

# Data Acquisition Standard Operating Procedures

## Central Panhandle Aquatic Preserve WQ Monitoring (ID# 469)

Last Updated: 2/17/2024

### Program Summary

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Water quality monitoring in St. Joseph Bay Aquatic Preserve and Alligator Harbor Aquatic Preserve to supplement sampling conducted for Florida Lakewatch/Coastwatch.

### URLs

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- Program - <https://floridadep.gov/fco/aquatic-preserve>
- DDI - <https://data.florida-seacar.org/programs/details/469>

### Contacts

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Contact Name	Organization	Email	Phone
Jonathan Brucker		Jonathan.Brucker@dep.state.fl.us	850-670-7723

### Data Tables

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- Data\_469B\_Final
- Data\_469B\_Load

### Data Stored Procedures

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- usp\_Data\_469B\_Load\_insert
- usp\_combined\_wq\_wc\_nut\_insert\_469B

## Data Acquisition Standard Operating Procedures: ProgramID 469

Date Created: 01/25/2019

Created By: *Claude Kershaw*

Date Modified: 07/13/2020

Modified By: *Mrudhula Murali*

Date Modified: 03/18/2021

Modified By: *Girija Bandaru*

Date Modified: 03/07/2022

Modified By: *Jennifer Baker*

Data File Path: U:\Misc\_Projects\SEACAR\_FDEP\Data\ID\_0469\_LakeWatch\_CPAPWQ

### Data File Names:

1. Gulf-FranklinOct2016.xls
2. LW\_AH Master Data 2020.xlsx
3. LW\_SJB Master Data 2020.xlsx
4. Spatial Data: Lakewatch Base File 8-14-18.xlsx
5. Spatial Data: Sites\_469.xls
6. Spatial Data: LW\_AH Master Data Updated.xlsx
7. Spatial Data: W\_SJB Master Data Updated.xlsx

DDI URL: <http://dev.seacar.waterinstitute.usf.edu/datadiscovery/programs/details/469>

### Contact Information:

Contact Name: Jonathan Brucker

Contact Organization: Program - Central Panhandle Aquatic Preserve WQ Monitoring

Contact Email: Jonathan.Brucker@dep.state.fl.us

Contact Phone:

### Procedure Overview:

\*\*Note 469A does not exist as it was a duplication of data for Program 514.



469B Data Load.sql

1. Run the procedure for comparing final/combined counts

- a. `exec usp_data_update_qaqc_insert '469B', 'Combined_WQ_WC_NUT', '[Date]', 'Before'`
2. Use SQL Server Import Export Wizard to load the file “Sites\_469.xls” into table **Locations\_469B**.
3. Use SQL Server Import Export Wizard to load the file “LW\_AH Master Data 2020.xlsx” worksheet *Master tab has POR* and “LW\_SJB Master Data 2020.xlsx” file worksheet *Master tab has POR* into table **Data\_469B\_Load**.
4. Execute procedure **usp\_Data\_469B\_Load\_insert** to load the data into table **Data\_469B\_Final**.
5. Add the Monitoring Locations from table **Locations\_469B** to the **SampleLocation\_Point** table if they do not exist there already.
6. Add new Monitoring Locations into the **SampleLocation** table. This will generate a LocationID for each Monitoring Location.
7. Update the **SampleLocation\_Point** and **SampleLocation\_Line** table with the LocationID generated in the **SampleLocation** table. Run procedure `usp_SampleLocation_Point_update` to do this.
8. Update the LocationID column in table **Data\_469B\_Final** with the LocationID in the **SampleLocation** table. Join on the [Site] columns in **Data\_469B\_Final** and the ProgramLocationID column in **SampleLocation**.
9. Run the combine stored proc **usp\_combined\_wq\_wc\_nut\_insert\_469B**
10. Run the Combine count stored proc
  - a. `exec usp_data_update_qaqc_insert '469B', 'Combined_WQ_WC_NUT', '[Date]', 'After'`

## Data Tables

1. Data\_469B\_Load
2. Data\_469B\_Final

## Data Stored Procedures

1. usp\_Data\_469B\_Load\_insert
2. usp\_SampleLocation\_Point\_update
3. usp\_combined\_wq\_wc\_nut\_insert\_469B

## GIS Procedures

1. The Monitoring Location information is found in the table **Locations\_469B**.
2. Complete steps 5 through 8 in the “Procedure Overview” section of this document.

```
SET ANSI_NULLS ON
SET QUOTED_IDENTIFIER ON
```

```
CREATE PROC [dbo].[usp_combined_wq_wc_nut_insert_469B]
```

```
AS
```

```
BEGIN
```

```
SET NOCOUNT ON;
```

```
SET XACT_ABORT ON;
```

```
-- Constants - PLEASE SET NOW!!
```

```
DECLARE @dataLoadCode varchar(10) = '469B';
```

```
DECLARE @combinedTable varchar(50) = 'Combined_WQ_WC_NUT';
```

```
DECLARE @ParameterID int;
```

```
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```

```
-- Setup data load
```

```
DECLARE @runBy varchar(50) = SYSTEM_USER;
```

```
DECLARE @programID int, @dataStreamID int;
```

```
SELECT @dataStreamID = DataStreamID,
```

```
@programID = ProgramID
```

```
FROM DataStreamProcedure
```

```
WHERE DataLoadCode = @dataLoadCode;
```

```
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```

```
-- Print(@dataStreamID)
```

```
-- Delete old data
```

```
exec usp_delete_combined @dataStreamID, @combinedTable
```

```
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```

```
-- Insert data
```

```
Set @ParameterID = 3-- Water Temperature
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
```

