

USER INSTRUCTIONS

SEDIMENT SAMPLING APPLICATION

R:Base Version 1.2

June 1994



**TIMBER FISH
& WILDLIFE**

Anita Sparks

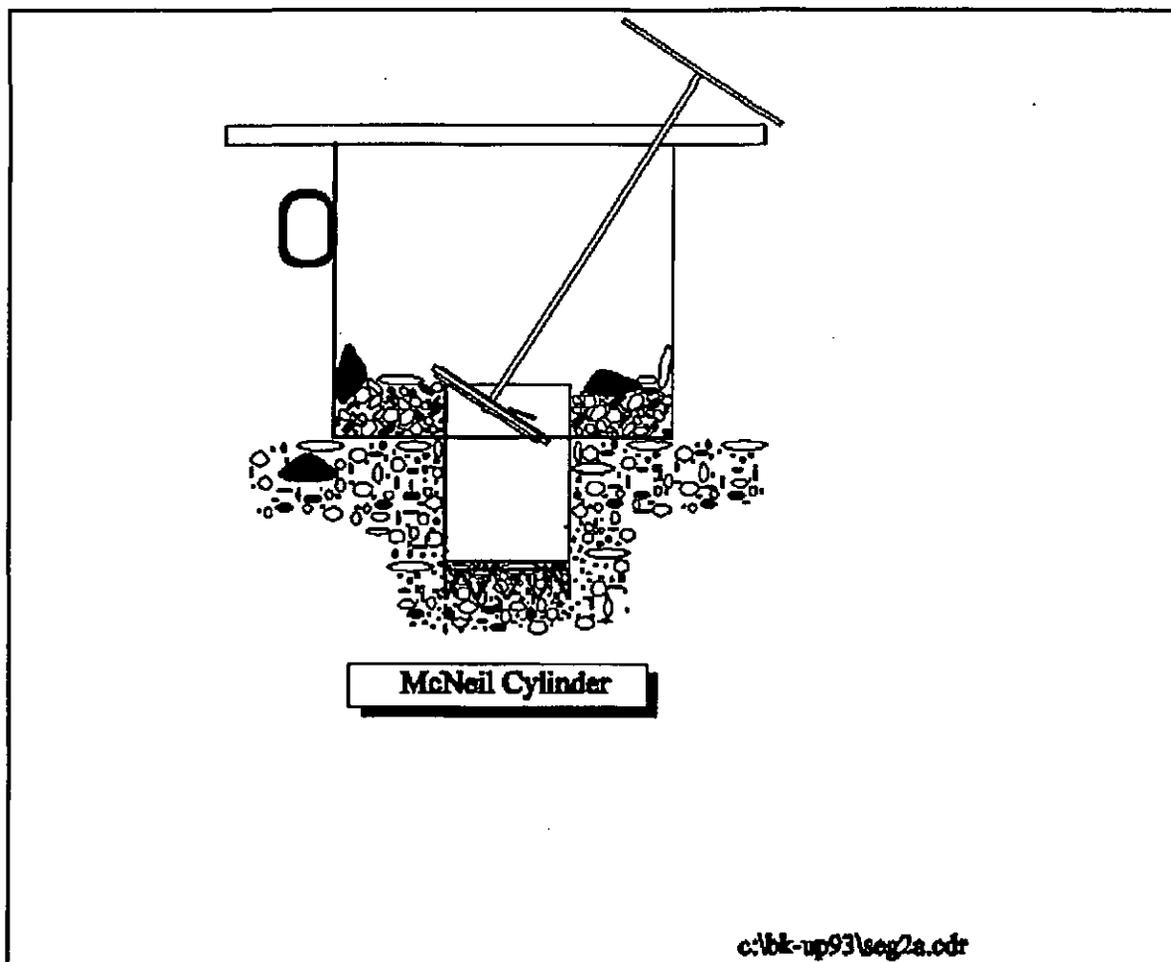
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INTRODUCTION



Welcome to the Sediment Sampling Application developed by the Northwest Indian Fisheries Commission. This system was developed to collect and edit sediment sample data obtained from participating organizations (primarily tribal).

This user manual describes the menus and functions of the application and outlines procedures for using it.

The manual begins with a broad overview, outlines general and specific procedures and concludes with a list of system messages and their meanings.

Questions and comments regarding this documentation or application should be directed to Anita Sparks, 206-438-1180.

Section I

SYSTEM OVERVIEW

SYSTEM OVERVIEW

OVERVIEW

The Sediment Sample Application provides a two-part system to allow input, update, export and analysis of sediment sample data. This two-part system is built in Ingres and R:Base. The Ingres part, which includes the main sediment database, is located on the NWIFC's SUN system/Bulletin Board. Copies of the R:Base part will be sent to those organizations involved in data collection.

The Ingres part of the application will allow the import, input, and maintenance of the sediment tables. It will also give access to a variety of reports through the report menu. The reports are sent to files (filename specified by the user). The system currently works with Ingres reports. A later enhancement will include the ability to call reports created in SPSS.

The R:Base application will allow input of data, one error-checking report and export of the data in the proper format to be used in the Ingres import. It will also allow transfer of data to disk for storage of long term data.

These user instructions will serve as a guide for the new user and as a lookup manual for basic operation and special features for the experienced user of the Ingres part of the system.

SYSTEM OVERVIEW

ELEMENTS

The R:Base part of the application has four main functions. The following diagram summarizes these functions:

Import Data

Two functions:
one for data,
one for lookup tables

Export/Transfer Data

Export to NWIFC (Ingres format)
or
Transfer to disk for archive
purposes (R:Base format)

Add/Update/Delete Data

Two functions:
one for adding new data,
one for updating or deleting data

Error Checking

Report with criteria
selection for
checking that the
data in the system
is correct

SYSTEM OVERVIEW

MENUS

The R:Base application consists of one main menu and three sub-menus.

```
Import Export Sieves Add Update/Del Err Report ImportLookup END
NORTHWEST INDIAN FISHERIES COMMISSION
SEDIMENT SYSTEM MAIN MENU
```

O IMPORT DATA FROM DISK

O EXPORT/TRANSFER TO DISK

O ADD SIEVE SIZES

O ADD DATA

O UPDATE/DELETE DATA

O RUN ERROR CHECKING REPORT

O IMPORT LOOKUP TABLE

SYSTEM OVERVIEW

MENUS (Continued):

DelOrig Import TransferDups DelAllDups DelOneDup END
NORTHWEST INDIAN FISHERIES COMMISSION
SEDIMENT SYSTEM IMPORT MENU

- O DELETE ORIGINALS FROM DATABASE
 - O IMPORT RECORDS TO DATABASE
 - O TRANSFER DUPLICATES TO DATABASE
 - O DELETE ALL DUPLICATES
 - O DELETE ONE DUPLICATE
 - O END
-

Export Transfer END
NORTHWEST INDIAN FISHERIES COMMISSION
SEDIMENT SYSTEM EXPORT MENU

- O EXPORT DATA TO DISK - SEND TO COMMISSION
 - O TRANSFER DATA TO DISK - ARCHIVE DATA
 - O END
-

All SpecificRecords END

NORTHWEST INDIAN FISHERIES COMMISSION
SEDIMENT SYSTEM REPORT MENU

- O SELECT ALL TO PRINT
 - O SELECT SPECIFIC RECORDS TO PRINT
 - O END
-

Section II

GENERAL PROCEDURES

GENERAL PROCEDURES

OVERVIEW

This section contains instructions of a more general or global nature for using the Sediment Sampling application. These general procedures describe how to start and leave the application, how to use menu line options and how to change data records on the screen. You will find these subjects covered under the following topics:

- A. Instruction conventions
- B. Installation
- C. Getting Started
- D. Standard Options

GENERAL PROCEDURES

A. Instruction conventions

This section explains the different symbols and font styles used in this instruction manual.

1. Commands you enter from the keyboard are shown in **bold**.
2. Keys to be pressed have square brackets ([]) around them and are in bold, i.e. **[Enter]**, **[F1]** or **[9]**. Numbers, i.e. **[9]**, are on your numeric keypad with the NumLock on.
3. Menu line options have single quotes around them and are in bold, i.e. '**ListChoices**'. Menu line options are selected by moving the cursor to them and pressing **[Enter]** or by pressing the first letter of the option if it is unique. Use **[Alt]** to get to the menu line or back to the screen.

GENERAL PROCEDURES

B. Installation

Installing the Sediment Sampling application will require 1 MG of free space on your hard drive (c:) and a high density floppy drive (a: or b:). R:Base 4.5 is not required. If you have R:Base 4.5 and would like more flexibility in ad hoc reports, etc. Contact Anita Sparks at the NWIFC (438-1180) for a complete copy of the system. Follow these steps to install your new application:

1. Change directories to the root (c:\).
2. If you do not have one, make a subdirectory called 'rbfiles'.
(**'mkdir rbfiles'**)
3. Change directories to rbfiles. (**'cd rbfiles'**).
4. Make a subdirectory called 'sediment'. (**'mkdir sediment'**)
5. Change directories to sediment. (**'cd sediment'**)
6. Place the Sediment disk in your floppy drive.
7. Change working drive to drive that disk is in. (**'a:'** or **'b:'**)
8. Type **'install'**, then press **[Enter]**. The installation will proceed.
9. Change working drive back to c:.

