MSR#363: Comparison of NSM v4.6.2 and NSRSM v3.5

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Table 1. Conversion factors, datums and acronyms.

Multiply	By	To Obtain
Length		
inch (in)	2.54	centimeter (cm)
inch (in)	25.4	millimeter (mm)
foot (ft)	0.3048	meter (m)
mile (mi)	1.609	kilometer (km)
Area		
square foot (ft^2)	0.0929	square meter (m^2)
square mile (mi^2)	2.590	square kilometer (km^2)
square mile (mi^2)	259.0	hectare (ha)
square mile (mi^2)	640.0	acre
Volume		
cubic foot (ft^3)	0.2832	cubic meter (m^3)
acre-foot	1233.48	cubic meter (m^3)
Flow rate		
acre-foot per year (acre-ft/yr)	1233.046	cubic meter per year (m^3/yr)
foot per second (ft/s)	0.3048	meter per second (m/s)
foot per day (ft/d)	0.3048	meter per day (m/d)
cubic foot per day (ft^3/d)	0.2832	cubic meter per day (m^3/d)
inch per year (in/yr)	25.4	millimeter per year (mm/yr)
Hydraulic conductivity		
foot per day (ft/d)	0.3048	meter per day (m/d)
Transmissivity		
foot squared per day (ft^2/d)	0.0929	meter squared per day (m^2/d)
Velocity		
inch per second (in/s)	25.4	millimeter per second (mm/s)
inch per day (in/d)	2.54	centimeter per day (cm/d)
inch per year (in/yr)	2.54	centimeter per year (cm/yr)
Datums		
Vertical coordinate information is referenced to the National Geodetic Vertical Datum of 1929 (NGVD29).		
Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD 83) - High Accuracy Range Network (HARN).		

SFWMD	South Florida Water Management District
USACE / COE	U.S. Army Corps of Engineers
AFY	Acre feet per year
KAFY	Thousand acre feet per year

Introduction

The NSM targets workshop on January 19, 2011 generated questions and comments. This report is a response to questions that were considered critical to RECOVER's response to adopt NSRSM as the only NSM to be used by CERP. The questions from the NSM targets workshop are listed in Appendix A.

COMPARISON METHODOLOGY

A comparison of NSM v4.6.2 (NSM) and NSRSM v3.5 (NSRSM) is challenging due to model formulation, model cell dimensions, spatial extents and other complexities. An objective comparison between the models can be performed using a "universal mesh" methodology. A universal mesh uses a spatial extent and cells larger than either model. This approach will provide a reasonable comparison from a high vantage point. The input and output data for each model is spatially weighted for the cells contained within each universal mesh cell. The universal mesh has 47 rows and 27 columns of 4 mile by 4 mile cells as shown in Figure 1.

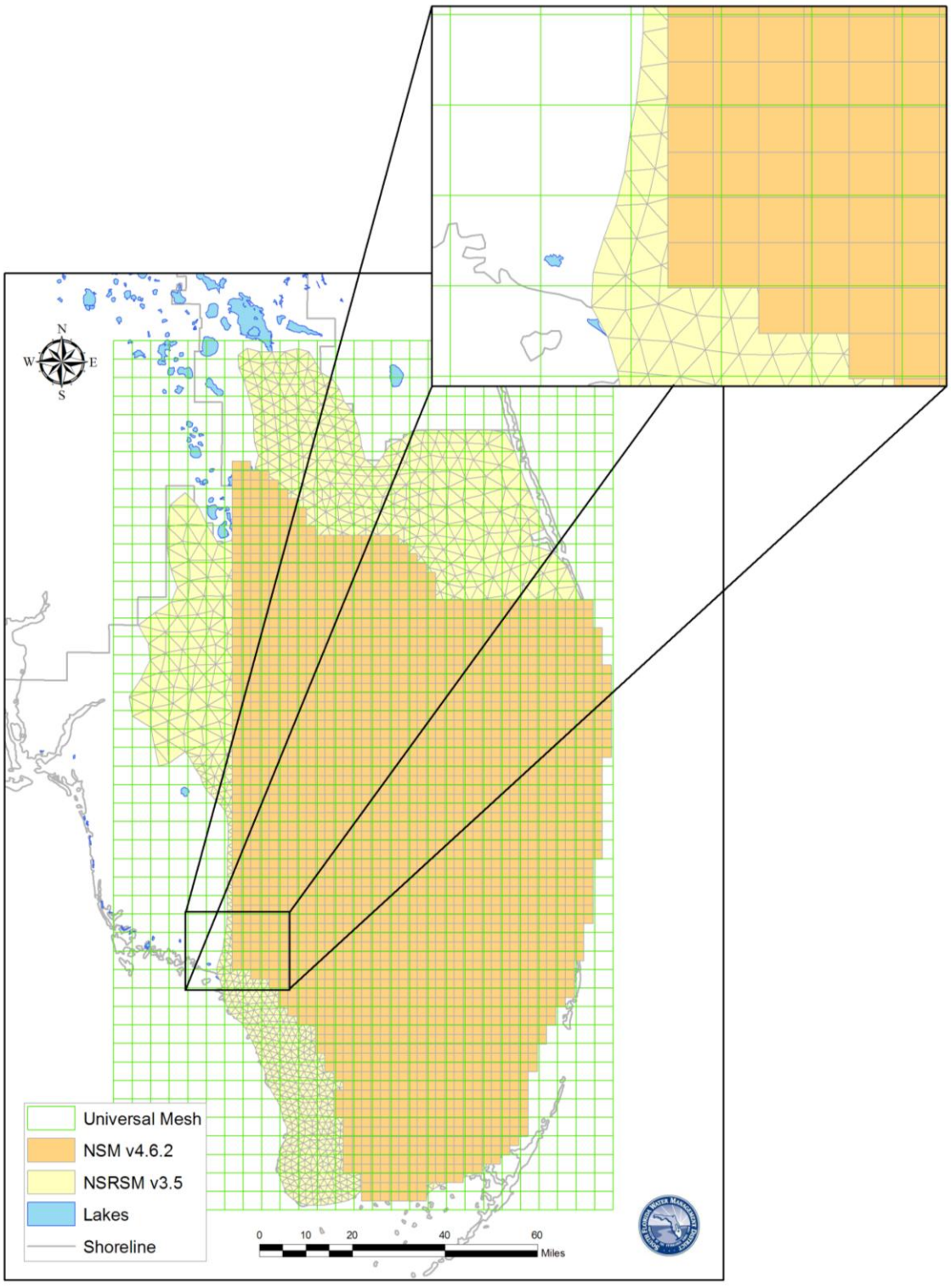


Figure 1. Universal mesh overlain with NSM and NSRSM.

COMPUTATION OF SPATIALLY WEIGHTED VALUES

Input and output values from both models were input into the universal mesh using a spatially weighted technique. Cells from each model were geometrically intersected with the universal mesh in order to determine the area of cells within each universal mesh cell. Figure 2 illustrates typical NSRSM cells geometrically intersected with a sample universal mesh cell.

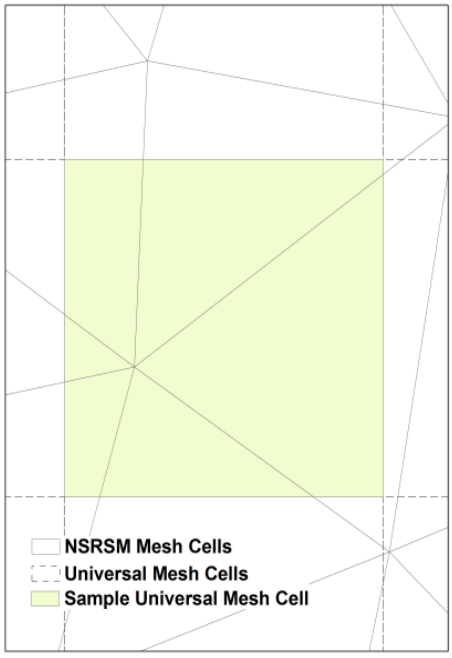


Figure 2. Example of NSRSM mesh cell geometrically intersected with universal mesh cell.

Once the NSRSM mesh is intersected with the universal mesh, the resultant areas of each NSRSM mesh cell within the universal mesh cell are determined. The results from Figure 2 are shown in Table 2. The spatially weighted value for each NSRSM cell is determined by multiplying the value and the percentage of NSRSM cell within the universal mesh cell. The resultant value for the universal mesh cell is computed from the sum of the weighted values; for this example using the six NSRSM cells, the spatially weighted value for the universal mesh cell is 18.86.

Table 2. Sample calculations for spatially weighted values.

NSRSM CellID	Value of NSRSM cell (NGVD29 ft)	Area of NSRSM cell within universal cell (ft^2)	Percentage of NSRSM cell within universal mesh cell	Weighted Value (value × percentage)
288	13.31	111,121,313.27	24.9%	3.32
289	21.08	184,819,964.42	41.4%	8.74
343	16.28	56,380,592.17	12.6%	2.06
344	12.90	9,780,917.84	2.2%	0.28
345	21.73	26,111,865.79	5.9%	1.27
346	24.63	57,839,722.68	13.0%	3.19
			Resultant value for universal mesh cell	18.86

Model Comparison

INPUT DATA

Once data from the NSM and NSRSM are input into the universal mesh, a comparison can be initiated. To aid in comparison, only cells common to both models are displayed. Table 3 illustrates the input model data used for comparison. For simplicity, averages of annual values for the period of record (1966-2005) were used for rainfall and reference evapotranspiration. The initial year of 1965 was not included in order to avoid model start-up bias. Natural rivers or creeks are not included in this comparison since they are implemented by each model using different numerical techniques.

Table 3. Input files for comparison.

Parameter	Data Time Step
Topographic Elevation	Not applicable
Aquifer Bottom Elevation	Not applicable
Aquifer Conductance	Not applicable
Aquifer Storage Coefficient	Not applicable
Landscape Distribution Zones	Not applicable
Rainfall	Average of annual values for period of record (1966-2005)
Reference Evapotranspiration	Average of annual values for period of record (1966-2005)

Topography

The topographic elevations are similar between both models as shown in Figure 3. It is important to note that the NSRSM elevations in the historic Everglades are referenced from the bottom of the slough while the NSM uses an average elevation. A graphic depicting the datum used by each model is shown in Figure 4. For this comparative analysis, the NSRSM elevations in the historic Everglades have been adjusted to the average elevation; the same methodology used by the NSM topographic elevation model. The adjustment was made using a spatial analysis of the distribution of sloughs, ridges, and tree islands. A more detailed description of the topographic elevation data, including the spatial analysis of the slough, ridge and tree island, is discussed in the NSM and NSRSM documentation.

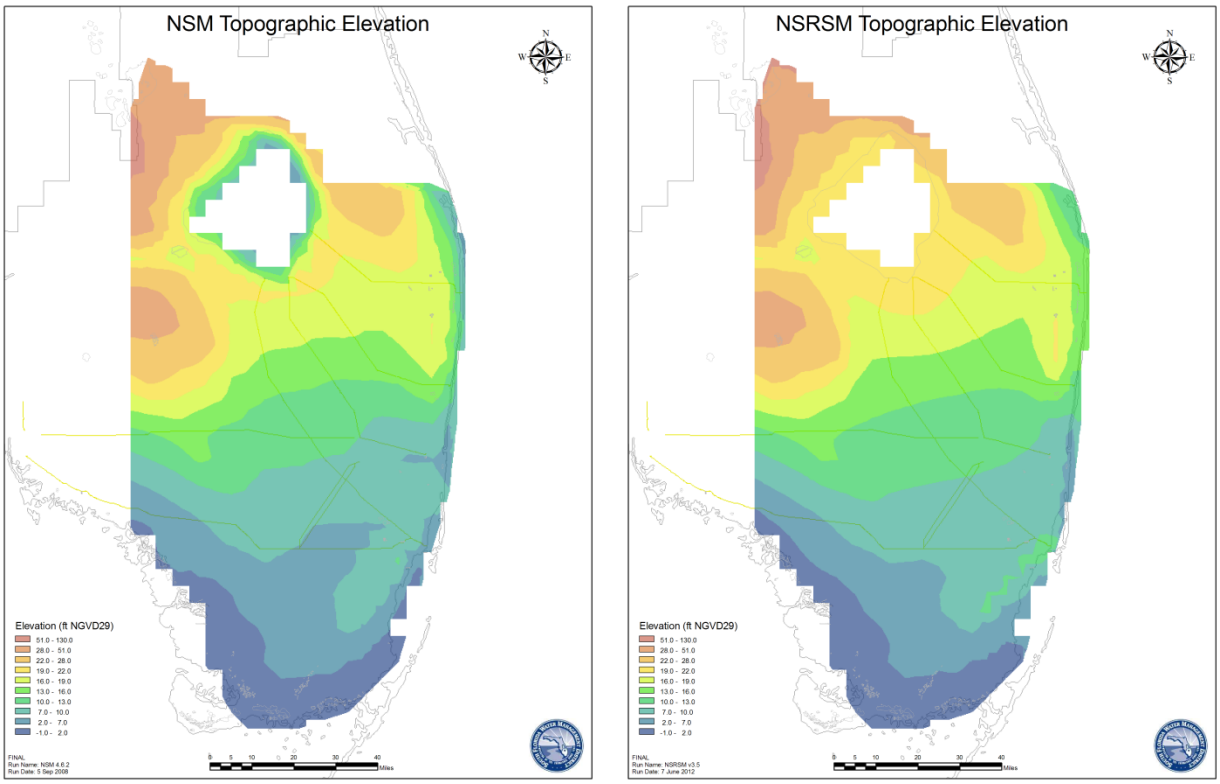


Figure 3. Comparison of topographic elevations; elevations in the historic Everglades are referenced from average elevation.

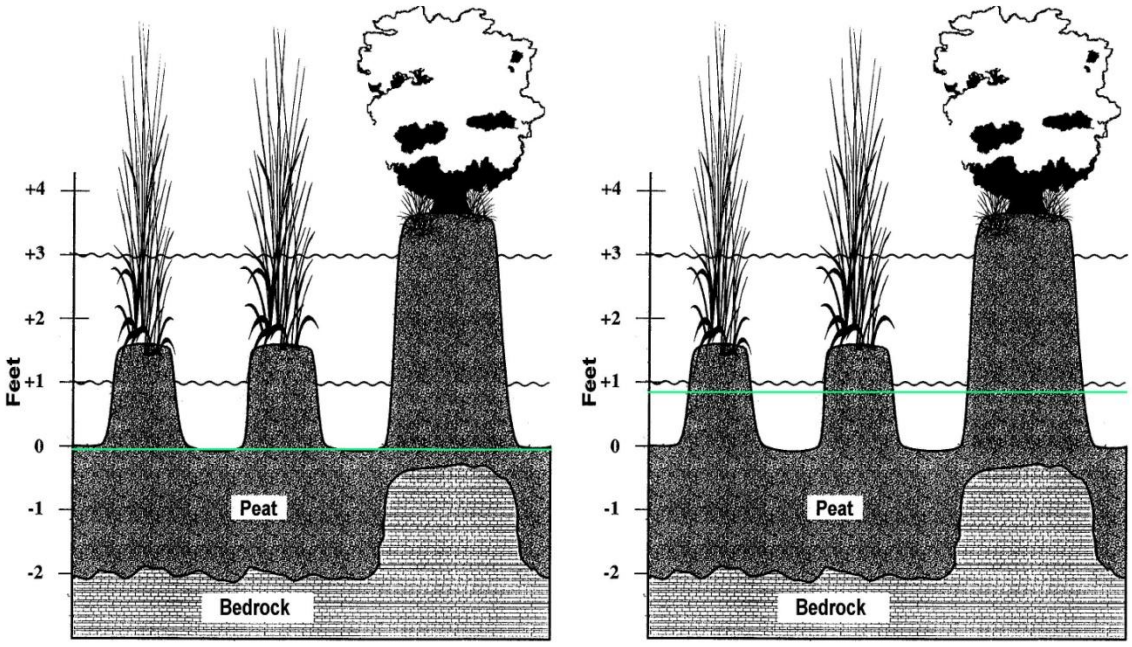


Figure 4. Ridge and slough landscape topographic datum (green line) used by NSRSM (left) and datum used by NSM (right).

Aquifer Bottom Elevation

The aquifer bottom elevations, shown in Figure 5, illustrate differences between both models. It is important to note that the NSRSM utilized additional data for developing the dataset. A more detailed description of the aquifer bottom elevations are discussed in the NSM and NSRSM documentation.

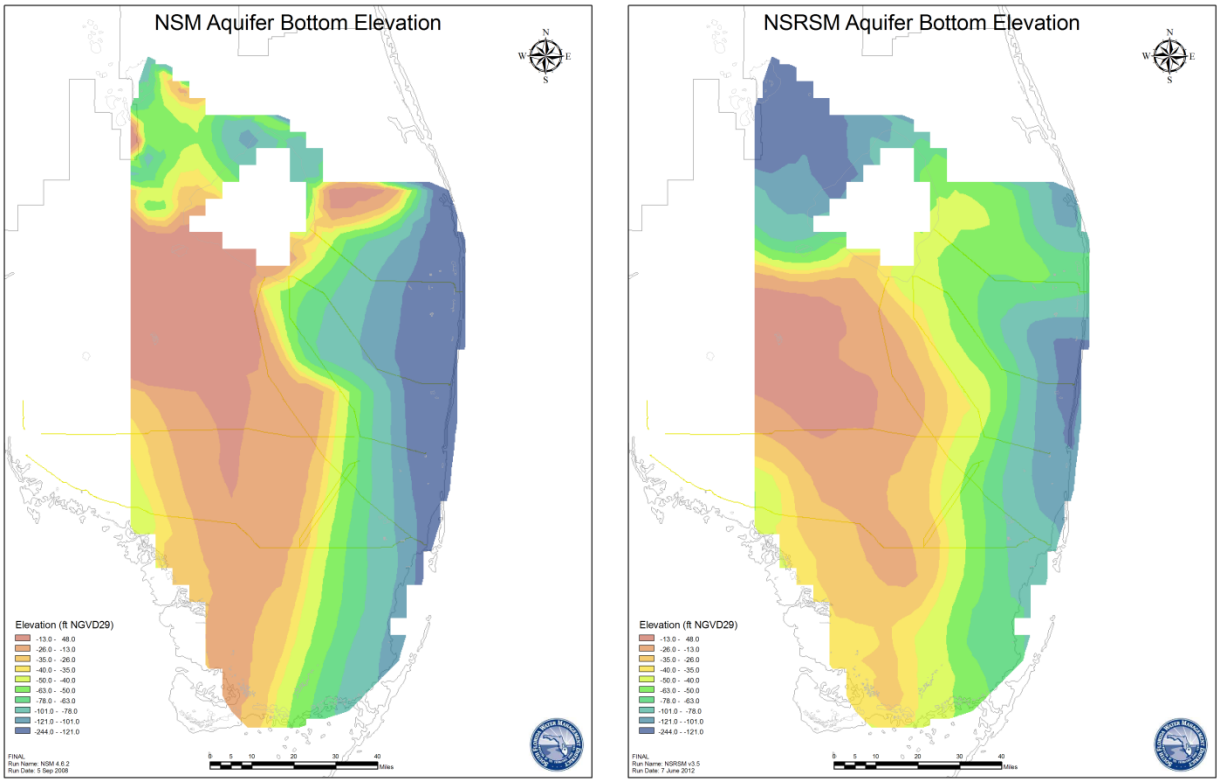


Figure 5. Comparison of aquifer bottom elevation.

Aquifer Transmissivity

The aquifer transmissivities, shown in Figure 6, illustrate differences between both models. It is important to note that the NSRSM utilized additional data for developing the dataset. A more detailed description of the aquifer transmissivities are discussed in the NSM and NSRSM documentation.

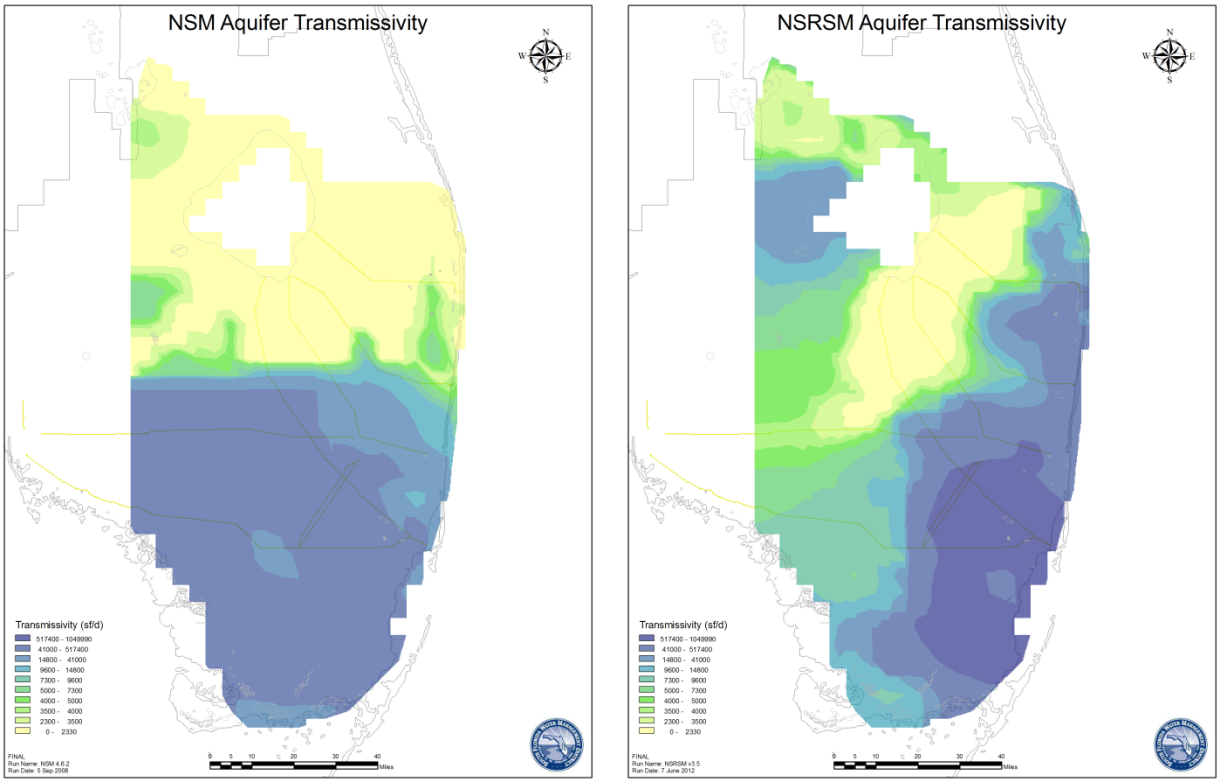


Figure 6. Comparison of aquifer conductance.

Aquifer Storage Coefficients

The aquifer storage coefficients, shown Figure 7, illustrate differences between both models. It is important to note that the NSRSM uses a stage-volume methodology for determining aquifer storage in the historic Everglades. The areas in Figure 7 (right) that display no-data utilize the stage-volume methodology for computing aquifer storage. A more detailed description of the aquifer storage coefficients are discussed in the NSM and NSRSM documentation.

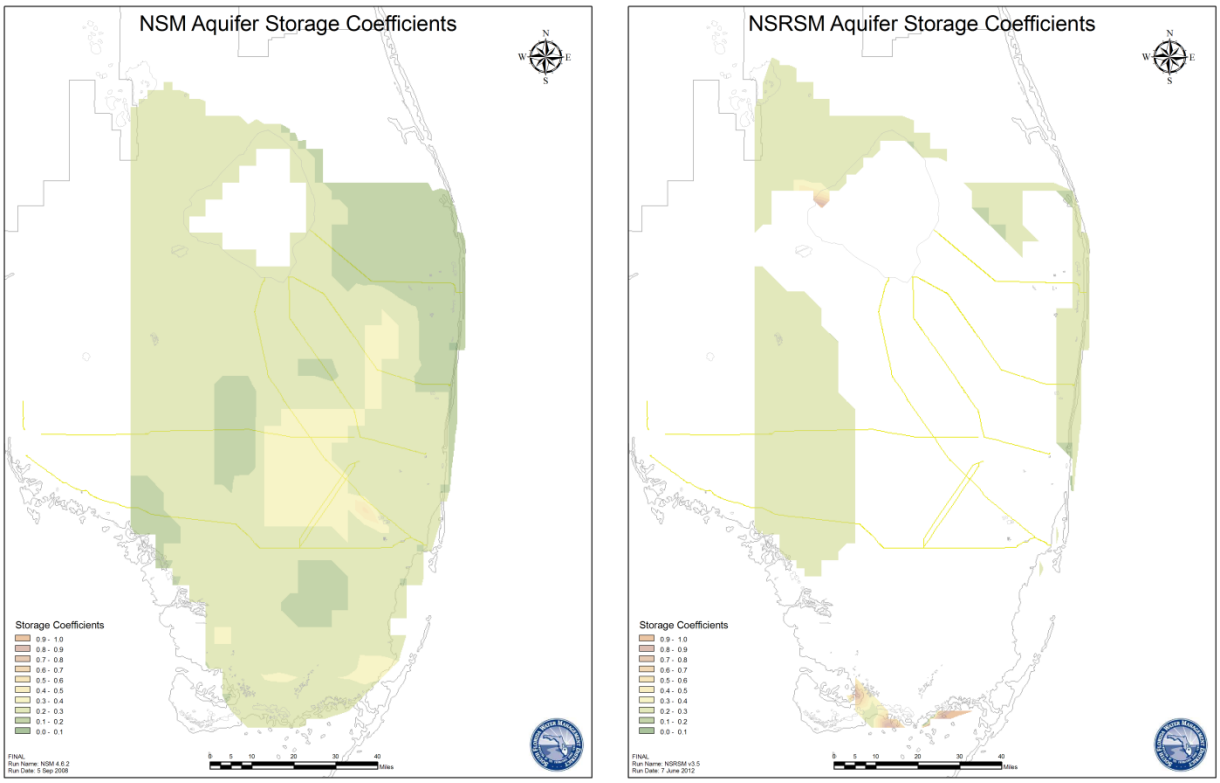


Figure 7. Comparison of aquifer storage coefficients.

Landscape Distribution

The landscape distribution, shown in Figure 8, illustrates similarities between both models. It is important to note that the NSRSM utilized additional data for developing the dataset. The NSRSM has more landscape zones than the NSM and a cross-walk table was used in order to make a meaningful comparison. The NSM uses 11 landscape distribution zones, shown in Table 4. The NSRSM uses 29 landscape distribution zones; the cross-walk to relate NSRSM to NSM is shown in Table 5. A more detailed description of the landscape distribution zones are discussed in the NSM and NSRSM documentation.

Table 4. NSM landscape distribution zones.

NSM Landscapes
Forested Uplands
Sawgrass Plains
Wet Prairie
Dry Prairie
Open Water
Ridge and Slough
Forested Wetlands
Scrub/Shrub
Freshwater Marsh
Marl Marsh
Mangroves

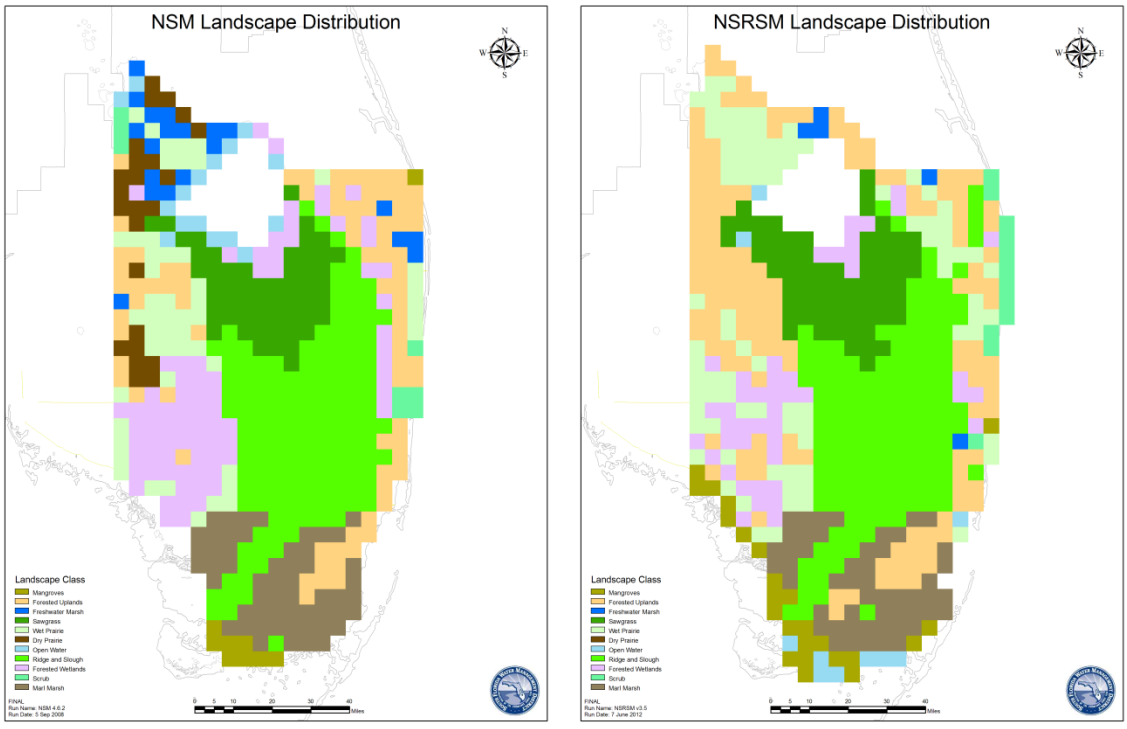


Figure 8. Comparison of landscape distribution zones.

Table 5. Cross-walk to relate NSRSM to NSM landscape distribution zones.

NSRSM Landscape Zone	NSM Landscape Zone
Water	Open Water
Intra-tidal wetlands	Mangroves
Beaches	Dry Prairie
Forested Freshwater Wetlands	Forested Wetlands
Cypress Swamp	Forested Wetlands
Hardwood Swamp	Forested Wetlands
Custard Apple	Forested Wetlands
Non-forested Freshwater Wetlands	Freshwater Marsh
Long hydroperiod Marsh	Wet Prairie
Ridge and Slough - LUT	Ridge and Slough
Sawgrass Plains - LUT	Sawgrass Plains
Ridge and Slough - LUT	Ridge and Slough
Medium Hydroperiod Marsh	Wet Prairie
Marsh with Scattered Cypress	Freshwater Marsh
Everglades Marl Marsh - LUT	Marl Marsh
Wet Prairie	Wet Prairie
Wet Prairie with Scattered Trees	Wet Prairie
Wet Prairie with Cypress	Wet Prairie
Hydric Uplands	Forested Uplands
Hydric Flatwood	Forested Uplands
Hydric Hammock	Forested Uplands
Mesic Uplands	Dry Prairie
Dry Prairie	Forested Uplands
Mesic Pine Flatwood	Forested Uplands
Mesic Hammock	Forested Uplands
Xeric Upland	Forested Uplands
High Pine (Sandhills)	Dry Prairie
Scrub	Scrub/Shrub
Coastal Strand	Dry Prairie

Rainfall

The rainfall data, shown in Figure 9, are comparable between both models. A more detailed description of the rainfall datasets are discussed in the NSRSM documentation.

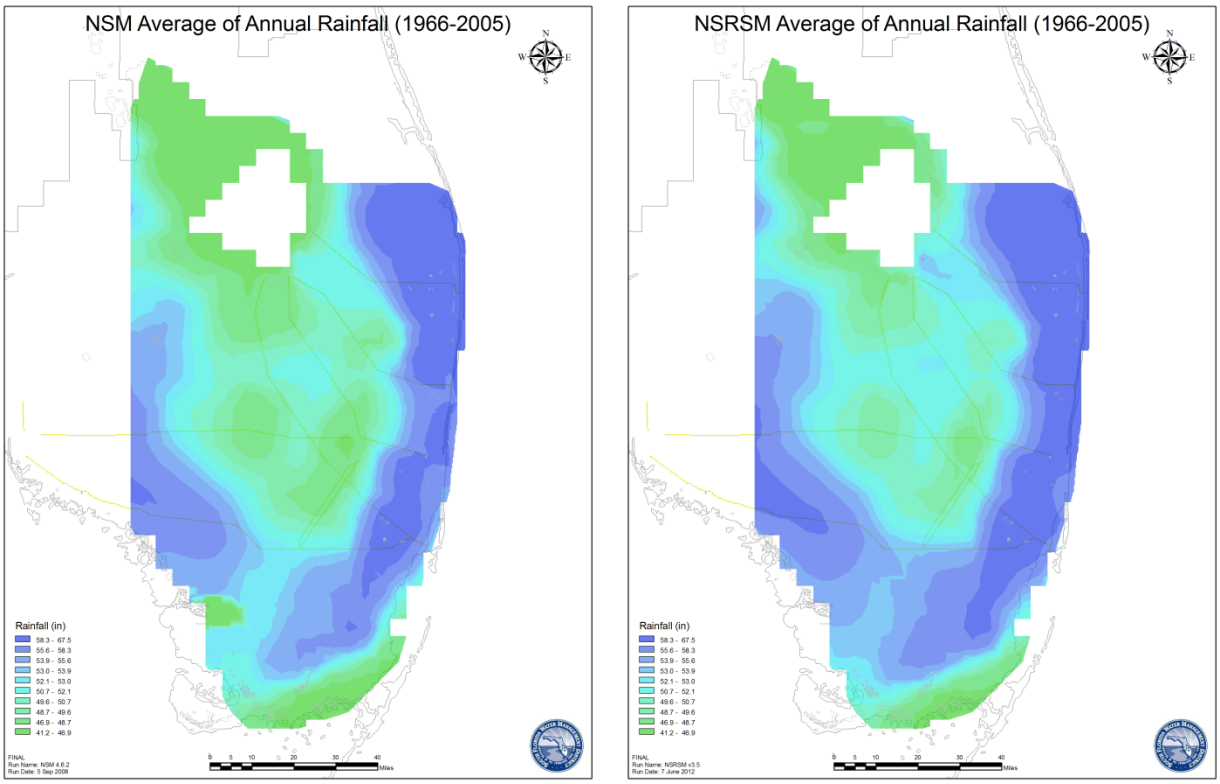


Figure 9. Comparison of rainfall.

Computed Evapotranspiration

The differences in computed evapotranspiration are shown in Figure 10. Each model uses a different methodology for computing reference evapotranspiration. For the NSM, daily reference ET is computed for eleven stations using a modified Penman - Monteith Method. The reference evapotranspiration dataset for the NSRSM uses data from two weather model datasets: the U.S. Hydrological Reanalysis by the NOAH Land Data Assimilation System (Hydro51) and North America Regional Reanalysis (NARR). A more detailed description of the reference evapotranspiration datasets are discussed in the NSM and NSRSM documentation.

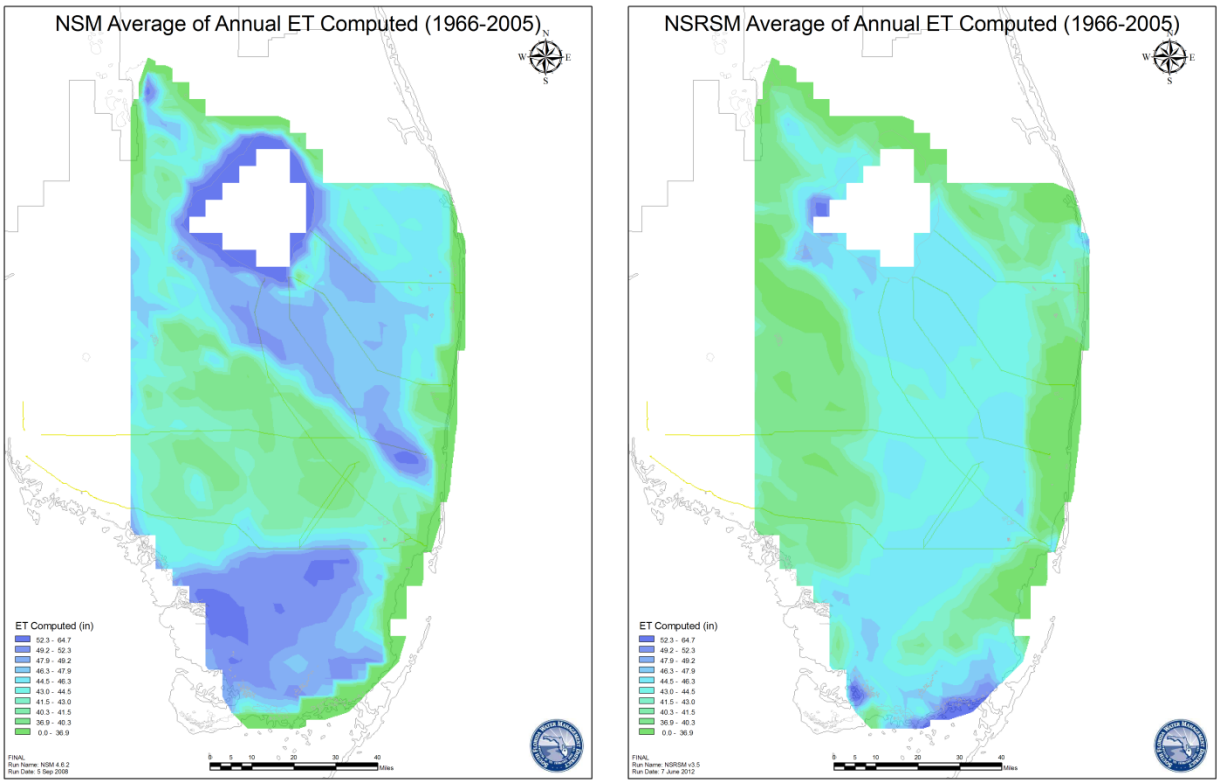


Figure 10. Comparison of computed evapotranspiration.

OUTPUT DATA

Output data from both models were processed into the universal mesh. The average of the annual parameters for the period of record (1966-2005), listed in Table 6, are shown in Figures 11 thru 16. Annual averages for each year (1966-2005) are provided in the appendices listed in Table 6. The output directory also includes animation files (*.wmv) of the output parameters. There are caveats associated with some output datasets. The angle of the overland flow vectors should only be considered when comparing between both models since each utilizes a slightly different numerical scheme for computing overland flow. Inundation and ponding depth data for NSRSM within the historic Everglades are based on the average topographic elevation of the slough, ridge and tree island. This will allow for a meaningful comparison between both models. Lastly, flow transect data will not be imported into the universal mesh and will be compared using a tabular format.

Table 6. Output files for comparison.

Output Parameter	Data Time Step	Appendix	Animation File
Water level (stage)	Annual average (1966-2005)	B	Yes
Ponding depth	Annual average (1966-2005)	C	Yes
Flow direction (vectors)	Annual average (1966-2005)	D	Yes
Inundation	Annual average (1966-2005)	E	Yes
Flow transects	Annual average (1966-2005)	F	No

Careful consideration needs to be used when comparing the model outputs. Using model output to establish mean annual flows, average hydroperiod or water depth is not a recommended application of model output. Output from the model should be used in conjunction with other models, studies and information to suggest how hydrologic patterns have changed.

Water Levels

The average of the annual water levels (1966-2005), shown in Figure 11, are similar between both models. The annual average stages from 1966-2005 are shown in Appendix B.

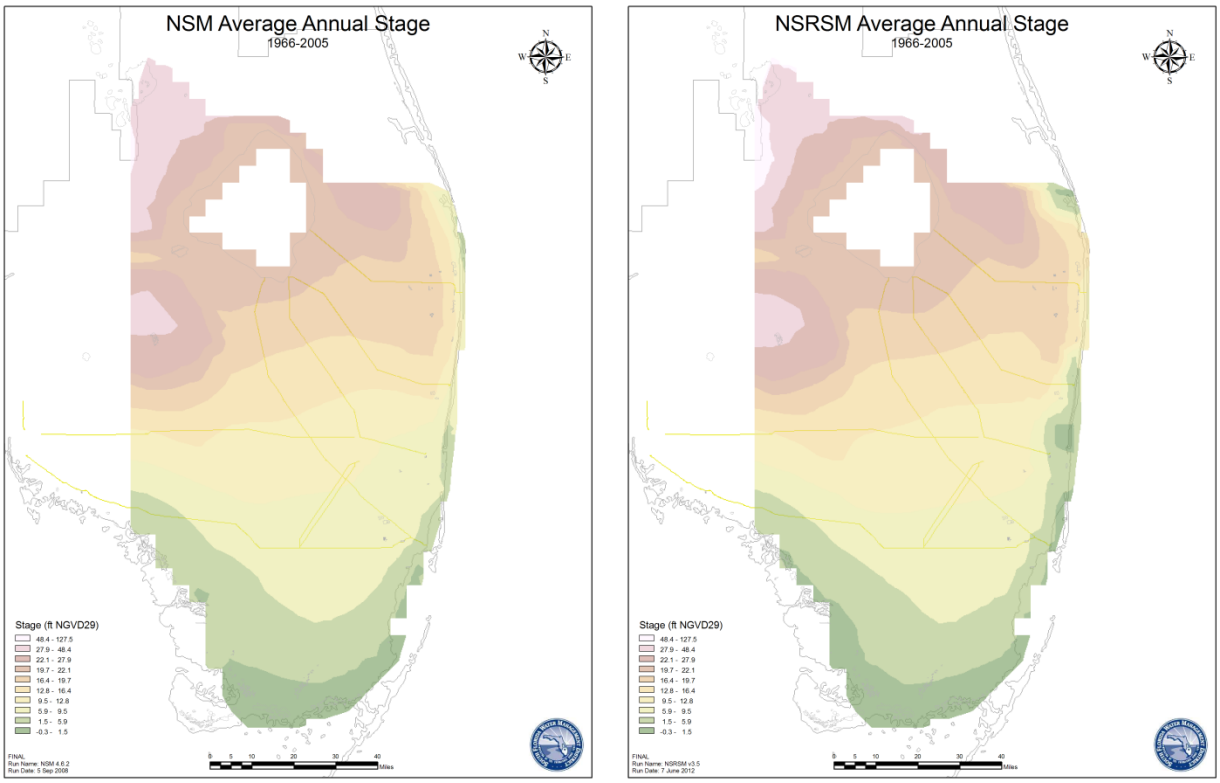


Figure 11. Comparison of average of annual stages (1966-2005).

Ponding Depth

The average of the annual ponding depths (1966-2005), shown in Figure 12, illustrate differences between both models. The most notable differences are at Lake Okeechobee and Shark River Slough. At the edge of Lake Okeechobee, this is due to the methodology of implementing the lake. The NSM uses boundary conditions and the NSRSM utilizes volumetric budget model (a.k.a. RSM lake module). The differing ponding depths at Shark River Slough may be caused by a combination of the topographic elevation model and overland flow methodology. The NSRSM uses additional data for its topographic elevation model. Both models use different overland flow methodologies. The NSM uses Manning's coefficients in the historic Everglades and the NSRSM utilizes depth varying overland flow coefficients based on Kadlec's coefficients. The annual average ponding depths from 1966-2005 are shown in Appendix C.

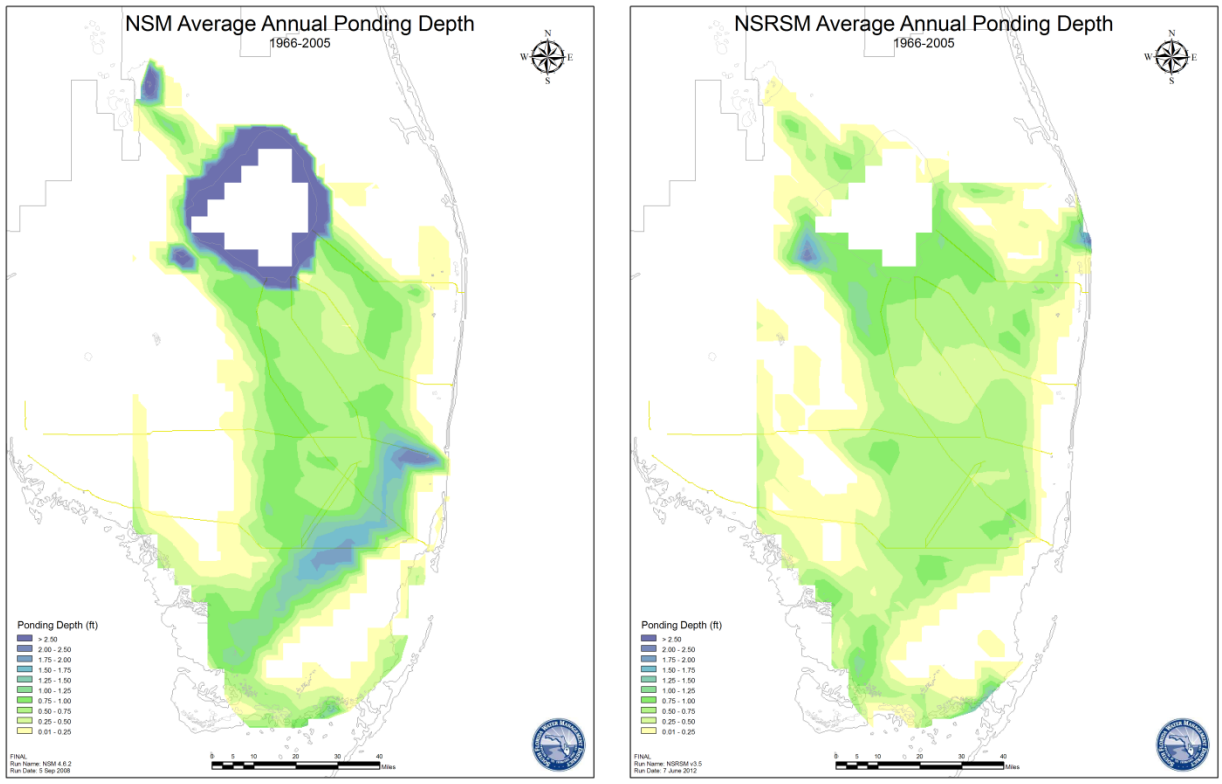


Figure 12. Comparison of average of annual ponding depth (1966-2005).

Flow Direction (vectors)

The average of the annual flow directions (1966-2005), shown in Figure 13, are similar between both models. It is important to note that only the direction of the arrow be used for comparison. The annual average flow directions from 1966-2005 are shown in Appendix D.

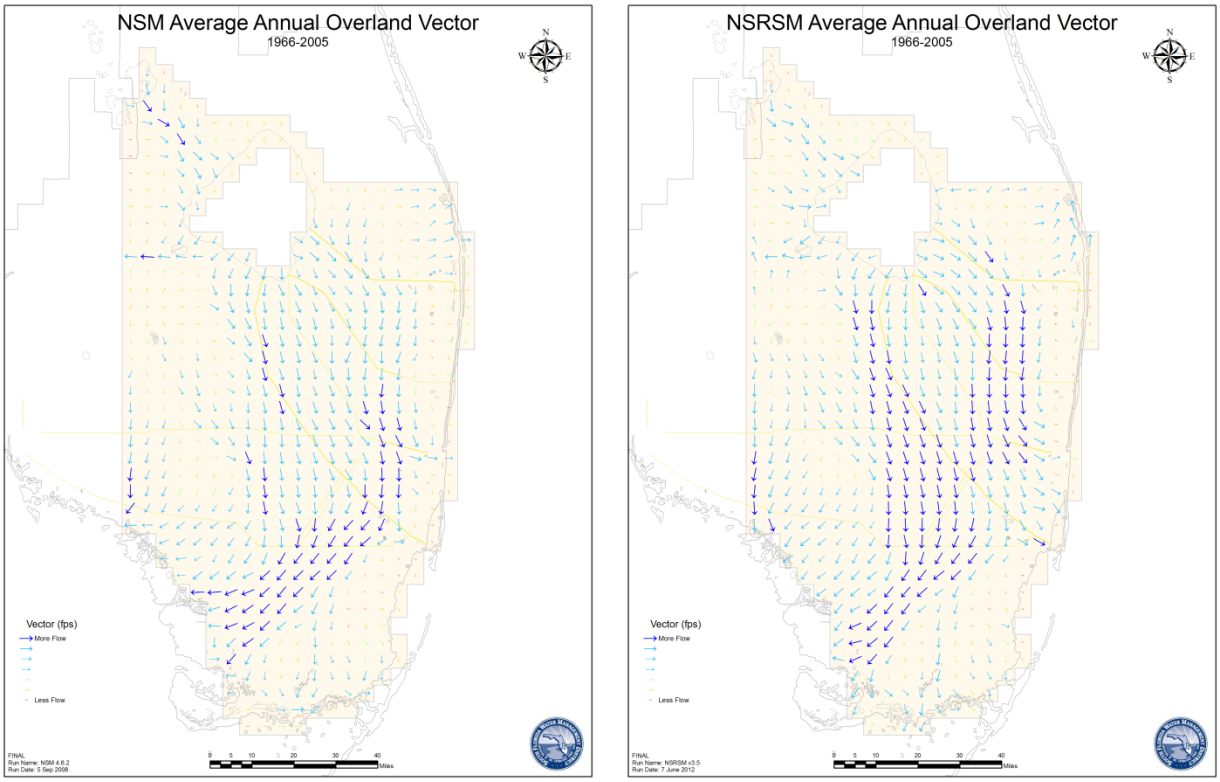


Figure 13. Comparison of average of annual flow direction (1966-2005).

Inundation

The average of the annual inundation (1966-2005), shown in Figure 14, are similar between both models. The annual average inundations from 1966-2005 are shown in Appendix E.

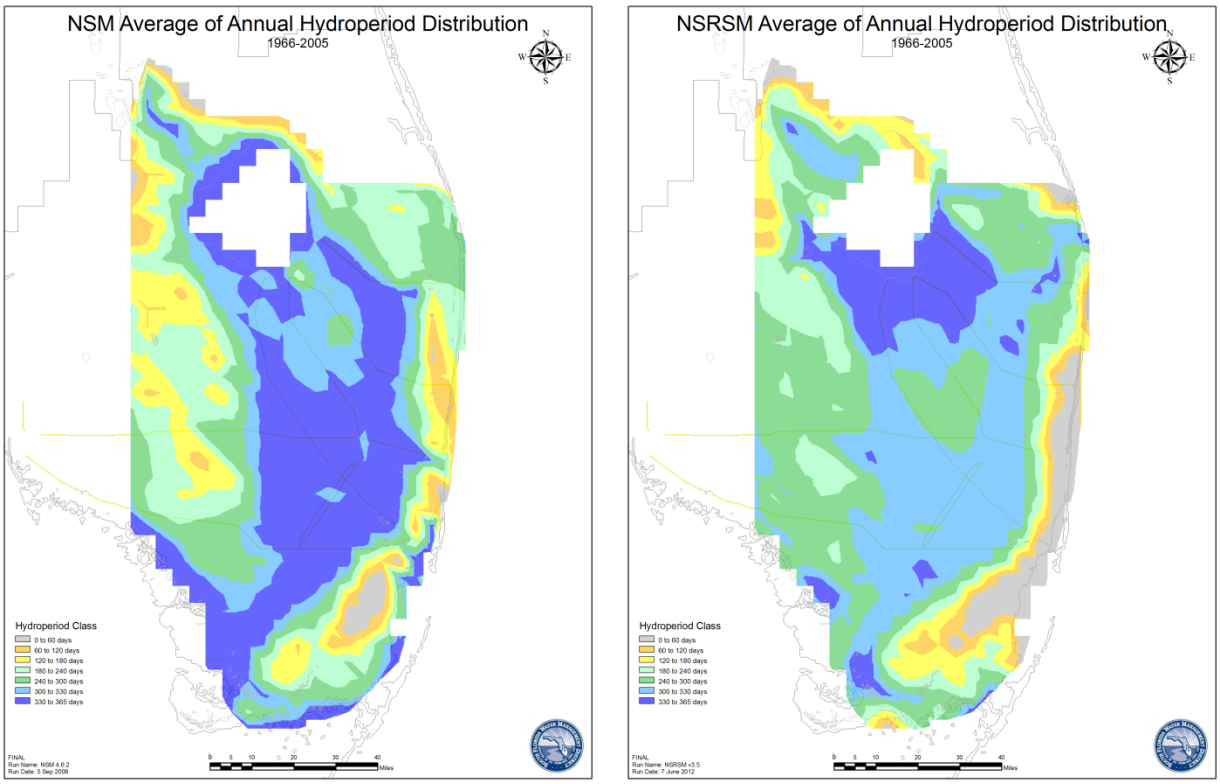


Figure 14. Comparison of average of annual inundation (1966-2005).

Transects

Six transects used for comparison between both models are shown in Figure 15. The transects selected are: south of Lake Okeechobee, EPA's River of Grass, southern Everglades near present day Tamiami Trail, Shark River Slough, Florida Bay, and the Lower East Coast. The transect data is presented in tabular and graphical formats.

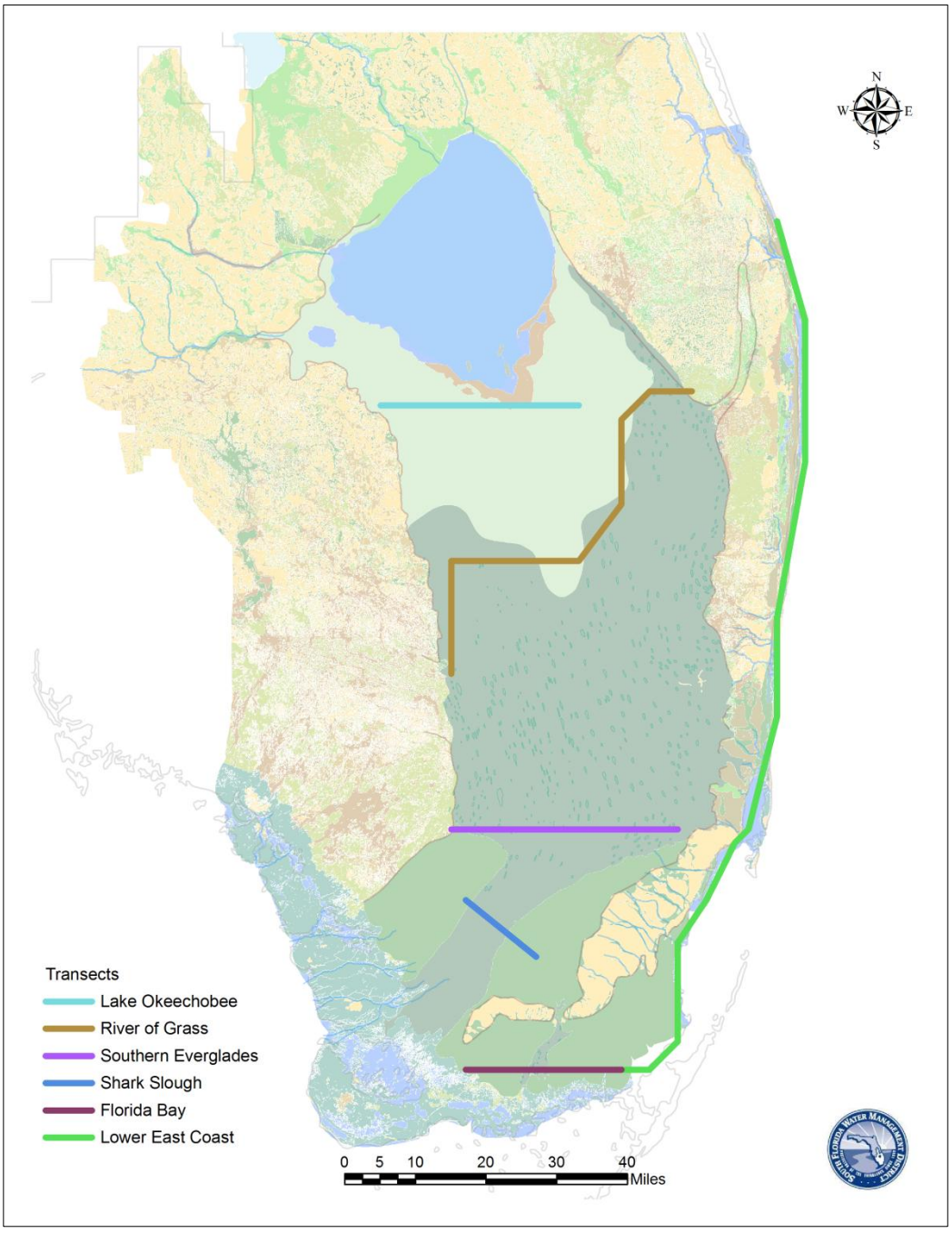


Figure 15. Transects used for comparison of average overland flow (1966-2005).

The average of annual overland flow (1966-2005) across select transects are shown in Table 7. The annual flow for each transect from 1966-2005 are shown in Appendix F.

Table 7. Average of annual overland flow (1966-2005) for all transects.

Transect	NSM (KAFY)	NSRSM (KAFY)
Lake Okeechobee	773	1100
River of Grass	1303	2176
Southern Everglades	1862	1977
Shark Slough	1377	1706
Florida Bay	155	226
Lower East Coast	361	1985

The results between both models vary at all transects; this may be attributed to the differences in the conceptualization of Lake Okeechobee and overland flow coefficients. Lake Okeechobee is simulated in the NSM using a lake boundary condition; the NSRSM uses a volumetric budget model to simulate the lake. Overland flow is simulated by the NSM using Manning's coefficients; the NSRSM uses a depth dependent lookup table for computing overland flow. The most notable difference occurs along the Lower East Coast. It is important to note that the NSRSM overland flow transect along the Lower East Coast incorporates river flow. This is an important difference between the NSM and NSRSM. The natural rivers are simulated in the NSM using a cell based methodology; the NSRSM uses a river network and the NSM.

NSRSM Water Budget

Since the NSRSM is a new implementation of the natural system, two areas in the model were selected in order to illustrate a balanced water budget. The annual water budget (1966-2005) for Lake Okeechobee and the Ridge and Slough landscape are shown in Tables 8 and 9, respectively.

Table 8. Lake Okeechobee annual water budget (1966-2005).

Component	Volume (KAFY)
Rainfall	1634.4
ET Computed	-2086.2
Overbank and Groundwater Flow	-956.0
River Flow	1413.2
Residual	0.0
Change in Water Body Volume	5.3
Percent Error	***0.00%***

Table 9. Ridge and Slough landscape annual water budget (1966-2005).

Component	Volume (KAFY)
Rainfall	9285.0
ET Computed	-7909.4
Overland Flow	-83.4
Groundwater Flow	-145.4
River Seepage	-458.7
River Overbank Flow	-911.9
LOK Overland and Groundwater Flow	235.8
Residual	0.0
Change in Water Body Volume	10.4
Percent Error	***0.02%***

A more detailed examination of the Lake Okeechobee average of annual river and creek inflows (1966-2005) is shown in Table 10. It is important to note that the NSM simulates the river inflows as a time varying specified flux boundary condition; the NSRSM has the functionality to connect the river network to a lake, thus simulating river inflow into Lake Okeechobee.

Table 10. Comparison of Lake Okeechobee average of annual river and creek inflows (1966-2005).

River / Creek	NSM (KAFY)	NSRSM (KAFY)
Kissimmee River	1100	1206
Tributary Inflow (present day S154)	24	-
Taylor Creek	48	90
Nubbin Slough	39	-
Fisheating Creek	183	118
Total	***1394***	***1414***

In Table 10, the NSRSM inflows into Lake Okeechobee from Fisheating Creek are 65 KAFY less (183 KAFY – 118 KAFY) than NSM. The NSRSM simulates Fisheating Creek as a river network spatially defined using Government Land Office surveys from the 1800's, shown in Figure 16. This methodology enables overland flow to be intercepted by the creek. The NSM uses a more simplistic approach that simulates the inflow into Lake Okeechobee as a time varying specified flux boundary condition.

The Indian Prairie landscape receives water when Lake Istokpoga overflows, shown in Figure 16. Both models simulate inflow into Lake Istokpoga using a time varying specified flux boundary condition. The average of annual (1966-2005) inflow boundary conditions into Lake Istokpoga are shown in Table 11.

Table 11. Comparison of Lake Istokpoga average of annual (1966-2005) inflow boundary conditions.

Creek	NSM (KAFY)	NSRSM (KAFY)
Josephine Creek	45	-
Arbuckle Creek	196	-
Ungaged Creek	27	-
Total	***268***	***268***

Figure 16. Location of Indian Prairie and rivers that discharge to Lake Okeechobee.

ArcMap Feature Datasets

Simulation results from NSRSM for the period of record (1966–2005) are included in an ArcMap geodatabase "MSR363_NSRSM_v3.5.mdb." The geodatabase contains seven features, shown in Table 12. A description of each feature class is provided in Tables 13 thru 19.

Table 12. NSRSM ArcMap geodatabase features.

Feature	Description
ModelProperties	A polygon feature class of the NSRSM v3.5 mesh containing model input properties.
Stage	A polygon feature class of the NSRSM v3.5 mesh containing the simulated stages.
Ponding	A polygon feature class of the NSRSM v3.5 mesh containing the simulated ponding depth measured above the topographic (land surface) elevation.
Inundation	A polygon feature class of the NSRSM v3.5 mesh containing the simulated inundation duration.
OLVector	A point feature class of the NSRSM v3.5 mesh centroids containing the simulated overland flow vectors.
GWVector	A point feature class of the NSRSM v3.5 mesh centroids containing the simulated groundwater flow vectors.
MeshBnd	A polygon feature class of the NSRSM v3.5 mesh boundary.

Table 13. Description of the ModelProperties ArcMap feature.

Feature	Description
ModelProperties	A polygon feature class of the NSRSM v3.5 mesh containing model input properties. Each field is described below.
Field	**Description**
CellId	Unique identification number.
Node1	First of three node identification numbers.
Node2	Second of three node identification numbers.
Node3	Third of three node identification numbers.
Topo	Topographic elevation; within historical Everglades, this value is measured from the bottom of the slough. Units are measured in NGVD29 feet.
Bot	Elevation of the bottom of the aquifer. Units are measured in NGVD29 feet.
Hyc_fpd	Hydraulic conductivity measured in ft^2/day.
HPM_Index	Index value for the hydrologic process module; refer to model documentation for detailed explanation.
Conveyance_Index	Index value for the overland flow; refer to model documentation for detailed explanation.
Sc_Index	Index value for the storage coefficients; refer to model documentation for detailed explanation.
Shape_Length	Perimeter length measured in feet.
Shape_Area	Area; units are measured in ft^2.
Rain	Average of annual rainfall from 1966-2005; units are measured in inches.
RET	Average of annual reference ET from 1966-2005; units are measured in inches.
Topo_offset	Topographic offset within historical Everglades. Units are measured in NGVD29 feet.

Table 14. Description of the Stage ArcMap feature.

Feature	Description
Stage	A polygon feature class of the NSRSM v3.5 mesh containing the simulated stages. Each field is described below.
Field	Description
Stage_1966	Annual average of stages for calendar year 1966. Units are measured in NGVD29 feet.
Stage_1967	Annual average of stages for calendar year 1967. Units are measured in NGVD29 feet.
Stage_1968-2005	Same as above for each respective year.
Stage_1966_2005	Average of annual stages for period of record (1966-2005). Units are measured in NGVD29 feet.

Table 15. Description of the Ponding ArcMap feature.

Feature	Description
Ponding	A polygon feature class of the NSRSM v3.5 mesh containing the simulated ponding depth measured above the topographic (land surface) elevation. Each field is described below.
Field	Description
Pond_1966	Annual average of ponding depth for calendar year 1966. Units are measured in feet above topographic (land surface) elevation.
Pond_1967	Annual average of ponding depth for calendar year 1967. Units are measured in feet above topographic (land surface) elevation.
Pond_1968-2005	Same as above for each respective year.
Pond_1966_2005	Average of annual ponding for period of record (1966-2005). Units are measured in feet above topographic (land surface) elevation.

Table 16. Description of the Inundation ArcMap feature.

Feature	Description
Inundation	A polygon feature class of the NSRSM v3.5 mesh containing the simulated inundation duration. Each field is described below.
Field	Description
Inund_1966	The inundation duration for calendar year 1966. Units are measured in days.
Inund_1967	The inundation duration for calendar year 1966. Units are measured in days.
Inund_1968-2005	Same as above for each respective year.
Inund_1966_2005	Average of annual inundation duration for period of record (1966-2005). Units are measured in days.

Table 17. Description of the OLVector ArcMap feature.

Feature	Description
OLVector	A point feature class of the NSRSM v3.5 mesh centroids containing the simulated overland flow vectors. Each field is described below.
Field	Description
OLvctMag_1966	Annual average of vector magnitude for calendar year 1966. Units are measured in ft^3/second.
OLvctAng_1966	Annual average of vector angle for calendar year 1966. Units are measured in degrees.
OLvctMag_1967	Same as above for calendar year 1967. Units are measured in ft^3/second.
OLvctAng_1967	Same as above for calendar year 1967. Units are measured in degrees.
OLvct_1968-2005	Same as above for each respective year.
OLvctMag_1966_2005	Average of annual magnitude for period of record (1966-2005). Units are measured in ft^3/second.
OLvctAng_1966_2005	Average of annual angle for period of record (1966-2005). Units are measured in degrees.

Table 18. Description of the GWVector ArcMap feature.

Feature	Description
GWVector	A point feature class of the NSRSM v3.5 mesh centroids containing the simulated groundwater flow vectors. Each field is described below.
Field	Description
GWvctMag_1966	Annual average of vector magnitude for calendar year 1966. Units are measured in ft^3/second.
GWvctAng_1966	Annual average of vector angle for calendar year 1966. Units are measured in degrees.
GWvctMag_1967	Same as above for calendar year 1967. Units are measured in ft^3/second.
GWvctAng_1967	Same as above for calendar year 1967. Units are measured in degrees.
GWvct_1968-2005	Same as above for each respective year.
GWvctMag_1966_2005	Average of annual magnitude for period of record (1966-2005). Units are measured in ft^3/second.
GWvctAng_1966_2005	Average of annual angle for period of record (1966-2005). Units are measured in degrees.

Table 19. Description of the MeshBnd ArcMap feature.

Feature	Description
MeshBnd	A polygon feature class of the NSRSM v3.5 mesh boundary. Each field is described below.
Field	Description
Shape_Length	Perimeter length; units are feet.
Shape_Area	Units are measured in ft^2.
Area_sqmi	Units are measured in $mile^2$.
Area_ac	Units are measured in acres.

Excel Datasets

Additional output from NSRSM has been included in Excel files. A description of each file is provided in Table 20. An important caveat to the box and whisker plots is the datum. The datum for this dataset is measured from the slough bottom and not the average elevation. A comparison graphic illustrating the vertical datum's used by NSM and NSRSM are shown in Figure 4.

Table 20. Description of additional NSRSM output processed using Excel.

Performance Measure	Location	Data Time Step	File Name(s)
Box whiskers relative to slough, water levels, ET computed	Everglades Monitor Zones	Average of annual water levels for period of record	NSRSM_v3.5_BoxWhiskers_RelativeToSlough.xls
Water budget	BCB, EAA, ENP, LEC, WCA's, Indian Prairie, Caloosahatchee Basin	Same as above	NSRSM_v3.5_WaterBudget.xlsx
River water levels and flows	Select locations, boundary conditions and transverse glades	Daily	NSRSM_v3.5_RiverBCs.xls NSRSM_v3.5_System_FlowStage.xlss NSRSM_v3.5_RiverTransverseGlades.xls
Budget and stage	Lake Okeechobee	Daily and annual stage and average of annual budget values for period of record	NSRSM_v3.5_LakeOkee.xlsx

EXTERNAL PEER REVIEW

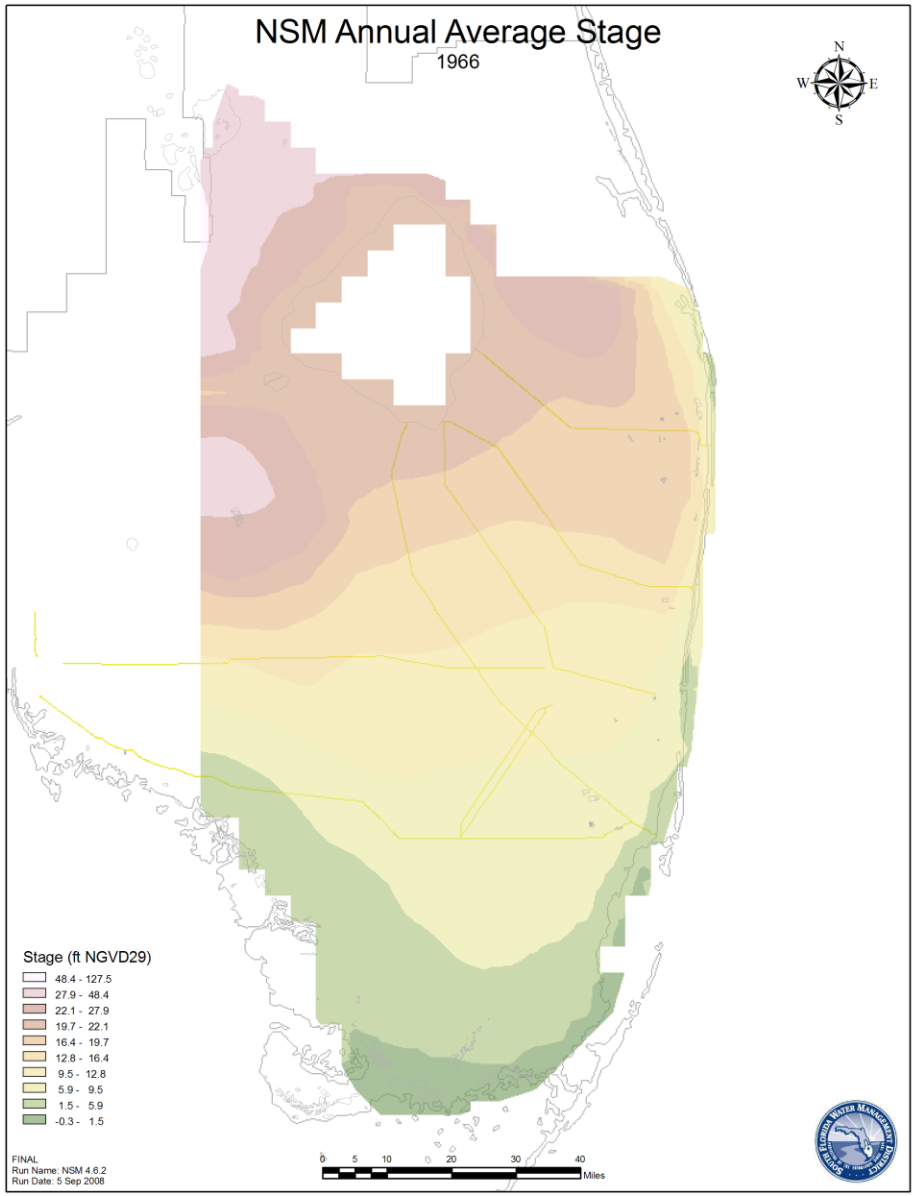
An external peer review for NSRSM v2.0 was completed in July 2007. The report and the District's response are included in the output files. The recommendations from the external peer review were incorporated in NSRSM v3.0. Subsequent improvements were incorporated into NSRSM v3.3. The internal peer review by HESM for NSRSM v3.3 was completed in December 2011; the final enhancements were incorporated into NSRSM v3.5.

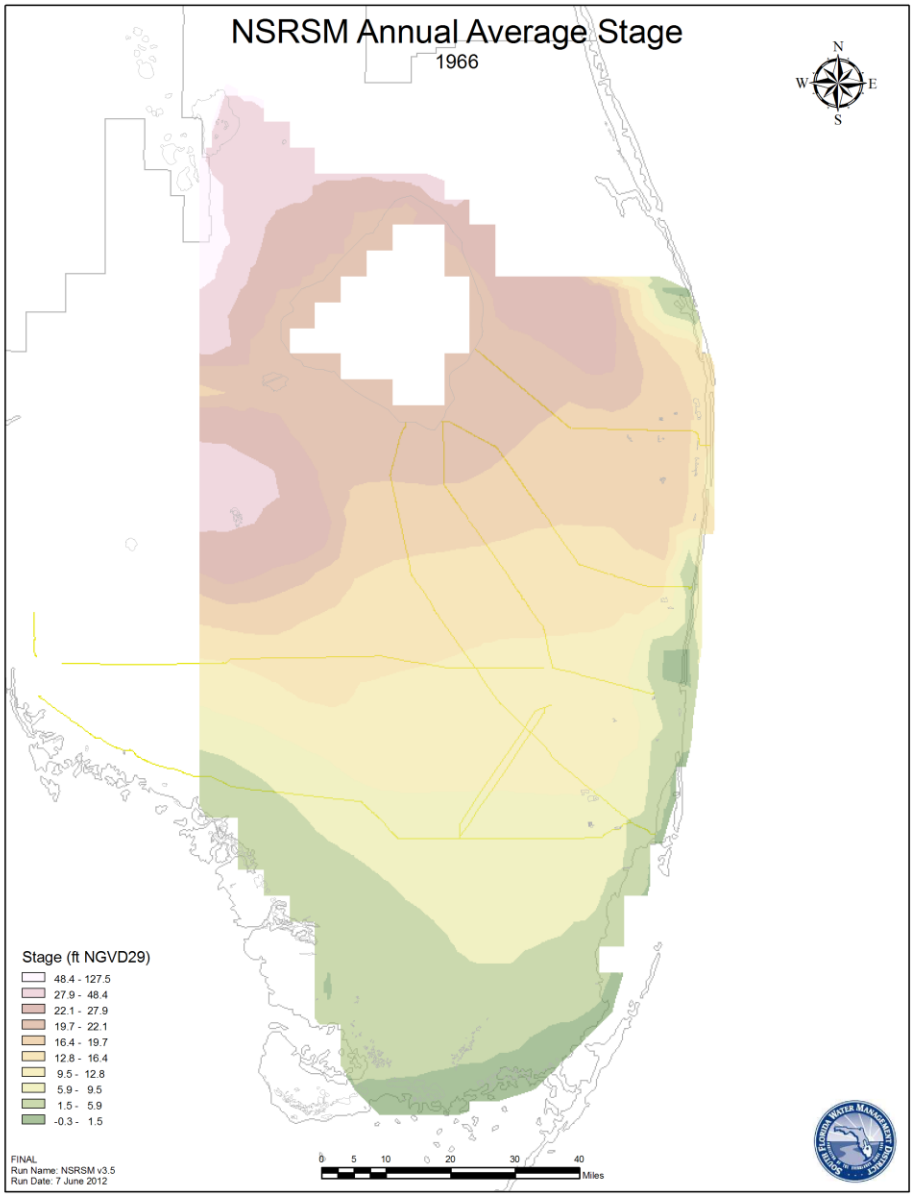
Appendix A
Questions from Targets Workshop on January 19, 2011

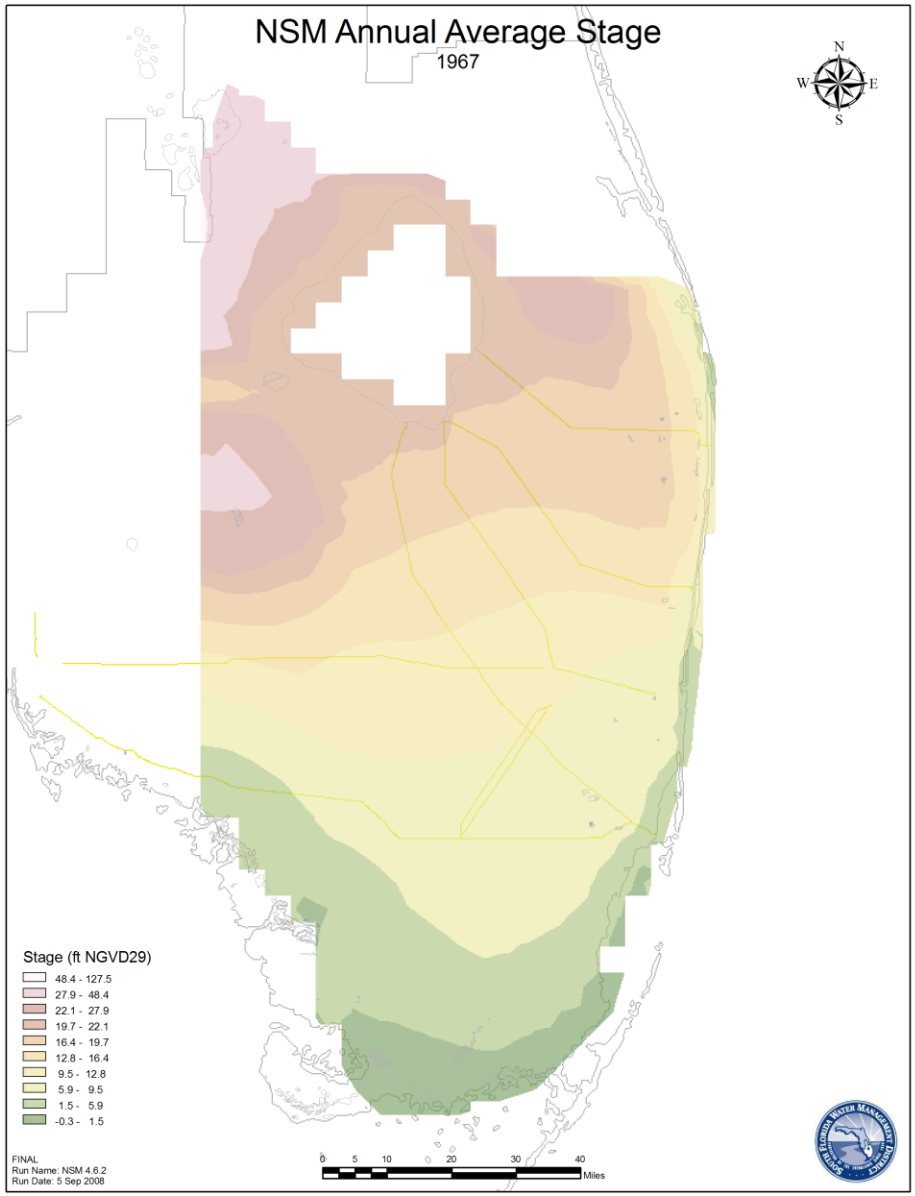
Questions from the IMC addressed in the scope.

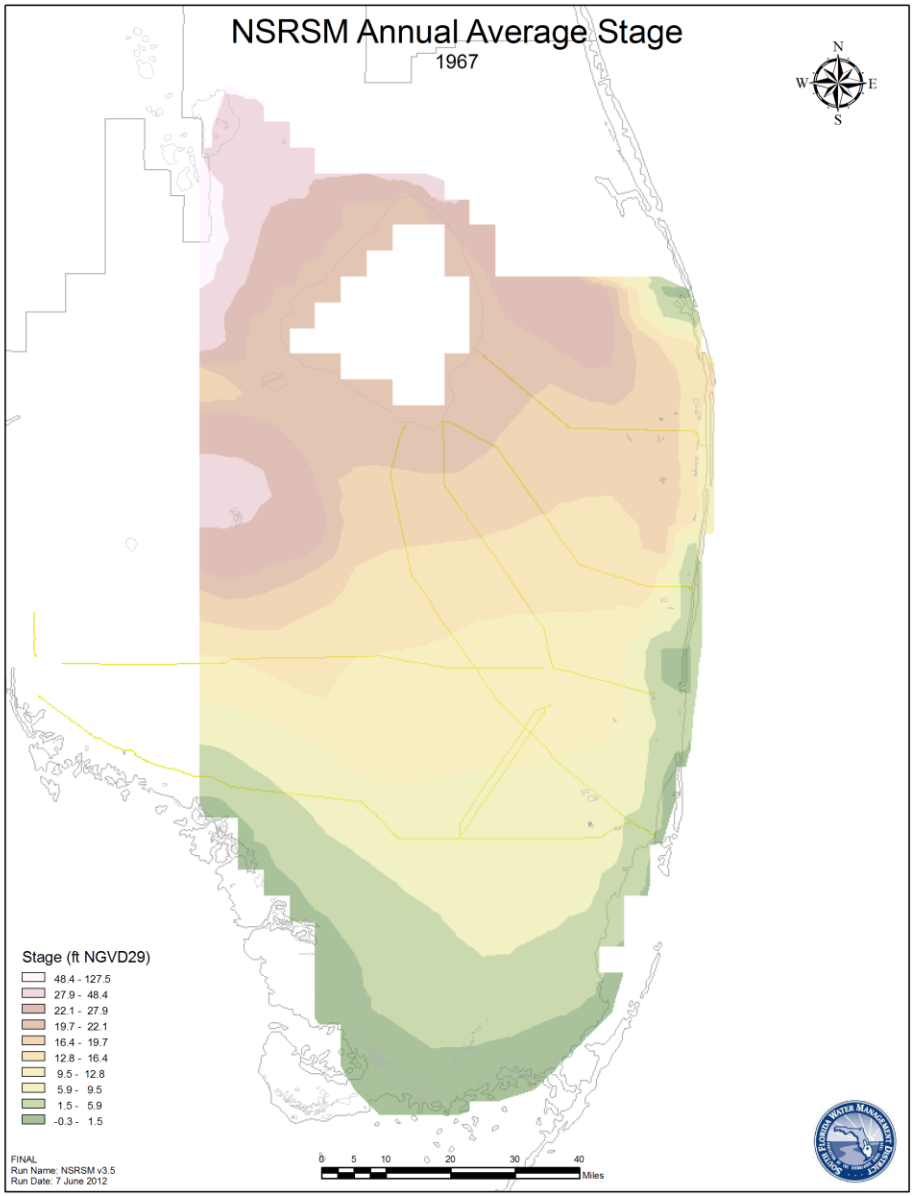
1) Differenced between present NSM v4.6.2 and NSRSM v3.3.
    a. We need to understand the differences output between v4.6.2 and NSRSM v3.3. This is essential because we have a great deal analysis work done using the older version of NSM and as (if) we transition to NSRSM, if we suddenly see analytical results change, we need to be able to understand what part of the change is associated with using a new model, as opposed to other induced changes. This should include at least water depths, flow direction, and water volume deliveries. The example given in the Jan. 19 meeting that showed water volumes around Tamiami Trail shifted westward in NSRSM compared to NSM v4.6.2 is a good example/starting point.
    b. Can the IMC provide the elevation animation that did not work during the January 19 meeting?
    c. Can similar *.avi's be created comparing other differences (such as water depth) between NSM v4.6.2 and NSRSM v3.3?
    d. How have the input data sets changed between NSM v4.6.2 and NSRSM v3.3? Did the vegetation maps change?
    e. Does the northern WCA3A appear to be wetter in NSRSM than in NSM v4.6.2?
2) NSRSM v3.3
    a. Is the NSRSM v3.3 output available for use? Please provide an ArcMap grid layer.
    b. Were the issues brought up in the peer review addressed and if so could a list of the issues and how they were resolved be provided?
3) The SFWMD has expressed a desire to terminate the 2x2 version of the NSM at v4.6.2 while updating the 2X2 model to v7.0. With the SFWMM 2X2 7.0 using updates and a different time period than NSM v.4.6.2 and the SFWMD's preferred successor to NSM v4.6.2 (NSRSM) being a different model/grid compared to the 2X2 v7.0, how can output from the 2X2 v7.0 be compared to any version of NSM? Was it decided that the 2X2 v7.0 would not be used in conjunction with a NSM? Would it be worthwhile to update NSM v4.6.2 to match the 2X2 v7.0?
4) When will NSRSM v3.4 be available for review and what kind of documentation can we expect with it?