```
SampleDate, TotalDepth_m, RELATIVEDEPTH, ResultValue, DateAdded)
```

```
SELECT @programID, @dataStreamID, @ParameterID, a.LocationID, a.Date, a.[Depth (m)], NULL,
```

```
dbo.[udf_convert_units]('deg c', 'deg c', a.[Water Temperature (C)]), GETDATE()
```

```
FROM Data_469B_Final a
```

```
WHERE a.[Water Temperature (C)] IS NOT NULL
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
```

```
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
```

```
@LastUpdateBy = @runBy
```

```
-- Insert data
```

```
Set @ParameterID = 1-- Dissolved Oxygen
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
```

```
SampleDate, TotalDepth_m, RELATIVEDEPTH, ResultValue, DateAdded)
```

```
SELECT @programID, @dataStreamID, @ParameterID, a.LocationID, a.Date, a.[Depth (m)], NULL,
```

```
dbo.[udf_convert_units]('mg/L', 'mg/L', a.[DO (mg/L)]), GETDATE()
```

```
FROM Data_469B_Final a
```

```
WHERE a.[DO (mg/L)] IS NOT NULL
```

```
exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
```

```
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
```

```
@LastUpdateBy = @runBy
```

```
/*-- Insert data
```

```
Set @ParameterID = 6-- Specific Conductivity
```

```
INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
```

```
Activity_Start_Date_Time, TOTAL_DEPTH, Total_Depth_Unit, RELATIVE_DEPTH, Org_Result_Value,
```

```
VALUE_QUALIFIER, DateAdded)
```

```
SELECT @programID, @dataStreamID, @ParameterID, a.LocationID, a.Date, a.[Depth (m)], 'm', NULL,
```

```
dbo.[udf_convert_units]('mg/L', 'mS/cm', a.SPC), NULL, GETDATE()
```

```
FROM Data_469B_Final a
```

```
WHERE a.SPC IS NOT NULL
```

```

exec usp_combined_data_tracking_insert @parameterID = @ParameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
*/

-- Insert data
Set @ParameterID = 2-- Salinity

INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
SampleDate, TotalDepth_m, RELATIVEDEPTH, ResultValue, DateAdded)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, a.Date, a.[Depth (m)], NULL,
dbo.[udf_convert_units]('ppt', 'ppt', a.[Salinity (ppt)]), GETDATE()
FROMData_469B_Final a
WHEREa.[Salinity (ppt)] IS NOT NULL

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

-- Insert data
Set @ParameterID = 4-- pH

INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
SampleDate, TotalDepth_m, RELATIVEDEPTH, ResultValue, DateAdded)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, a.Date, a.[Depth (m)], NULL,
dbo.[udf_convert_units](NULL, NULL, a.pH), GETDATE()
FROMData_469B_Final a
WHEREa.pH IS NOT NULL

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

-- Insert data
Set @ParameterID = 7-- Turbidity

INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
SampleDate, TotalDepth_m, RELATIVEDEPTH, ResultValue, DateAdded)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, a.Date, a.[Depth (m)], NULL,
dbo.[udf_convert_units](NULL, NULL, a.Turbidity), GETDATE()
FROMData_469B_Final a
WHEREa.Turbidity IS NOT NULL

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

-- Insert data
Set @ParameterID = 11-- Secchi

INSERT INTO Combined_WQ_WC_NUT (ProgramID, DataStreamID, ParameterID, LocationID,
SampleDate, TotalDepth_m, RELATIVEDEPTH, ResultValue, DateAdded)
SELECT@programID, @dataStreamID, @ParameterID, a.LocationID, a.Date, a.[Depth (m)], NULL,
dbo.[udf_convert_units](NULL, NULL, a.[Vanishing Point (m)]), GETDATE()
FROMData_469B_Final a
WHEREa.[Vanishing Point (m)] IS NOT NULL
ANDISNUMERIC(a.[Vanishing Point (m)]) = 1

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

```

```
/*
```

```
SELECT *  
FROM Combined_WQ_WC_NUT
```

```
SELECT *  
FROM Data_469B_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 = 469
```

```
SELECT *  
FROM Combined_Data_tracking  
where programid = 469  
and datastreamID = 1386
```

```
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exec usp_delete_combined 1386, 'Combined_WQ_WC_NUT'  
exec [usp_combined_wq_wc_nut_insert_469B]  
*/
```

```
END
```

```
GO
```

```
SET ANSI_NULLS ON
SET QUOTED_IDENTIFIER ON
```

```
CREATE PROC [dbo].[usp_Data_469B_Load_insert]
AS
BEGIN
SET NOCOUNT ON
SET XACT_ABORT ON
```

```
Truncate Table [dbo].[Data_469B_Final]
```

```
INSERT INTO [dbo].[Data_469B_Final]
([Date], [Site], [Program LocationID], [Vanishing Point (m)], [Depth (m)], [Wind Direction],
Speed], [Tide]
, [Time], [Water Temperature (C)], [DO (mg/L)], [SPC], [Salinity (ppt)], [pH], [Turbidity], [Amo
filtered], [Notes])
SELECT [Date], [Site], [Program LocationID], [Vanishing Point (m)], [Depth (m)], [Wind
Direction], [Wind Speed], [Tide]
, [Time], [Water Temperature (C)], [DO (mg/L)], [SPC], [Salinity (ppt)], [pH], [Turbidity], [Amo
filtered], [Notes]
FROM [dbo].[Data_469B_Load]
```

```
UPDATE a
SET a.LocationID = b.LocationID
FROM Data_469B_Final a
INNER JOIN samplelocation b on a.[site] = b.ProgramLocationID
WHERE b.ProgramID = 469 and a.LocationID is null
END
```

```
GO
```