C. Getting Started

1. Change directories to \rbfiles\sediment. (**'cd \rbfiles\sediment'**)
2. Type **'sediment'**. The main menu will appear.

GENERAL PROCEDURES

D. Standard Options

A number of standard function options can be used on all or most of the screens in the application. With a few exceptions, these options work the same wherever they appear. Below you will find two tables of options with a functional description and exceptions if applicable.

Keys Used in Form Processing

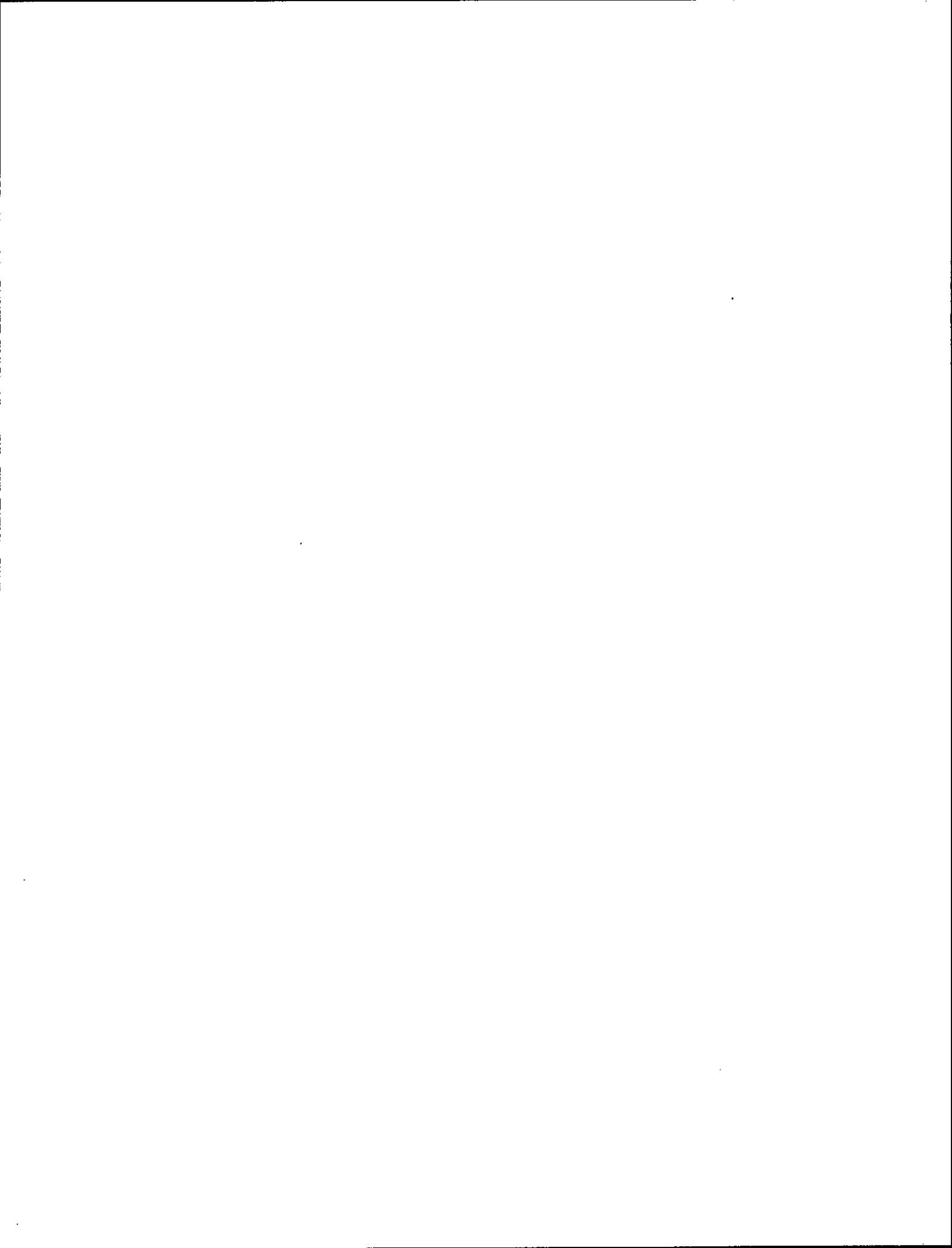
Function	Key	Purpose
Move between fields	Tab	Moves to the next field in the current row. From the last field in a row, moves to the first field in the same table.
	Shift-Tab	Moves to the previous field in the current row. From the first field, goes to the last field in the same table.
	 	Moves to the next field from a single-line field. In a multi-line field, moves to the next line in the field.
	v	Moves to the next field from a single-line field. In a multi-line field, move to the previous line in the field.
	Enter	Within a row, moves to the next field: * With the Add menu, moves from the last field in the forms's last table to the Add menu * With the Edit and Add menus, moves from the last field in a row of a multi-table form without a region to the next table. * With the Edit and Add menus, moves from the last field of row in a region to the first field of the next row, scrolling the display by one row if necessary.
Save changes	F8	Save changes made on form when not in a table
Move between rows in a table	F7	Displays the previous row in the current table. when the form is used with the Add menu, F7 applies only to rows in a region.
	F8	Displays the next row in the current table. when the form is used with the Add menu, F8 applies only to rows in a region.
Move to next table	Shift-F8	Moves to the first field of the next table served by the region or form. From the last table in a form, moves to the first field in the form's first table.
Move between pages	PgUp	Moves to the previous page in a multi-page form.
	PgDn	Moves to the next page in a multi-page form.

GENERAL PROCEDURES

D. Standard Options (Continued)

Keys Used Within Fields

Key	Action
Ins	Inserts a space.
Del	Removes a character or a space.
->	Moves right one character or space.
<-	Moves left one character or space.
^ 	Moves to the previous line in multi-line TEXT or NOTE fields.
 v	Moves to the next line in multi-line TEXT or NOTE fields.
Home	Moves to the start of a field.
End	Moves to the end of a field.
Shift-F4	Zoom in on Note or Text field.
F2	Returns to the previous display mode or exits field.
Shift-F9	Erases the contents of a field from the screen.
Ctrl-F9	Erases the contents of a field from the cursor to the end of the field.
F5	Restores the original data to the field after you've made changes. After you leave a field, F5 will not restore data to the field.
Shift-F3	Displays the pop-up menu for the current field.



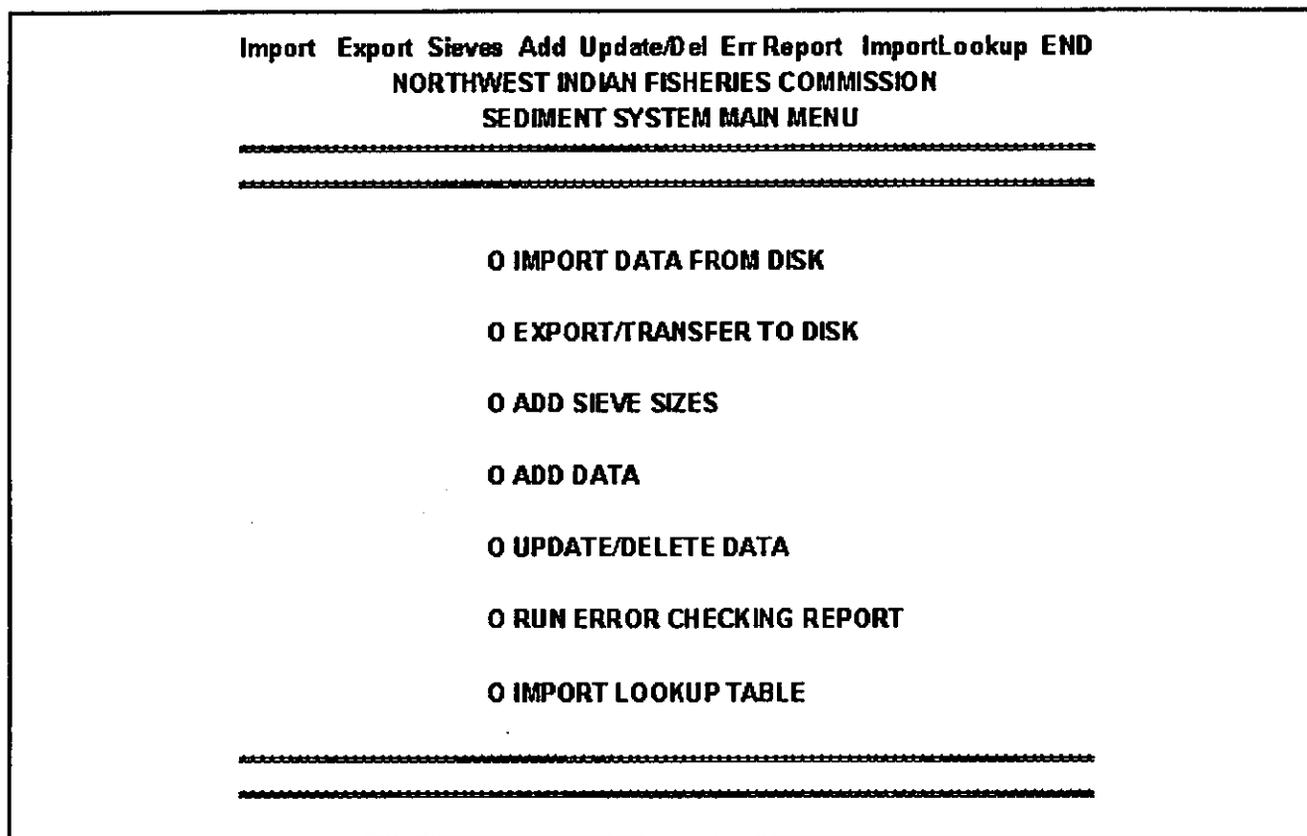
Section III

SPECIFIC PROCEDURES

MAIN MENU

MAIN MENU

The R:Base Sediment Sampling application consists of a main menu with seven functions on it. The main menu is pictured below:



The functions on this menu are described on the following pages.

