Data Acquisition Standard Operating Procedures

FDEP Bureau of Survey and Mapping Continuous Water Quality Program (ID# 5062)

Last Updated: 3/30/2024

Program Summary

Tide water levels (current) and Continuous Water Quality (until 2021).

URLs

- Program - https://floridadep.gov/lands
- DDI - https://data.florida-seacar.org/programs/details/5062

Contacts

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Data Tables

- Data_5062A_Final
- Data_5062A_Load

Data Stored Procedures

- usp_Data_5062A_Load_insert
- usp_combined_wq_wc_nut_cont_insert_5062A

Data Acquisition Standard Operating Procedures: ProgramID *5062*

Date Created: *05/25/2020*

Created By: *Mrudhula Murali*

Date Modified: *10/03/2020*

Modified By: *Girija Bandaru*

Date Modified: *03/19/2021*

Modified By: *Girija Bandaru*

Date Modified: *04/22/2021*

Modified By: *Mrudhula Murali*

Data File Paths:

1. Data: "\\forest.usf.edu\data\PDrive\CAS-WI\Misc Projects\SEACAR_FDEP\ Data\ID_5062 DEP Lands\DataToLoad\ StationLocationsFormatted.tsv"
2. Data: "\\forest.usf.edu\data\PDrive\CAS-WI\Misc Projects\SEACAR_FDEP\ Data\ID_5062 DEP Lands\DataToLoad\ID_5062\ 8720494_SalCon.csv"
3. Data: "\\forest.usf.edu\data\PDrive\CAS-WI\Misc Projects\SEACAR_FDEP Data\ID_5062 DEP Lands\DataToLoad \ ID_5062\ 8720494_WTemp.csv"
4. Data: " U:\Misc_Projects\SEACAR_FDEP\Data\ID_5062 DEP Lands\DataToLoad\ID_5062\ 8720757_SalCon.csv"
5. Data: " U:\Misc_Projects\SEACAR_FDEP\Data\ID_5062 DEP Lands\DataToLoad\ ID_5062\ 8720757_WTemp.csv"

DDI URL: http://dev.seacar.waterinstitute.usf.edu/datadiscovery/programs/details/5062

Contact Information:

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Procedure Overview:

1. Use SQL Server Import Export Wizard to load the file “StationLocationsFormatted.tsv “into table **Locations_5062A.**
2. Download the Download process for Program 5062 from DDI and execute every step from the document to download the files.

3. Place the files at path (U:\Misc_Projects\SEACAR_FDEP\Data\ID_5062 DEP Lands\DataToLoad) for processing.
4. Add the stationID column to each file accordingly.
5. Use SQL Server Import Export Wizard to load the file [8720494_SalCon.csv],[8720494_WTemp.csv], [8720757_SalCon.csv] and [8720757_WTemp.csv] into table **Data_5062A_Load.**
6. Delete the rows from **Data_5062A_Load** Tables with below query since these rows doesn't have any information.

```
Delete FROM Data_5062A_Load where [Water Salinity (ppt)]='-' and [Water
Conductivity (mS cm)]='-' and [Water Temperature (F)]='-'
```

7. Insert the data into **Data_5062A_Final** table from Load table using **`usp_Data_5062A_Load_insert`** procedure.
8. Add Column [StationID] in table **Data_5062A_Load** table and add stationID value [872-0757] for [8720757_SalCon.csv] and [8720757_WTemp.csv] file data and [872-0494] stationID value for [8720494_SalCon.csv] and [8720494_WTemp.csv] file data.
9. Execute procedures usp_Data_5062*_Load_insert to load the data into **Data_5062*_Final** tables.
10. Add new Monitoring Locations from table **Locations_5062A** into the **SampleLocation_Point** table.
11. Add new Monitoring Locations into the **SampleLocation** table. This will generate a LocationID for each Monitoring Location.
12. Update the **SampleLocation_Point** table with the LocationID generated in the **SampleLocation** table. Run procedure usp_SampleLocation_Point_update to do this.
13. Update the LocationID column in table **Data_5062A_Final** with the LocationID in the **SampleLocation** table. Join on the [StationID] column in **Data_5062A_Final** and the ProgramLocationID column in **SampleLocation.**

