESULT	ANALYTICAL_PROCEDURE_ID
Detection Limit	FA_HABITAT_RESULT	DETECTION_LIMIT
Detection Limit Descript	FA_HABITAT_RESULT	DETECTION_LIMIT_DESCRIPTION
Lower Quantification Limit	FA_HABITAT_RESULT	LOWER_QUANTITATION_LIMIT
Upper Quantification Limit	FA_HABITAT_RESULT	UPPER_QUANTITATION_LIMIT

Column Title	Table Name	Column Name
Lab Remark	FA_HABITAT_RESULT	LAB_REMARK
Dilution Ind	FA_HABITAT_RESULT	DILUTION_INDICATOR
Recovery Ind	FA_HABITAT_RESULT	RECOVERY_INDICATOR
Correction Ind	FA_HABITAT_RESULT	CORRECTION_INDICATOR
Lab ID	FA_HABITAT_RESULT	LAB_ID
Lab Name	FA_HABITAT_RESULT	LAB_NAME
Lab Cert	FA_HABITAT_RESULT	LAB_CERTIFIED
Lab Batch ID	FA_HABITAT_RESULT	LAB_BATCH_ID
Analysis Date	FA_HABITAT_RESULT	ANALYSIS_DATE_TIME
	FA_HABITAT_RESULT	ANALYSIS_TIME_ZONE
Num of Reps	FA_HABITAT_RESULT	REPLICATE_ANALYSIS_COUNT
Precision	FA_HABITAT_RESULT	PRECISION
Bias	FA_HABITAT_RESULT	BIAS
Conf Level	FA_HABITAT_RESULT	CONFIDENCE_LEVEL
Correction for Bias Ind	FA_HABITAT_RESULT	CONF_LVL_CORR_BIAS
Result Document/Graphic Name	FA_REGULAR_RESULT	BLOB_TITLE
Result Document/Graphic URL	FA_REGULAR_RESULT	BLOB_ID
Activity Document/Graphic Name	FA_REGULAR_RESULT	ACT_BLOB_TITLE
Activity Document/Graphic URL	FA_REGULAR_RESULT	ACT_BLOB_ID

# **Error Handling:**

- C A standard Error Page should be displayed when this page does not load upon request.
- Capture standard file creation (disk I/O) errors and display customized messages if they occur.

# **Page Print:**

None. See DW\_Result\_Hub\_Custom.

## **STORET Central Warehouse Specification**

**SIR:** 1557

Package Name: SDW (STORET Data Warehouse)

Procedure Name: DW\_Result\_Download\_Zip

Web Page Name: Download Results

## **Process Overview/Description:**

The DW\_Result\_Download\_Zip procedure takes a report download file and replaces it with a new report download file in gzip format. A link to this file is then presented to the requesting user.

### **Tables:**

(Display Fields are listed in the order they are displayed)

None.

### **Links From:**

Procedure	Web_Page	Button/Text
DW_Result_Hub_Custom	Download Results	Continue

## **Input Parameters:**

Natural Language	Parameter
The name of the report download file.	OUT_FILE

### Links To:

Procedure	Web_Page	Button/Text
DW_Result_Download_Custom	Download Site Description	Called automatically when page is loaded.
DW_Result_Download_Zip	Create Report Download in Zip Format	Called when <continue> button is pressed.</continue>

### **Output Parameters:**

Natural Language	Parameter
The name of the report download file in gzip format.	OUT_FILE

#### **Internal Procedure Events:**

#### **Onload**

- Call DW\_Exec\_OS Java procedure that executes the Unix cp command to make a copy of the OUT\_FILE created by DW\_Result\_Download\_Custom.
- Call DW\_Exec\_OS Java procedure that executes the Unix gzip command to make a gzip formatted version of the file copy. Display a link to the gzip format report file.
- C Display the size of the gzip format report file in kilobytes (KB) if the file has been created.

### General

- C See DW\_Top\_of\_Page Specifications for standard header and sidebar links on each page.
- C See DW\_Bottom\_of\_Page Specifications for standard footer links on each page.

### **Images:**

See General Design guidelines for standard images on each page. The only images used on the STORET Data Warehouse web site are those that are included in the EPA Standard Web Template.

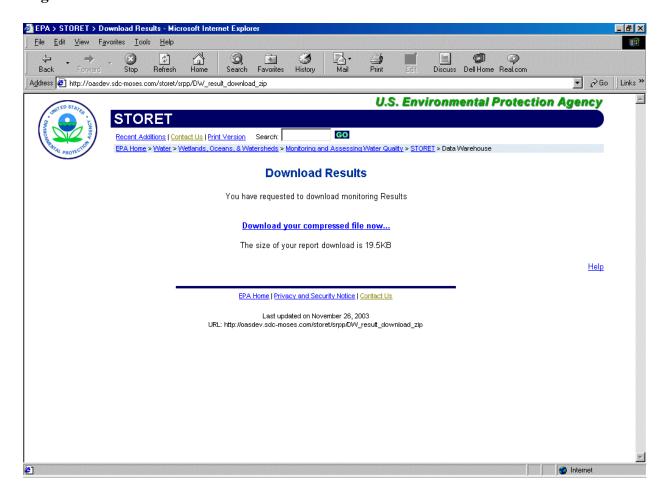
-			<b>T</b>	
Kn	sin	229	Ru	es:

None.

## **Error Handling:**

- If the attempt to gzip the report download file is unsuccessful, an error message will be displayed rather than a link to the gzip format report file.
- A standard Error Page should be displayed when this page is not loaded upon request.

## **Page Print:**



## **STORET Central Warehouse Specification**

**SIR:** 1446, 1557, 1631,1633

Package Name: SDW (STORET Data Warehouse)

Procedure Name: DW\_Result\_Hub\_Custom

Web Page Name: Download Results

## **Processing Overview/Description:**

The DW\_Result\_Hub\_Custom procedure serves as a gatekeeper that generates the page header and footer, then passes control to the DW\_Result\_Download\_Custom procedure and passes the required parameters to create a report. See the Web Page Development Specification for DW\_Result\_Download\_Custom for a description of the report format. This also provides a link to compress the data file for online processing. For Batch processing, it provides the data request submission information

### **Tables:**

(Display Fields are listed in the order they are displayed)

None.

### **Links From:**

Procedure	Web_Page	Button/Text
DW_Result_Count	Result Search Summary	<continue></continue>

### **Input Parameters:**

Natural Language	Parameter
The From clause of the SQL statement that will be used for selecting Results.	V_FROMSTMT

Natural Language	Parameter
The Where clause of the SQL statement that will be used for selecting Results.	V_WHERESTMT
The number of results matching the search criteria.	V_RESULTCOUNT
A Pl/Sql table of selected Columns for the report (Column Name List).	V_COLUMNS
Search criteria used in the query. A tilda delimited string.	V_FILTERS
Indicates whether RULE BASED query optimization should be employed (this is for performance tuning).	V_RULE_OPTIMIZATION
Identifies the type of report the user wishes to generate. At this point in time the only valid option is 'CUSTOM,' but additional reports may be added in the future.	REPORT_TYPE
The file name used for report generation [This is passed from the report generating procedure (DW_RESULT_DOWNLOAD_CUSTOM) back to this procedure after the report is complete.].	OUT_FILE
The type of Result Report being generated (Regular, Biological, or Habitat).	V_REPORT_TYPE
Data Request mode (Online/Immediate/Overnight. Immediate and Overnight are Batch processing.)	V_MODE
User provided email address.	V_EMAIL
User Provided 3 letter string for report prefix.	V_PREFIX
REQUEST_ID of the batch process sent back from dw_result_downlaod_custom procedure.	LV_REQUEST_ID

# Links To:

Procedure	Web_Page	Button/Text
DW_Result_Download_Custom	Download Result Description	Called automatically when page is loaded.
DW_Result_Download_Zip	Download Results	Called when <compress data="" file="" now=""> button is clicked.</compress>

## **Output Parameters:**

Natural Language	Parameter
The From clause of the SQL statement that will be used for selecting results.	V_FROMSTMT
The Where clause of the SQL statement that will be used for selecting results.	V_WHERESTMT
A Pl/Sql table of selected Columns for the report (Column Name List).	V_COLUMNS
Used to pass a file name to the report generating procedure (DW_RESULT_DOWNLOAD_CUSTOM). This is set to 'NONE' for non-batched reports.	FILENAME
Indicates whether RULE BASED query optimization should be employed (this is for performance tuning).	V_RULE_OPTIMIZATION
The type of Result Report being generated (Regular, Biological, or Habitat).	V_REPORT_TYPE
The name of the download data file created. Used to pass to procedure that will create the report download in gzip format. (DW_Result_Download_Zip)	OUT_FILE
Search criteria used in the query. A tilda delimited string.	V_FILTERS
User provided email address	P_EMAIL
user provided 3 letter string for report prefix	V_PREFIX
Mode of download. (Online/Immediate/Overnight. The later two are Batch processing.)	V_MODE
Complete SQL statement of the request	V_SQLSTMT
Download data heading	V_PRINT_NAMES_LIST
Number of rows of the query.	P_RECORD_COUNT

## **Internal Procedure Events:**

## **Onload**

Call DW\_Result\_Download\_Custom and pass all the Output Parameters listed above.