IMPORT DATA

OVERVIEW

The Import Data function allows the user to import data from archived data or from data sent from the Commission. Additional processing checks the data for duplicates being imported and allows the user to choose whether to keep the data already in their database or the new data being imported.

DATA SCREEN:

The main screen for this function is a menu with the options pictured below:

```
DelOrig Import TransferDups DelAllDups DelOneDup END
NORTHWEST INDIAN FISHERIES COMMISSION
SEDIMENT SYSTEM IMPORT MENU
-----

O DELETE ORIGINALS FROM DATABASE

O IMPORT RECORDS TO DATABASE

O TRANSFER DUPLICATES TO DATABASE

O DELETE ALL DUPLICATES

O DELETE ONE DUPLICATE

O END

-----
```

IMPORT DATA

PROCEDURES:

The Import process is a series of four steps:

- 1) Start import.
Any records from the import file that have the same key as data already in the main tables will be stored in temporary tables and a comparison report will be created.
- 2) Review any duplicate data found during import.
- 3) Delete any duplicates you do not want from the temporary tables.
- 4) Transfer any duplicates left to main table. This overwrites data in the main tables that have the same key as the duplicate records.

Starting Import

- 1) At the Import Menu screen, select Import by using the arrow keys to move the cursor to '**Import**' and pressing **[Enter]**.
A screen will appear requesting a pathname and a filename.
- 2) Type in the drive and pathname of the file in the first box and press **[Enter]**.
- 3) Type in the name of the file where the data is stored in the second box and press **[Enter]**. A popup will appear asking you if you wish to "overwrite all records".
- 4) Answer **NO** if you do not want automatic replacement of any records with duplicate keys.
Answer **YES** if you want existing data replaced by any records with duplicate keys.
- 5) When the import is finished, it will give a popup message on the screen indicating status and whether there are duplicate records stored in the temporary tables. If there are duplicate records, you have three options:
 - a) Review and Delete Individual Duplicate Records and then Transfer the rest,
 - b) Delete all the Duplicate Records,
 - c) Transfer all the Duplicate Records.

IMPORT DATA

PROCEDURES (Continued):

Reviewing Duplicate Data

If any duplicate records existed in the imported data, the program will ask you for a filename for the duplicate reports. Two files will be created: one with the extension ".imp" containing the duplicate records from the import file and one with the extension ".org" containing the duplicate records from the database.

Deleting Individual Duplicate Records

- 1) At the Import Menu screen, select the Delete One Duplicate ('DelOneDup') option by using the arrow keys to move the cursor to 'DelOneDup' and pressing [Enter]. The screen pictured below will appear:

Find	Delete	END
NORTHWEST INDIAN FISHERIES COMMISSION SEDIMENT SYSTEM DELETE DUPLICATE DATA		
WRJA.# _____ trib 000	Stream _____ Basin _____	
Segment # ____	Date of Sample Collection _____ Date of Sample Processing _____	
River Mile _____ to _____		
Actual Gradient _____ Actual Confinement _____	Gradient Category ____ Confinement Category ____	
Sampler's First _____	Last _____	
Affiliation _____	Code _____	
Press [Esc] to Return to Menu		

- 2) Select the 'Find' option from menu line.
- 3) Select values for key fields from popup boxes.
- 4) If you wish to keep the original data for this record in the main table, use the 'Delete' option on the menu line. If you wish to keep the newly imported data, do not delete it. Use the 'Transfer' option from the Import Menu screen AFTER you have deleted any duplicate data you DO NOT wish to keep.

IMPORT DATA

PROCEDURES (Continued):

Deleting All Duplicate Records

If you do not wish to keep any of the duplicate data from the imported file, you may delete the whole temporary table at one time. To do this, follow these steps:

- 1) At the Import Menu screen, select the Delete All Duplicates ('**DelAllDups**') option from the menu line. A popup box will appear to verify that you wish to delete all duplicate data from the temporary tables.

Transferring Duplicate Records to main Tables (Overwrite original data)

After you have deleted the duplicates you do not wish to keep (if any), you are ready to transfer any duplicate records you have kept to the main tables.

Warning!! This will overwrite the records in the main tables with the same keys, replacing it with the newly imported data. Use the following steps to complete the transfer process:

- 1) At the Import Menu screen, select the Transfer Duplicates ('**TransferDups**') option from the menu line.
- 2) Select the table that you selected for the import. A popup box will appear to verify that you wish to transfer the newly imported duplicate records to the main table, overwriting the old data.

EXPORT/TRANSFER DATA

OVERVIEW

The Export function allows you to export data to the commission (on disk) or archive data (transfer to disk) for later use. The export function stores the data in a file on disk in a format that is readable by the main Ingres database at the NWIFC. The transfer function stores the data in a file on disk in R:Base format and then deletes the data from the current database.

DATA SCREENS:

This function uses three or five screens in succession. The first screen allows you to choose whether to export or transfer your data. The second screen allows you to choose which method of criteria selection you will use to select the data to be exported/transferred. The third screen will be different depending which criteria method you select from the second screen. If you select 'All', you will be sent directly to the filename screen without using a criteria selection screen.

```
Export Transfer END
NORTHWEST INDIAN FISHERIES COMMISSION
SEDIMENT SYSTEM EXPORT MENU
-----

O EXPORT DATA TO DISK - SEND TO COMMISSION

O TRANSFER DATA TO DISK - ARCHIVE DATA

O END

-----
```

```
All WRIAS Affiliations END
NORTHWEST INDIAN FISHERIES COMMISSION
SEDIMENT SYSTEM CRITERIA SELECTION MENU
-----

O SELECT ALL

O SELECT WRIAS
  ^
  |
O SELECT AFFILIATIONS
  ^
  |
O END

-----
```

EXPORT/TRANSFER DATA

PROCEDURES:

The Export/Transfer process is a series of four steps:

- 1) Select whether you wish to export data to the NWIFC or transfer the data to disk for archive purposes.
- 2) Choose the criteria selection method to be used to select the data to be exported/transferred.
 - A. Select **'All'**, **'WRIAS'** or **'Affiliations'** by using the arrow keys to move the cursor to the desired option and then pressing **[Enter]**.
 - IF you select **'All'**, all records will be exported/transferred and you will move directly to the filename screen. See page 3-12 for procedures for filename screen.
 - IF you select **'WRIAS'**, you will see the WRIA Criteria Selection Screen. See page 3-9 for procedures for WRIA Criteria.
 - IF you select **'Affiliations'**, you will see the Affiliation Criteria Selection Screen. See page 3-10 for procedures for Affiliation Criteria.
- 3) Fill in the criteria selection.
- 4) Fill in the Collection Date range or the Processing Date range to select records from. See page 3-11 for procedures for Date Criteria.
- 5) Provide drive path and filename for exported/transferred data to be stored in. See page 3-12 for procedures to follow for the filename screen.

EXPORT/TRANSFER DATA

WRIA Criteria Selection

DATA SCREEN:

The WRIA criteria selection uses the table screen shown below so that you may put in several WRIAs and segments.

Edit Go to Exit			
NORTHWEST INDIAN FISHERIES COMMISSION			
SEDIMENT SYSTEM EXPORT WRIA CRITERIA SELECTION			

WRIA	Stream	Segno	
			FB - cursor down
			F7 - cursor up

To add an additional row, press [Alt+Ins].			
To finish, press [Esc], then [Enter].			