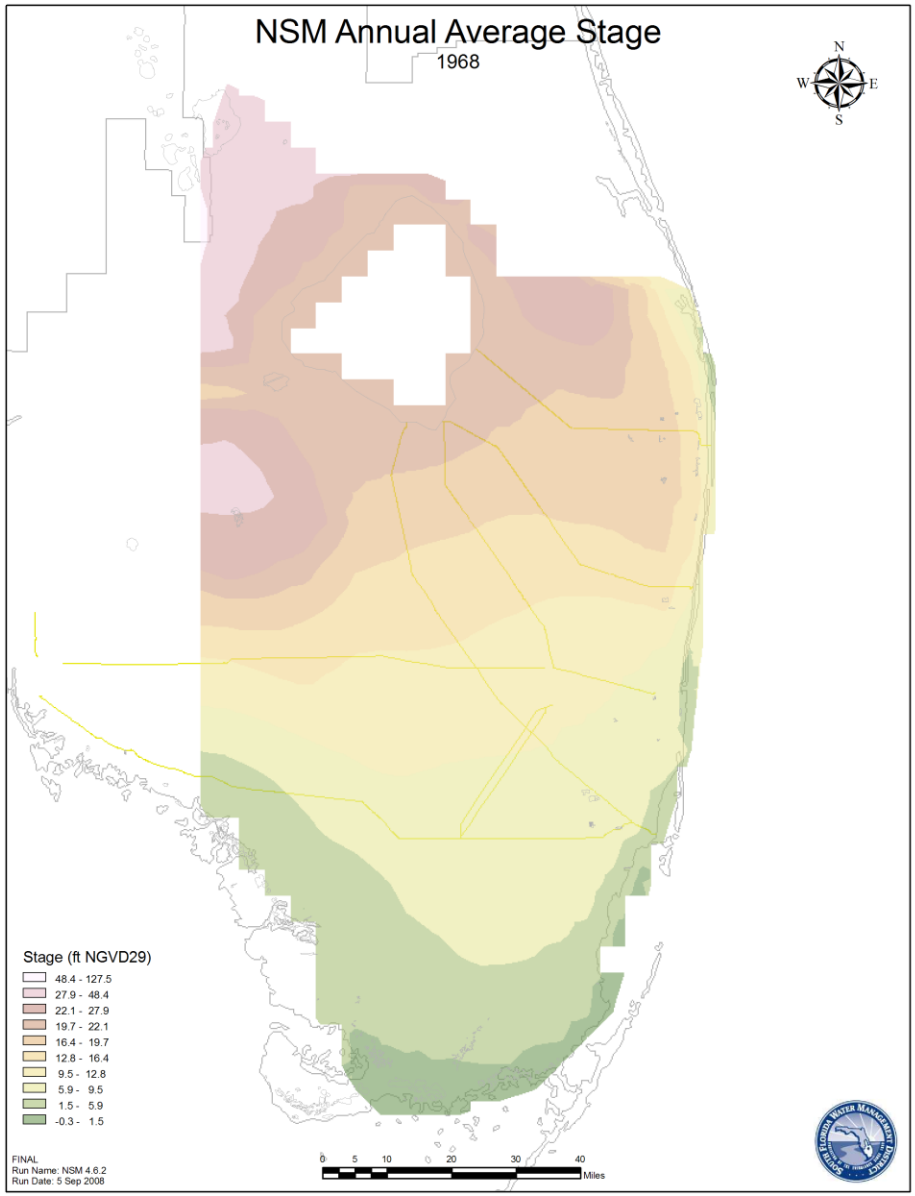
Appendix B
Comparison of Annual Average Stage (1966-2005)


NSM Annual Average Stage
1966
N
W
E
S
Stage (ft NGVD29)
48.4 - 127.5
27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
1.5 - 5.9
-0.3 - 1.5
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles


NSRSM Annual Average Stage
1966
N
W
E
S
Stage (ft NGVD29)
48.4 - 127.5
27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
1.5 - 5.9
-0.3 - 1.5
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles


NSM Annual Average Stage
1967
N
W
E
S
Stage (ft NGVD29)
48.4 - 127.5
27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
1.5 - 5.9
-0.3 - 1.5
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles


NSRSM Annual Average Stage
1967
N
W
E
S
Stage (ft NGVD29)
48.4 - 127.5
27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
1.5 - 5.9
-0.3 - 1.5
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles


NSM Annual Average Stage
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N
W
E
S
Stage (ft NGVD29)
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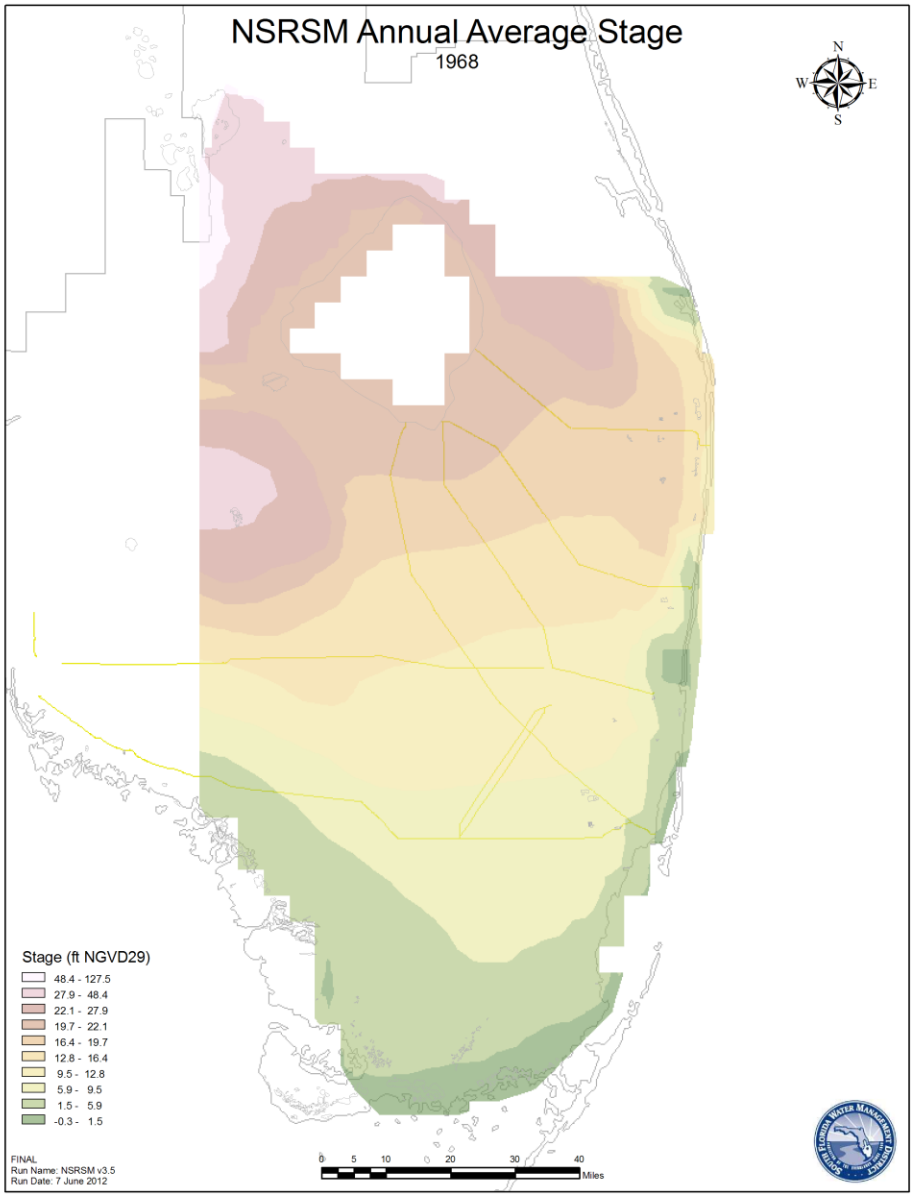
27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
1.5 - 5.9
-0.3 - 1.5
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles


NSRSM Annual Average Stage
1968
N
W
E
S
Stage (ft NGVD29)
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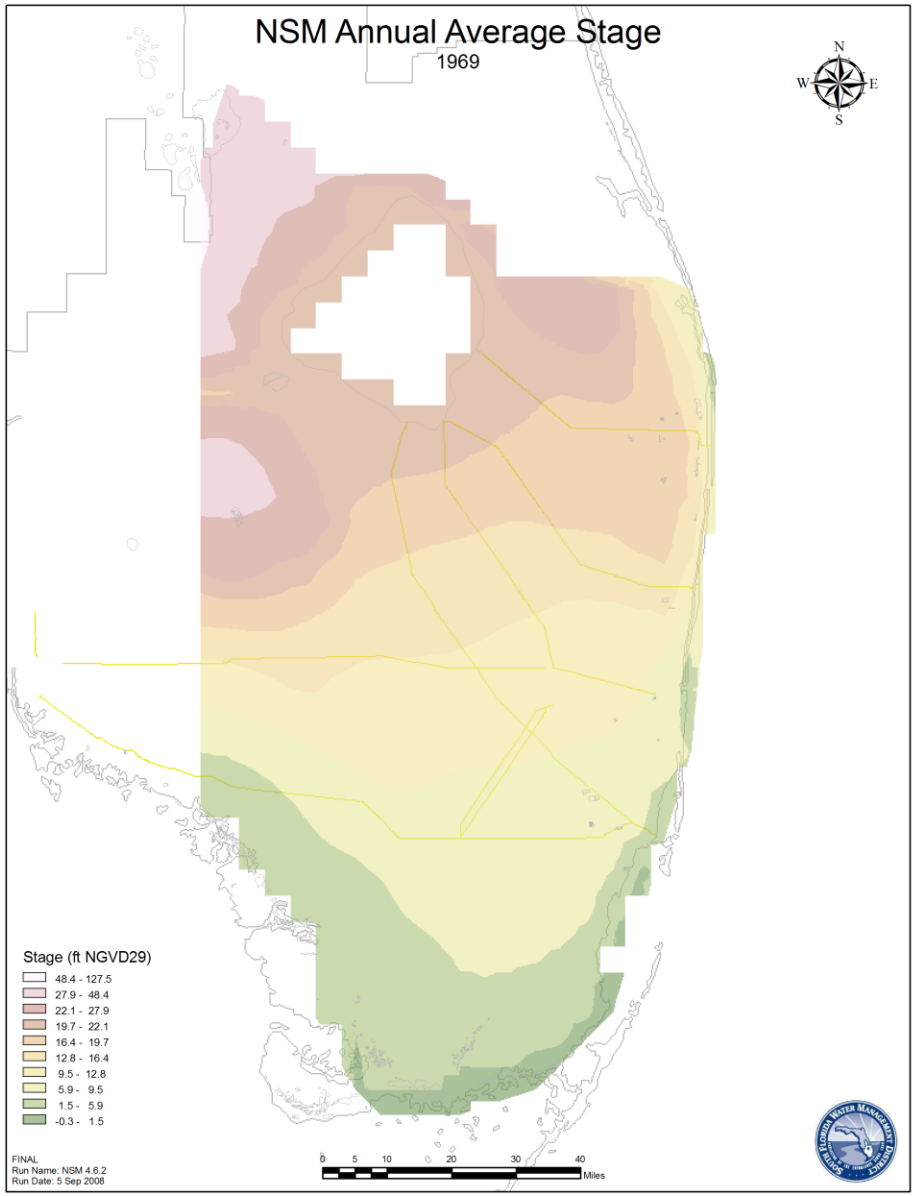
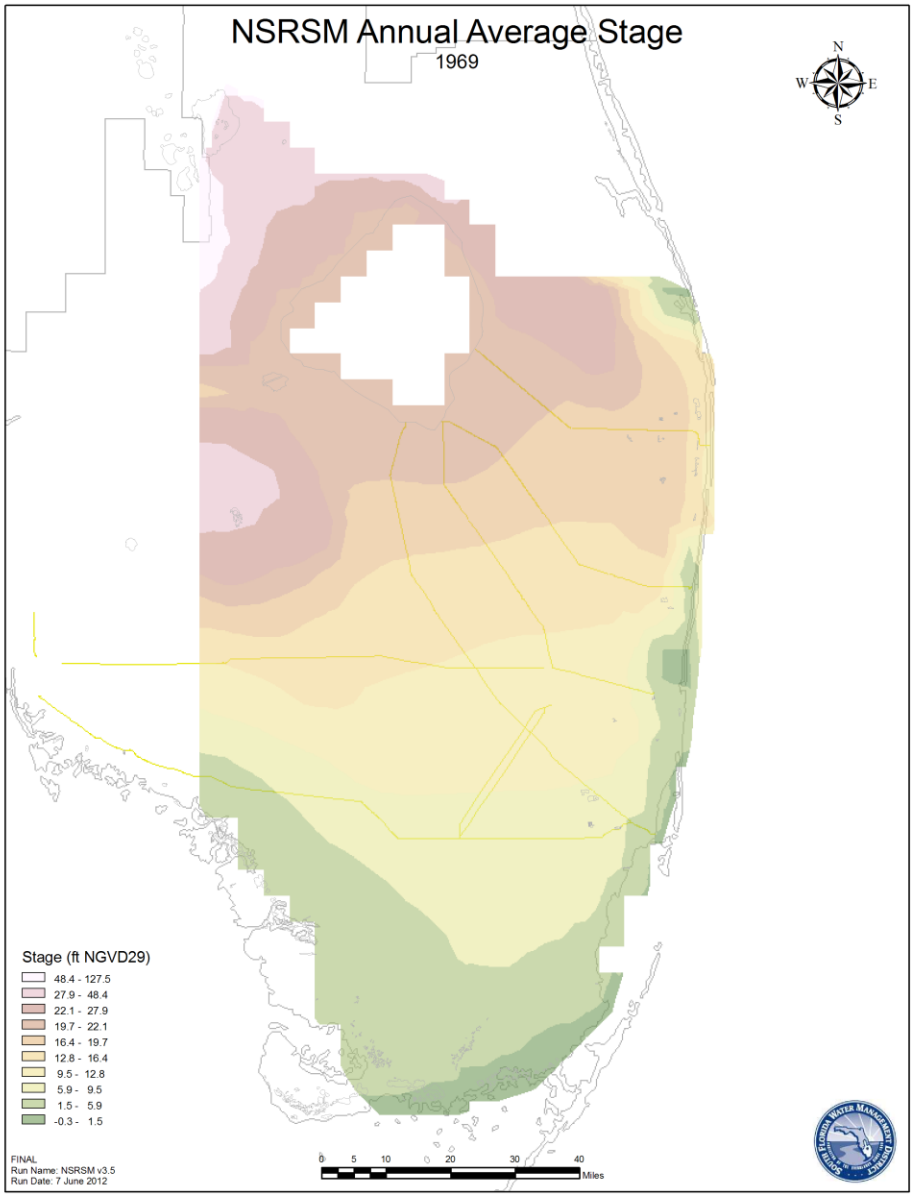
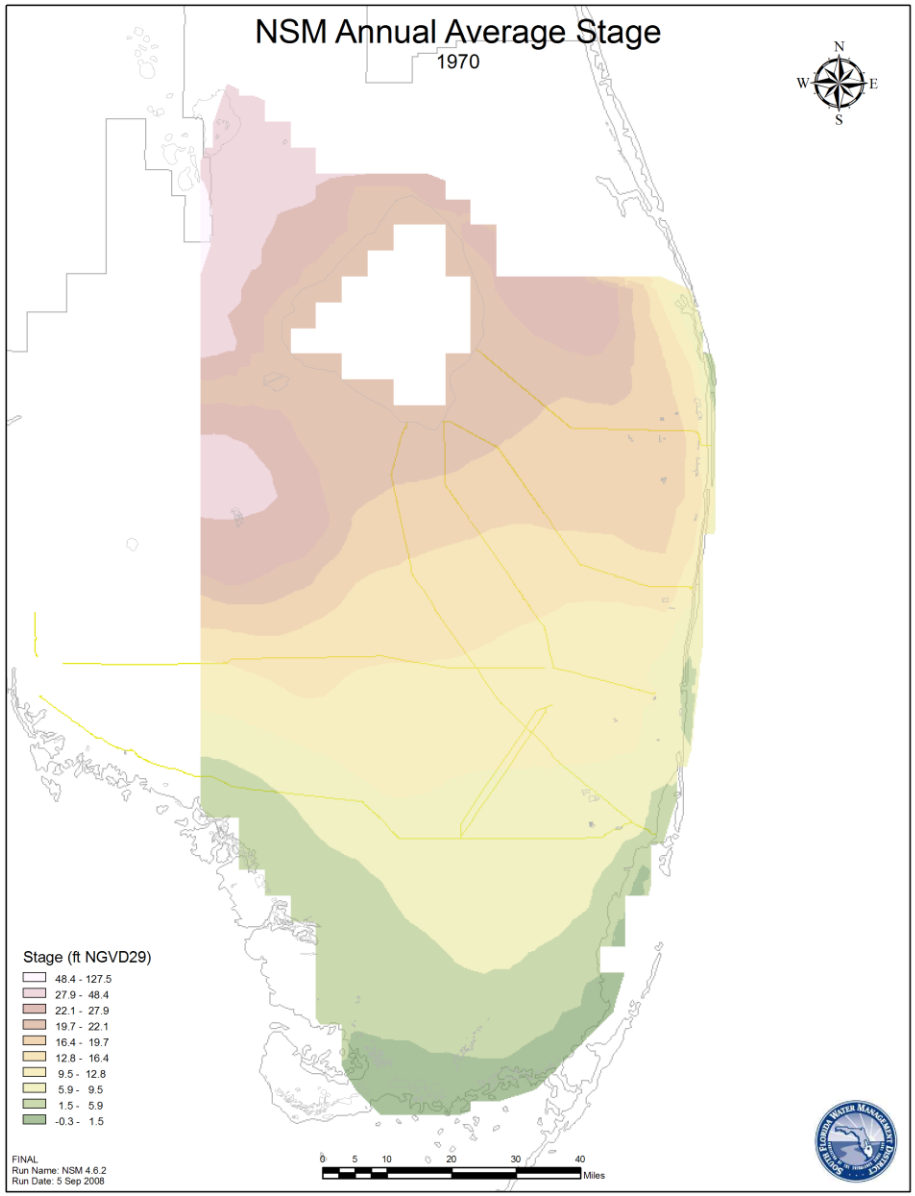
27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
1.5 - 5.9
-0.3 - 1.5
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles


NSM Annual Average Stage
1969
N
W
E
S
Stage (ft NGVD29)
48.4 - 127.5
27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
1.5 - 5.9
-0.3 - 1.5
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles


NSRSM Annual Average Stage
1969
N
W
E
S
Stage (ft NGVD29)
48.4 - 127.5
27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
1.5 - 5.9
-0.3 - 1.5
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles


NSM Annual Average Stage
1970
N
W
E
S
Stage (ft NGVD29)
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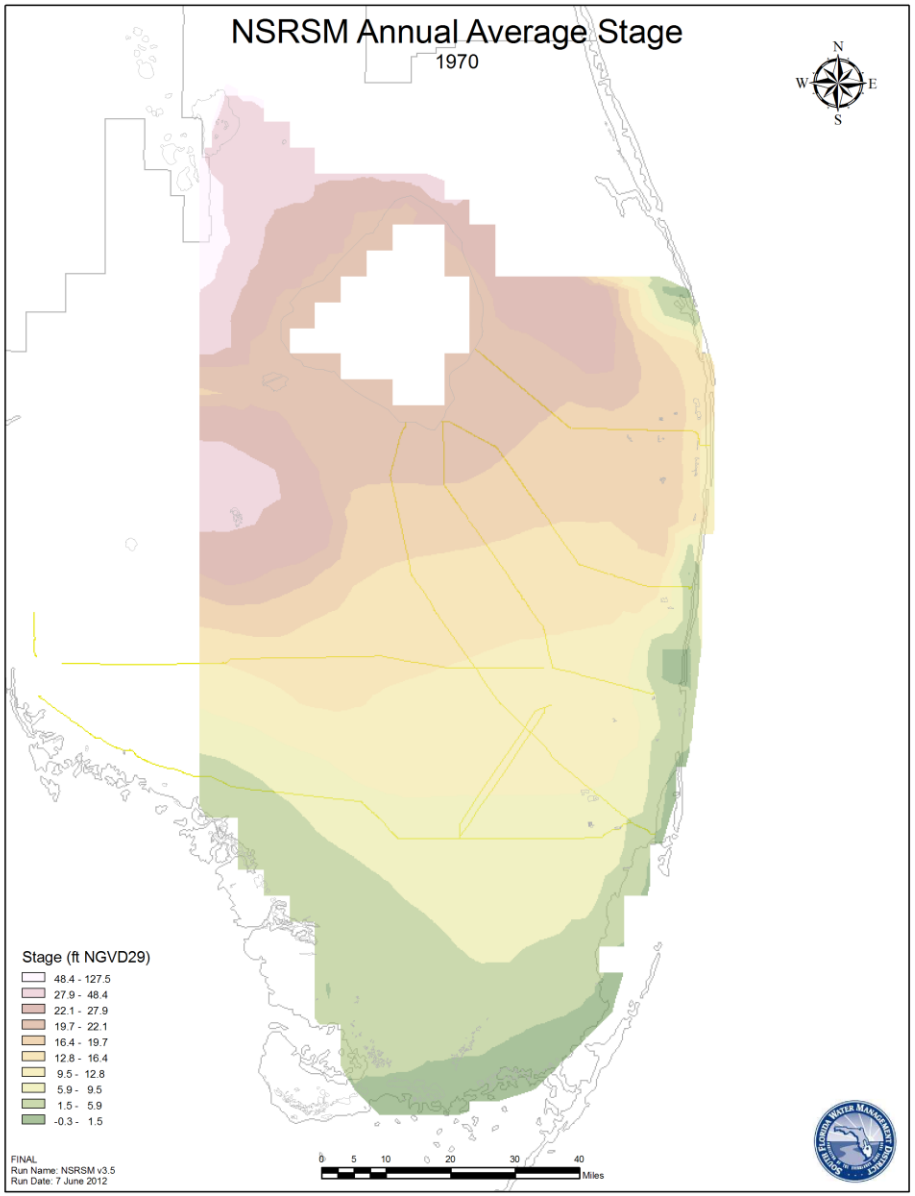
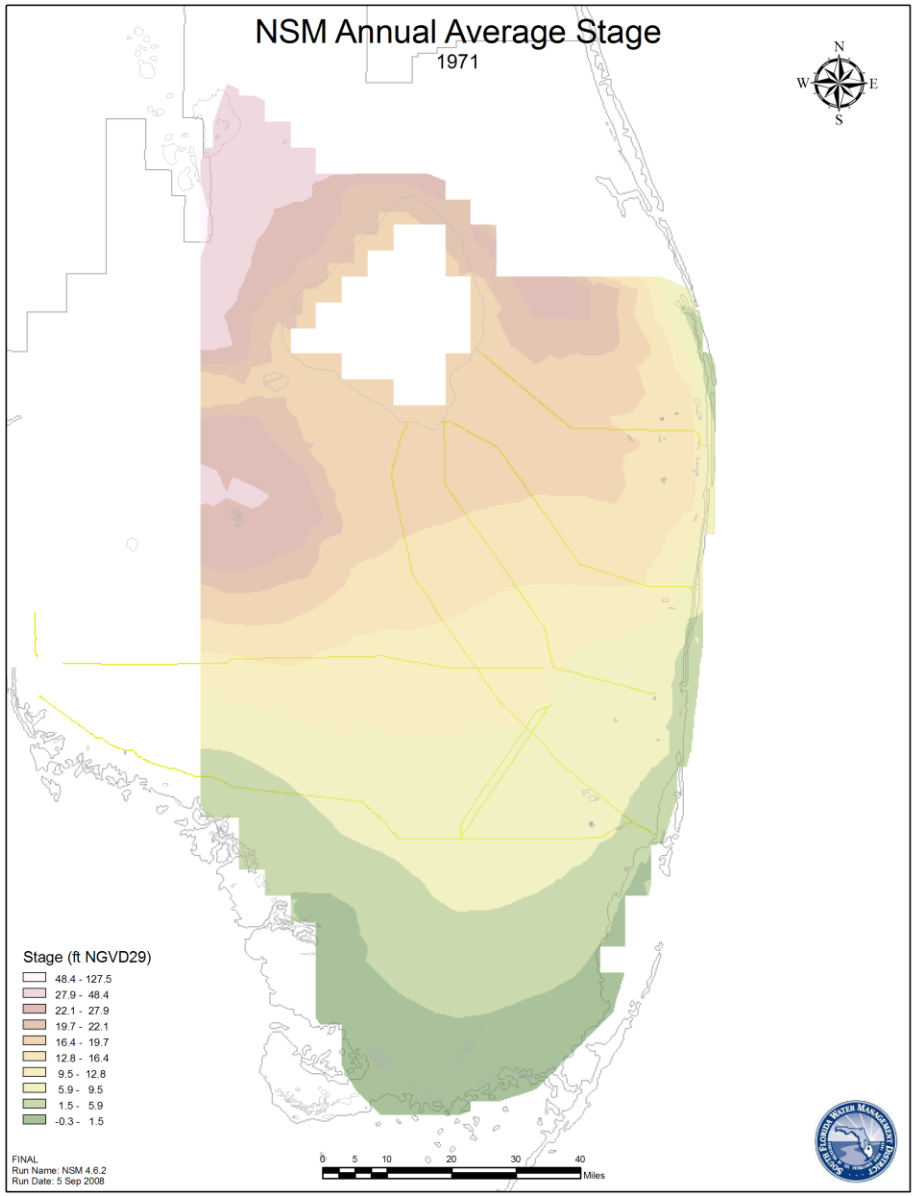
27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
1.5 - 5.9
-0.3 - 1.5
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles


NSRSM Annual Average Stage
1970
N
W
E
S
Stage (ft NGVD29)
48.4 - 127.5
27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
1.5 - 5.9
-0.3 - 1.5
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles


NSM Annual Average Stage
1971
N
W
E
S
Stage (ft NGVD29)
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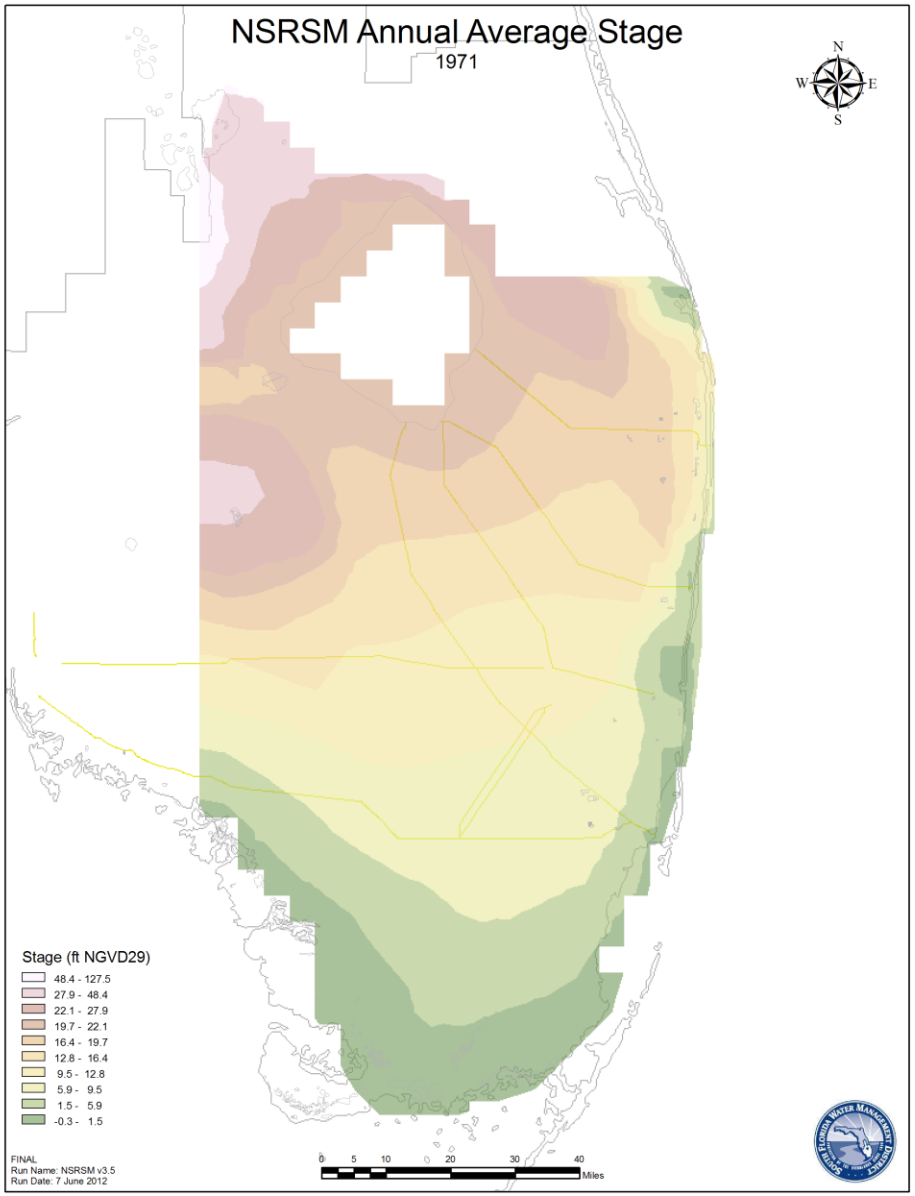
27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
1.5 - 5.9
-0.3 - 1.5
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles


NSRSM Annual Average Stage
1971
N
W
E
S
Stage (ft NGVD29)
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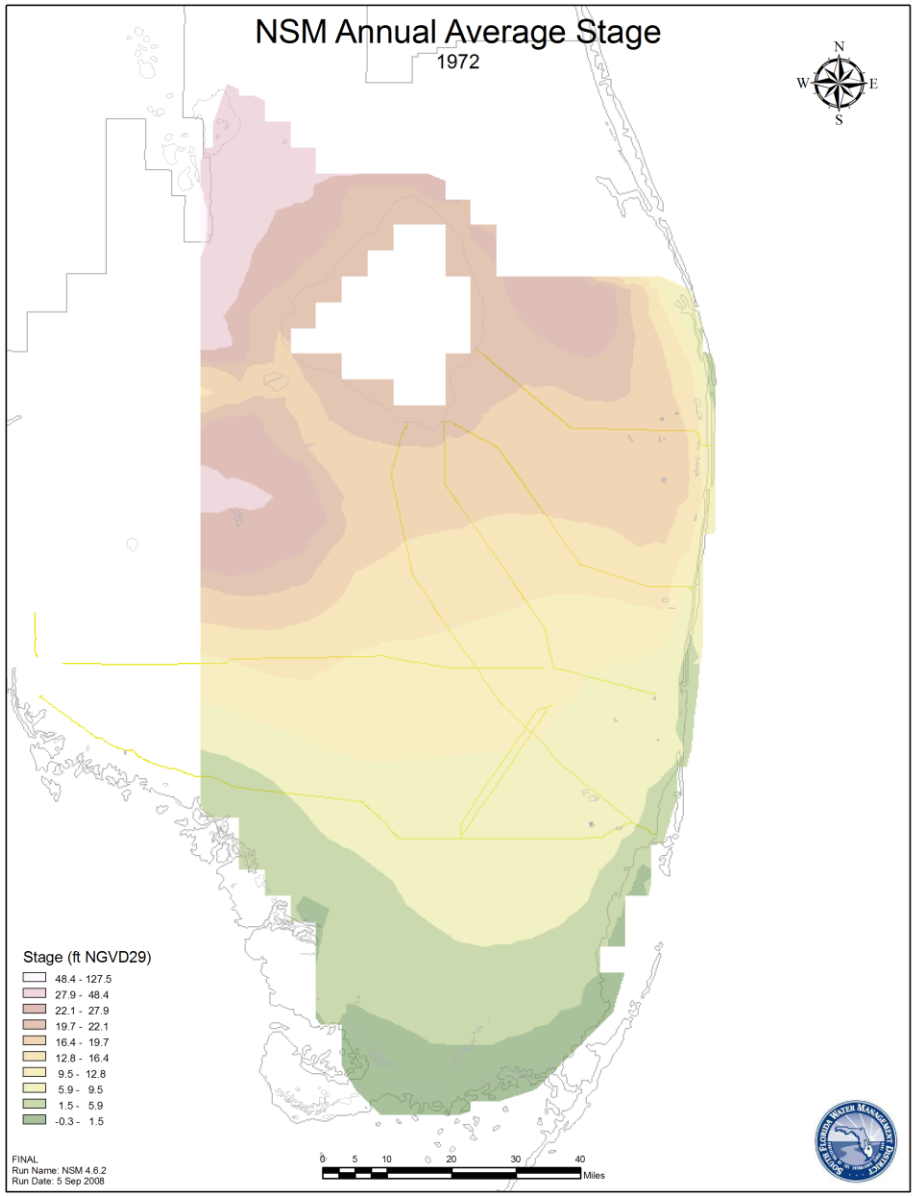
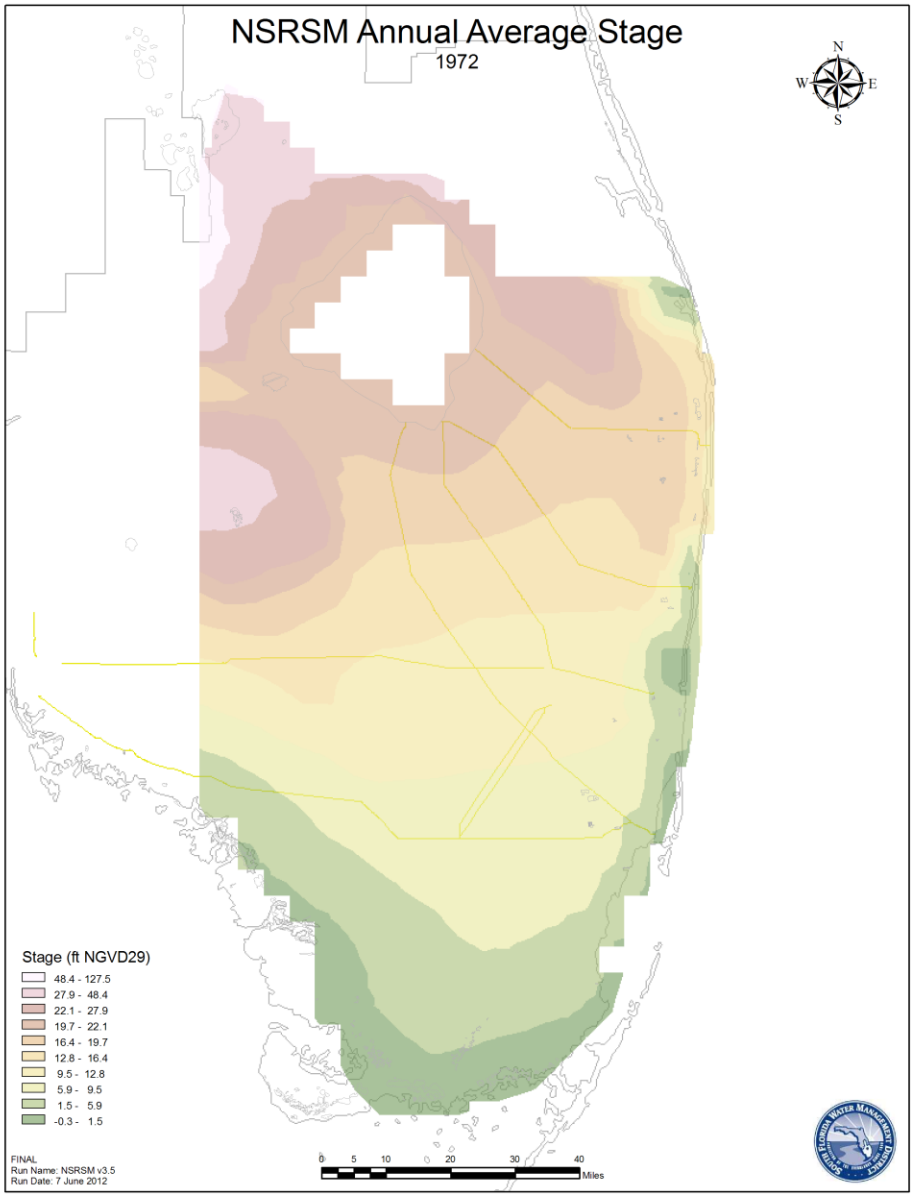
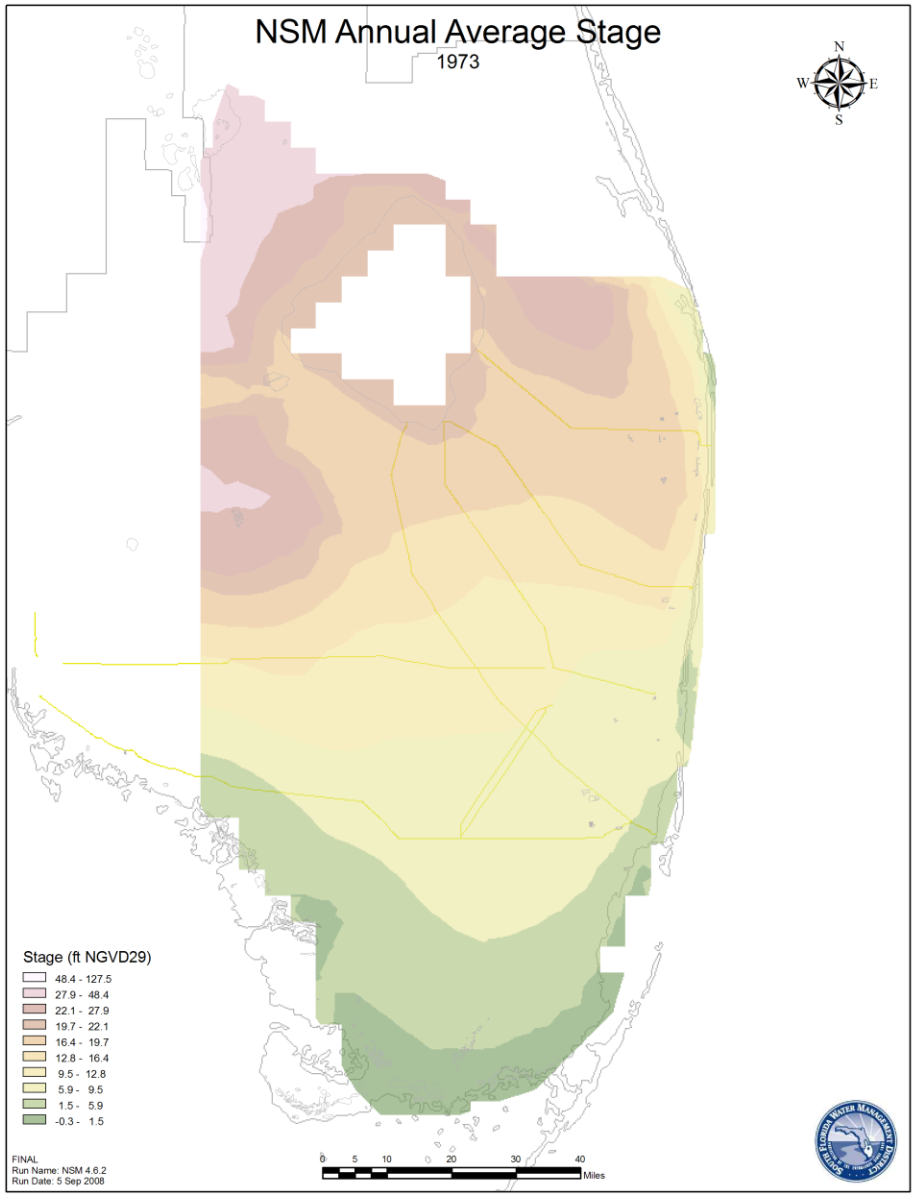
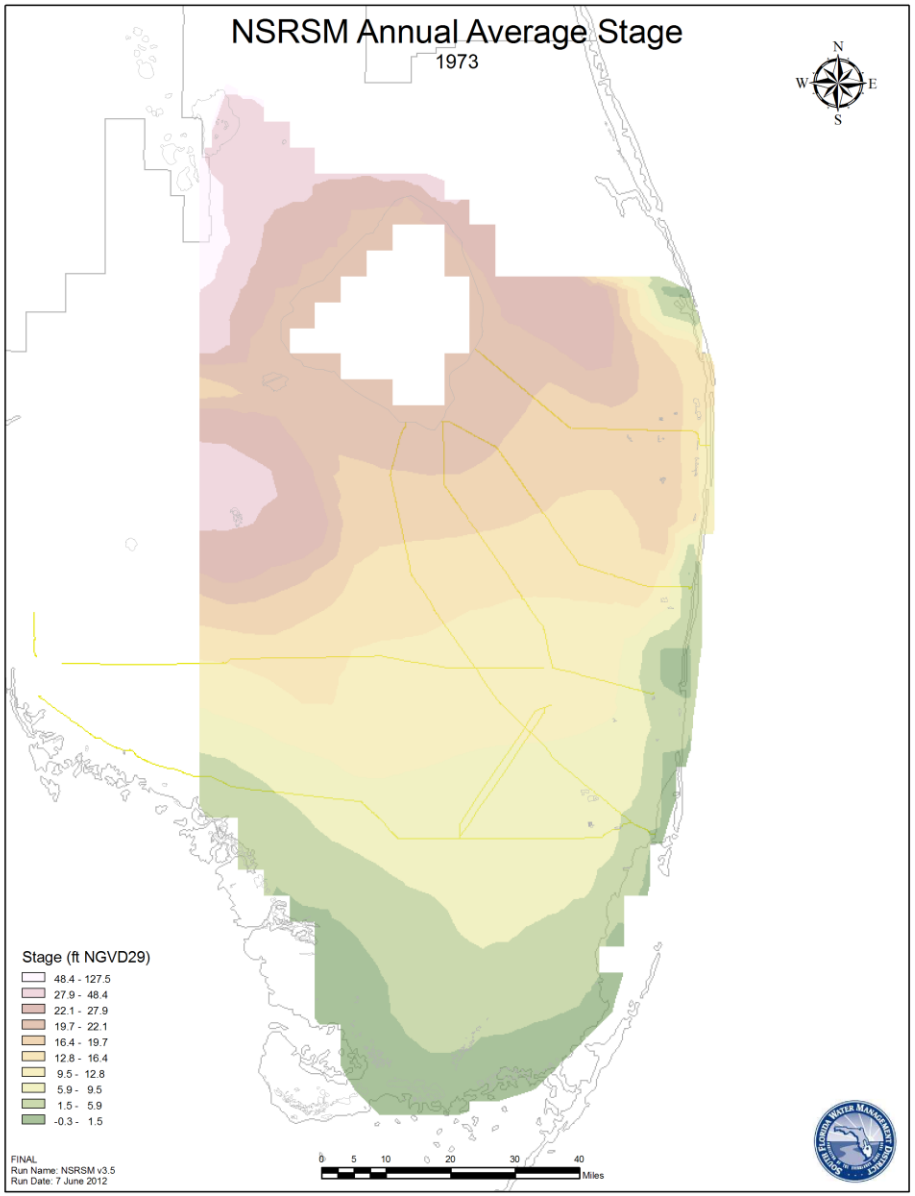
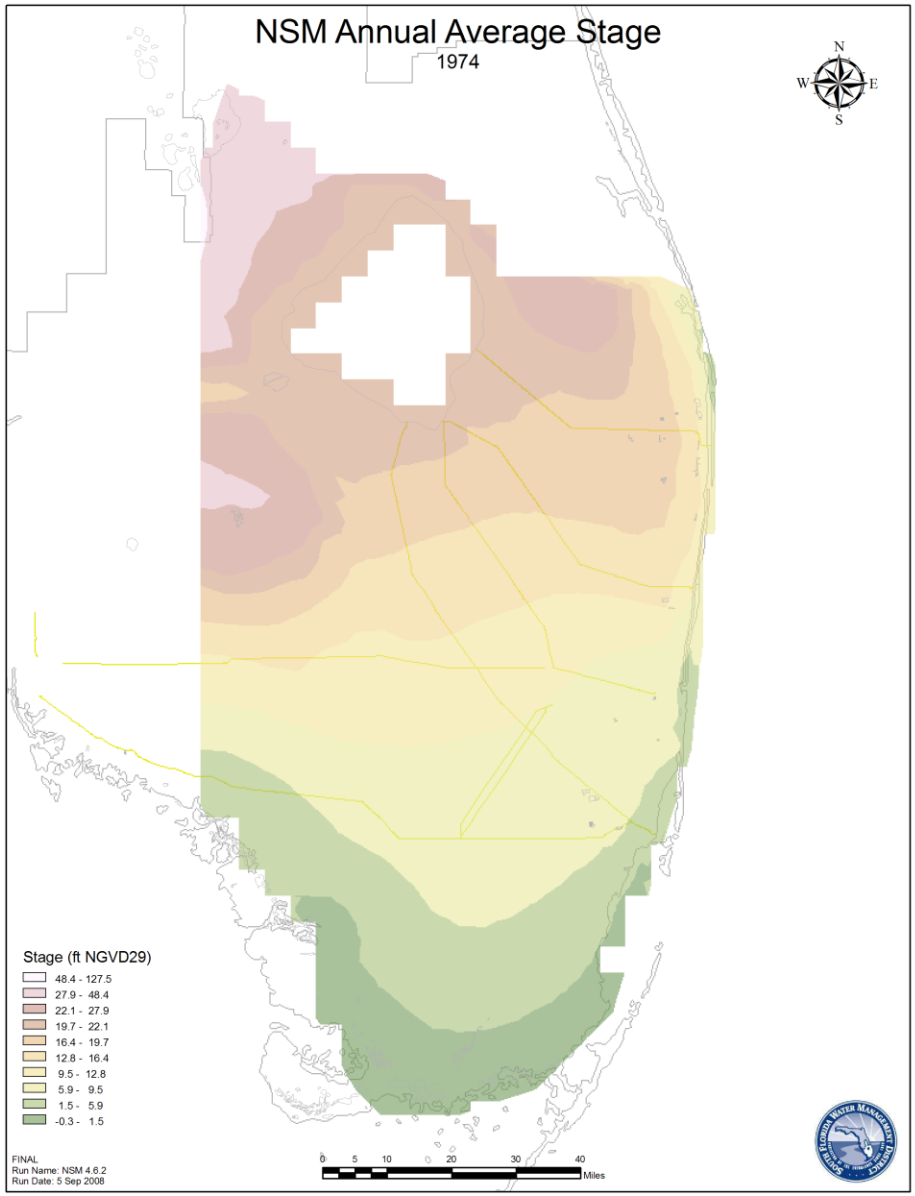
27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
1.5 - 5.9
-0.3 - 1.5
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

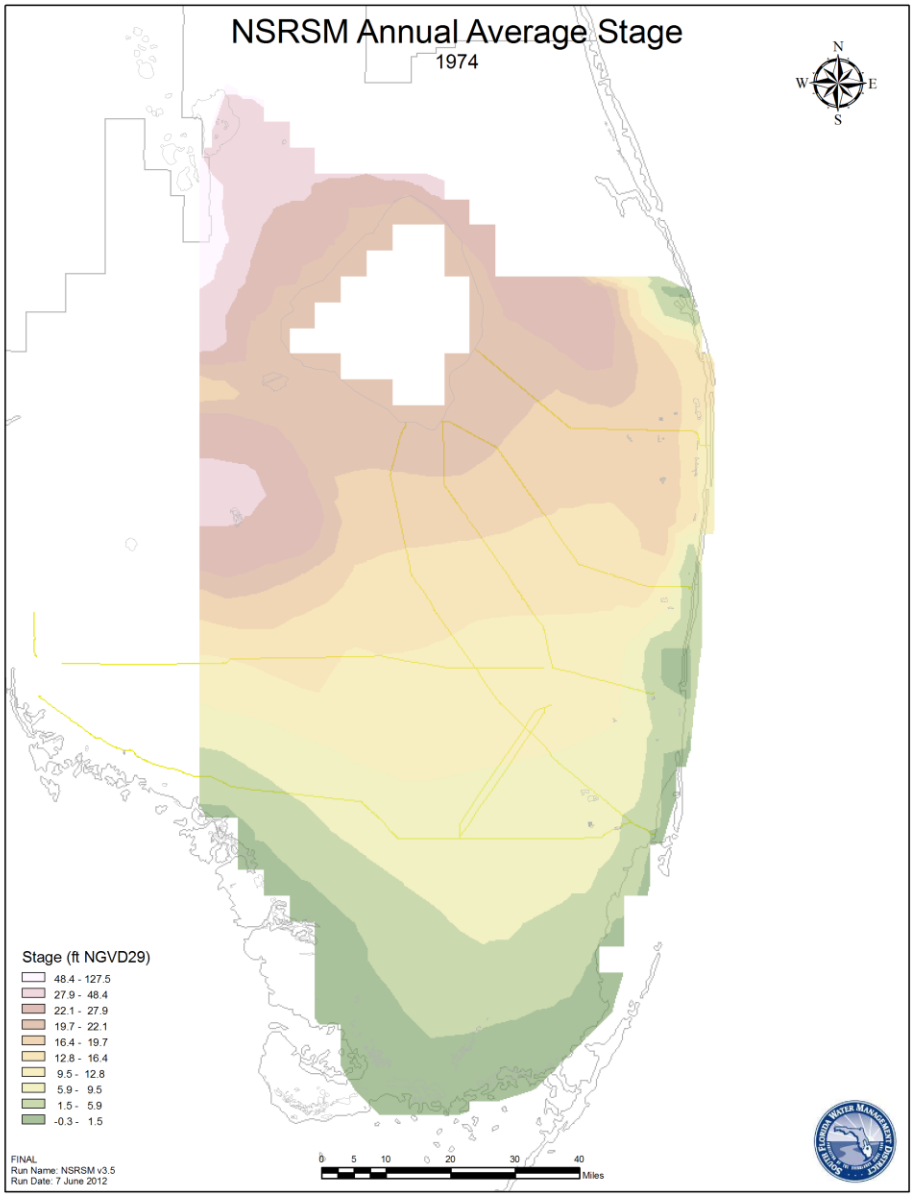

NSM Annual Average Stage
1972
N
W
E
S
Stage (ft NGVD29)
48.4 - 127.5
27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
1.5 - 5.9
-0.3 - 1.5
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

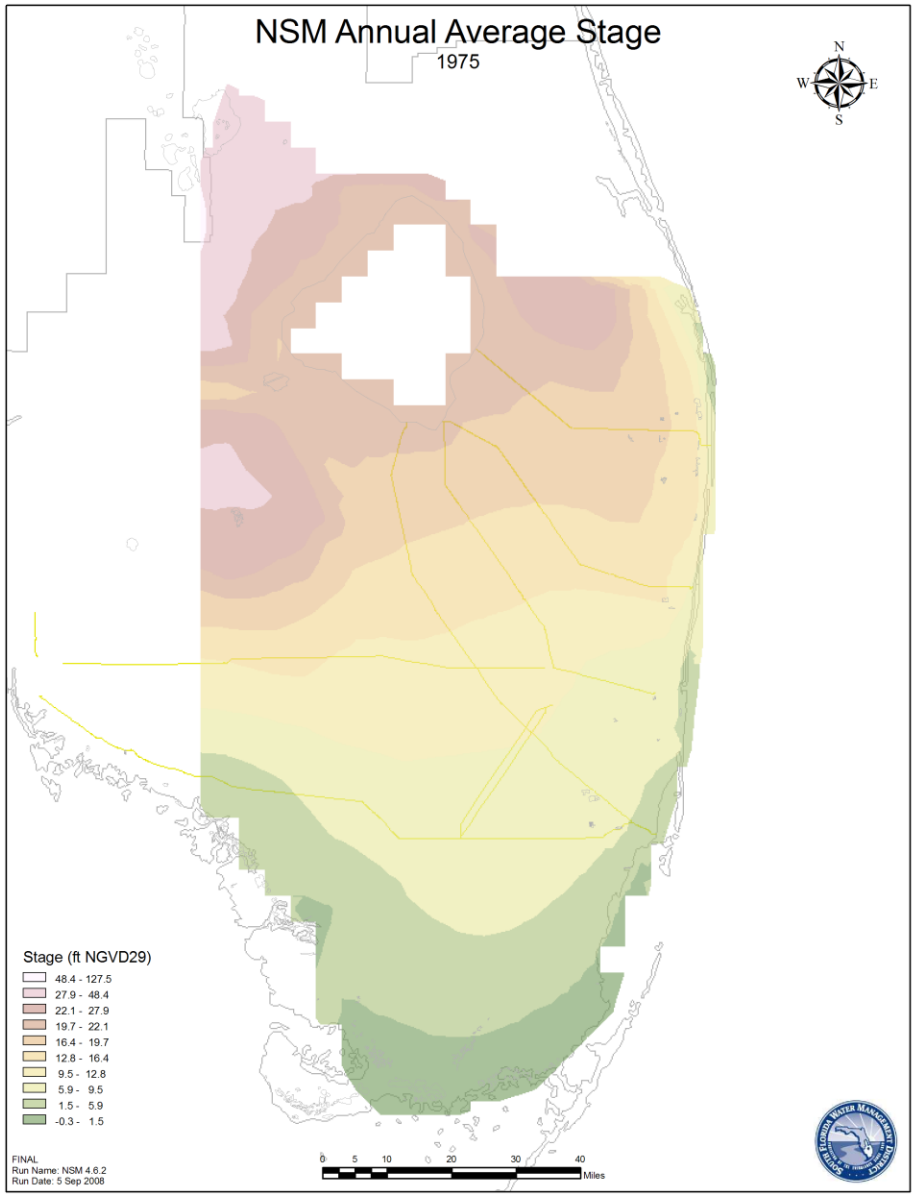

NSRSM Annual Average Stage
1972
N
W
E
S
Stage (ft NGVD29)
48.4 - 127.5
27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
1.5 - 5.9
-0.3 - 1.5
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

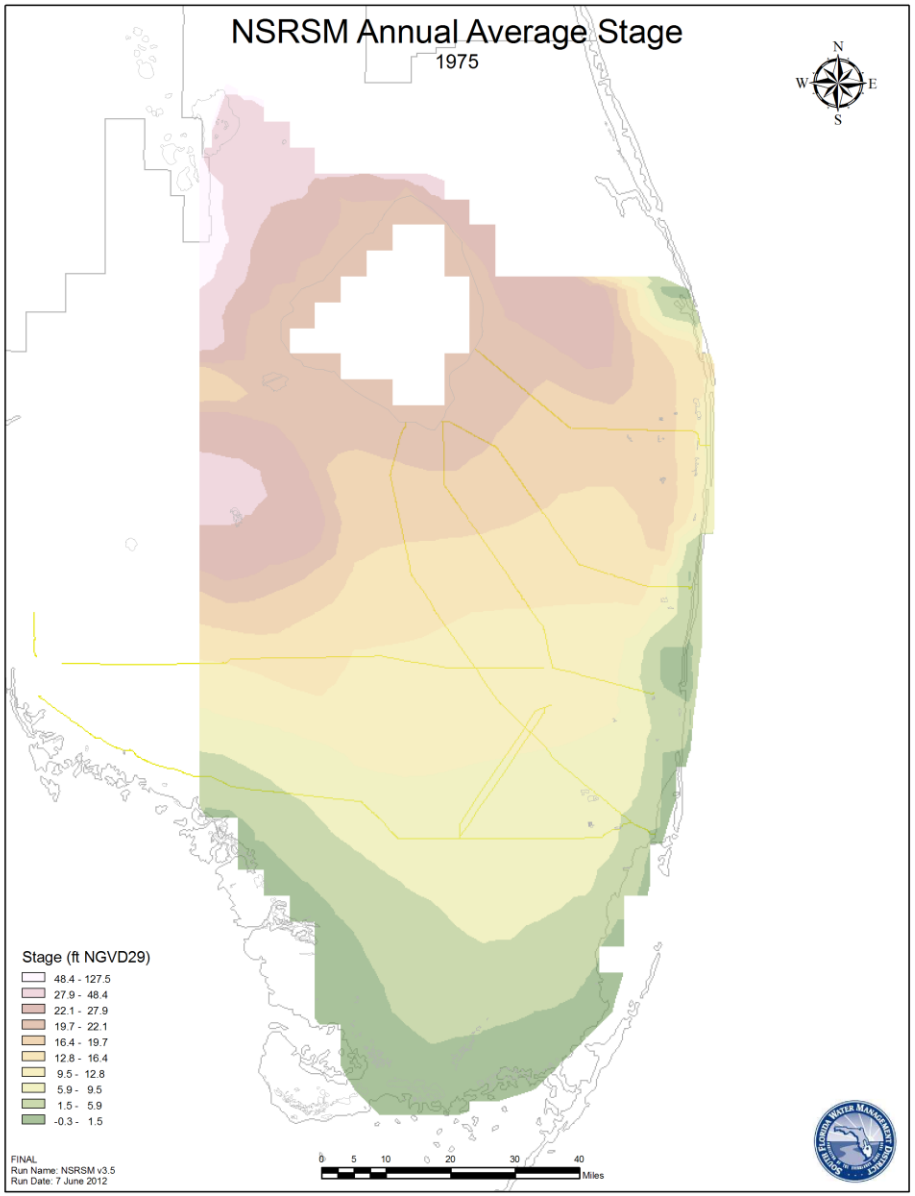

NSM Annual Average Stage
1973
N
W
E
S
Stage (ft NGVD29)
48.4 - 127.5
27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
1.5 - 5.9
-0.3 - 1.5
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles


NSRSM Annual Average Stage
1973
N
W
E
S
Stage (ft NGVD29)
48.4 - 127.5
27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
1.5 - 5.9
-0.3 - 1.5
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles


NSM Annual Average Stage
1974
N
W
E
S
Stage (ft NGVD29)
48.4 - 127.5
27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
1.5 - 5.9
-0.3 - 1.5
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles


NSRSM Annual Average Stage
1974
N
W
E
S
Stage (ft NGVD29)
48.4 - 127.5
27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
1.5 - 5.9
-0.3 - 1.5
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles


NSM Annual Average Stage
1975
N
W
E
S
Stage (ft NGVD29)
48.4 - 127.5
27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
1.5 - 5.9
-0.3 - 1.5
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles


NSRSM Annual Average Stage
1975
N
W
E
S
Stage (ft NGVD29)
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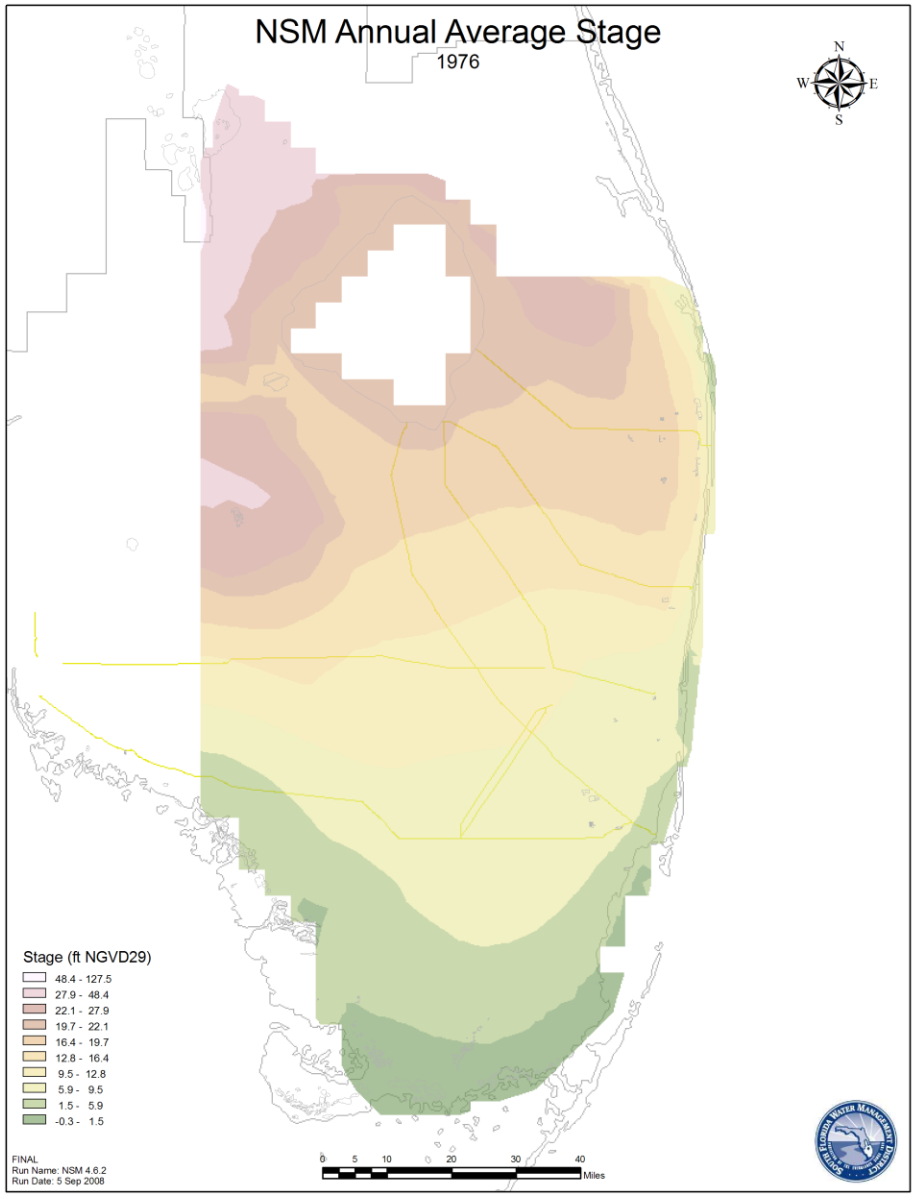
27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
1.5 - 5.9
-0.3 - 1.5
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles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N
W
E
S
Stage (ft NGVD29)
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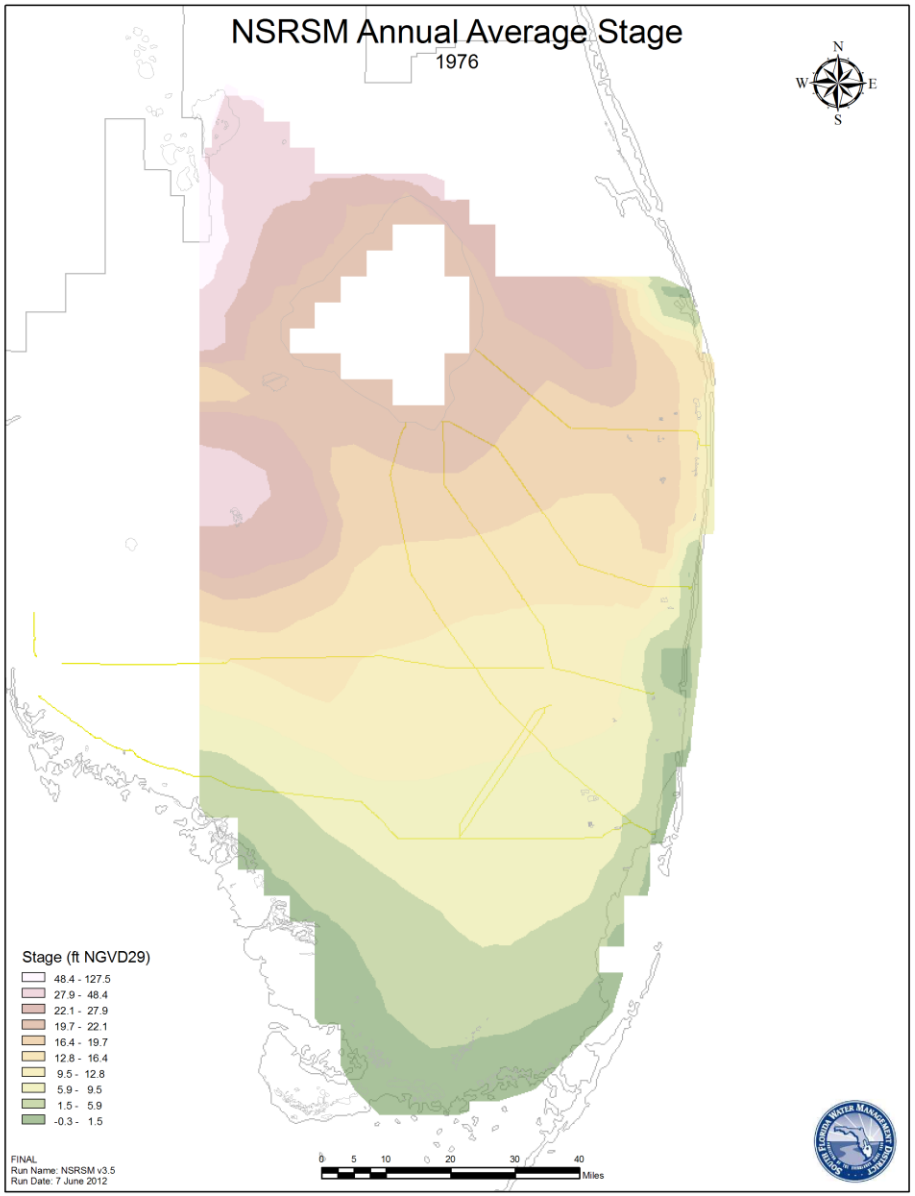
27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
1.5 - 5.9
-0.3 - 1.5
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles


NSRSM Annual Average Stage
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N
W
E
S
Stage (ft NGVD29)
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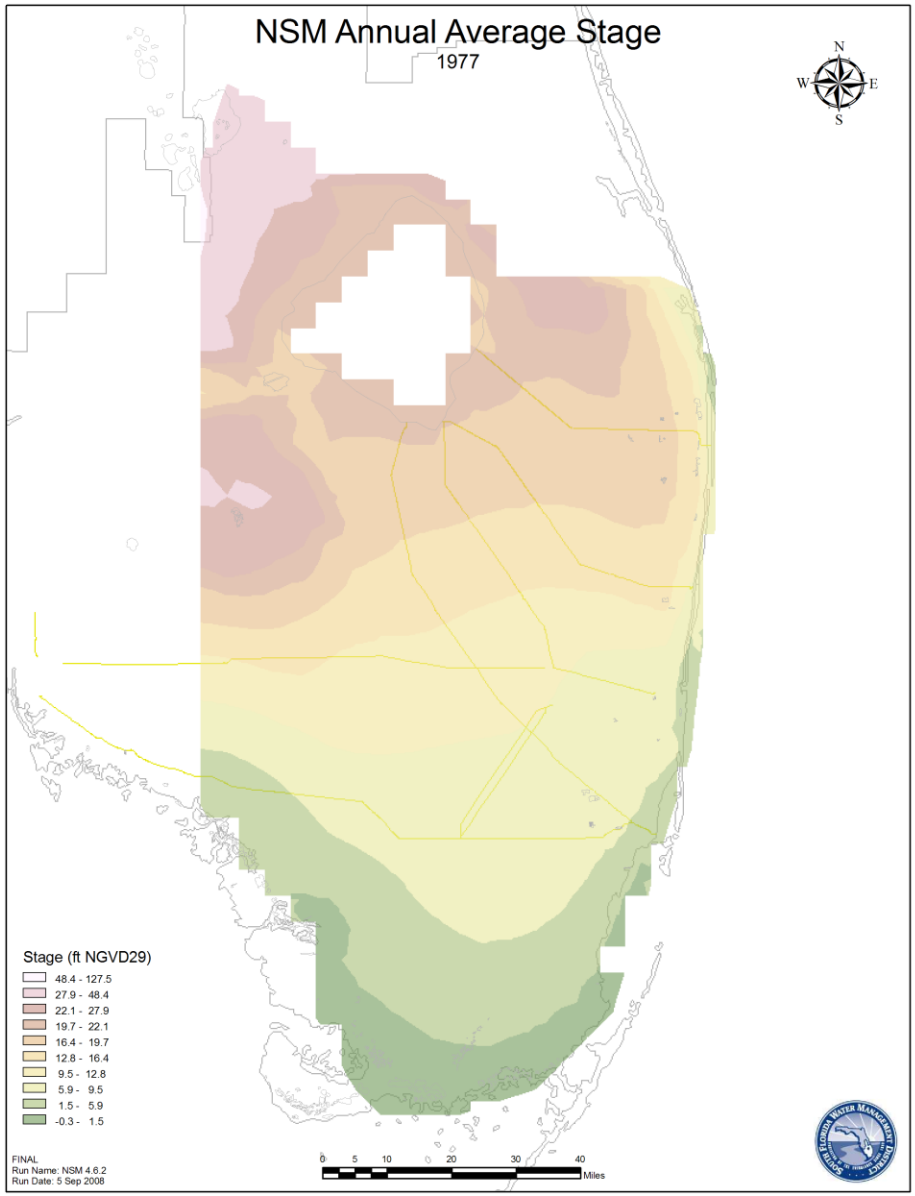
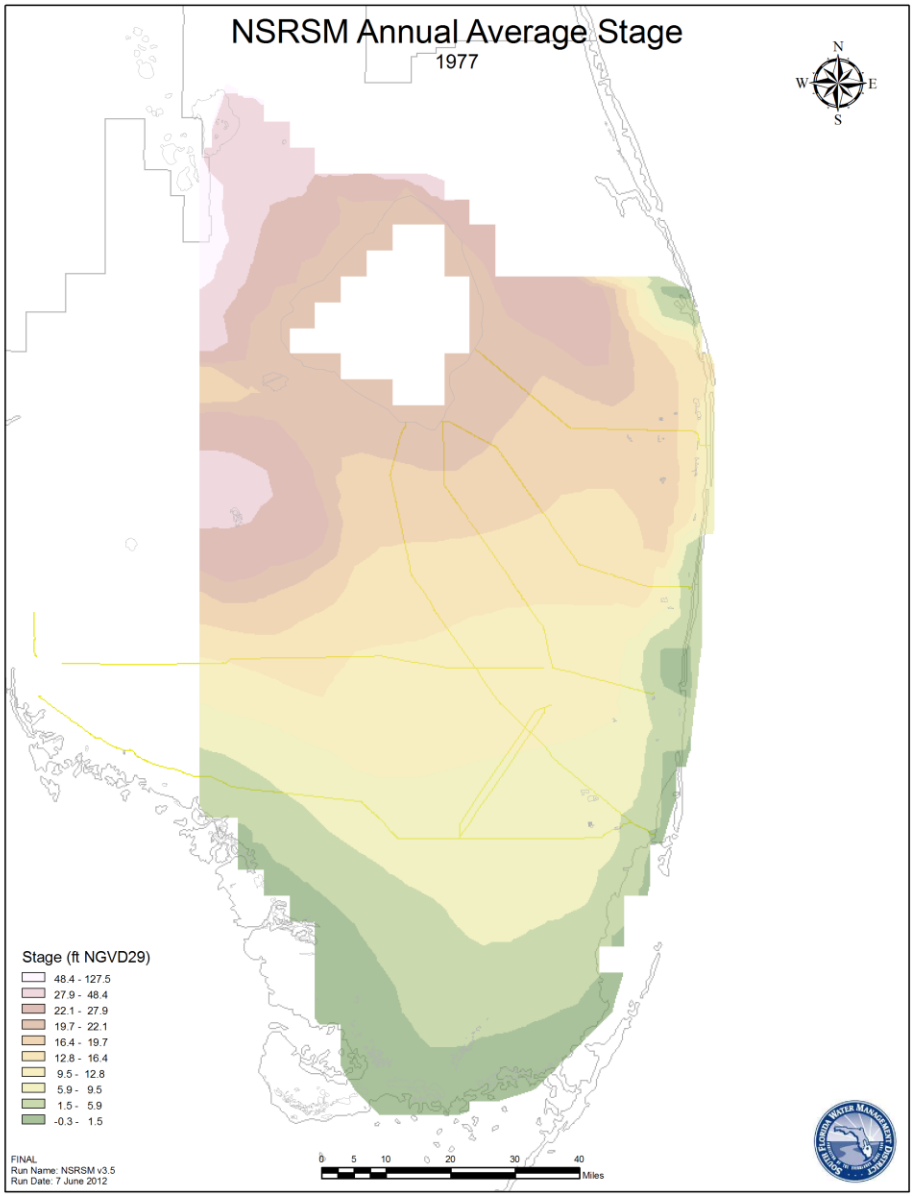
27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
1.5 - 5.9
-0.3 - 1.5
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles


NSM Annual Average Stage
1977
N
W
E
S
Stage (ft NGVD29)
48.4 - 127.5
27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
1.5 - 5.9
-0.3 - 1.5
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles


NSRSM Annual Average Stage
1977
N
W
E
S
Stage (ft NGVD29)
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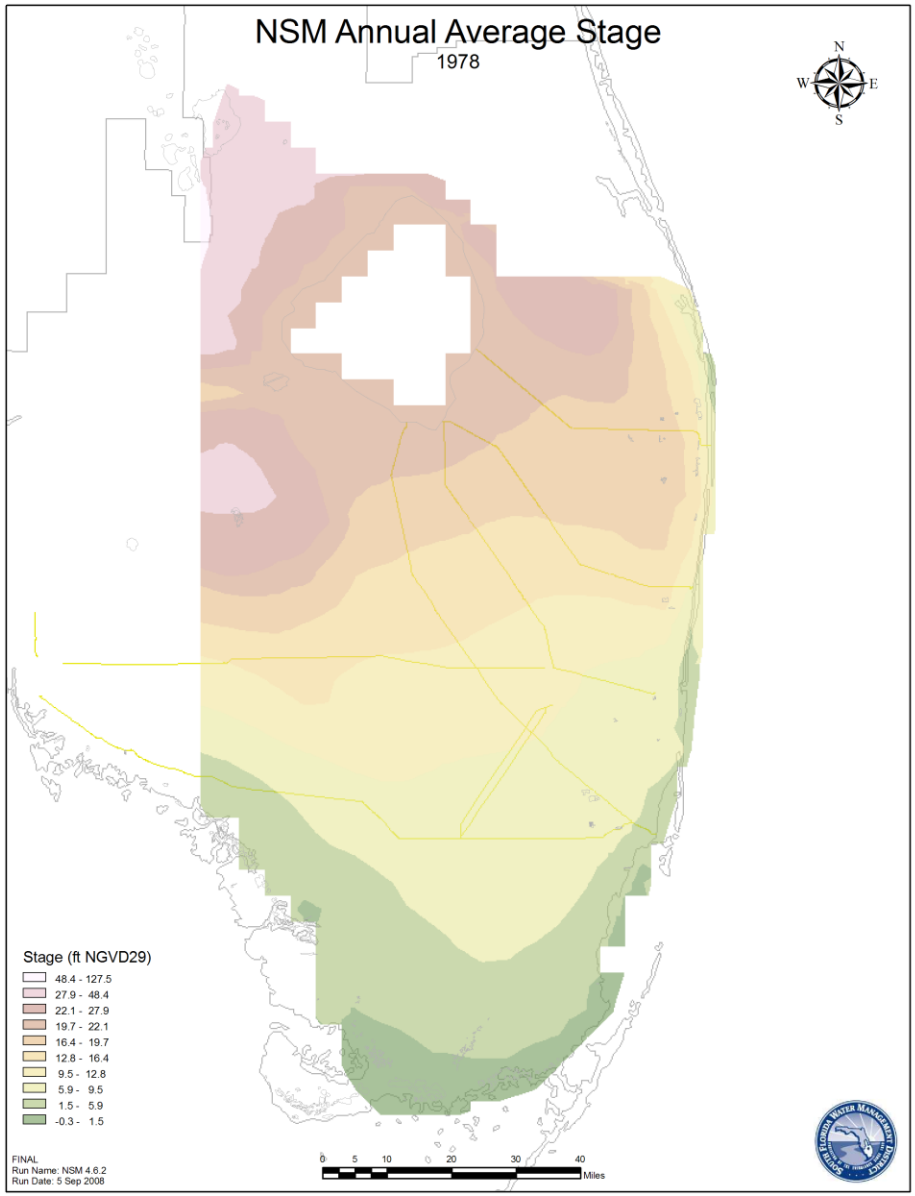
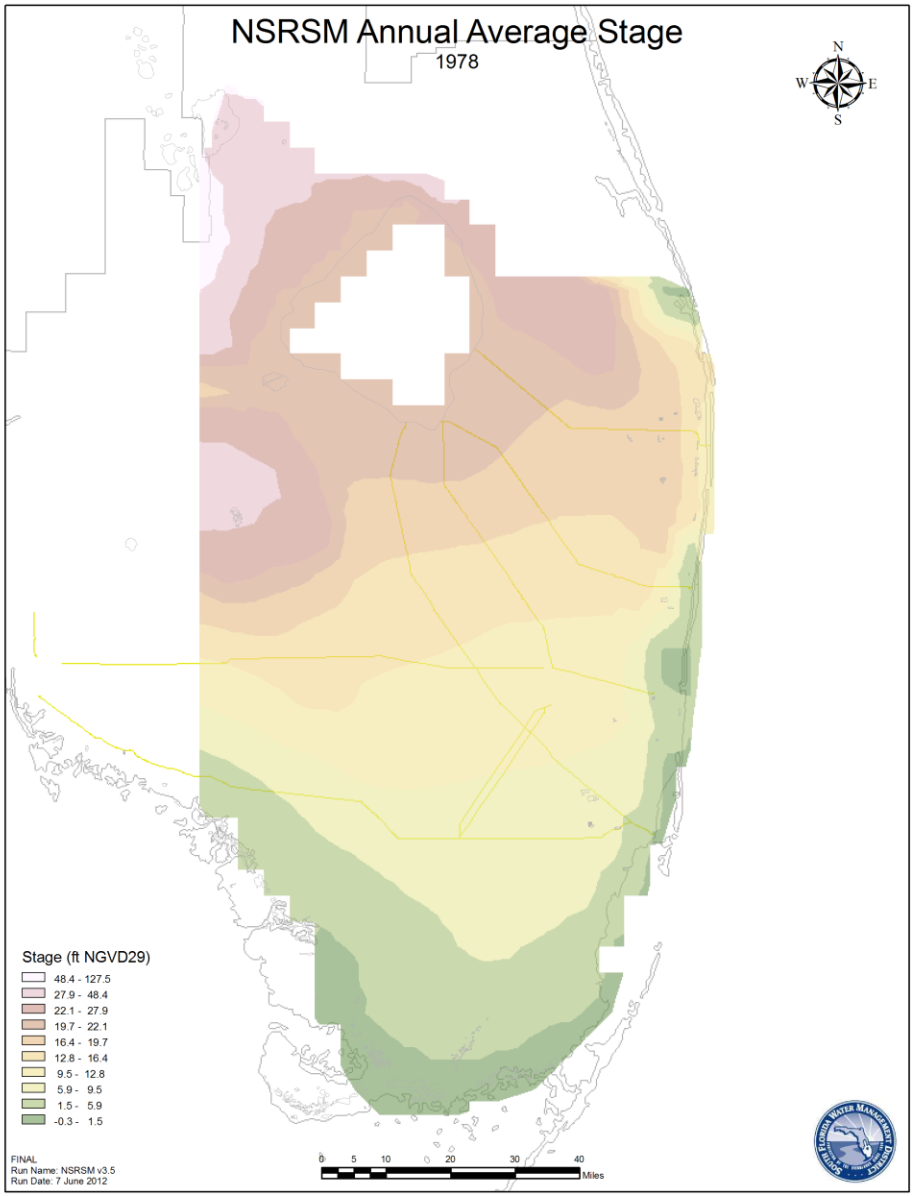
27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
1.5 - 5.9
-0.3 - 1.5
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles


NSM Annual Average Stage
1978
N
W
E
S
Stage (ft NGVD29)
48.4 - 127.5
27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
1.5 - 5.9
-0.3 - 1.5
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles


NSRSM Annual Average Stage
1978
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W
E
S
Stage (ft NGVD29)
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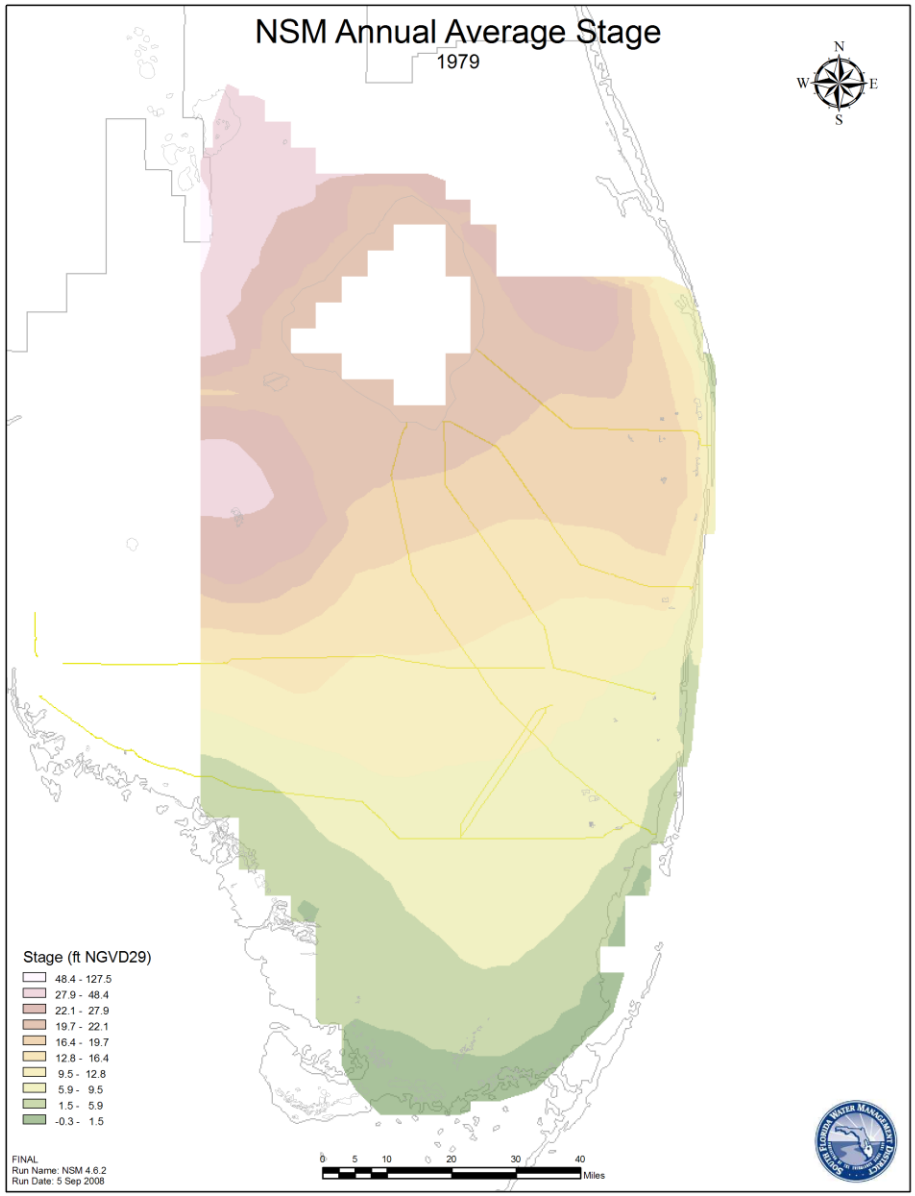
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
1.5 - 5.9
-0.3 - 1.5
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles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1979
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W
E
S
Stage (ft NGVD29)
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27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
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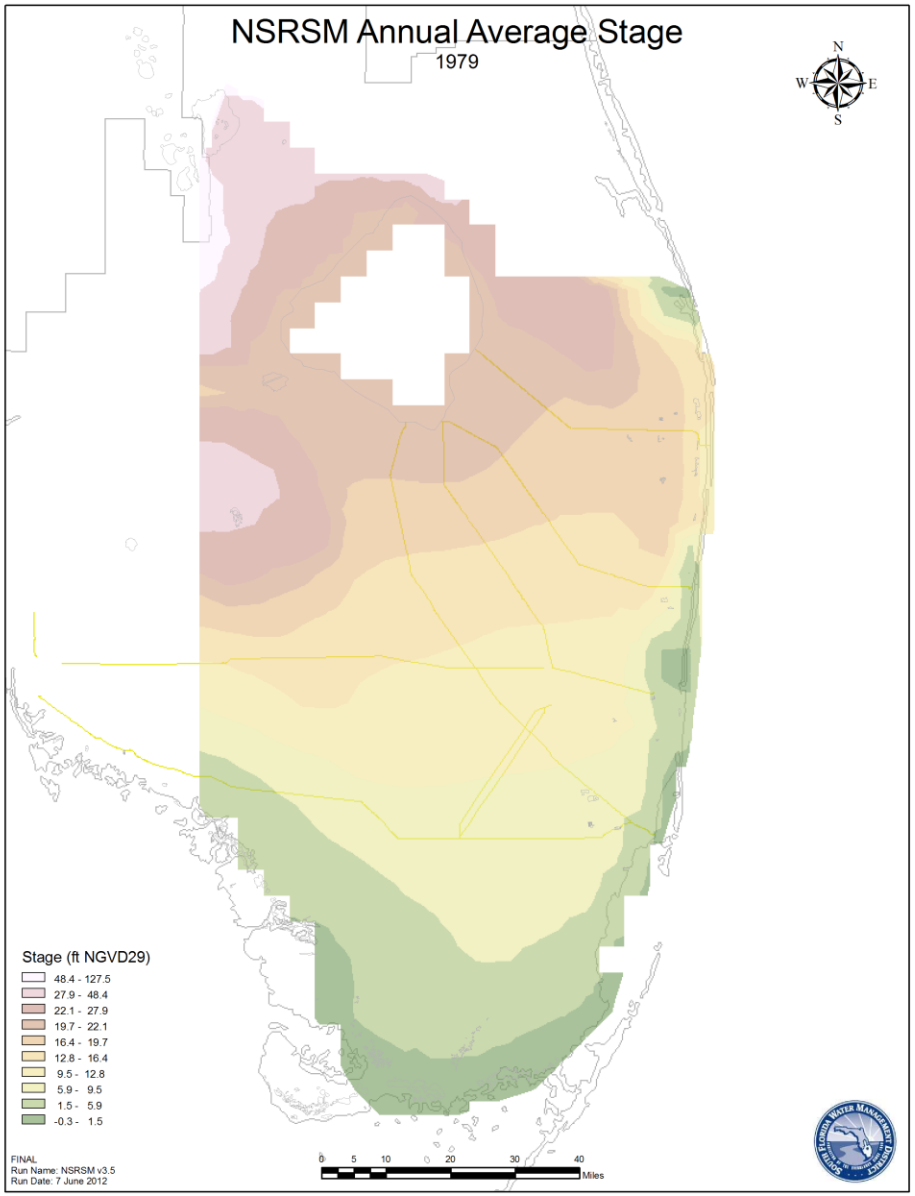
-0.3 - 1.5
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles


NSRSM Annual Average Stage
1979
N
W
E
S
Stage (ft NGVD29)
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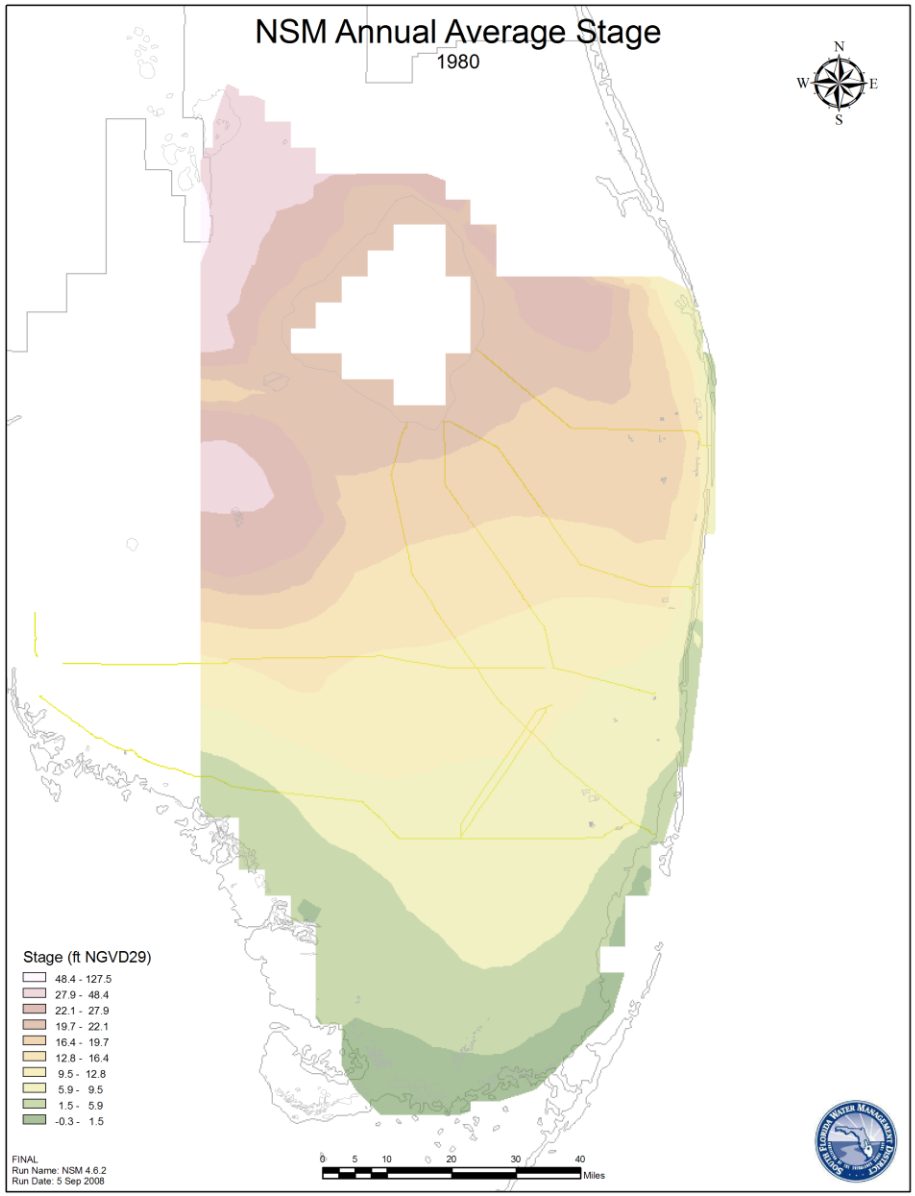
27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
1.5 - 5.9
-0.3 - 1.5
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles


NSM Annual Average Stage
1980
N
W
E
S
Stage (ft NGVD29)
48.4 - 127.5
27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
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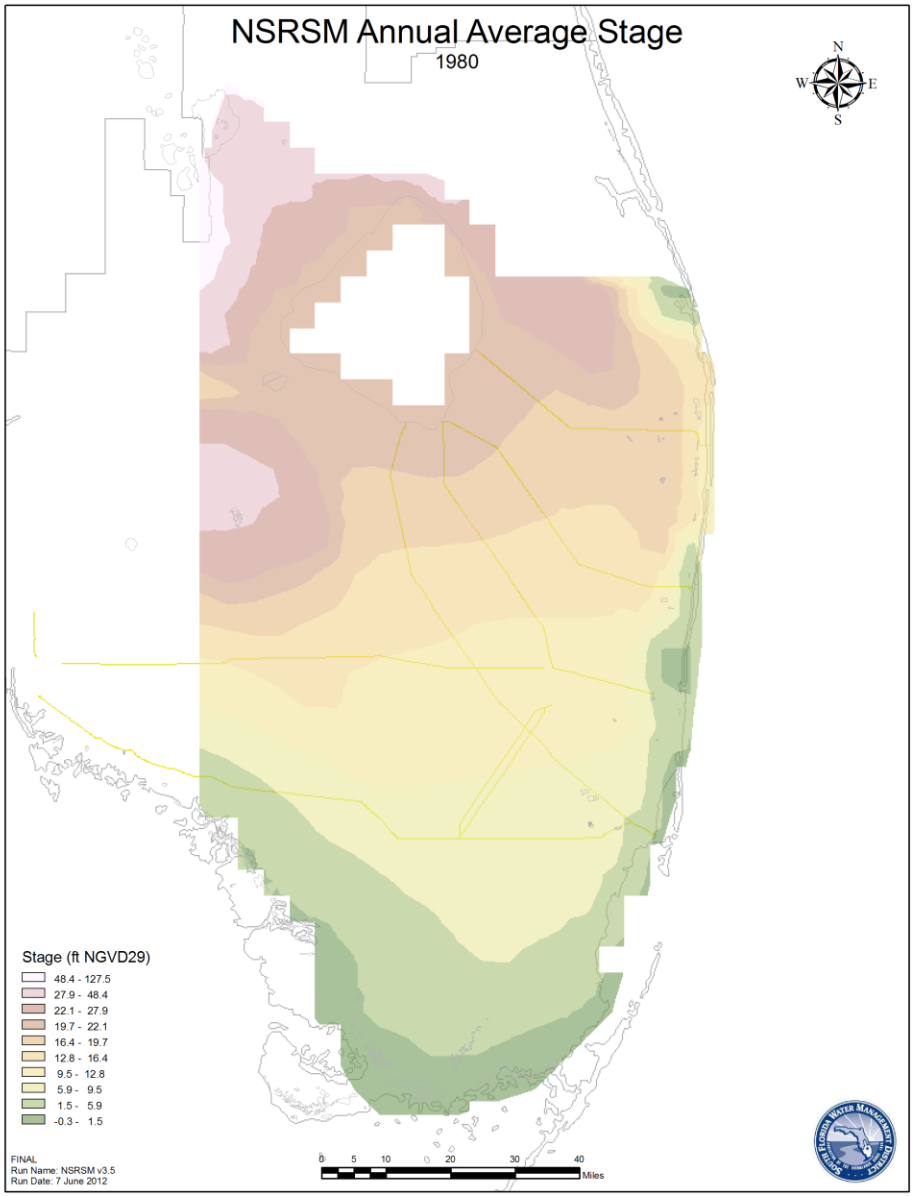
-0.3 - 1.5
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles


NSRSM Annual Average Stage
1980
N
W
E
S
Stage (ft NGVD29)
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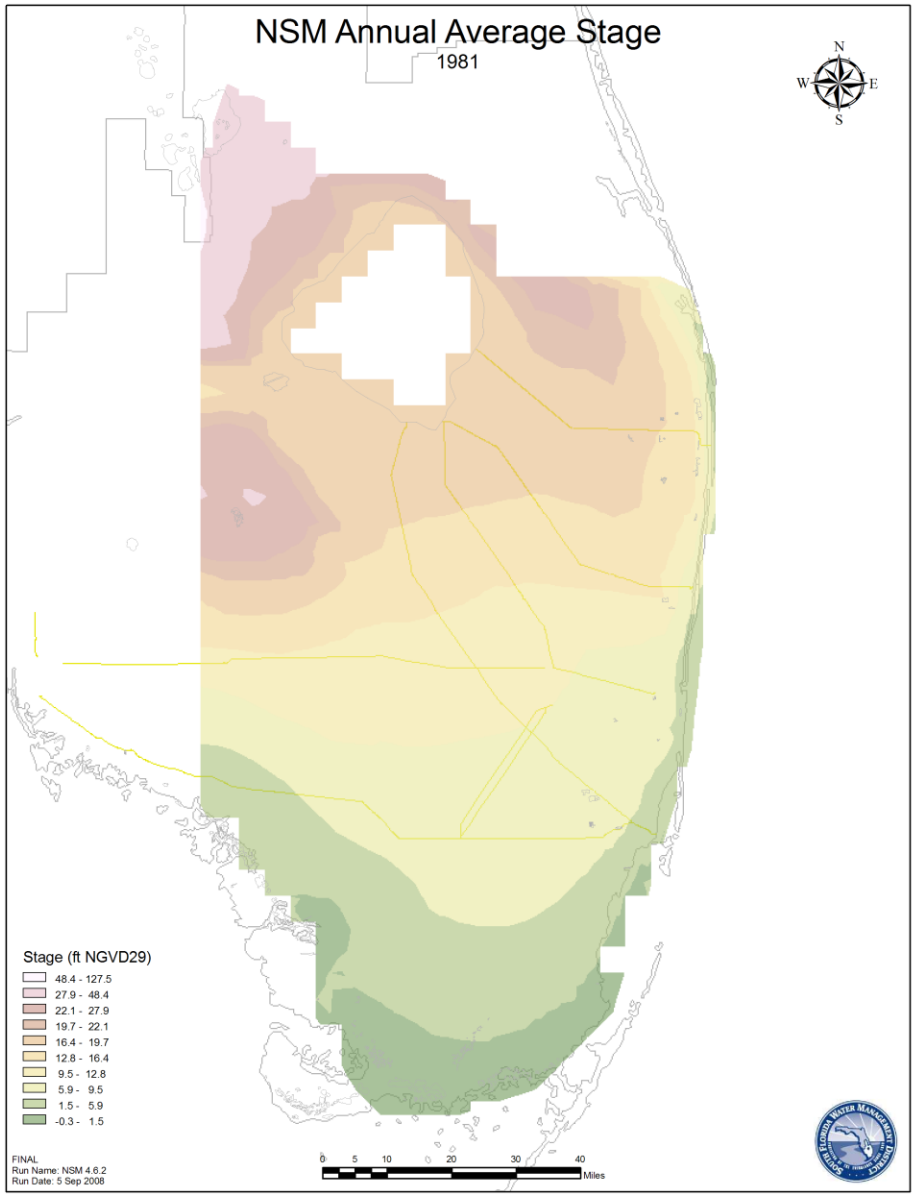
27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
1.5 - 5.9
-0.3 - 1.5
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles


NSM Annual Average Stage
1981
N
W
E
S
Stage (ft NGVD29)
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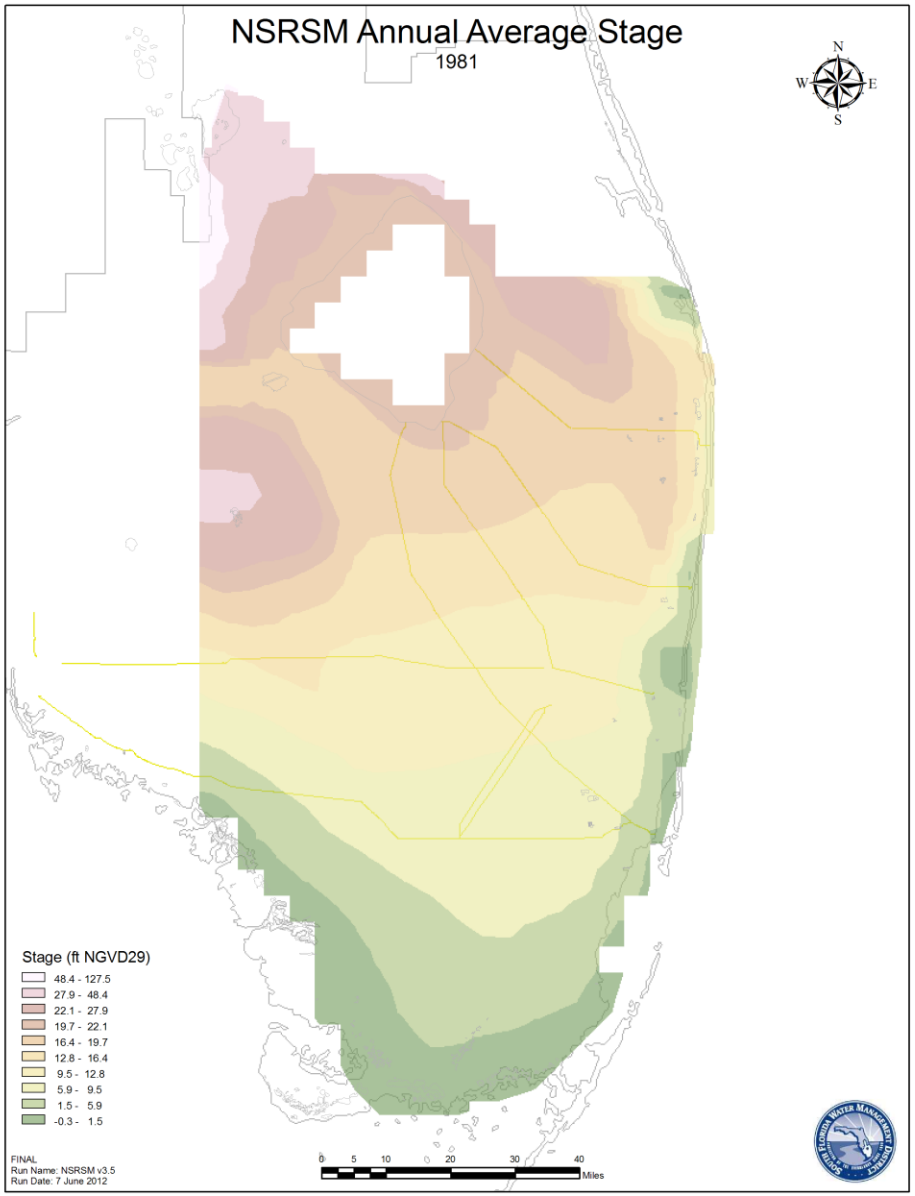
27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
1.5 - 5.9
-0.3 - 1.5
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles


NSRSM Annual Average Stage
1981
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W
E
S
Stage (ft NGVD29)
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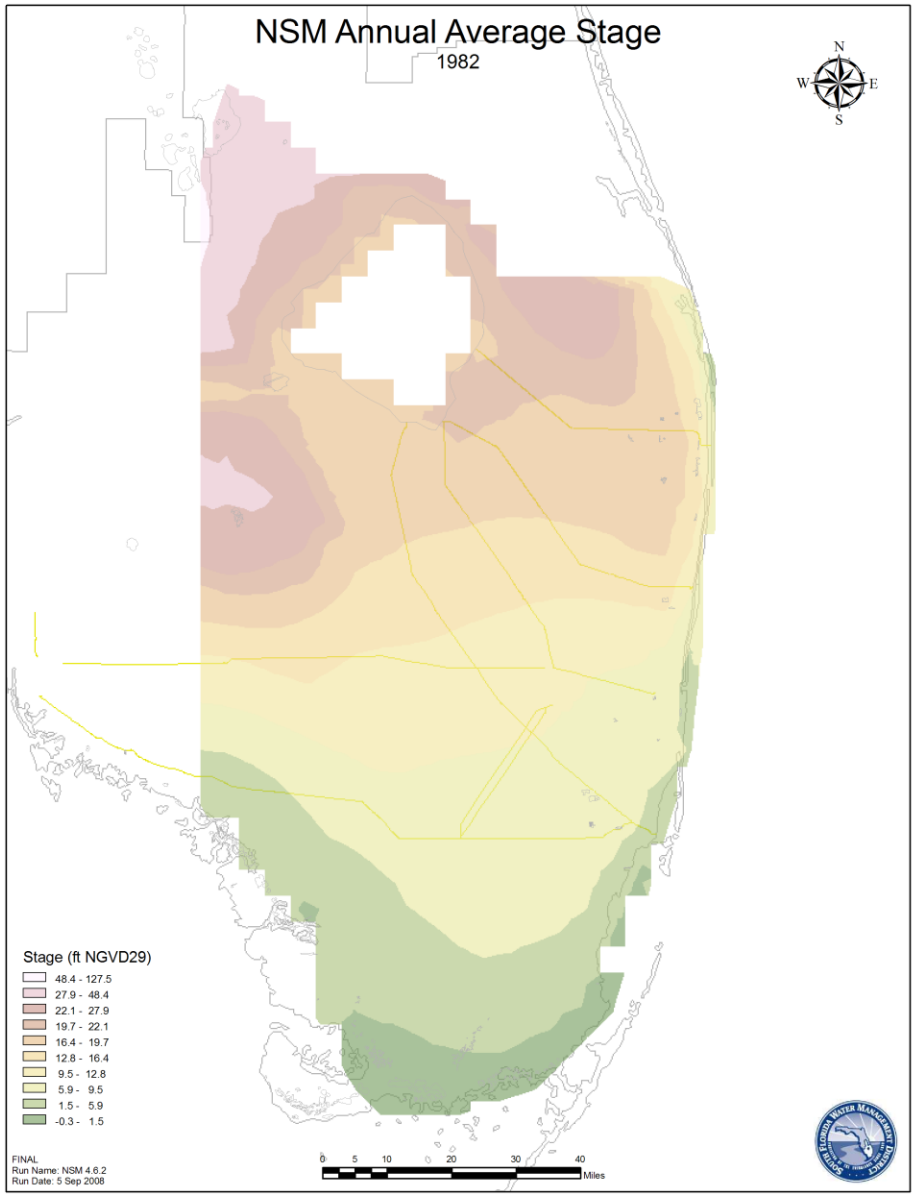
27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
1.5 - 5.9
-0.3 - 1.5
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles


NSM Annual Average Stage
1982
N
W
E
S
Stage (ft NGVD29)
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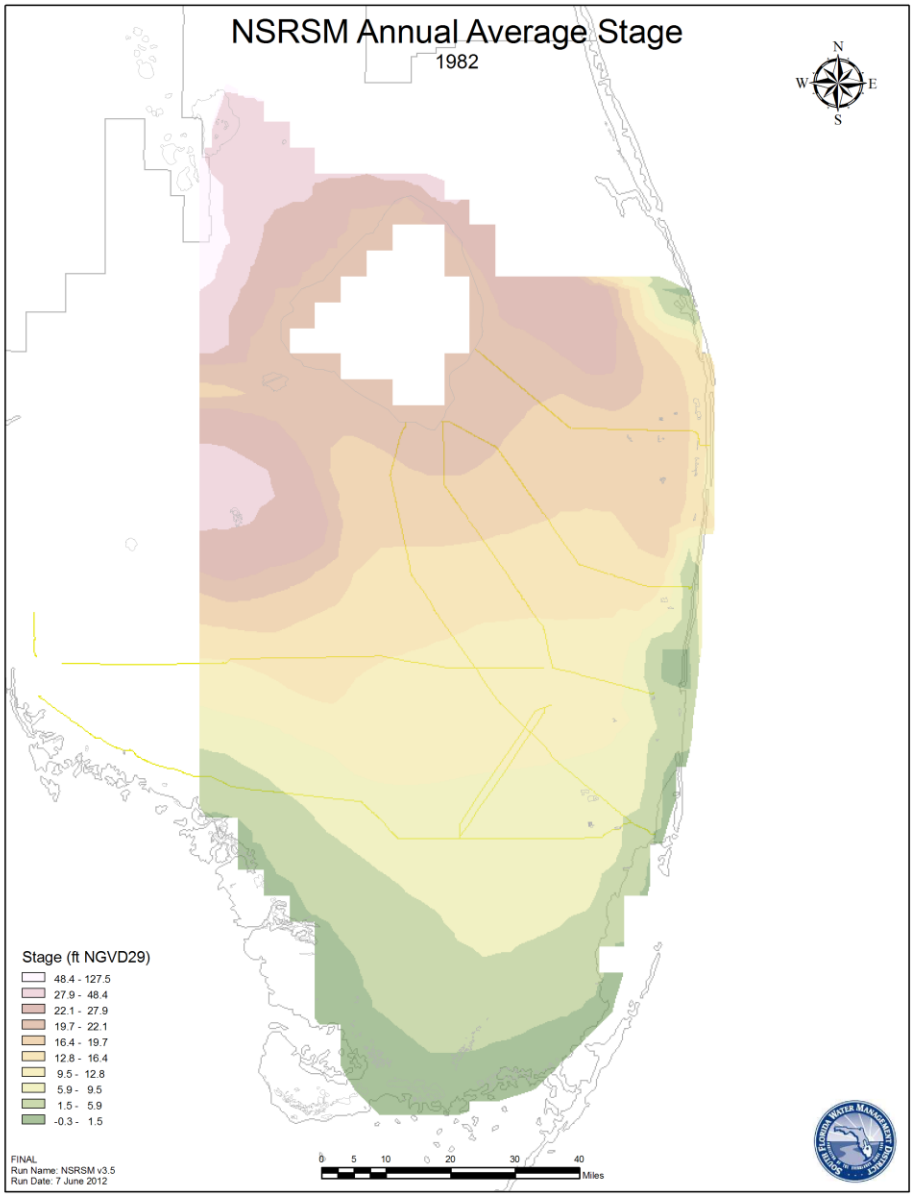
27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
1.5 - 5.9
-0.3 - 1.5
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles


NSRSM Annual Average Stage
1982
N
W
E
S
Stage (ft NGVD29)
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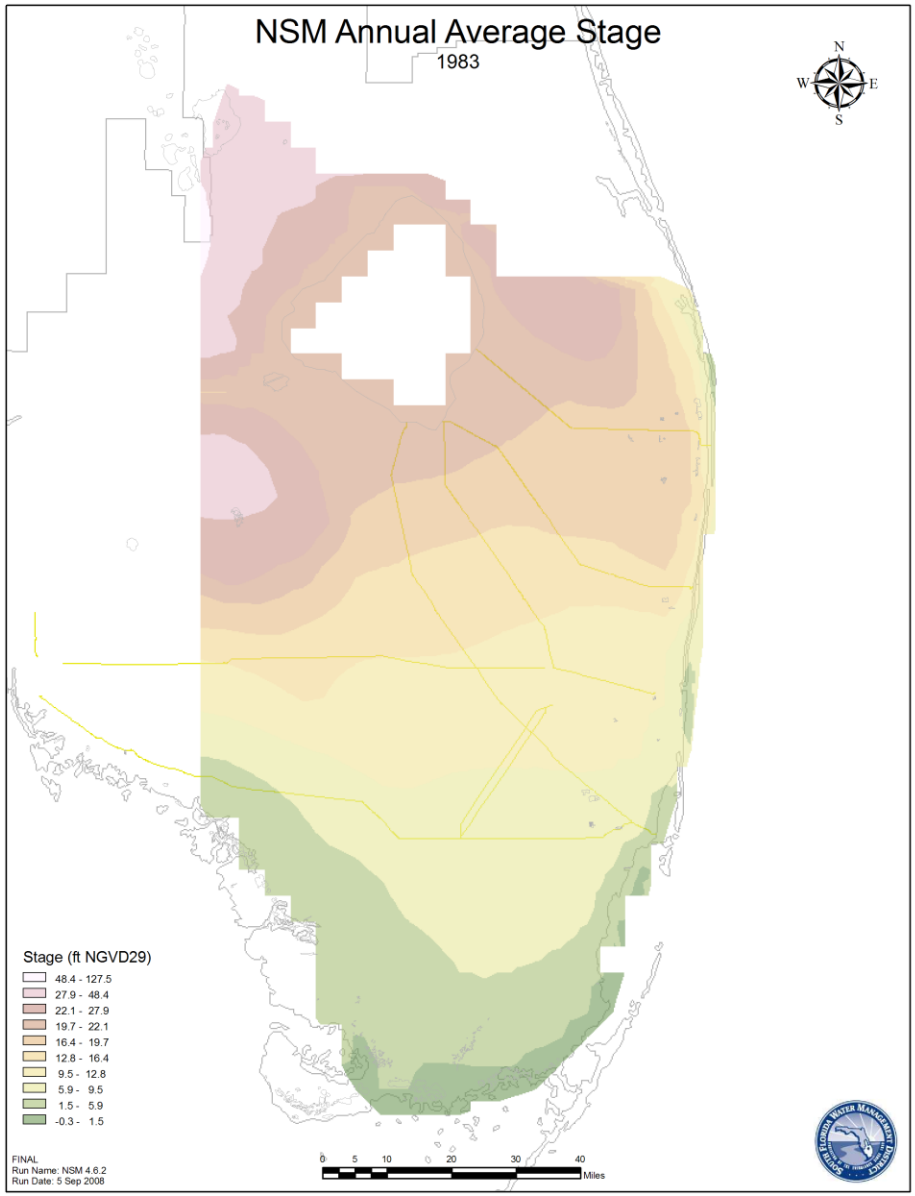
27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
1.5 - 5.9
-0.3 - 1.5
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles


NSM Annual Average Stage
1983
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W
E
S
Stage (ft NGVD29)
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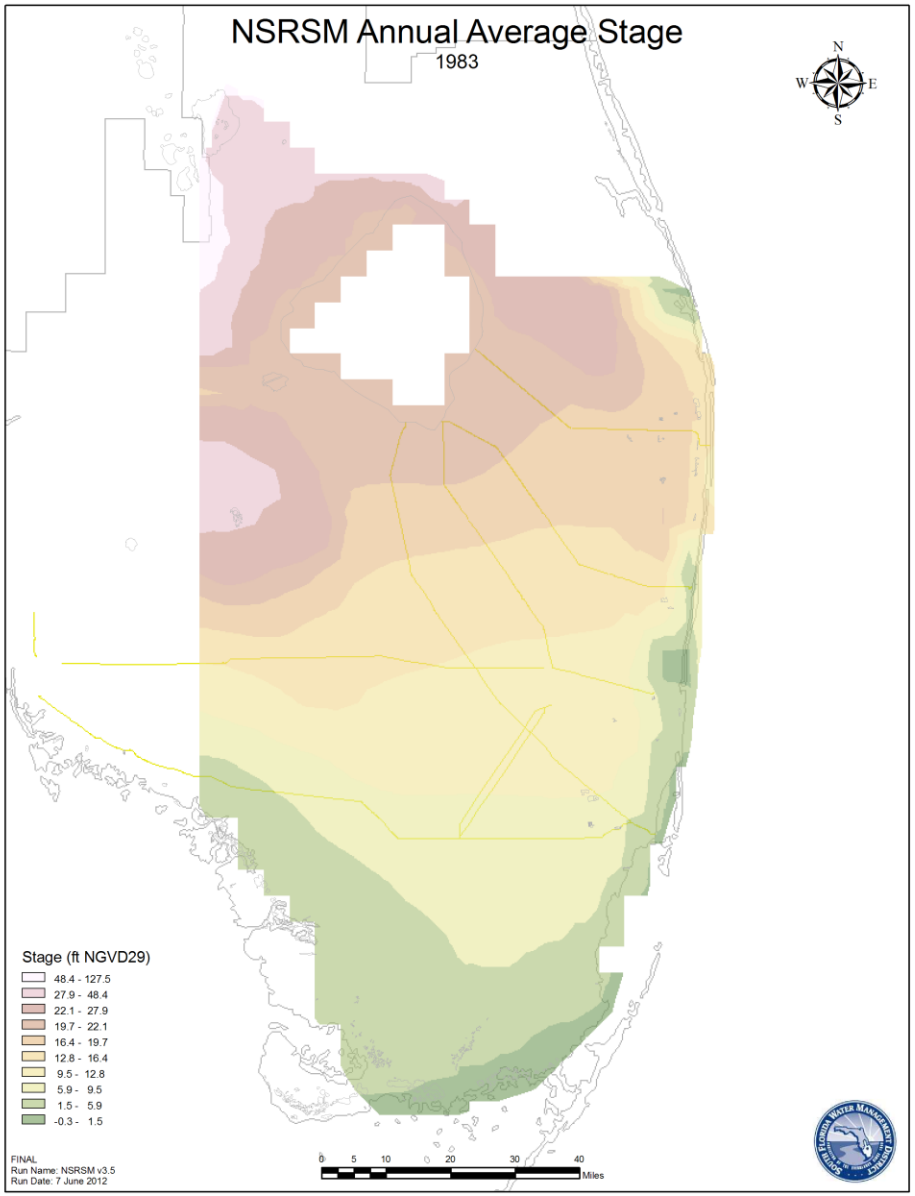
27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
1.5 - 5.9
-0.3 - 1.5
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles


NSRSM Annual Average Stage
1983
N
W
E
S
Stage (ft NGVD29)
48.4 - 127.5
27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
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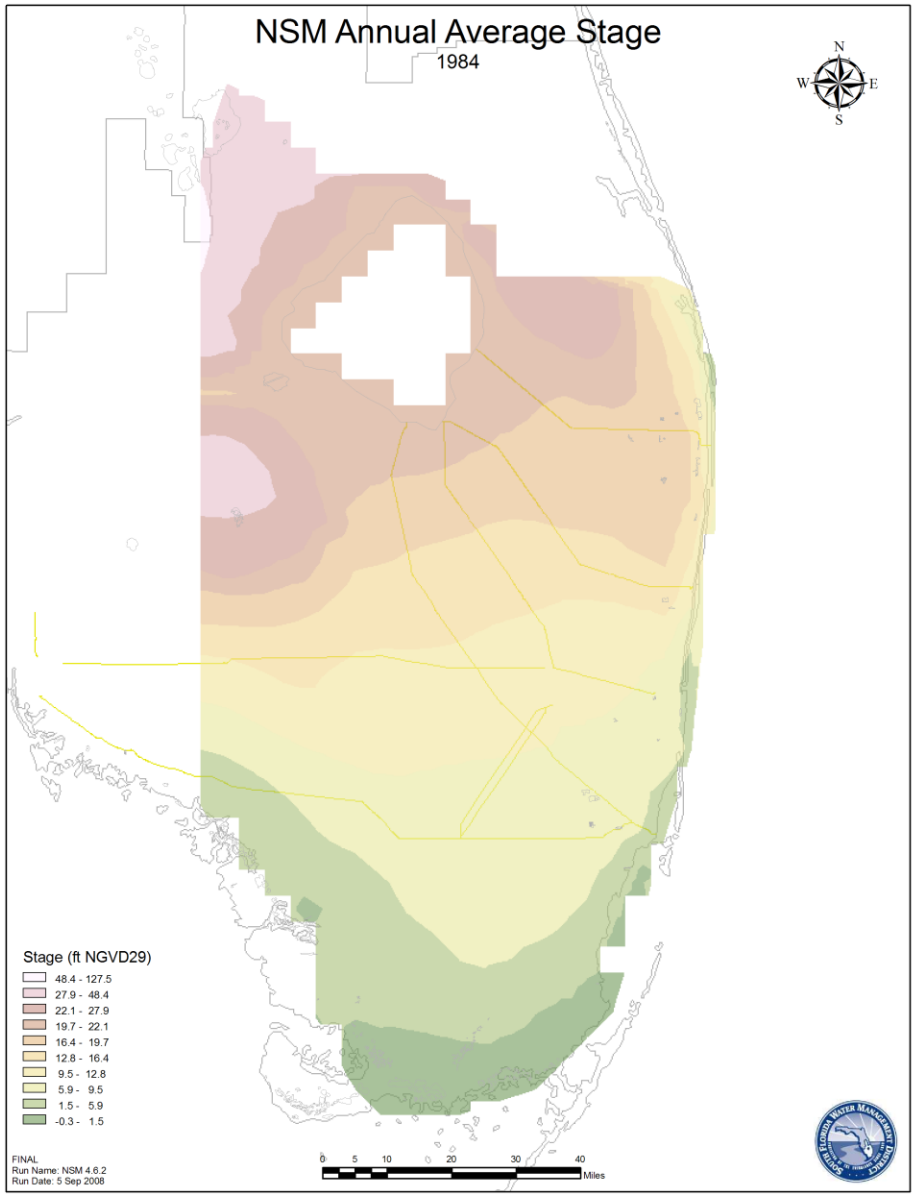
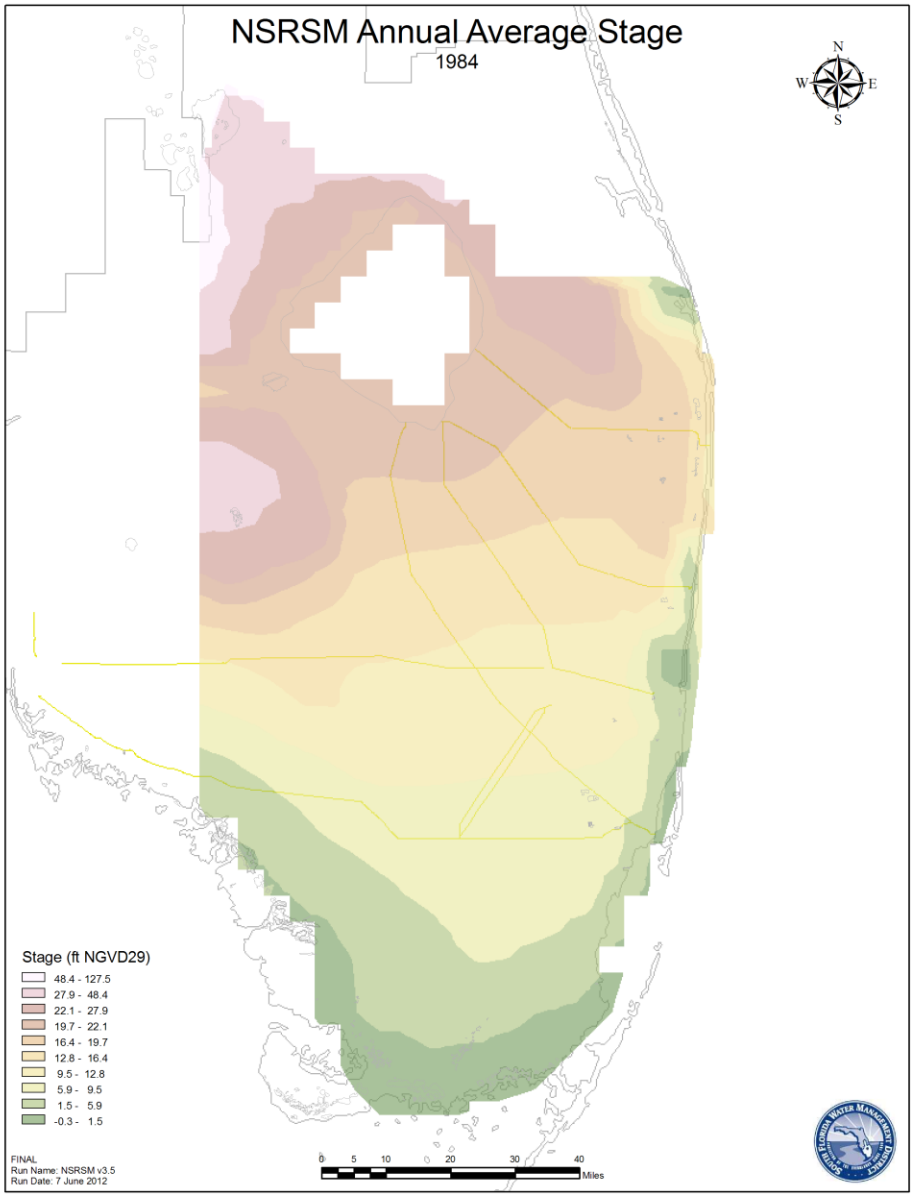
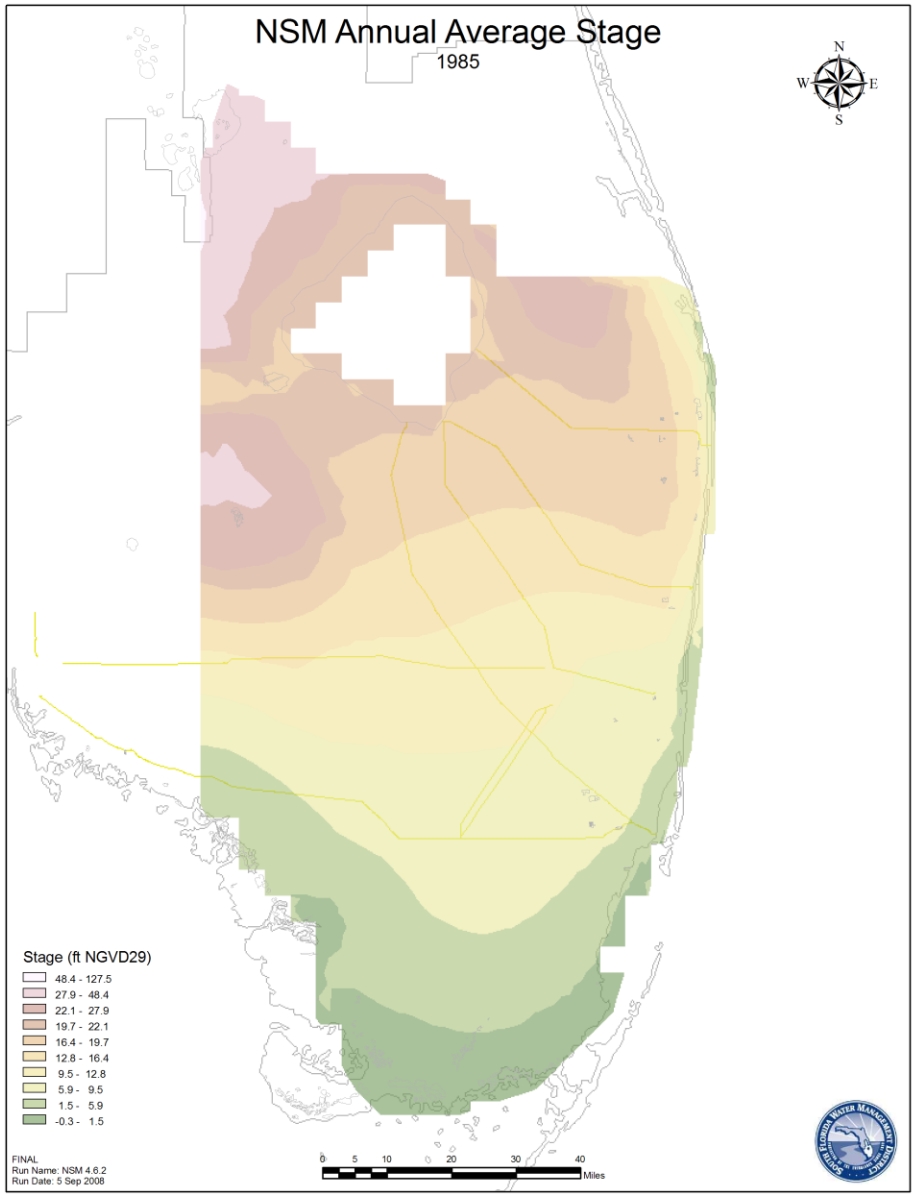
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles


NSM Annual Average Stage
1984
N
W
E
S
Stage (ft NGVD29)
48.4 - 127.5
27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
1.5 - 5.9
-0.3 - 1.5
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles


NSRSM Annual Average Stage
1984
N
W
E
S
Stage (ft NGVD29)
48.4 - 127.5
27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
1.5 - 5.9
-0.3 - 1.5
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles


NSM Annual Average Stage
1985
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W
E
S
Stage (ft NGVD29)
48.4 - 127.5
27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
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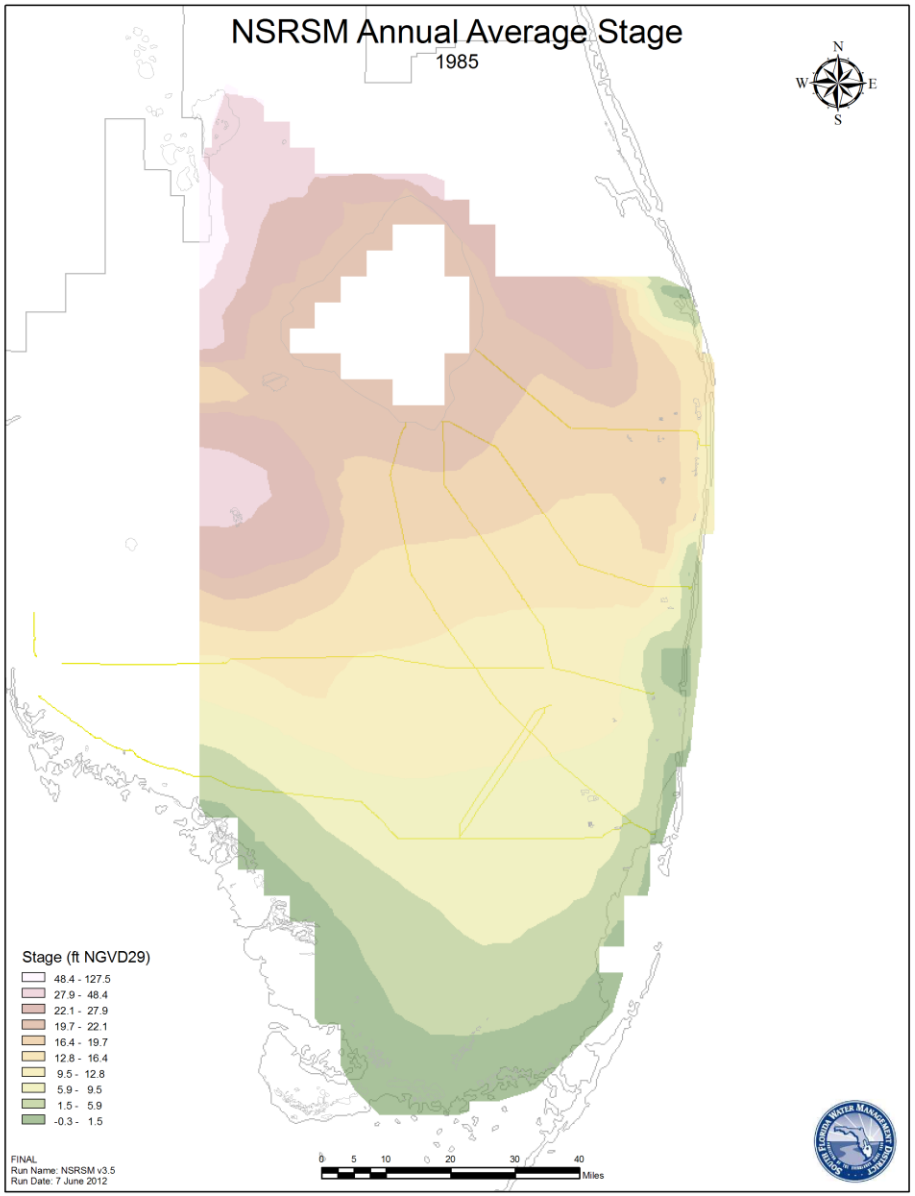
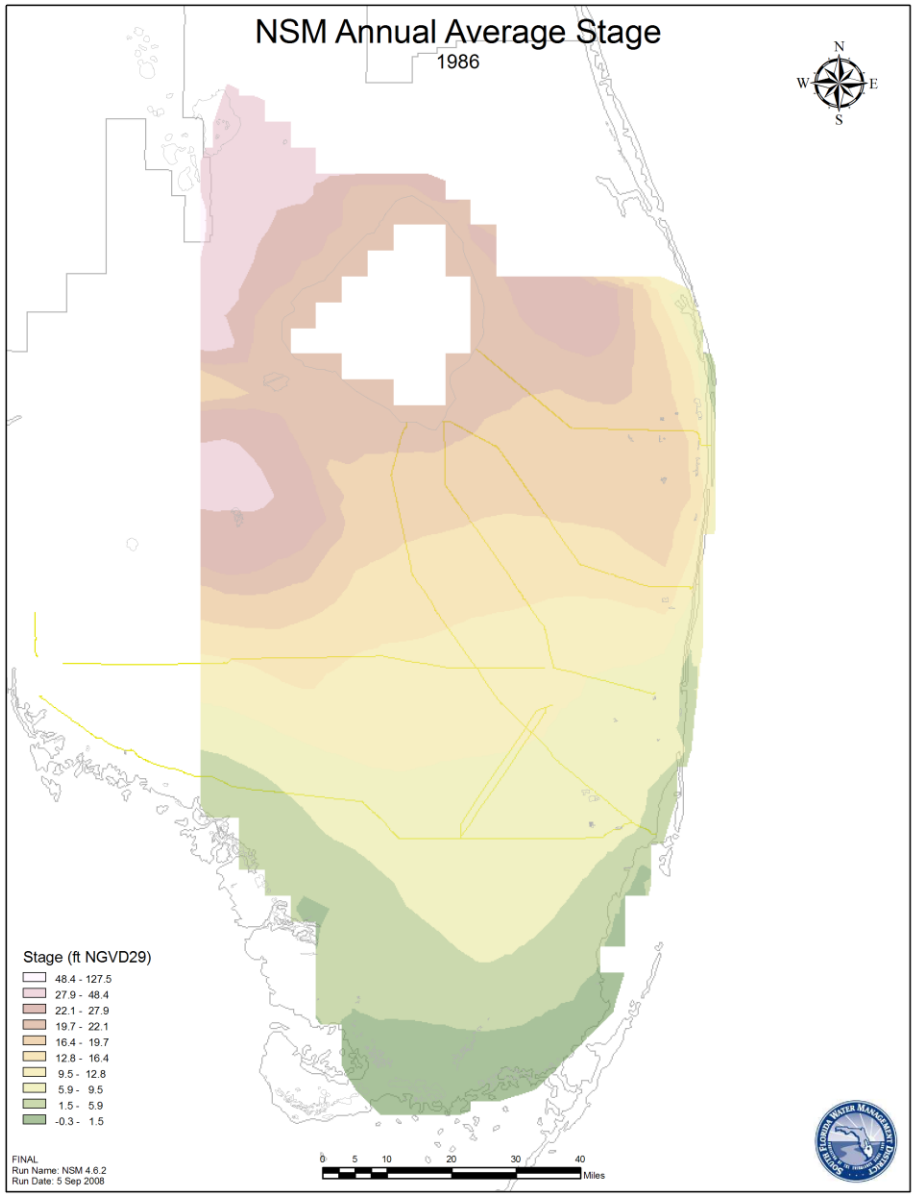
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles


NSRSM Annual Average Stage
1985
N
W
E
S
Stage (ft NGVD29)
48.4 - 127.5
27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
1.5 - 5.9
-0.3 - 1.5
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles


NSM Annual Average Stage
1986
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W
E
S
Stage (ft NGVD29)
48.4 - 127.5
27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
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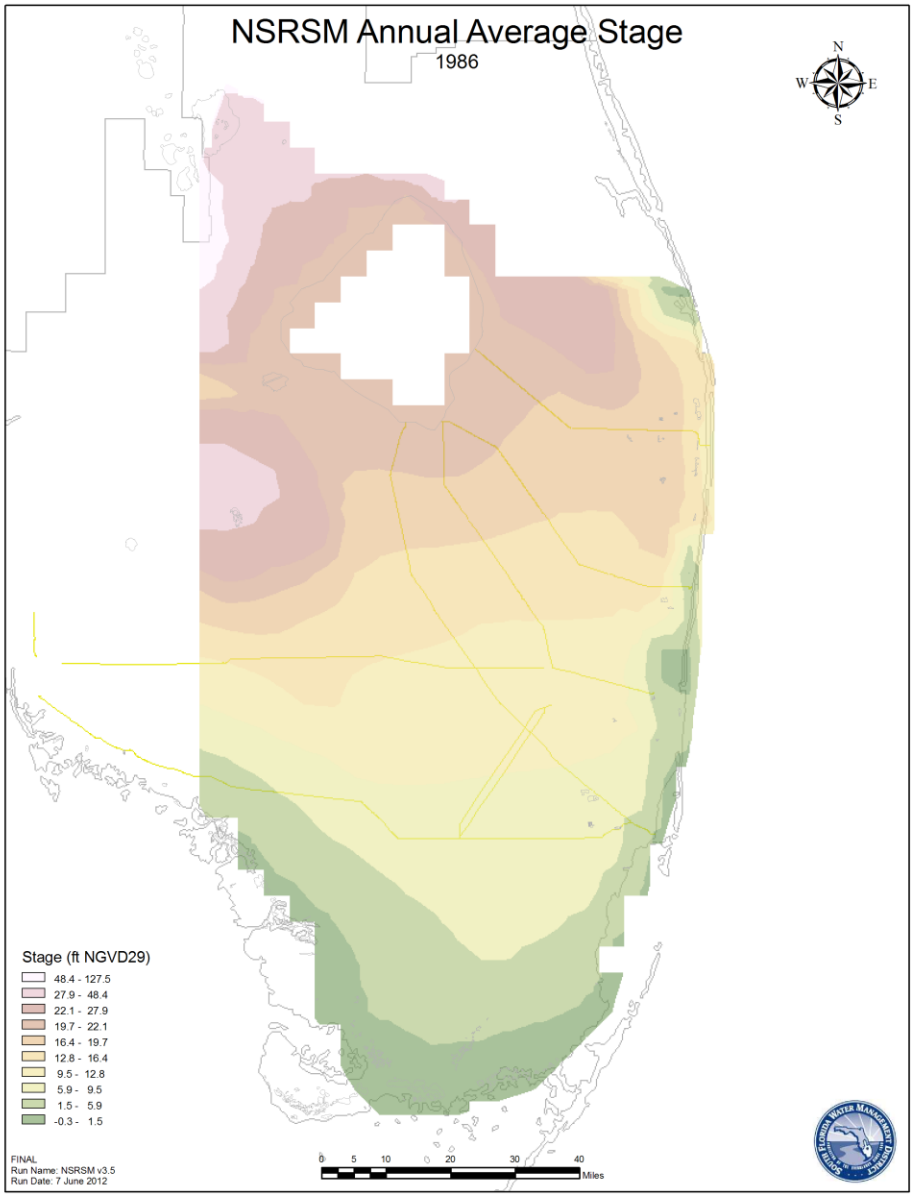
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles


NSRSM Annual Average Stage
1986
N
W
E
S
Stage (ft NGVD29)
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27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
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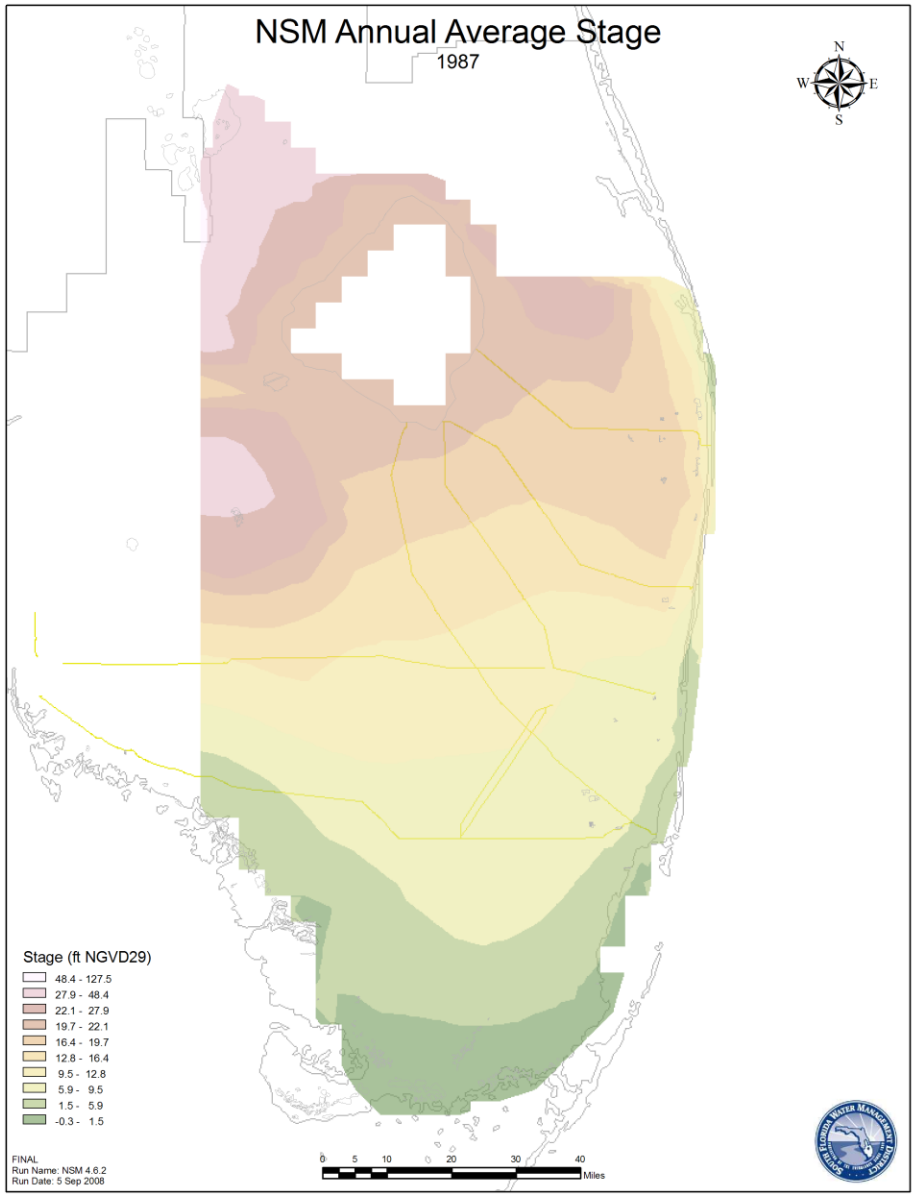
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles


NSM Annual Average Stage
1987
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W
E
S
Stage (ft NGVD29)
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27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
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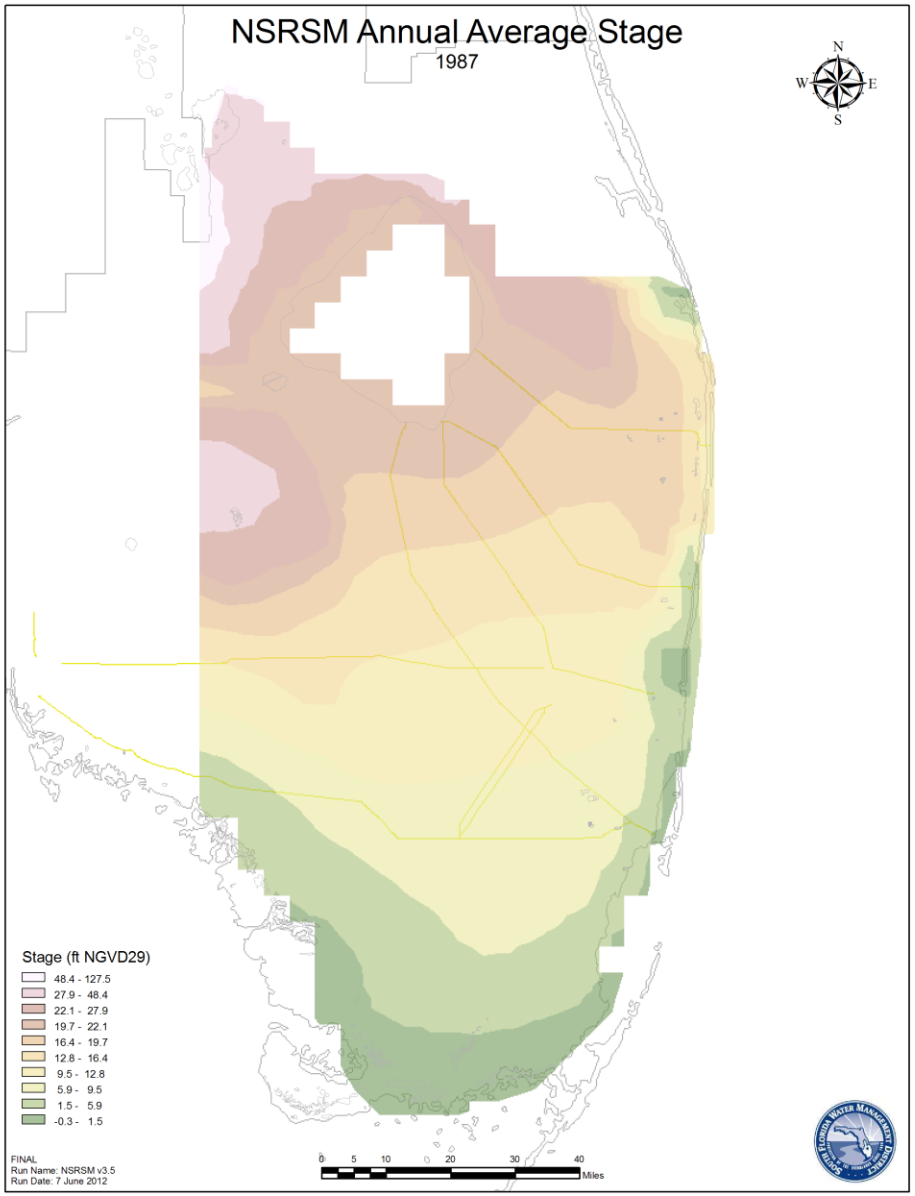
-0.3 - 1.5
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles


NSRSM Annual Average Stage
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S
Stage (ft NGVD29)
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22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
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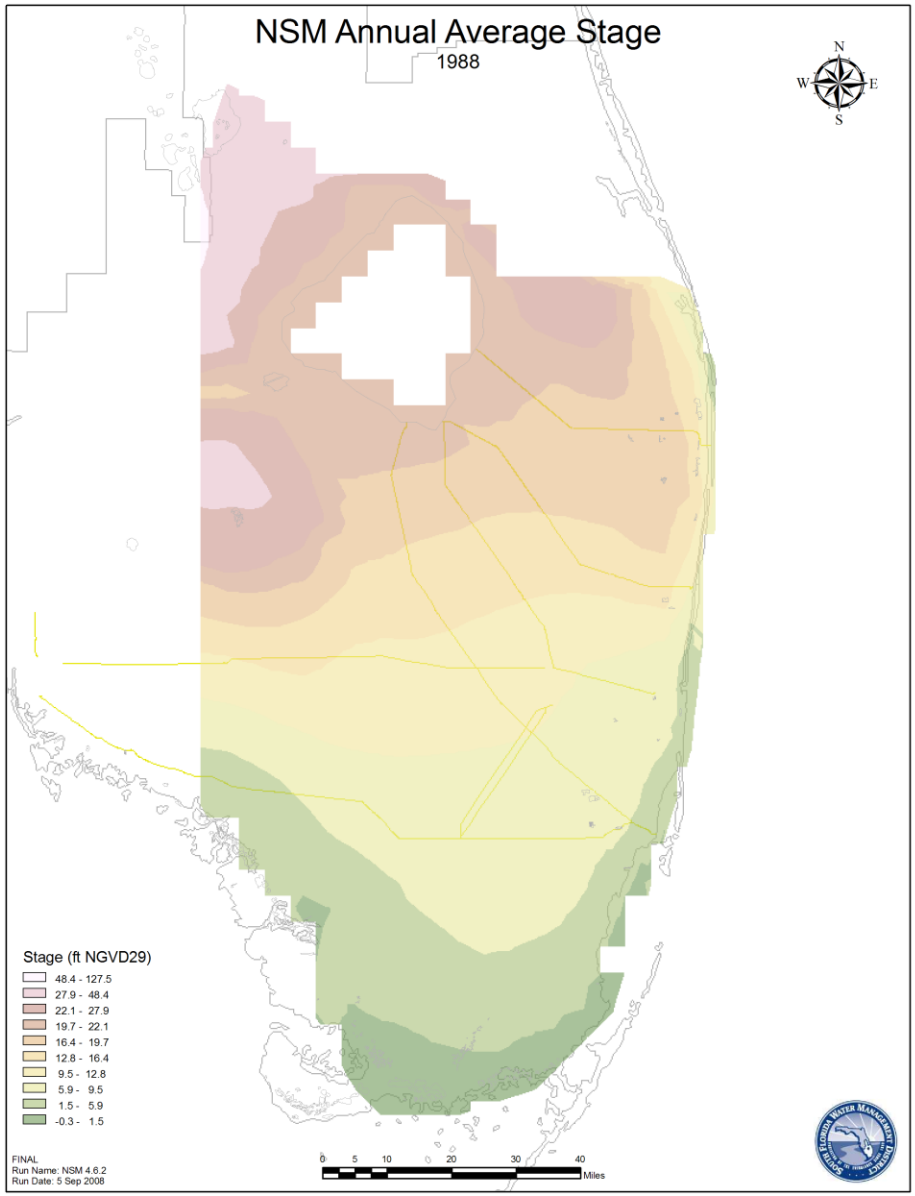
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles


NSM Annual Average Stage
1988
N
W
E
S
Stage (ft NGVD29)
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27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
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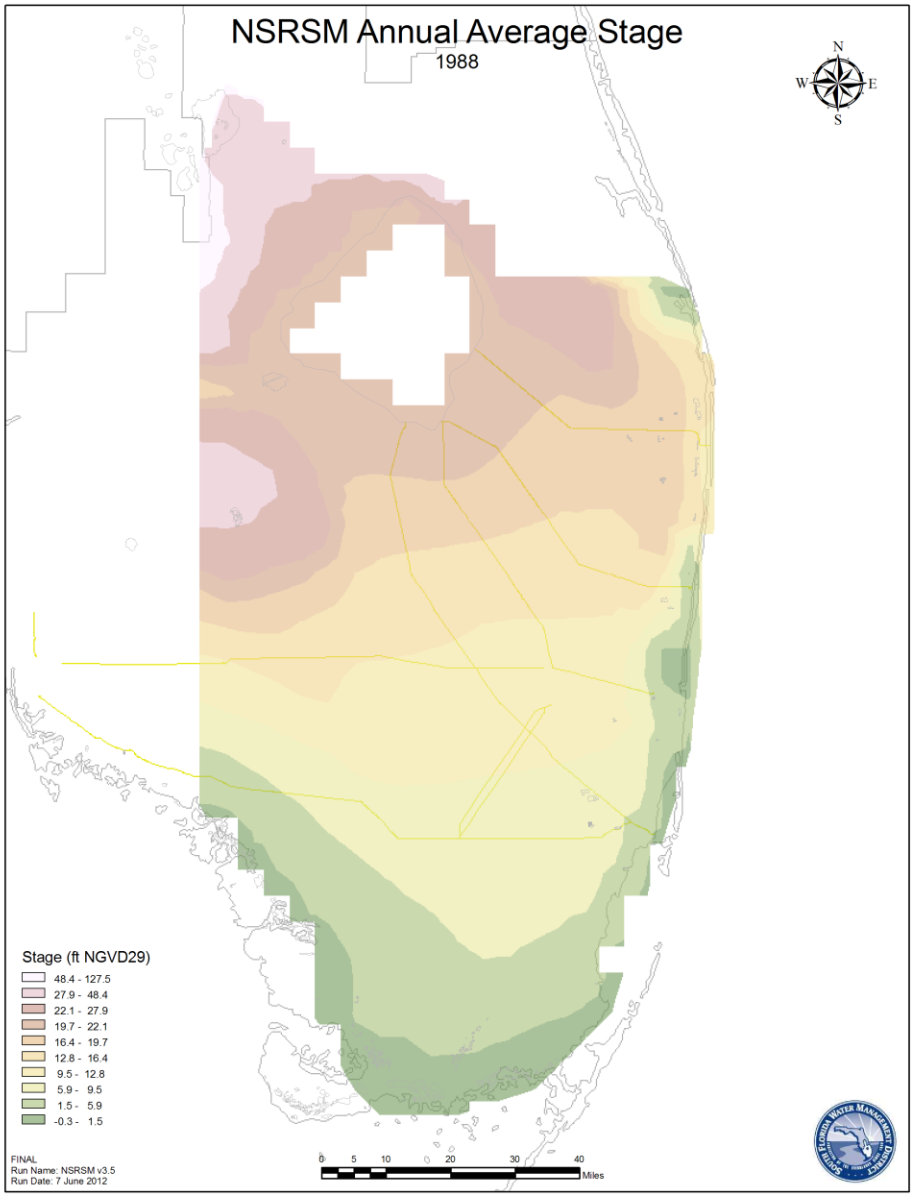
-0.3 - 1.5
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles


NSRSM Annual Average Stage
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W
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S
Stage (ft NGVD29)
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22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
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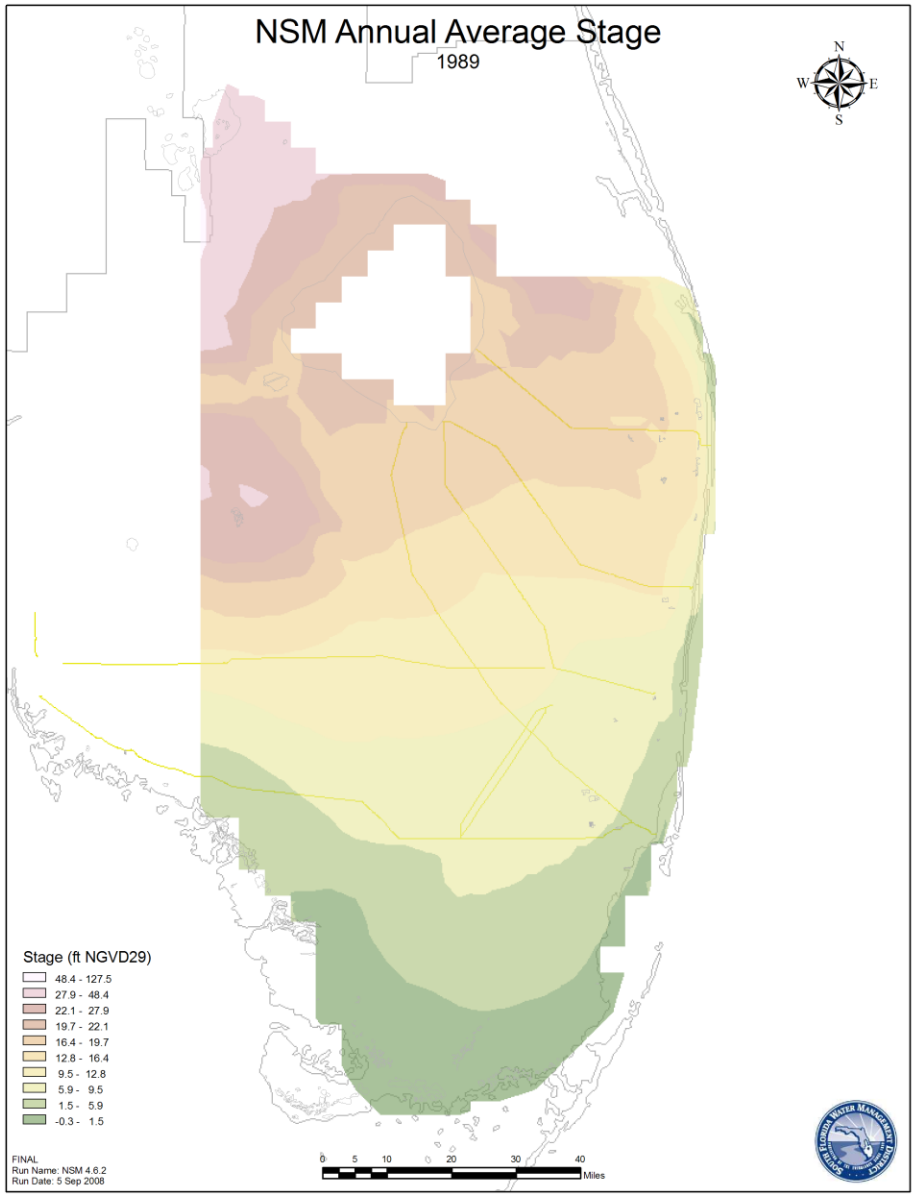
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles


NSM Annual Average Stage
1989
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W
E
S
Stage (ft NGVD29)
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27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
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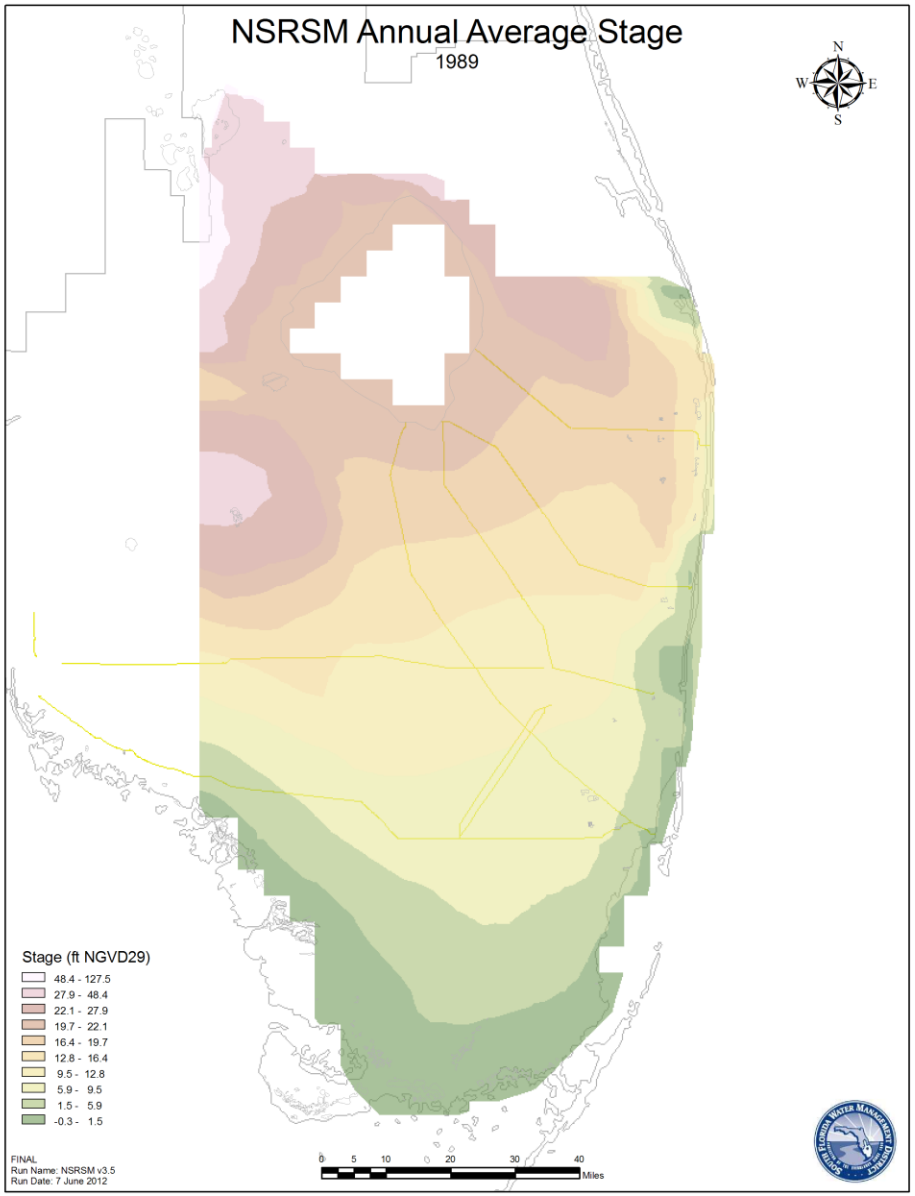
-0.3 - 1.5
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles


NSRSM Annual Average Stage
1989
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S
Stage (ft NGVD29)
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22.1 - 27.9
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5.9 - 9.5
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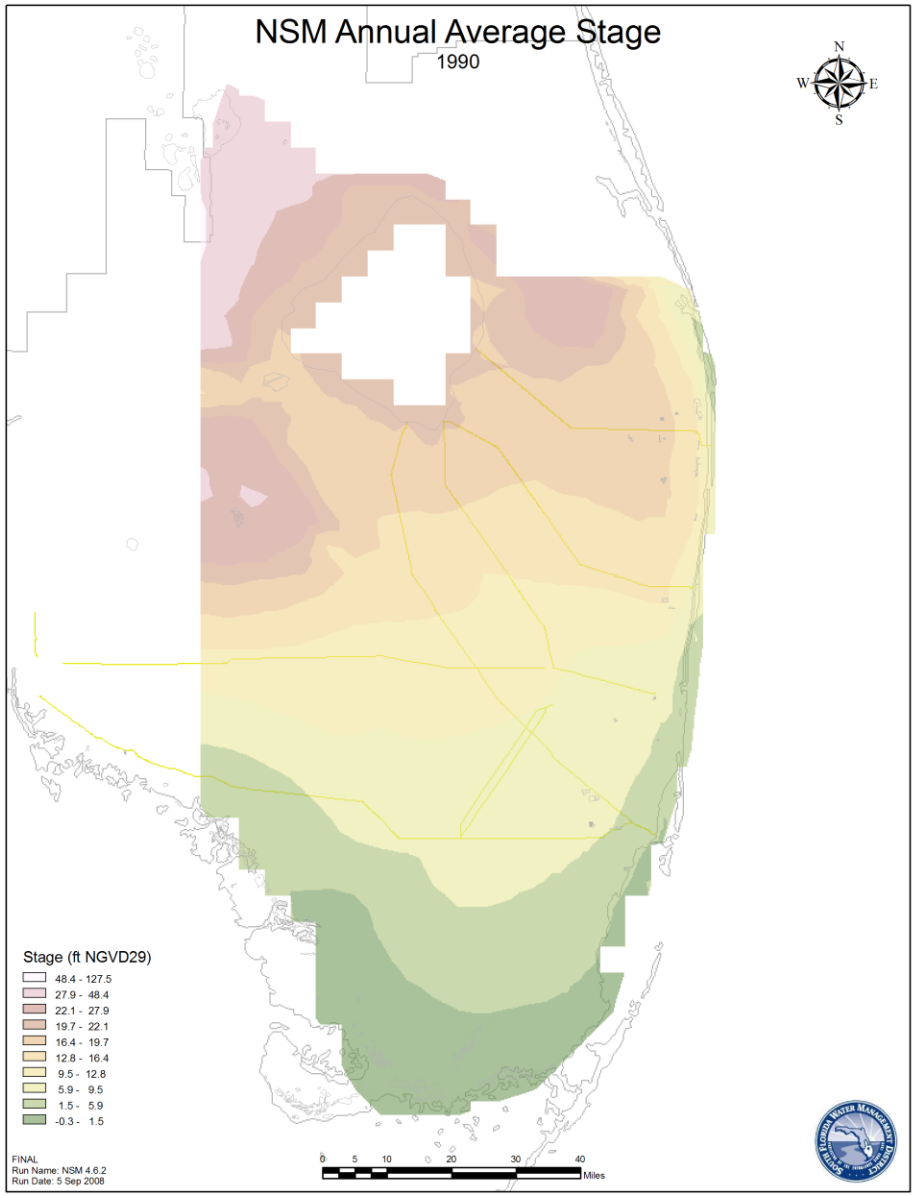
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles


NSM Annual Average Stage
1990
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Stage (ft NGVD29)
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12.8 - 16.4
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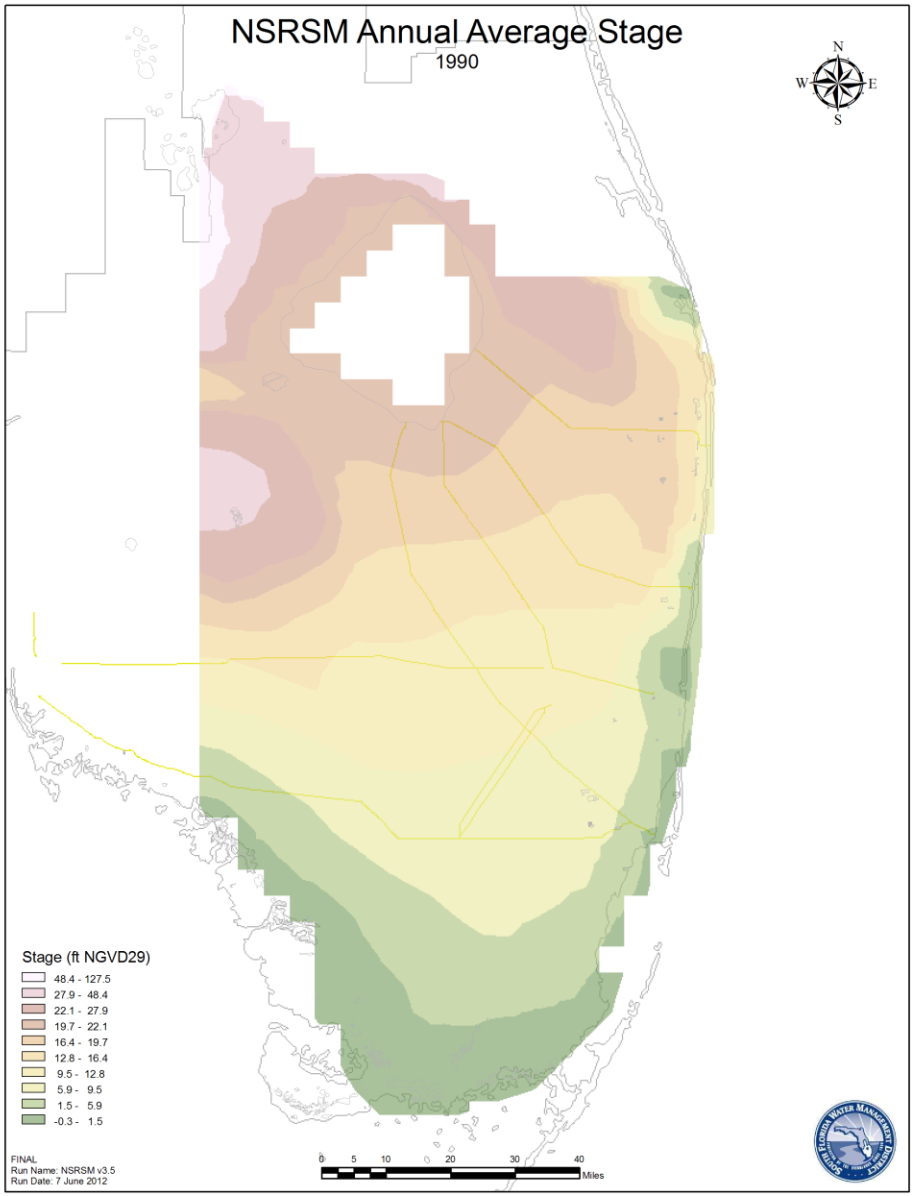
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles


NSRSM Annual Average Stage
1990
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E
S
Stage (ft NGVD29)
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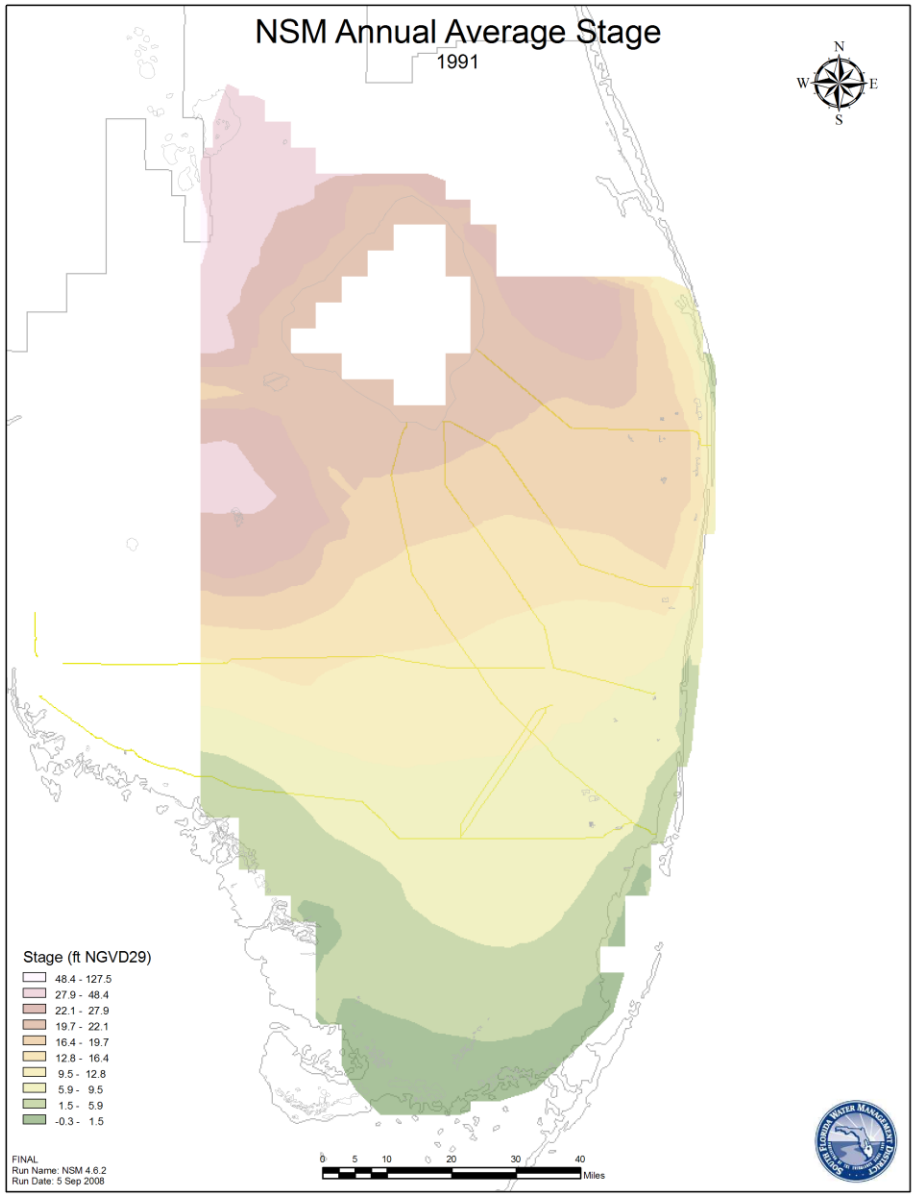
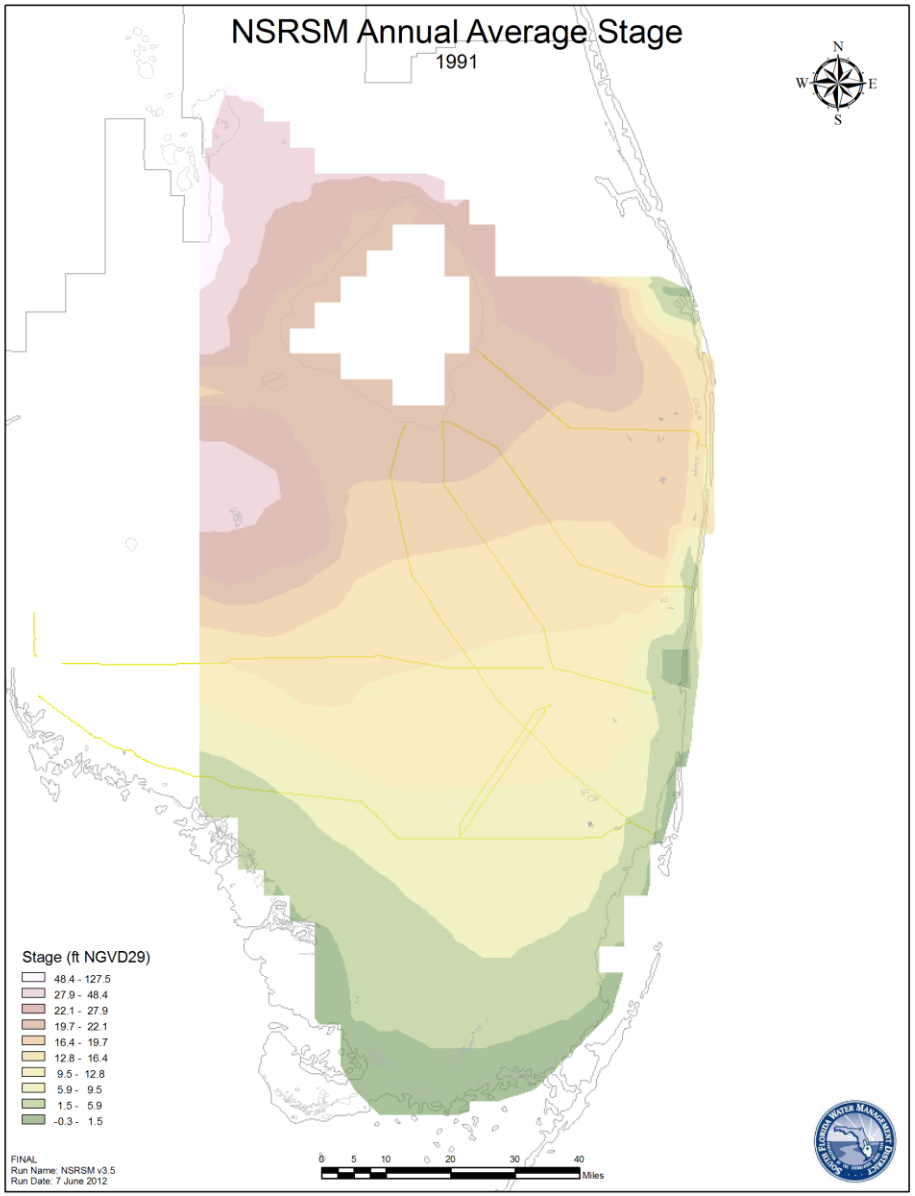
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
1.5 - 5.9
-0.3 - 1.5
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles


NSM Annual Average Stage
1991
N
W
E
S
Stage (ft NGVD29)
48.4 - 127.5
27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
1.5 - 5.9
-0.3 - 1.5
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles


NSRSM Annual Average Stage
1991
N
W
E
S
Stage (ft NGVD29)
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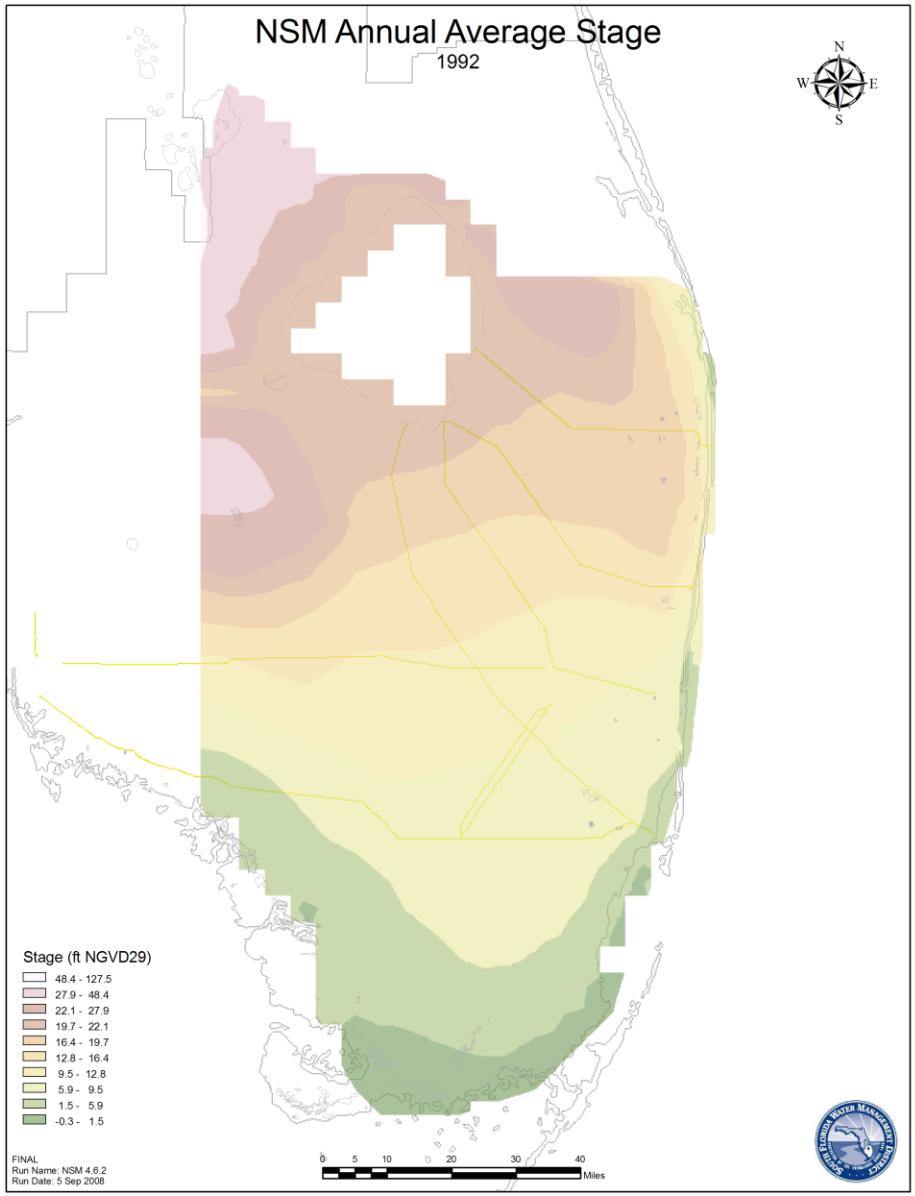
27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
1.5 - 5.9
-0.3 - 1.5
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles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1992
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W
E
S
Stage (ft NGVD29)
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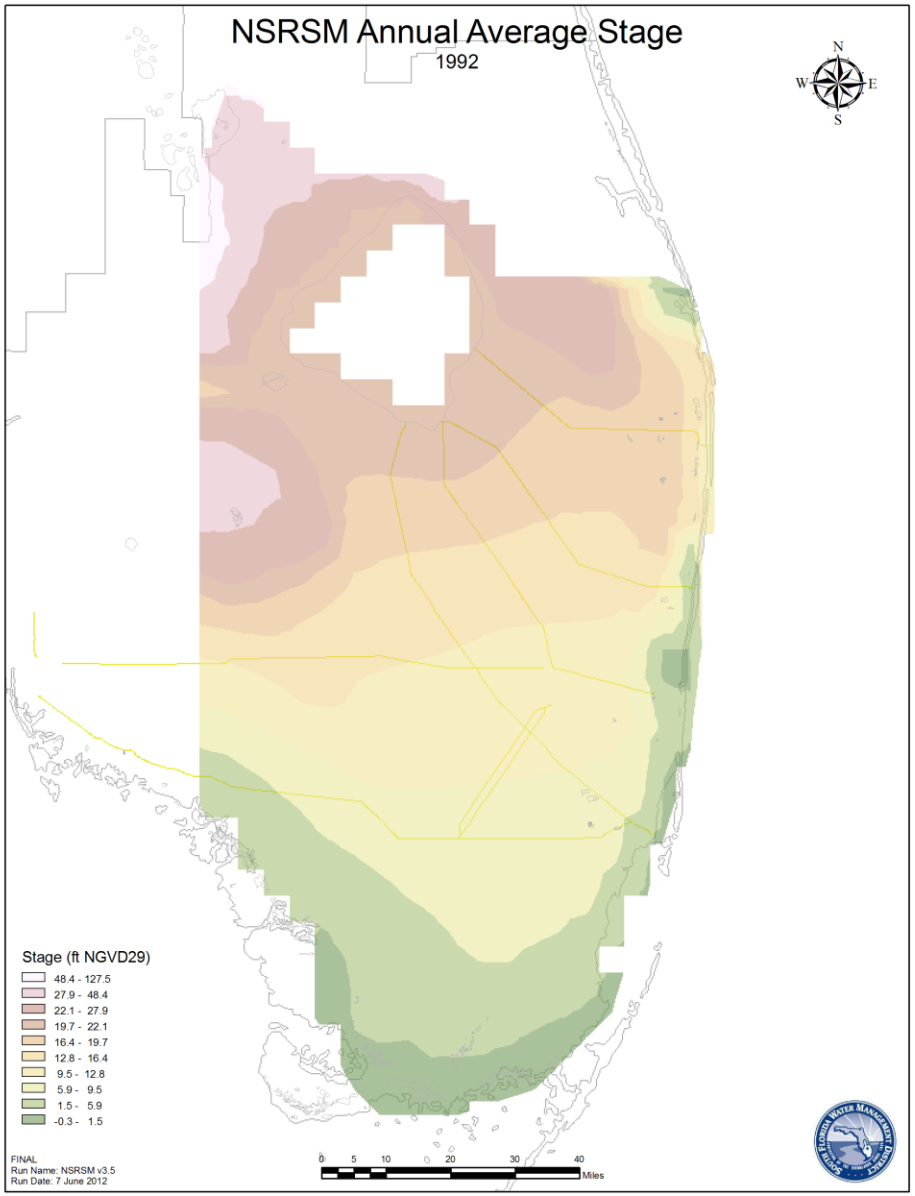
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
1.5 - 5.9
-0.3 - 1.5
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles


NSRSM Annual Average Stage
1992
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W
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S
Stage (ft NGVD29)
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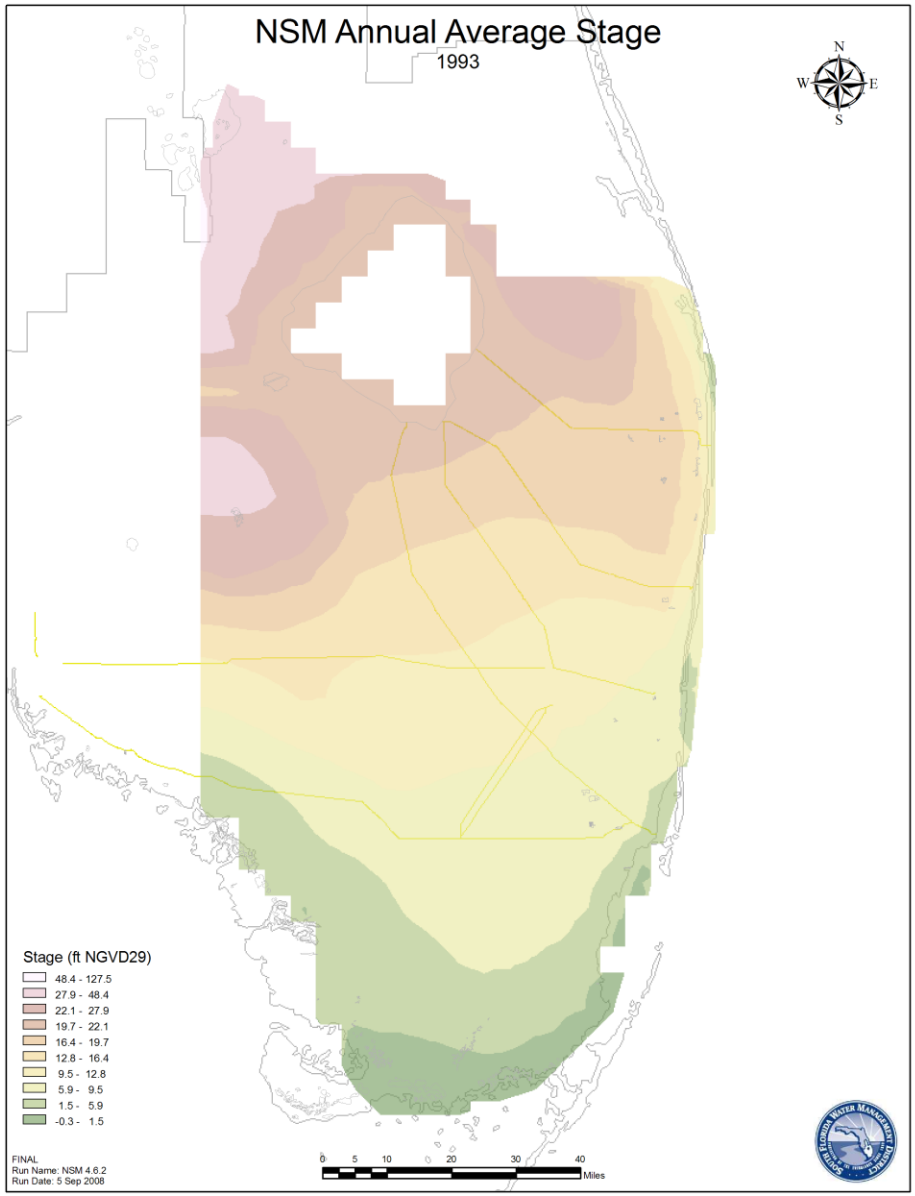
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
1.5 - 5.9
-0.3 - 1.5
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles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1993
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S
Stage (ft NGVD29)
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19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
1.5 - 5.9
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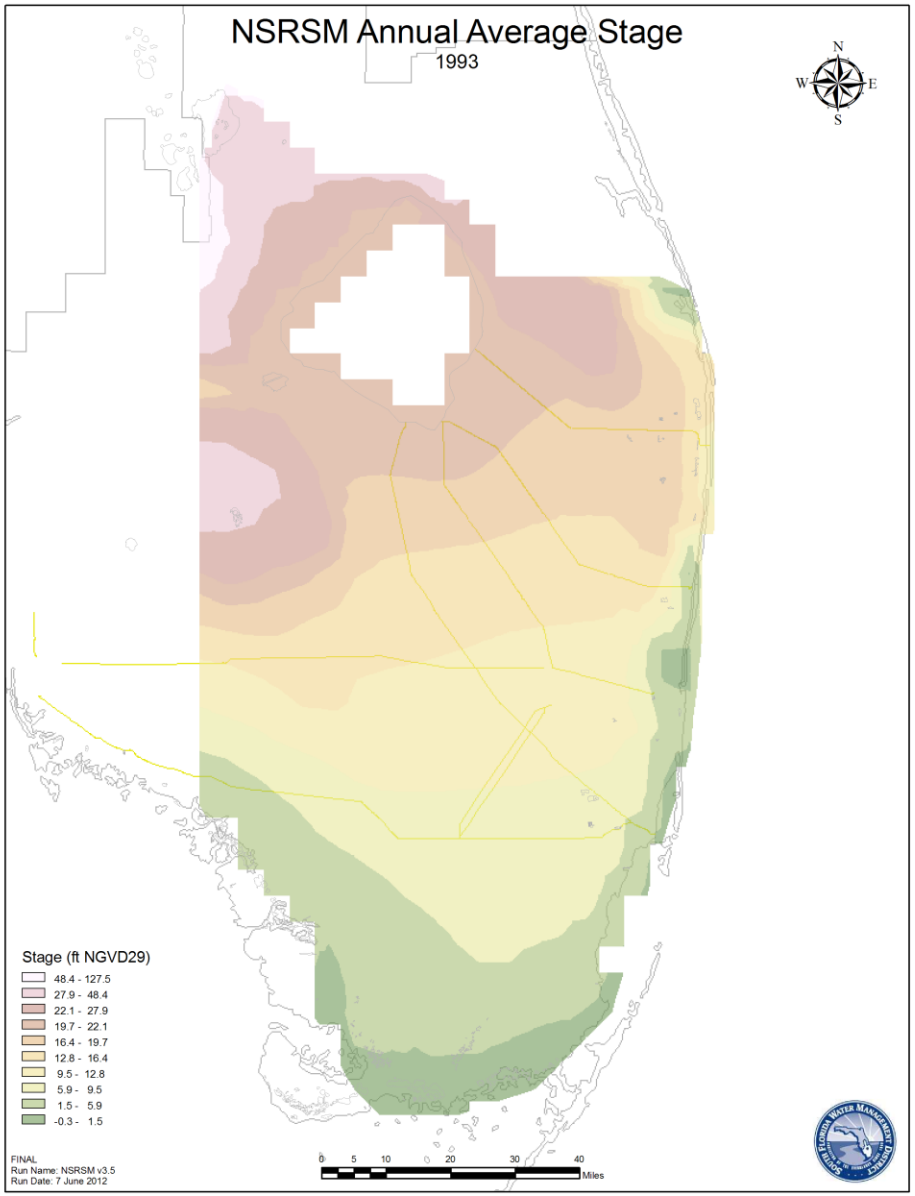
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles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S
Stage (ft NGVD29)
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19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
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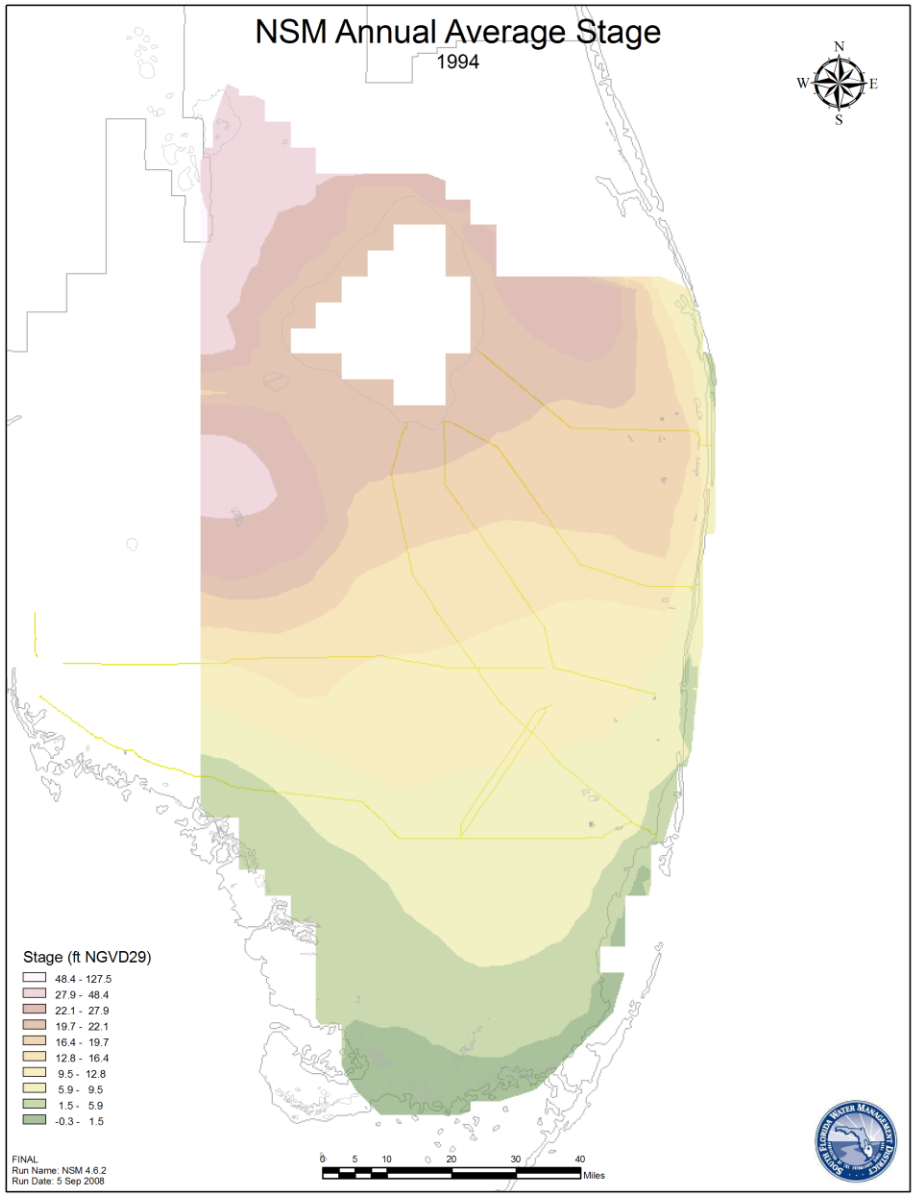
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles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1994
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S
Stage (ft NGVD29)
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19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
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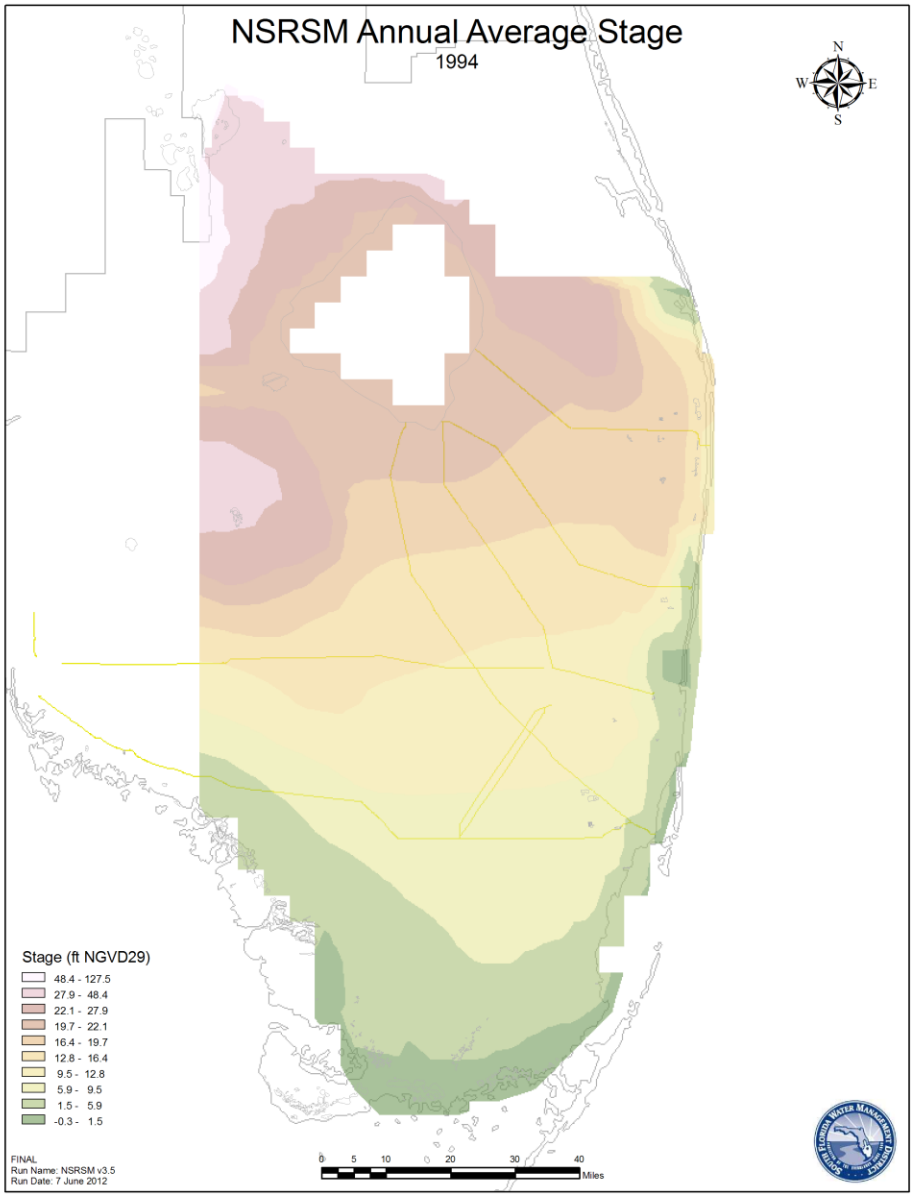
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles


NSRSM Annual Average Stage
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W
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S
Stage (ft NGVD29)
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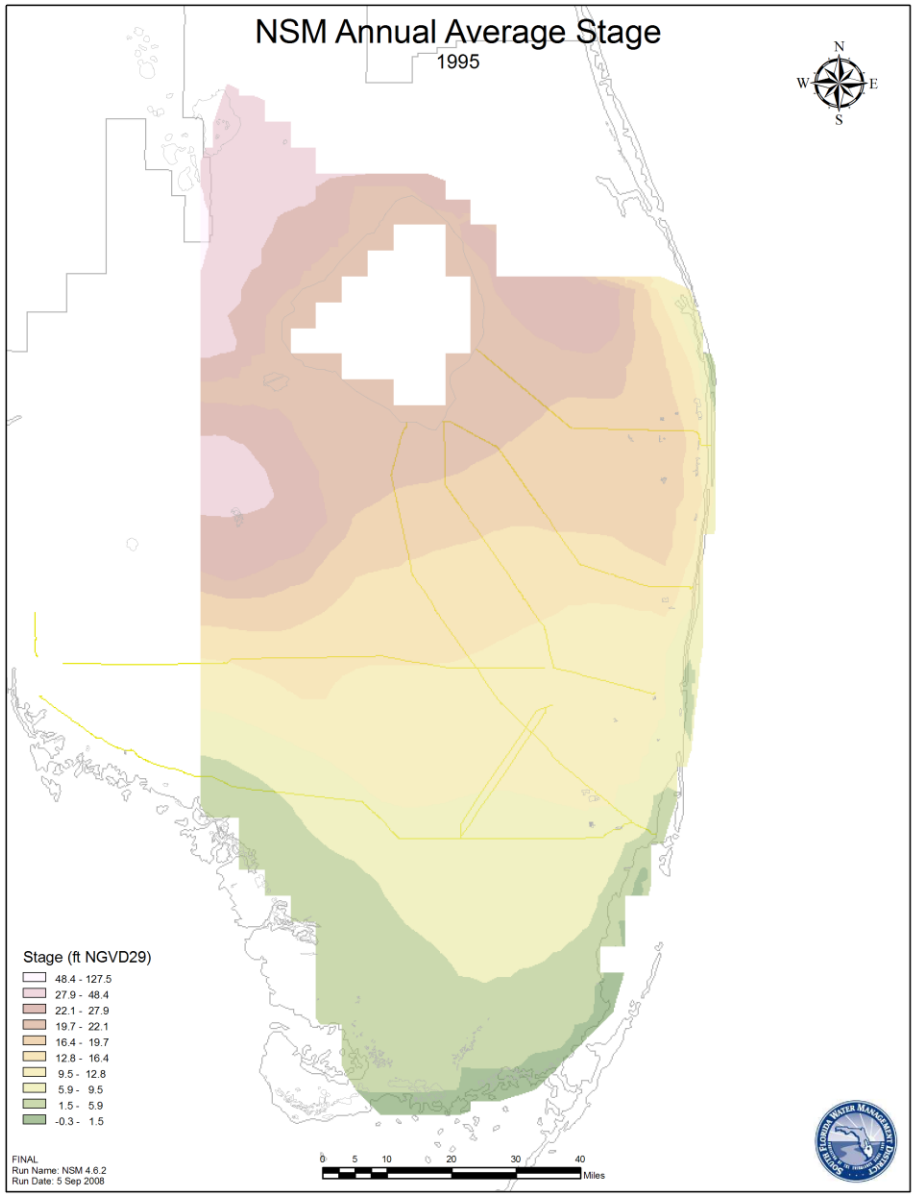
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
1.5 - 5.9
-0.3 - 1.5
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles


NSM Annual Average Stage
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Stage (ft NGVD29)
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12.8 - 16.4
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5.9 - 9.5
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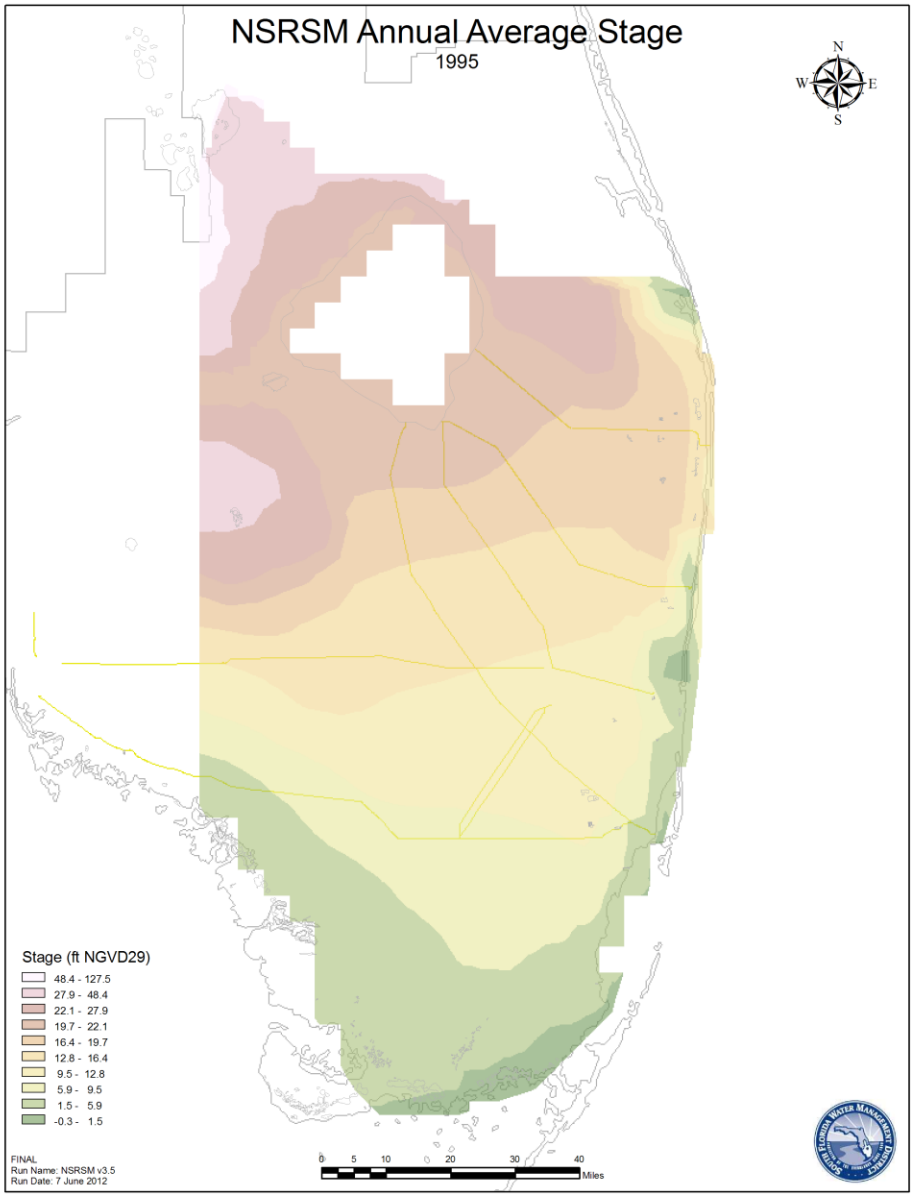
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles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Stage (ft NGVD29)
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12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
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FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
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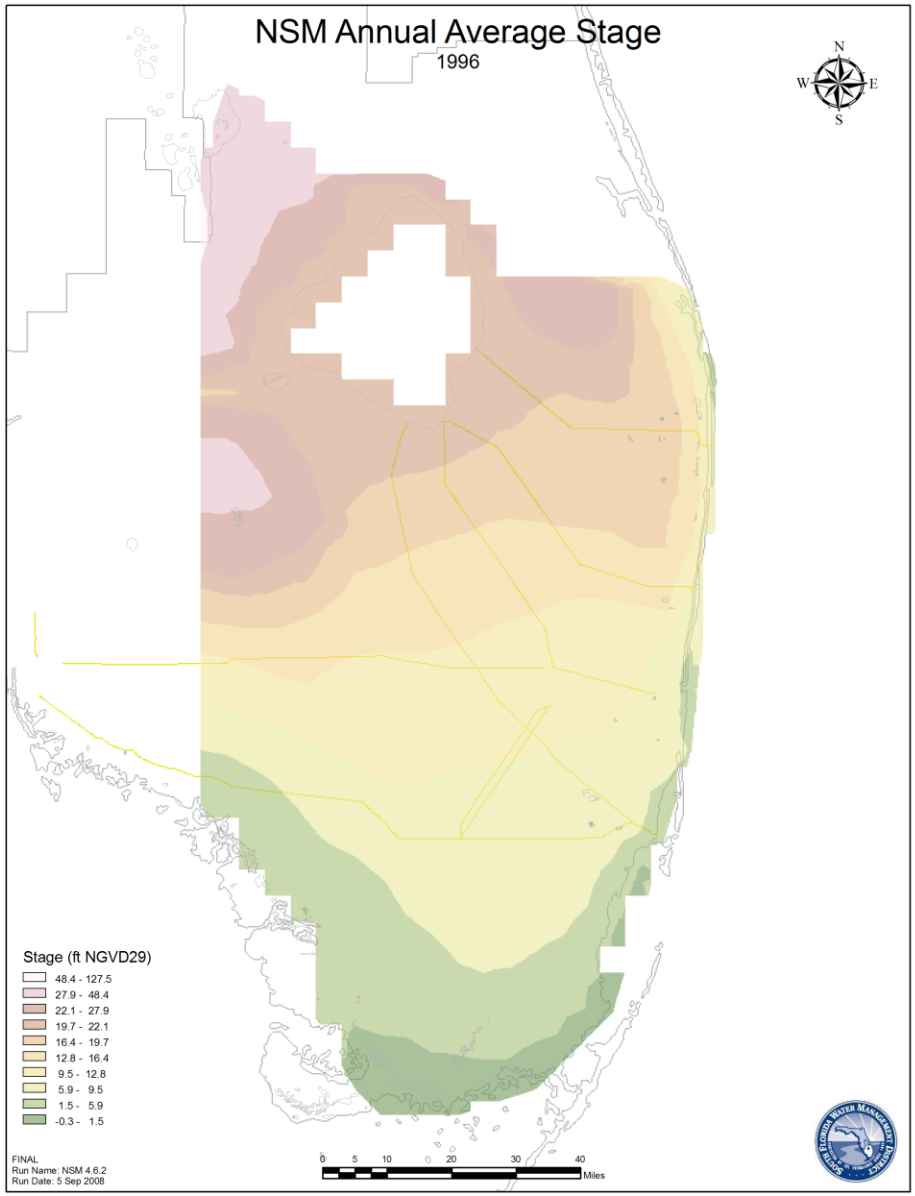
NSM Annual Average Stage
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S
Stage (ft NGVD29)
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22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
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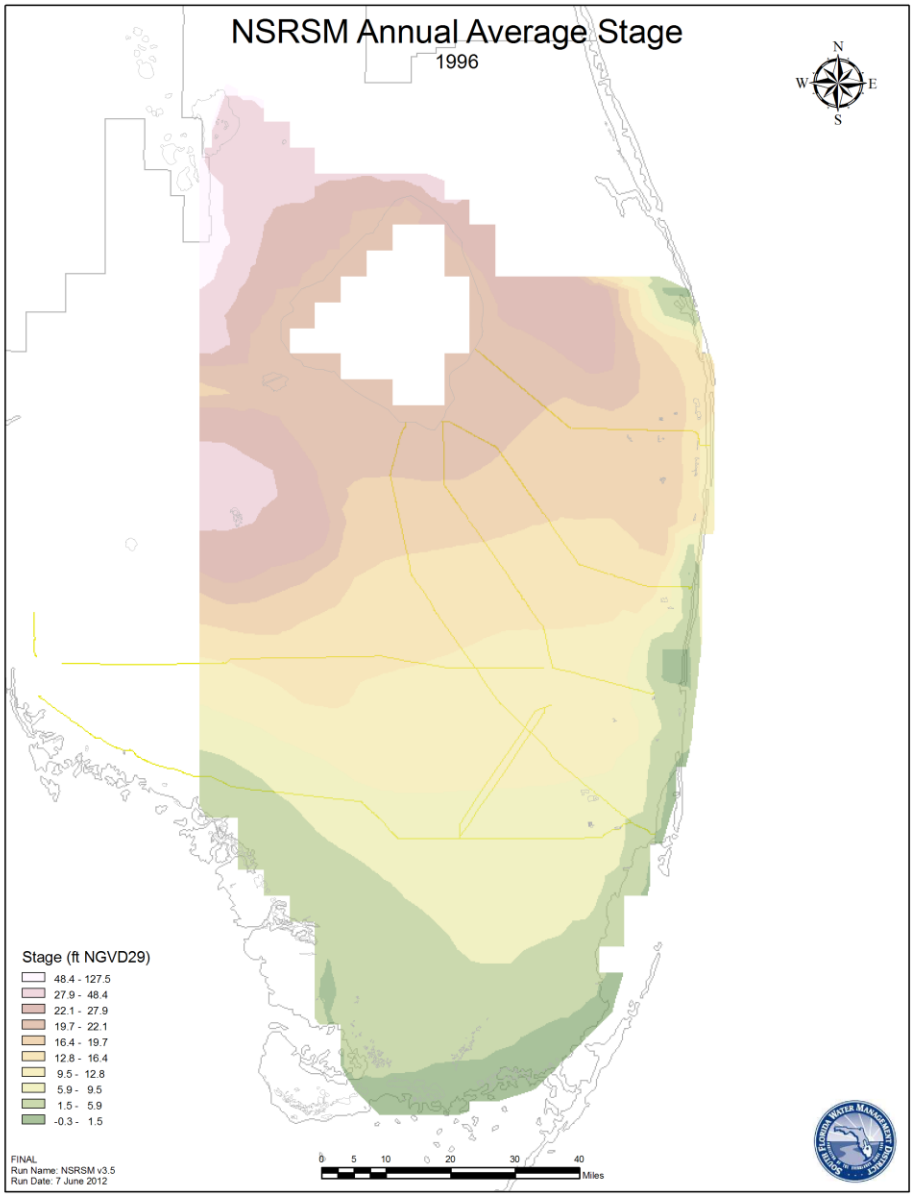
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles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Stage (ft NGVD29)
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16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
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FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
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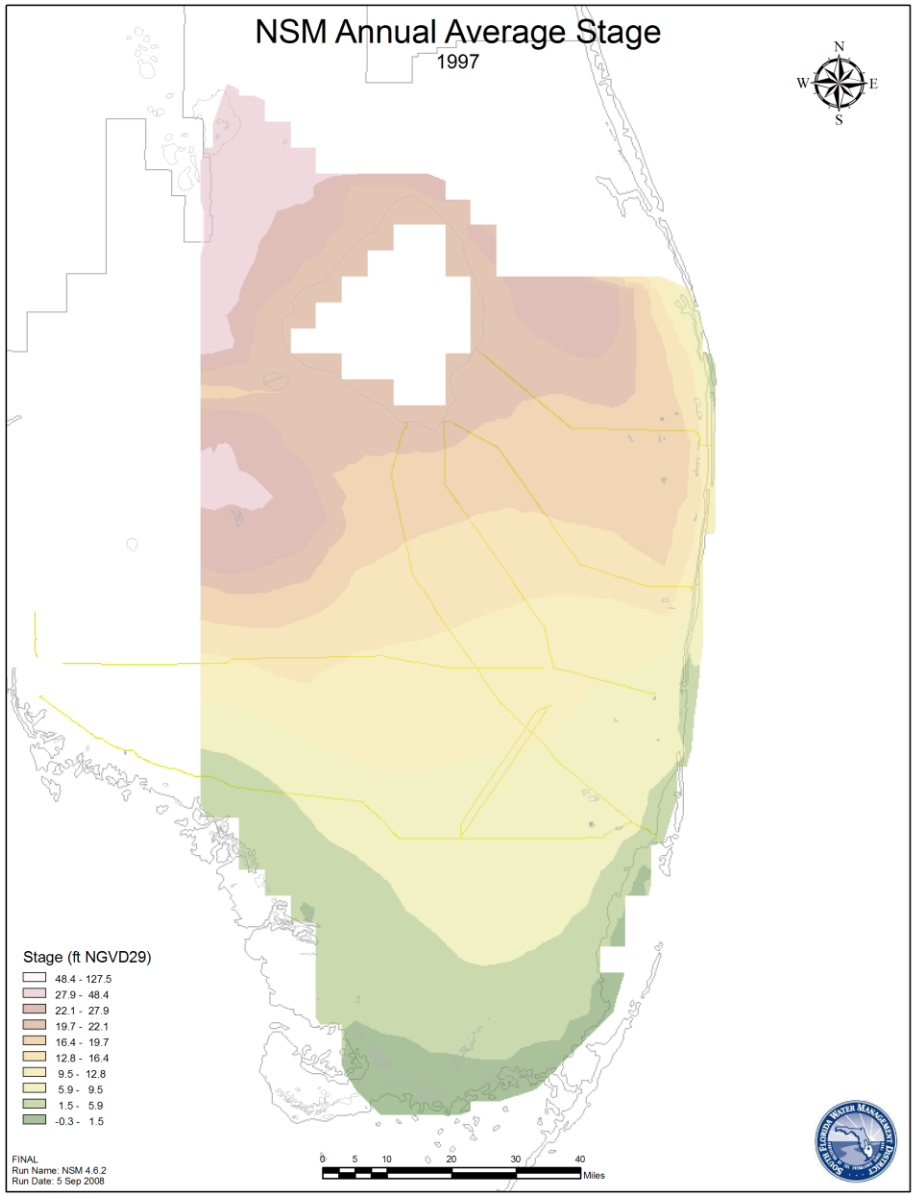
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Stage (ft NGVD29)
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12.8 - 16.4
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FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
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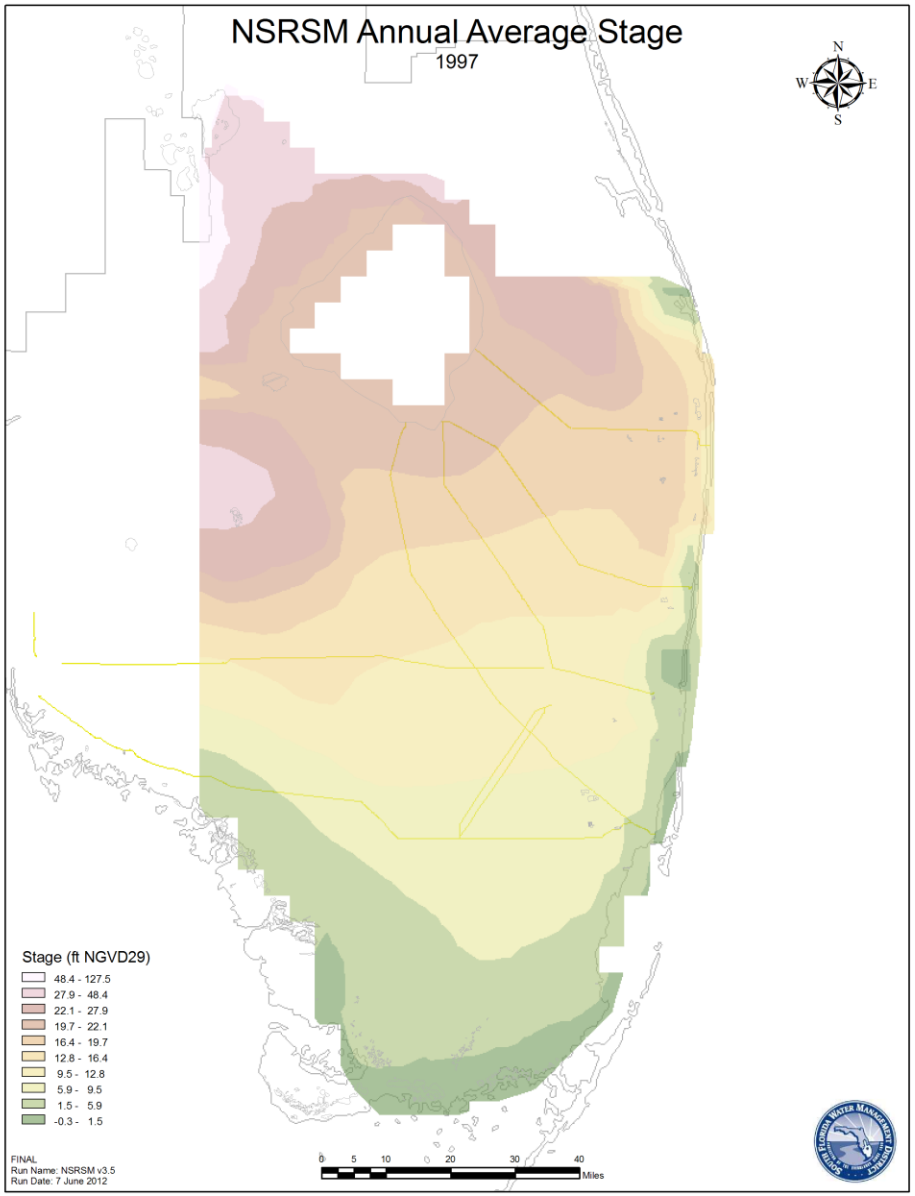
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Stage (ft NGVD29)
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12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
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Run Name: NSRSM v3.5
Run Date: 7 June 2012
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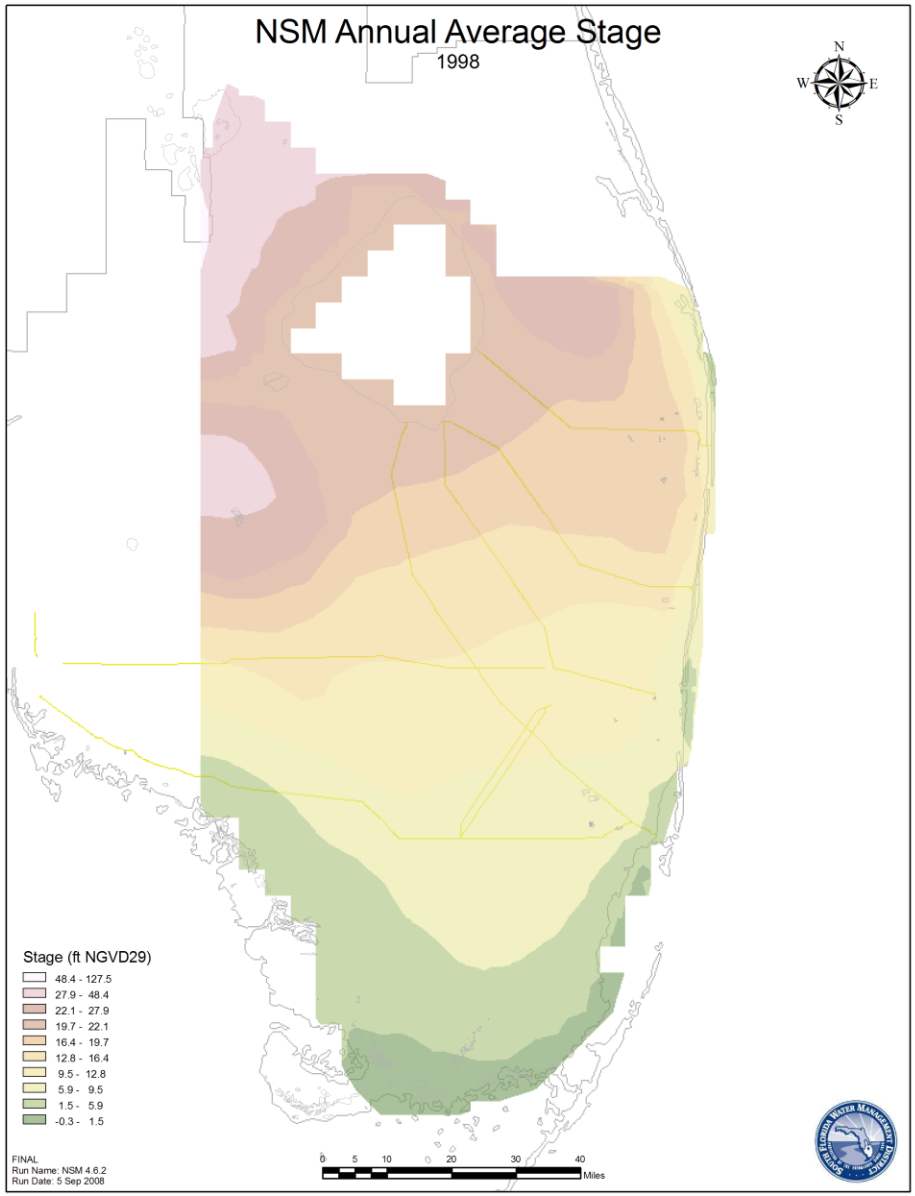
NSM Annual Average Stage
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S
Stage (ft NGVD29)
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22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
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FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
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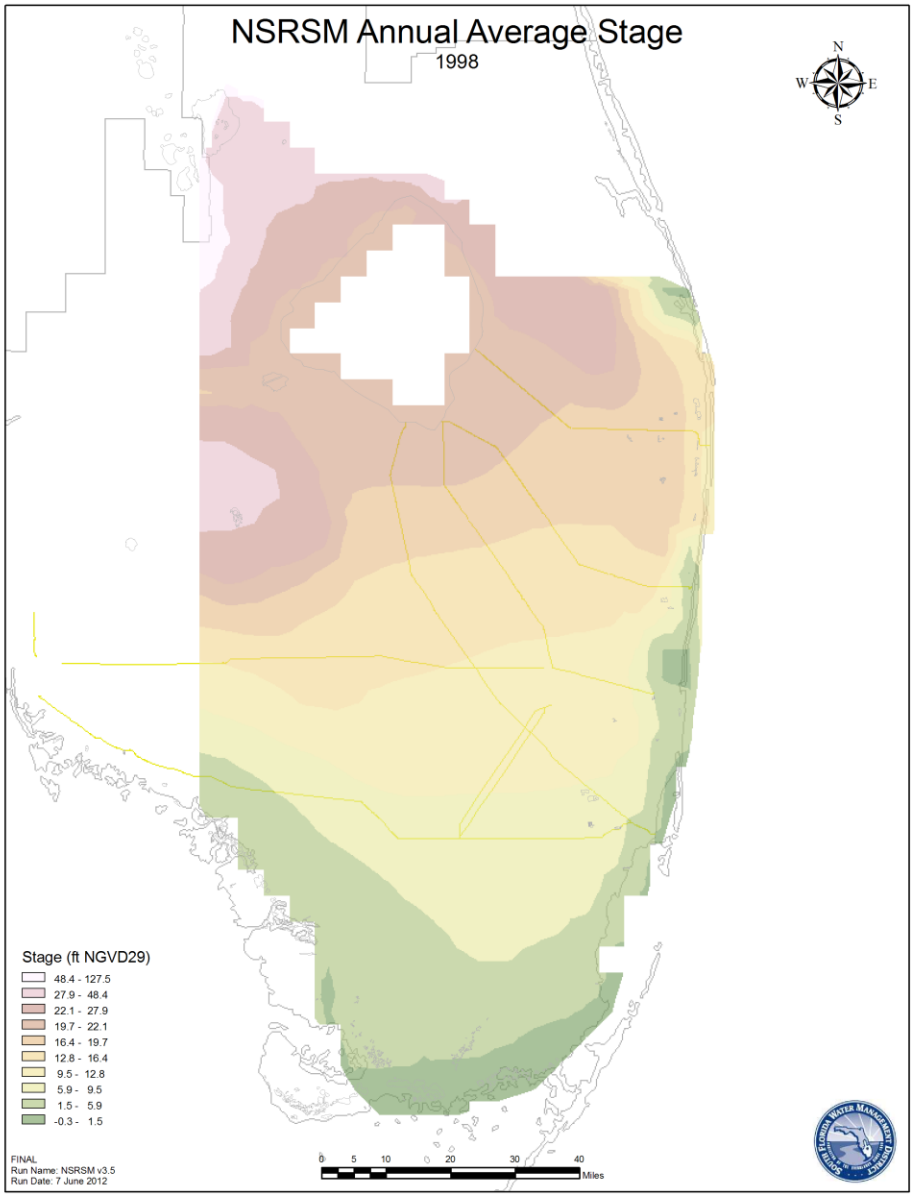
Miles


NSRSM Annual Average Stage
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S
Stage (ft NGVD29)
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22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
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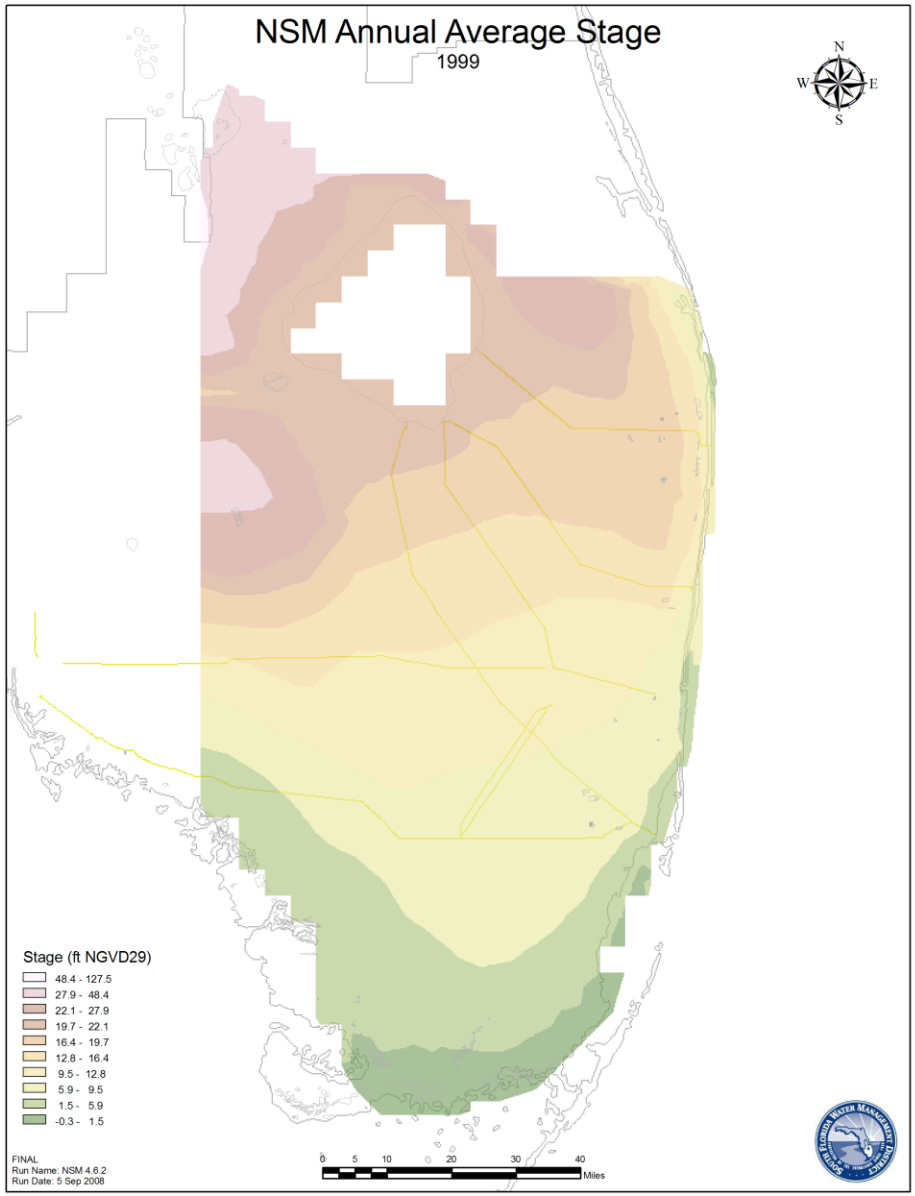
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles


NSM Annual Average Stage
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Stage (ft NGVD29)
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19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
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FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
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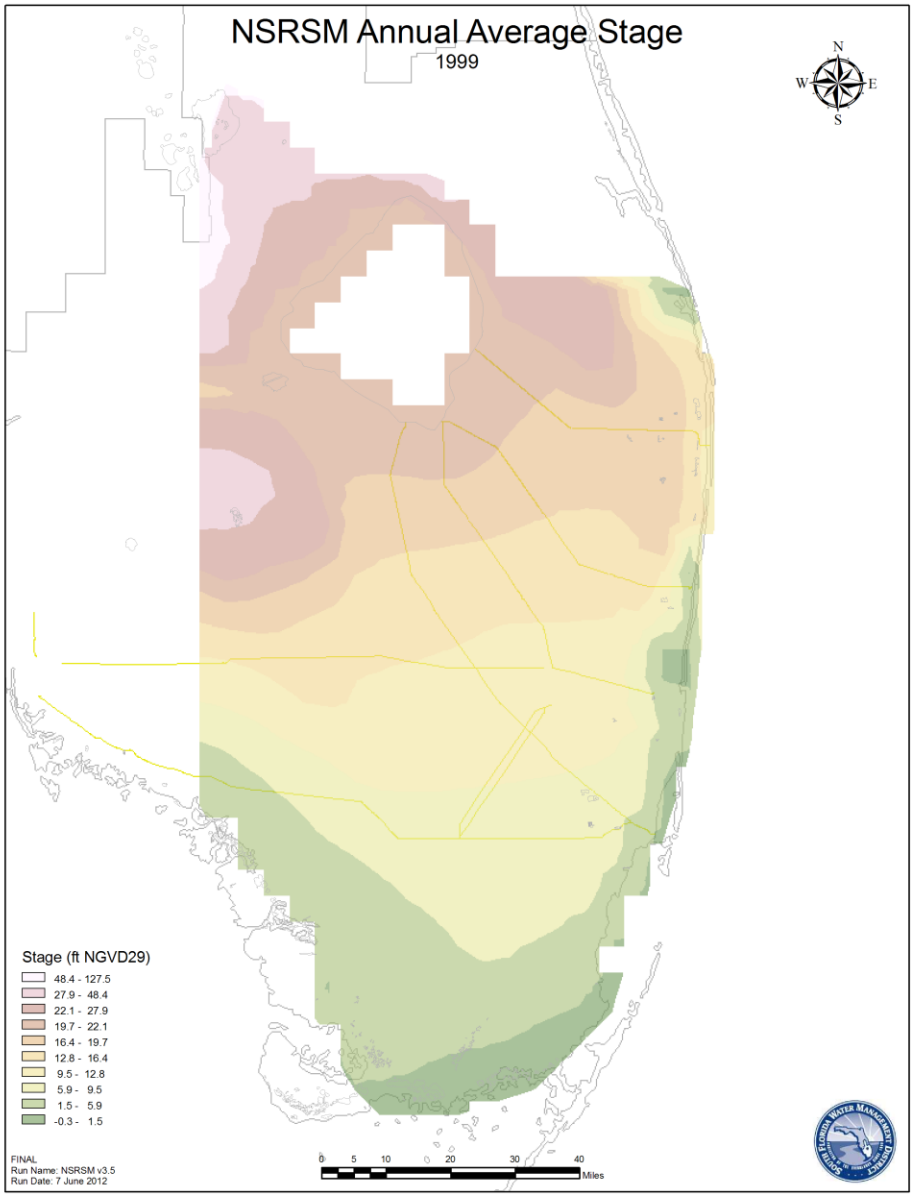
NSRSM Annual Average Stage
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Stage (ft NGVD29)
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16.4 - 19.7
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9.5 - 12.8
5.9 - 9.5
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FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
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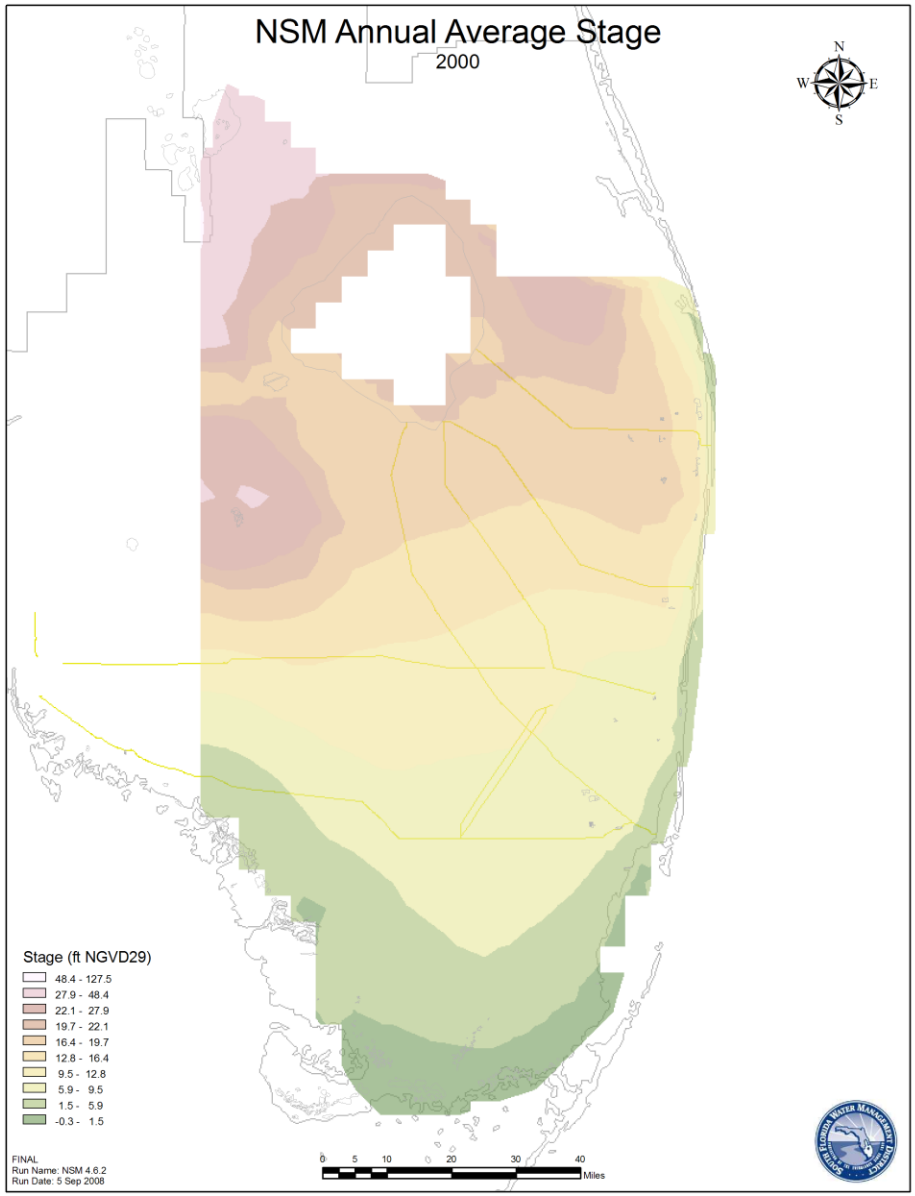
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Stage (ft NGVD29)
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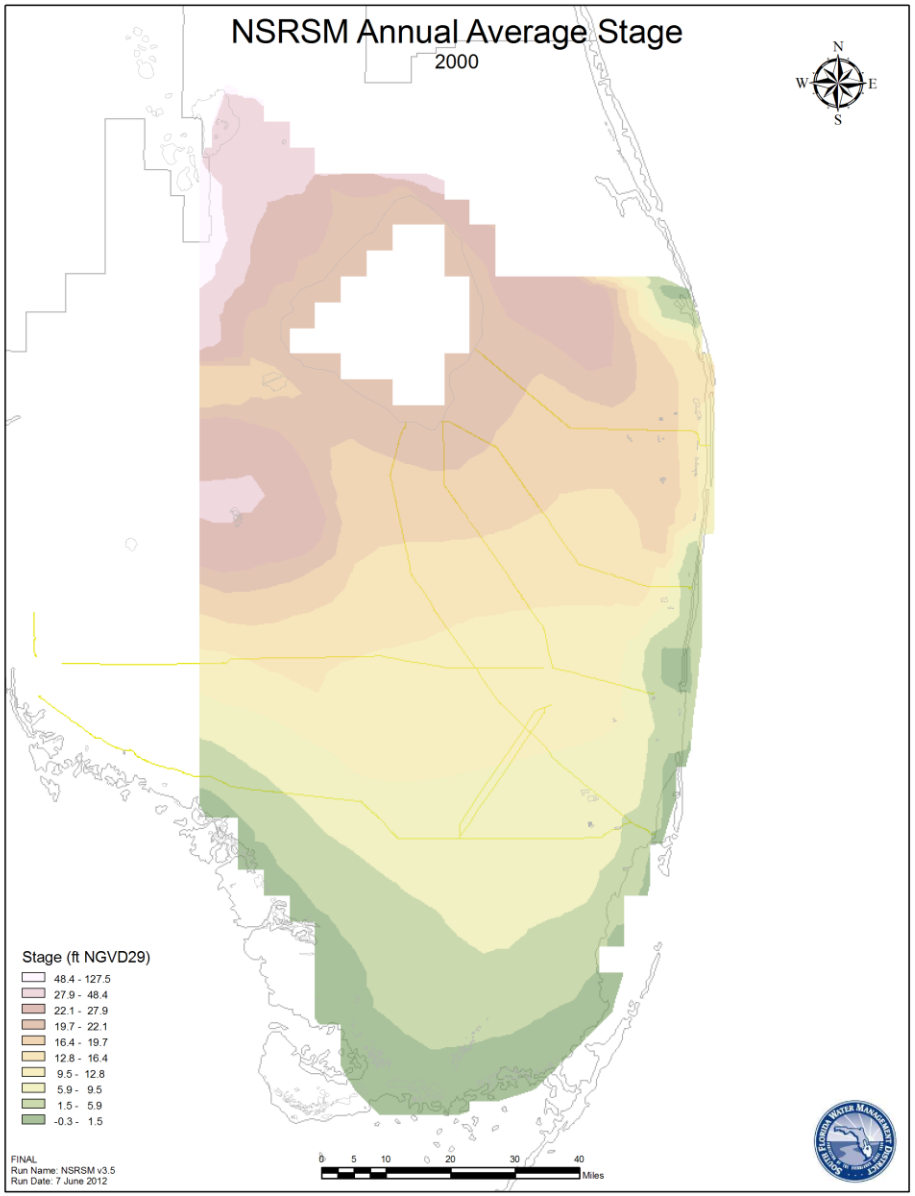
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles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S
Stage (ft NGVD29)
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12.8 - 16.4
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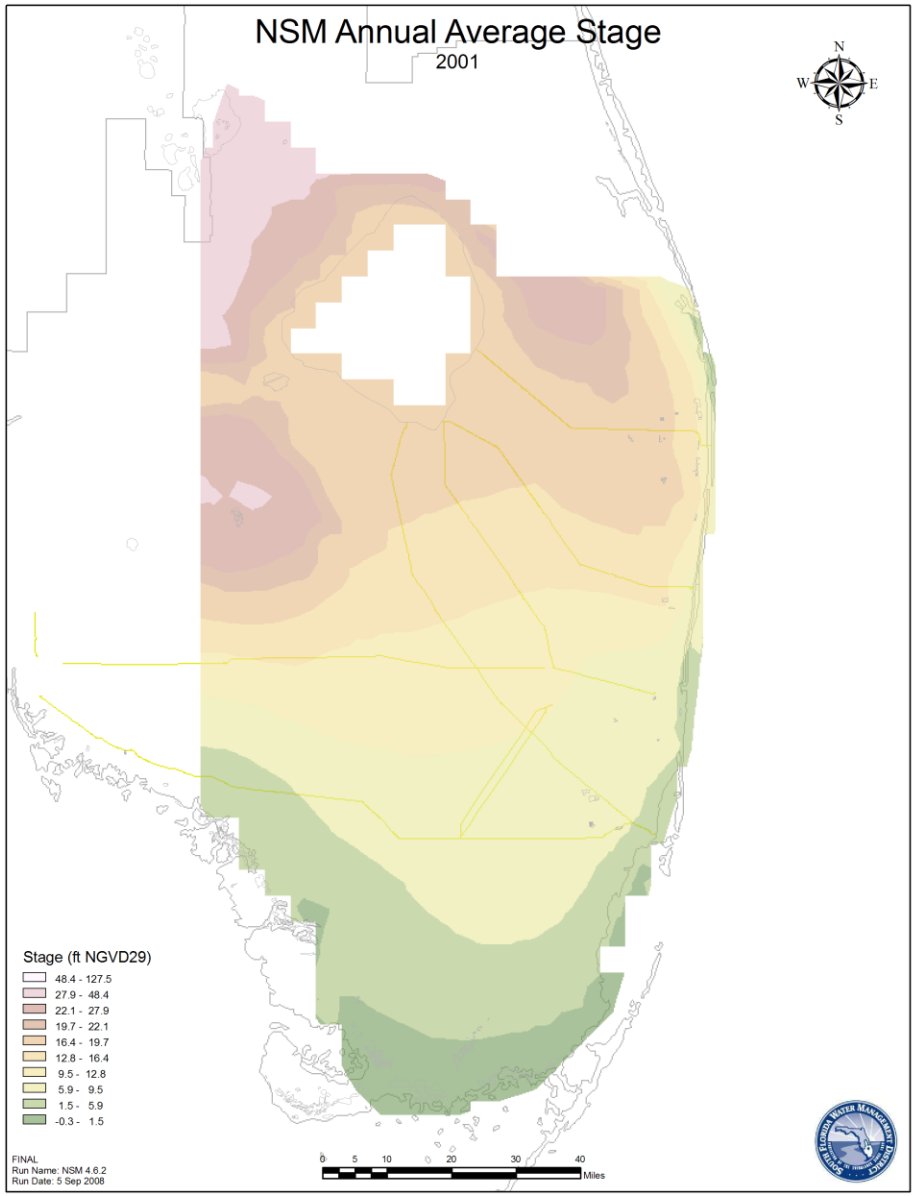
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles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W
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S
Stage (ft NGVD29)
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27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
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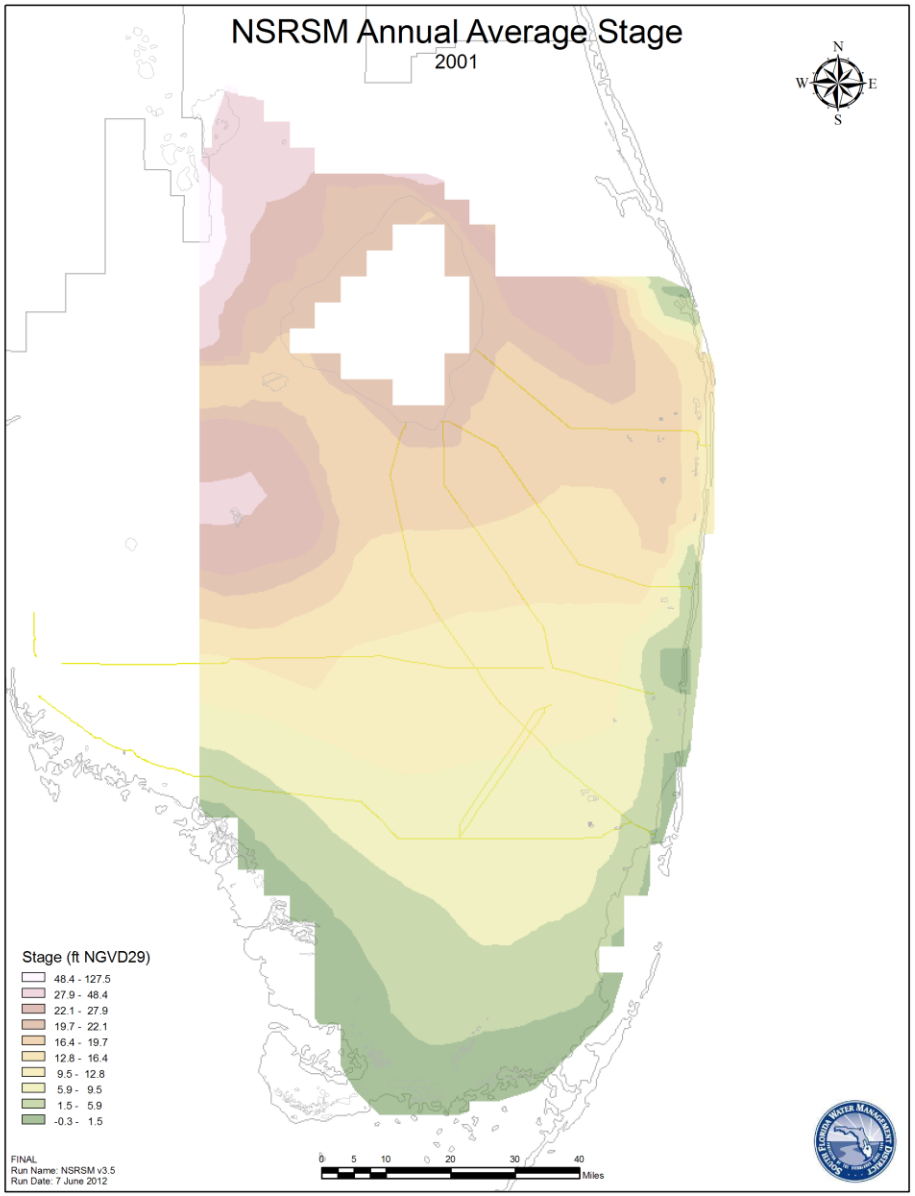
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles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Stage (ft NGVD29)
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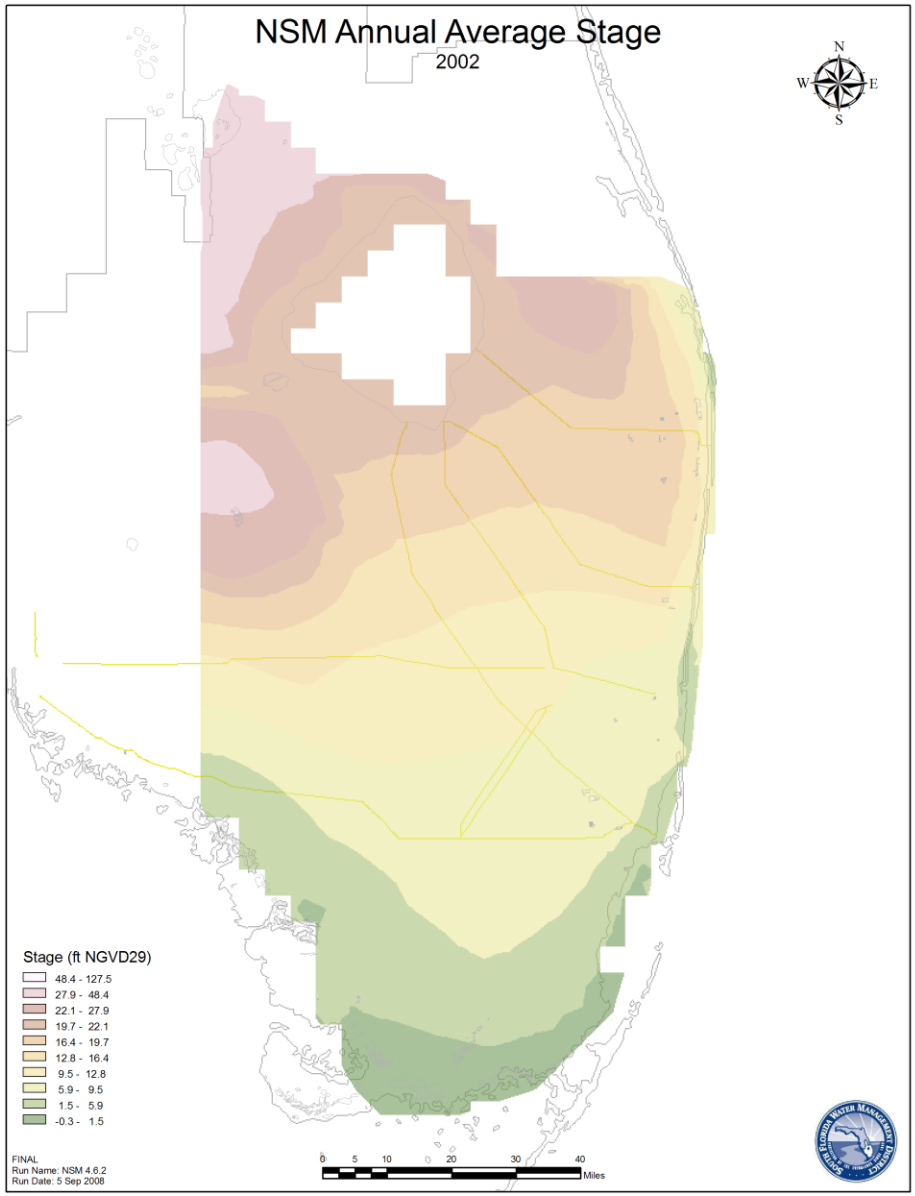
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles


NSM Annual Average Stage
2002
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W
E
S
Stage (ft NGVD29)
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19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
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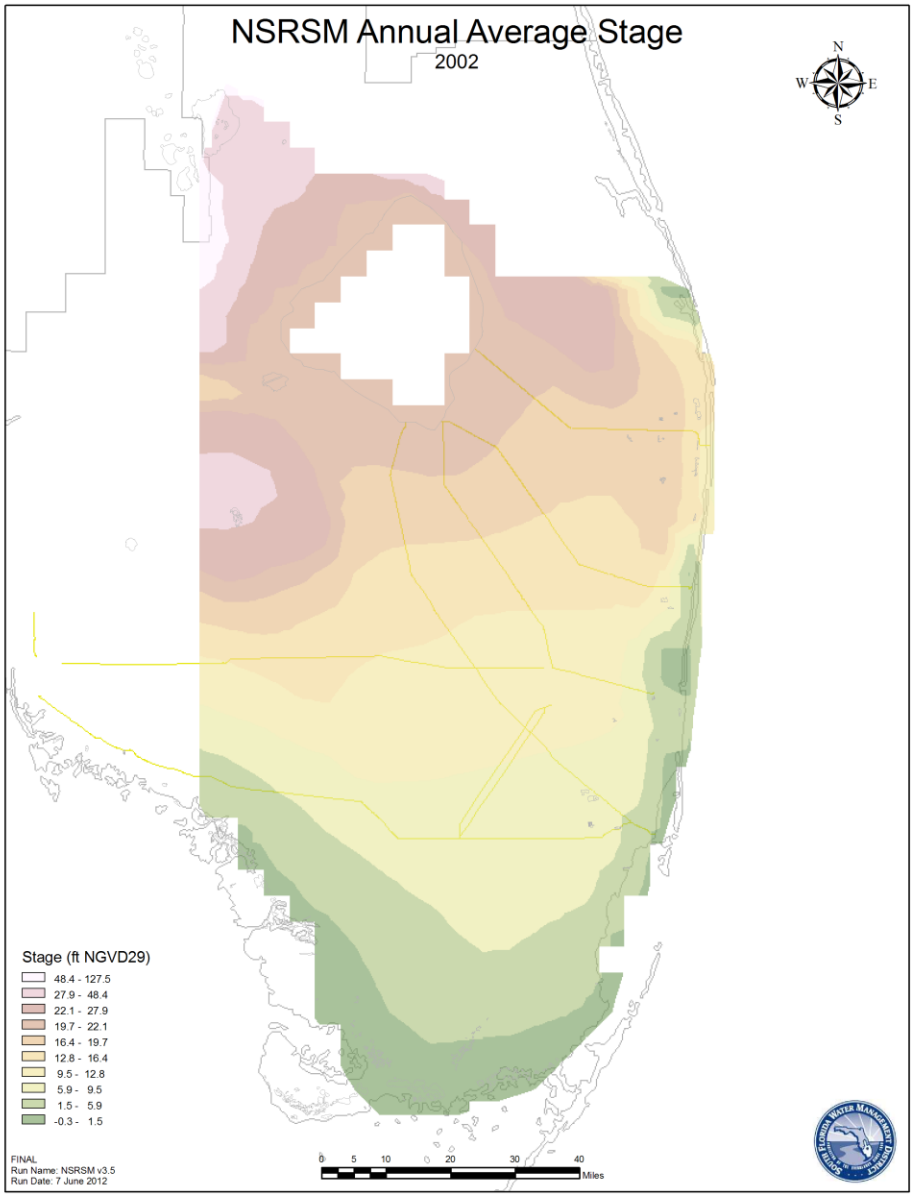
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles


NSRSM Annual Average Stage
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Stage (ft NGVD29)
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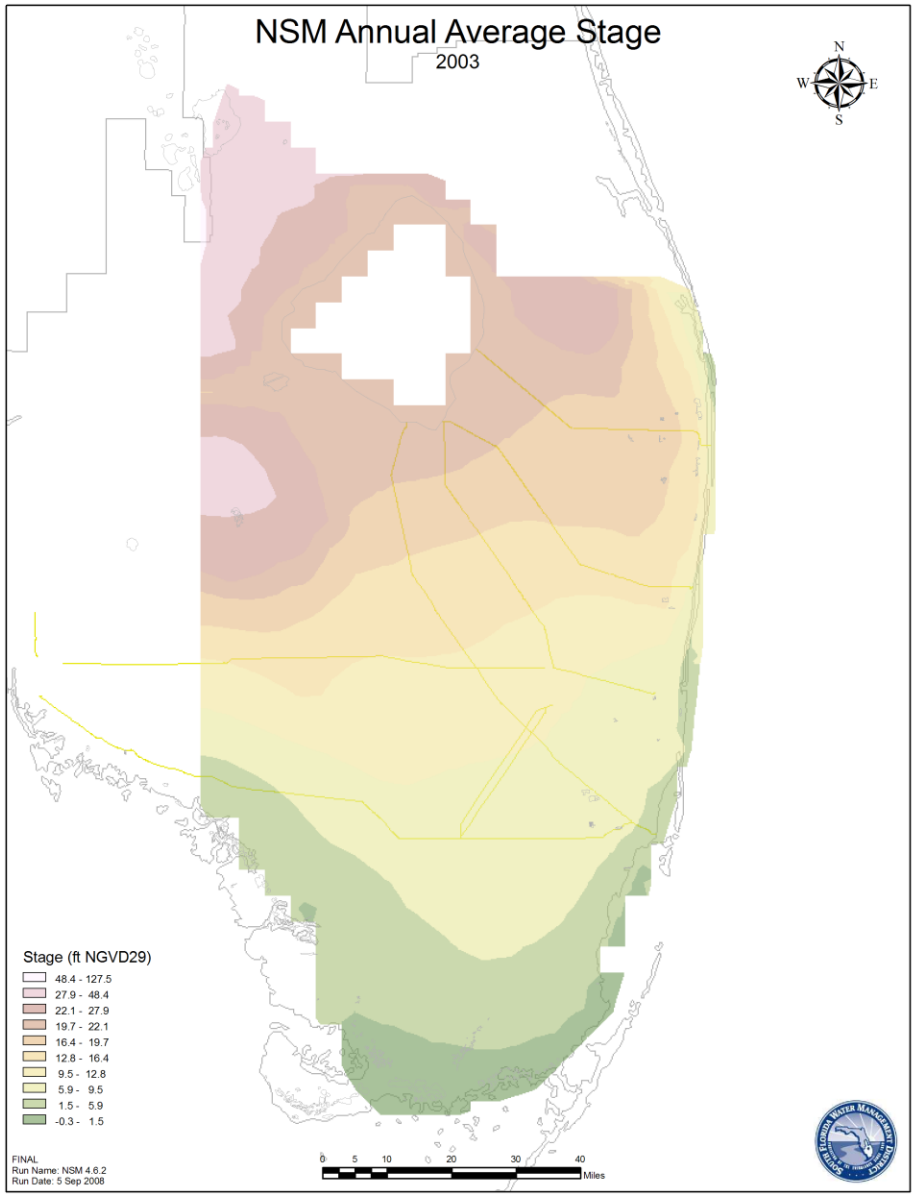
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles


NSM Annual Average Stage
2003
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W
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S
Stage (ft NGVD29)
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22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
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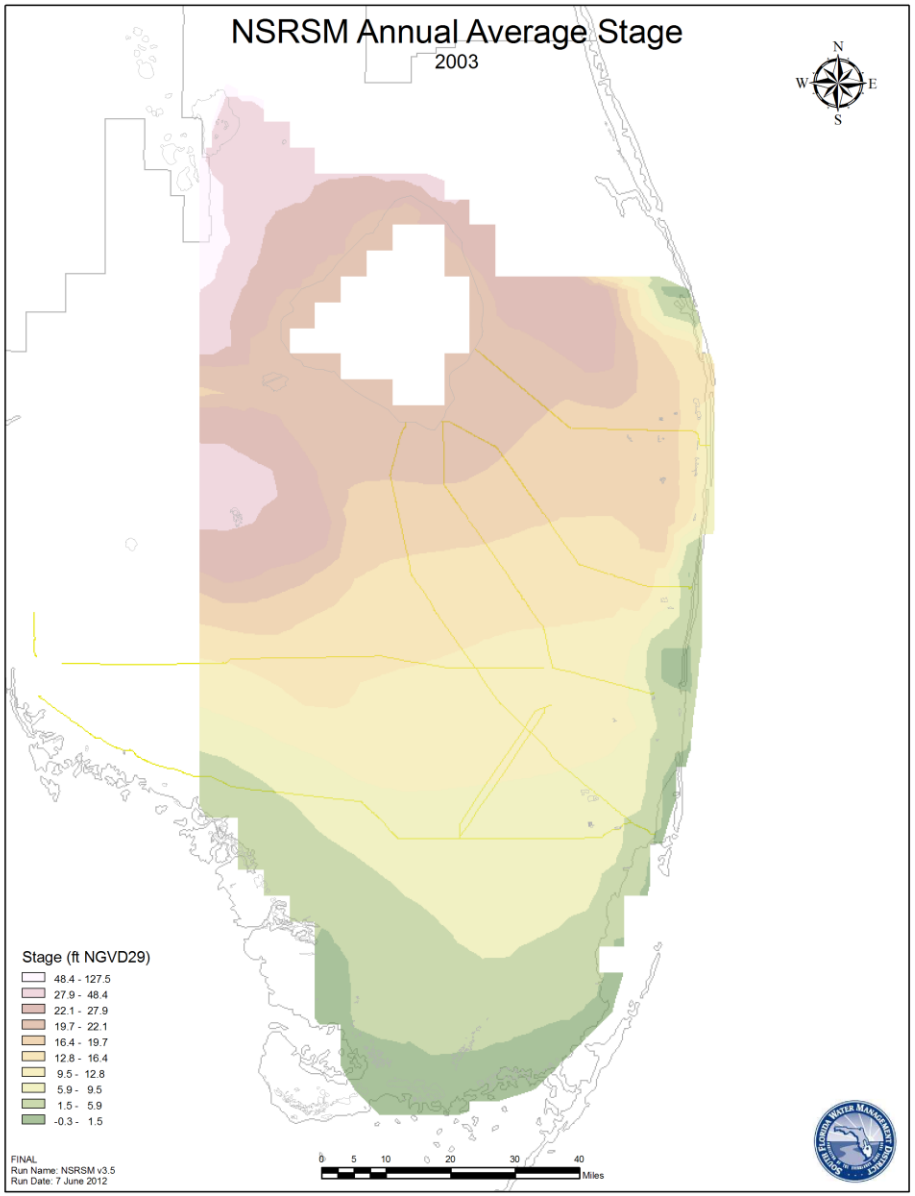
-0.3 - 1.5
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles


NSRSM Annual Average Stage
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Stage (ft NGVD29)
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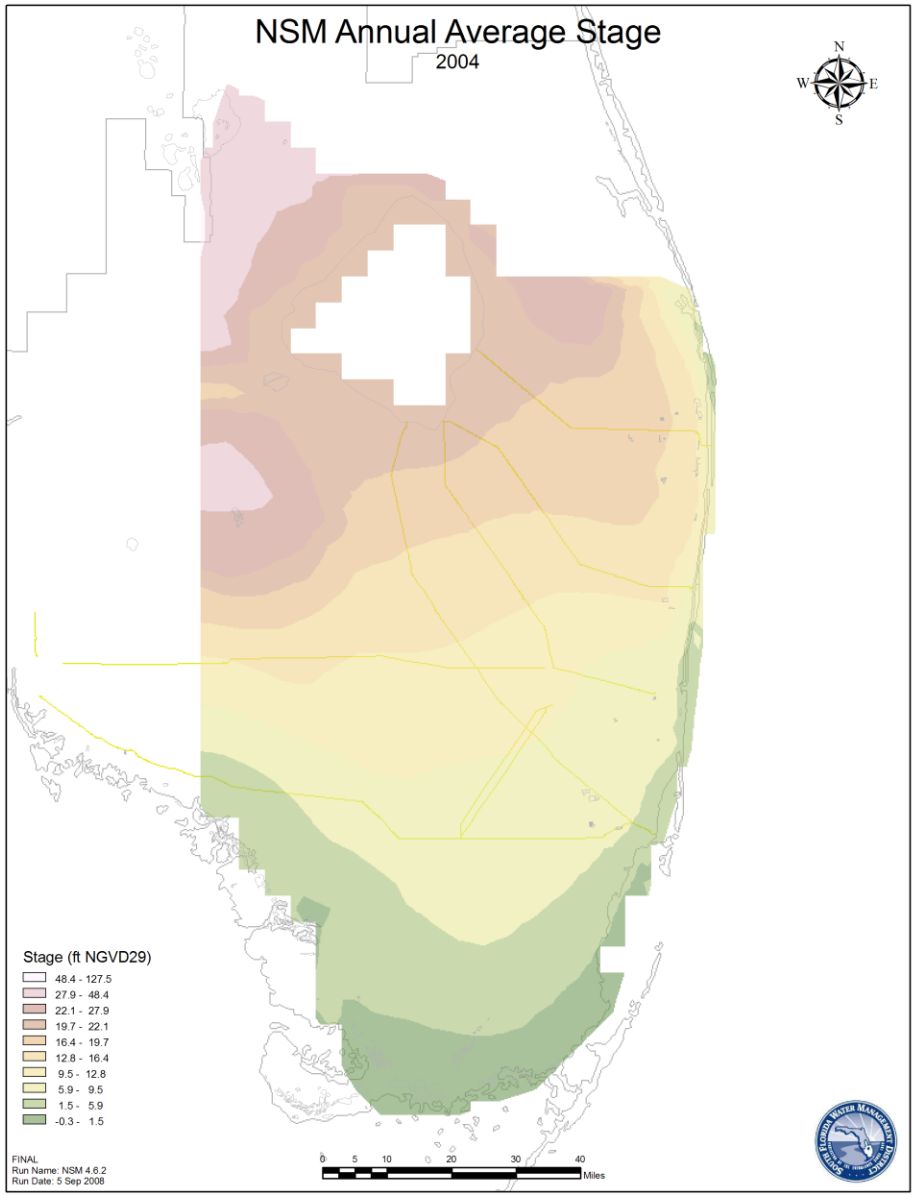
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles


NSM Annual Average Stage
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S
Stage (ft NGVD29)
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19.7 - 22.1
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12.8 - 16.4
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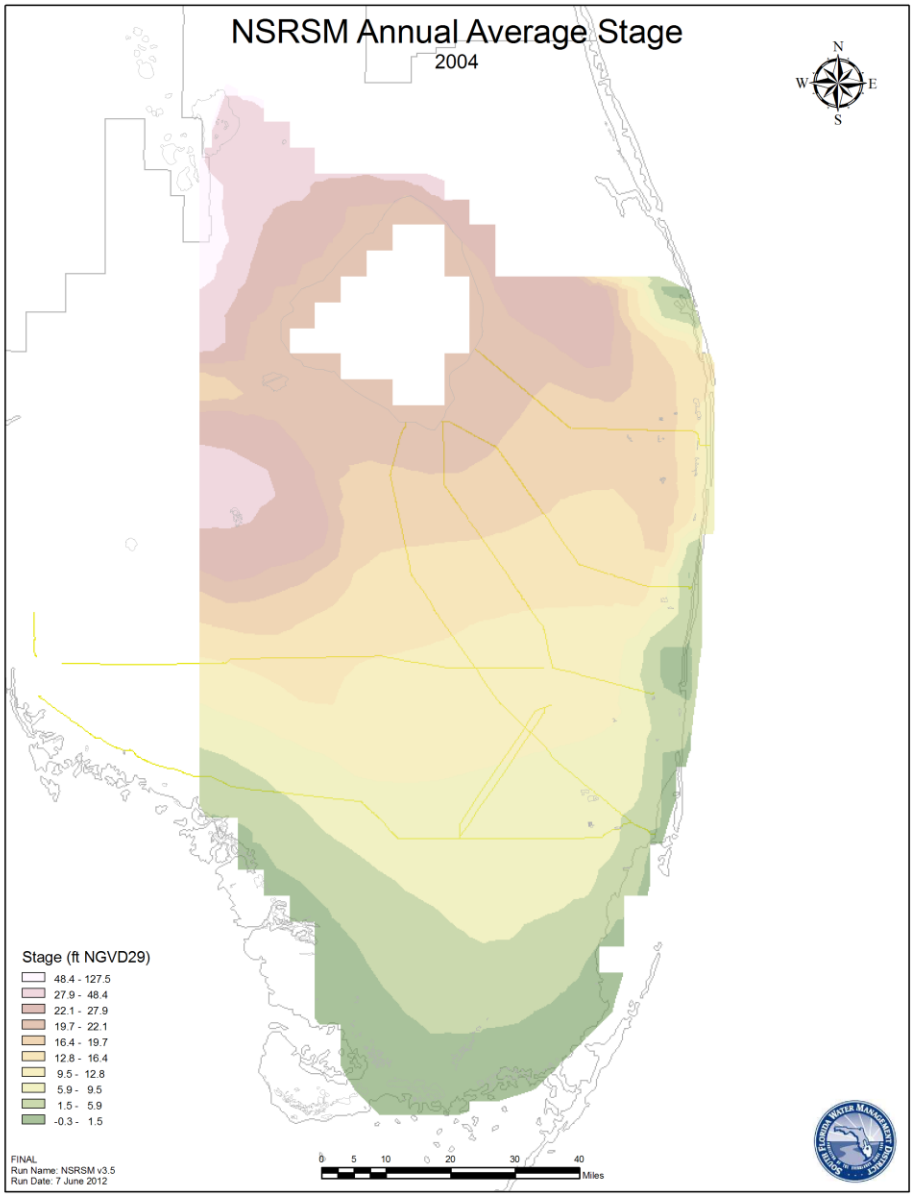
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles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Stage (ft NGVD29)
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5.9 - 9.5
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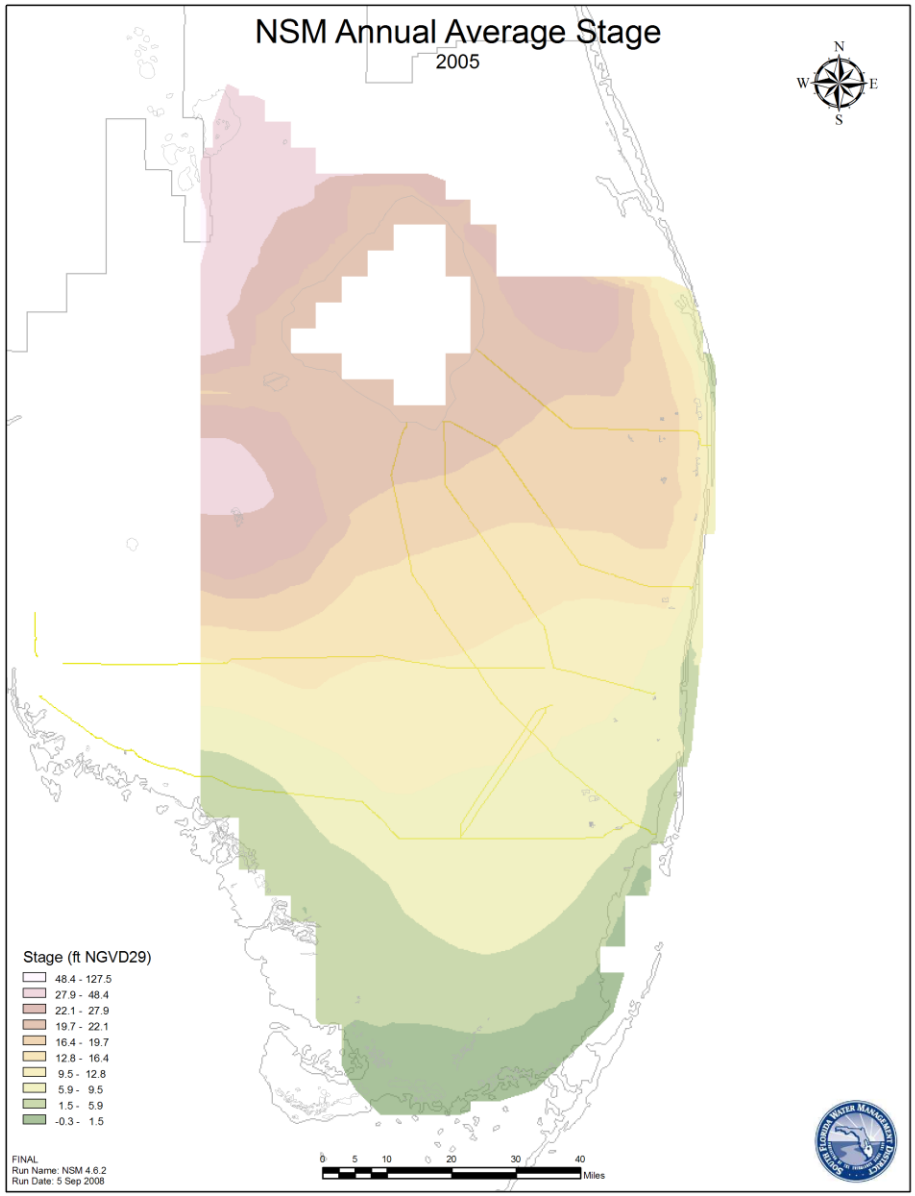
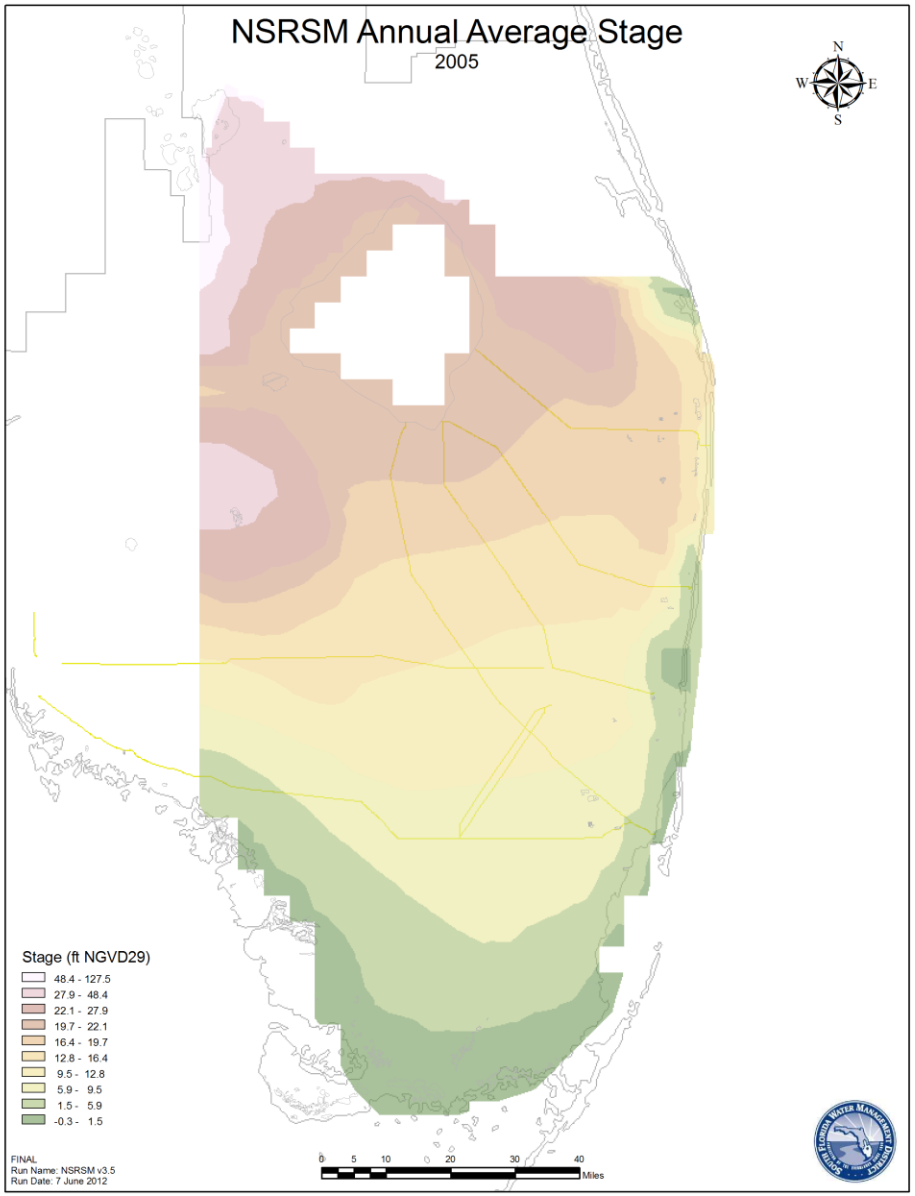
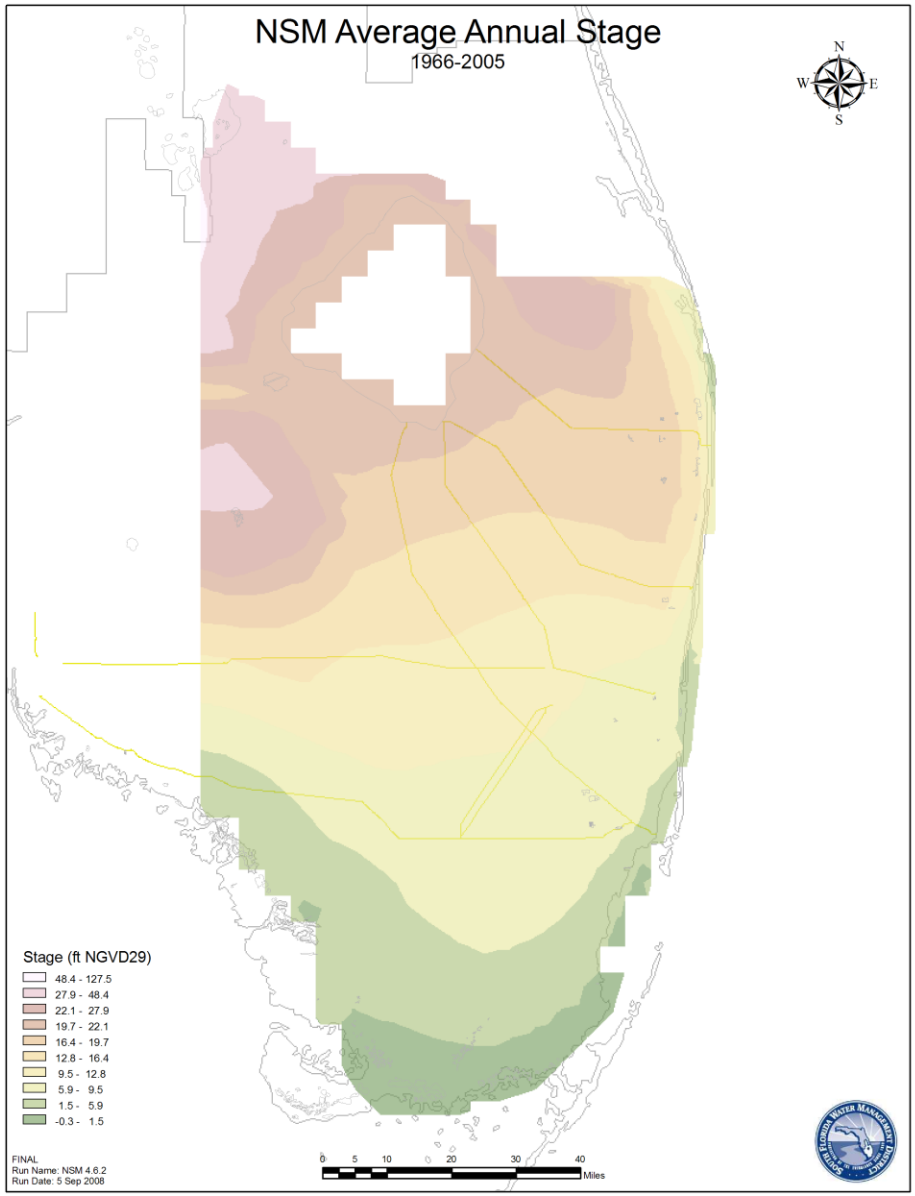
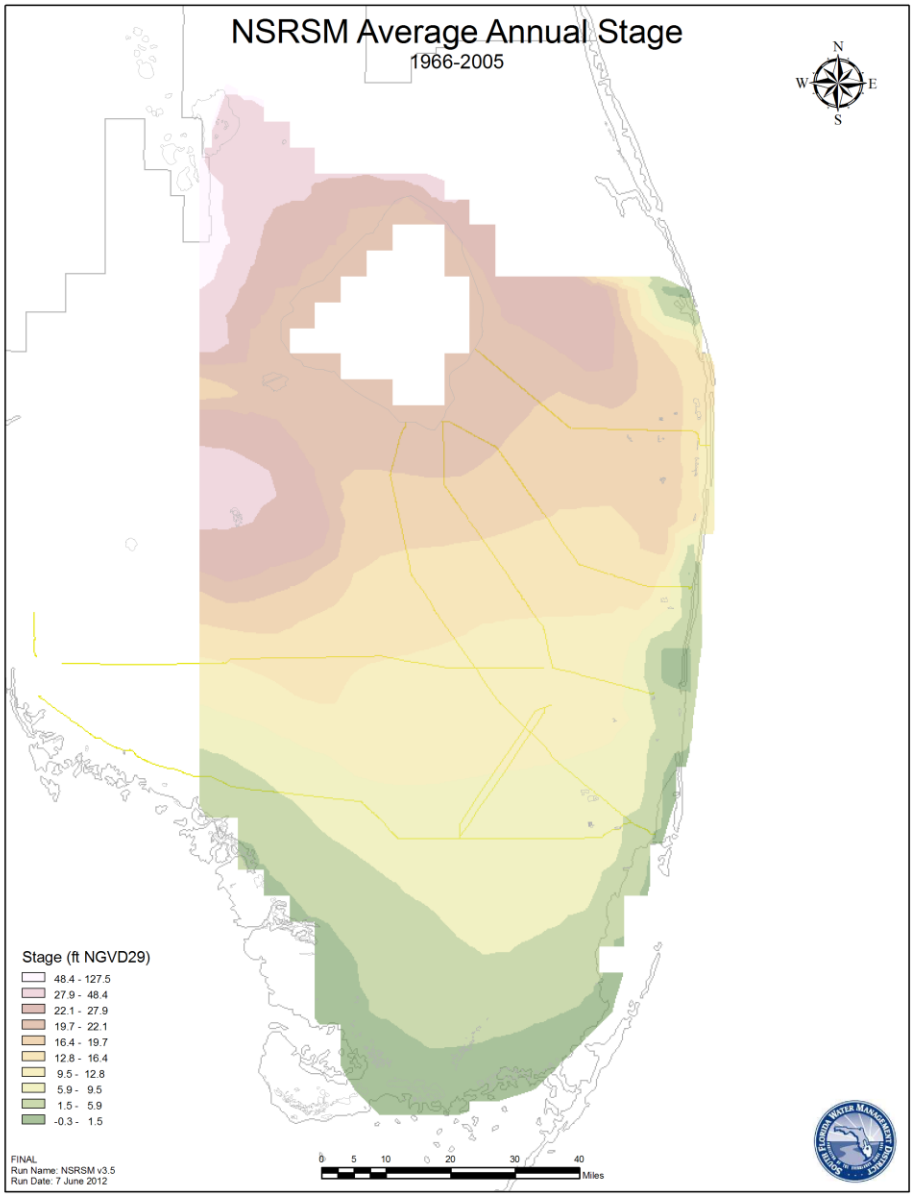
-0.3 - 1.5
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

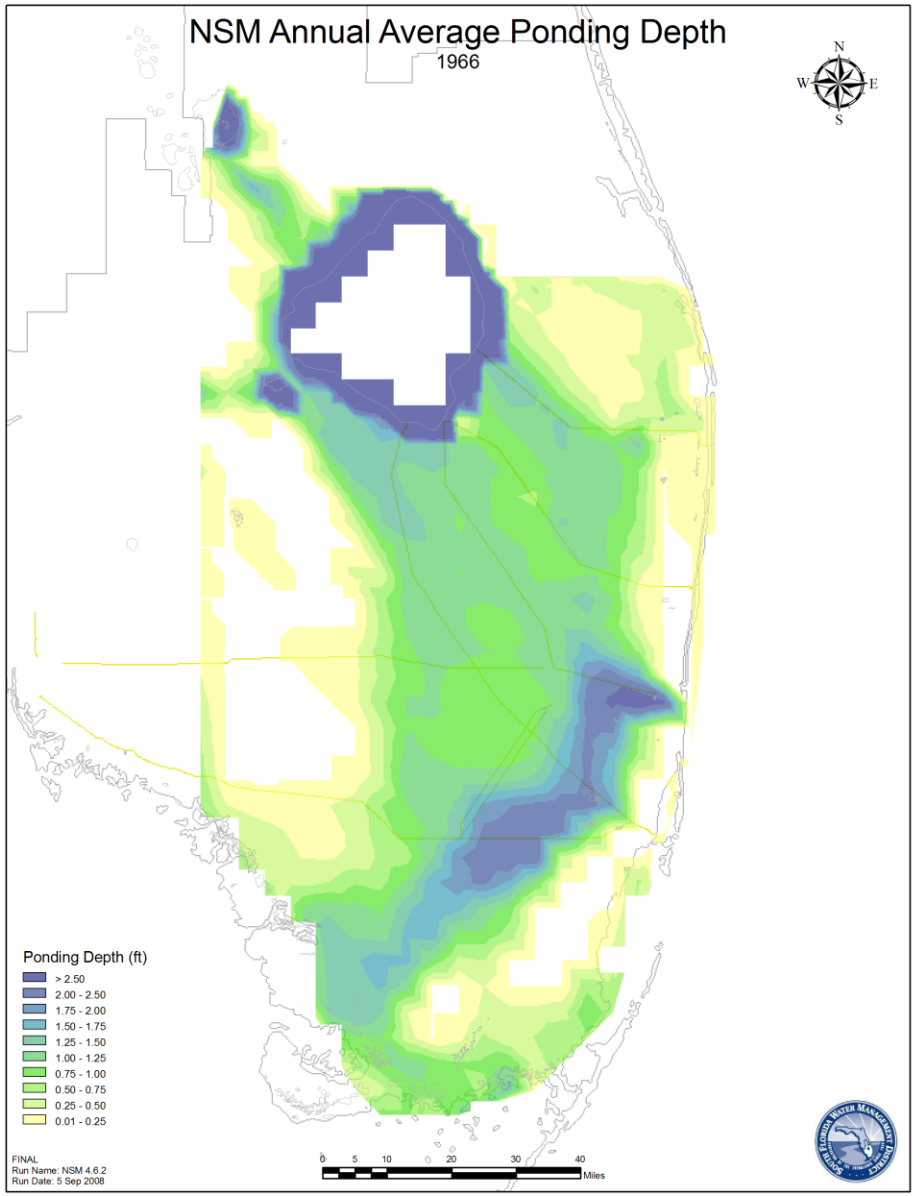

NSM Annual Average Stage
2005
N
W
E
S
Stage (ft NGVD29)
48.4 - 127.5
27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
1.5 - 5.9
-0.3 - 1.5
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

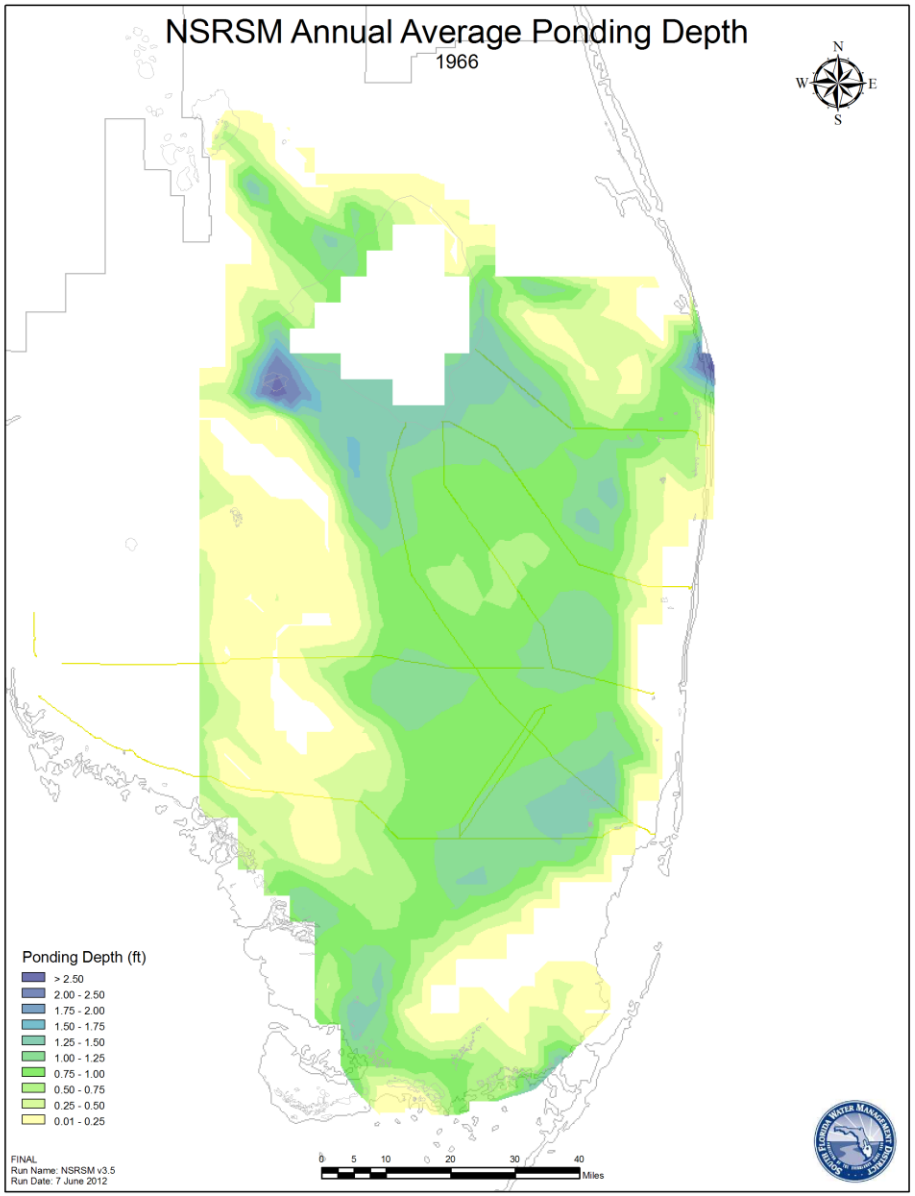

NSRSM Annual Average Stage
2005
N
W
E
S
Stage (ft NGVD29)
48.4 - 127.5
27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
1.5 - 5.9
-0.3 - 1.5
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

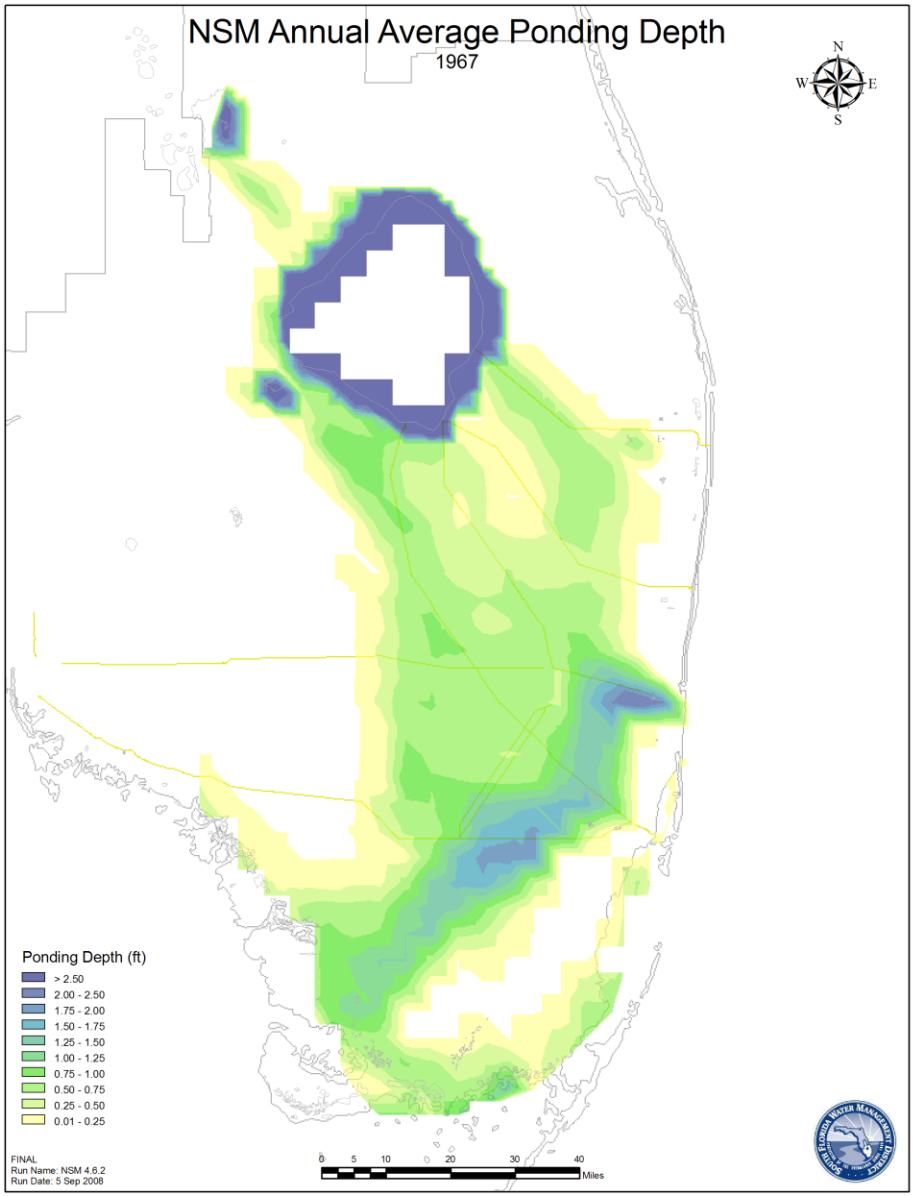

NSM Average Annual Stage
1966-2005
N
W
E
S
Stage (ft NGVD29)
48.4 - 127.5
27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
1.5 - 5.9
-0.3 - 1.5
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

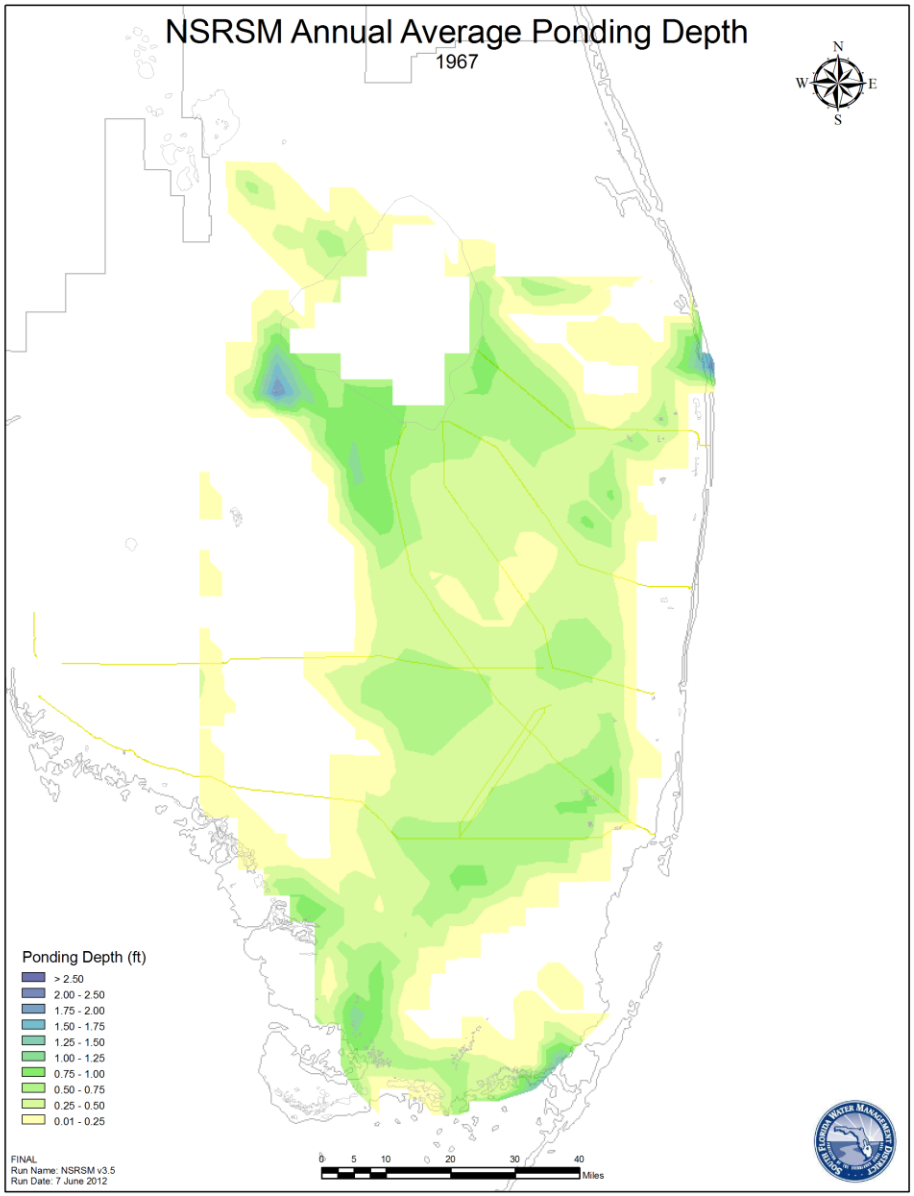

NSRSM Average Annual Stage
1966-2005
N
W
E
S
Stage (ft NGVD29)
48.4 - 127.5
27.9 - 48.4
22.1 - 27.9
19.7 - 22.1
16.4 - 19.7
12.8 - 16.4
9.5 - 12.8
5.9 - 9.5
1.5 - 5.9
-0.3 - 1.5
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

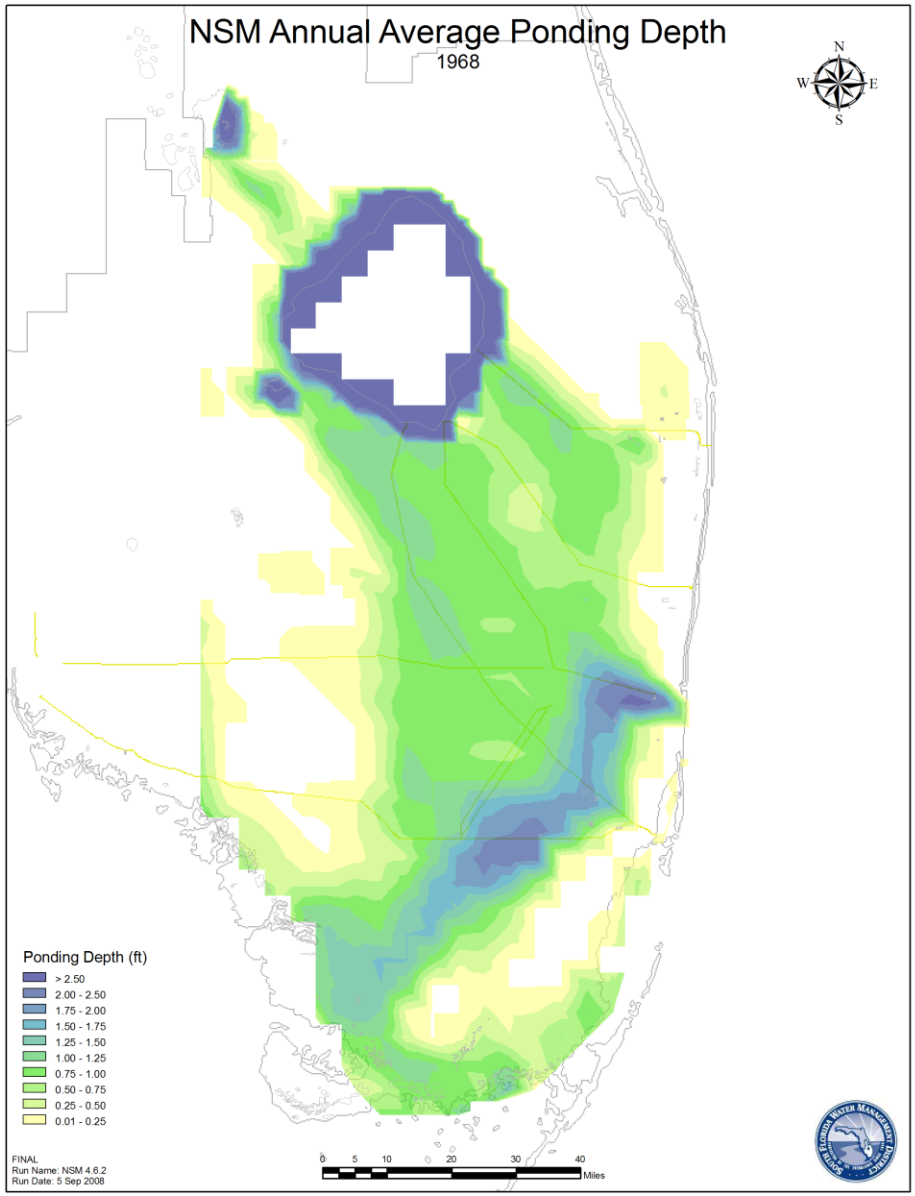
Appendix C
Comparison of Annual Average Ponding Depth (1966-2005)

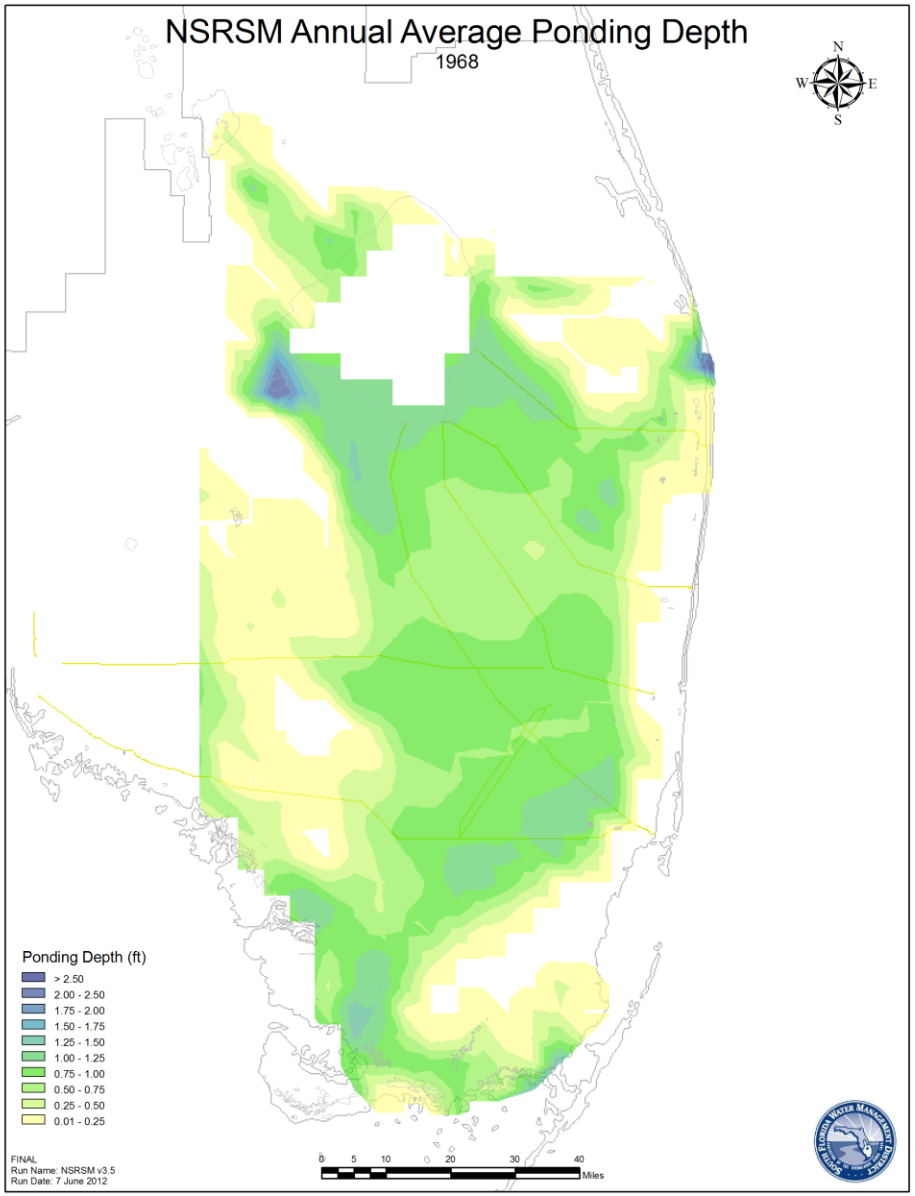

NSM Annual Average Ponding Depth
1966
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

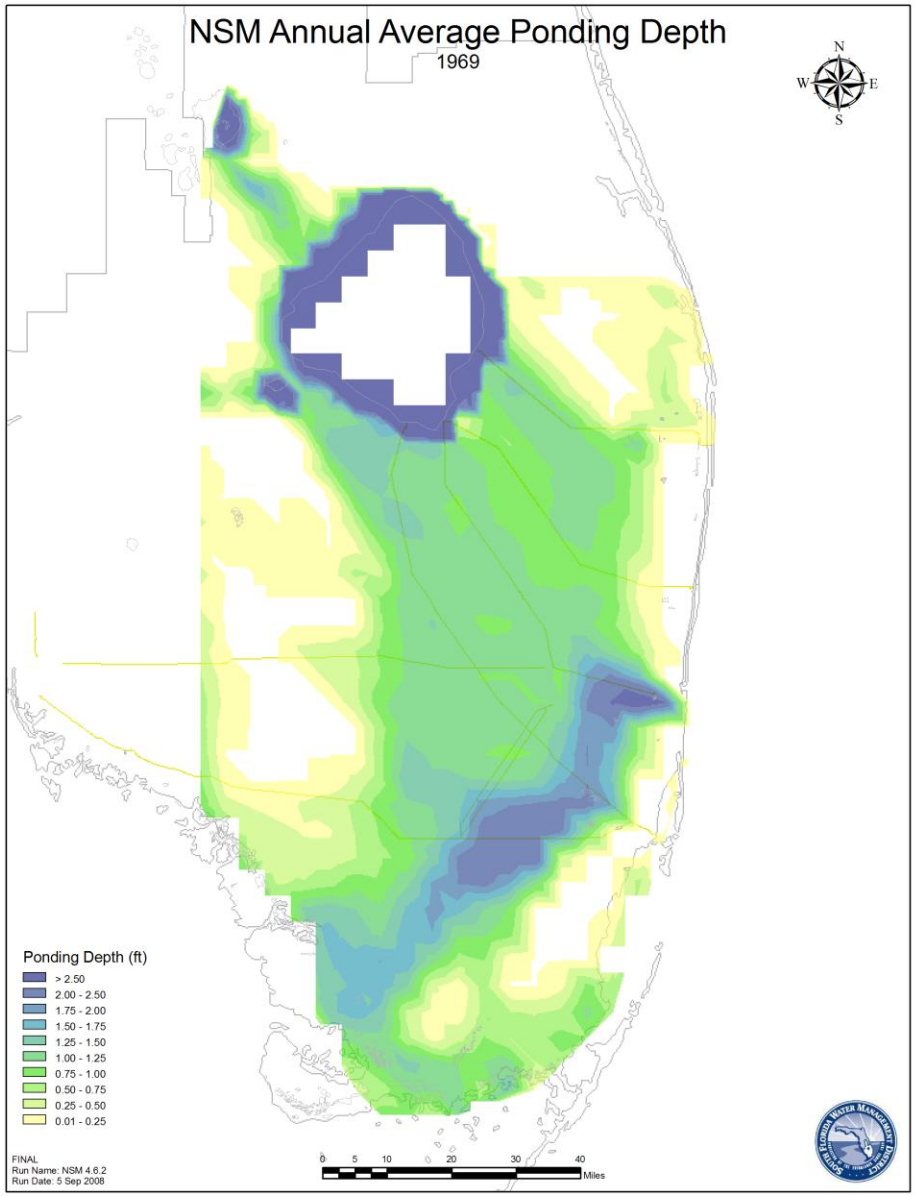

NSRSM Annual Average Ponding Depth
1966
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

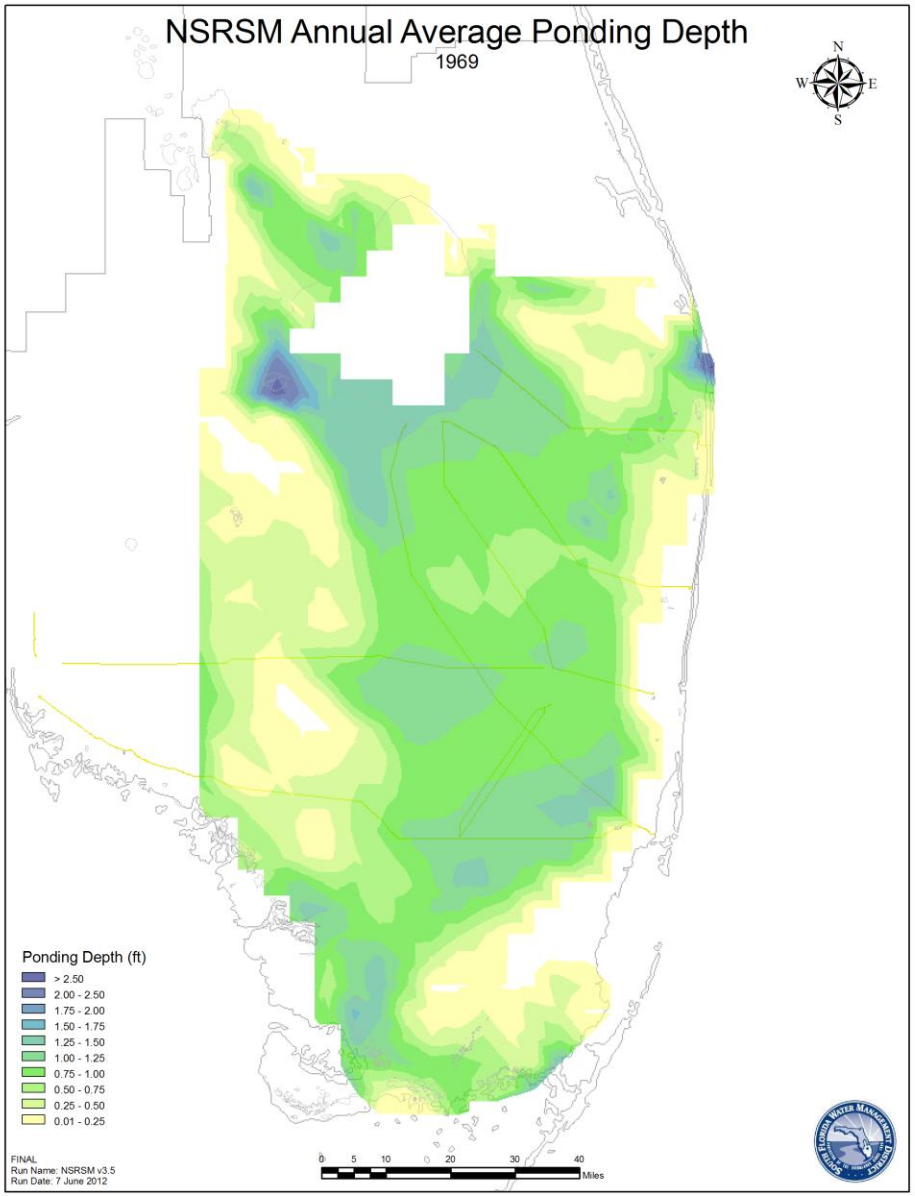

NSM Annual Average Ponding Depth
1967
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

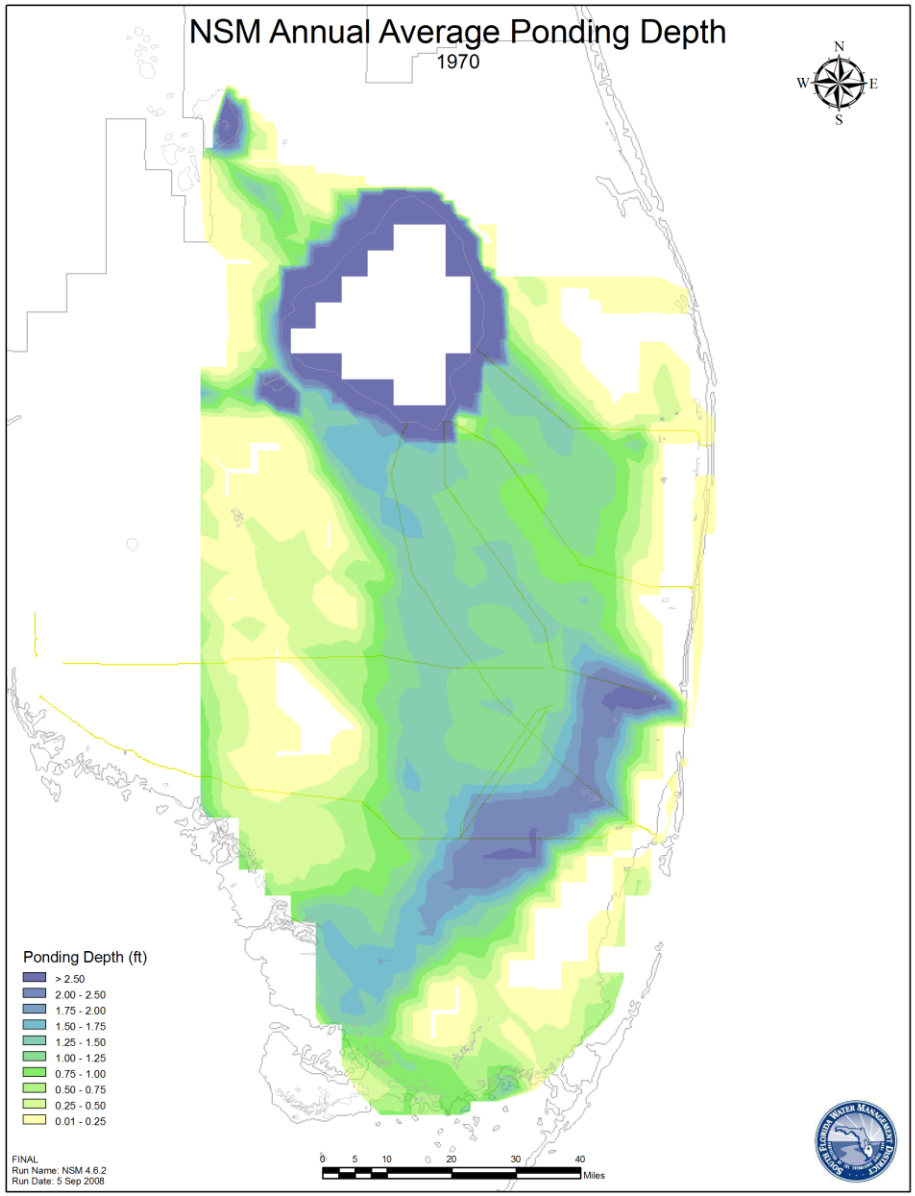

NSRSM Annual Average Ponding Depth
1967
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

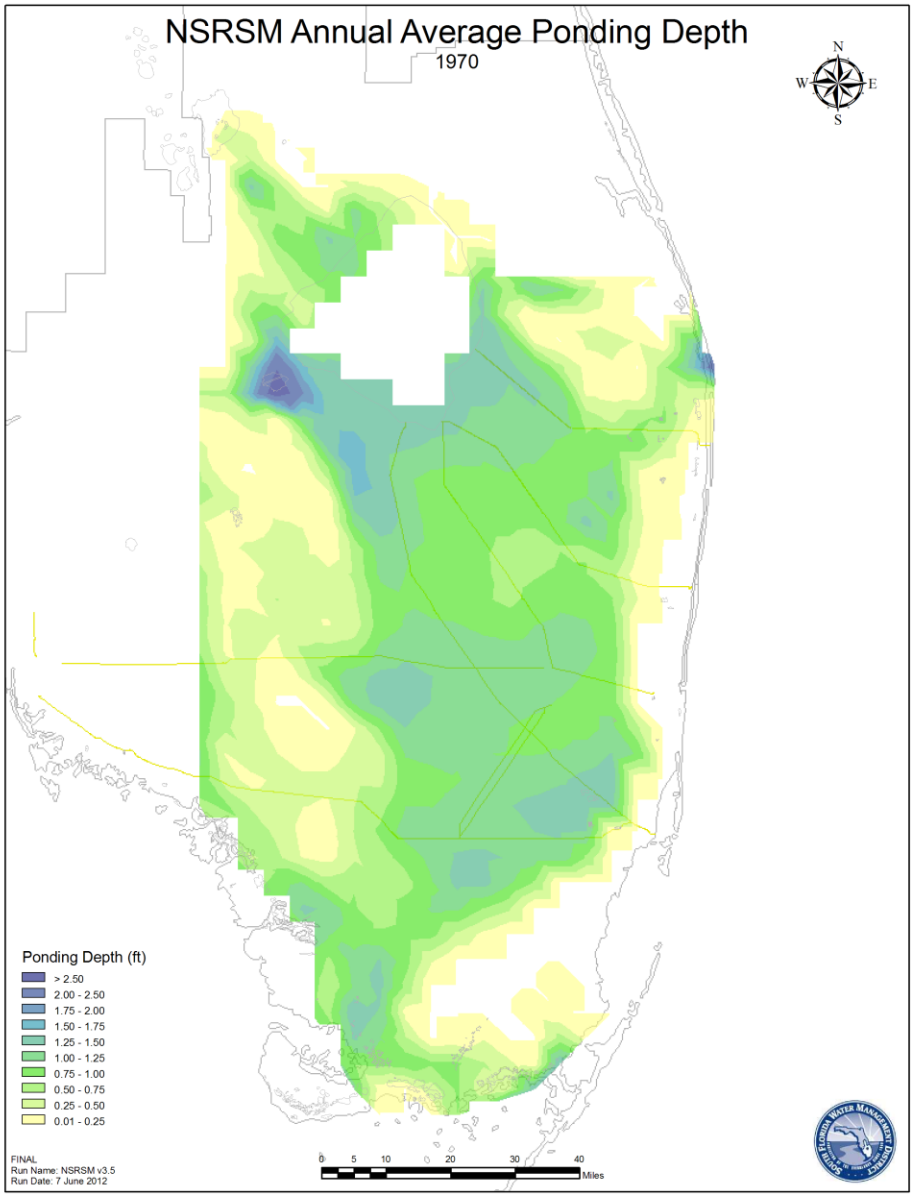

NSM Annual Average Ponding Depth
1968
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

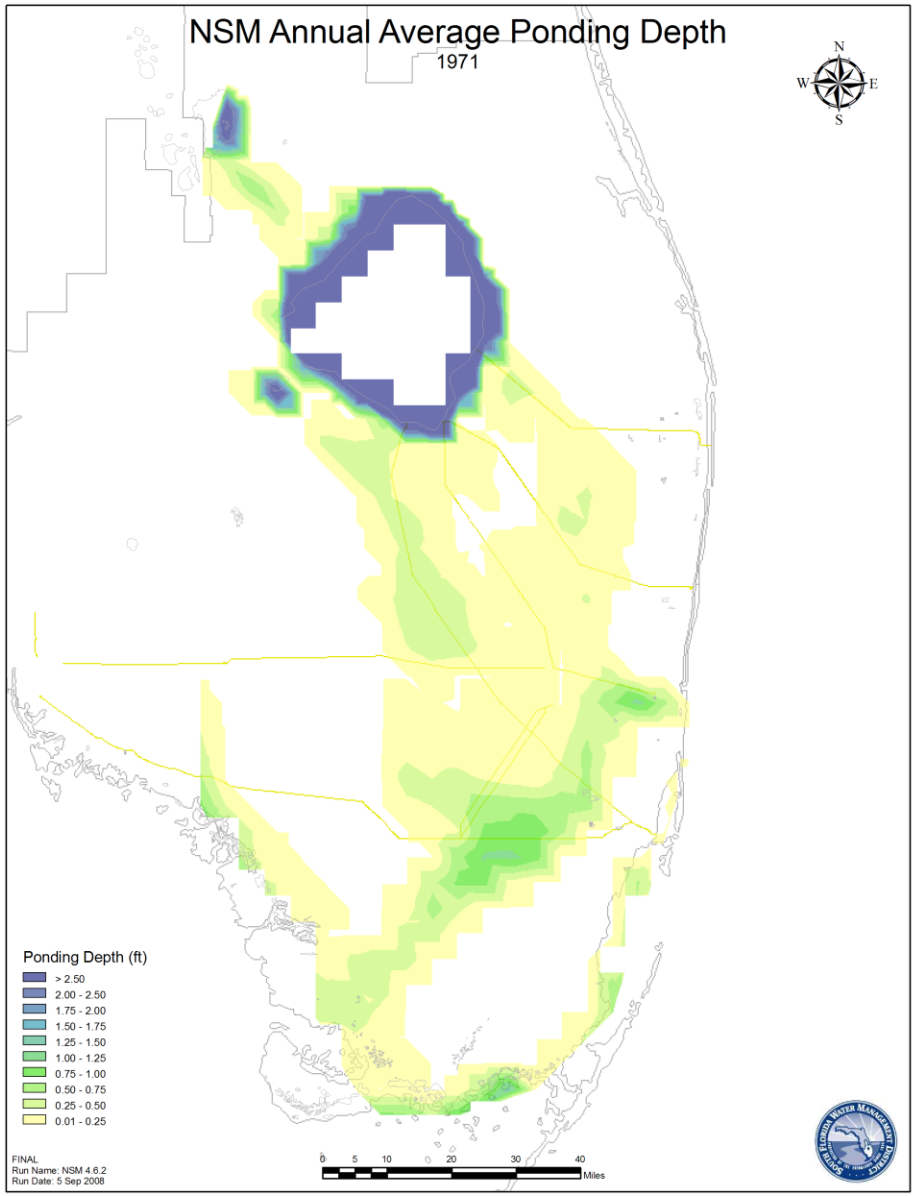

NSRSM Annual Average Ponding Depth
1968
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

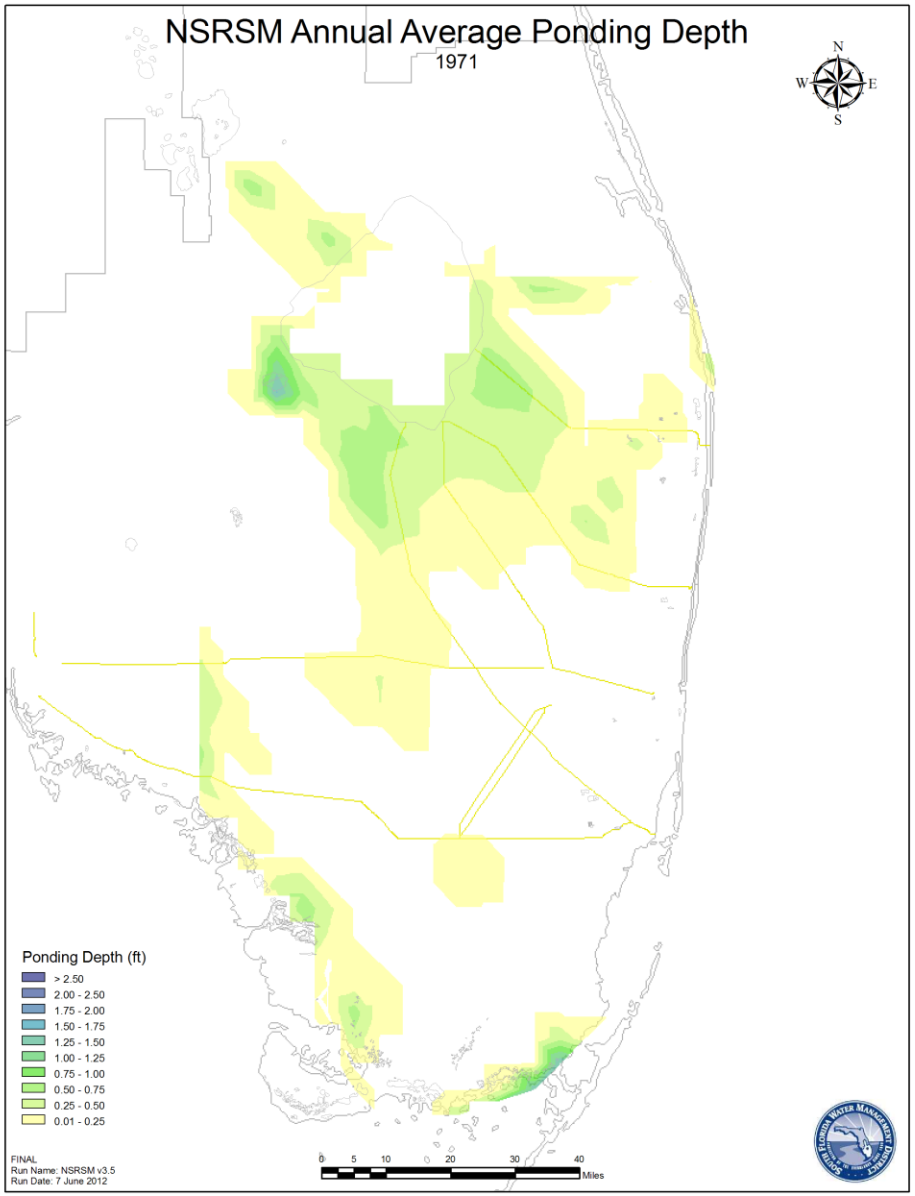

NSM Annual Average Ponding Depth
1969
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

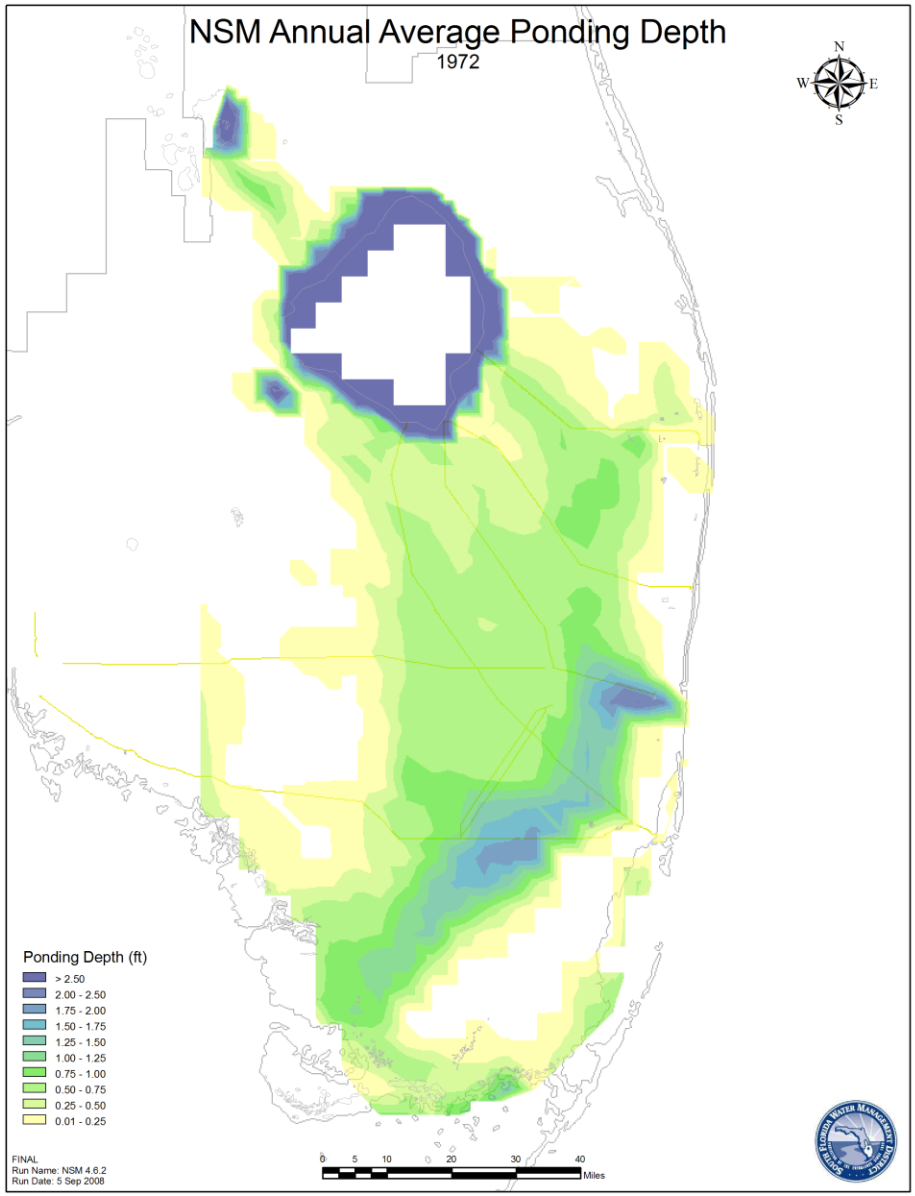

NSRSM Annual Average Ponding Depth
1969
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

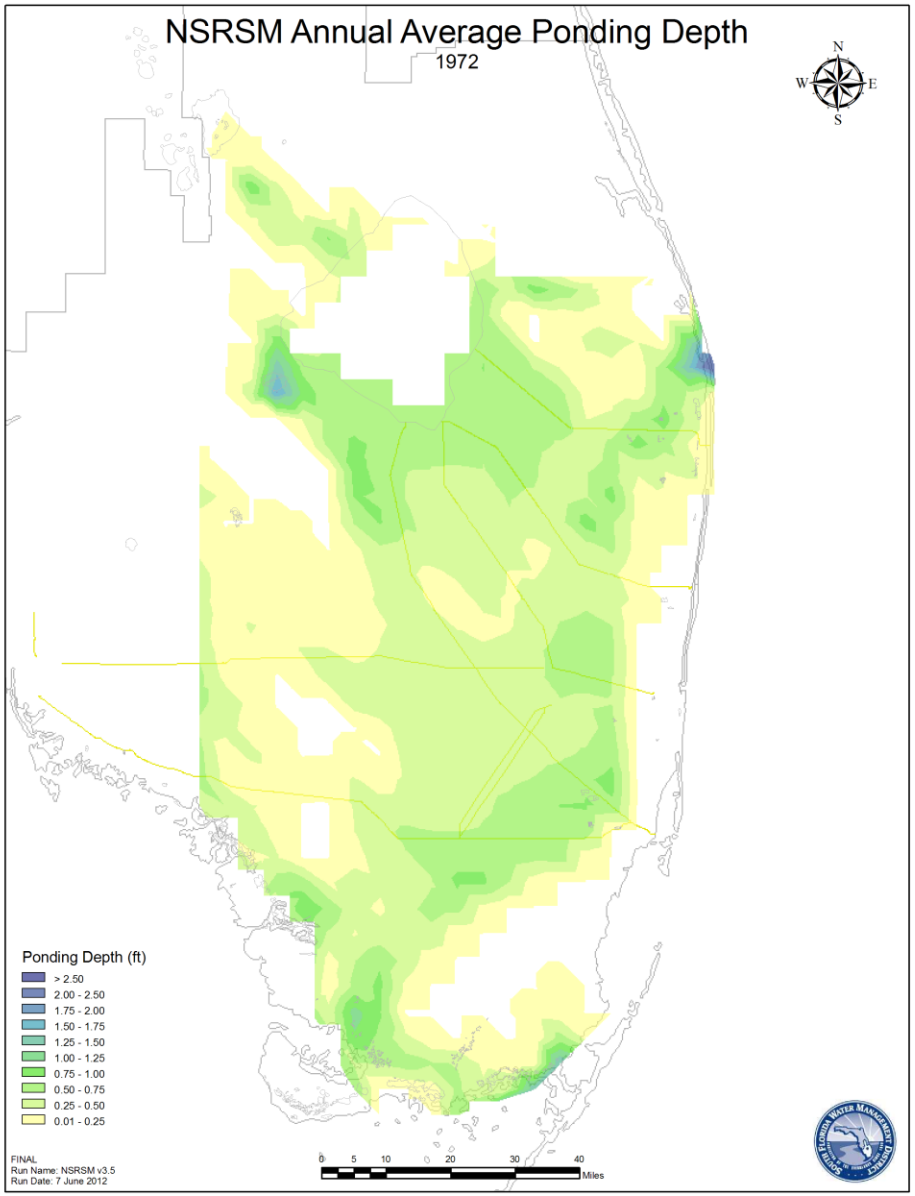

NSM Annual Average Ponding Depth
1970
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

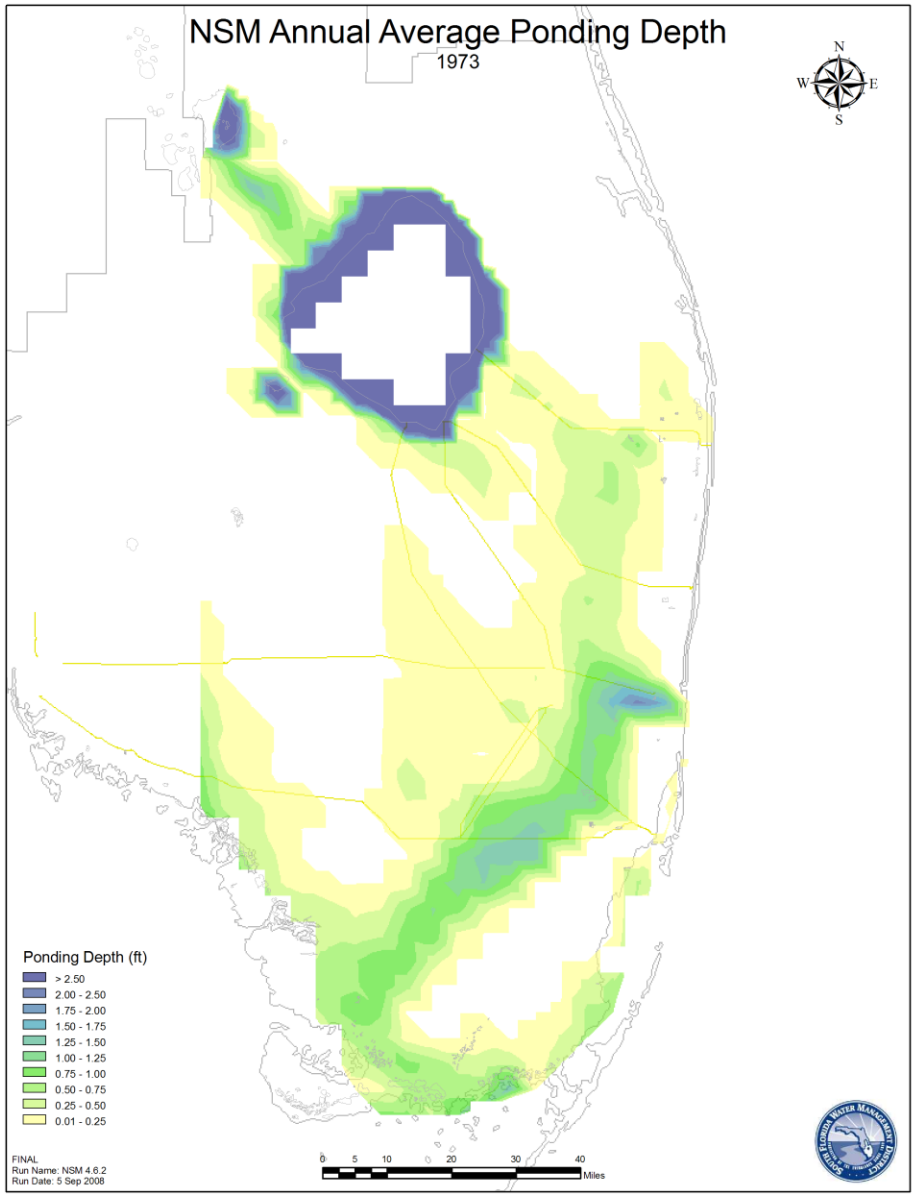

NSRSM Annual Average Ponding Depth
1970
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

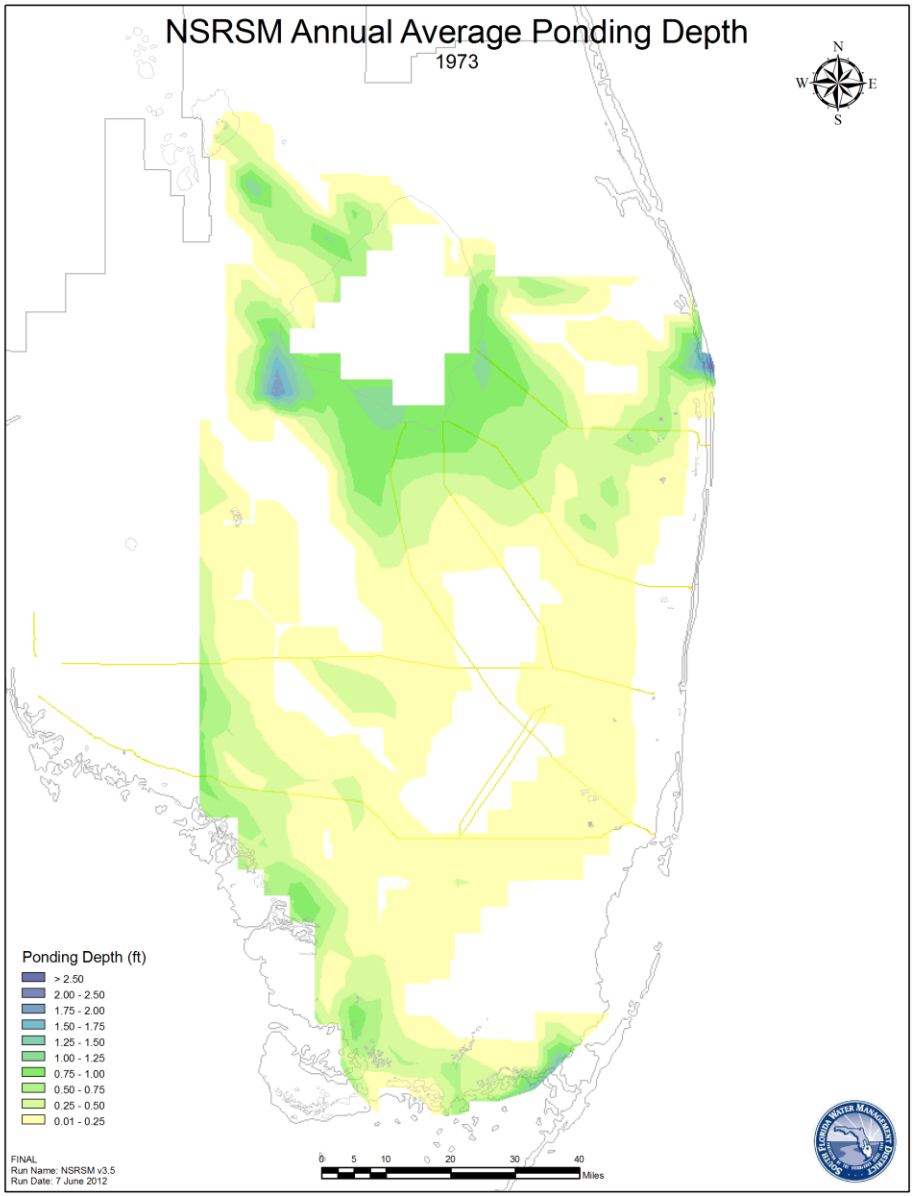

NSM Annual Average Ponding Depth
1971
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

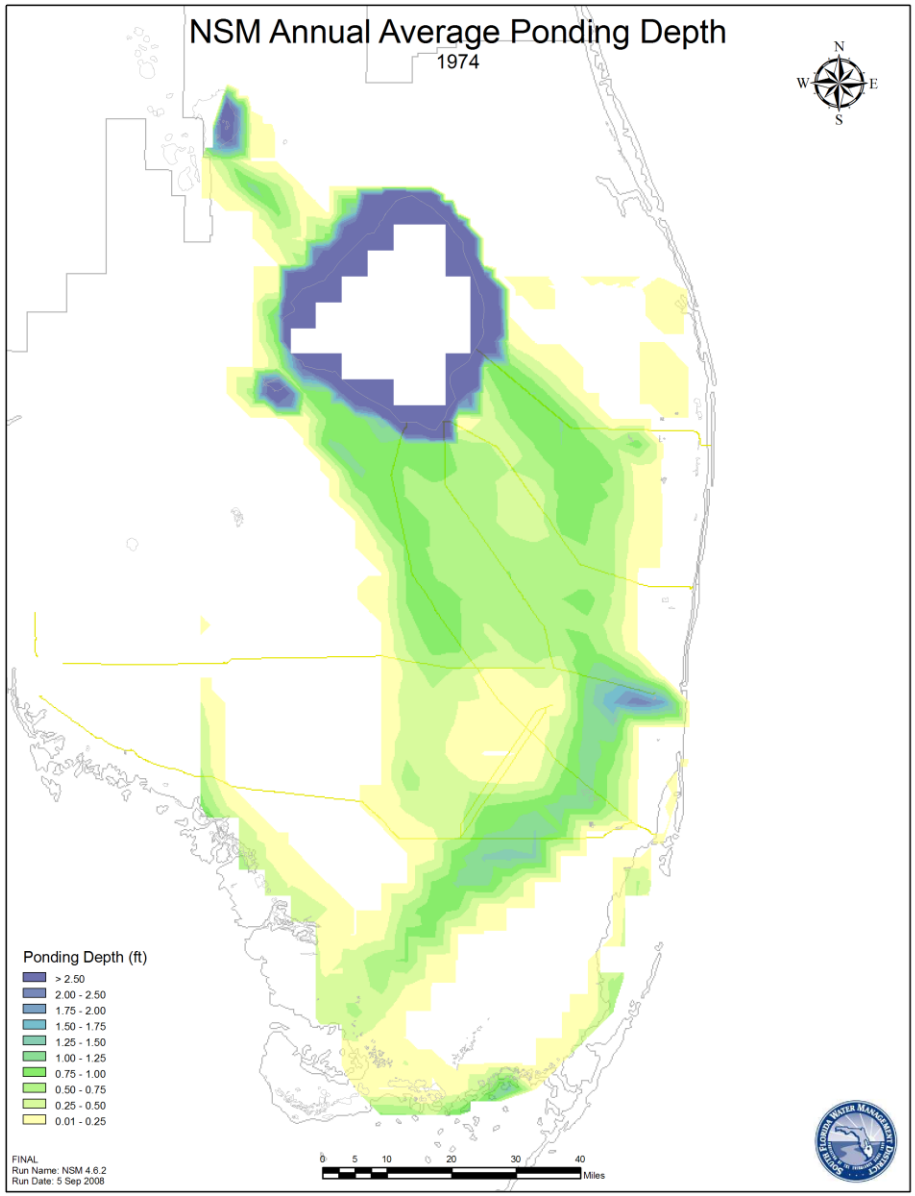

NSRSM Annual Average Ponding Depth
1971
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

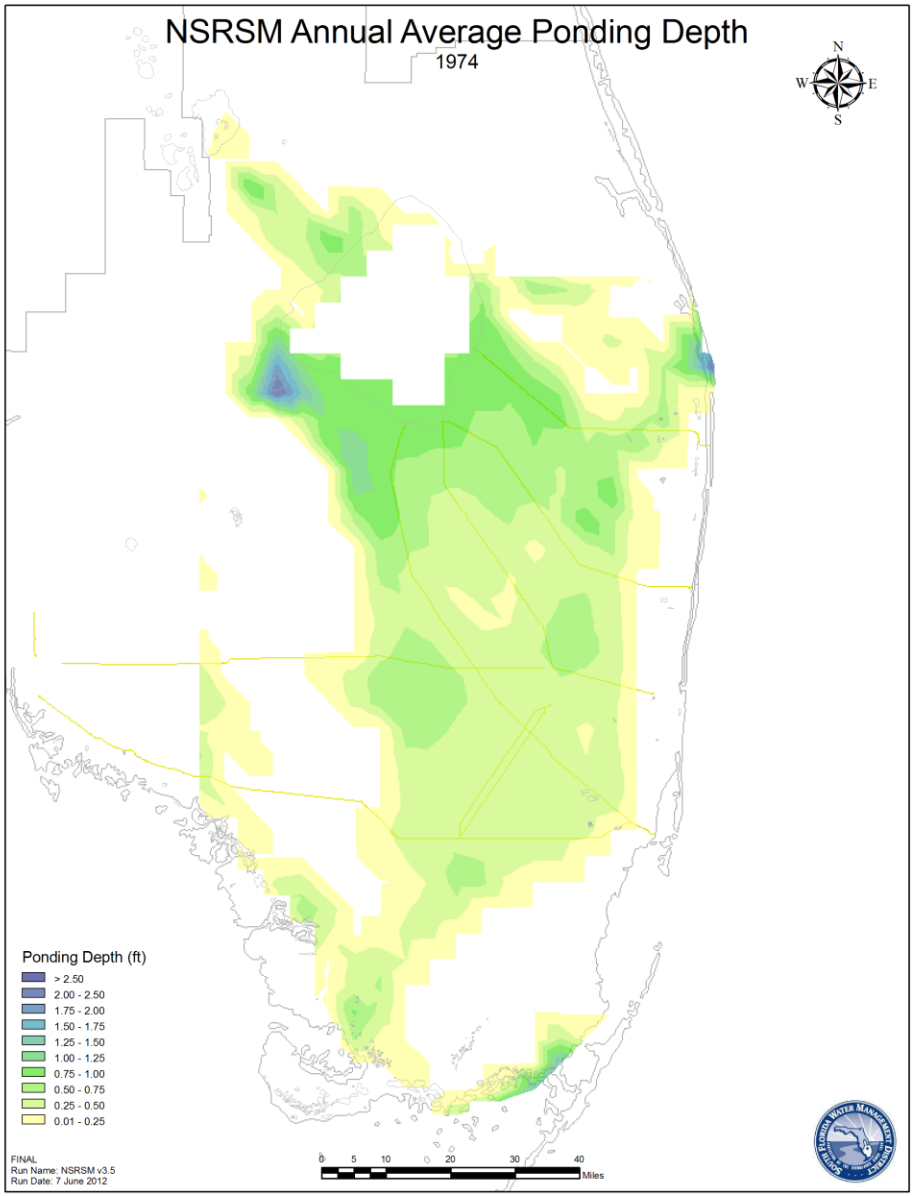

NSM Annual Average Ponding Depth
1972
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

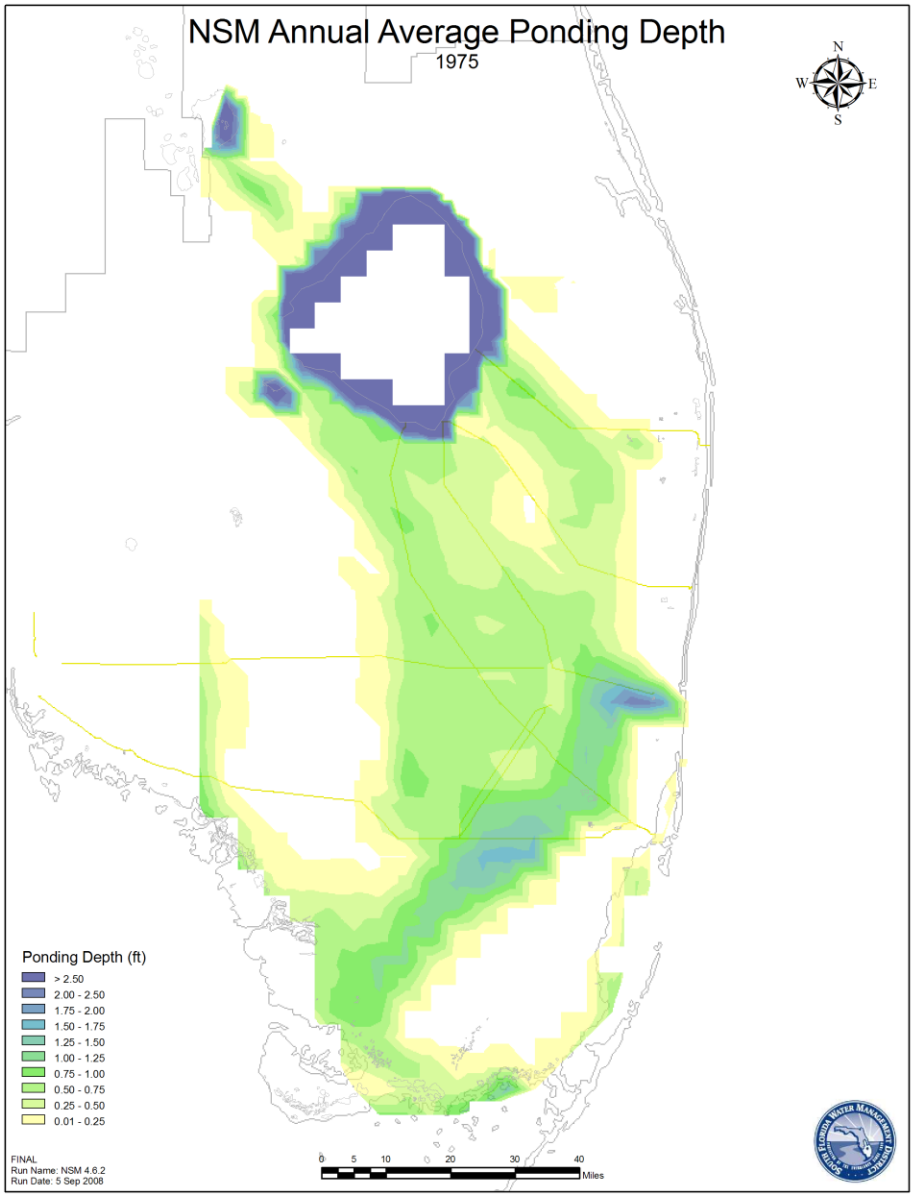

NSRSM Annual Average Ponding Depth
1972
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

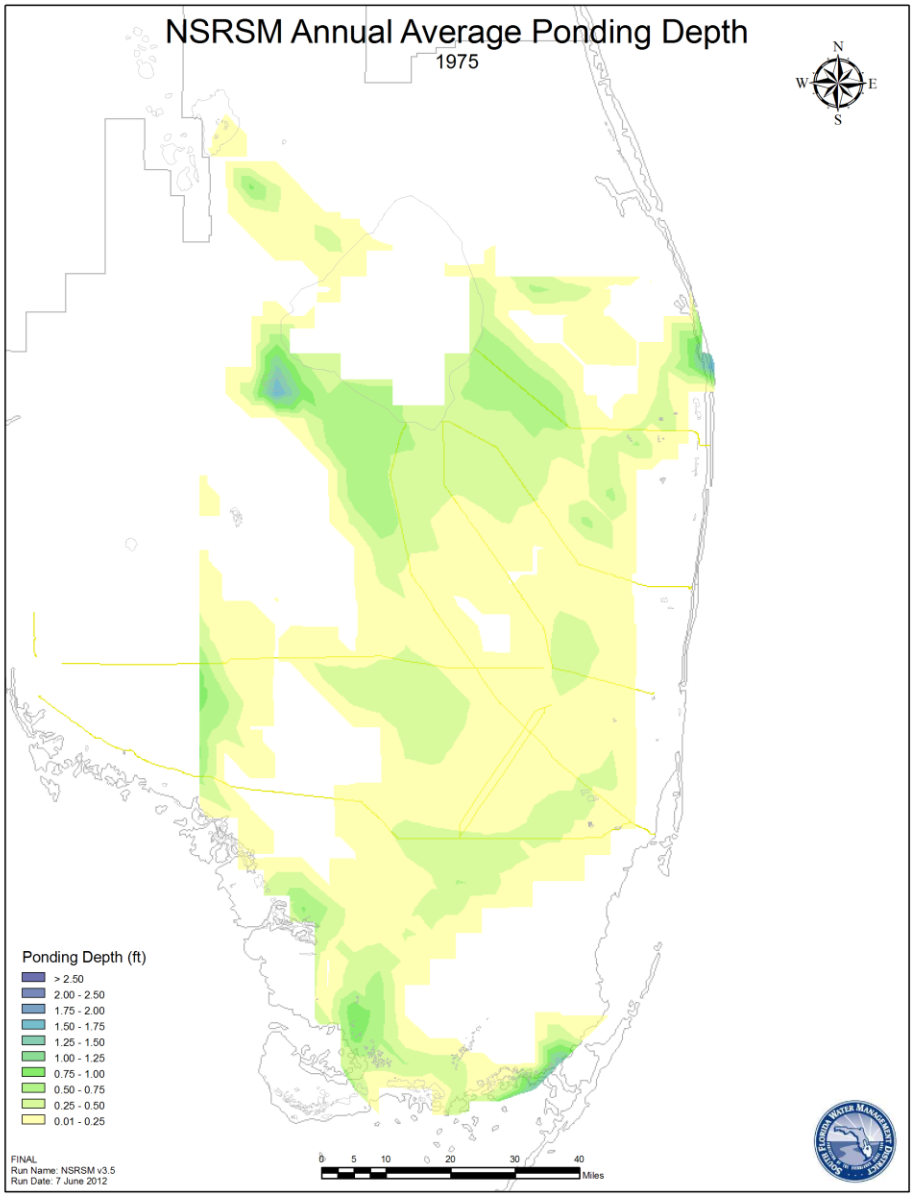

NSM Annual Average Ponding Depth
1973
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