- C Display a link to the report file that is created using the value of OUT\_FILE that is returned from DW\_Result\_Download\_Custom.
- C Display the size of the report download file in kilobytes (KB).
- C Send an email for Batch download requests using the information lv\_request\_id returned by DW\_Result\_Download\_Custom.
- C See DW\_Result\_Download\_Custom for more details.

### Form Level

C 'Compress Data File now' onclick: Call the procedure DW\_Result\_Download\_Zip and pass it the name of the report file that is to be created in gzip format.

#### General

- C See DW\_Top\_of\_Page Specifications for standard header and sidebar links on each page.
- C See DW\_Bottom\_of\_Page Specifications for standard footer links on each page.

### **Images:**

The only images used on the STORET Data Warehouse web site are those that are included in the EPA Standard Web Template.

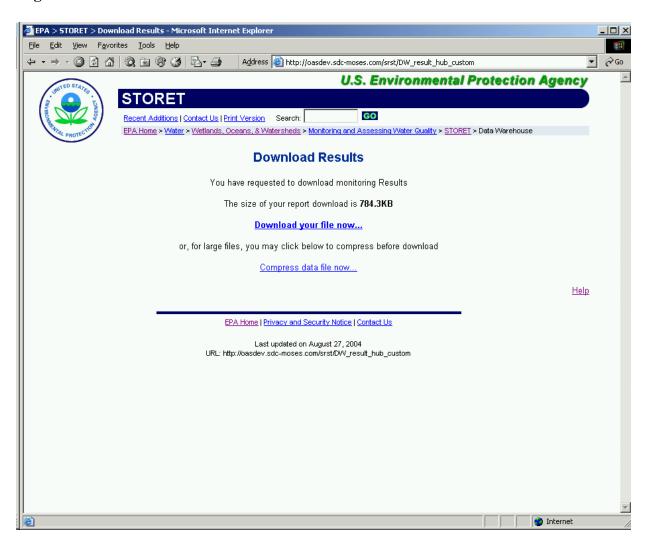
#### **Business Rules:**

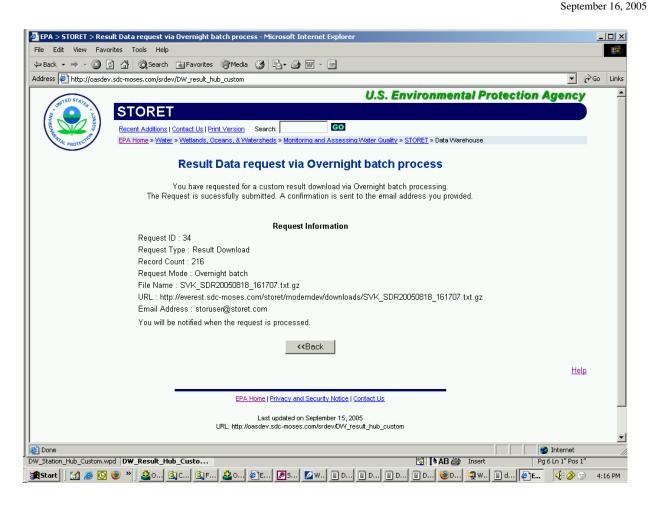
Use the following name prefixes for reports: SDB for Biological Results, SDR for Regular Results, and SDH for Habitat Results.

### **Error Handling:**

• A standard Error Page should be displayed when this page is not loaded upon request.

## **Page Print:**





## **STORET Central Warehouse Specification**

**SIR:** 1633

Package Name: SDW (STORET Data Warehouse)

Procedure Name: DW\_Schedule\_Batch\_Jobs

Web Page Name: None

## **Processing Overview/Description:**

This PL/SQL script will schedule the Batch Process related procedures using DBMS\_JOB package. DW\_Process\_Batch\_Requests and DW\_Report\_Pending\_Requests are two procedures that will be scheduled. It removes any existing scheduled jobs for these procedures before scheduling it.

#### **Tables Used:**

(Display Fields are listed in the order they are displayed)

Entity	Attribute	Display
USER_JOBS	JOBS	N
	WHAT	N

		WHAT	N		
-					
	Links From:				
	None.				
	Input Parameters:				
	None.				

### Links To:

Procedure	Web_Page	Button/Text
DBMS_JOB.Submit	None (Procedure call)	
DBMS_JOB.Remove	None (Procedure call)	

Output	<b>Parameters:</b>
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None.

#### **Internal Procedure Events:**

#### **Onload**

- Query scheduled jobs for 'DW\_Process\_Batch\_RequestS;', 'DW\_Monthly\_Stats;' and 'DW\_Report\_Pending\_Requests;'. Remove from scheduler using DBMS\_JOB.Remove procedure.
- Add the above three procedures to scheduler using DBMS\_JOB.Submit.

  DW\_Process\_Batch\_Requests is scheduled to run each day at a time

  dw\_glob\_var.gv\_overnight\_hour value. DW\_Report\_Pending\_Requests is scheduled to

  run each day at a time dw\_glob\_var.gv\_pending\_report\_hr value. DW\_Monthly\_Stats is

  scheduled to run on the first of each month.

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None.

### **Business Rules:**

Read the timing for Batch process jobs from DW\_GLOB\_VAR package.

Error Handling:	
None.	
Page Print:	
None.	

## **STORET Central Warehouse Specification**

**SIR:** 1363, 1364, 1365, 1366, 1367, 1369, 1475, 1563

Package Name: SDW (STORET Data Warehouse)

Procedure Name: DW\_Station\_Criteria

Web Page Name: Station Search Criteria

## **Processing Overview/Description:**

The Station Search Criteria page provides a single point for data entry of the Station selection parameters that a user is most likely to query. The page is divided into four major areas: Geographic Location, Station Type, Characteristic, and Organization. A user is able to accept a default value or enter specific selection criteria for each of these query dimensions. In addition, the Geographic Location dimension is divided into three sub-dimensions: State/County, Latitude/Longitude, and Hydrologic Unit Code (HUC). The user is able to select one of these three location sub-dimension per Station query.

#### **Tables Used:**

(Display Fields are listed in the order they are displayed)

Entity	Attribute	Display
State (DI_GEO_STATE)	STATE_NAME	Y
	PK_ISN	N
	SORT_ORDER	N
Station Types (DI_STATN_TYPES)	PRIMARY_TYPE	Y
	SECONDARY_TYPE	Y
	PK_ISN	N
	SORT_ORDER	N
Organization (DI_ORG)	ORGANIZATION_ID	Y
	ORGANIZATION_NAME	Y

Entity	Attribute	Display
	PK_ISN	N

## **Links From:**

Procedure	Web_Page	Button/Text
DW_Home	STORET: Central Warehouse	Stations by Geographic Location

## **Input Parameters:**

These parameters are passed from the three Popup (DW\_County\_Popup, DW\_HUC\_Popup, and DW\_Char\_Popup) windows back to this procedure.

Natural Language	Parameter
The names of the selected County(s) in a comma separated string. By default this value is 'ALL'.	AS_COUNTY
The codes of the selected County(s) in a comma separated string. By default this value is 'ALL'.	V_COUNTY_CODE
The Hydrologic Unit Code value. By default this value is 'ALL'.	AS_HUC
The names of the selected Characteristic(s) in a string separated by HTML break tags ( ). By default this value is NULL.	V_CHAR_NAMES
A Pl/Sql table of selected Characteristics (Characteristic Key List). By default this value is 'DUMMY'.	CHAR_LIST

## Links To:

Procedure	Web_Page	Button/Text
DW_County_Popup	STORET: Select Counties	Look Up
DW_HUC_Popup	STORET: Select a Hydrologic Unit Code (HUC)	Look Up

Procedure	Web_Page	Button/Text
DW_Char_Popup	STORET: Characteristic Search Results	Search
DW_Station_Count	Station Search Summary	Continue

# **Output Parameters:**

Natural Language	Parameter
Identifies the geographic location parameter being used for the search.	GEOGRAPHIC
The name of the selected State.	AS_STATE
The names of the selected County(s) in a comma separated string.	AS_COUNTY
The codes of the selected County(s) in a comma separated string.	V_COUNTY_CODE
The Northern Limit of a Latitude/Longitude query in decimal degrees.	MAX_LAT_DD
The Western Limit of a Latitude/Longitude query in decimal degrees.	MIN_LONG_DD
The Eastern Limit of a Latitude/Longitude query in decimal degrees.	MAX_LONG_DD
The Southern Limit of a Latitude/Longitude query in decimal degrees.	MIN_LAT_DD
The direction of the Northern Limit.	DIR_MAXLAT
The direction of the Southern Limit.	DIR_MINLAT
The direction of the Eastern Limit.	DIR_MAXLONG
The direction of the Western Limit.	DIR_MINLONG
The Hydrologic Unit Code value.	AS_HUC
A Pl/Sql table of selected Station Types (Station Type Key List).	D_STYPE_LIST
Flag to identify whether a user wishes to filter stations based on Characteristic.	CHARACTERISTIC

Natural Language	Parameter
The names of the selected Characteristic(s) in a comma separated string.	V_CHAR_NAMES
The search string used to identify available Characteristics.	AS_CHAR
A Pl/Sql table of selected Characteristics (Characteristic Key List) .	CHAR_LIST
The type of Characteristic naming convention used for the Characteristic search.	AS_CHAR_ALIAS_TYPE
Boolean flag used to signal whether taxonomic names should be included in characteristic searches.	TAXON_FILTER
A Pl/Sql table of selected Organizations (Organization Key List).	D_ORG_LIST2

#### **Internal Procedure Events:**

### **Onload**

- C Populate and format the Station Types list box with Primary and Secondary Station Type Names.
- Populate and format the Organization list box with Organization IDs and Organization Names.
- C Populate the empty Selected Characteristics list box with a title and format with blank spaces.