PROCEDURES:

1. Type in the WRIA or use **[Shift+F3]** and select one from the popup list.
 2. Press **[Enter]** to move to segment field.
 3. Type in the segment number or use **[Shift+F3]** and select one from the popup list. Segment popup will only show segments from the WRIA selected for that row.
 4. Press **[Alt-Ins]** to add a new row.
 5. Repeat steps 1-4 until all WRIAs and segments you want are entered.
 6. Press **[Esc]**, then **[Enter]** to return to the main menu.
-

EXPORT/TRANSFER DATA

Filename Entry

DATA SCREEN:

Export Records

=====

=====

Enter Path Name: _____

Enter Export file Name: _____

=====

To leave this screen, Press [Enter] twice

PROCEDURES:

1. Enter the drive and path that you want your file stored on and press **[Enter]**.
2. Enter the filename you want the data stored in and press **[Enter]**. You will be prompted to make sure your disk is in.
3. Place formatted, empty disk in drive you specified and press **[Enter]**. The Export/Transfer will proceed and you will be returned to the Export Menu when it is finished.
4. To exit without completing the export, press **[Enter]** twice without filling in the path or filename.

ADD SIEVE SIZES

OVERVIEW

This program allows you to input the sieve sizes you will be working with. If you add or change sieves, you will need to redo this list before entering any sampling data.

DATA SCREEN:

This function uses a single page data screen, pictured below:

Edit Go to Exit
NORTHWEST INDIAN FISHERIES COMMISSION
SEDIMENT SYSTEM SIEVE DATA ENTRY

F8 - cursor down
F7 - cursor up

To add an additional row, press [Alt + Ins].
To finish, press [Esc], then [Enter].

PROCEDURES:

1. Type in first sieve size.
 2. Press [Alt-Ins] to add a new row.
 3. Type in another sieve size.
 4. Repeat steps 2 and 3 until all sieve sizes have been entered.
Note: Enter sieve size 0 for material in graduated cylinder.
 5. Press [Esc], then [Enter] to return to the main menu.
-

ADD DATA

OVERVIEW

This program allows you to enter new sediment data into the database.

DATA SCREENS:

This function uses a three page data screen, pictured below:

Add/discard Go to Exit	
NORTHWEST INDIAN FISHERIES COMMISSION SEDIMENT SYSTEM ADD DATA	
<hr/>	
WRJA.# _____ trib 000	Stream _____ Basin _____
Segment # _____	Date of Sample Collection _____ Date of Sample Processing _____
River Mile _____ to _____	
Actual Gradient _____	Gradient Category _____
Actual Confinement _____	Confinement Category _____
Sampler's First _____	Last _____
Affiliation _____	Code _____
<hr/>	

ADD DATA

DATA SCREENS (Continued):

Edit Goto Exit

**NORTHWEST INDIAN FISHERIES COMMISSION
 SEDIMENT SYSTEM RIFFLE AND SAMPLE DATA ENTRY**

Riffle	Sample	F8 - cursor down
		F7 - cursor up

To add an additional row, press [Alt + Ins].
 To finish, press [Esc], then [Enter].

Edit Goto Exit

ADD SAMPLES

WRIA _____ DDD: SegNo _____

Collection Date _____ Processing Method:

m = Volumetric data (ml)
 g = Gravimetric data (gm)

F8 - cursor down F7 - cursor up

Riffle	Sample	Sieve Size	Measurement	Proc Meth	Gravel Density	
				m	Calc	Actual

ADD DATA

PROCEDURES:

1. Enter new WRIA, then press **[Enter]**.
2. If this is an unlisted tributary, enter the trib number and press **[Enter]**. Otherwise, press **[Enter]** past this field.

If the is in the system, the Stream name and Basin name will appear.

If the WRIA is not in the system, a popup will appear asking for the Stream name and Basin name. *Note: Enter carefully as this data cannot be changed except by the system administrator.*

3. Enter new Segment number and Date Sample Collection began (mm/dd/yyyy). If this stream record already exists in the system, the data will appear on the screen. You may then go to the next page to enter new sample records by pressing **[Esc]**, then **[Enter]**.

If the stream record is not in the system, a popup will appear asking if you want to add a new row. Answer **'Yes'**.

4. Enter the rest of the data before going to the next page to enter sample data.

After you enter the actual gradient, the system will assign a gradient category. It will also assign a confinement category after entering the actual confinement. These values will not appear until you save the record. If you do not know the actual values for these two fields, you may enter category values by pressing **[Enter]** to skip the "actual" field.

You may press **[F8]** at any time to save the data you have entered so far.

5. Select **'Add'**, **'Add Row and Exit'** from the menu line to get to the second page to enter Riffle and Sample Numbers.

ADD DATA

PROCEDURES (Continued):

5. Enter all Riffle and Sample Numbers for this Stream/Segment/
Collection Date.
 - a. Type in first Riffle and Sample.
 - b. Press **[Alt-Ins]** to add a new row.
 - c. Type in another Riffle and Sample.
 - d. Repeat steps b and c until all Riffles and Samples
have been entered.
 - e. Press **[Esc]**, then **[Enter]** to go on to the next page.

6. On the Add Samples page, press the **[Ins]** key to put yourself
in overwrite mode, then replace the 0's in the Measurement
and Actual Gravel Density fields with values from sampling.
Note; If you did not measure gravel density, leave the 0 in
the Actual Gravel Density field. Replace the default values
in the Process Method and Calculated Gravel Density fields
where it is needed.

A popup menu is available to select Calc_Gravel_Density.

7. When you have finished adding the data for this riffle/sample
set, press **[Alt + E]**, S(ave changes) to save your changes.

8. Select **'Exit'** option to return to the main menu.

UPDATE/DELETE DATA

PROCEDURES:

1. Use the **Find** option on the menu line to select key data from popups
2. After entering the key data you have two options on this screen: **Update** and **Delete**.

Updating Data

- a. Select the '**Update**' option on the menu line. The menu line will then change to show the following options: '**Edit**', '**Go to**', '**Exit**'.
- b. To modify stream data, change the data and press [**Alt + E**], [**S**] (ave changes) to save your changes.
- c. To restore your original data after changes have been made but not saved, press [**Alt + E**], move the cursor down to '**Discard changes**' and press [**Enter**].
- d. To modify sieve_sample data, press [**Shift + F8**]. This will take you to the second page. Change your data and press [**Alt + E**], [**S**] (ave changes) to save your changes. Press [**PgUp**] or [**Alt + G**], '**Next Section**' to return to the first page.
- e. Select '**Exit**' to return to the '**Find**', '**Update**', '**END**' menu line.

Deleting Data

- a. Select the '**Delete**' option on the menu line. A pop-up box will appear asking for the password.
 - b. Type in the password and press [**Enter**]. A pop-up box will appear asking you to verify the delete. Select '**YES**' to continue the delete. Select '**NO**' to cancel the delete.
 - c. If you delete the record, the screen will be cleared and you will be returned to the '**Find**', '**Update**', '**END**' menu line.
 - d. If you cancel the delete or enter the wrong password, you will remain where you were with the data on the screen.
3. Select the '**END**' option to return to the main menu.
-

ERROR CHECKING REPORT

PROCEDURES:

1. Select an option from the menu. The **'All'** option will put everything from the database on your report. The **'SpecificRecords'** option will take you to the second screen shown and allow you to choose specific wrias, segments, and/or a date range to be printed on your report. The report will be sent directly to your printer.

2. If you have selected the **'All'** option, the report will generated and you will be left on the menu screen.
If you have selected the **'SpecificRecords'** option, follow these steps to select the desired records:
 - a. Type in the WRIA or use **[Shift+F3]** and select one from the popup list.
 - b. Type in the trib if you want to access the record for an unlisted tributary. Press **[Enter]** to move to the segment field.
 - c. Type in the segment number or use **[Shift+F3]** and select one from the popup list. The segment popup will only show segments from the WRIA selected for that row.
 - d. Type in a date in each of the date columns or use **[Shift+F3]** and select one from the popup list. The Date popup will only show collection dates available for the wria and segment entered for that row.
 - e. Press **[Alt+Ins]** to add a new row.
 - f. Repeat steps a-e until all WRIAs and segments you want are entered.
 - g. Press **[Esc]**, then **[Enter]** to generate your report and return to the menu screen. You will be asked for a filename to store your report in. Please fill in a valid DOS filename (8 characters with a 3 character extension).

3. Select the **'END'** option to return to the main menu.

IMPORT LOOKUP TABLES

OVERVIEW

The Import Lookup function allows you to import changes to your lookup tables when they are sent from the NWIFC. These tables are the ones that allow you to select wria code, affiliations, confinement category and gradient category from popup tables.

DATA SCREEN:

This function uses a single data screen pictured below. The pathname popup box appears after you have made a selection.

<p>WRIA Affiliation Confinement Gradient END</p> <p>NORTHWEST INDIAN FISHERIES COMMISSION SEDIMENT SYSTEM IMPORT LOOKUP MENU</p> <hr/> <p>O IMPORT WRIA LOOKUP</p> <p>O IMPORT AFFILIATION LOOKUP</p> <p>O IMPORT CONFINEMENT LOOKUP</p> <p>O IMPORT GRADIENT LOOKUP</p> <p>Enter pathname:</p> <p>A:</p>

PROCEDURES:

1. Select the table to be imported from the menu.
2. Type in the pathname where the file is stored. If you have put your disk in the A: drive, you only need to press **[Enter]**.