Data Tables

1. Data_5062*_Load
2. Data_5062*_Final

Data Stored Procedures

1. usp_Data_5062*_Load_insert
2. usp_SampleLocation_Point_update

GIS Procedures

1. Complete steps 3 through 8 in the "Procedure Overview" section of this document.
2. The location information is available in **Locations_5062A** table.

```
SET ANSI_NULLS ON
SET QUOTED_IDENTIFIER ON



CREATE PROC [dbo].[usp_combined_wq_wc_nut_cont_insert_5062A]
AS
BEGIN
SET NOCOUNT ON;
SET XACT_ABORT ON;

-- Constants - PLEASE SET NOW!!
DECLARE @dataLoadCode varchar(10) = '5062A';
DECLARE @combinedTable varchar(50) = 'Combined_WQ_WC_NUT_cont';

-- Setup data load
DECLARE @runBy varchar(50) = SYSTEM_USER;
DECLARE @programID int, @dataStreamID int,@ParameterID int

SELECT@dataStreamID = DataStreamID,
@programID = ProgramID
FROMDataStreamProcedure
WHEREDataLoadCode = @dataLoadCode;
ÿ
--delete existing data
exec usp_delete_combined @datastreamID, @combinedTable

ÿ
ÿ
INSERT INTO Combined_WQ_WC_NUT_cont (ProgramID, DataStreamID, ParameterID,  LocationID, SampleDate
ResultValue,  DateAdded)
SELECT@programID, @dataStreamID, ParameterID,LocationID, a.[DateTime], ResultValue, GETDATE()
FROM Data_5062A_Final a
WHERE  ResultValue is not null

--exec usp_combined_data_tracking_insert @parameterID = @parameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy

-- Tracking Stats
DELETECombined_Data_Tracking
WHERECombinedTableName = @combinedTable
ANDDataStreamID = @dataStreamID

INSERT INTO Combined_Data_Tracking (ProgramID, IndicatorID, DataStreamID, ParameterID,
CombinedTableName, NumRowsFinal, NumRowsCombined, LastUpdateDate, LastUpdateBy)
SELECTa.ProgramID, b.IndicatorID, a.DataStreamID, a.ParameterID, @combinedTable,
COUNT(a.ResultValue), COUNT(a.ResultValue), GETDATE(), @runBy
FROMCombined_WQ_WC_NUTa
INNER JOINCombined_Parameters b on a.ParameterID = b.ParameterID
WHEREa.DataStreamID = @dataStreamID
GROUP BY a.ProgramID, b.IndicatorID, a.DataStreamID, a.ParameterID

/*
SELECT *
FROM Combined_WQ_WC_NUT_cont

SELECT *
FROM Data_5062A_Final

SELECT *
FROM Combined_Parameters a
join Indicator b on a.IndicatorID = b.IndicatorID
where b.Habitat = 'Water Column'
and b.IndicatorName <> 'Nekton'
```

```
SELECT *
FROM DataStreamProcedure
WHERE ProgramID = 5062

SELECT *
FROM Combined_Data_tracking
where  programid = 5062
ÿ
DELETE
FROM Combined_WQ_WC_NUT_cont
WHERE DataStreamID = 1319
*/

END



GO
```

```
SET ANSI_NULLS ON
SET QUOTED_IDENTIFIER ON
CREATE PROC [dbo].[usp_Data_5062A_Load_insert]
AS
BEGIN
SET NOCOUNT ON
SET XACT_ABORT ON

;WITH Step1Data (DateTime,StationID,Parameter, ResultValue) --UNPIVOT data so that each parameter
row
AS (
SELECT [Date   Time (EDT)], StationID, Parameter, ResultValue
FROM (
SELECT[Date   Time (EDT)],[Water Salinity (ppt)], [Water Conductivity (mS cm)], [Water
Temperature (F)], StationID/*This SELECT includes ALL the columns in the table*/
FROM[dbo].[Data_5062A_Load] a
) a
UNPIVOT
(
ResultValue FOR Parameter IN ( [Water Salinity (ppt)], [Water Conductivity (mS cm)], [Water
Temperature (F)])/*These are all the "parameter" columns you now want in a single column*/
) b
)
, Step2Data as (
--Convert Water Temp to Celsius, Change Parameters to ParameterID
SELECT cast ([DateTime] as datetime) [DateTime],StationID,ccp.TargetParameterID as[parameterID]
, CASE
WHEN Parameter = 'Water Temperature (F)' THEN dbo.udf_convert_units('deg F','deg C', ResultValue)
ELSE ResultValue END ResultValue
FROM Step1Data
INNER JOIN Combined_Conversion_Parameters ccp on ccp.OriginalParameter = step1data.Parameter and
ccp.DatastreamID = 1319
WHERE [DateTime] is not null )
--INSERT Data into the Final table where it doesn't yet exist
INSERT INTO Data_5062A_Final ([DateTime], StationID,  ParameterID, ResultValue)
SELECT [Datetime], StationID, ParameterID, ResultValue
FROM Step2Data
WHERE not exists (SELECT *
FROM Data_5062A_Final
WHERE cast(Data_5062A_Final.[DateTime] as datetime) = cast(Step2Data.[DateTime] as datetime)
AND Data_5062A_Final.StationID = Step2Data.StationID)

-- UPDATE LocationID in Final Tables
UPDATE a
SET a.LocationID = b.LocationID
FROM Data_5062A_Final a
INNER JOIN  SampleLocation b on a.StationID = b.ProgramLocationID
where b.ProgramID = 5062



/*
select *
from Data_5062A_LOAD

select *
from Data_5062A_Final
*/


END


GO
```