## **Geographic Location Section**

- State/County 'Lookup' onclick: Display a pop-up window showing the available counties for the state currently selected from the drop-down list. Populate the County Name(s) text area with the Counties that the user selects from the pop-up window.
- HUC 'Lookup' onclick: Display a pop-up window showing all available HUC codes and their corresponding names. Populate the Cataloging Unit text box with the HUC code that the user selects from the pop-up window.

#### **Characteristic Section**

- 'Search' onclick: Display a pop-up window showing the characteristics that match the search string and Search By choice entered by the user. The user may choose to hide or display taxonomic name characteristics by selecting the checkbox next to the search string textbox. If the user has not entered a search string, display an alert message prompting them to do so. Populate the Characteristics listbox with the characteristics the user selects from the pop-up window. No more than 50 Characteristics can be added to the Selected Characteristics list.
- C 'Clear Selected' onclick: All selected characteristics are removed from the characteristic select list.
- Clear All' onclick: All characteristics are removed from the characteristic select list.

#### Form Level

- C 'Continue' onclick: The users inputs are validated and their selection criteria is passed to the next page of the web application for processing.
- C'Clear Form' onclick: All values on the form are returned to their default values.

#### General

- C See DW\_Top\_of\_Page Specifications for standard header and sidebar links on each page.
- C See DW\_Bottom\_of\_Page Specifications for standard footer links on each page.

#### **Images:**

The only images used on the STORET Data Warehouse web site are those that are included in the EPA Standard Web Template.

#### **Business Rules:**

- Only taxonomic characteristics that have been recorded will be displayed.
- Characteristics can not be added to the Selected Characteristics list more than once (even if the same Characteristic is selected multiple times using different naming conventions).
- C The user may add no more than 50 Characteristics to the Selected Characteristics list. The attempted addition of Characteristics in excess of this limit are blocked and an alert is displayed.
- C Only Organizations with Stations will be displayed.

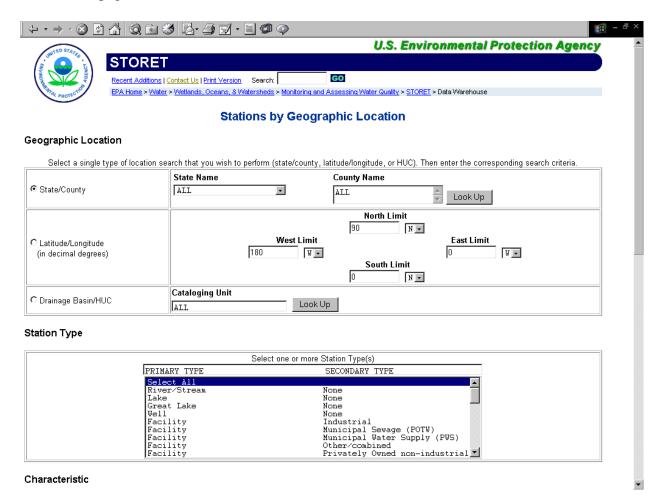
- If the user selects a list of characteristics, Stations will be displayed that have results corresponding to one or more of the characteristics from that list.
- If the user selects 'All' State/Counties, every station is included in the search regardless of geographic location.
- If the user selects 'All' HUCs, every station is included in the search regardless of geographic location.
- If the user selects default latitude/longitude values (i.e., N=90, S=0, E=0, W=180), every station is included in the search regardless of geographic location.
- If a list of Station Types is selected that includes 'Select All', all Station Types are included in the search.
- If a list of Organizations is selected that includes 'Select All', all Organizations are included in the search.

## **Error Handling:**

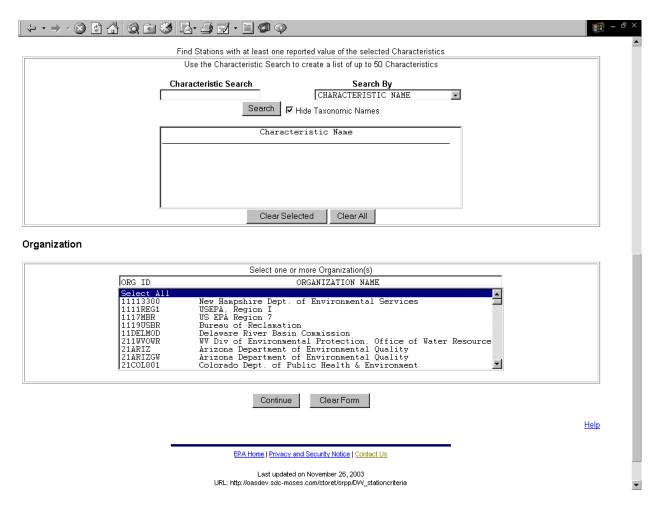
- C A standard Error Page should be displayed when this page does not load upon request.
- C The user will not be allowed to enter non-numeric characters in the latitude/longitude fields.
- An alert is displayed if the user attempts to perform a Characteristic search before entering a search string.
- An alert is displayed if the user attempts to perform a County look-up before selecting a State.
- The county field is reset to 'All' if the selected State is changed.

## **Page Print:**

First half of page.



## Second half of page.



### **STORET Central Warehouse Specification**

**SIR:** 1617

Package Name: SDW (STORET Data Warehouse)

**Procedure Name:** DW\_Station\_Criteria\_STN (DW\_Selection\_Criteria\_Station)

Web Page Name: Stations by Organization and Station ID

## **Processing Overview/Description:**

The Stations by Organization and Station ID page is the second Station search page of the STORET Central Warehouse and provides three search areas: Organization/Station, Station Type, and Characteristic. A user is able to accept default values or enter specific selection criteria for each of these query dimensions. The user is able to select Stations from multiple Organizations, but is limited to selecting a maximum of 100 Stations per query. The user is able to select one or more Station Types and up to 50 Characteristics per query.

### **Tables Used:**

(Display Fields are listed in the order they are displayed)

Entity	Attribute	Display
Station Types (DI_STATN_TYPES)	PRIMARY_TYPE	Y
	SECONDARY_TYPE	Y
	PK_ISN	N
	SORT_ORDER	N
Organization (DI_ORG)	ORGANIZATION_ID	Y
	ORGANIZATION_NAME	Y
	PK_ISN	N

### **Links From:**

Procedure	Web_Page	Button/Text
DW_Home	STORET: Central Warehouse	Stations by Organization and Station ID

## **Input Parameters:**

These parameters are passed from the three Popup windows (DW\_Extref\_Popup, DW\_Station\_Popup and DW\_Char\_Alias\_Popup) back to this procedure.

Natural Language	Parameter
The name of the selected Station Alias Type. By default this value is 'STANDARD'.	AS_EXTREF
The key of the selected Station Alias Type. By default this value is 0.	D_EXTREF_LIST
A Pl/Sql table of selected Stations (Station Key List). By default this value is 'DUMMY'.	STATION_LIST
The names of the selected Characteristic(s) in a string separated by HTML break tags ( ). By default this value is NULL.	V_CHAR_NAMES
A Pl/Sql table of selected Characteristics (Characteristic Key List). By default this value is 'DUMMY'.	CHAR_LIST

## Links To:

Procedure	Web_Page	Button/Text
DW_Extref_Popup	STORET: Select a Station Alias Type	Look Up
DW_Station_Popup	STORET: Station Search Results	Search Stations
DW_Char_Alias_Popup	STORET: Characteristic Search Results	Search
DW_Station_Count	Station Search Summary	Continue

## **Output Parameters:**

Natural Language	Parameter
The name of the selected Station Alias Type. By default this value is 'STANDARD'.	AS_EXTREF
The key of the selected Station Alias Types. By default this value is 0.	D_EXTREF_LIST
The search string used to find Stations within the Organization. By default this value is 'DUMMY'.	AS_STATION
A Pl/Sql table of selected Stations (Station Key List). By default this value is 'DUMMY'.	STATION_LIST
The names of the selected Station(s) string separated by HTML break tags ( ). By default this value is NULL.	V_STATION_NAMES
A Pl/Sql table of selected Station Types (Station Type Key List).	D_STYPE_LIST
Flag to identify whether a user wishes to filter stations based on Characteristic.	CHARACTERISTIC
The names of the selected Characteristic(s) in a comma separated string.	V_CHAR_NAMES
The search string used to identify available Characteristics.	AS_CHAR
A Pl/Sql table of selected Characteristics (Characteristic Key List) .	CHAR_LIST
The type of Characteristic naming convention used for the Characteristic search.	AS_CHAR_ALIAS_TYPE
Boolean flag used to signal whether taxonomic names should be included in characteristic searches.	TAXON_FILTER
A Pl/Sql table of selected Organizations (Organization Key List).	D_ORG_LIST

## **Internal Procedure Events:**

## **Onload**

C Populate and format the Station Types list box with Primary and Secondary Station Type Names.