Section IV

SYSTEM MESSAGES

SYSTEM MESSAGES

OVERVIEW

This section lists the messages that may appear on your screen during system operation. These messages have varied purposes: some are instructional, others provide or ask for information and still others report errors. The system messages for the Sediment Sampling application come in two forms: popup messages in boxes and message lines across the bottom of the screen. The following list is separated by form and content.

MESSAGES

POPUPS

Input Requests

1. **Delete this record? YES NO**
 - Request to verify delete. Must select YES or NO.
2. **Enter the Password**
 - Request for user to fill in password.
3. **Enter the Stream Name:**
Enter the Basin Name:
 - Request for user to enter information about new WRIA.
4. **Enter pathname:**
 - Request for user to enter drive and path for import or export of data. i.e. A:\mydir\
5. **Do you want to exit? YES NO**
 - Check if user wishes to stop current process and return to menu.
6. **Is this a new affiliation? YES NO**
 - Ask user if they are entering a new affiliation after trying to match against existing records. A YES answer will save what was typed in as a new affiliation. A NO answer will prompt user to use popup menu to select an affiliation.
7. **Do you want to delete all duplicate records? YES NO**
 - Verify that user wishes to delete all imported records that had matching keys in the original database.

SYSTEM MESSAGES

MESSAGES (Continued)

POPUPS (Continued)

Input Requests (Continued)

8. **Do you want to transfer all duplicate records? YES NO**
- Verify that user wishes to transfer duplicate imported records into the original database. This will overwrite the original records with the same keys.
9. **Do you want to overwrite all records? YES NO**
- Ask user if imported records are to overwrite records in database in case of duplicate keys. If user answers YES, no duplicate file will be kept for comparison.
10. **Duplicate file already exists. Delete? YES NO**
- Duplicates still remaining from a previous import. Does user want the file deleted. A NO answer will abort the current import.
11. **Are you sure you want to delete records? YES NO**
- Verify mass delete.
12. **Could not find a matching row - Do you wish to add a new row?
YES NO**
- Ask if adding a new record. Should answer YES to this question unless the wrong key data has been entered.

Information Messages

1. **No duplicates exist. Please exit this option.**
- User is trying to view or delete non-existent duplicate records after import.
2. **No record found. Please try again.
No records selected. Please try again.
Press any key to continue**
- User has put in key data to try to access a record, but there is no record matching key data entered.
3. **No Duplicates found. Press any key to continue.**
- No records with matching keys found during import.
4. **Be sure disk is in place. Press any key to continue.
Please make sure the correct disk is in the drive.**
- Warn user to put floppy disk in disk drive.

SYSTEM MESSAGES

MESSAGES (Continued)

POPUPS (Continued)

Information Messages (Continued)

5. Deleting duplicate records. Please wait.
Overwriting Stream duplicates. Please wait.
Overwriting Sieve_Sample duplicates. Please wait.
Importing Stream Records. Please wait.
Importing Sample Records. Please wait.
Checking for duplicates. Please wait.
Printing duplicates Report. Please wait.
Importing Records. Please wait.
Deleting Original Records. Please wait.
Selecting Stream Records. Please wait.
Deleting records. Please wait.
Printing ErrCheck report. Please wait.
Selecting all records. Please wait.
Transferring Stream Records. Please wait.
Transferring sample Records. Please wait.
Exporting Sample Records. Please wait.
Deleting old records. Please wait. Please DO NOT Interrupt.
Loading new records. Please wait. Please DO NOT Interrupt.
Selecting Records. Please wait.
- System is doing required processing. Do not hit any keys
to interrupt process.

6. Type an 'm' or a 'g' please. Press any key to continue.
Press [Shift+F3] to select correct density.
Press any key to continue
Press [Shift+F3] to select correct density.
Press any key to continue
Press [Shift+F3] to select correct gradient.
Press any key to continue
Press [Shift+F3] to select correct confinement.
Press any key to continue
For gradient category <n>,
Actual Gradient must be <range>
For confinement category <n>,
Actual Confinement must be <range>
Please use [Shift+F3] to enter your affiliation
- User has entered an invalid entry in the field and is
being prompted to select a valid entry.

SYSTEM MESSAGES

MESSAGES (Continued)

MESSAGE LINES

Information Messages

1. Press [Shift+F3] for popup menu
 - Popup available to select valid entry from.

Section V

APPENDICES

APPENDIX A



NORTHWEST INDIAN FISHERIES COMMISSION
 SPAWNING GRAVEL DUPLICATE RECORDS REPORT
 DUPLICATE RECORDS FROM SIEVE SAMPLE

W.R.I.A.# 102 Stream Snoqualmie
 Basin Snoqualmie Valley

Segment # 21 Date of Sample Collection: 03/05/1994
 Date of Sample Processing: 03/06/1994

River Mile 5.500 to 6.000

Gradient Category 1 Actual Gradient 0.10
 Confinement Category 1 Actual Confinement 5.00

Sampler's Name: Anita Hack

Affiliation: NWIFC

RC	Sample	Sieve Size	Measure	Process Method	Gravel Calc	Density Actual
1	1	0.085	0.0	ml	2.60	0.00
1	1	0.087	0.0	ml	2.60	0.00
1	1	0.185	0.0	ml	2.60	0.00
1	1	1.000	0.0	ml	2.60	0.00
1	1	1.065	0.0	ml	2.60	0.00
1	2	0.085	0.0	ml	2.60	0.00
1	2	0.087	0.0	ml	2.60	0.00
1	2	0.185	0.0	ml	2.60	0.00
1	2	1.000	0.0	ml	2.60	0.00
1	2	1.065	0.0	ml	2.60	0.00
1	2	26.500	10.0	ml	2.60	0.00
1	2	56.800	10.0	ml	2.60	0.00

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NORTHWEST INDIAN FISHERIES COMMISSION
 SPAWNING GRAVEL DUPLICATE SAMPLE REPORT

DUPLICATE RECORDS FROM SSDUP

W.R.I.A.# 102 Stream Snoqualmie
 Basin Snoqualmie Valley

Segment # 21 Date of Sample Collection: 03/05/1994
 Date of Sample Processing: 03/06/1994

River Mile 5.500 to 6.500

Gradient Category 1 Actual Gradient 0.10
 Confinement Category 1 Actual Confinement 5.00

Sampler's Name: Chris Hack

Affiliation: NWIFC

RC	Sample	Sieve Size	Measure	Process Method	Gravel Calc	Density Actual
1	1	0.085	0.0	ml	2.60	0.00
1	1	0.087	0.0	ml	2.60	0.00
1	1	0.185	0.0	ml	2.60	0.00
1	1	1.000	0.0	ml	2.60	0.00
1	1	1.065	0.0	ml	2.60	0.00
1	2	0.085	0.0	ml	2.60	0.00
1	2	0.087	0.0	ml	2.60	0.00
1	2	0.185	0.0	ml	2.60	0.00
1	2	1.000	0.0	ml	2.60	0.00
1	2	1.065	0.0	ml	2.60	0.00
1	2	26.500	0.0	ml	2.60	0.00
1	2	56.800	0.0	ml	2.60	0.00



NORTHWEST INDIAN FISHERIES COMMISSION
 SPAWNING GRAVEL ERROR CHECKING REPORT

W.R.I.A.# 100 Stream Duwamish
 Basin Duwamish Valley

Segment # 1 Date of Sample Collection: 04/04/1994
 Date of Sample Processing: 04/05/1994

River Mile 4.000 to 5.000

Gradient Category 4 Actual Gradient 4.00
 Confinement Category t Actual Confinement 1.00

Sampler's Name: anita sparks

Affiliation: amsc

RC	Sample	Sieve Size	Measure	Process Method	Gravel Calc	Density Actual
40	4		1.0	ml	2.60	0.00
40	4		1.0	ml	2.60	0.00
40	4		1.0	ml	2.60	0.00
40	4		1.0	ml	2.60	0.00
40	4		1.0	ml	2.60	0.00
40	4		1.0	ml	2.60	0.00
40	4		1.0	ml	2.60	0.00
40	4		1.0	ml	2.60	0.00

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NORTHWEST INDIAN FISHERIES COMMISSION
 SPAWNING GRAVEL ERROR CHECKING REPORT

W.R.I.A.# 100 Stream Duwamish
 Basin Duwamish Valley

Segment # 1 Date of Sample Collection: 05/05/1994
 Date of Sample Processing: 05/07/1994

River Mile 5.000 to 6.000

Gradient Category 2 Actual Gradient
 Confinement Category m Actual Confinement

Sampler's Name: anita sparks

Affiliation: amsc

RC	Sample	Sieve Size	Measure	Process Method	Gravel Calc	Density Actual
20	20		2.0	ml	2.60	0.00
20	20		2.0	ml	2.60	0.00
20	20		2.0	ml	2.60	0.00
20	20		2.0	ml	2.60	0.00
20	20		2.0	ml	2.60	0.00
20	20		2.0	ml	2.60	0.00
20	20		2.0	ml	2.60	0.00
20	20		222.0	ml	2.60	0.00