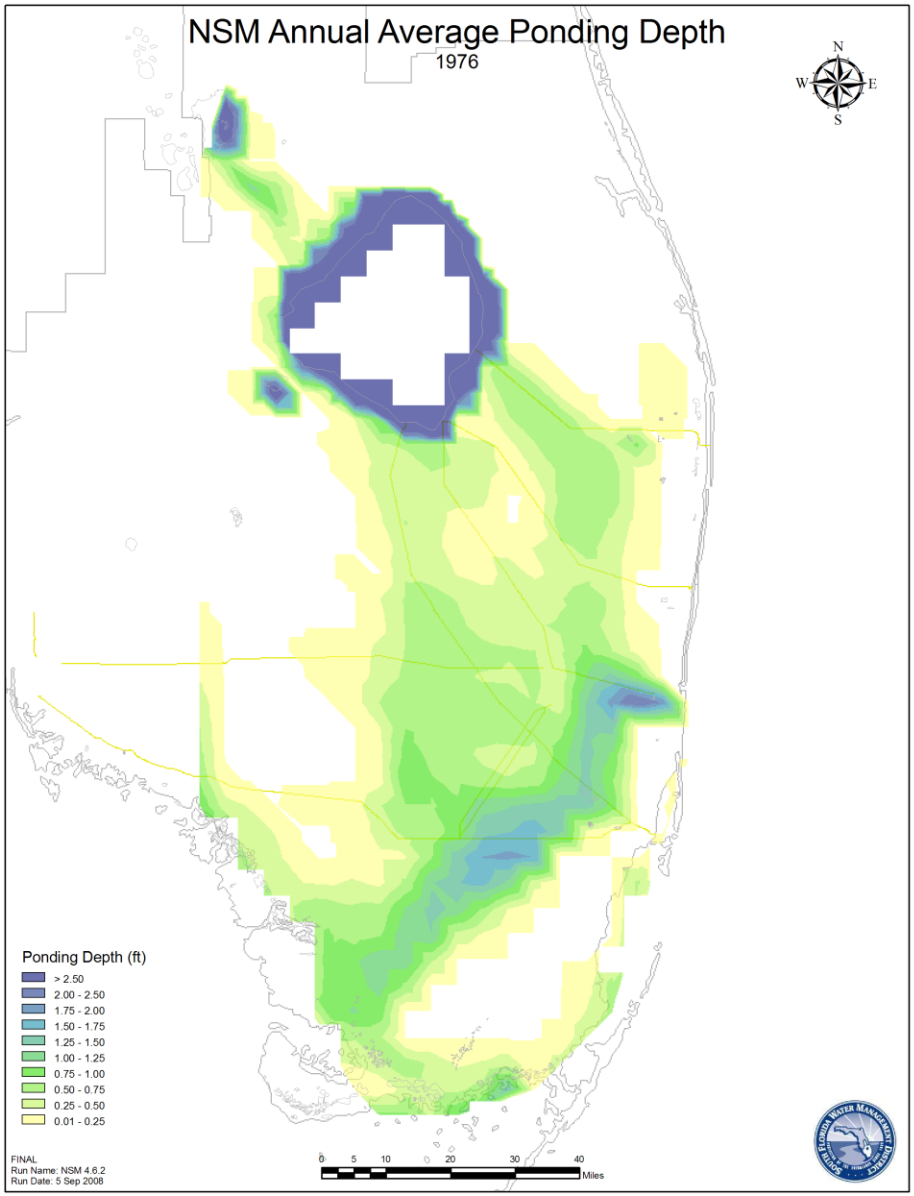

NSRSM Annual Average Ponding Depth
1973
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

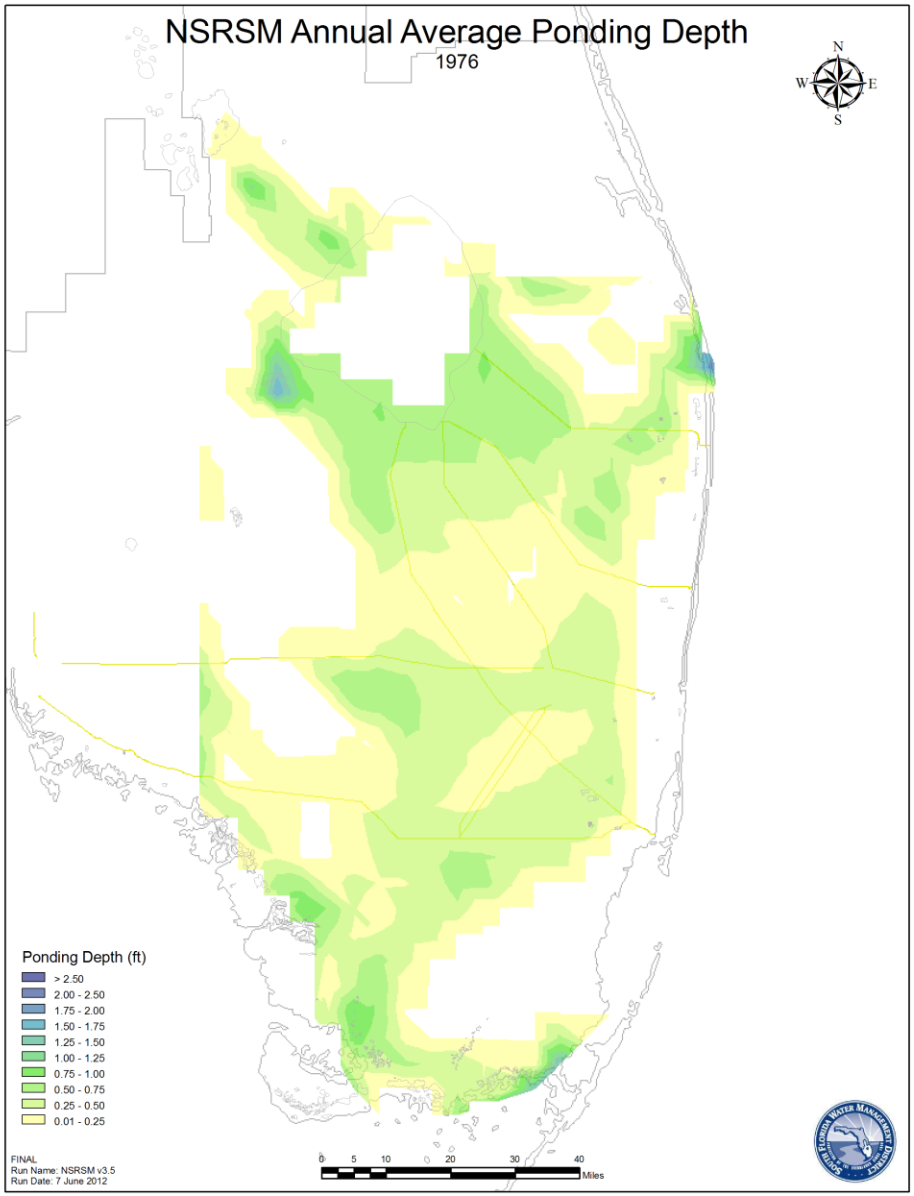

NSM Annual Average Ponding Depth
1974
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

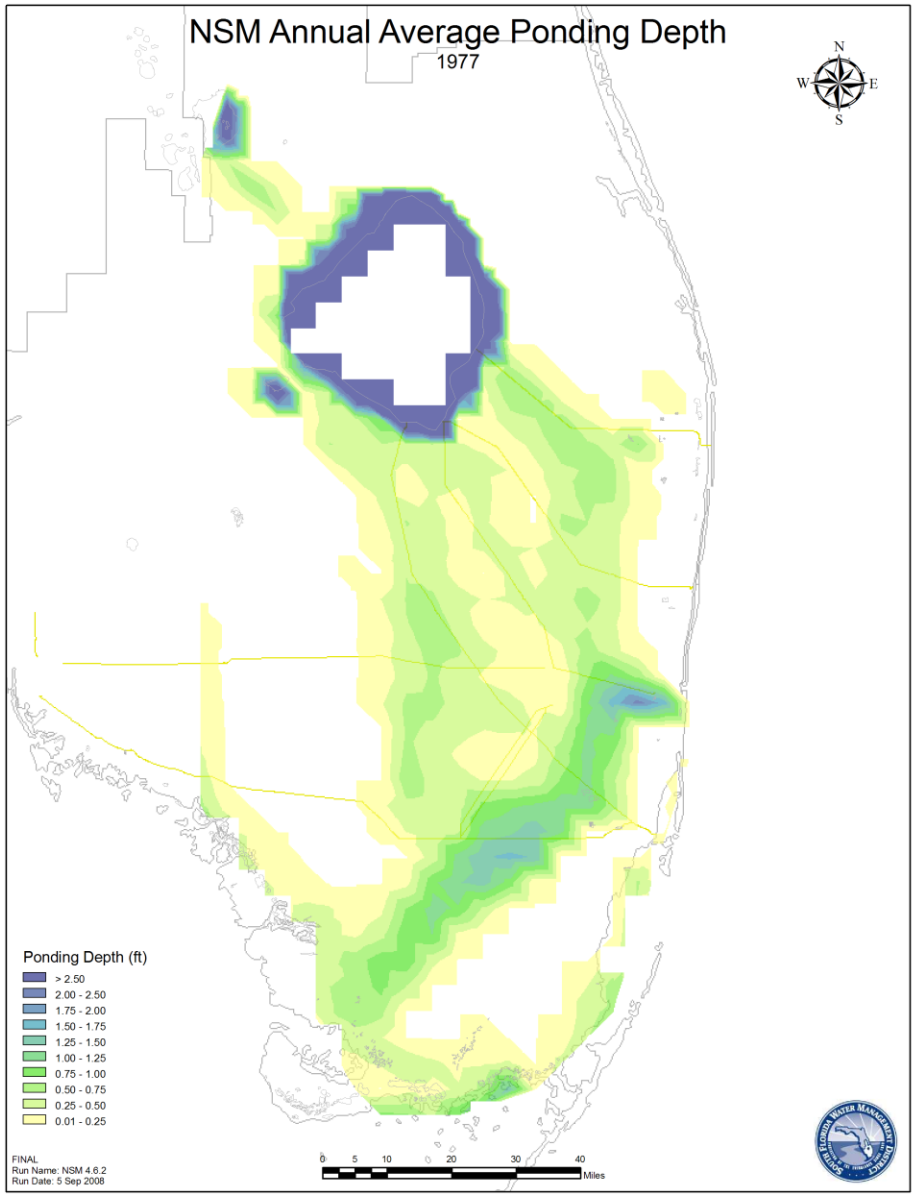

NSRSM Annual Average Ponding Depth
1974
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

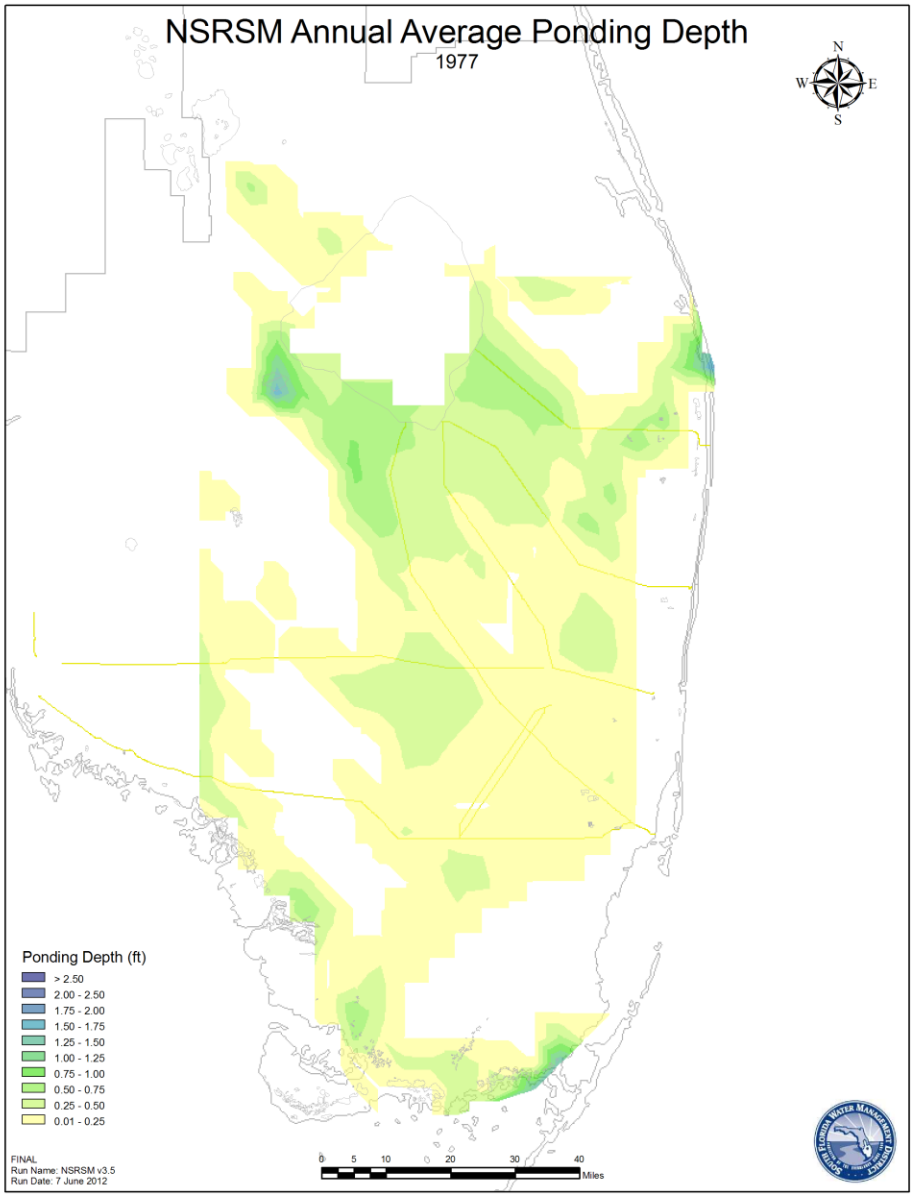

NSM Annual Average Ponding Depth
1975
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

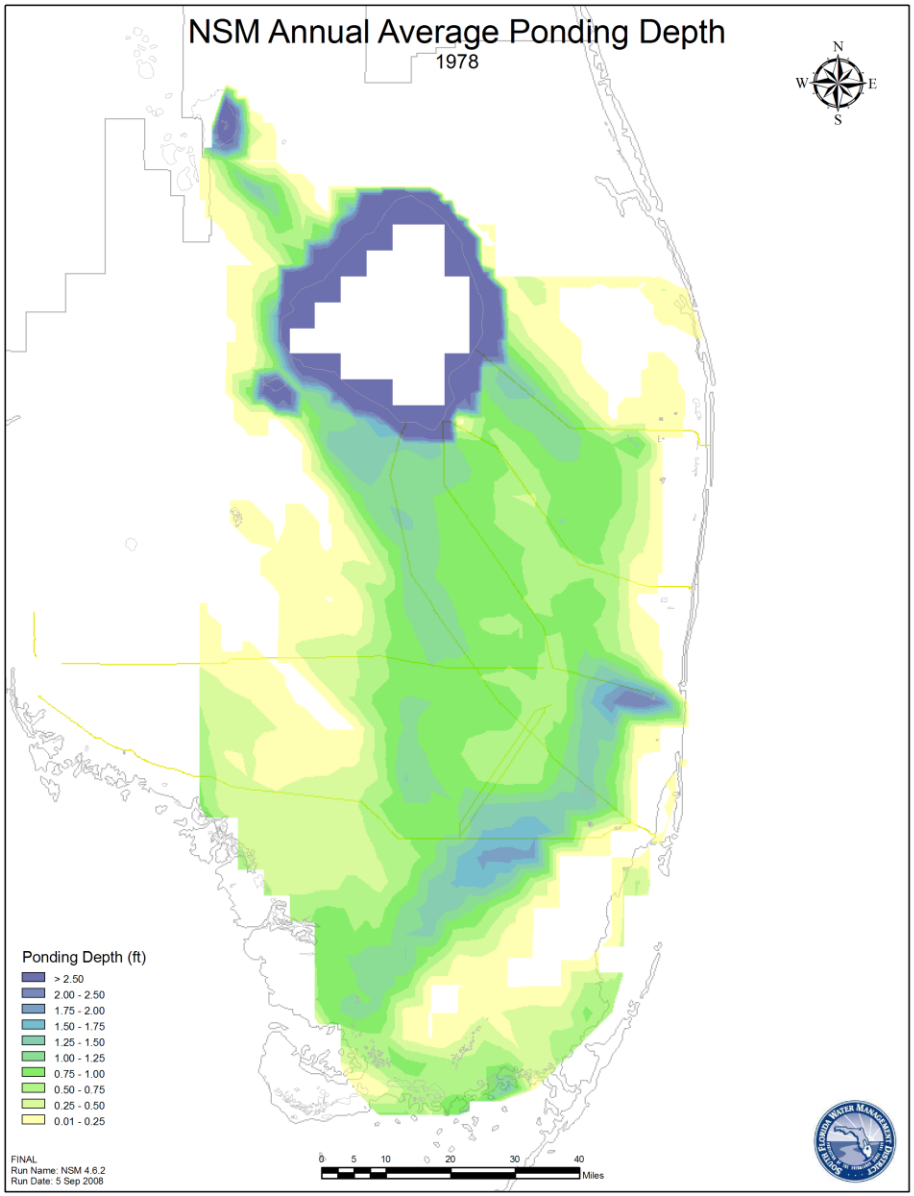

NSRSM Annual Average Ponding Depth
1975
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

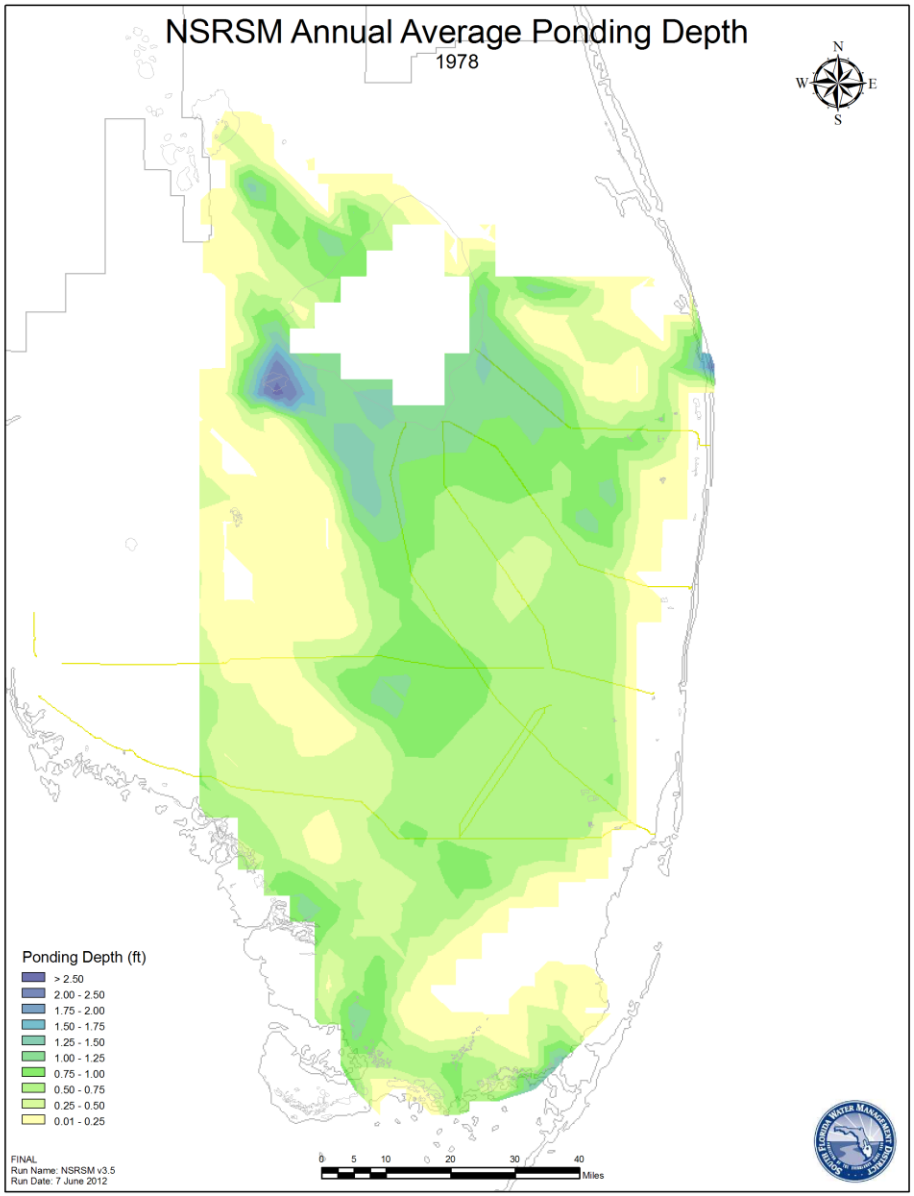

NSM Annual Average Ponding Depth
1976
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

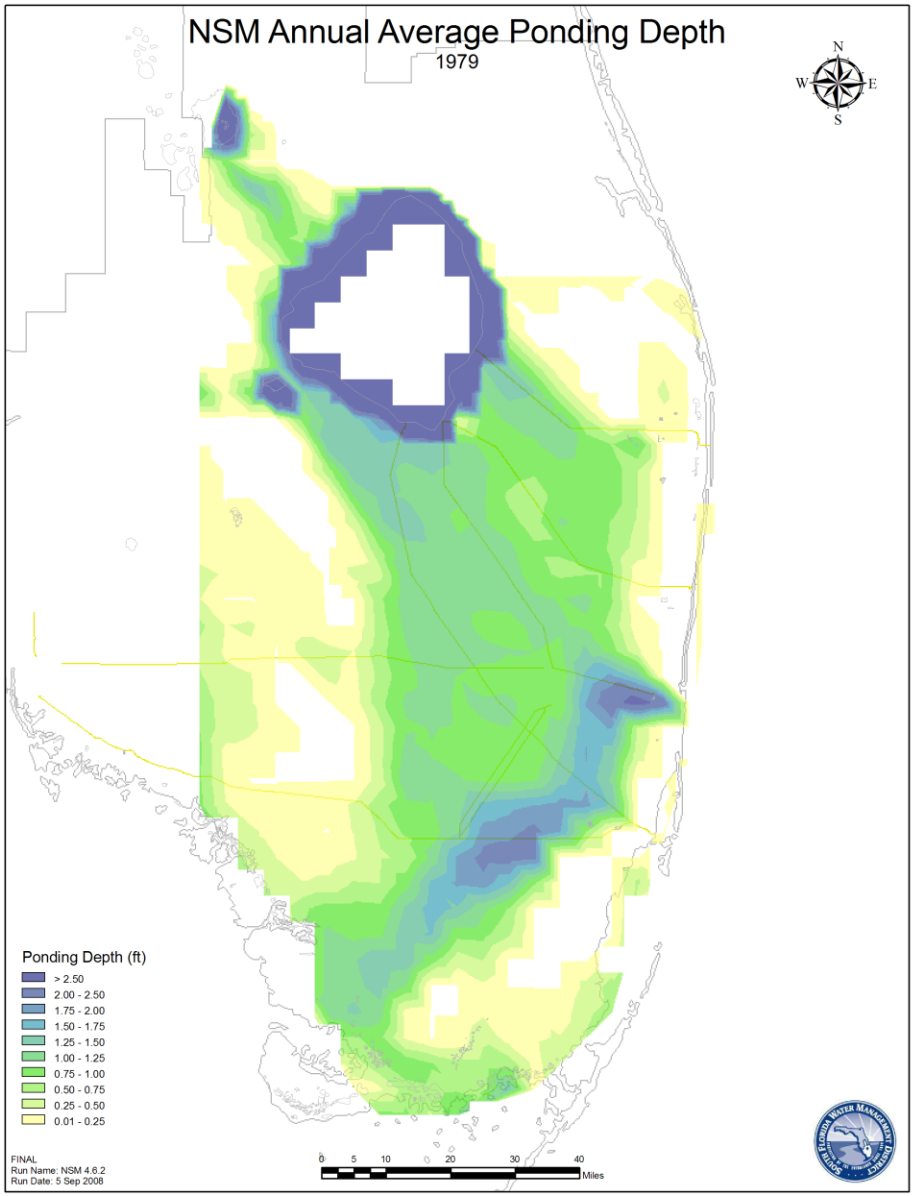

NSRSM Annual Average Ponding Depth
1976
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

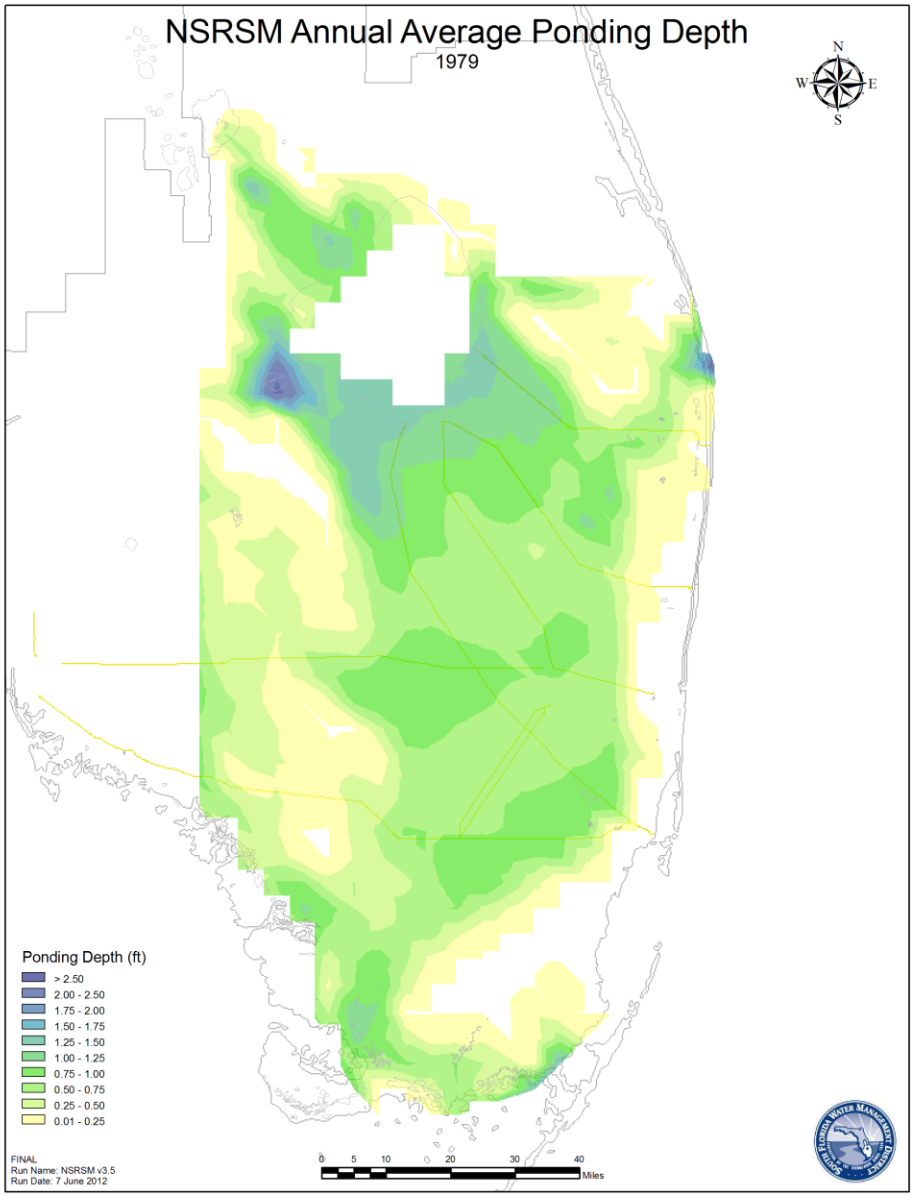

NSM Annual Average Ponding Depth
1977
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

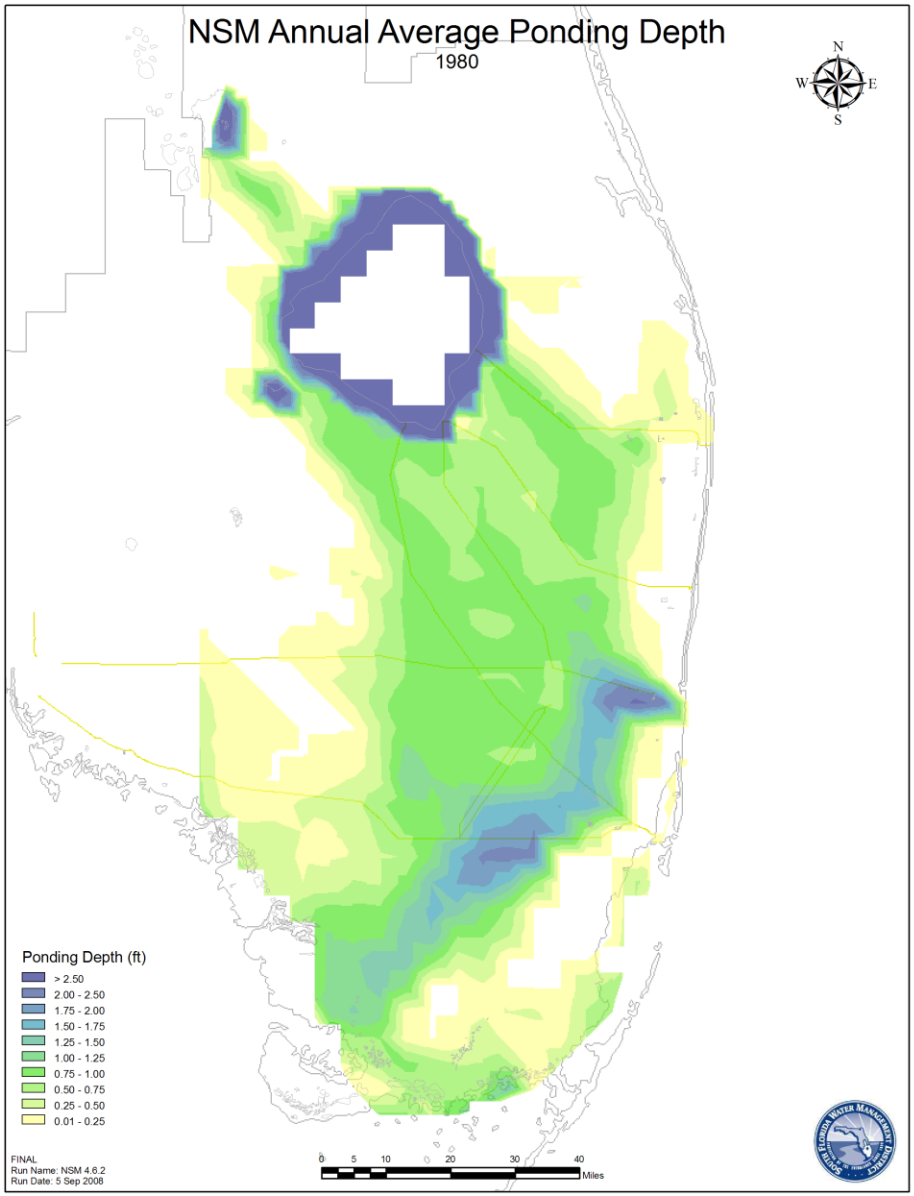

NSRSM Annual Average Ponding Depth
1977
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

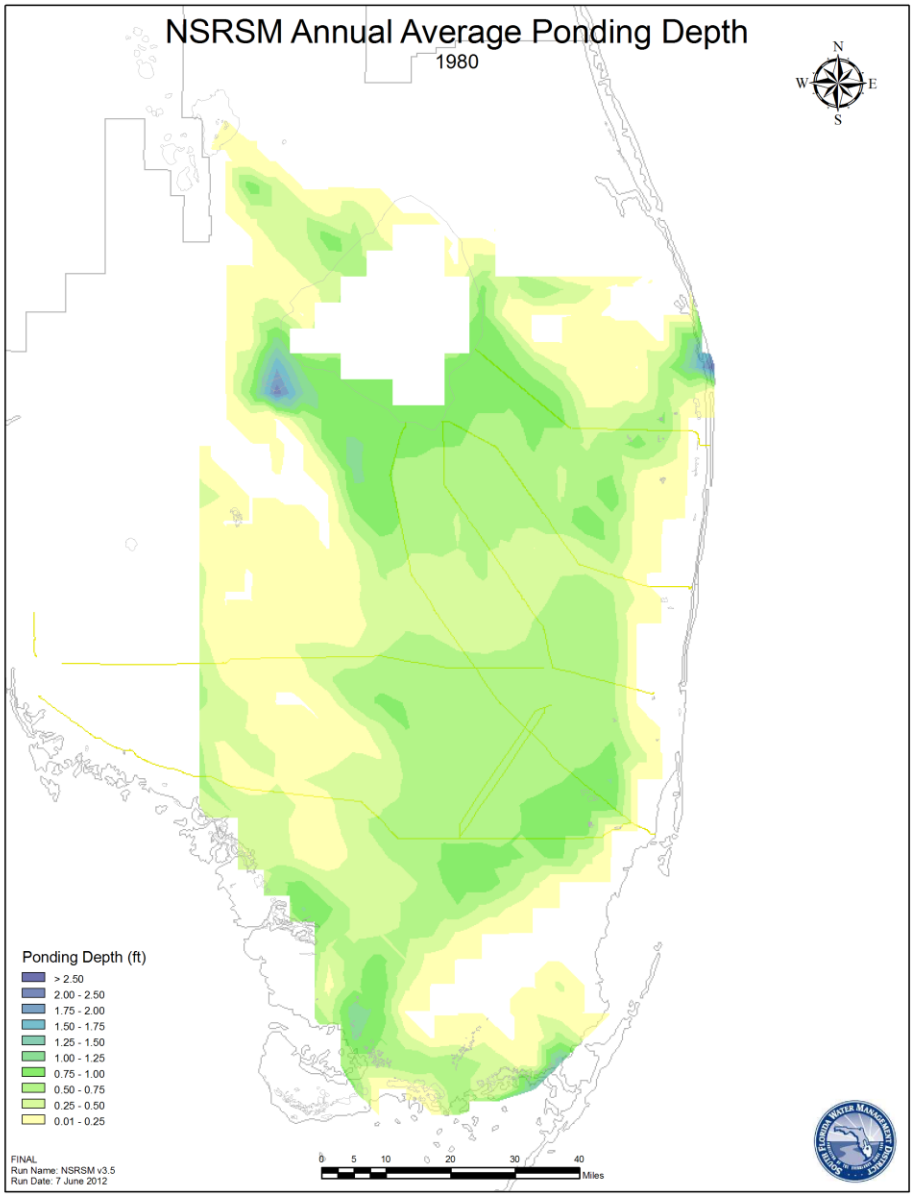

NSM Annual Average Ponding Depth
1978
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

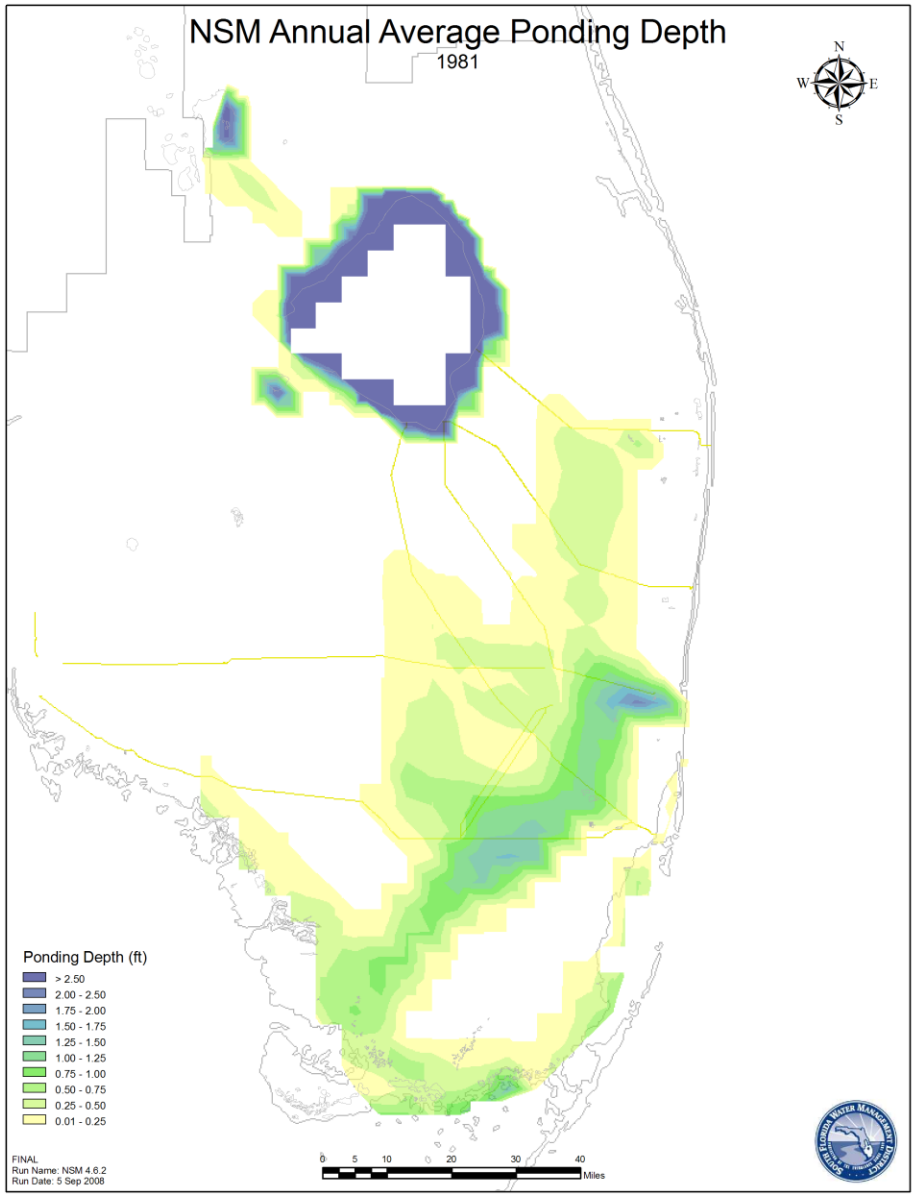

NSRSM Annual Average Ponding Depth
1978
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

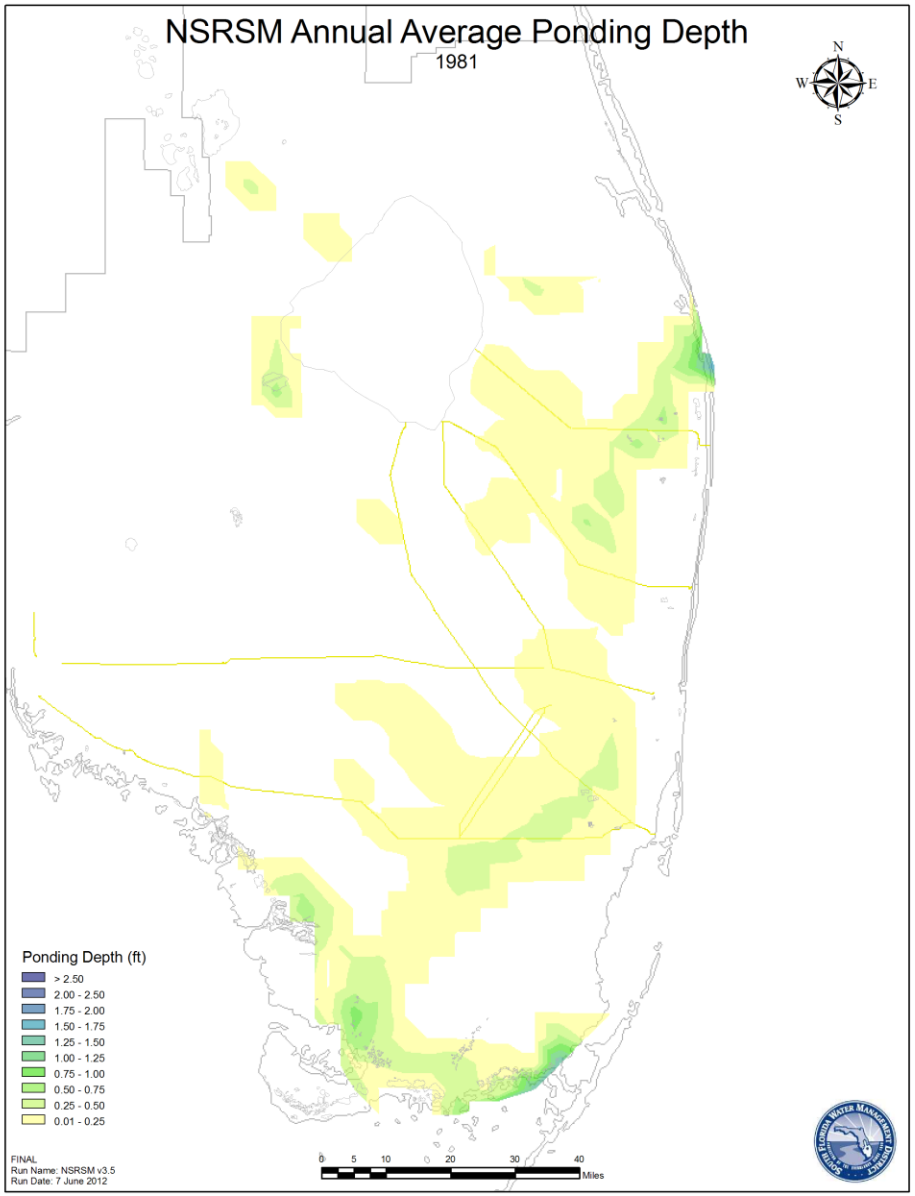

NSM Annual Average Ponding Depth
1979
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

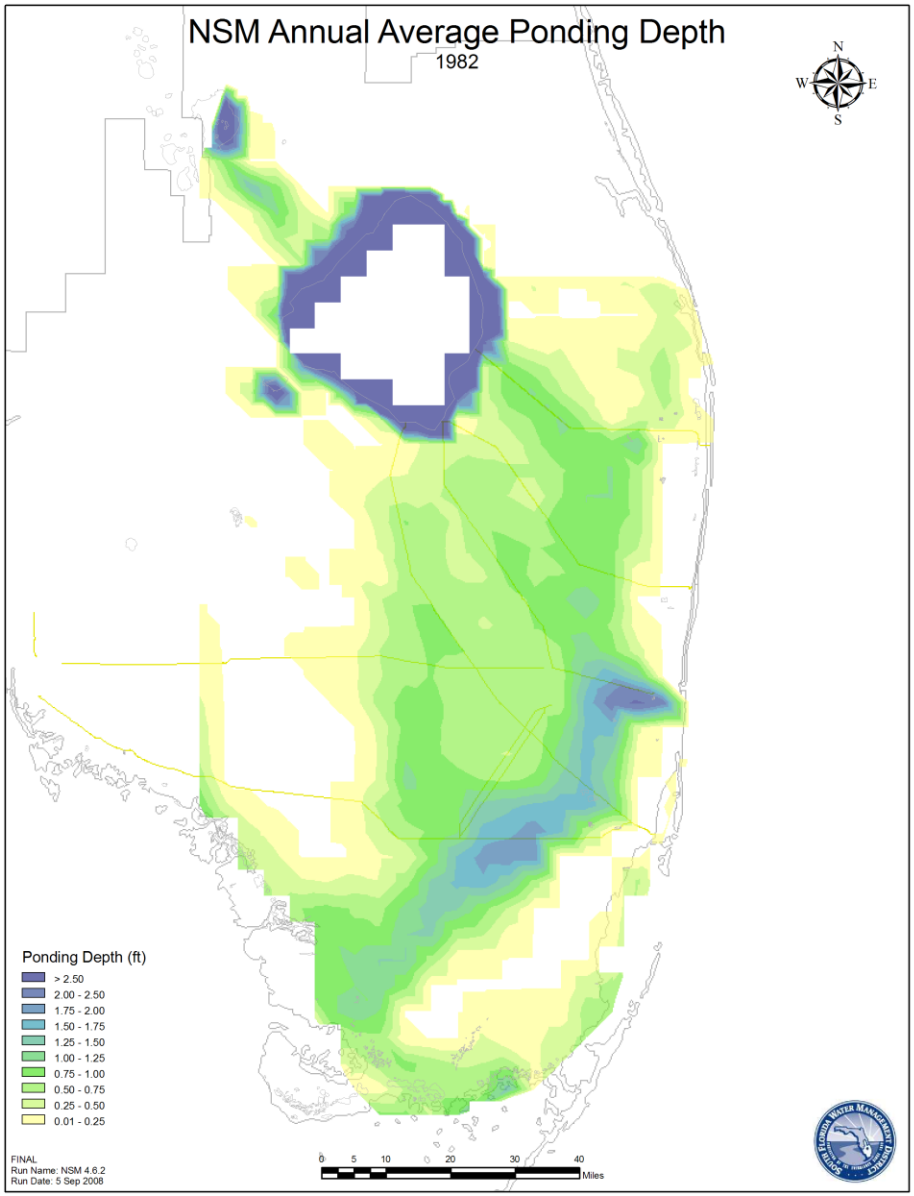

NSRSM Annual Average Ponding Depth
1979
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

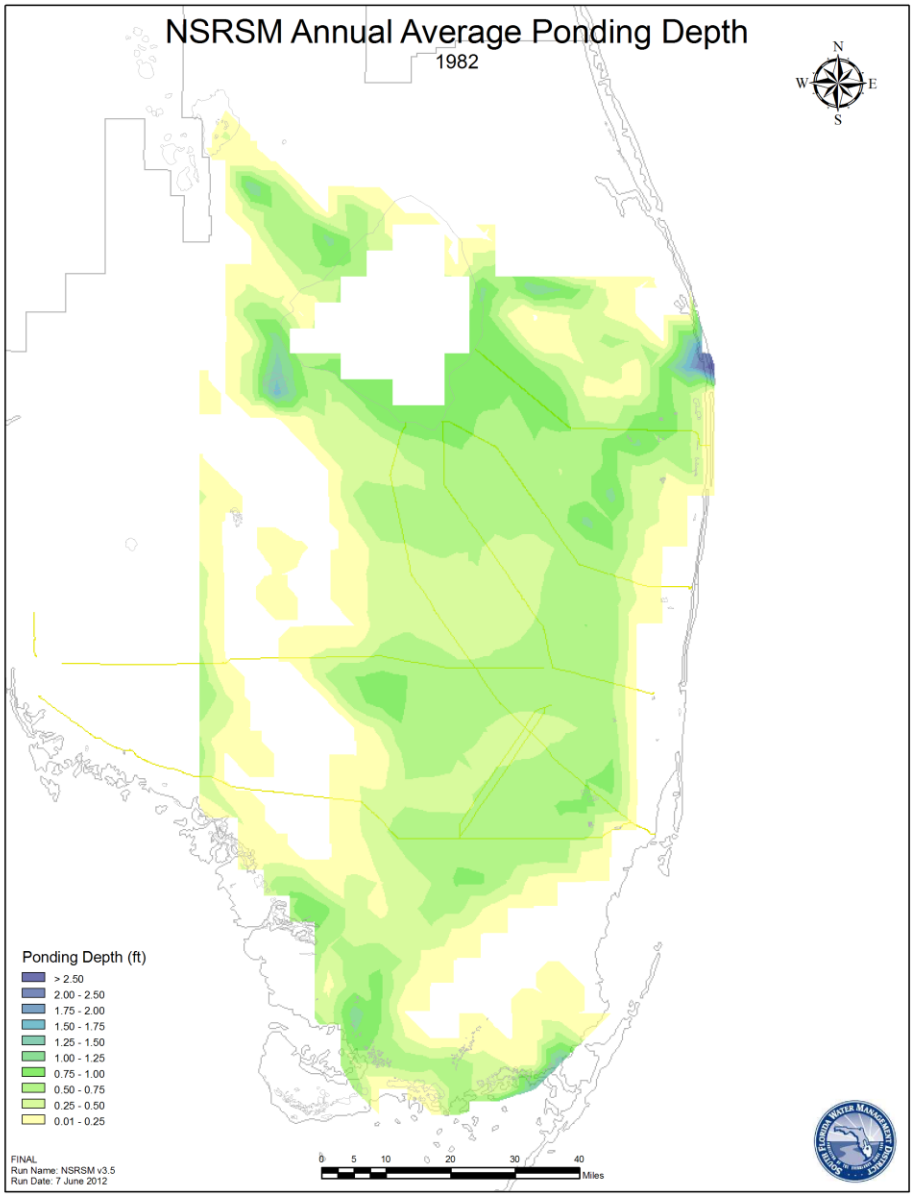

NSM Annual Average Ponding Depth
1980
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

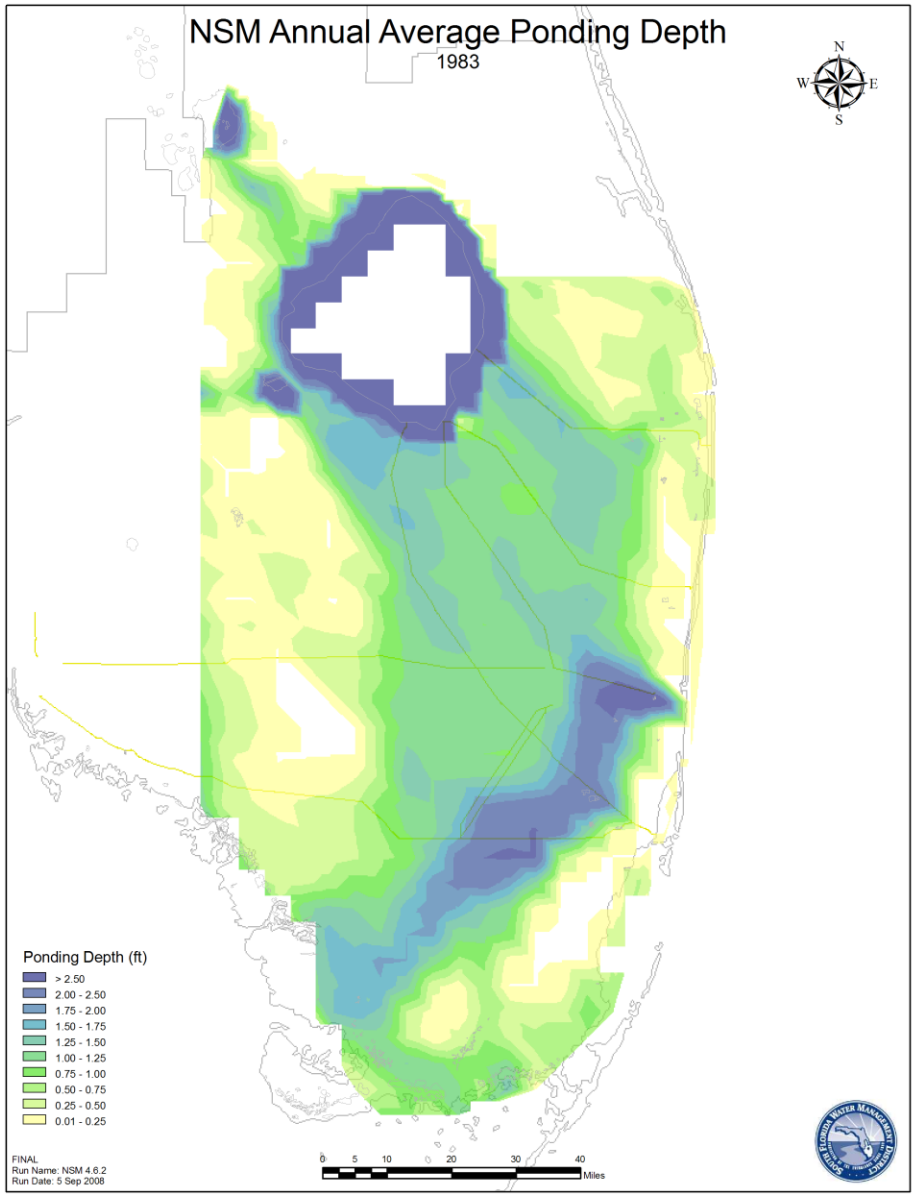

NSRSM Annual Average Ponding Depth
1980
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

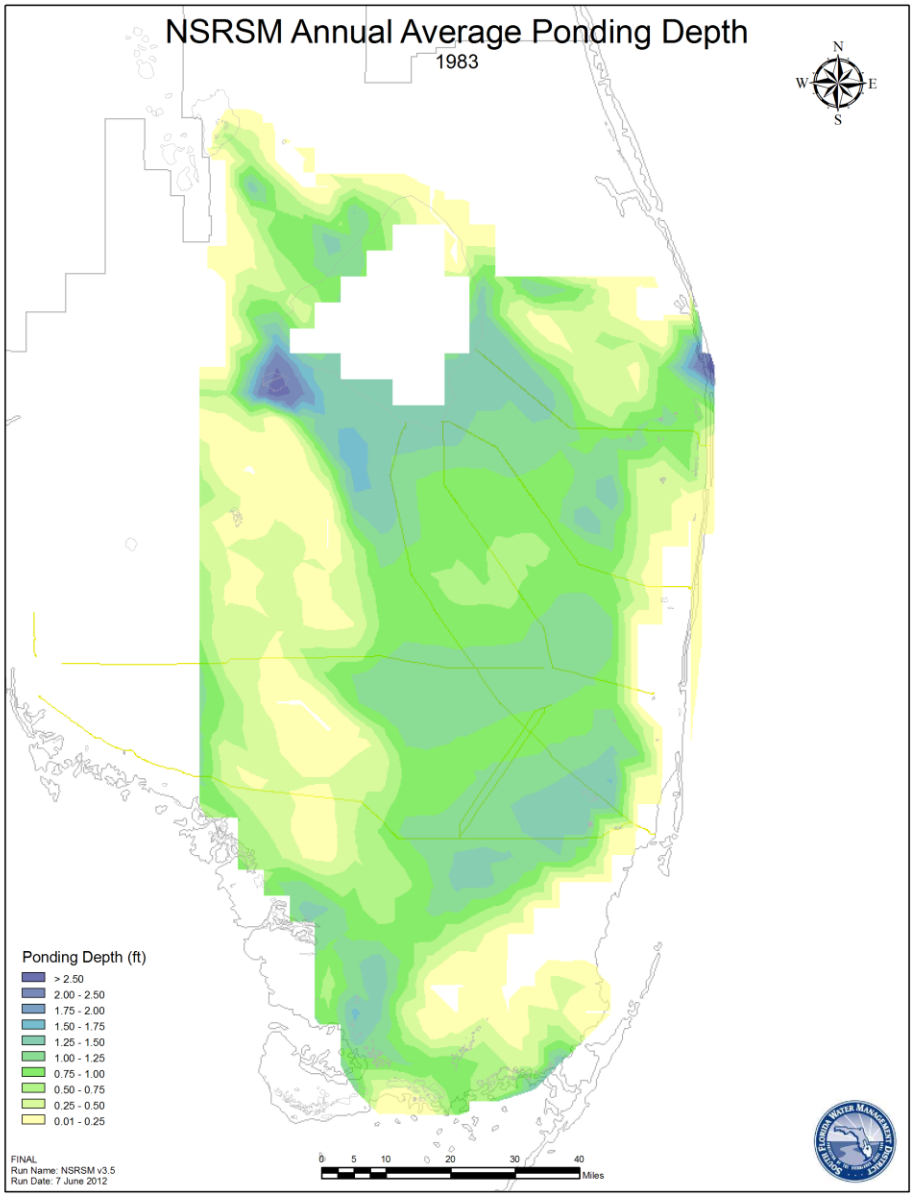

NSM Annual Average Ponding Depth
1981
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

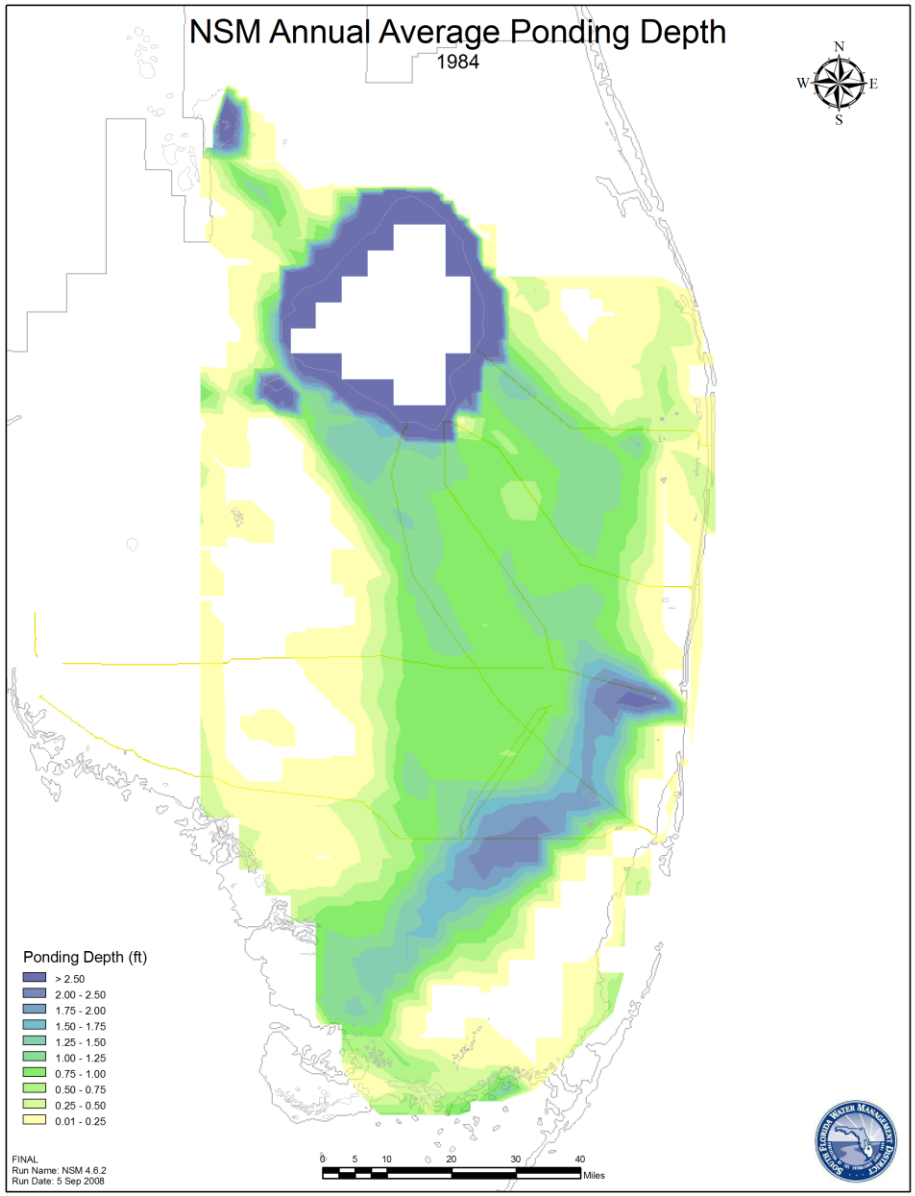

NSRSM Annual Average Ponding Depth
1981
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

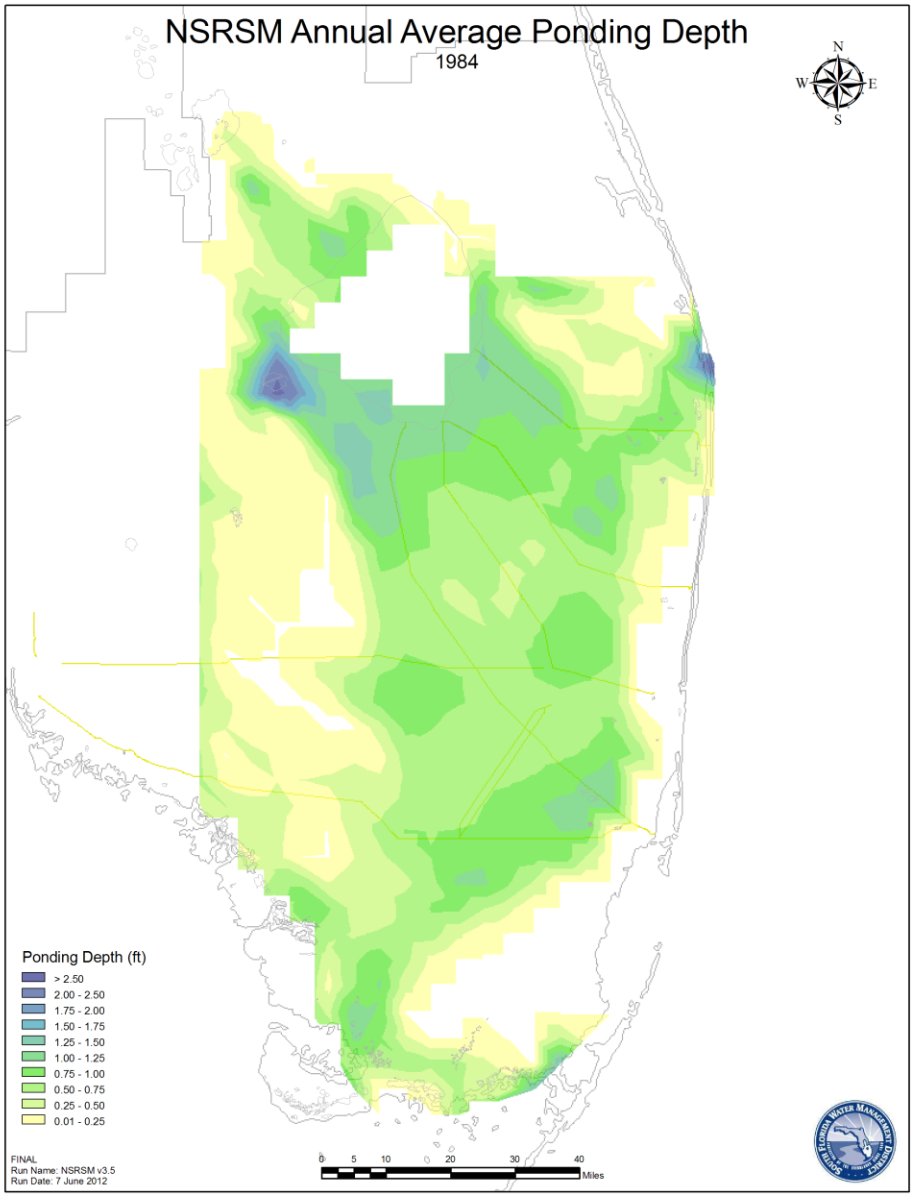

NSM Annual Average Ponding Depth
1982
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

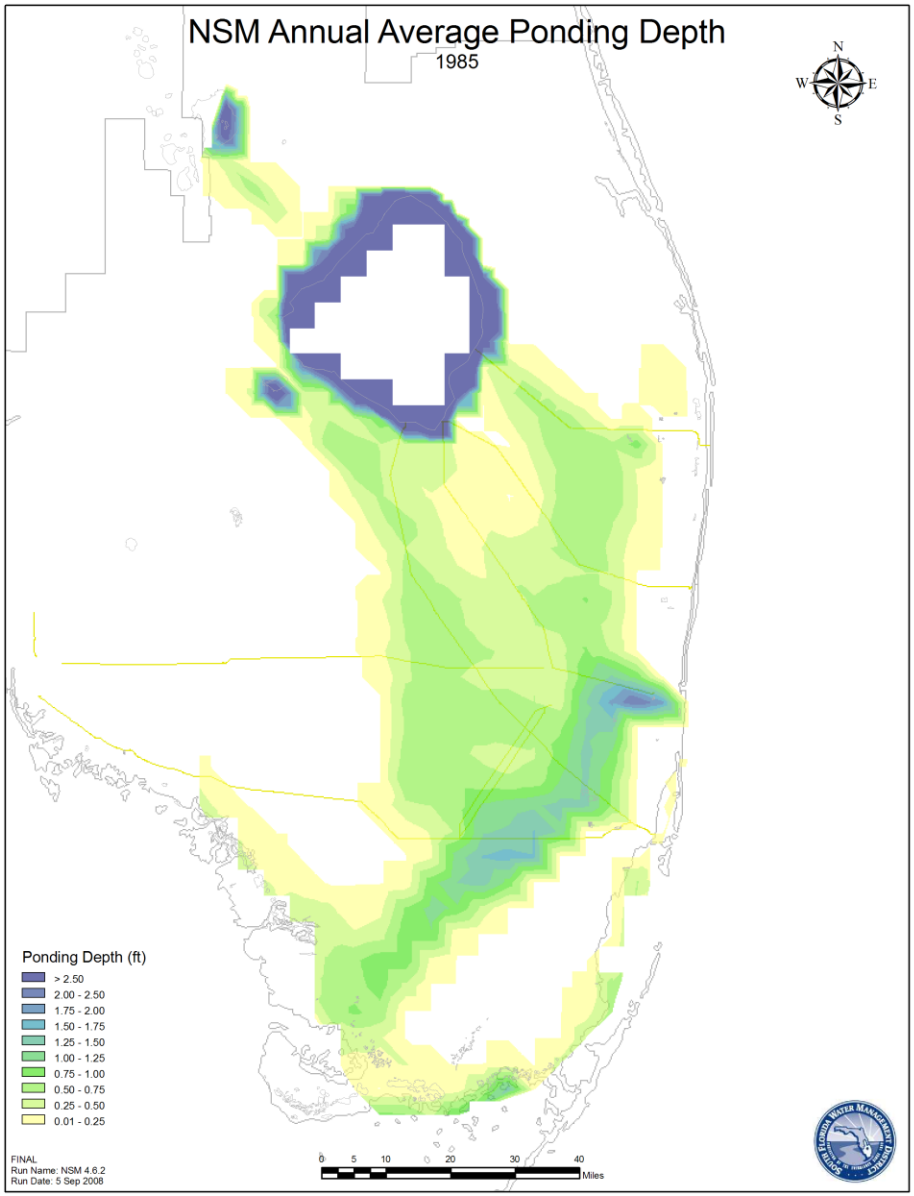

NSRSM Annual Average Ponding Depth
1982
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

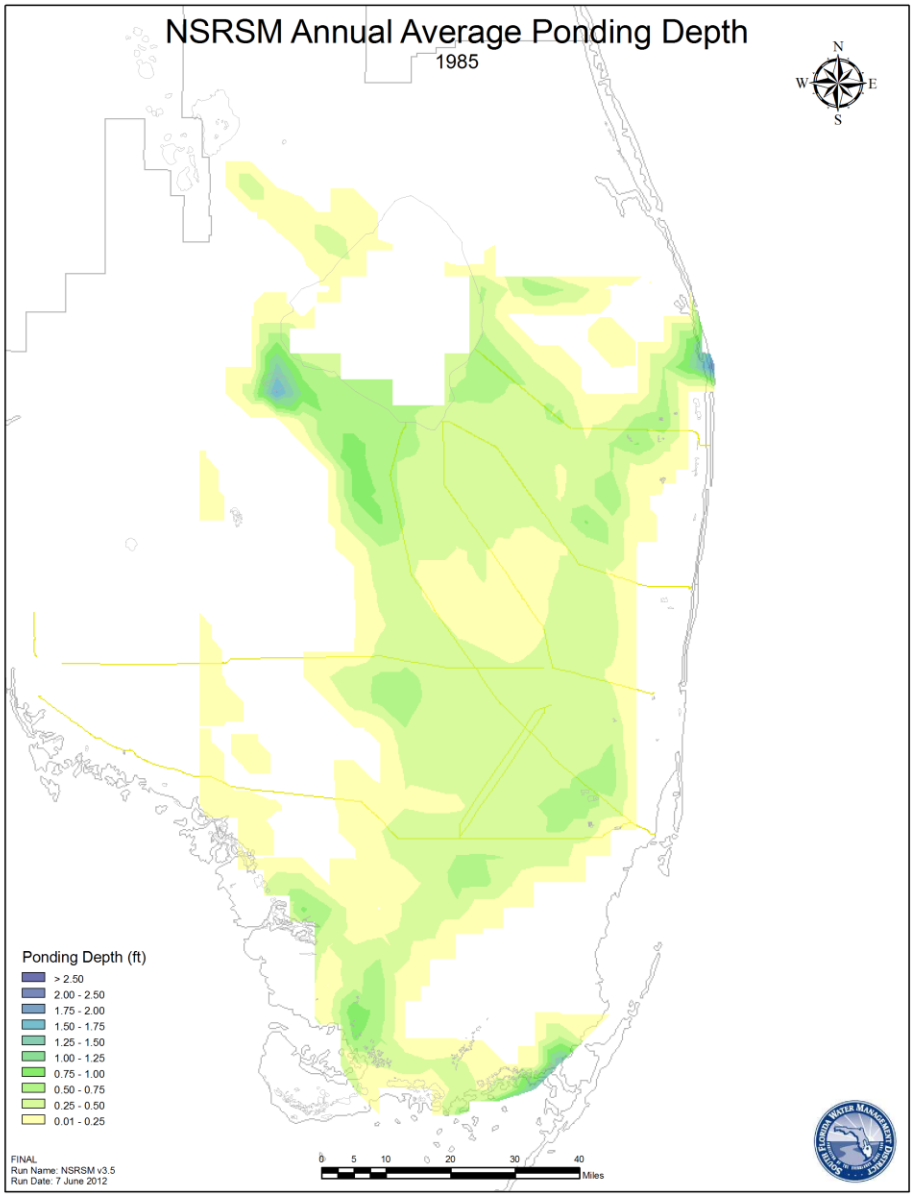

NSM Annual Average Ponding Depth
1983
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

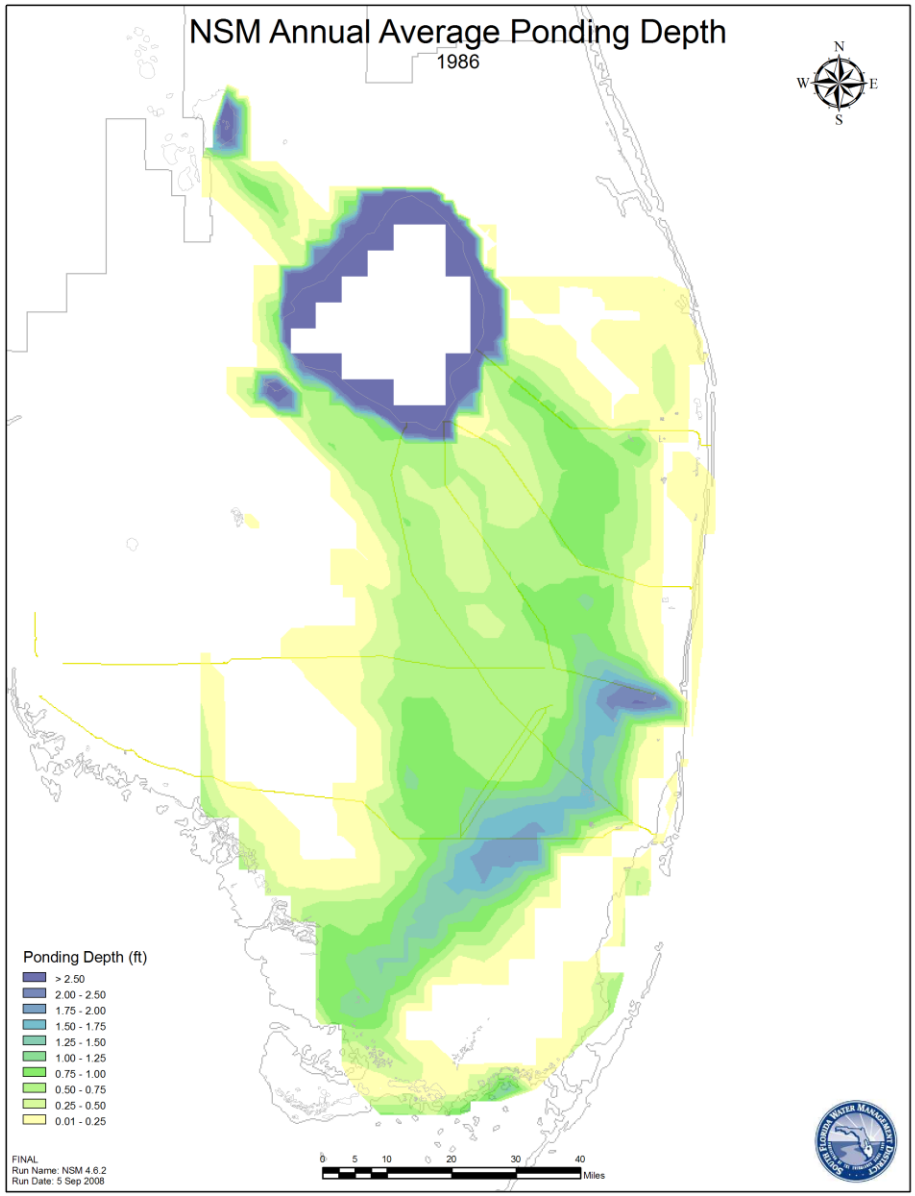

NSRSM Annual Average Ponding Depth
1983
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

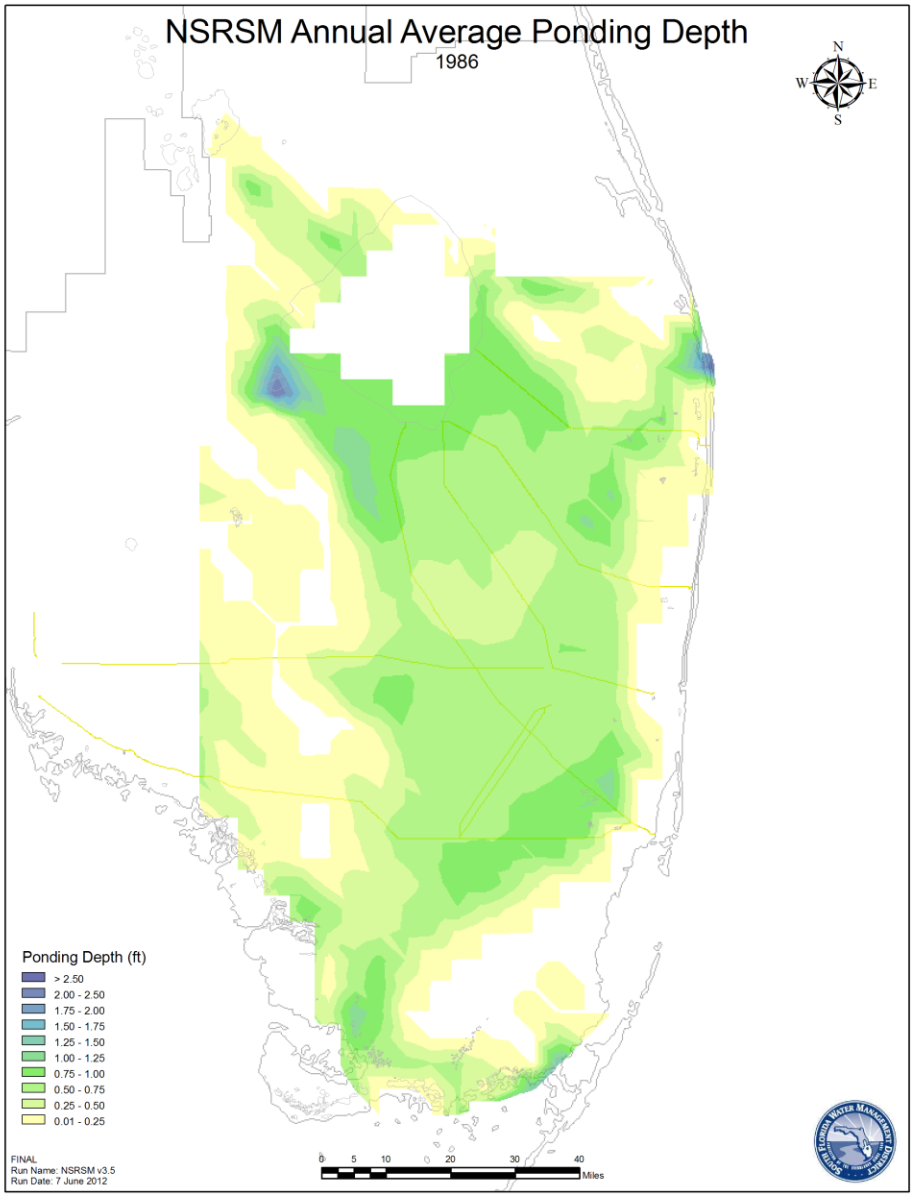

NSM Annual Average Ponding Depth
1984
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

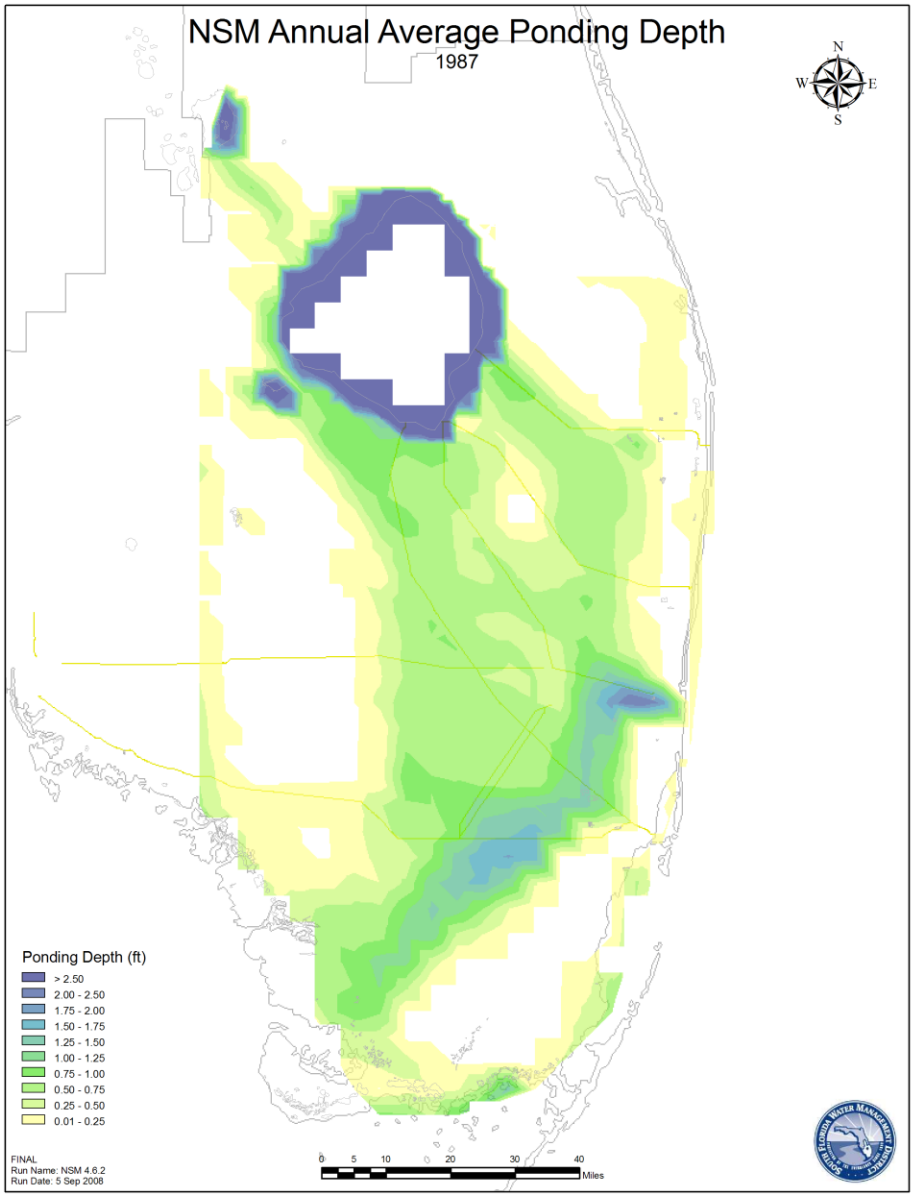

NSRSM Annual Average Ponding Depth
1984
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

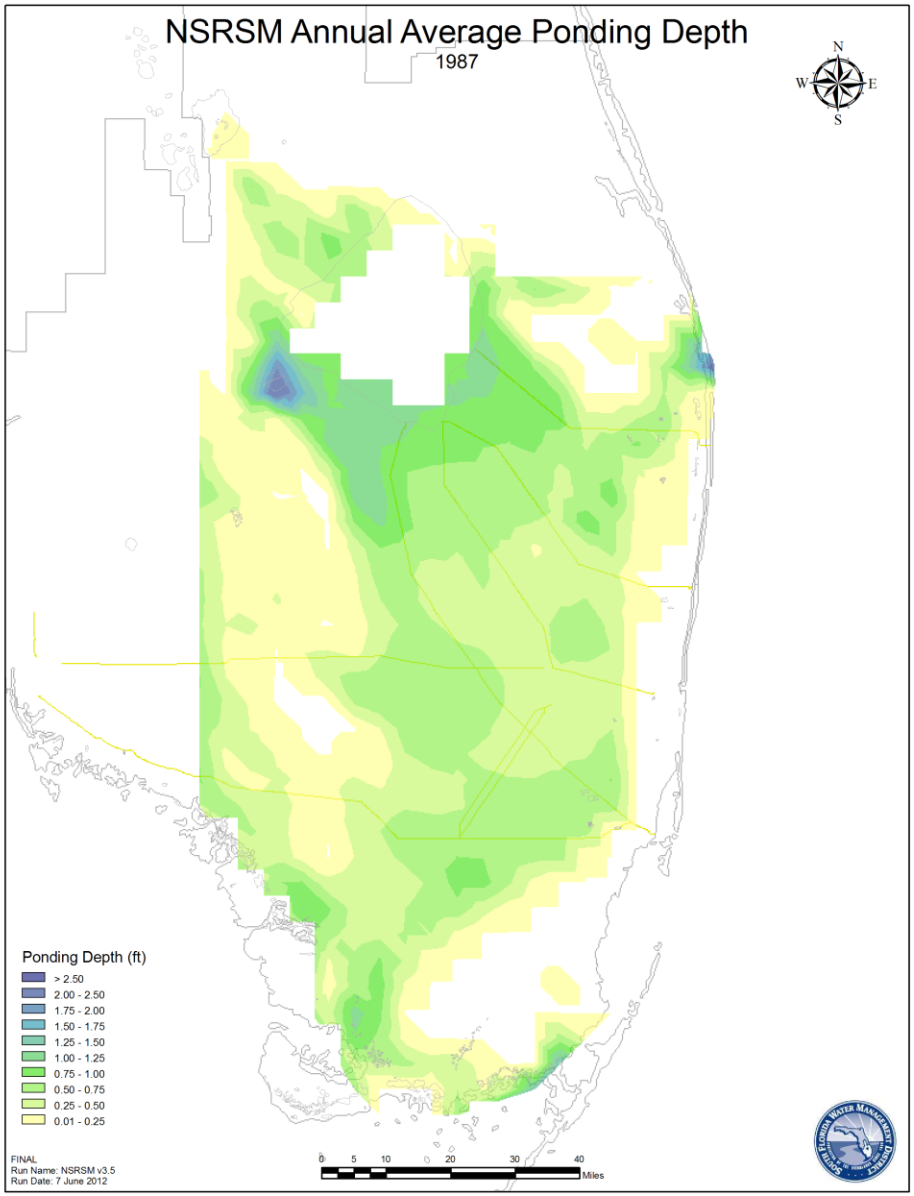

NSM Annual Average Ponding Depth
1985
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

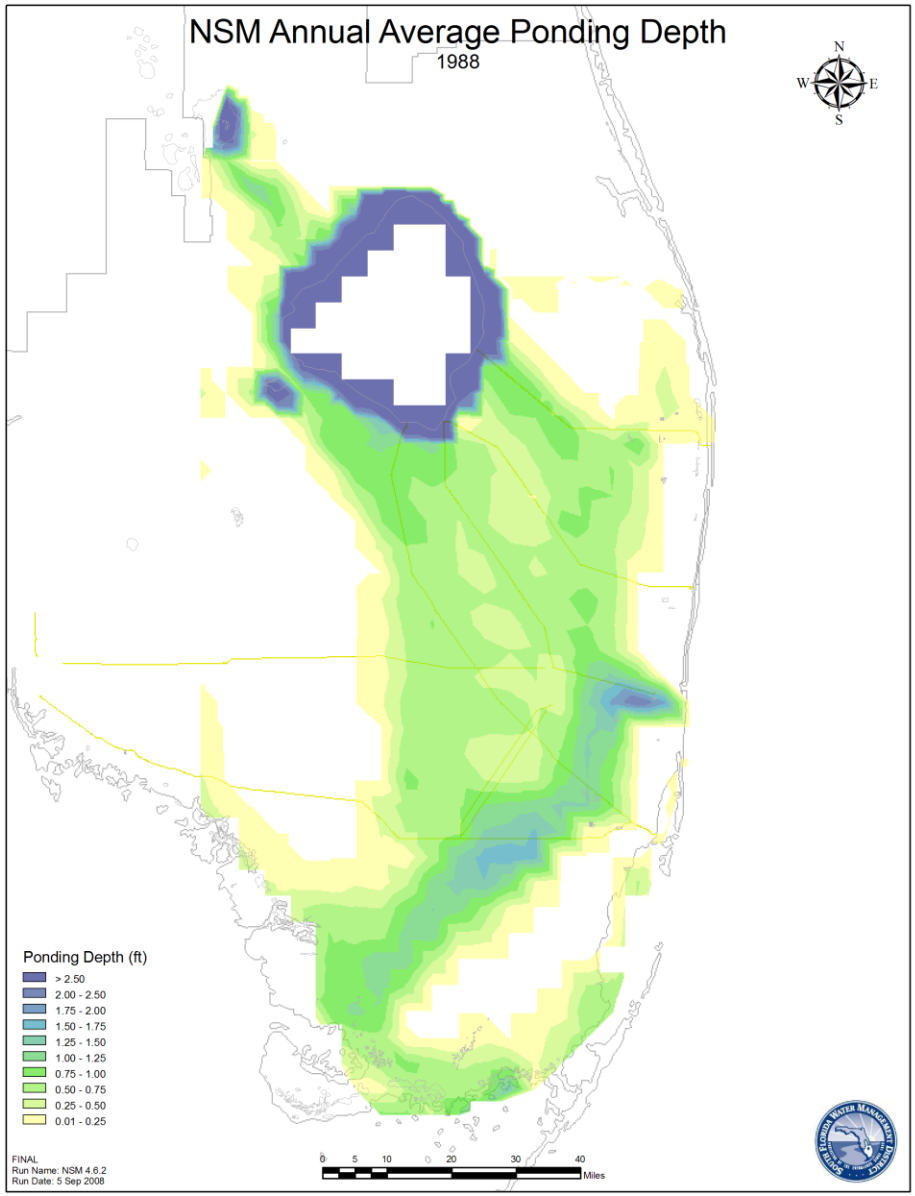

NSRSM Annual Average Ponding Depth
1985
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