- C Populate the Organization list box with Organization IDs and Names organized by Organization ID.
- C Populate the empty Selected Characteristics list box with a title and format with blank spaces.
- C Ensure that all selection criteria and hidden text fields are set to the appropriate default values.

#### **Station Section**

- C 'Look Up' onclick: Display a popup window showing the Station Alias Types that match the Organization selected by the user. If the user has not selected an Organization, display an alert message prompting them to do so. Populate the Station Alias Type display field with the Station Alias Type the user selects from the pop-up window.
- Search Stations' onclick: Display a pop-up window showing the Stations that match the search string, search type, Station Alias Type, and Organization entered by the user. If the user has not entered a search string, display an alert message prompting them to do so. Populate the Station listbox with the Stations the user selects from the pop-up window. No more than 100 Stations can be added to the Selected Stations list.
- <sup>°</sup>Clear Selected' onclick: All selected Stations are removed from the stations selected list.
- Clear All' onclick: All Stations are removed from the stations selected list.

#### **Characteristic Section**

- Search' onclick: Display a pop-up window showing the characteristics that match the search string and Search By choice entered by the user. The user may choose to hide or display taxonomic name characteristics by selecting the checkbox next to the search string textbox. If the user has not entered a search string, display an alert message prompting them to do so. Populate the Characteristics listbox with the characteristics the user selects from the pop-up window. No more than 50 Characteristics can be added to the Selected Characteristics list.
- C 'Clear Selected' onclick: All selected characteristics are removed from the characteristic select list
- C 'Clear All' onclick: All characteristics are removed from the characteristic select list.

#### Form Level

- C 'Continue' onclick: The users inputs are validated and their selection criteria is passed to the next page of the web application for processing.
- C'Clear Form' onclick: All values on the form are returned to their default values.

#### General

- C See DW\_Top\_of\_Page Specifications for standard header and sidebar links on each page.
- C See DW\_Bottom\_of\_Page Specifications for standard footer links on each page.

## **Images:**

The only images used on the STORET Data Warehouse web site are those that are included in the EPA Standard Web Template.

#### **Business Rules:**

- Only taxonomic characteristics that have been recorded will be displayed.
- Characteristics can not be added to the Selected Characteristics list more than once (even if the same Characteristic is selected multiple times using different naming conventions).
- C The user may add no more than 50 Characteristics to the Selected Characteristics list. The attempted addition of Characteristics in excess of this limit are blocked and an alert is displayed.
- If the user has selected an Organization but does not select any Stations, data for the selected Organization is retrieved for the report.
- C Stations can not be added to the Selected Stations list more than once.
- If the user selects 'Search by Station Alias Type' but does not change the selected Station Alias Type (i.e., default of 'STANDARD'), then Stations will be searched by ID.
- C The user may add no more than 100 Stations to the Selected Stations list. The attempted addition of Stations in excess of this limit is blocked and an alert is displayed.
- If the user selects a list of characteristics, Stations will be displayed that have results corresponding to one or more of the characteristics from that list.
- If a list of Station Types is selected that includes 'Select All', all Station Types are included in the search.

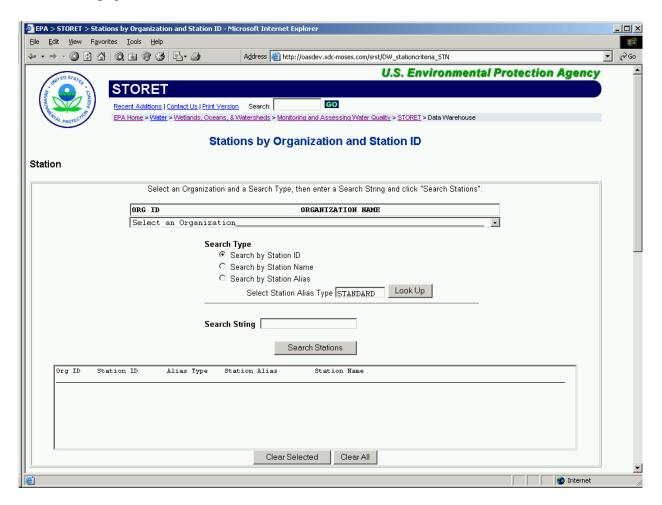
## **Error Handling:**

- C A standard Error Page should be displayed when this page does not load upon request.
- An alert is displayed if the user attempts to perform a Characteristic search before entering a search string.
- An alert is displayed if the user attempts to perform a Station search before entering a search string.

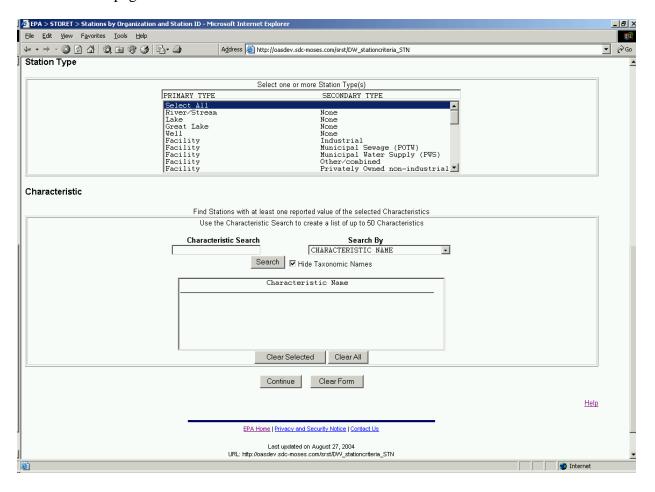
- C An alert is displayed if the user attempts to perform a Station search before selecting an Organization.
- An alert is displayed if the user attempts to perform a Station Alias Type lookup before selecting an Organization.

## **Page Print:**

First half of page.



## Second half of page.



## **STORET Central Warehouse Specification**

**SIR:** 1371, 1501, 1617, 1631,1633, 1706

Package Name: SDW (STORET Data Warehouse)

**Procedure Name:** DW\_Station\_Count

Web Page Name: Station Search Summary

## **Processing Overview/Description:**

The Station Search Summary page receives and processes a user's search parameters from the two Station Search Criteria pages, displays a summary of this information, and provides a count of the number of Stations that satisfy the search criteria. Based on this count, a user is able to decide whether they wish to create a report or return to the Station Search Criteria page to refine their query. This page also allows a user to customize the reports they create by selecting the data elements they wish to include in their report. Based on the number of Stations, this procedure allows Online or Batch processing for the data request. The Batch processing can be both Immediate or Overnight. The limits that decide the range for different types of processing are enforced using global variables in DW\_Glob\_Var package.

If a report exceeds the maximum permitted number of Stations, the user is unable to generate a report and must refine their query. If there are no Stations for a report, the user is unable to generate a report and must refine their query.

#### **Tables:**

(Display Fields are listed in the order they are displayed)

Entity	Attribute	Display
State (DI_GEO_STATE)	STATE_NAME	Y
	PK_ISN	N
Station (FA_STATION)	LATITUDE	Y
	LONGITUDE	Y
	PK_ISN	N

Entity	Attribute	Display
	FK_GEO_STATE	N
	FK_GEO_COUNTY	N
	FK_STATN_TYPES	N
	FK_FA_STATN	N
	FK_ORG	N
	GENERATED_HUC	Y
Station Types (DI_STATN_TYPES)	PRIMARY_TYPE	Y
	SECONDARY_TYPE	Y
	PK_ISN	N
Characteristic (STATION_CHAR)	FK_CHAR	N
Organization (DI_ORG)	ORGANIZATION_ID	Y
	PK_ISN	N
APP_COLUMN_NAME	ELEMENT_NAME	Y
	STN_REPORT_NUMBER	N
	STN_ELEMENT_DEFAULT	N

## **Links From:**

Procedure	Web_Page	Button/Text
DW_Station_Criteria	Station Search Criteria	<continue></continue>
DW_Station_Criteria_STN	Stations by Organization and Station ID	<continue></continue>

# **Input Parameters:**

Natural Language	Parameter
Identifies the geographic location parameter being used for the search.	GEOGRAPHIC
The internal sequence number of the selected State.	AS_STATE