NORTHWEST INDIAN FISHERIES COMMISSION
 SPAWNING GRAVEL ERROR CHECKING REPORT

W.R.I.A.# 100 Stream Duwamish
 Basin Duwamish Valley

Segment # 5 Date of Sample Collection: 05/05/1994
 Date of Sample Processing: 05/05/1994

River Mile 3.000 to 4.000

Gradient Category 3 Actual Gradient 2.00
 Confinement Category t Actual Confinement 1.00

Sampler's Name:

Affiliation:

RC	Sample	Sieve Size	Measure	Process Method	Gravel Calc	Density Actual
0	0		0.0	ml	2.60	0.00
0	0		0.0	ml	2.60	0.00
0	0		0.0	ml	2.60	0.00
0	0		0.0	ml	2.60	0.00
0	0		0.0	ml	2.60	0.00
0	0		0.0	ml	2.60	0.00
0	0		0.0	ml	2.60	0.00
0	0		0.0	ml	2.60	0.00

❖ NORTHWEST INDIAN FISHERIES COMMISSION
 SPAWNING GRAVEL ERROR CHECKING REPORT

W.R.I.A.# 101 Stream Columbia
 Basin Columbia River Gorge

Segment # 11 Date of Sample Collection: 03/03/1994
 Date of Sample Processing: 03/06/1994

River Mile 5.000 to 6.000

Gradient Category 1 Actual Gradient 0.10
 Confinement Category 1 Actual Confinement 5.00

Sampler's Name: Anita Sparks

Affiliation: NWIFC

RC	Sample	Sieve Size	Measure	Process Method	Gravel Calc	Density Actual
1	1		0.0	ml	2.60	0.00
1	1		0.0	ml	2.60	0.00
1	1		0.0	ml	2.60	0.00
1	1		0.0	ml	2.60	0.00
1	1		0.0	ml	2.60	0.00
1	1		0.0	ml	2.60	0.00
1	1		0.0	ml	2.60	0.00
1	1		0.0	ml	2.60	0.00
1	1		0.0	ml	2.60	0.00
1	2		0.0	ml	2.60	0.00
1	2		0.0	ml	2.60	0.00
1	2		0.0	ml	2.60	0.00
1	2		0.0	ml	2.60	0.00
1	2		0.0	ml	2.60	0.00
1	2		0.0	ml	2.60	0.00
1	2		0.0	ml	2.60	0.00
1	2		0.0	ml	2.60	0.00
1	3		0.0	ml	2.60	0.00
1	3		0.0	ml	2.60	0.00
1	3		0.0	ml	2.60	0.00
1	3		0.0	ml	2.60	0.00
1	3		0.0	ml	2.60	0.00
1	3		0.0	ml	2.60	0.00

❖ NORTHWEST INDIAN FISHERIES COMMISSION
 SPAWNING GRAVEL ERROR CHECKING REPORT

W.R.I.A.# 101 Stream Columbia
 Basin Columbia River Gorge

Segment # 12 Date of Sample Collection: 03/07/1994
 Date of Sample Processing: 03/08/1994

River Mile 5.000 to 6.000

Gradient Category 1 Actual Gradient 0.05
 Confinement Category 1 Actual Confinement 5.00

Sampler's Name: Anita Sparks

Affiliation: NWIFC

RC	Sample	Sieve Size	Measure	Process Method	Gravel Calc	Density Actual
1	1		0.0	ml	2.60	0.00
1	1		0.0	ml	2.60	0.00
1	1		0.0	ml	2.60	0.00
1	1		0.0	ml	2.60	0.00
1	1		0.0	ml	2.60	0.00
1	1		0.0	ml	2.60	0.00
1	1		0.0	ml	2.60	0.00
1	1		0.0	ml	2.60	0.00
1	2		0.0	ml	2.60	0.00
1	2		0.0	ml	2.60	0.00
1	2		0.0	ml	2.60	0.00
1	2		0.0	ml	2.60	0.00
1	2		0.0	ml	2.60	0.00
1	2		0.0	ml	2.60	0.00
1	2		0.0	ml	2.60	0.00
1	2		0.0	ml	2.60	0.00
1	3		0.0	ml	2.60	0.00
1	3		0.0	ml	2.60	0.00
1	3		0.0	ml	2.60	0.00
1	3		0.0	ml	2.60	0.00
1	3		0.0	ml	2.60	0.00
1	3		0.0	ml	2.60	0.00
1	3		0.0	ml	2.60	0.00
1	3		0.0	ml	2.60	0.00
1	4		0.0	ml	2.60	0.00
1	4		0.0	ml	2.60	0.00
1	4		0.0	ml	2.60	0.00
1	4		0.0	ml	2.60	0.00
1	4		0.0	ml	2.60	0.00
1	4		0.0	ml	2.60	0.00
1	4		0.0	ml	2.60	0.00
1	4		0.0	ml	2.60	0.00

❖ NORTHWEST INDIAN FISHERIES COMMISSION
 SPAWNING GRAVEL ERROR CHECKING REPORT

W.R.I.A.# 101 Stream Columbia
 Basin Columbia River Gorge

Segment # 12 Date of Sample Collection: 03/09/1994
 Date of Sample Processing: 03/10/1994

River Mile 5.000 to 6.000

Gradient Category 1 Actual Gradient 0.05
 Confinement Category t Actual Confinement 1.00

Sampler's Name: Anita Sparks

Affiliation: NWIFC

RC	Sample	Sieve Size	Measure	Process Method	Gravel Calc	Density Actual
1	1		0.0	ml	2.60	0.00
1	1		0.0	ml	2.60	0.00
1	1		0.0	ml	2.60	0.00
1	1		0.0	ml	2.60	0.00
1	1		0.0	ml	2.60	0.00
1	1		0.0	ml	2.60	0.00
1	1		0.0	ml	2.60	0.00
1	1		0.0	ml	2.60	0.00
1	1		0.0	ml	2.60	0.00
1	2		0.0	ml	2.60	0.00
1	2		0.0	ml	2.60	0.00
1	2		0.0	ml	2.60	0.00
1	2		0.0	ml	2.60	0.00
1	2		0.0	ml	2.60	0.00
1	2		0.0	ml	2.60	0.00
1	2		0.0	ml	2.60	0.00
1	2		0.0	ml	2.60	0.00
1	2		0.0	ml	2.60	0.00
1	3		0.0	ml	2.60	0.00
1	3		0.0	ml	2.60	0.00
1	3		0.0	ml	2.60	0.00
1	3		0.0	ml	2.60	0.00
1	3		0.0	ml	2.60	0.00
1	3		0.0	ml	2.60	0.00
1	3		0.0	ml	2.60	0.00
1	3		0.0	ml	2.60	0.00
1	3		0.0	ml	2.60	0.00

❖ NORTHWEST INDIAN FISHERIES COMMISSION
 SPAWNING GRAVEL ERROR CHECKING REPORT

W.R.I.A.# 101 Stream Columbia
 Basin Columbia River Gorge

Segment # 14 Date of Sample Collection: 05/01/1994
 Date of Sample Processing: 05/03/1994

River Mile 4.000 to 5.000

Gradient Category 2 Actual Gradient
 Confinement Category 1 Actual Confinement

Sampler's Name: Anita Sparks

Affiliation: amsc

RC	Sample	Sieve Size	Measure	Process Method	Gravel Calc	Density Actual
14	14		7.0	ml	2.60	0.00
14	14		6.0	ml	2.60	0.00
14	14		5.0	ml	2.60	0.00
14	14		4.0	ml	2.60	0.00
14	14		3.0	ml	2.60	0.00
14	14		2.0	ml	2.60	0.00
14	14		1.0	ml	2.60	0.00

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NORTHWEST INDIAN FISHERIES COMMISSION
SPAWNING GRAVEL ERROR CHECKING REPORT

W.R.I.A.# 101 Stream Columbia
Basin Columbia River Gorge

Segment # 15 Date of Sample Collection: 05/01/1994
Date of Sample Processing: 05/06/1994

River Mile 4.000 to 5.000

Gradient Category 3 Actual Gradient 2.00
Confinement Category 1 Actual Confinement 6.00

Sampler's Name: Anita Sparks

Affiliation: amsc

RC	Sample	Sieve Size	Measure	Process Method	Gravel Calc	Density Actual
15	15		6.0	ml	2.60	0.00
15	15		7.0	ml	2.60	0.00
15	15		7.0	ml	2.60	0.00
15	15		6.0	ml	2.60	0.00
15	15		5.0	ml	2.60	0.00
15	15		4.0	ml	2.60	0.00
15	15		2.0	ml	2.60	0.00

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❖ NORTHWEST INDIAN FISHERIES COMMISSION
 SPAWNING GRAVEL ERROR CHECKING REPORT

W.R.I.A.# 102 Stream Snoqualmie
 Basin Snoqualmie Valley

Segment # 21 Date of Sample Collection: 03/05/1994
 Date of Sample Processing: 03/06/1994

River Mile 5.500 to 6.000

Gradient Category 1 Actual Gradient 0.10
 Confinement Category 1 Actual Confinement 5.00

Sampler's Name: Anita Hack

Affiliation: NWIFC

RC	Sample	Sieve Size	Measure	Process Method	Gravel Calc	Density Actual
1	1		0.0	ml	2.60	0.00
1	1		0.0	ml	2.60	0.00
1	1		0.0	ml	2.60	0.00
1	1		0.0	ml	2.60	0.00
1	1		0.0	ml	2.60	0.00
1	1		0.0	ml	2.60	0.00
1	1		0.0	ml	2.60	0.00
1	1		0.0	ml	2.60	0.00
1	1		0.0	ml	2.60	0.00
1	2		0.0	ml	2.60	0.00
1	2		0.0	ml	2.60	0.00
1	2		0.0	ml	2.60	0.00
1	2		0.0	ml	2.60	0.00
1	2		0.0	ml	2.60	0.00
1	2		10.0	ml	2.60	0.00
1	2		10.0	ml	2.60	0.00



APPENDIX B

Sediment System Overview

PURPOSE: This is a two-part system to be built in Ingres and RBase. The Ingres application will allow the import, input, and maintenance of the sediment tables. It will also give access to a variety of reports. The RBase application will allow input of data, one error-checking report and export of the data in the proper format to be used in the Ingres import. It will also allow transfer of data to disk for storage of long term data.