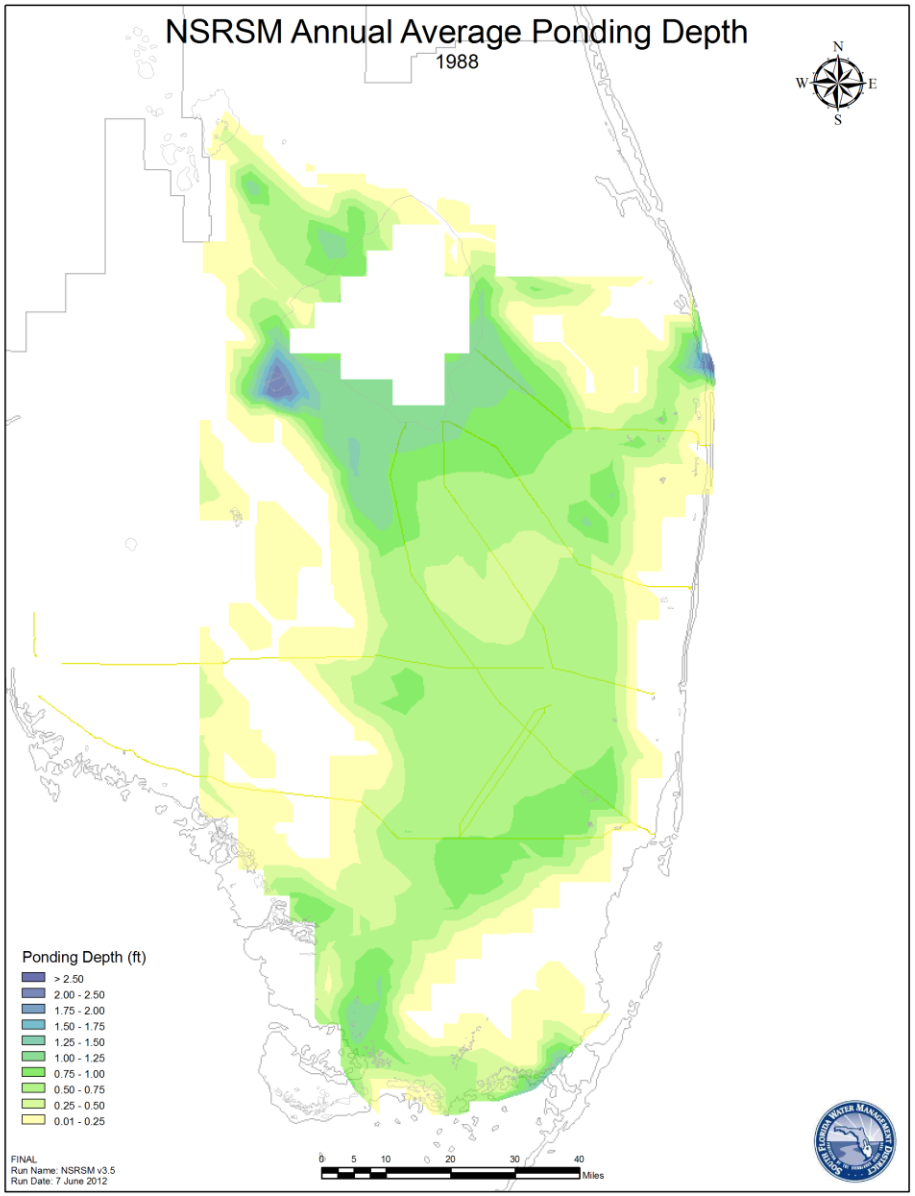

NSM Annual Average Ponding Depth
1986
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

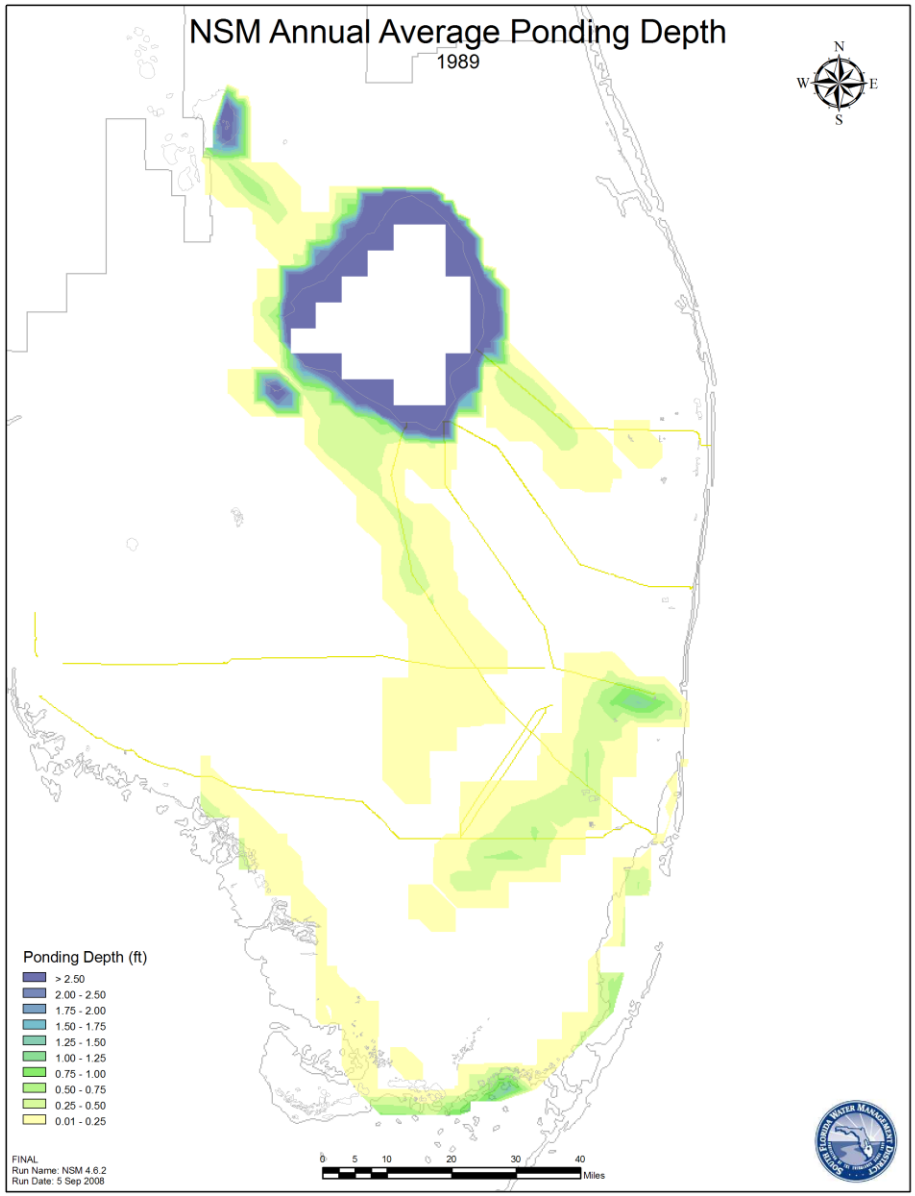

NSRSM Annual Average Ponding Depth
1986
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

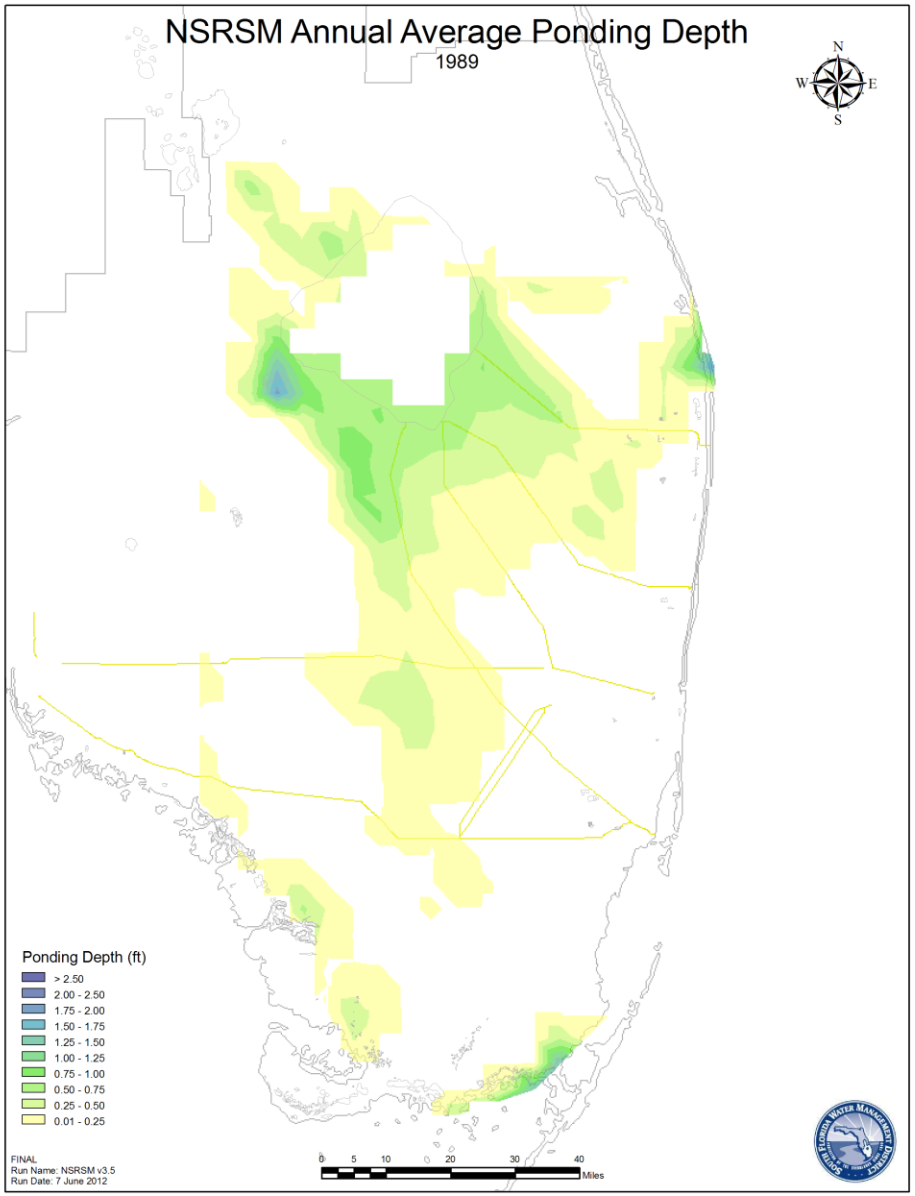

NSM Annual Average Ponding Depth
1987
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

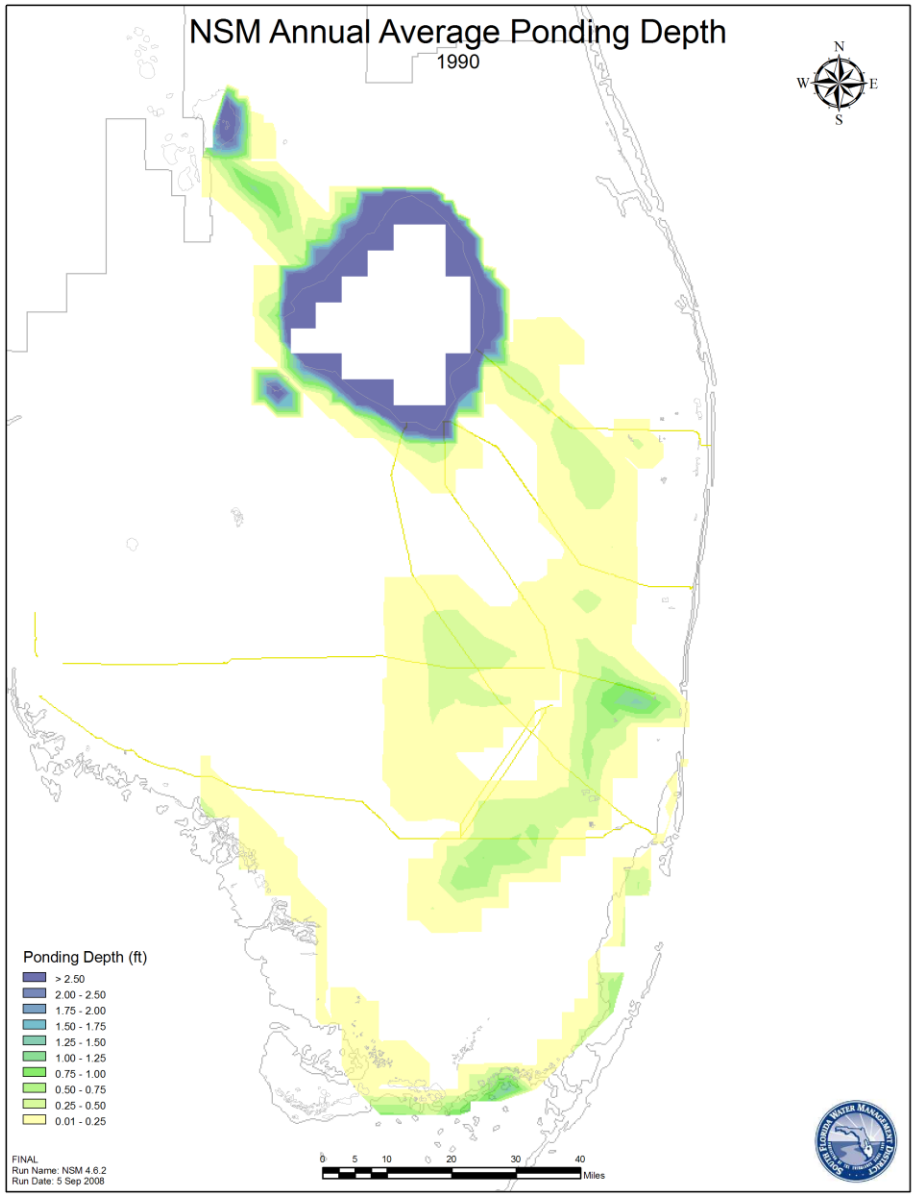

NSRSM Annual Average Ponding Depth
1987
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

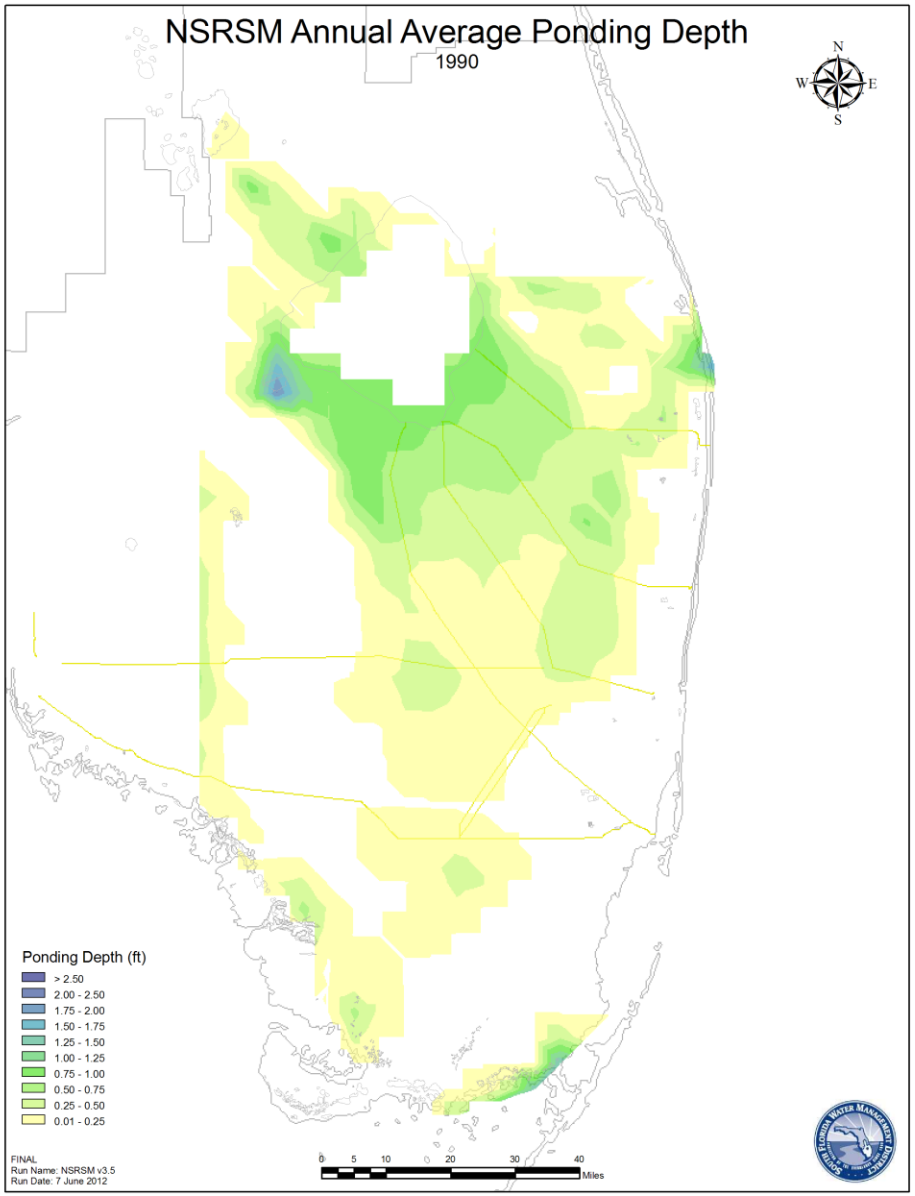

NSM Annual Average Ponding Depth
1988
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

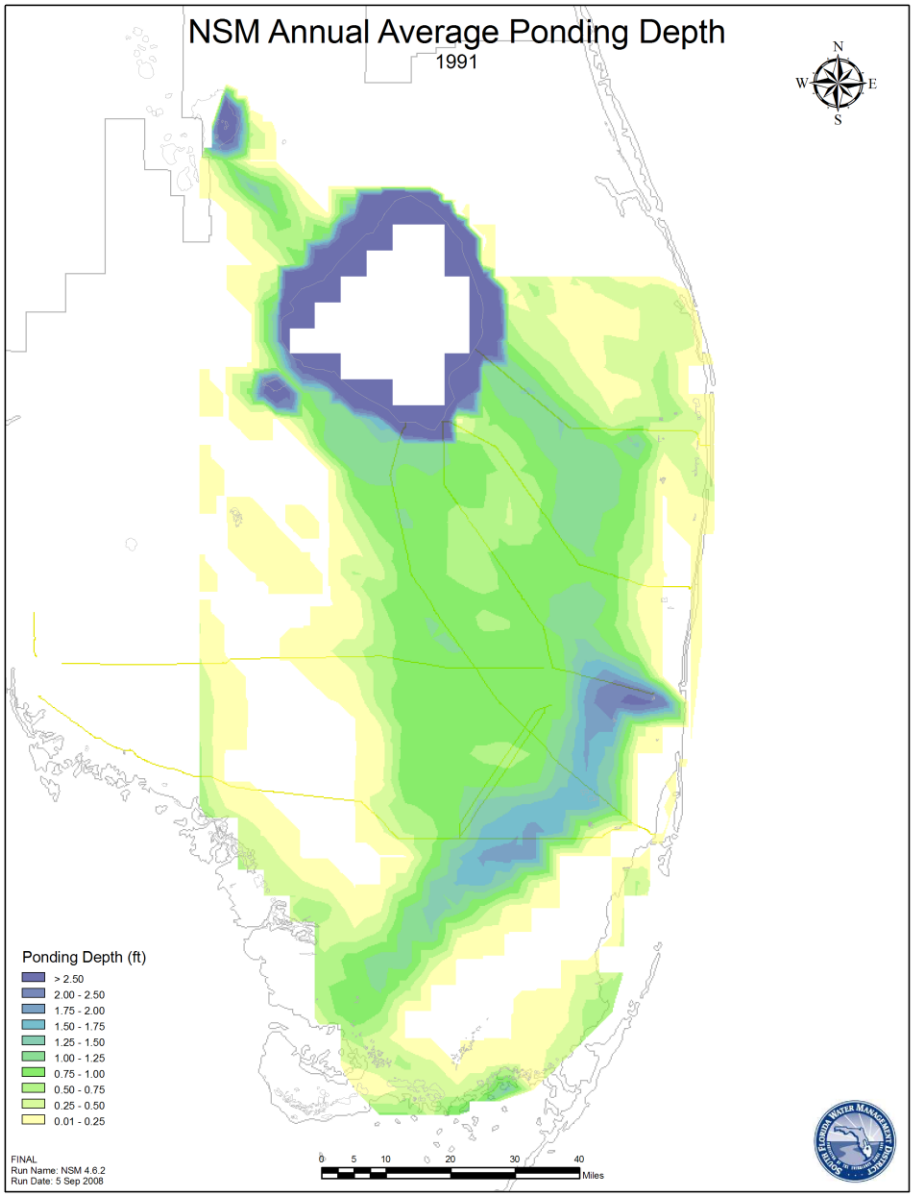

NSRSM Annual Average Ponding Depth
1988
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

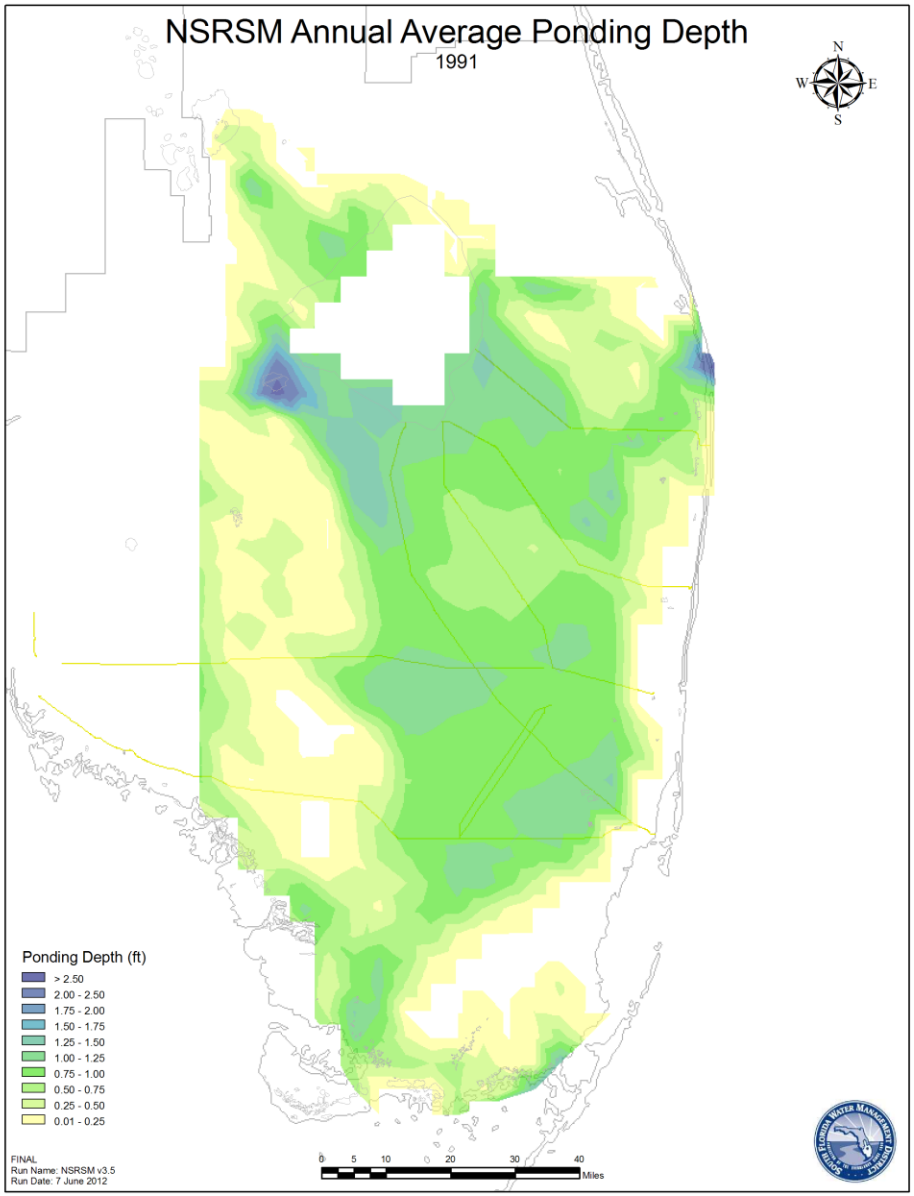

NSM Annual Average Ponding Depth
1989
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

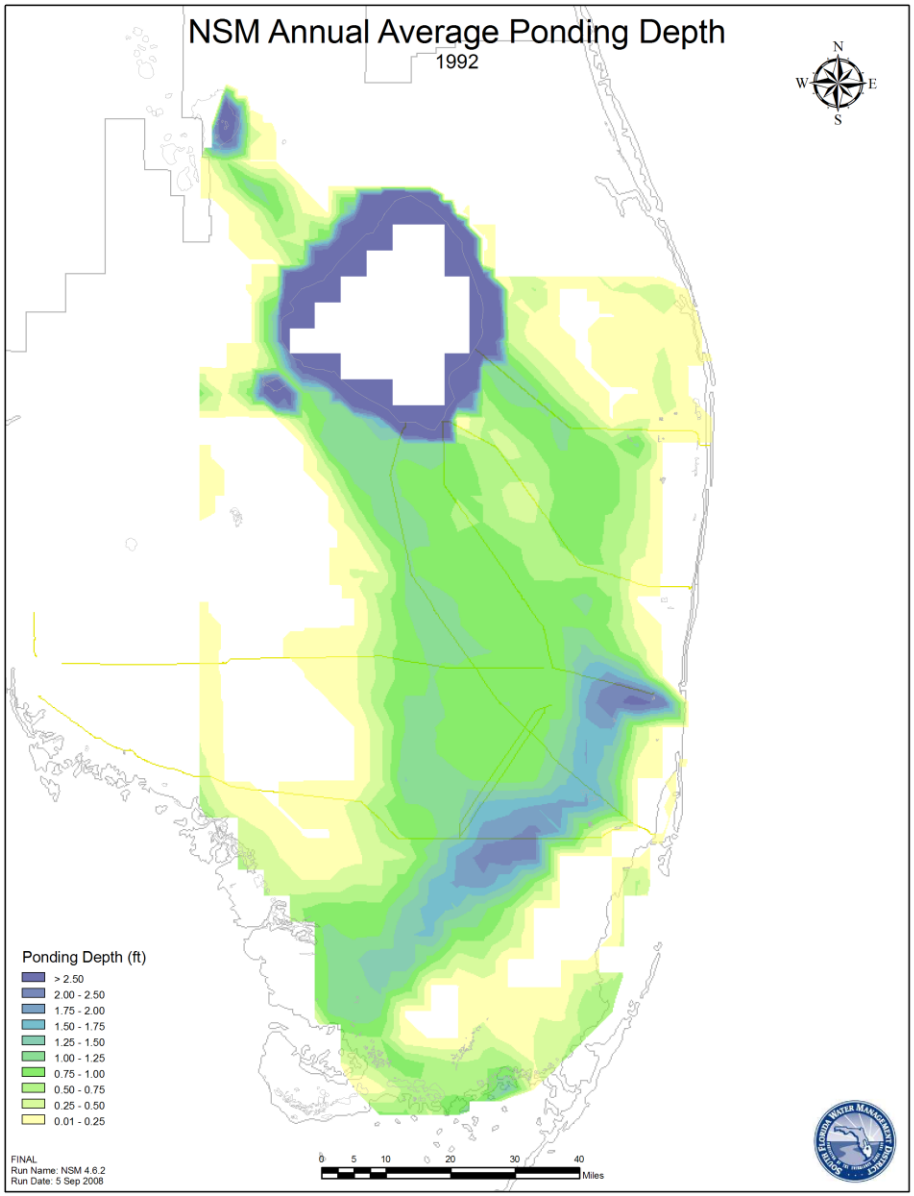

NSRSM Annual Average Ponding Depth
1989
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

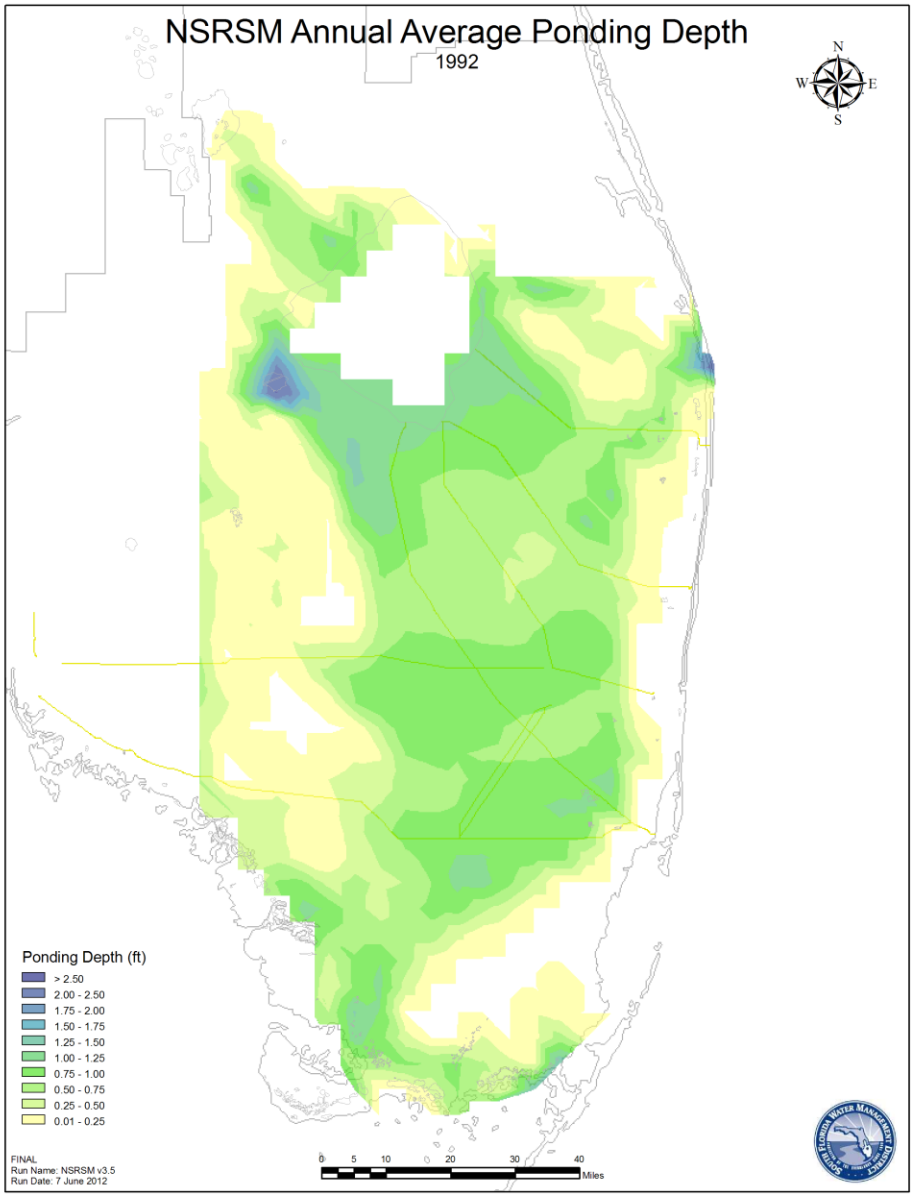

NSM Annual Average Ponding Depth
1990
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

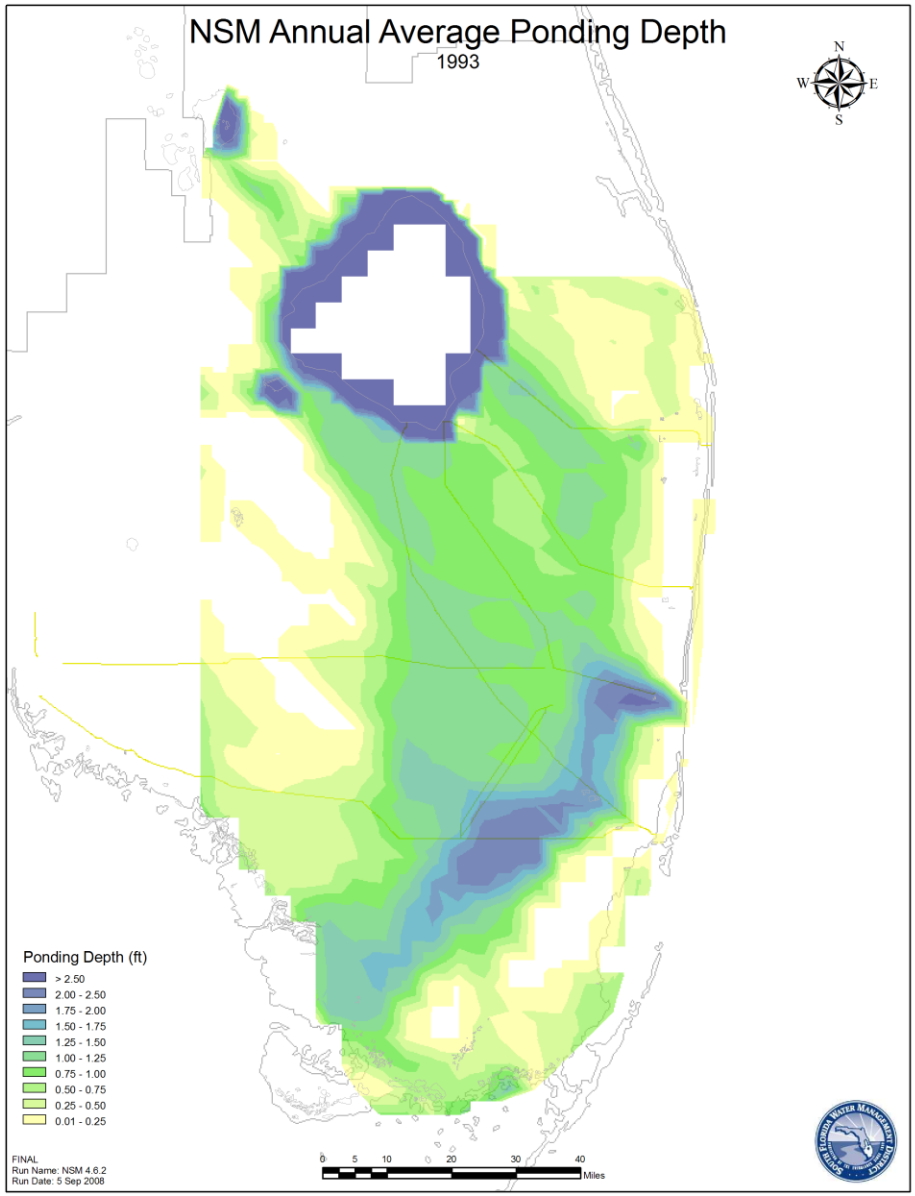

NSRSM Annual Average Ponding Depth
1990
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

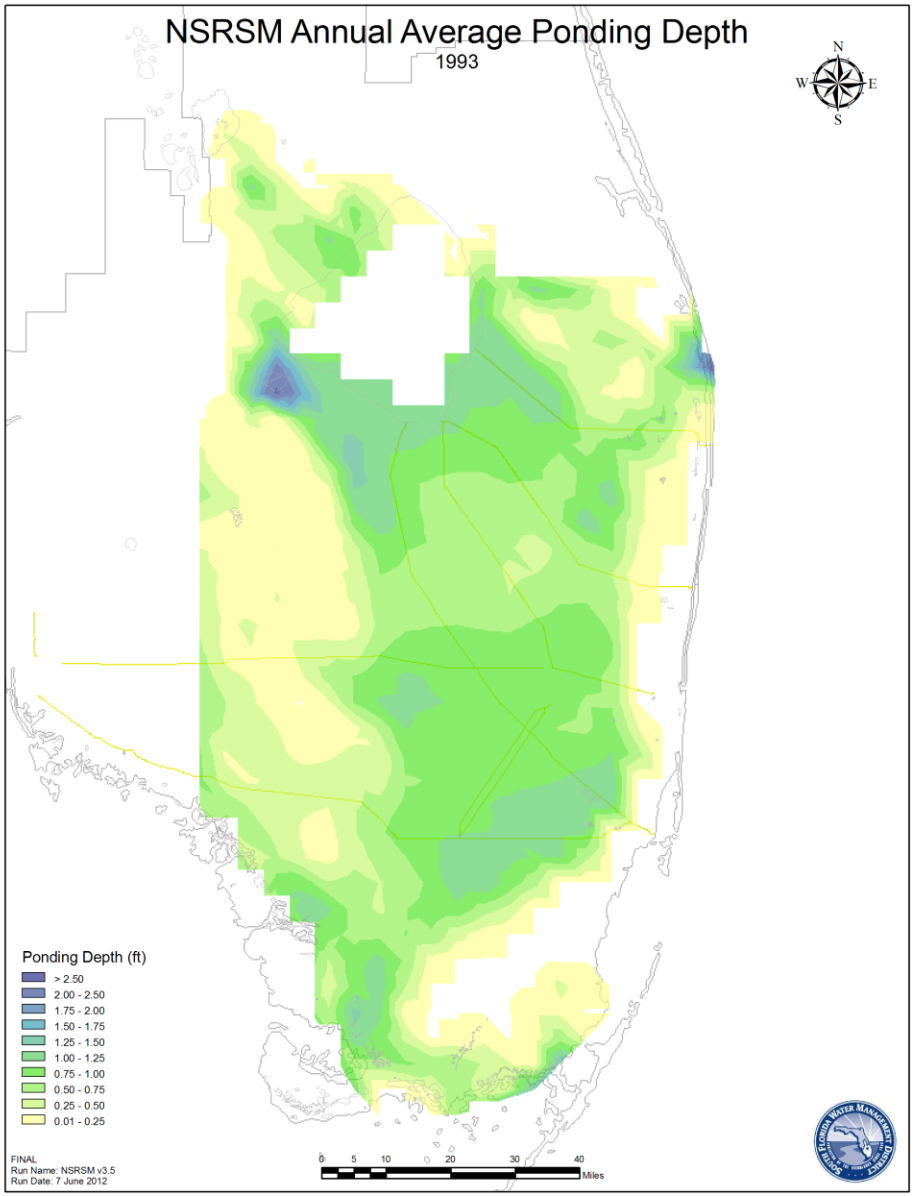

NSM Annual Average Ponding Depth
1991
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

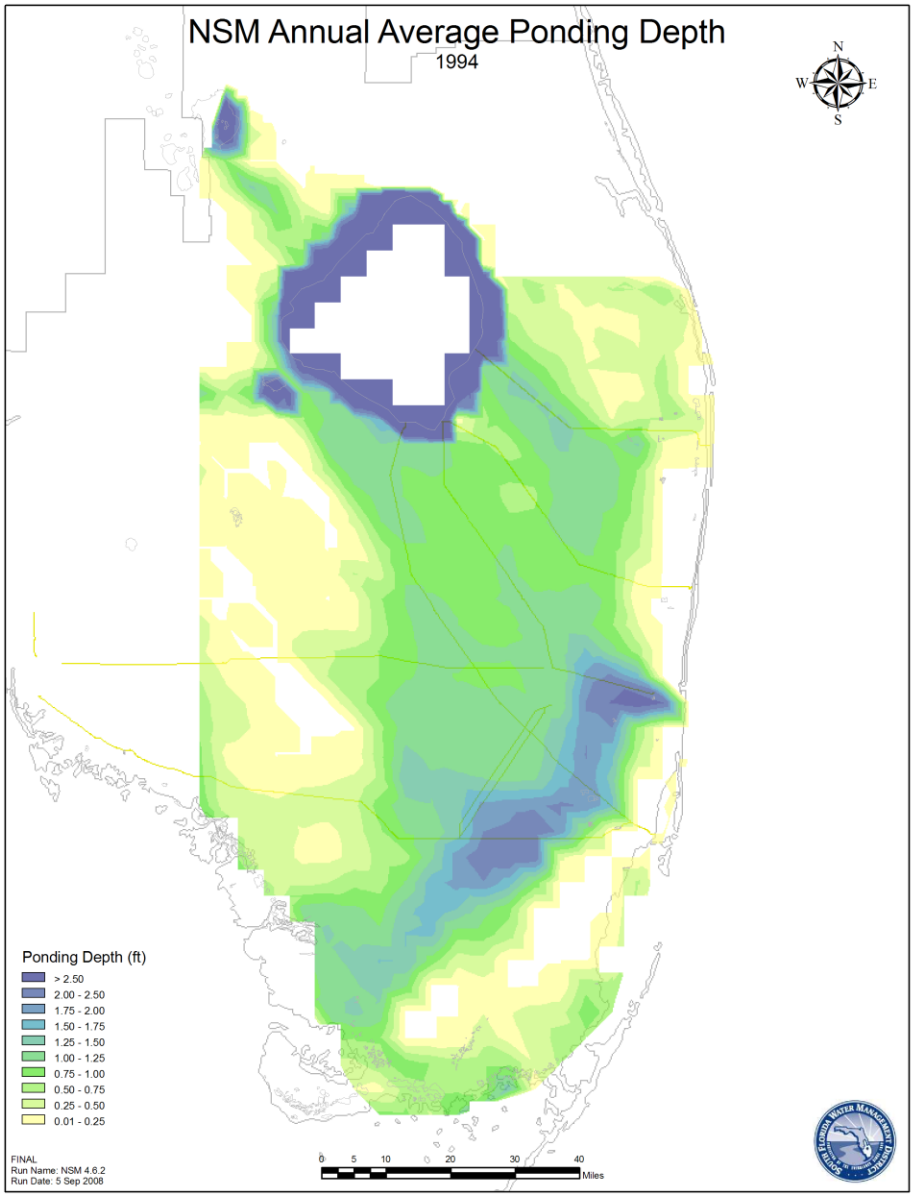

NSRSM Annual Average Ponding Depth
1991
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

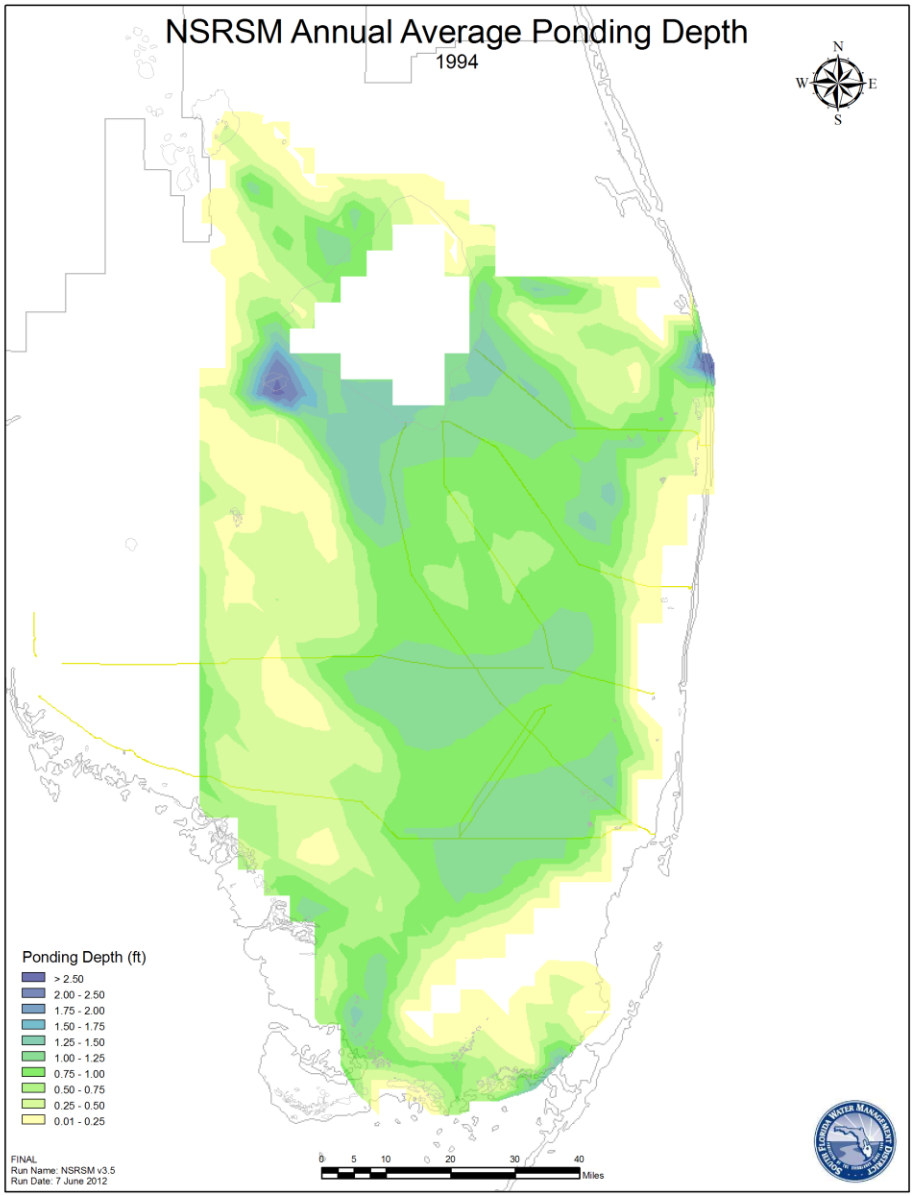

NSM Annual Average Ponding Depth
1992
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

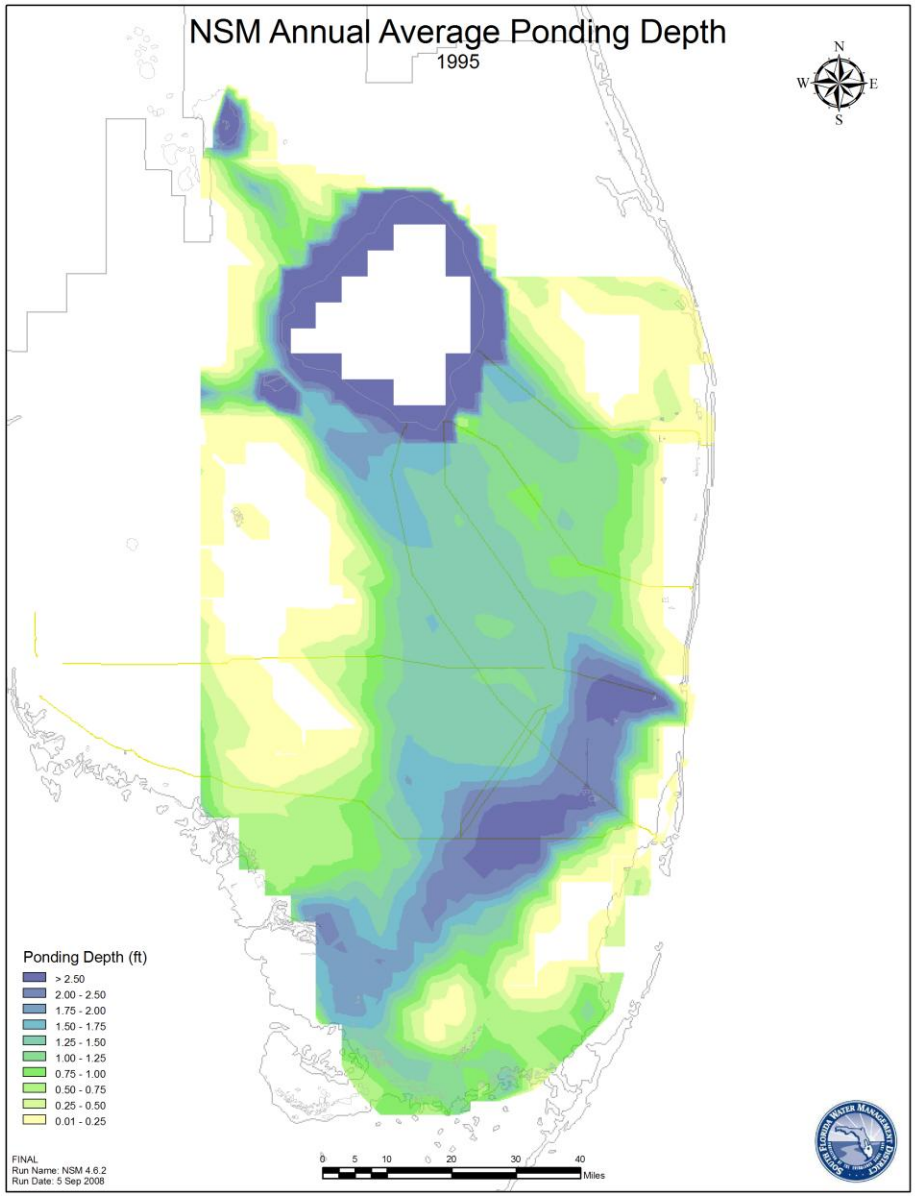

NSRSM Annual Average Ponding Depth
1992
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

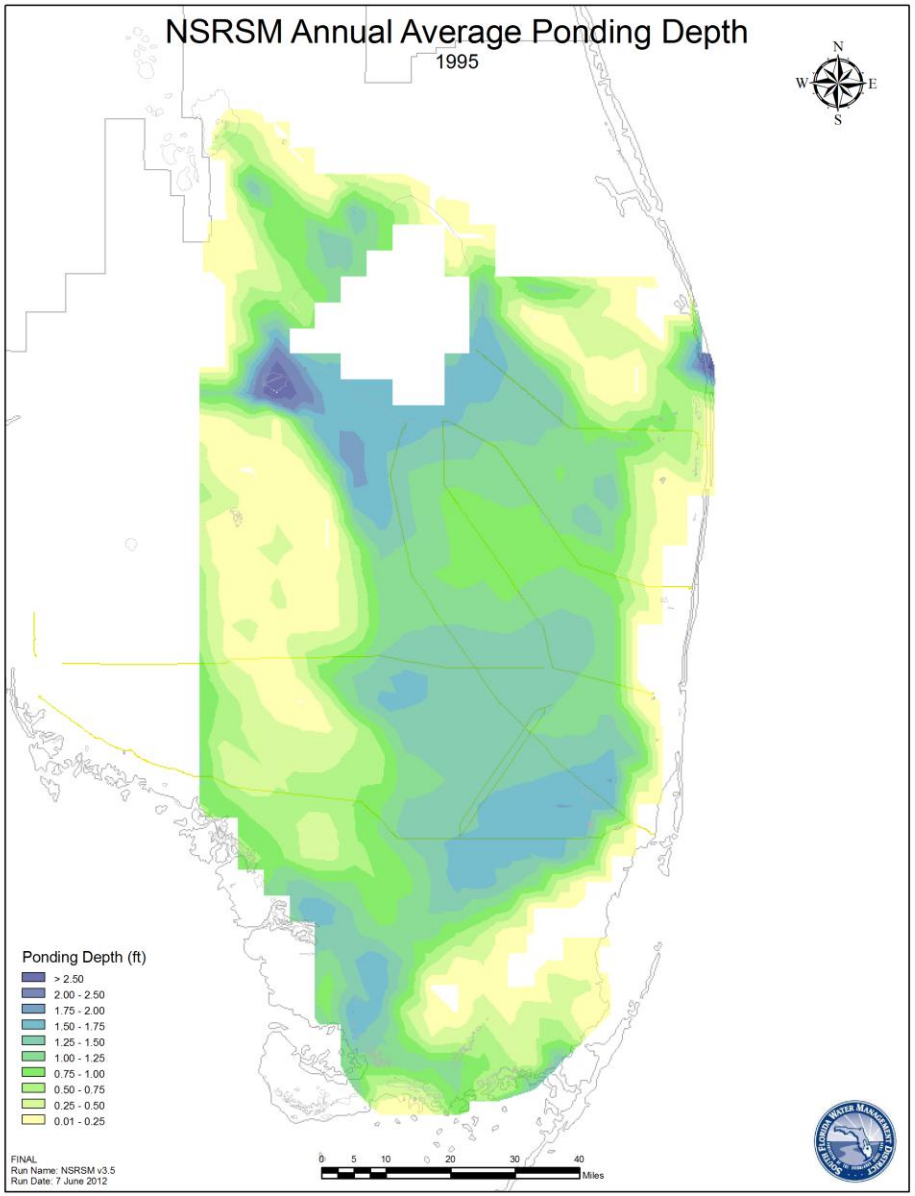

NSM Annual Average Ponding Depth
1993
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

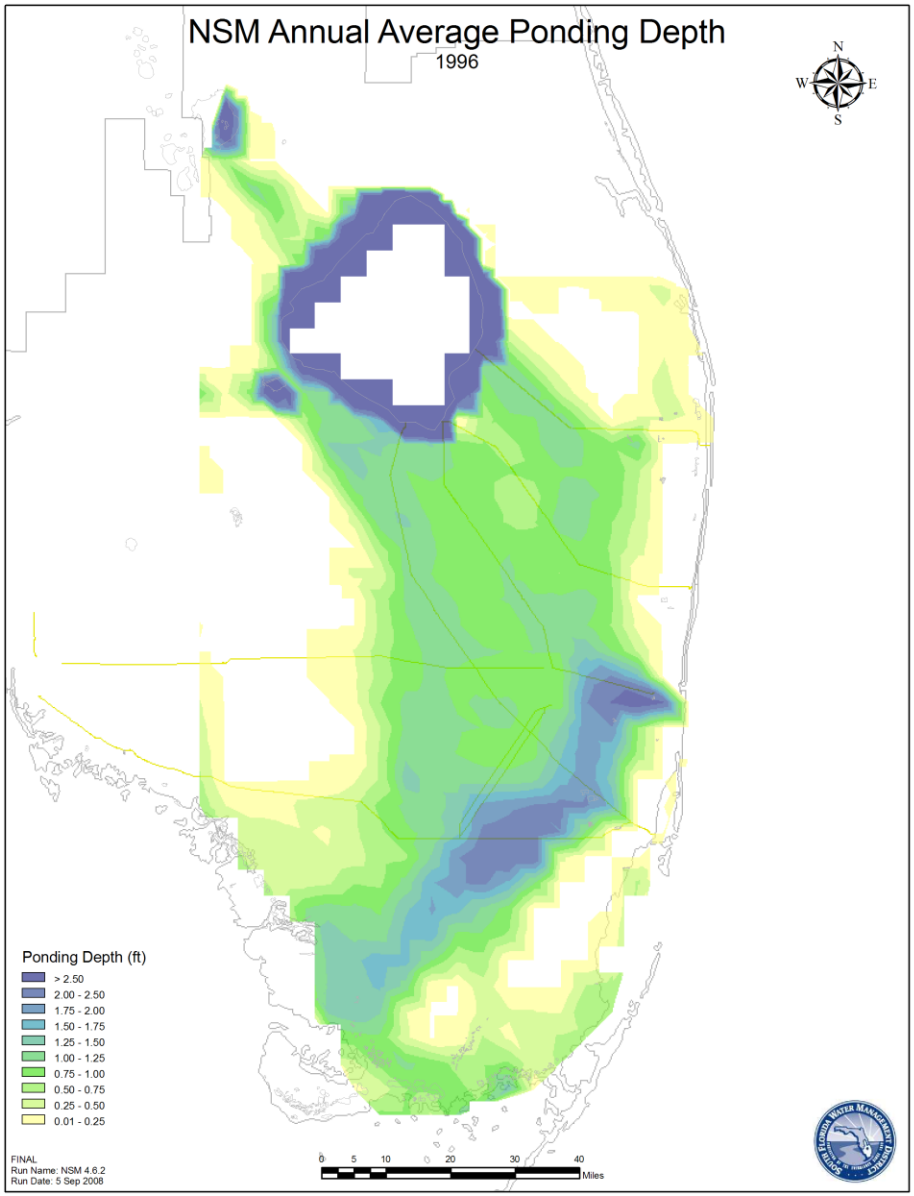

NSRSM Annual Average Ponding Depth
1993
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

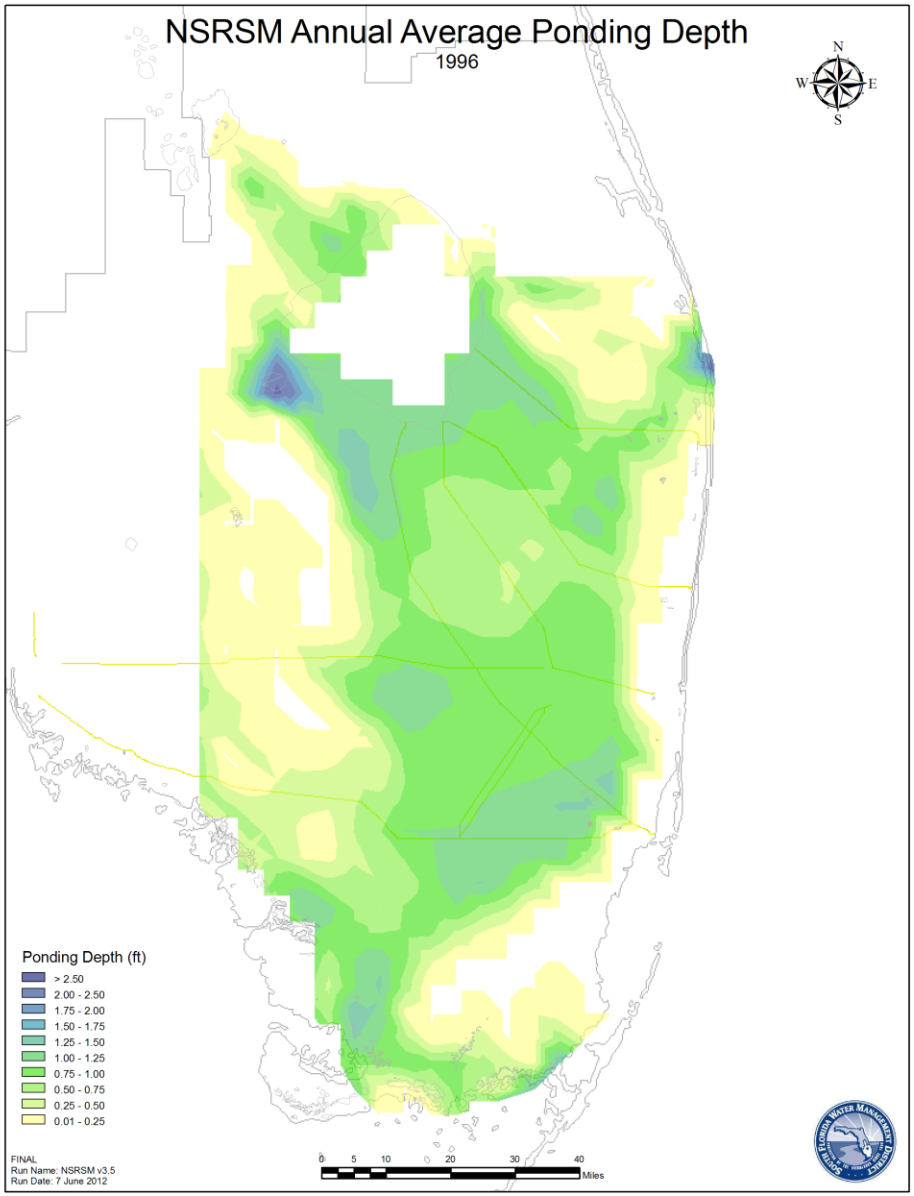

NSM Annual Average Ponding Depth
1994
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

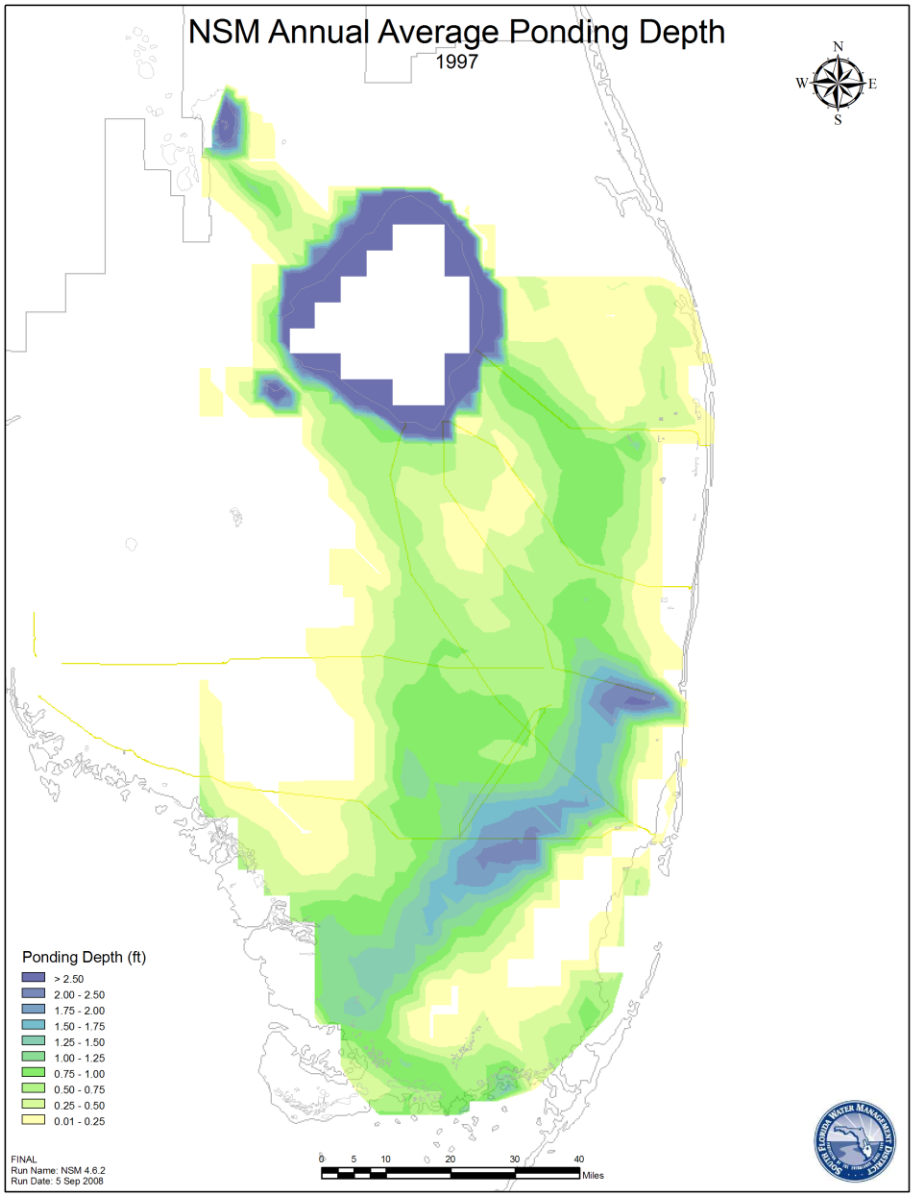

NSRSM Annual Average Ponding Depth
1994
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

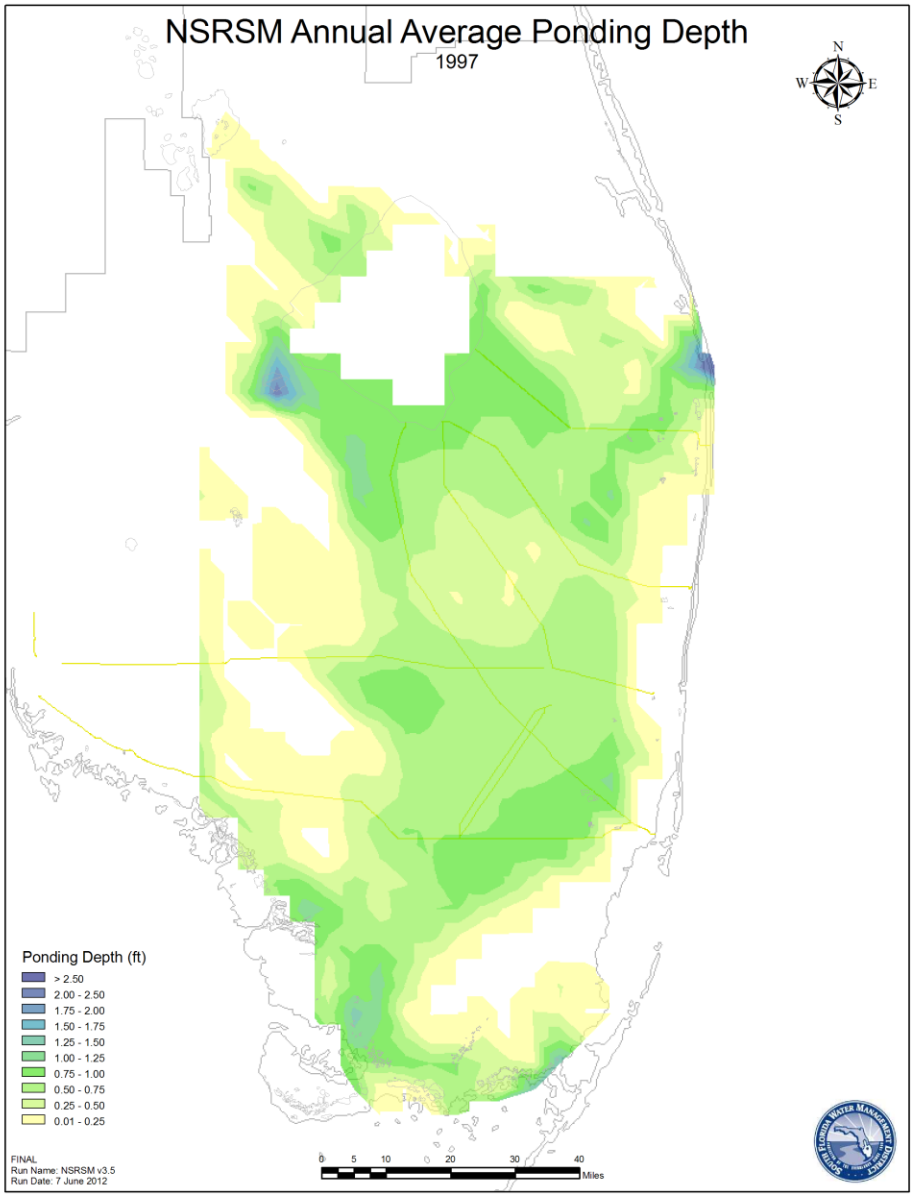

NSM Annual Average Ponding Depth
1995
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

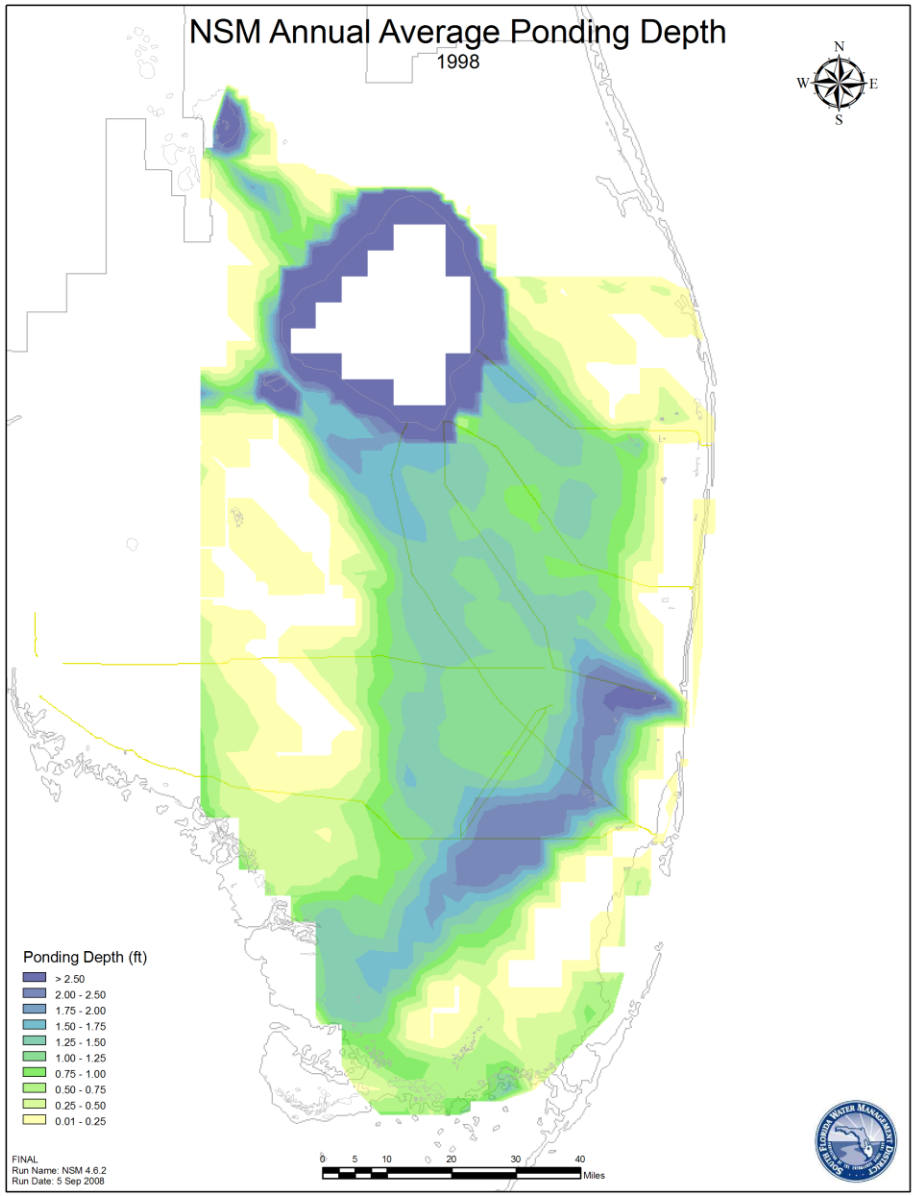

NSRSM Annual Average Ponding Depth
1995
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

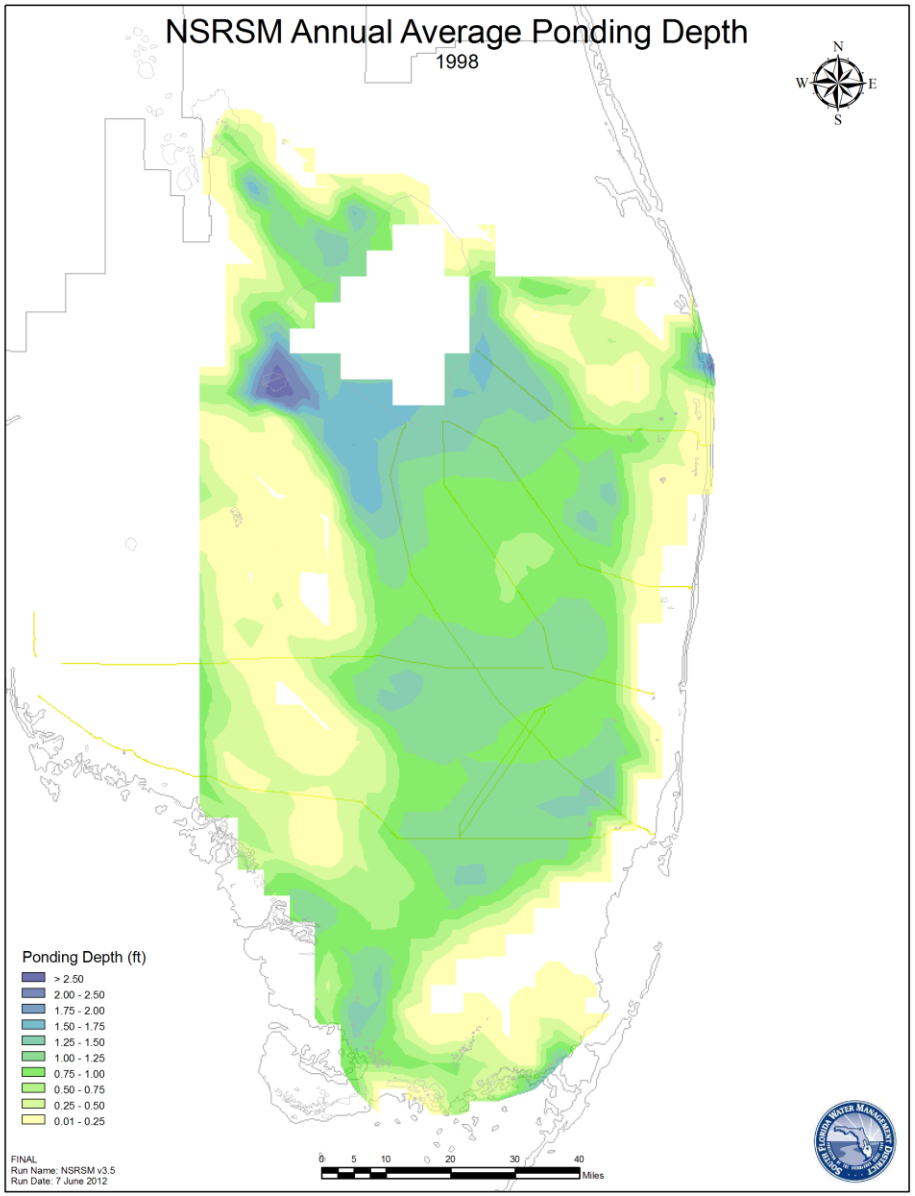

NSM Annual Average Ponding Depth
1996
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

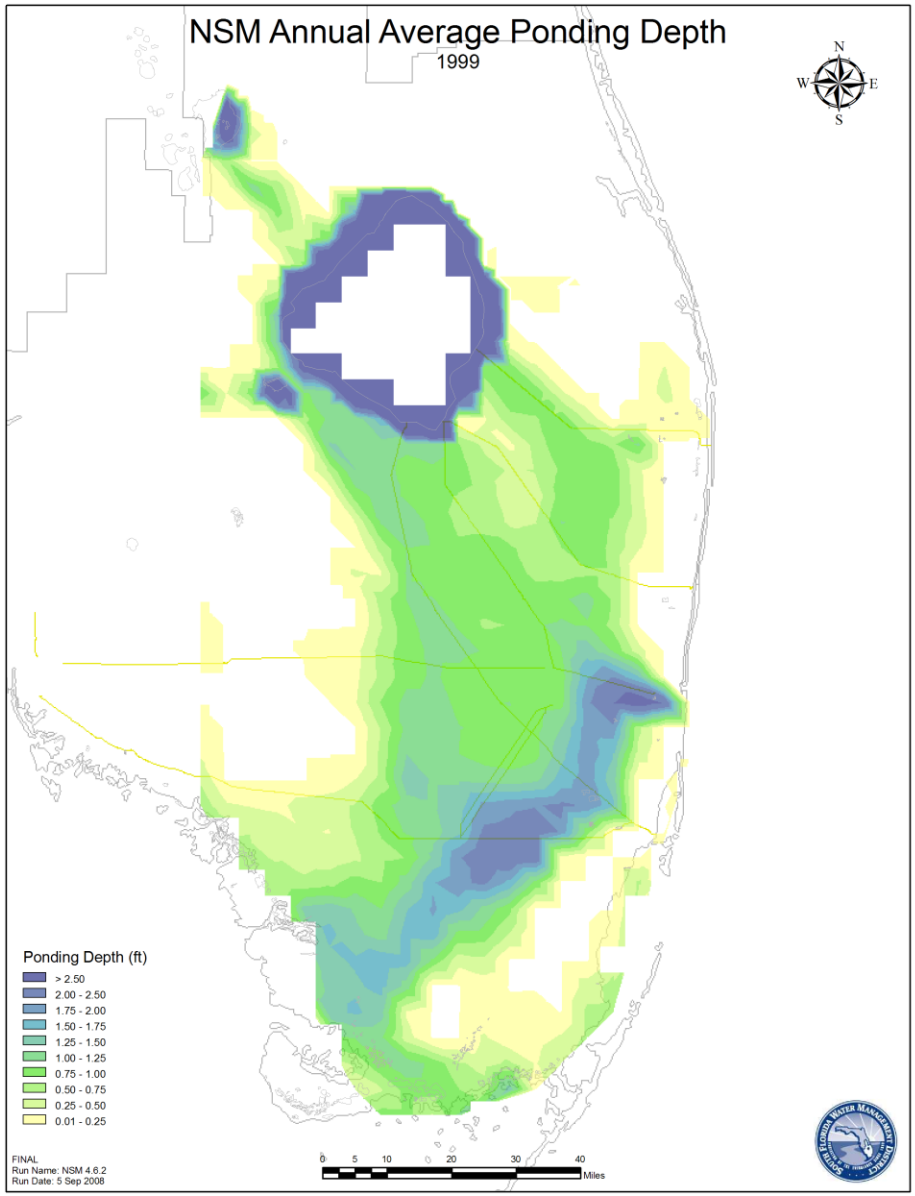

NSRSM Annual Average Ponding Depth
1996
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

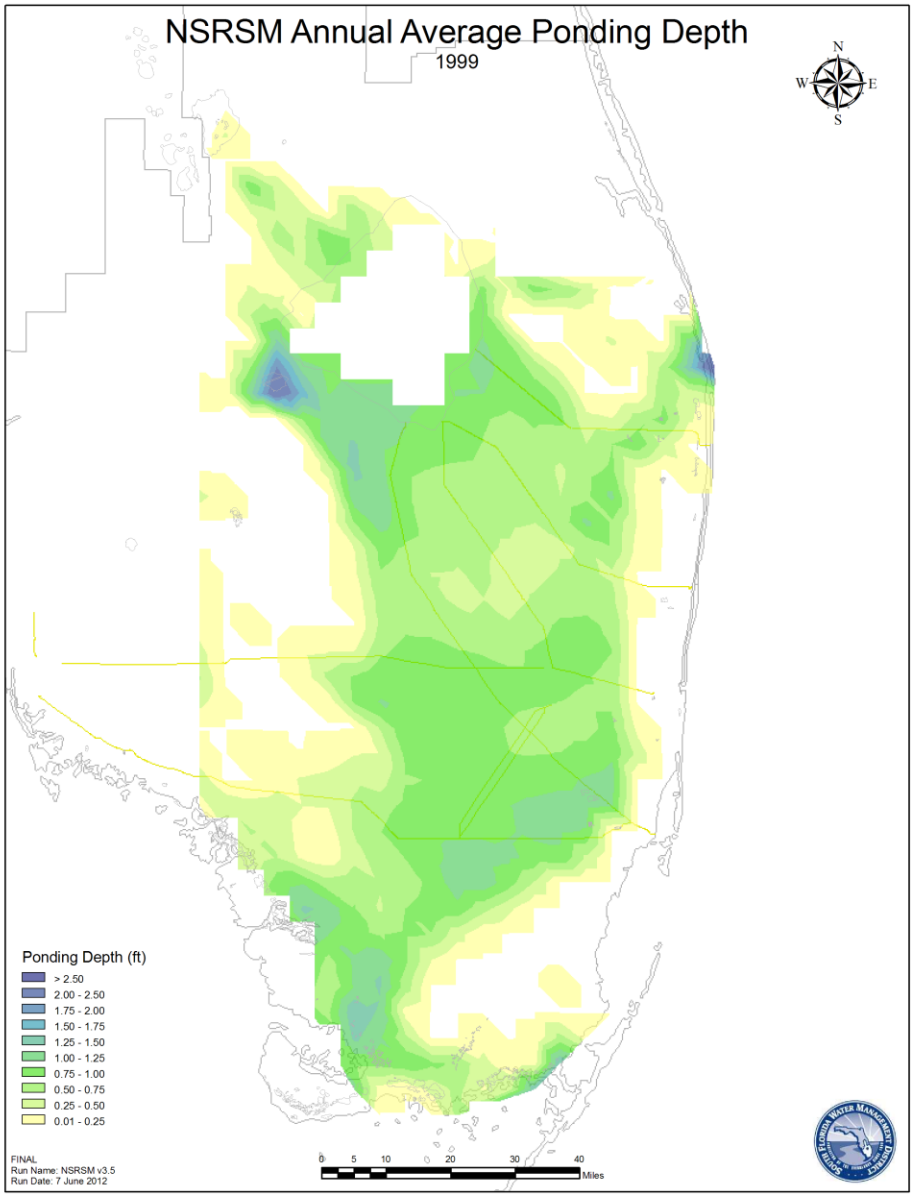

NSM Annual Average Ponding Depth
1997
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

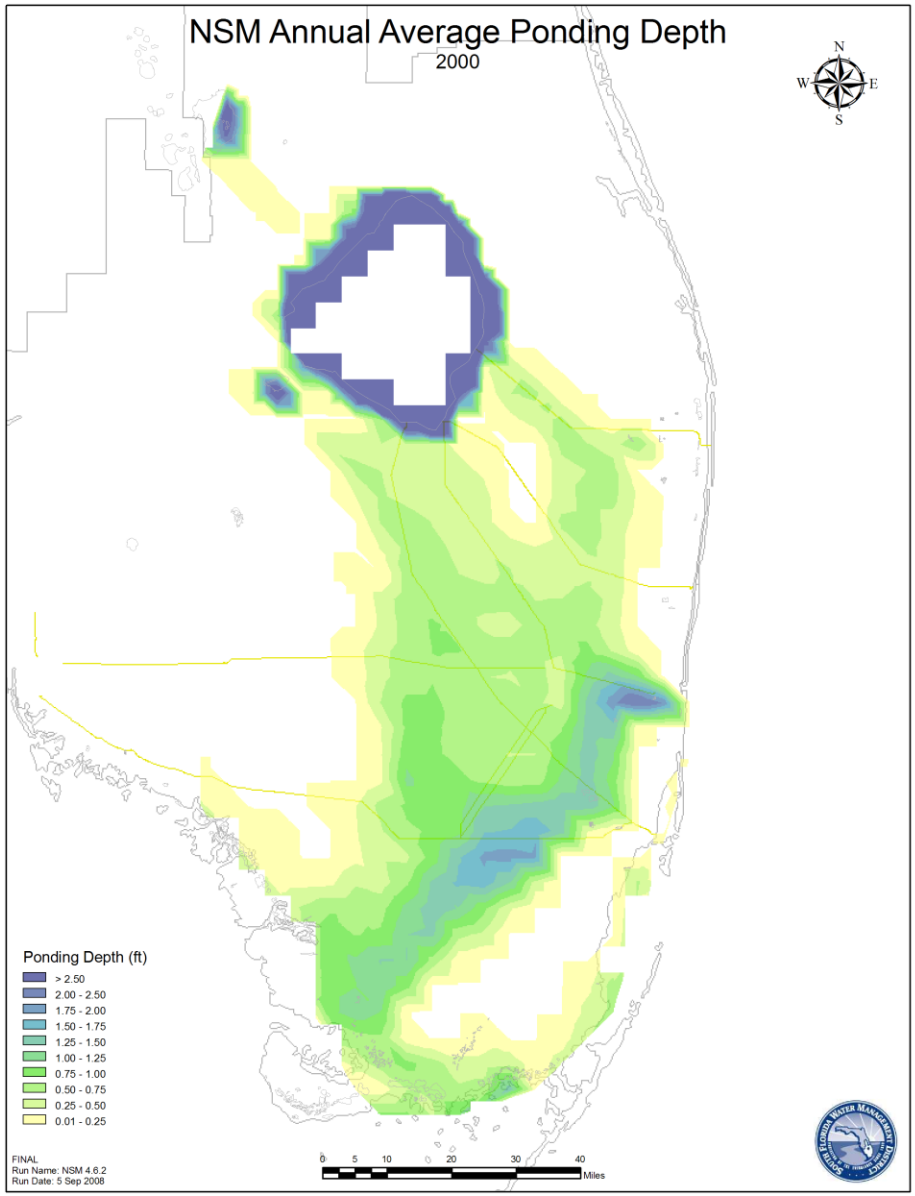

NSRSM Annual Average Ponding Depth
1997
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

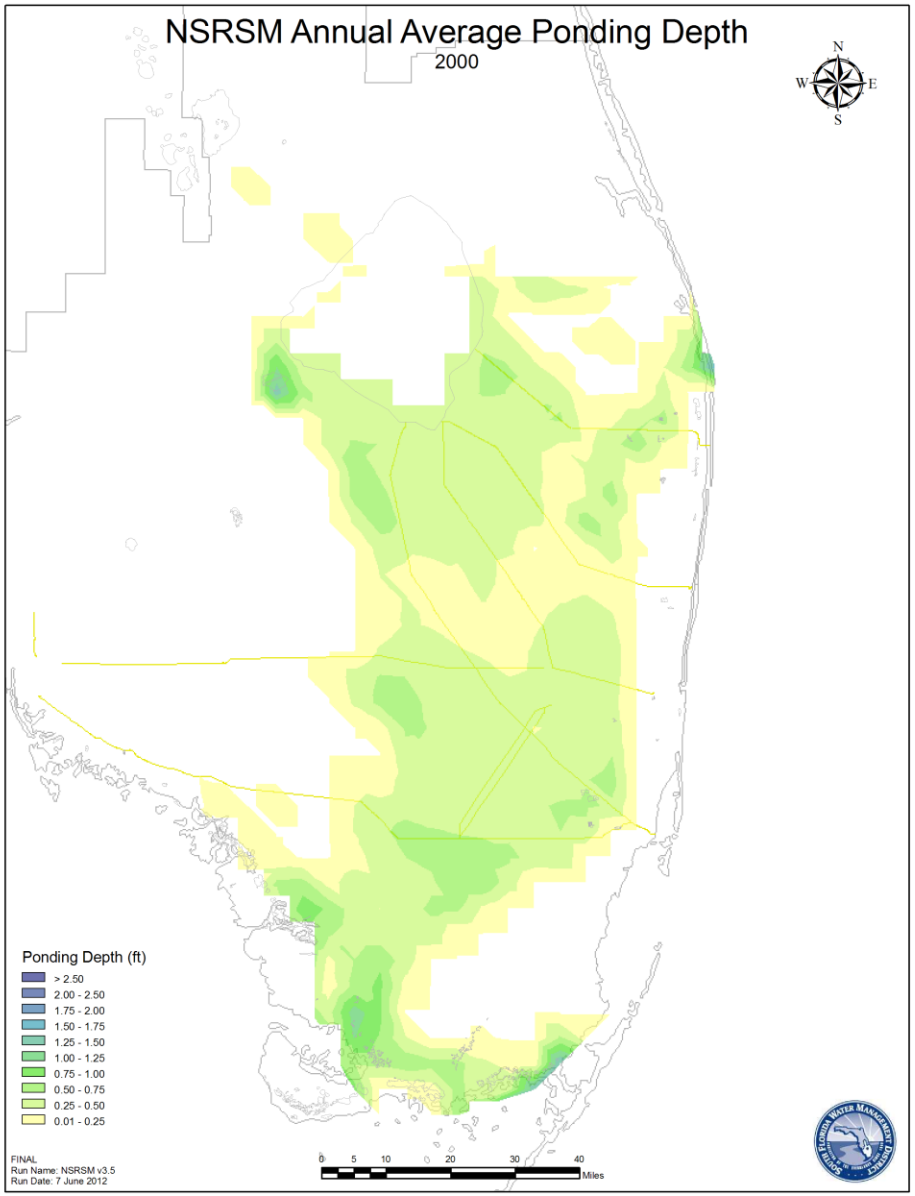

NSM Annual Average Ponding Depth
1998
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