Natural Language	Parameter
The names of the selected County(s) in a comma separated string.	AS_COUNTY
The codes of the selected County(s) in a comma separated string.	V_COUNTY_CODE
The Northern Limit of a Latitude/Longitude query in decimal degrees.	MAX_LAT_DD
The Western Limit of a Latitude/Longitude query in decimal degrees.	MIN_LONG_DD
The Eastern Limit of a Latitude/Longitude query in decimal degrees.	MAX_LONG_DD
The Southern Limit of a Latitude/Longitude query in decimal degrees.	MIN_LAT_DD
The direction of the Northern Limit.	DIR_MAXLAT
The direction of the Southern Limit.	DIR_MINLAT
The direction of the Eastern Limit.	DIR_MAXLONG
The direction of the Western Limit.	DIR_MINLONG
The Hydrologic Unit Code value.	AS_HUC
A Pl/Sql table of selected Station Types (Station Type Key List).	D_STYPE_LIST
The names of the selected Characteristic(s) in a string separated by HTML break tags ( ). By default this value is NULL.	V_CHAR_NAMES
The search string used to identify available Characteristics. By default this value is NULL.	AS_CHAR
A Pl/Sql table of selected Characteristics (Characteristic Key List).	CHAR_LIST
The type of Characteristic naming convention used for the Characteristic search.	AS_CHAR_ALIAS_TYPE
Boolean flag used to signal whether taxonomic names should be included in characteristic searches.	TAXON_FILTER
The name of the selected Station Alias Type. By default this value is 'STANDARD'.	AS_EXTREF
The key of the selected Station Alias Types. By default this value is 0.	D_EXTREF_LIST

Natural Language	Parameter
The search string used to find Stations within the Organization. By default this value is 'DUMMY'.	AS_STATION
A Pl/Sql table of selected Stations (Station Key List). By default this value is 'DUMMY'.	STATION_LIST
The names of the selected Station(s) string separated by HTML break tags ( ). By default this value is NULL.	V_STATION_NAMES
A Pl/Sql table of selected Organizations (Organization Key List).	D_ORG_LIST2
The code of the last Organization selected for a Station search.	D_ORG_LIST

# Links To:

Procedure	Web_Page	Button/Text
DW_Station_Criteria	Station Search Criteria	<back></back>
DW_Station_Criteria_STN	Stations by Organization and Station ID	<back></back>
DW_Station_Hub_Custom	Download Site Description	<continue> when 'Download Report' is selected.</continue>

# **Output Parameters:**

Natural Language	Parameter
The From clause of the SQL statement that will be used for selecting stations.	V_FROMSTMT
The Where clause of the SQL statement that will be used for selecting stations.	V_WHERESTMT
The Number of Stations meeting the selection criteria.	V_STATIONCOUNT
Search criteria used in the query. A tilda delimited string.	V_FILTERS

Natural Language	Parameter
Data request mode. Includes Online, Immediate or Overnight. Immediate and Overnight are batch processing	V_MODE
User provided email address for sending notifications.	V_EMAIL
User provided 3 letter string for report prefix.	V_PREFIX
A Pl/Sql table of selected Columns for the report (Column Name List).	V_COLUMNS
Identifies whether the user wants to generate a report or first display a list of available stations that match their search criteria.	REPORT_TYPE

### **Internal Procedure Events:**

#### **Onload**

- C Display titles and values for the search criteria that the user selected on the previous page.
- C Display the number of Stations that match the search criteria that the user selected on the previous page.
- C Display the report elements that comprise the Station Details Report (defined in the APP\_COLUMN\_NAMES table).
- Check the default report element check boxes (Organization ID, Station ID, Station Name, Primary Type, Latitude/Longitude, State Name, County Name).
- Provide appropriate report generation mode based on the station count. The Online or Batch processing is displayed based on the limits set in DW\_GLOB\_VAR package.

### **Custom Report Section**

- C 'Select All' onclick: Check all report element check boxes.
- C 'Clear All' onclick: Uncheck all report element check boxes.
- C 'Restore Defaults' onclick: Check only the default report elements.

#### Form Level

Continue>>' onclick: Call the procedure DW\_Station\_Download\_Custom and pass it the processed Station search criteria (in the form of a SQL From clause and Where clause) and the list of columns that the user has selected for their report.

- 'Immediate' Batch processing will schedule the request in a queue to be run immediately. This option requires an email address and a three character report prefix from user. Electronic mail will be sent upon successful submission of the request, and again upon completion of request.
- C 'Overnight' Batch processing will be stored and processed at off peak time and will be addressed overnight. This option requires an email address and a three character report prefix from user. Electronic mail will be sent upon successful submission of the request, and again upon completion of request.
- C '<< Back' onclick: Closes the page and returns to the selected Station Criteria page.

#### General

- C See DW\_Top\_of\_Page Specifications for standard header and sidebar links on each page.
- C See DW Bottom of Page Specifications for standard footer links on each page.

### **Images:**

See General Design guidelines for standard images on each page. The only images used on the STORET Data Warehouse web site are those that are included in the EPA Standard Web Template.

#### **Business Rules:**

- Only display location information for the geographic search option that has been selected (State/County, Latitude/Longitude, or HUC).
- Always display the Station Types that have been selected. Display 'All' if the user has selected 'Select All' from the Station Type list.
- Always display the Characteristics that have been selected. Display 'All' if the user has chosen not to filter stations based on Characteristic, or has not chosen specific Characteristics to search based upon.
- Always display the Organizations that have been selected. Display 'All' if the user has selected 'All' from the Organization list.
- C Always display the Station(s) that have been selected. Display 'All' if the user has not chosen specific Stations to base search on.
- Only display 'Continue' (online) when the station count is less than dw\_glob\_var.gv\_stn\_online\_lmt.
- Only display Batch Process with 'Immediate' and 'Overnight' options when the station count is between dw\_glob\_var.gv\_stn\_online\_lmt and dw\_glob\_var.gv\_stn\_immediate\_lmt.

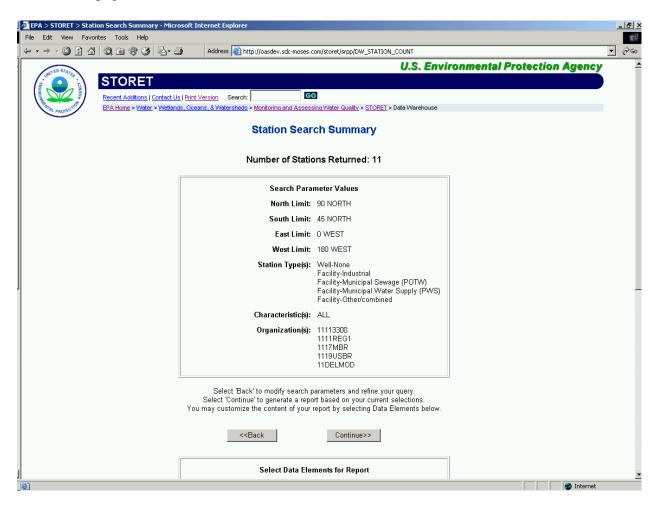
- C Only display Batch Process with 'Overnight' option when the station count is between DW\_GLOB\_VAR.GV\_STN\_IMMEDIATE\_LMT and DW\_GLOB\_VAR.GV\_STN\_OVERNIGHT\_LMT
- C Do not provide any download option when station count is greater than DW\_GLOB\_VAR.GV\_STN\_OVERNIGHT\_LMT.

## **Error Handling:**

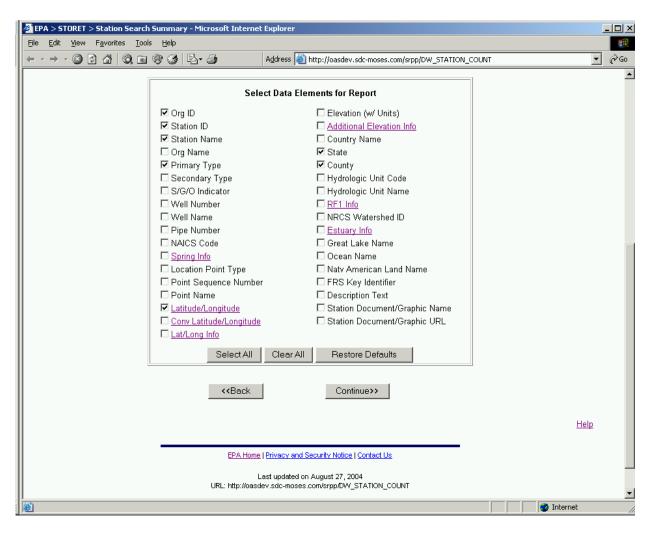
- C A standard Error Page should be displayed when this page is not loaded upon request.
- C An alert is displayed if the user attempts to generate a report without having at least one report element selected.
- C Enforces report size restrictions as handled by global variables.

## **Page Print:**

First half of page.



## Second half of page.



## **STORET Central Warehouse Specification**

**SIR:** 1370, 1501, 1507, 1558, 1559, 1633, 1706

Package Name: SDW (STORET Data Warehouse)

Procedure Name: DW\_Station\_Download\_Custom

Web Page Name: None

## **Processing Overview/Description:**

The DW\_Station\_Download\_Custom procedure receives processed search criteria, the list of requested report elements, mode of request and other related information from the DW\_Station\_Hub\_Custom procedure. Records the request in DW\_DATA\_REQUEST table and generates a tilde delimited text file report for online requests. For Batch requests the request is submitted to the job queue and an email is sent to the requester. For online requests, the name of the text file is returned to DW\_Station\_Hub\_Custom so that a link to the file can be displayed to the user. The created report contains only the columns that correspond to the report elements selected by the user. The titles for these columns are displayed as the first line of text in the report.