ELEMENTS:

TABLES
will become sed-survey table
stream table
 Stores stream name, segment number, and WRIA of stream segment being sampled. Also other stream segment information as well as name of sampler, collection and processing date.

sieve_sample table
 Stores riffle crest, sample number, sieve size and measured gravel amount for each sample/sieve

sample_calcs (Ingres only)
 Stores calculations for each detail record in sieve_sample table

rifflesample
 Stores riffle and sample numbers during add process

sieve_size
 Stores sieve size defaults

ssdup, strdup
 Stores duplicates from import of stream and sieve_sample records

sampdef
 Stores sample field defaults for use during add

report table (Ingres only)
 Stores report names and descriptions of reports

Lookup tables
 wria/stream-name
 affiliation
 gradient
 confinement
 gravel density
 conversion_factor (Ingres only)

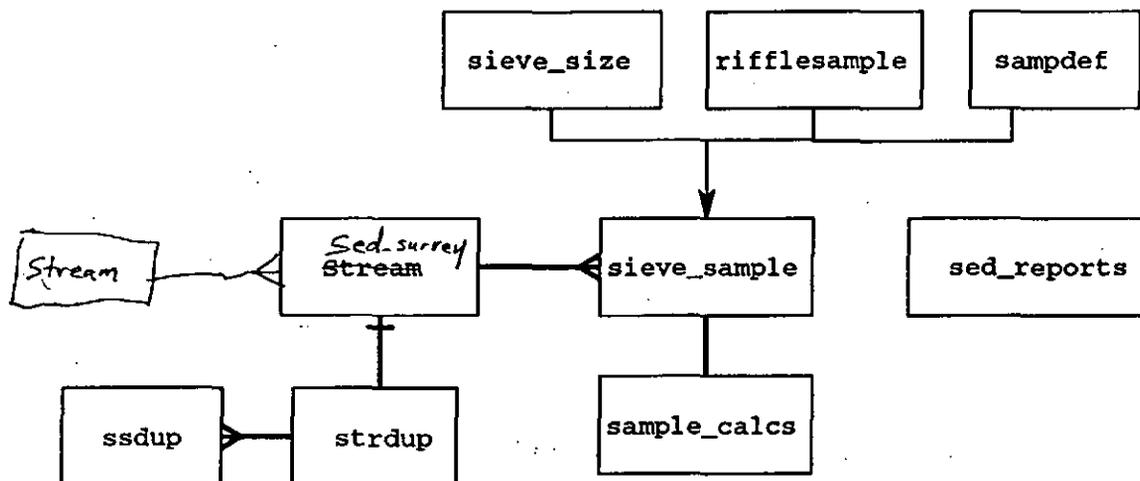
FRAMES

<u>INGRES</u>	<u>RBase</u>
<u>Menus</u>	<u>Menus</u>
Main menu	Main menu
Admin menu	
Report Menu	
Modify Lookup Menu	<u>Modify tables</u>
	Add Data
	Update/Delete data
	Add Sieve Sizes
	Export/Transfer
	Import Data from disk
	Import Lookup Table
	Delete Duplicates
<u>Modify tables</u>	
Import	
Add data	
Update/Delete data	
Add Sieve Sizes	
Modify WRIA	
Modify Affiliation	
Modify Confinement	
Modify Gradient	
Delete Duplicates	<u>Selects (lookups)</u>
	Select WRIA
	Select Segment
	Select Affiliation
	Select Collect-Date
	Select Gradient
	Select Confinement
<u>Selects (lookups)</u>	
Select WRIA	
Select Segment	
Select Affiliation	
Select Collect-Date	
Select Riffle crest	
Select Sample	<u>Popups</u>
Select Gradient	Password
Select Confinement	Verify-delete
	Continue
<u>Popups</u>	
Password	<u>Misc</u>
Verify_delete	Criteria Selection
Check_mail	(for transfer)
Continue	
Getfile	Run Report
	(error checking)
<u>Misc</u>	
Criteria Selection	
(for reports)	
Export	
<u>Reports</u>	
Error checking	
Segment Summary	
Data Sample Report	
Recon Reports	

Sediment System Overview

VISUAL:

TABLES



- | | | |
|----------|----------|--------------|
| wria_lkp | grad_lkp | gm_ml_conv |
| aff_lkp | conf_lkp | gravdens_lkp |

EXPLANATION:

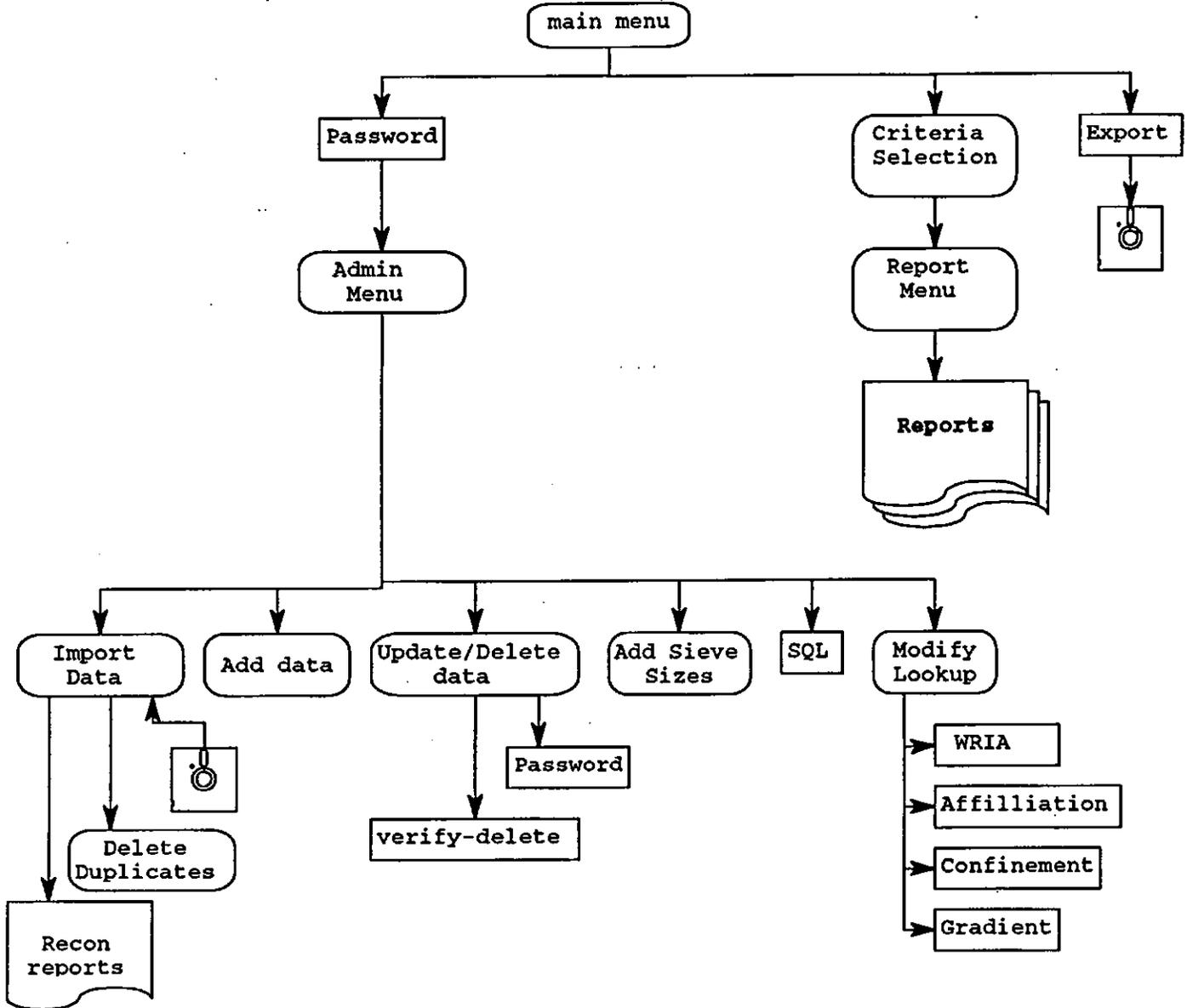
For each stream segment, samples can be taken from several riffle-crests. For each riffle-crest, three samples are usually taken. Each sample is then put thru a series of sieves and the gravimetric (grams) or volumetric (ml) measurement is recorded for each sieve. The data is split into a master/detail relationship for each stream segment. The master data consists of the stream and segment identification, the date of sample collection and processing, and the name and organization of the sampler. The detail data has a record for each riffle-crest/sample #/sieve size for the stream segment being tested.

Sediment System Overview

VISUAL:

FRAMES

Ingres



APPENDIX C

Table Inventory

Table Name	Description
Affil_Lookup	Affiliation lookup table.
Affil_Temp	Affiliation temporary table used during the selection process.
Confinement_Lookup	Confinement lookup table.
Gradient_Lookup	Gradient lookup table.
GravDens_Lookup	Table for Gravel Density
RiffleSample	Table used to create riffle sample records during the add process.
RunRept	Table used during the Err Check report process.
SampDef	Sample defaults for measure, process_flag, calc_grav_dens, act_grav_dens
Sieve_Sample	Sample test information table.
Sieve_Size	Table used to store sieve sizes used by the organization. This table is used during the add records process to simplify data entry.
SSDup	Sieve_Sample Duplicate table.
StrDup	Stream Duplicate table.
Stream	Table containing stream header information.
WRIA_Lookup	WRIA lookup table.

View Inventory

View Name	Description
ExpSample	View used during the Export process
ExpStream	View used during the Export process
ImpReptView	View used for Import Report
ReptView	View created by Report Criteria

Report Inventory

Report Name	Description
ErrCheck	Error Checking Report for listing data
StrExprt	Export Stream
SmpExprt	Export Sieve_Sample
DupDupRp	Duplicate Records from temporary import table (SSDUP)
SamDupRp	Duplicate Records from Stream and Sieve_Sample tables

Table Definitions

Table: Affil_Lookup
Descr: Affiliation Lookup

No.	Column Name	Attributes
1	Affil_Name	Type : TEXT 40 NOT NULL Consrnt: PRIMARY KEY Comment: Affiliation Name
2	Calleral	Type : TEXT 3 Comment: ID Number of organization

Table Definitions

Table: Affil_Temp

Descr: Temporary table for Export Selection

No.	Column Name	Attributes
1	Affil_Name	Type : TEXT 40

Table Definitions

Table: Confinement_Lookup
Descr: Confinement lookup table

No.	Column Name	Attributes
1	GradUMC	Type : TEXT 1 NOT NULL Consrnt: PRIMARY KEY Comment: Channel confinement category code
2	Confinement_Desc	Type : TEXT 20 Comment: Channel confinement description

Table Definitions

Table: Gradient_Lookup
Descr: Gradient lookup table

No.	Column Name	Attributes
1	GradCat	Type : TEXT 1 NOT NULL Consrnt: PRIMARY KEY Comment: Stream gradient category code
2	Gradient_Desc	Type : TEXT 25 Comment: Gradient description

Table Definitions

Table: GravDens_Lookup
Descr: Gravel Density Lookup Table

No.	Column Name	Attributes
1	Calc_Grav_Dens	Type : NUMERIC (4, 2)

Table Definitions

Table: RiffleSample
Descr: Riffle Sample Collection Table

No.	Column Name	Attributes
1	Riffle	Type : TEXT 3 Comment: Riffle
2	Sample	Type : TEXT 3
3	WRIA	Type : TEXT 8
4	SegNo	Type : TEXT 3
5	Collect_Date	Type : DATE

Table Definitions

Table: RunRept

No.	Column Name	Attributes
1	WRIA	Type : TEXT 8
2	SegNo	Type : TEXT 3
3	Collect_Date_Start	Type : DATE Comment: Start of Collection Date Period.
4	Collect_Date_End	Type : DATE Comment: End of the Collection Date Period

Table Definitions

Table: SampDef
Descr: Sample Defaults

No.	Column Name	Attributes
1	Measure	Type : NUMERIC (6, 1) Comment: Measure of Gravel in millileters or grams Value : 0.0
2	Process_flag	Type : TEXT 1 Value : 'm'
3	Calc_Grav_Dens	Type : NUMERIC (4, 2) Comment: Calculated Gravel Density Value : 2.60
4	Act_Grav_Dens	Type : NUMERIC (4, 2) Comment: Actual Gravel Density Value : 0.0

Table Definitions

Table: Sieve_Sample
Descr: Sieve sample information

No.	Column Name	Attributes
1	WRIA	Type : TEXT 8 NOT NULL Consrnt: PRIMARY KEY Comment: Water Resource Inventory Number
2	SegNo	Type : TEXT 3 NOT NULL Consrnt: PRIMARY KEY Comment: Stream segment number
3	Collect_Date	Type : DATE NOT NULL Consrnt: PRIMARY KEY Comment: Collection Date
4	Riffle	Type : TEXT 3 NOT NULL Consrnt: PRIMARY KEY Comment: Riffle crest number
5	Sample	Type : TEXT 3 NOT NULL Consrnt: PRIMARY KEY Comment: Sample number
6	Sieve_Size	Type : NUMERIC (6, 3) NOT NULL Consrnt: PRIMARY KEY Comment: Sieve Size
7	Measure	Type : NUMERIC (6, 1) Comment: Measure of Gravel in millileters or grams
8	Process_flag	Type : TEXT 1
9	Calc_Grav_Dens	Type : NUMERIC (4, 2) Comment: Calculated Gravel Density
10	Act_Grav_Dens	Type : NUMERIC (4, 2) Comment: Actual Gravel Density

Table Definitions

Table: Sieve_Size
Descr: Sieve_Size Master Table

No.	Column Name	Attributes
1	Sieve_Size	Type : NUMERIC (6, 3) Comment: Sieve Size Master Data

Table Definitions

Table: SSDup

No.	Column Name	Attributes
1	WRIA	Type : TEXT 8
2	SegNo	Type : TEXT 3
3	Collect_Date	Type : DATE
4	Riffle	Type : TEXT 3
5	Sample	Type : TEXT 3
6	Sieve_Size	Type : NUMERIC (6, 3)
7	Measure	Type : NUMERIC (6, 1)
8	Process_flag	Type : TEXT 1
9	Calc_Grav_Dens	Type : NUMERIC (4, 2)
10	Act_Grav_Dens	Type : NUMERIC (4, 2)

Table Definitions

Table: StrDup

No.	Column Name	Attributes
1	WRIA	Type : TEXT 8
2	SegNo	Type : TEXT 3
3	Collect_Date	Type : DATE
4	Process_Date	Type : DATE
5	Sampler_First_Name	Type : TEXT 20
6	Sampler_Last_Name	Type : TEXT 20
7	GradCat	Type : TEXT 1
8	GradUMC	Type : TEXT 1
9	BegRivMi	Type : NUMERIC (6, 3)
10	EndRivMi	Type : NUMERIC (6, 3)
11	Affil_Name	Type : TEXT 40
12	Act_Gradient	Type : NUMERIC (5, 2)
13	Act_Confine	Type : NUMERIC (5, 2)

Table Definitions

Table: Stream
Descr: Stream information

No.	Column Name	Attributes
1	WRIA	Type : TEXT 8 NOT NULL Consrnt: PRIMARY KEY Comment: Water Resource Inventory Number
2	SegNo	Type : TEXT 3 NOT NULL Consrnt: PRIMARY KEY Comment: Stream segment identification number
3	Collect_Date	Type : DATE NOT NULL Consrnt: PRIMARY KEY Comment: Collection Date
4	Process_Date	Type : DATE Comment: Sample processing date
5	Sampler_First_Name	Type : TEXT 20 Comment: Sampler's First Name
6	Sampler_Last_Name	Type : TEXT 20 Comment: Sampler's Last Name
7	GradCat	Type : TEXT 1 Comment: Stream gradient category
8	GradUMC	Type : TEXT 1 Comment: Channel confinement category
9	BegRivMi	Type : NUMERIC (6, 3) Comment: Beginning River Mile
10	EndRivMi	Type : NUMERIC (6, 3) Comment: Ending River Mile
11	Affil_Name	Type : TEXT 40 Comment: Affiliation Name
12	Act_Gradient	Type : NUMERIC (5, 2) Comment: Actual % of Gradient
13	Act_Confine	Type : NUMERIC (5, 2) Comment: Actual Confinement-No of bankful channel widths

Table Definitions

Table: WRIA_Lookup
Descr: WRIA Lookup table

No.	Column Name	Attributes
1	WRIA	Type : TEXT 8 NOT NULL Consrnt: PRIMARY KEY Comment: Water Resource Inventory Number
2	StrName	Type : TEXT 25 Comment: Stream Name
3	Basin_Name	Type : TEXT 25 Comment: Basin Name