#### **Tables:**

(Display Fields may be included in user generated reports. See Business Rules section for display order)

Entity	Attribute	Display
HUC Code (DI_DB_CAT)	HYDROLOGIC_UNIT_NAME	Y
Station Types (DI_STATN_TYPES)	PRIMARY_TYPE	Y
	SECONDARY_TYPE	Y
Organization (DI_ORG)	ORGANIZATION_NAME	Y
State (DI_GEO_STATE)	STATE_NAME	Y
	COUNTRY_NAME	Y
County (DI_GEO_COUNTY)	COUNTY_NAME	Y

Entity	Attribute	Display
Station (FA_STATION)	ORGANIZATION_ID	Y
	STATION_ID	Y
	STATION_NAME	Y
	SGO_INDICATOR	Y
	WELL_NUMBER	Y
	WELL_NAME	Y
	PIPE_NUMBER	Y
	NAICS_CODE	Y
	SPRING_TYPE_IMPROVEMENT	Y
	SPRING_PERMANENCE	Y
	SPRING_USGS_GEOLOGIC_UNIT	Y
	SPRING_OTHER_NAME	Y
	SPRING_USGS_LITHOLOGIC_UNIT	Y
	LOCATION_POINT_TYPE	Y
	POINT_SEQUENCE_NUMBER	Y
	POINT_NAME	Y
	LATITUDE	Y
	LONGITUDE	Y
	STD_LATITUDE	Y
	STD_LONGITUDE	Y
	MAP_SCALE	Y
	ELEVATION	Y
	HYDROLOGIC_UNIT_CODE	Y
	GENERATED_HUC	Y
	RF1_SEGMENT_CODE	Y
	RF1_SEGMENT_NAME	Y
	RF1_MILEAGE	Y

Entity	Attribute	Display
	ON_REACH_IND	Y
	NRCS_WATERSHED_ID	Y
	OTHER_ESTUARY_NAME	Y
	GREAT_LAKE_NAME	Y
	OCEAN_NAME	Y
	NATV_AMERICAN_LAND_NAME	Y
	FRS_KEY_IDENTIFIER	Y
	BLOB_TITLE	Y
	FK_DB_CAT	N
	FK_GEN_DB_CAT	N
	FK_GEO_STATE	N
	FK_GEO_COUNTY	N
	FK_MAD_HMETHOD	N
	FK_MAD_HDATUM	N
	FK_STD_HDATUM	N
	FK_MAD_VMETHOD	N
	FK_MAD_VDATUM	N
	FK_ORG	N
	FK_STATN_TYPES	N
	FK_ESTRY_PRIMARY	N
	FK_ESTRY_SECONDARY	N
	DESCRIPTION_TEXT	N
	BLOB_ID	Y
Horizontal Datum (LU_MAD_HDATUM)	ID_CODE	Y
Horizontal Method (LU_MAD_HMETHOD)	GEOPOSITIONING_METHOD	Y
Vertical Datum (LU_MAD_VDATUM)	ELEVATION_DATUM	Y

Entity	Attribute	Display
Vertical Method (LU_MAD_VMETHOD)	ELEVATION_METHOD	Y
Primary Estuary (LU_ESTRY_PRIMARY)	PRIMARY_ESTUARY	Y
Secondary Estuary (LU_ESTRY_SECONDARY)	SECONDARY_ESTUARY	Y
Column Names (APP_COLUMN_NAME)	COL_NAME	N
	PRINT_NAME	N
	STN_REPORT_NUMBER	N
	STN_COL_ORDER	N

## **Links From:**

Procedure	Web_Page	Button/Text
DW_Station_Hub_Custom	Download Site Descriptions	None (called automatically during load)

## **Input Parameters:**

Natural Language	Parameter
The From clause of the SQL statement that will be used for selecting stations.	V_FROMSTMT
The Where clause of the SQL statement that will be used for selecting stations.	V_WHERESTMT
A Pl/Sql table of selected Columns for the report (Column Name List).	V_COLUMNS
Used to pass a report file name to this procedure. This is set to 'NONE' for non-batched reports.	FILENAME
user email address required for Batch processing.	P_EMAIL
3 character string required for Batch processing.	P_PREFIX

Natural Language	Parameter
Request mode - Online/Immediate/Overnight. Immediate and Overnight are Batch processing.	V_MODE
Number of Stations .	P_RECORD_COUNT
Comma separated string of filters used in the query.	V_FILTERS
Request_ID of the request as recorded in DW_Data_Request table.	LV_REQUEST_ID

## Links To:

Procedure	Web_Page	Button/Text
DW_Station_Hub_Custom	Download Site Descriptions	None (called automatically during load).
DW_Record_Data_Request	None	None (called automatically during load).

# **Output Parameters:**

Natural Language	Parameter
The file name used for report generation. This is passed so that a link to the report can be created.	OUT_FILE
Job Request_ID. (Primary key in DW_DATA_REQUESTS table).	REQUEST_ID
Comma separated string of filters used in the query.	V_FILTERS
Used to pass a report file name to this procedure. This is set to 'NONE' for non-batched reports.	LV_FILETYPE
Timestamp of the request	LV_TIMESTAMP
Download file length.	LV_FILE_LENGTH
Record Title for the download.	V_PRINT_NAMES_LIST
Request Mode (Online/Immediate/Overnight. The later two are Batch processing).	V_MODE
User provided email address	P_EMAIL

Natural Language	Parameter
Complete SQL statement of the request query	V_SQLSTMT
filename of the download file name	LV_FILE_NAME
Number of records of the request.	P_RECORD_COUNT

#### **Internal Procedure Events:**

#### Onload

- Record the request into DW\_DATA\_REQUESTS table using DW\_Record\_data\_request procedure..
- C For online request, generate report based on received parameters. Update the DW\_DATA\_REQUESTS table with the size of the file. Return file name to the calling procedure.
- C For Batch (Immediate) request, submit a job using DBMS\_JOB and update dw\_data\_requests table with the job\_queue\_id. Send an email to user with Request\_ID and return the Request\_ID to calling procedure.
- C For Batch (Overnight) request, send an email to user with Request\_ID and return the Request\_ID to calling procedure. A scheduled job will run these jobs overnight.

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None.

#### **Business Rules:**

- C Display Column Titles based on the report elements selected and the contents of the APP\_COLUMN\_NAME table. See chart below for a list of these titles.
- C Display only the columns that correspond to the list of selected report elements.
- C Separate all report columns with the tilde sign ('~').
- C Do not return the name of the report file created until report generation has completed.
- C Display report columns in the order listed below.
- C Include all location point types in station reports.

Column Title	Table Name	Column Name
Org ID	FA_STATION	ORGANIZATION_ID

Column Title	Table Name	Column Name
Station ID	FA_STATION	STATION_ID
Station Name	FA_STATION	STATION_NAME
Org Name	DI_ORG	ORGANIZATION_NAME
Primary Type	DI_STATN_TYPES	PRIMARY_TYPE
Secondary Type	DI_STATN_TYPES	SECONDARY_TYPE
S/G/O Indicator	FA_STATION	SGO_INDICATOR
Well Number	FA_STATION	WELL_NUMBER
Well Name	FA_STATION	WELL_NAME
Pipe Number	FA_STATION	PIPE_NUMBER
NAICS Code	FA_STATION	NAICS_CODE
Spring Type Improvement	FA_STATION	SPRING_TYPE_IMPROVEMENT
Permanence	FA_STATION	SPRING_PERMANENCE
USGS Geologic Unit Code-Name	FA_STATION	SPRING_USGS_GEOLOGIC_UNIT
Spring Other Name	FA_STATION	SPRING_OTHER_NAME
USGS Lithologic Unit Code-Name	FA_STATION	SPRING_USGS_LITHOLOGIC_UNIT
Location Point Type	FA_STATION	LOCATION_POINT_TYPE
Point Sequence Number	FA_STATION	POINT_SEQUENCE_NUMBER
Point Name	FA_STATION	POINT_NAME
Latitude	FA_STATION	LATITUDE
Longitude	FA_STATION	LONGITUDE
Horizontal Datum	LU_MAD_HDATUM	ID_CODE
Converted Latitude	FA_STATION	LATITUDE
Converted Longitude	FA_STATION	LONGITUDE
Converted Horizontal Datum	LU_MAD_HDATUM	ID_CODE
Geopositioning Method	LU_MAD_HMETHOD	GEOPOSITIONING_METHOD
Map Scale	FA_STATION	MAP_SCALE
Elevation	FA_STATION	ELEVATION

Column Title	Table Name	Column Name
Elevation Datum	LU_MAD_VDATUM	ELEVATION_DATUM
Elevation Method	LU_MAD_VMETHOD	ELEVATION_METHOD
Country Name	DI_GEO_STATE	COUNTRY_NAME
State	DI_GEO_STATE	STATE_NAME
County	DI_GEO_COUNTY	COUNTY_NAME
Hydrologic Unit Code	FA_STATION	HYDROLOGIC_UNIT_CODE
Hydrologic Unit Name	DI_DB_CAT	HYDROLOGIC_UNIT_NAME
Generated Hydrologic Unit Code	FA_STATION	GENERATED_HUC
Generated Hydrologic Unit Name	DI_DB_CAT	HYDROLOGIC_UNIT_NAME
RF1 Segment Code	FA_STATION	RF1_SEGMENT_CODE
RF1 Segment Name	FA_STATION	RF1_SEGMENT_NAME
RF1 Mileage	FA_STATION	RF1_MILEAGE
On Reach Ind	FA_STATION	ON_REACH_IND
NRCS Watershed ID	FA_STATION	NRCS_WATERSHED_ID
Primary Estuary	LU_ESTRY_PRIMARY	PRIMARY_ESTUARY
Secondary Estuary	LU_ESTRY_SECONDARY	SECONDARY_ESTUARY
Other Estuary Name	FA_STATION	OTHER_ESTUARY_NAME
Great Lake Name	FA_STATION	GREAT_LAKE_NAME
Ocean Name	FA_STATION	OCEAN_NAME
Natv American Land Name	FA_STATION	NATV_AMERICAN_LAND_NAME
FRS Key Identifier	FA_STATION	FRS_KEY_IDENTIFIER
Description Text	FA_STATION	DESCRIPTION_TEXT
Station Document/Graphic Name	FA_STATION	BLOB_TITLE
Station Document/Graphic URL	FA_STATION	BLOB_ID

## **Error Handling:**

- C A standard Error Page should be displayed when this page does not load upon request.
- Capture standard file creation (disk I/O) errors and display customized messages if they occur.

## **Page Print:**

None. See DW\_Station\_Hub\_Custom.

## **STORET Central Warehouse Specification**

**SIR:** 1557

Package Name: SDW (STORET Data Warehouse)

Procedure Name: DW\_Station\_Download\_Zip

Web Page Name: Download Site Descriptions

## **Process Overview/Description:**

The DW\_Station\_Download\_Zip procedure takes a report download file and replaces it with a new report download file in gzip format. A link to this file is then presented to the requesting user.

### **Tables:**

(Display Fields are listed in the order they are displayed)

None.

### **Links From:**

Procedure	Web_Page	Button/Text
DW_Station_Hub_Custom	Download Site Descriptions	Continue

## **Input Parameters:**

Natural Language	Parameter
The name of the report download file.	OUT_FILE

### Links To:

Procedure	Web_Page	Button/Text
DW_Station_Download_Custom	Download Site Description	Called automatically when page is loaded.
DW_Station_Download_Zip	Create Report Download in Zip Format	Called when <continue> button is pressed.</continue>

### **Output Parameters:**

Natural Language	Parameter
The name of the report download file in gzip format.	OUT_FILE

#### **Internal Procedure Events:**

#### **Onload**

- Call DW\_Exec\_OS Java procedure that executes the Unix cp command to make a copy of the OUT\_FILE created by DW\_Station\_Download\_Custom.
- Call DW\_Exec\_OS Java procedure that executes the Unix gzip command to make a gzip formatted version of the copy file. Display a link to the gzip format report file.
- Display the size of the gzip format report file in kilobytes (KB) if the file has been created.

## General

- C See DW Top of Page Specifications for standard header and sidebar links on each page.
- C See DW\_Bottom\_of\_Page Specifications for standard footer links on each page.

### **Images:**

See General Design guidelines for standard images on each page. The only images used on the STORET Data Warehouse web site are those that are included in the EPA Standard Web Template.

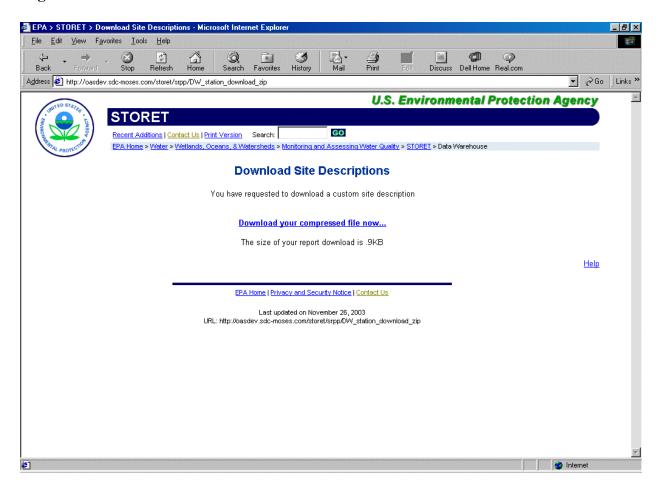
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None.

## **Error Handling:**

- If the attempt to gzip the report download file is unsuccessful, an error message will be displayed rather than a link to the gzip format report file.
- A standard Error Page should be displayed when this page is not loaded upon request.

## **Page Print:**



## **STORET Central Warehouse Specification**

**SIR:** 1370, 1378, 1557, 1631, 1633

Package Name: SDW (STORET Data Warehouse)

Procedure Name: DW\_Station\_Hub\_Custom

Web Page Name: Download Site Descriptions

### **Process Overview/Description:**

The DW\_Station\_Hub\_Custom procedure serves as a gatekeeper that generates the page header and footer, then executes the procedure DW\_Station\_Download\_Custom with the required parameters. This also provides a link to compress the data file for online processing. For Batch processing, it provides the data request submission information.

#### **Tables:**

(Display Fields are listed in the order they are displayed)

None.

#### **Links From:**

Procedure	Web_Page	Button/Text
DW_Station_Count	Station Search Summary	Continue

### **Input Parameters:**

Natural Language	Parameter
The From clause of the SQL statement that will be used for selecting stations.	V_FROMSTMT

Natural Language	Parameter
The Where clause of the SQL statement that will be used for selecting stations.	V_WHERESTMT
The number of Stations that fulfilled the selection criteria.	V_STATIONCOUNT
A Pl/Sql table of selected Columns for the report (Column Name List).	V_COLUMNS
Search criteria used in the query. A tilda delimited string.	V_FILTERS
Mode of data download request. Online, Immediate or Overnight. Immediate and Overnight are batch processing which requires an email address and a 3 letter prefix.	V_MODE
User email address provided on DW_STATION_COUNT page.	V_EMAIL
User provided 3 character string that will be used as prefix of the download filename. This is provided on DW_STATION_COUNT page.	V_PREFIX
Identifies whether the user wants to generate a report or first display a list of available stations that match their search criteria.	REPORT_TYPE
The file name used for report generation [This is passed from the report generating procedure (DW_STATION_DOWNLOAD_CUSTOM) back to this procedure after the report is complete.]	OUT_FILE

## Links To:

Procedure	Web_Page	Button/Text
DW_Station_Download_Custom	Download Site Description	Called automatically when page is loaded.
DW_Station_Download_Zip	Download Site Description	Called when <compress data="" file="" now=""> button is clicked.</compress>

## **Output Parameters:**

Natural Language	Parameter
The From clause of the SQL statement that will be used for selecting stations.	V_FROMSTMT
The Where clause of the SQL statement that will be used for selecting stations.	V_WHERESTMT
A Pl/Sql table of selected Columns for the report (Column Name List).	V_COLUMNS
Used to pass a file name to the report generating procedure (DW_STATION_DOWNLOAD_CUSTOM). This is set to 'NONE' for non-batched reports.	FILENAME
The name of the download data file created. Used to pass to procedure that will create the report download in gzip format. (DW_Station_Download_Zip)	OUT_FILE
Search criteria used in the query. A tilda delimited string.	V_FILTERS
Type of download or data request.	LV_FILETYPE
Time stamp of the download file.	LV_TIMESTAMP
Download file size in Kilobytes.	LV_FILE_LENGTH
Download request mode	V_MODE
Number of Stations selected	V_STATION_COUNT
Batch Request_id. Valid only for Immediate and Overnight V_MODE values.	LV_REQUEST_ID
User email address	LV_EMAIL
User provided 3 letter string	LV_PREFIX

## **Internal Procedure Events:**

## Onload

Call DW\_Station\_Download\_Custom and pass all the Output Parameters listed above except V\_FILTERS, LV\_FILETYPE, LV\_TIMESTAMP and LV\_FILE\_LENGTH.

- C Display a link to the report file that is created using the value of OUT\_FILE that is returned from DW\_Station\_Download\_Custom.
- C Display the size of the report download file in kilobytes (KB).
- Call dw\_record\_data\_request and pass V\_FILTERS, LV\_FILETYPE, LV\_TIMESTAMP and LV\_FILE\_LENGTH.
- C See DW\_Station\_Download\_Custom for more details.

### **Form Level**

C 'Compress Data File now' onclick: Call the procedure DW\_Station\_Download\_Zip and pass it the name of the report file that is to be created in gzip format.

#### General

- C See DW\_Top\_of\_Page Specifications for standard header and sidebar links on each page.
- C See DW\_Bottom\_of\_Page Specifications for standard footer links on each page.

### **Images:**

See General Design guidelines for standard images on each page. The only images used on the STORET Data Warehouse web site are those that are included in the EPA Standard Web Template.

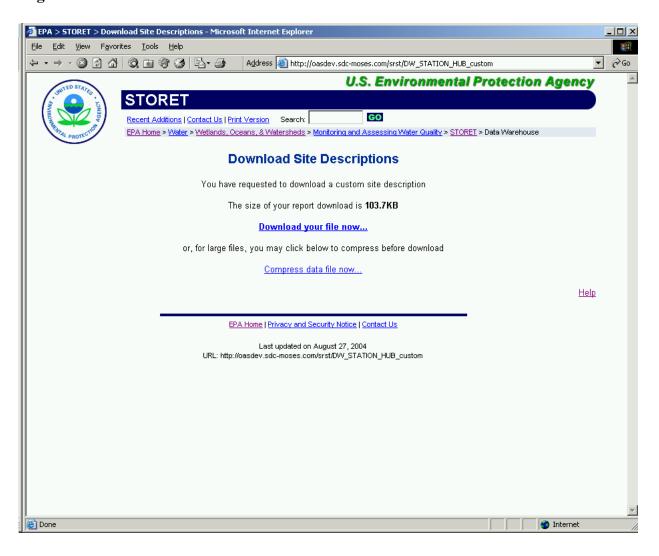
#### **Business Rules:**

None.

### **Error Handling:**

• A standard Error Page should be displayed when this page is not loaded upon request.

## **Page Print:**



## **STORET Central Warehouse Specification**

**SIR:** 1438, 1489

Package Name: SDW (STORET Data Warehouse)

Procedure Name: DW\_Station\_Popup

Web Page Name: Station Search Results

### **Processing Overview/Description:**

The Station Search Results pop-up is called by the Result by Station pages and is used to display a list of available Stations for the selected Organization that conform to the user's search string. The user is able to select one or more Stations from this list. The Station ID and the Station Name of the selected Stations are passed to the calling Result by Station page where the appropriate fields are populated.

#### **Tables:**

(Display Fields are listed in the order they are displayed)

Entity	Attribute	Display
Station (FA_STATION)	ORGANIZATION_ID	Y
	STATION_ID	Y
	PK_ISN	N
	LOCATION_POINT_TYPE	N
	FK_ORG	N
Station Alias Type (LU_EXTERNAL_REF_SCHEME)	REF_SCHEME_ACRONYM	Y
	PK_ISN	N
	ORGANIZATION_ID	N
Station Alias (LU_STATION_ALIAS)	STATION_LABEL	Y

Entity	Attribute	Display
	FK_STATION	N
	FK_REF_SCHEME	N
Station (FA_STATION)	STATION_NAME	Y

## **Links From:**

Procedure	Web_Page	Button/Text
DW_Result_Criteria_Station	Regular Results by Station	Look Up
DW_Bio_Result_Criteria_Station	Biological Results by Station	Look Up
DW_Hab_Result_Criteria_Station	Habitat Results by Station	Look Up

# **Input Parameters:**

Natural Language	Parameter
The text string used to search available Stations.	V_STATIONSTRING
The Organization number that uniquely identifies the selected Organization.	V_ORG
The code indicating whether to search for Stations by Station ID, Name, or Label.	V_SEARCHTYPE
The Station Alias Type used in the search for Station.	V_EXTREF

## Links To:

Procedure	Web_Page	Button/Text
DW_Result_Criteria_Station	Regular Results by Station	Look Up
DW_Bio_Result_Criteria_Station	Biological Results by Station	Look Up
DW_Hab_Result_Criteria_Station	Habitat Results by Station	Look Up

## **Output Parameters:**

Natural Language	Parameter
A PL/SQL table of selected Stations.	STATION_LIST
The names of the selected Station(s) in a string separated by an HTML break.	V_STATION_NAMES

#### **Internal Procedure Events:**

#### **Onload**

C Populate the select list with the Stations that conform to the Station Search Criteria.

### Form Level

- Select' onclick: Populate the Selected Stations list on the calling Results by Station page with the Organization IDs, Station IDs, Alias Type, Station Alias, and Station names that the user selects from this pop-up window. If Stations were previously added, insert the new Stations at the end of the existing Selected Stations list.
- Cancel' onclick: Close this pop-up window and return focus to the calling Results by Station page. Do not alter the value of the Selected Stations list.

### **Images:**

None.

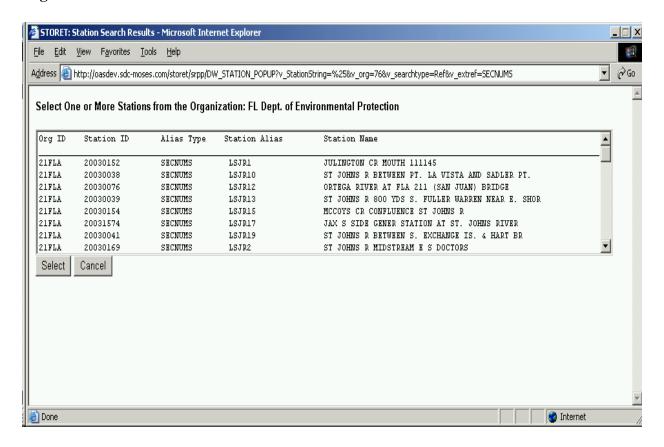
### **Business Rules:**

- C Only display Stations for the selected Organization.
- C Allow multiple Stations to be selected.
- C If 'Search by Station Alias' is selected and Station Alias Type is 'STANDARD', then Stations will be searched by Station ID.
- If a Station is selected multiple times, include it only once on the calling Results by Station page.

## **Error Handling:**

- C A standard Error Page should be displayed when this page does not load upon request.
- Only valid Organization IDs, Station IDs, Station Alias Types, Station Aliases, and Station names are returned to the Results by Station page. If Search by ID or Search by Name is selected, then 'N/A' is used to indicate that the Station Alias Types and Station Aliases are not applicable.

## **Page Print:**



## **STORET Central Warehouse Specification**

SIR: Global

Package Name: SDW (STORET Data Warehouse)

**Procedure Name:** DW\_Top\_of\_Page

Web Page Name: EPA standard web template header

### **Process Overview/Description:**

The DW\_Top\_of\_Page procedure is used to create the standard header used by all pages of the Central Warehouse application. This header provides a search engine for the EPA web site and several links. The search engine parameters and links used by this procedure mirror those of the STORET homepage.

In addition, this procedure establishes the link to the JavaScript library used by the application and calls any JavaScript functions that should be executed at the time a page is loaded.

#### **Tables:**

(Display Fields are listed in the order they are displayed)

None.

#### **Links From:**

Procedure	Web_Page	Button/Text
DW_Home	STORET Central Warehouse	onLoad
DW_Result_Criteria_Geo	Regular Results by Geographic Location	onLoad
DW_Result_Criteria_Station	Regular Results by Station	onLoad
DW_Result_Criteria_Project	Regular Results by Project	onLoad
DW_Result_Count	Result Search Summary	onLoad

Procedure	Web_Page	Button/Text
DW_Result_Hub_Custom	Download Results	onLoad
DW_Station_Criteria	Station Search Criteria	onLoad
DW_Station_Count	Station Search Summary	onLoad
DW_Station_Hub_Custom	View Station List/Download Report	onLoad
DW_Bio_Result_Criteria_Geo	Biological Results by Geographic Location	onLoad
DW_Bio_Result_Criteria_Station	Biological Results by Station	onLoad
DW_Bio_Result_Criteria_Project	Biological Results by Project	onLoad
DW_Hab_Result_Criteria_Geo	Habitat Results by Geographic Location	onLoad
DW_Hab_Result_Criteria_Station	Habitat Results by Station	onLoad
DW_Hab_Result_Criteria_Project	Habitat Results by Project	onLoad

# **Input Parameters:**

Natural Language	Parameter
The title of the Web Page calling the procedure.	PAGE_TITLE
A list of JavaScript functions that should be ran at the time the Web Page is loaded.	BODY_ON_LOAD

## Links To:

<b>Uniform Resource Locator</b>	Web_Page	Hyperlink Text
http://www.epa.gov/storet/whats_ne w.html	STORET recent additions page	'Recent Additions'
http://www.epa.gov/storet/contact.h tml	STORET contact us page	'Contact Us'
http://www.epa.gov/cgi-bin/epaprintonly.cgi	Returns authorization message	'Print Version'
http://www.epa.gov/	EPA home page	'EPA Home'
http://www.epa.gov/water/	OW home page	'Water'

Uniform Resource Locator	Web_Page	Hyperlink Text
http://www.epa.gov/owow/	OWOW home page	'Wetlands, Oceans, & Watersheds'
http://www.epa.gov/owow/monitoring/	OWOW's Monitoring and Assessing Water Quality page	'Monitoring and Assessing Water Quality'
http://www.epa.gov/storet/index.ht ml	STORET home page	'STORET'

## **Output Parameters:**

Natural Language	Parameter
script_path	The path of the application's JavaScript library file.
program_path	The path of the Oracle application server.
image_path	The path containing the application's image files.

## **Internal Procedure Events:**

### **Onload**

- C Display the appropriate page Title.
- Call the requested JavaScript functions.

## **Images:**

The only images used on the STORET Data Warehouse web site are those that are included in the EPA Standard Web Template.

## **Business Rules:**

None.

## **Error Handling:**

• See specifications for the Web pages that call this procedure.

## **Page Print:**

The DW\_Top\_of\_Page procedure produces the standard header found at the top of the Central Warehouse's web pages.