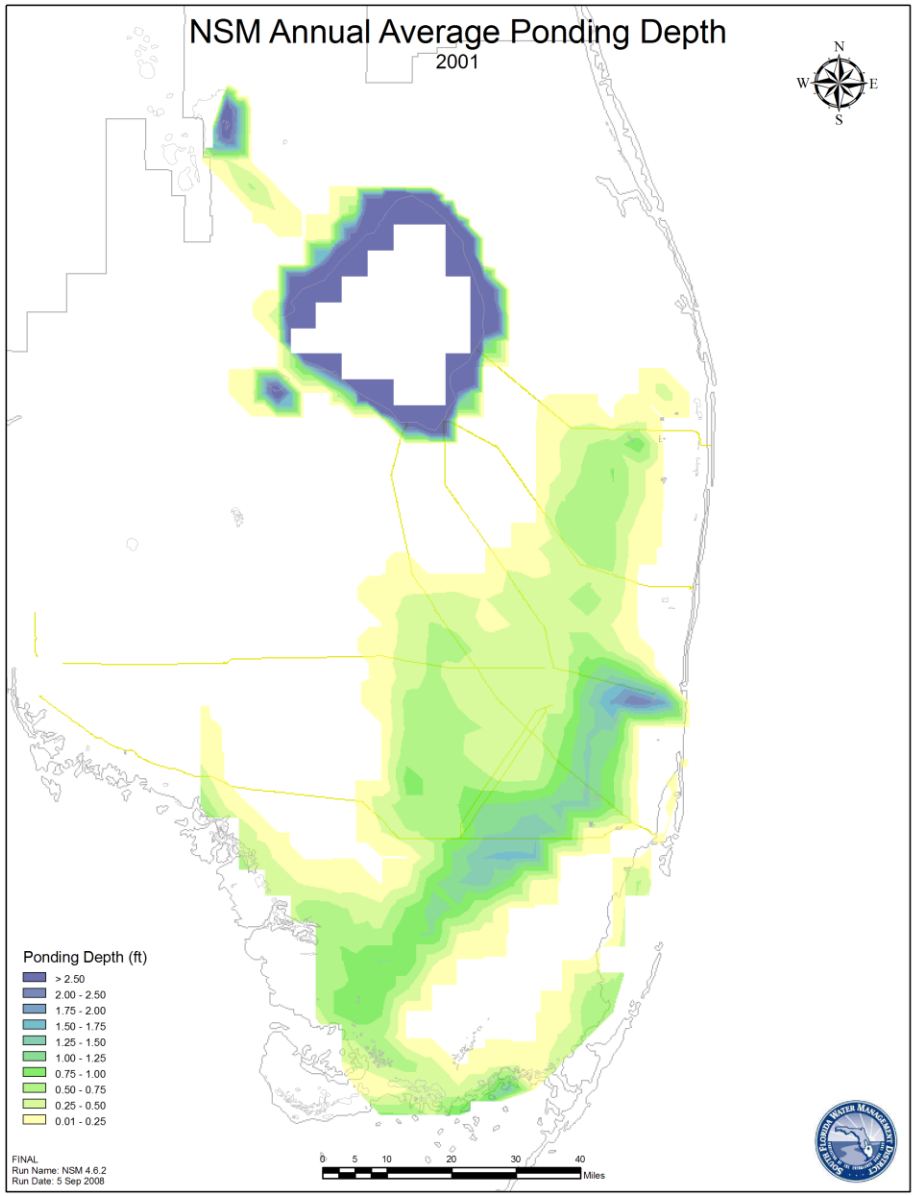

NSRSM Annual Average Ponding Depth
1998
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

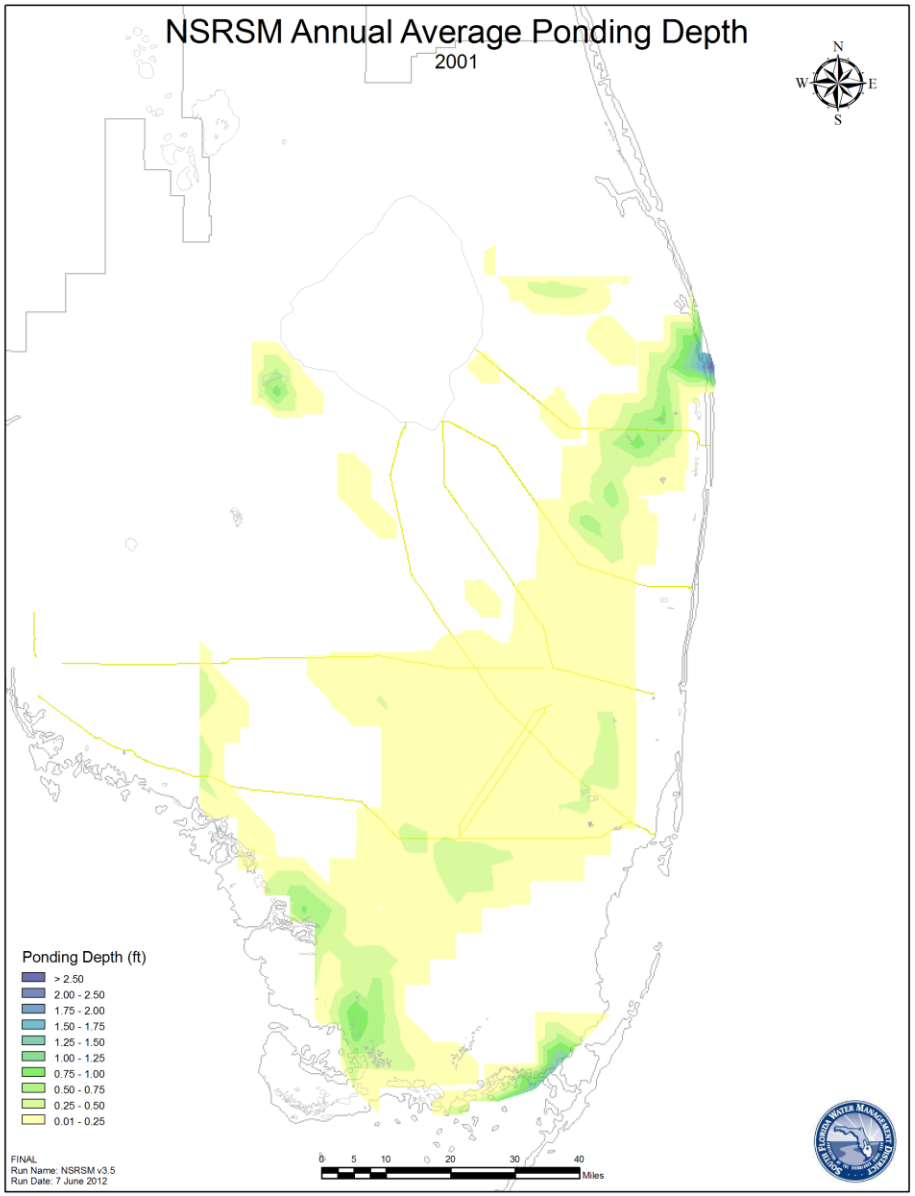

NSM Annual Average Ponding Depth
1999
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

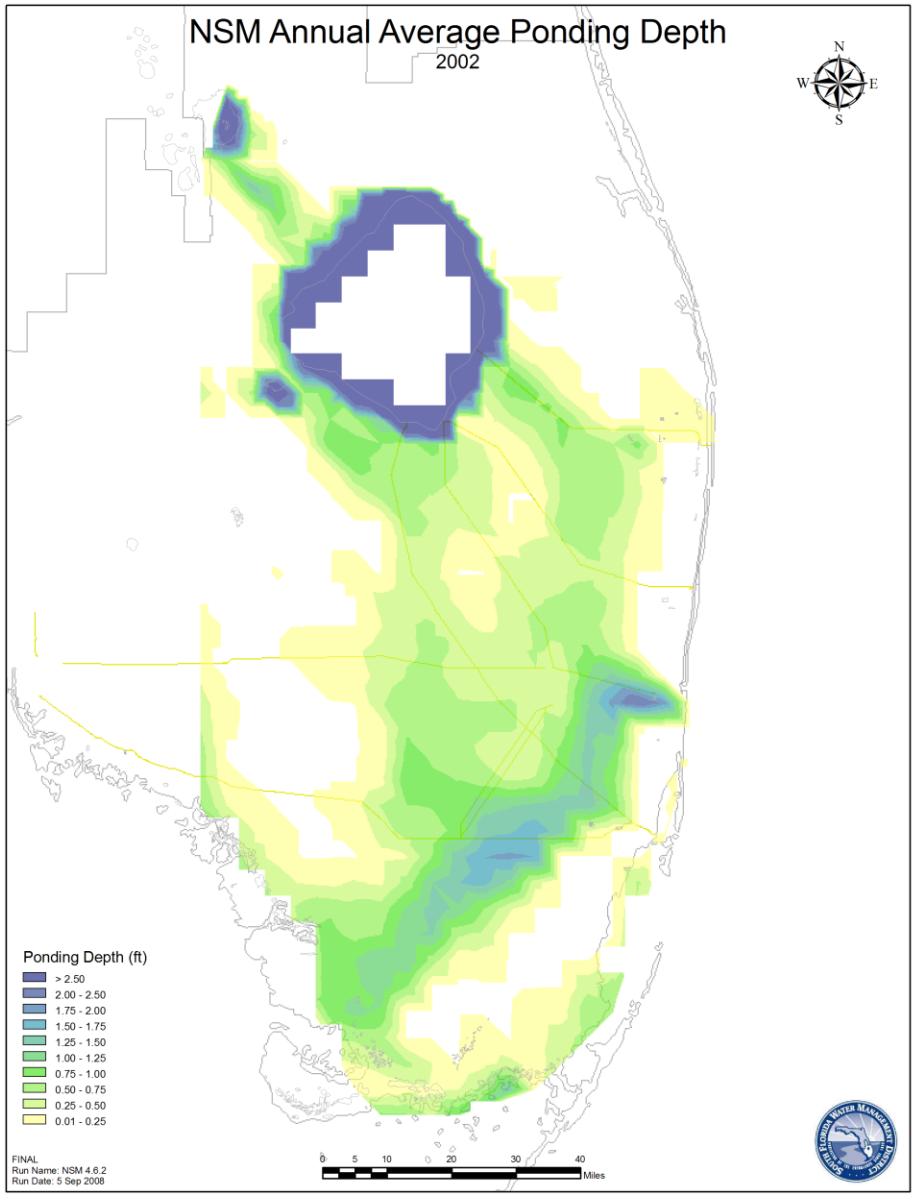

NSRSM Annual Average Ponding Depth
1999
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

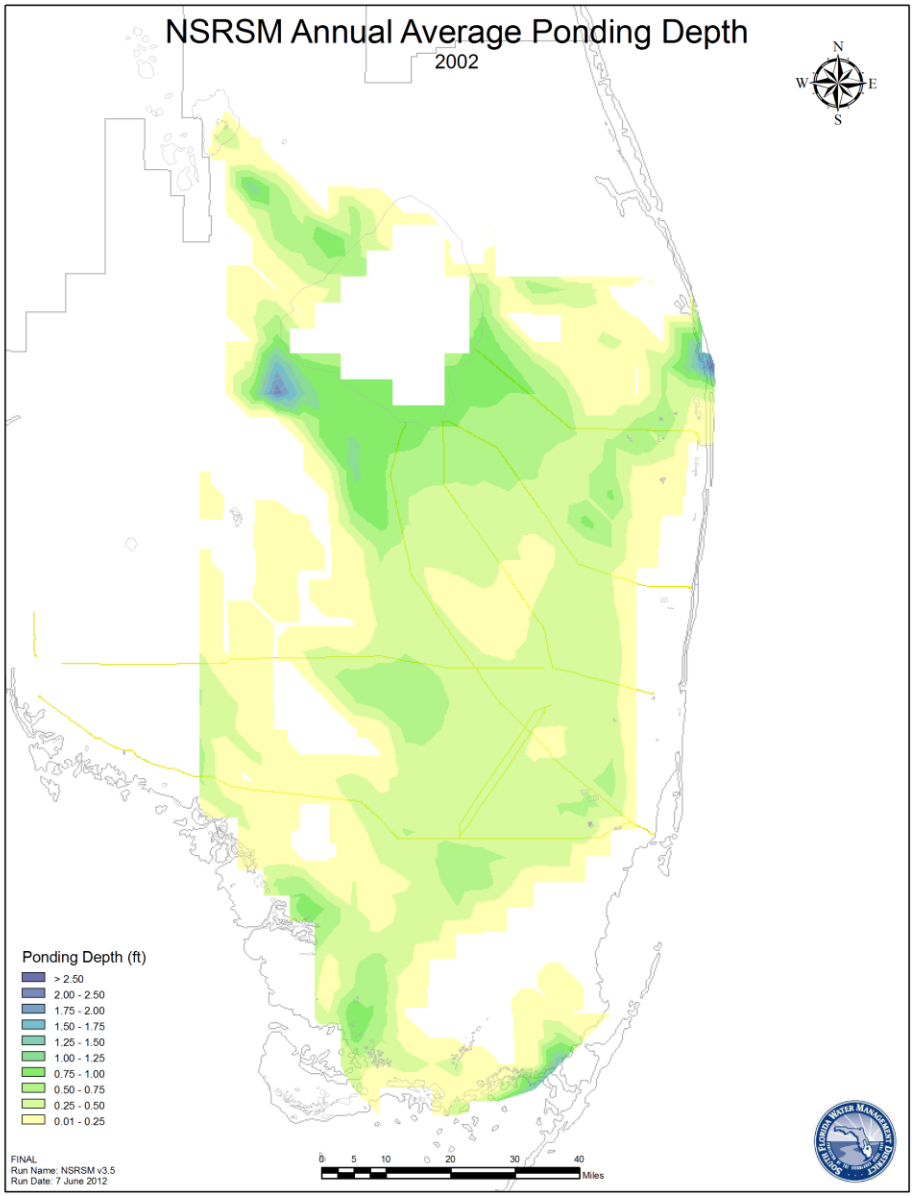

NSM Annual Average Ponding Depth
2000
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

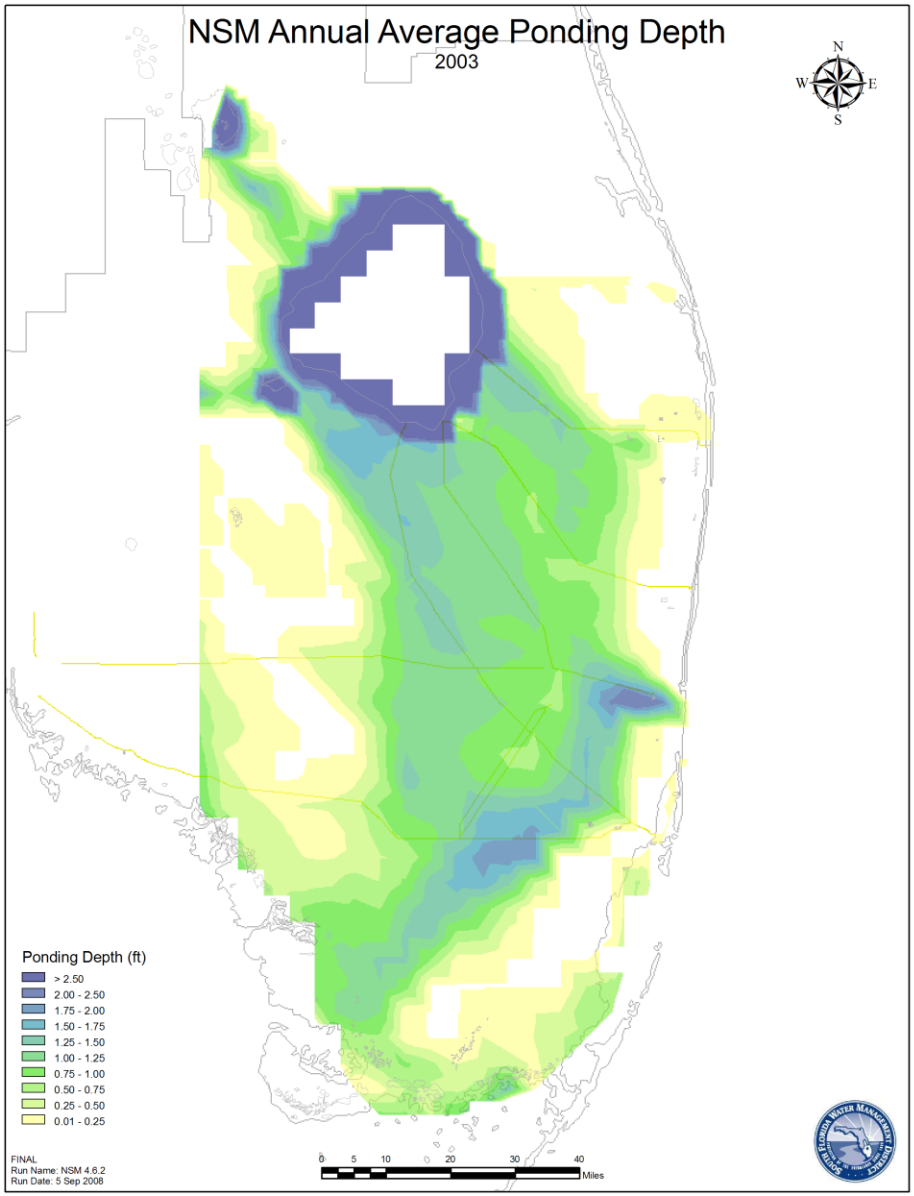

NSRSM Annual Average Ponding Depth
2000
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

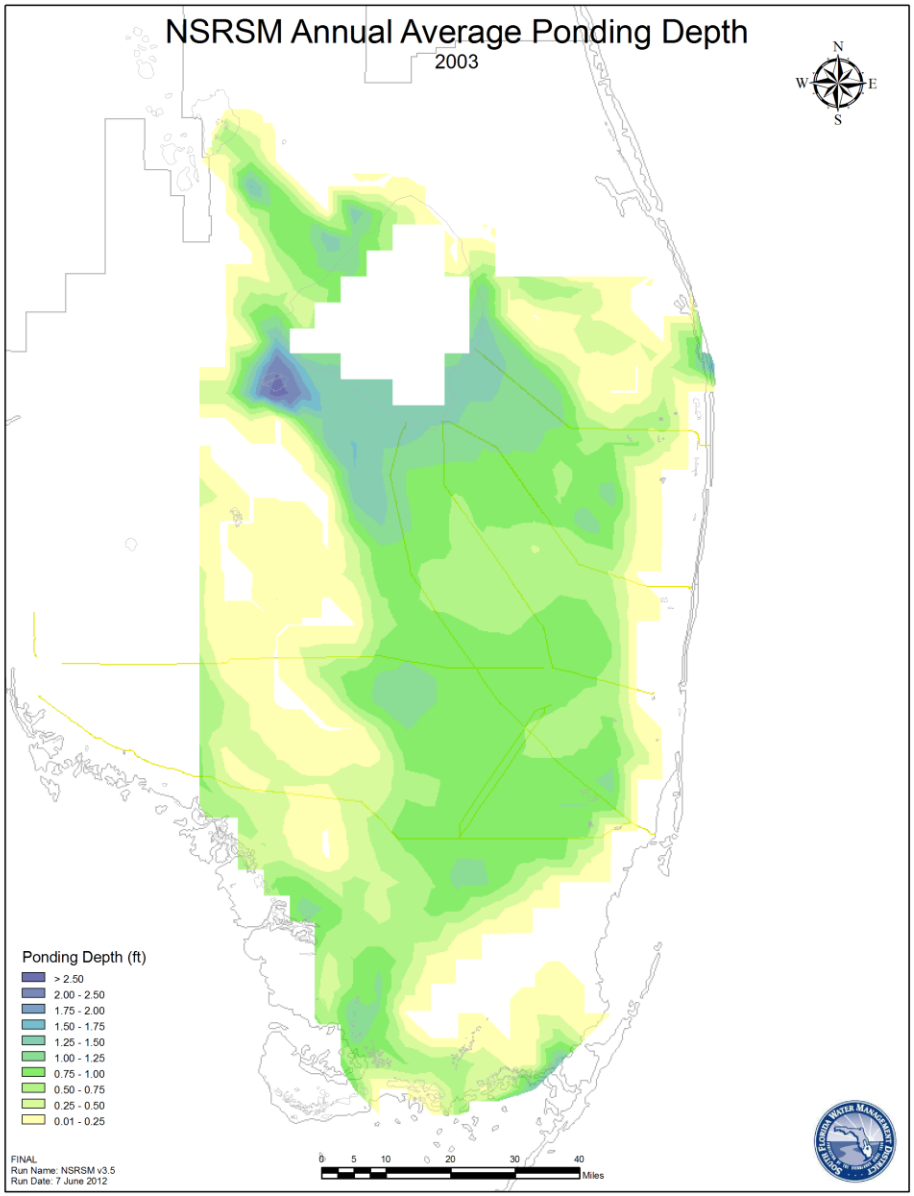

NSM Annual Average Ponding Depth
2001
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

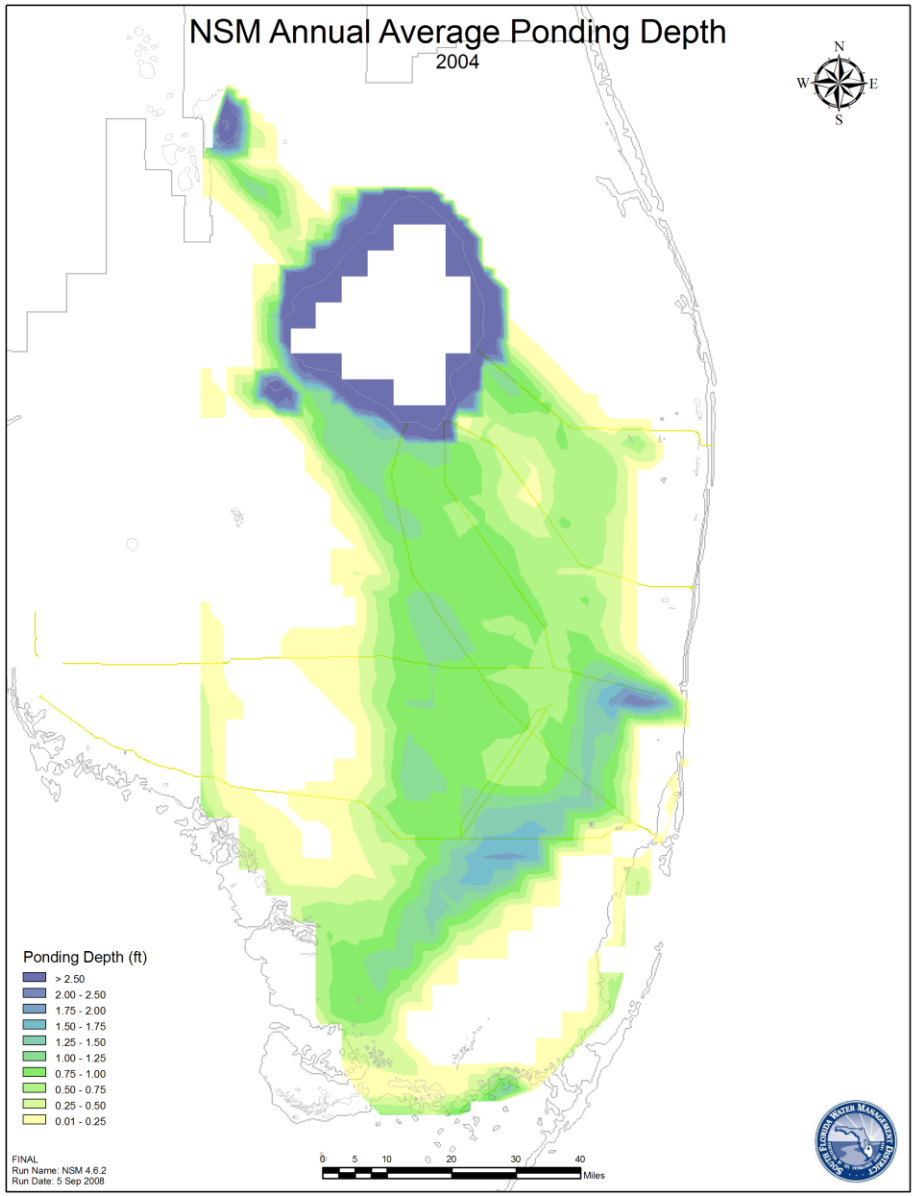

NSRSM Annual Average Ponding Depth
2001
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

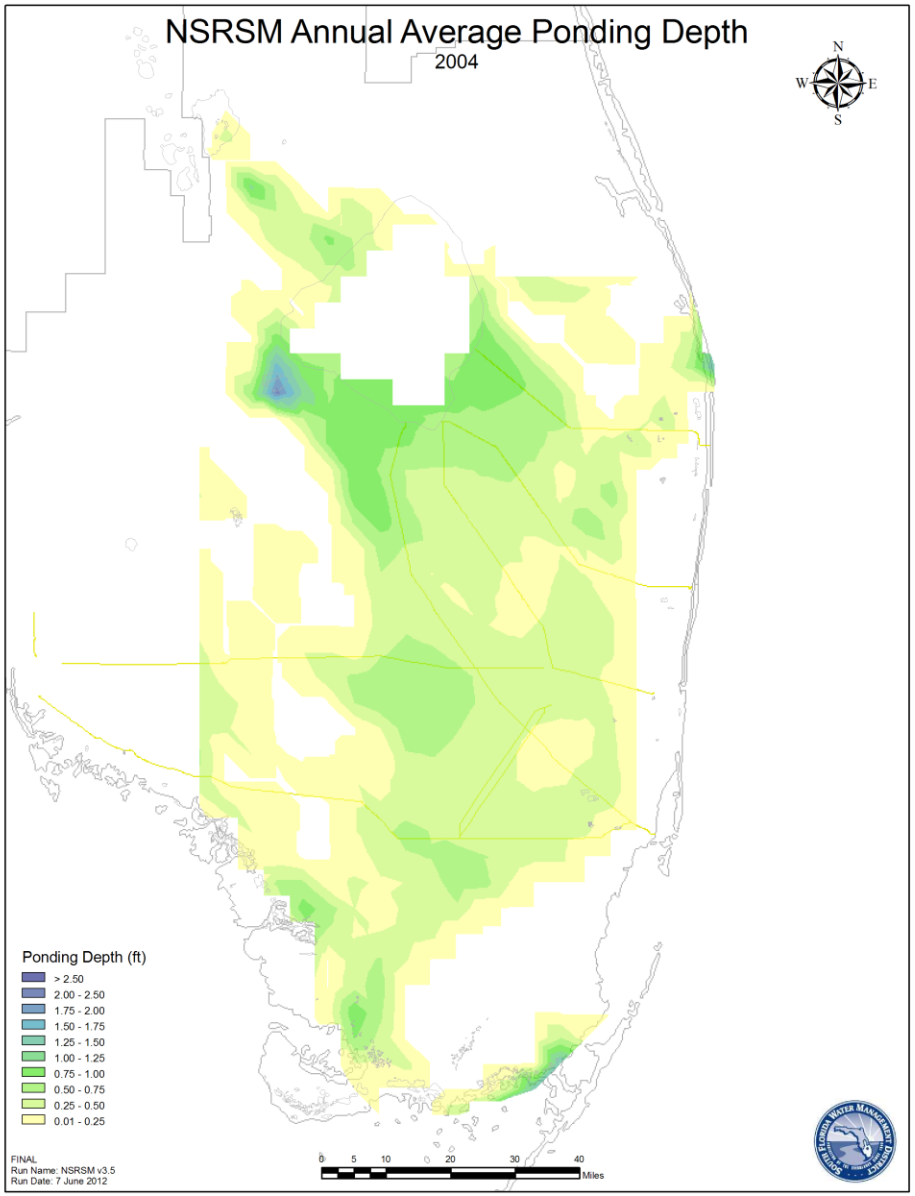

NSM Annual Average Ponding Depth
2002
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

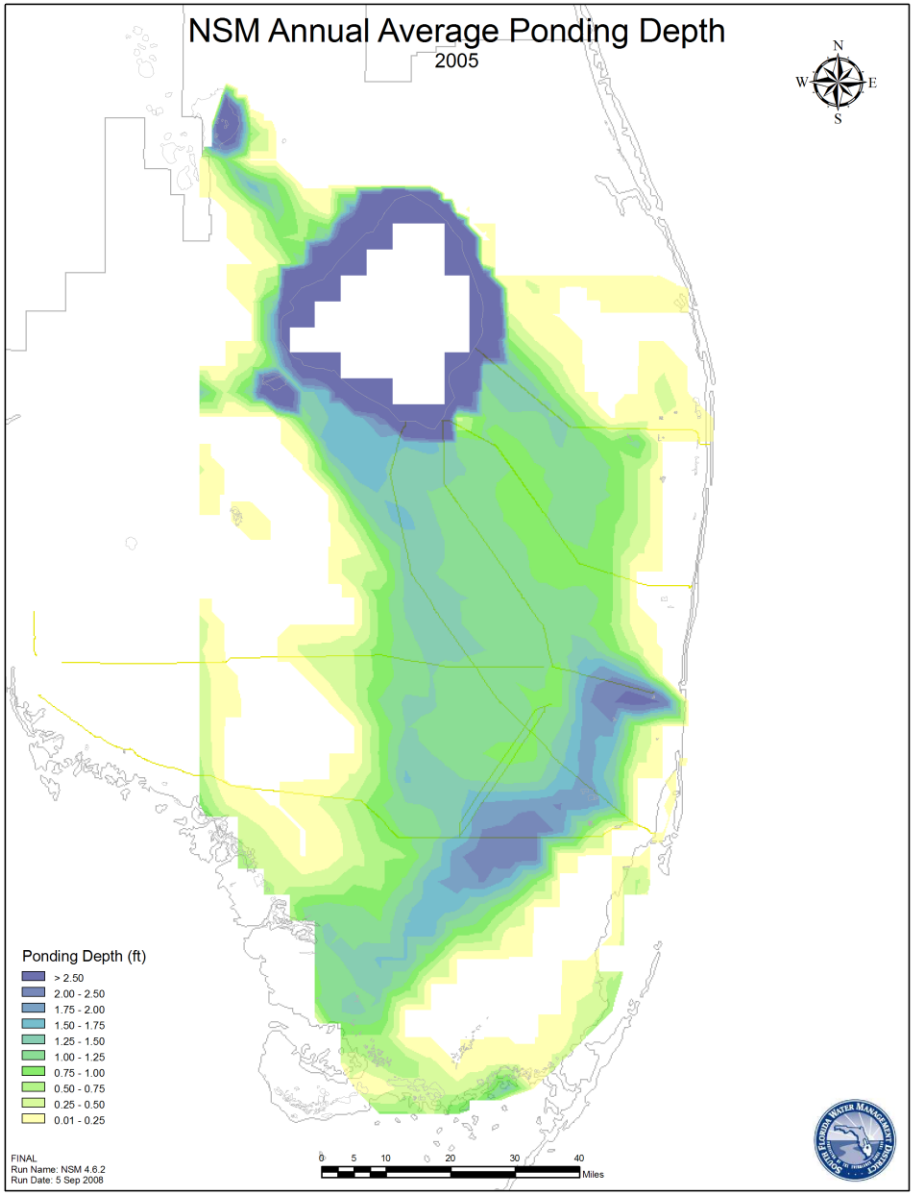

NSRSM Annual Average Ponding Depth
2002
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

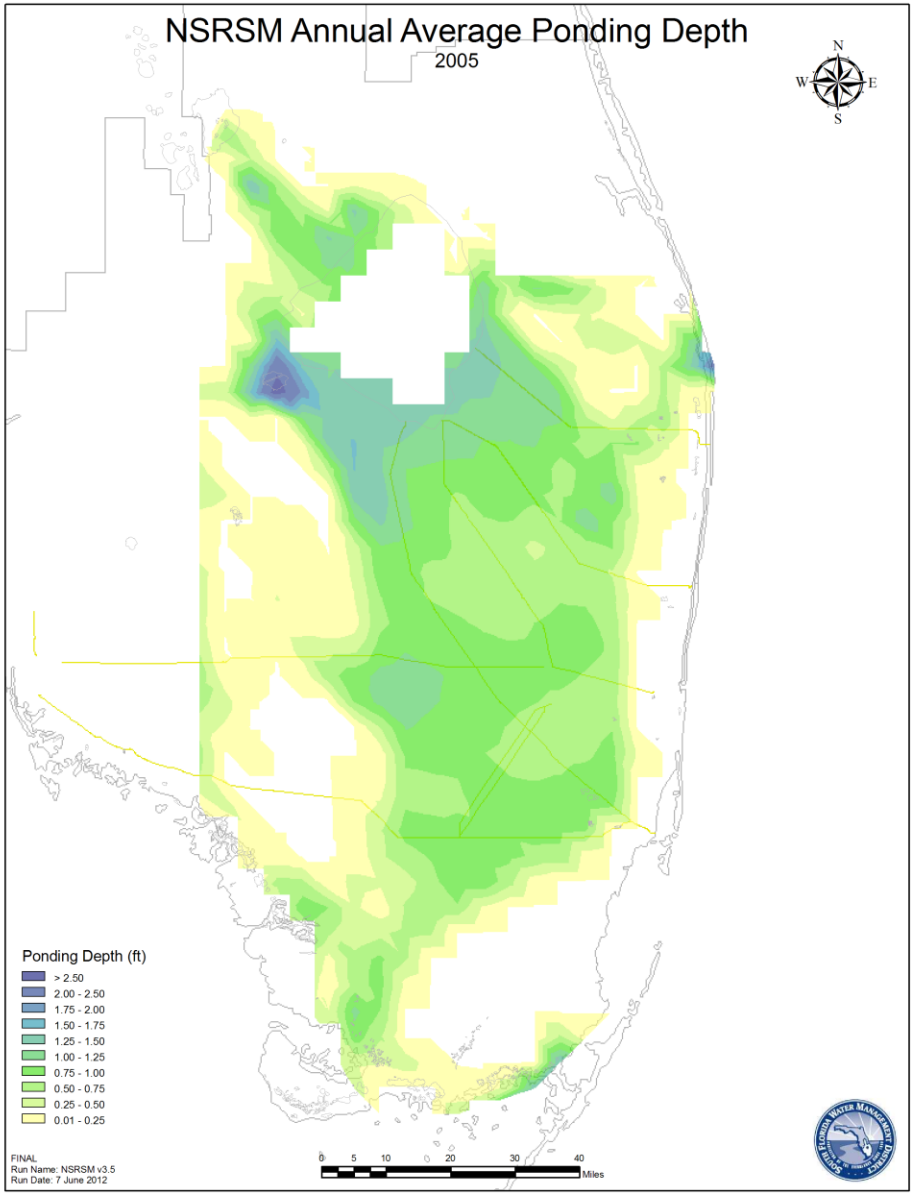

NSM Annual Average Ponding Depth
2003
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

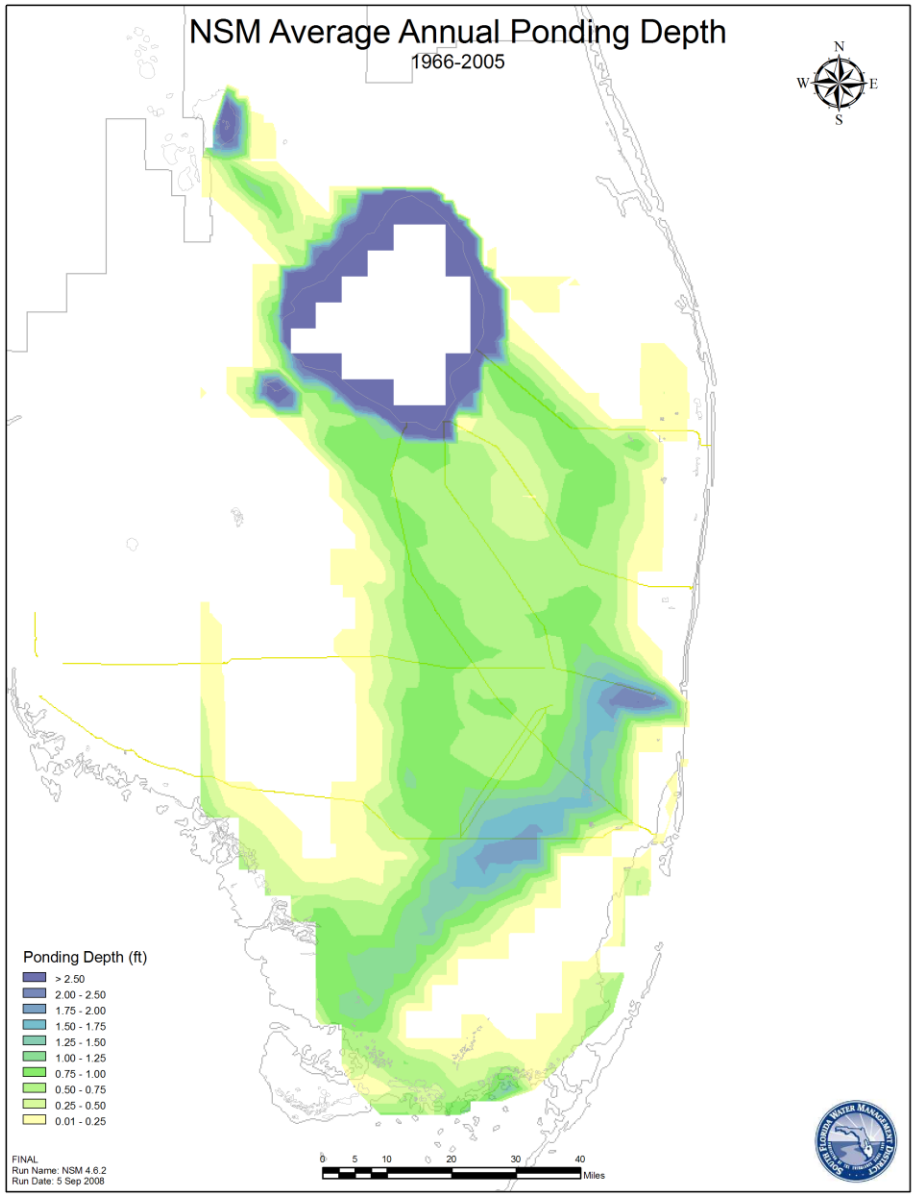

NSRSM Annual Average Ponding Depth
2003
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

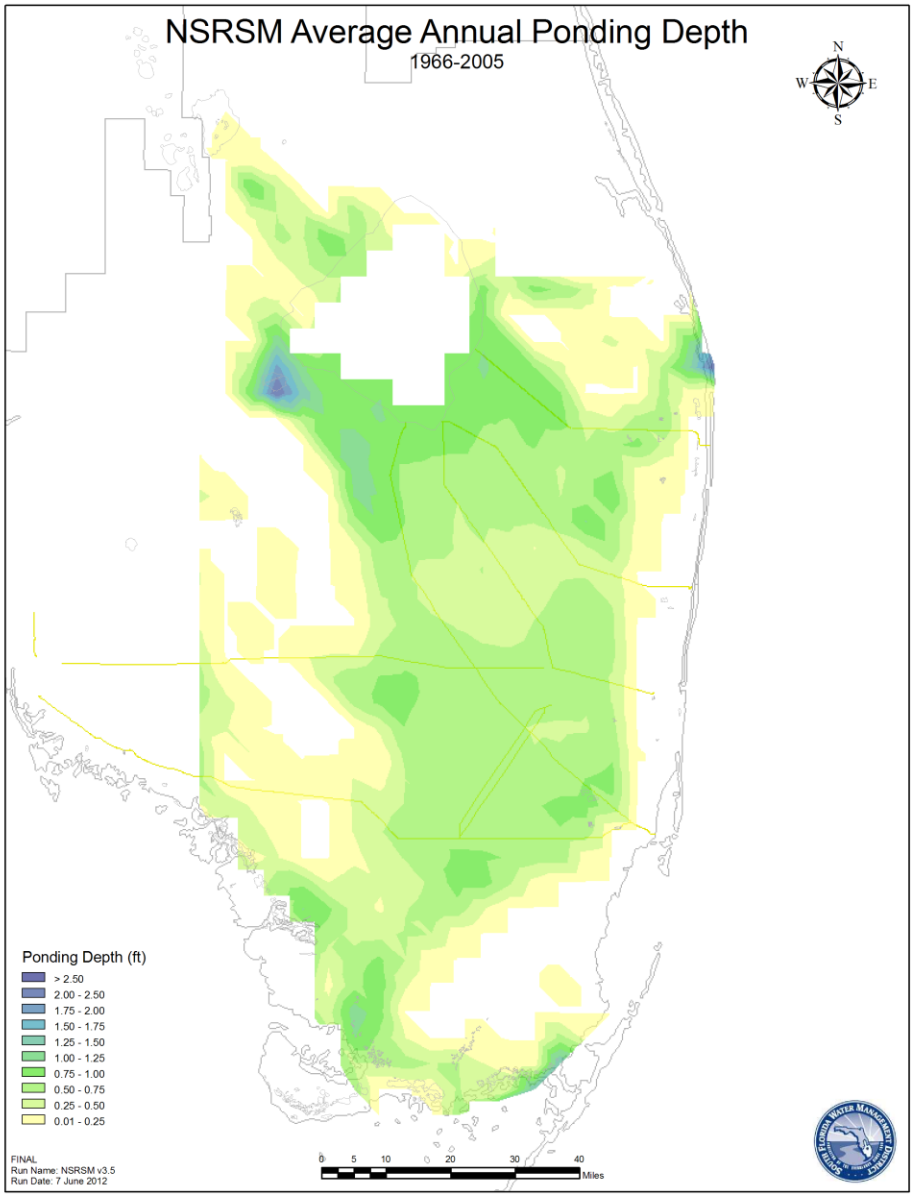

NSM Annual Average Ponding Depth
2004
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles


NSRSM Annual Average Ponding Depth
2004
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

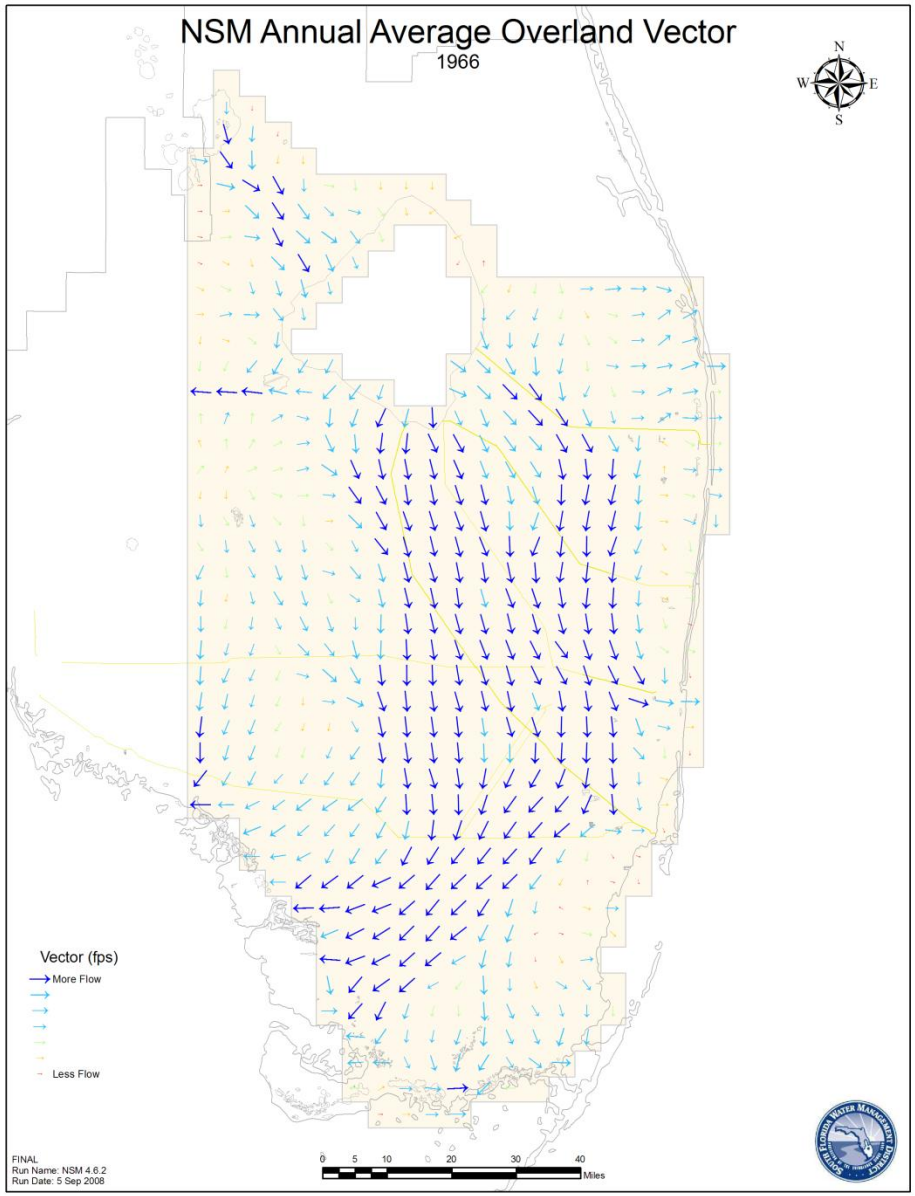

NSM Annual Average Ponding Depth
2005
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

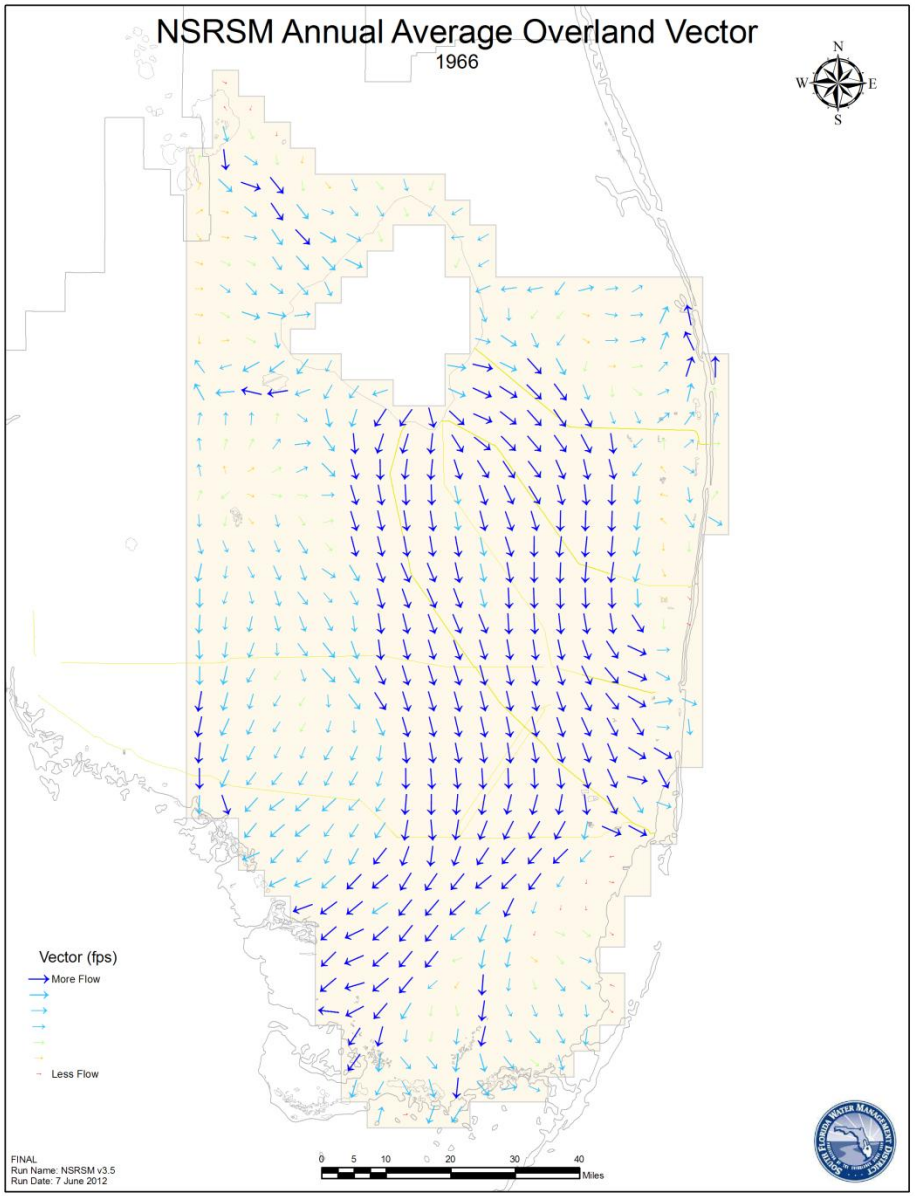

NSRSM Annual Average Ponding Depth
2005
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

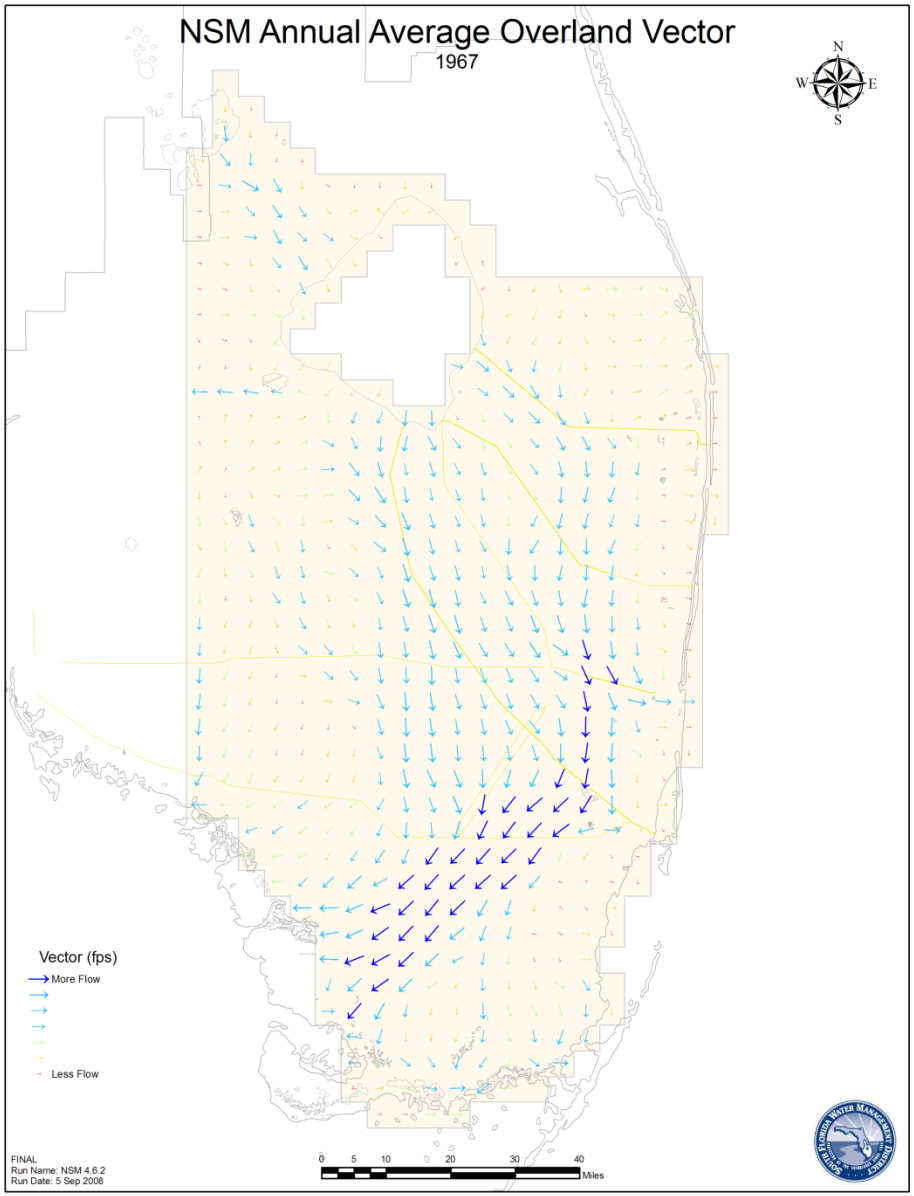

NSM Average Annual Ponding Depth
1966-2005
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

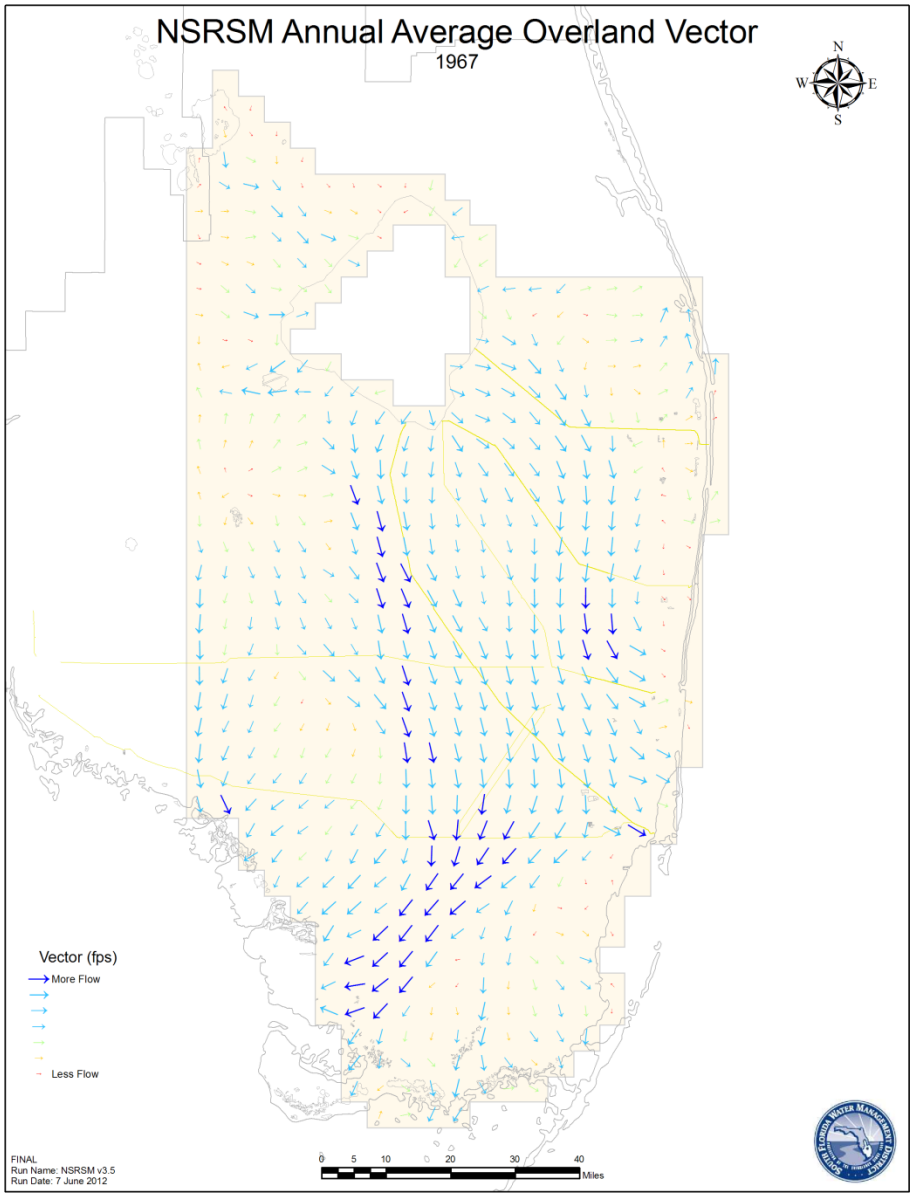

NSRSM Average Annual Ponding Depth
1966-2005
N
W
E
S
Ponding Depth (ft)
> 2.50
2.00 - 2.50
1.75 - 2.00
1.50 - 1.75
1.25 - 1.50
1.00 - 1.25
0.75 - 1.00
0.50 - 0.75
0.25 - 0.50
0.01 - 0.25
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

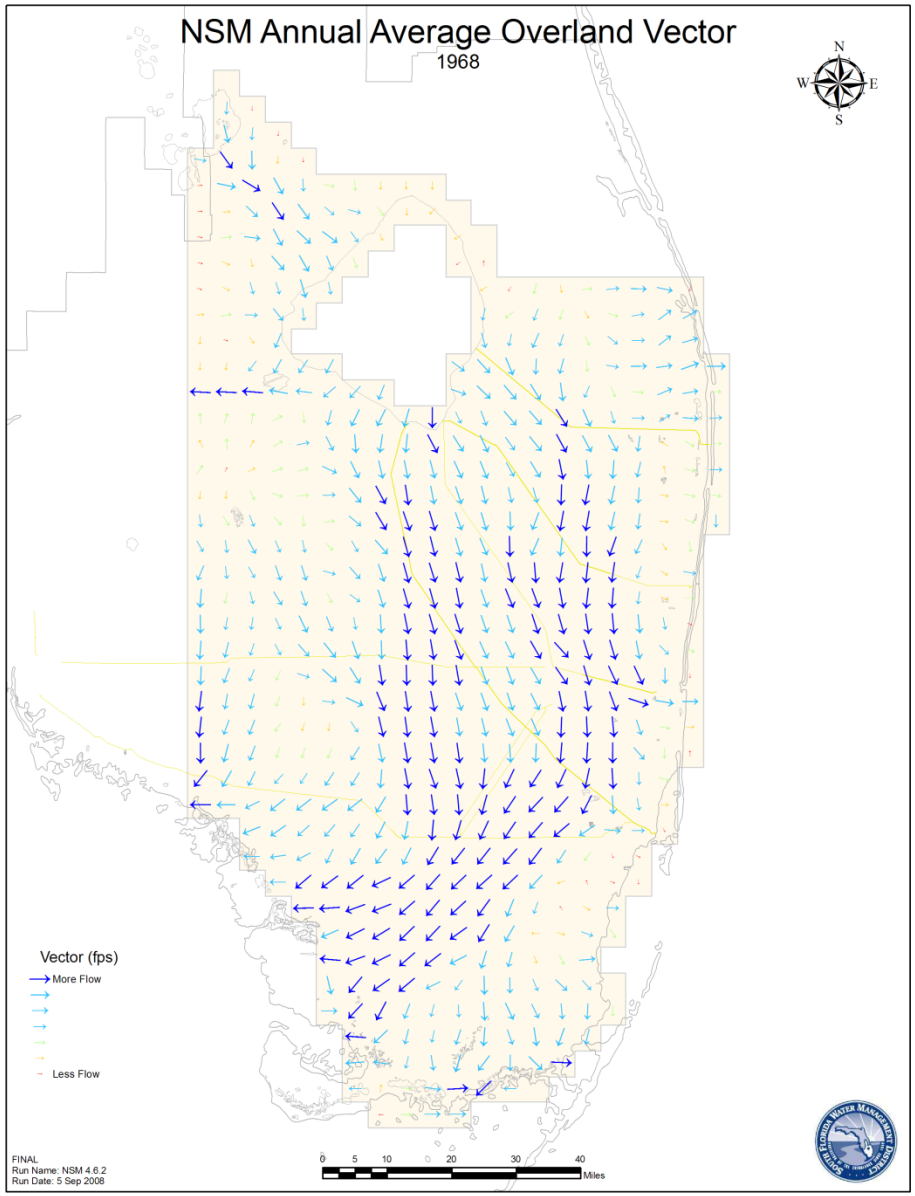
Appendix D
Comparison of Annual Average Flow Directions (1966-2005)

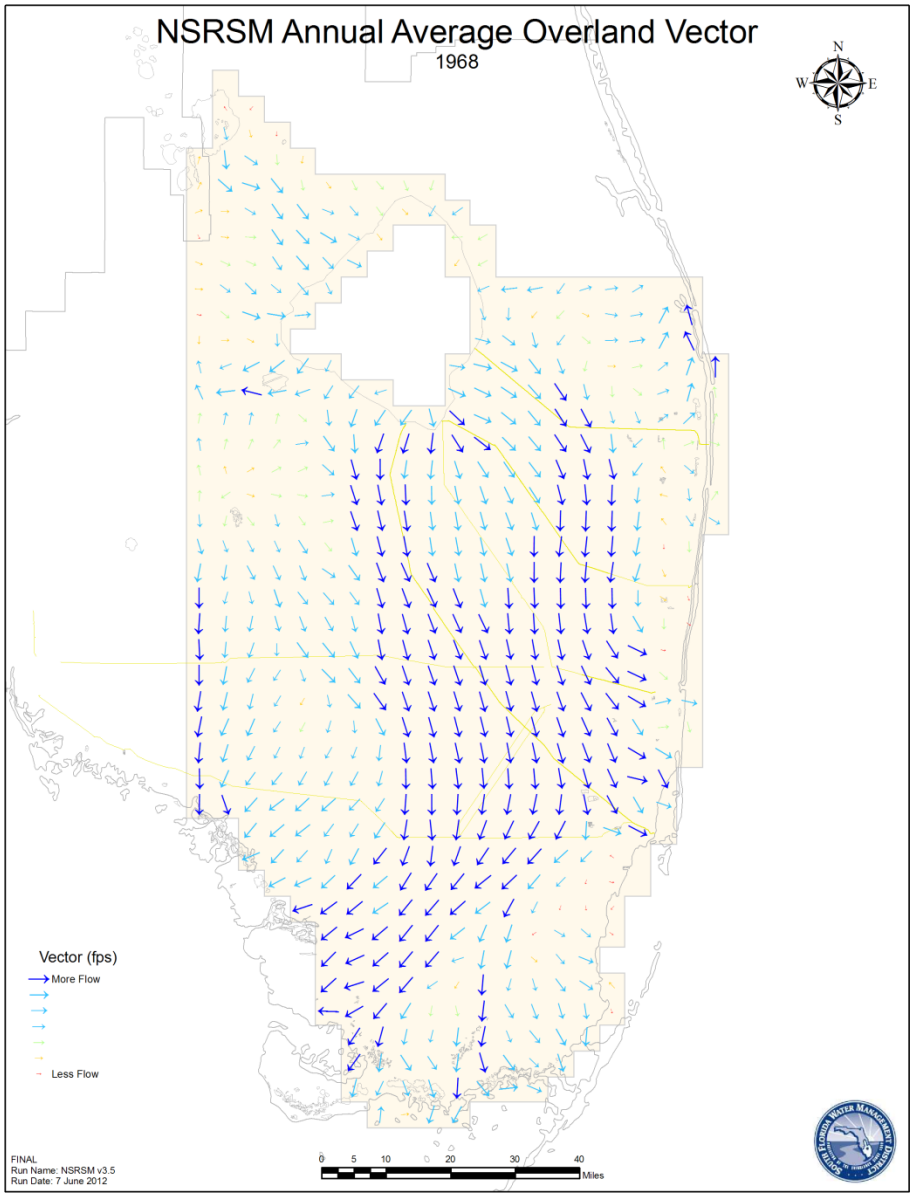

NSM Annual Average Overland Vector
1966
N
W
E
S
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

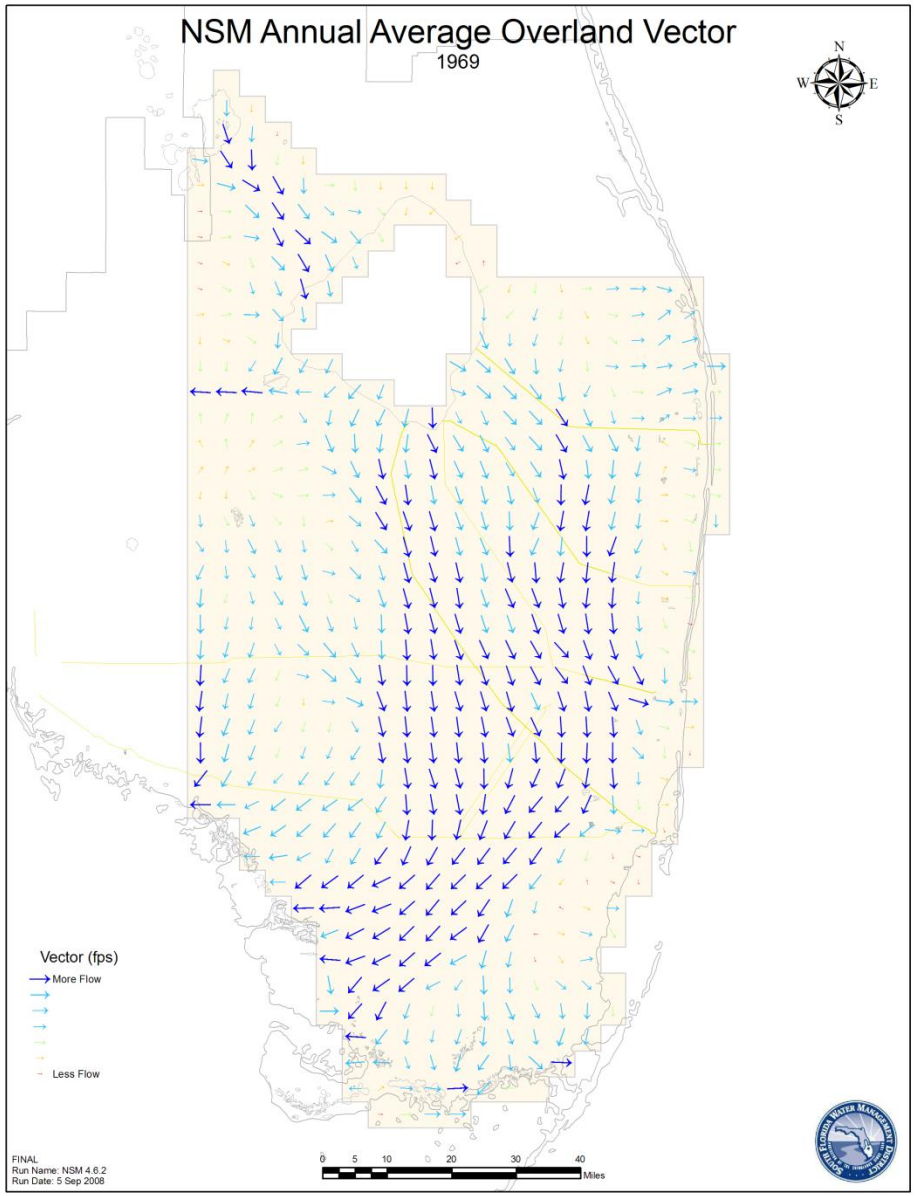

NSRSM Annual Average Overland Vector
1966
N
W
E
S
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

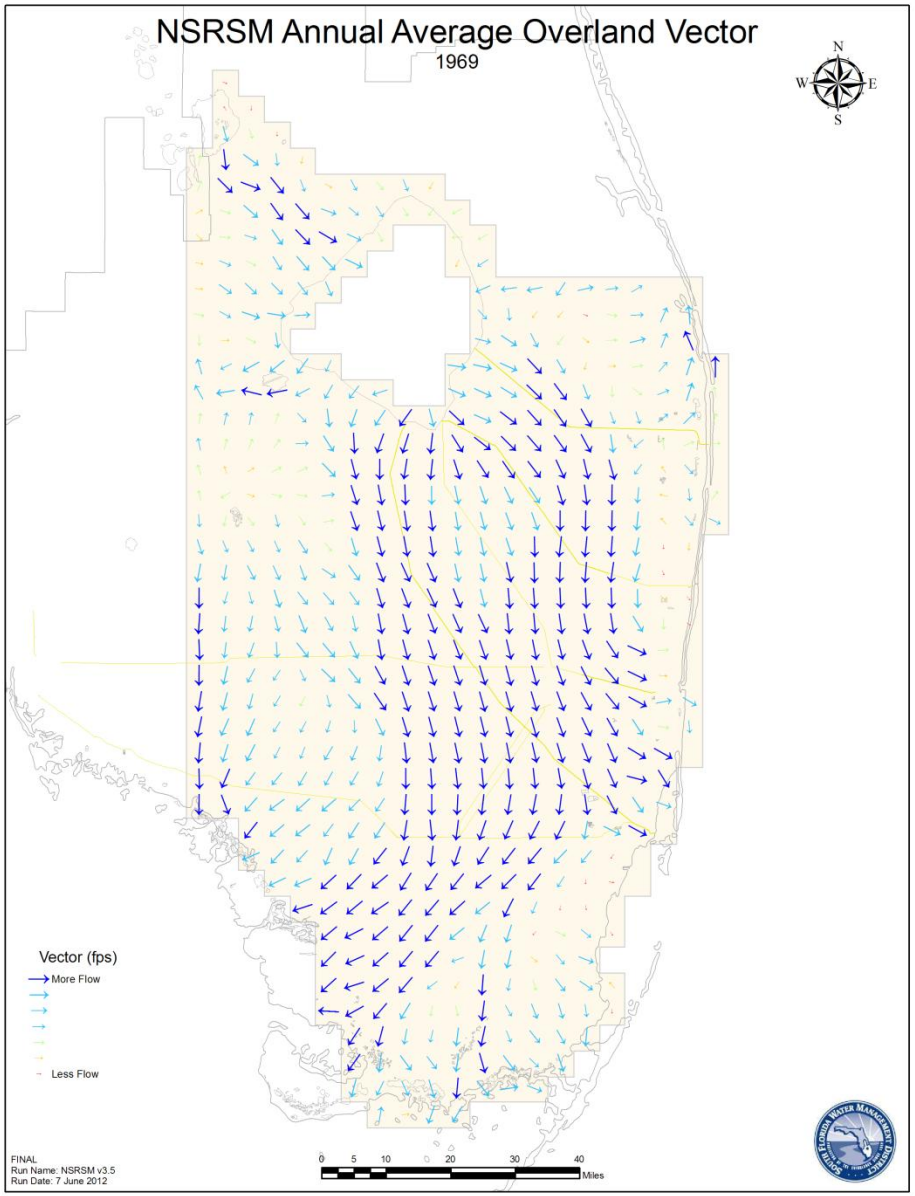

NSM Annual Average Overland Vector
1967
N
W
E
S
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

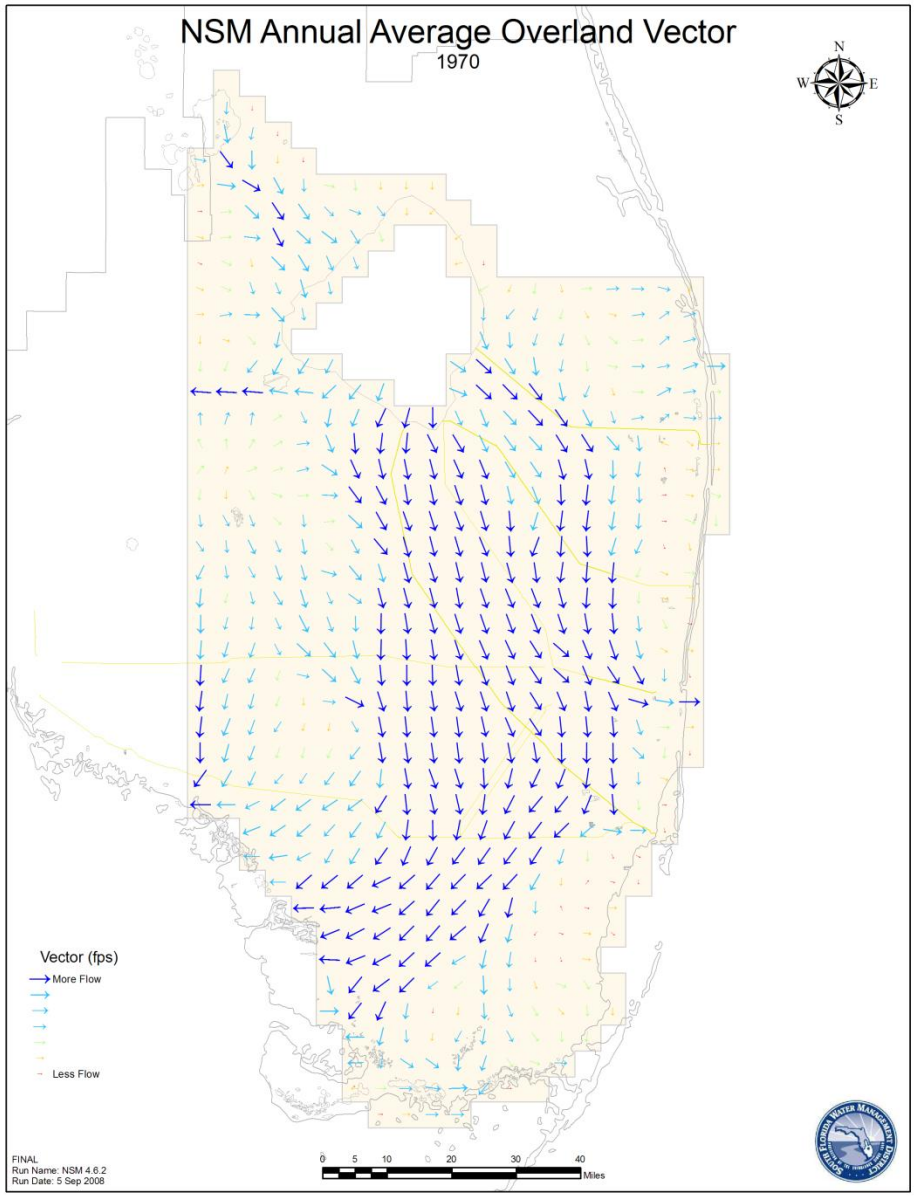

NSRSM Annual Average Overland Vector
1967
N
W
E
S
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

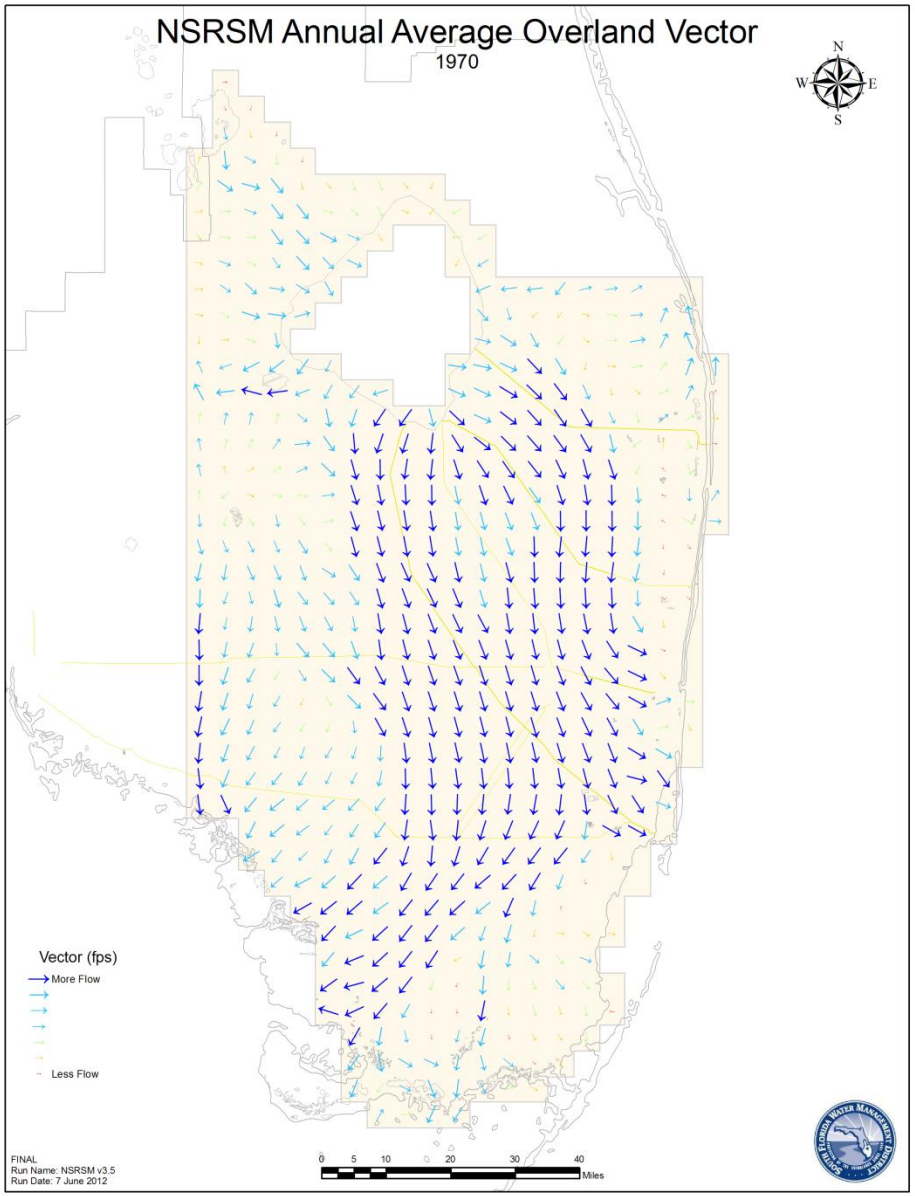

NSM Annual Average Overland Vector
1968
N
W
E
S
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

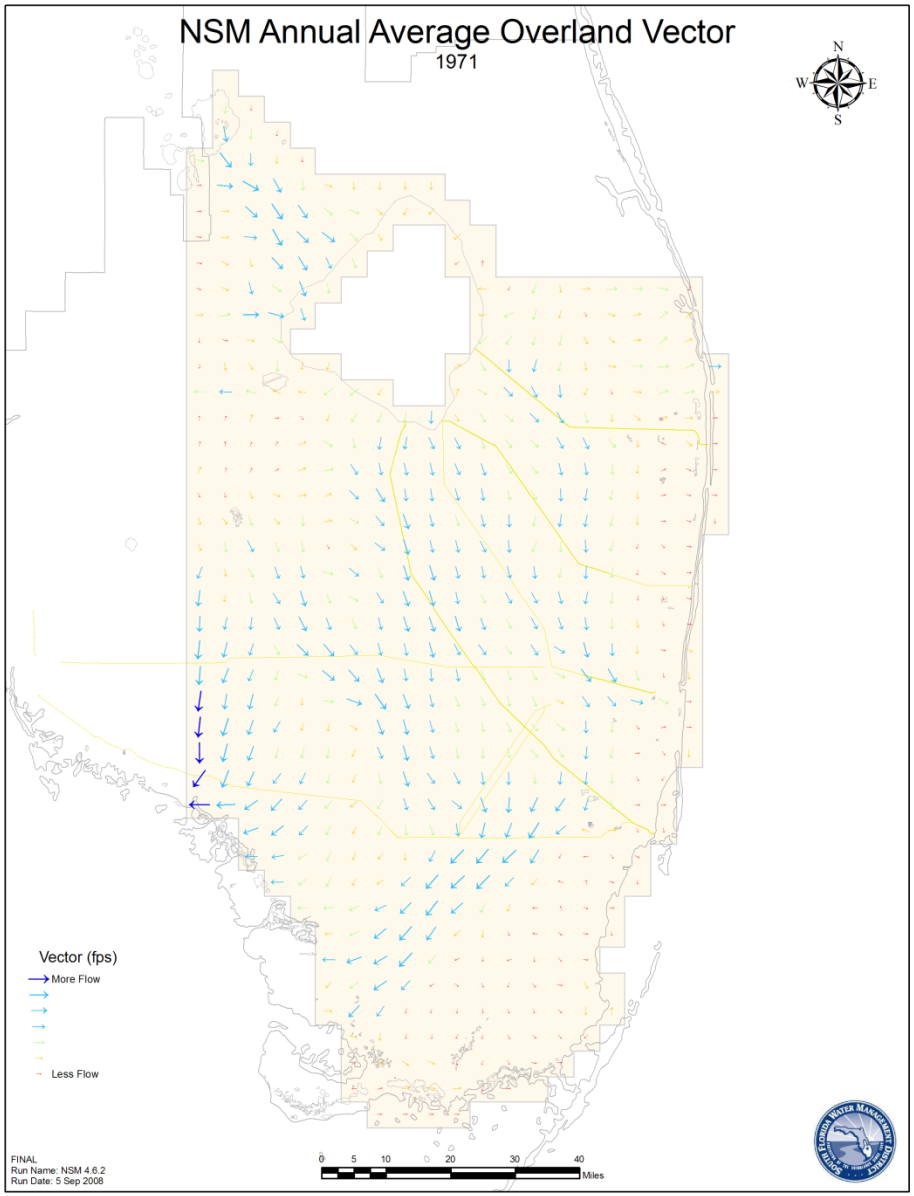

NSRSM Annual Average Overland Vector
1968
N
W
E
S
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

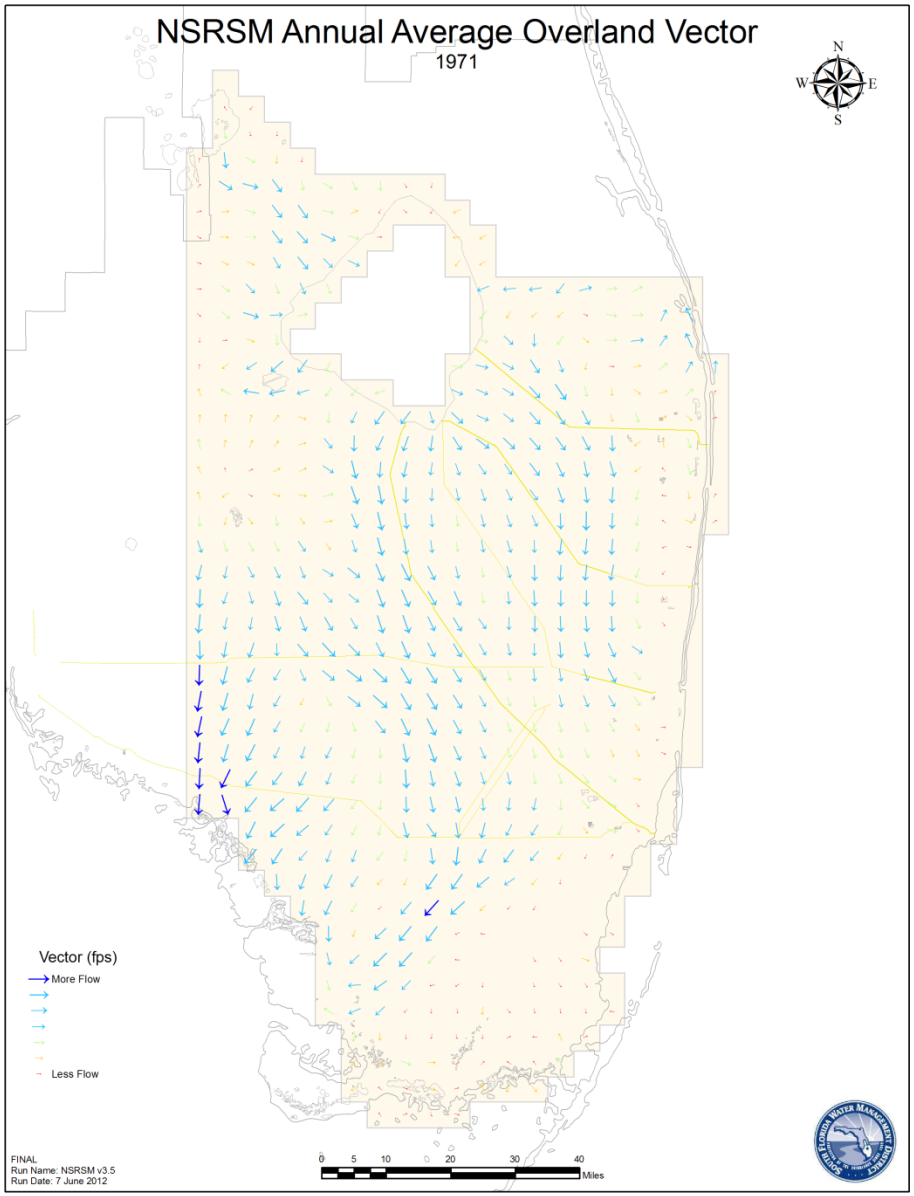

NSM Annual Average Overland Vector
1969
N
W
E
S
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

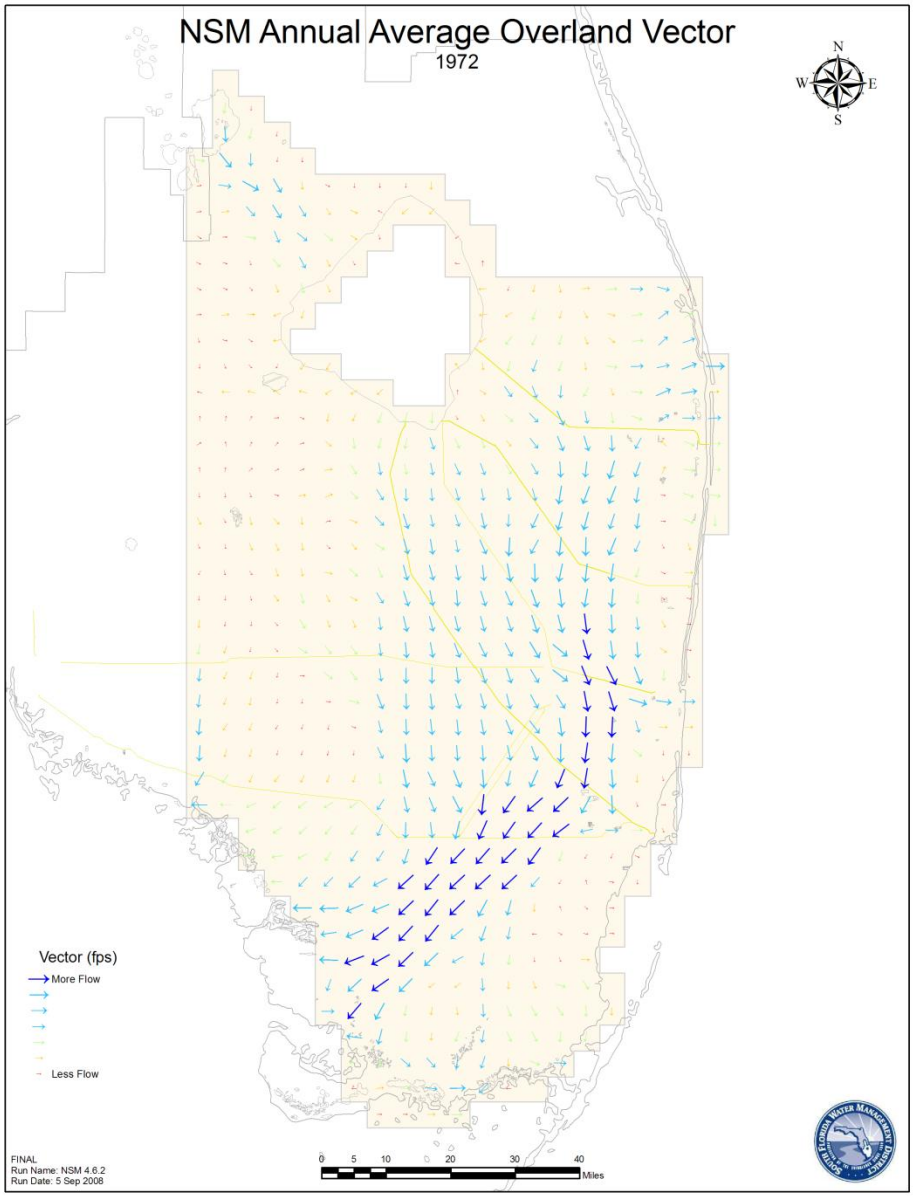

NSRSM Annual Average Overland Vector
1969
N
W
E
S
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

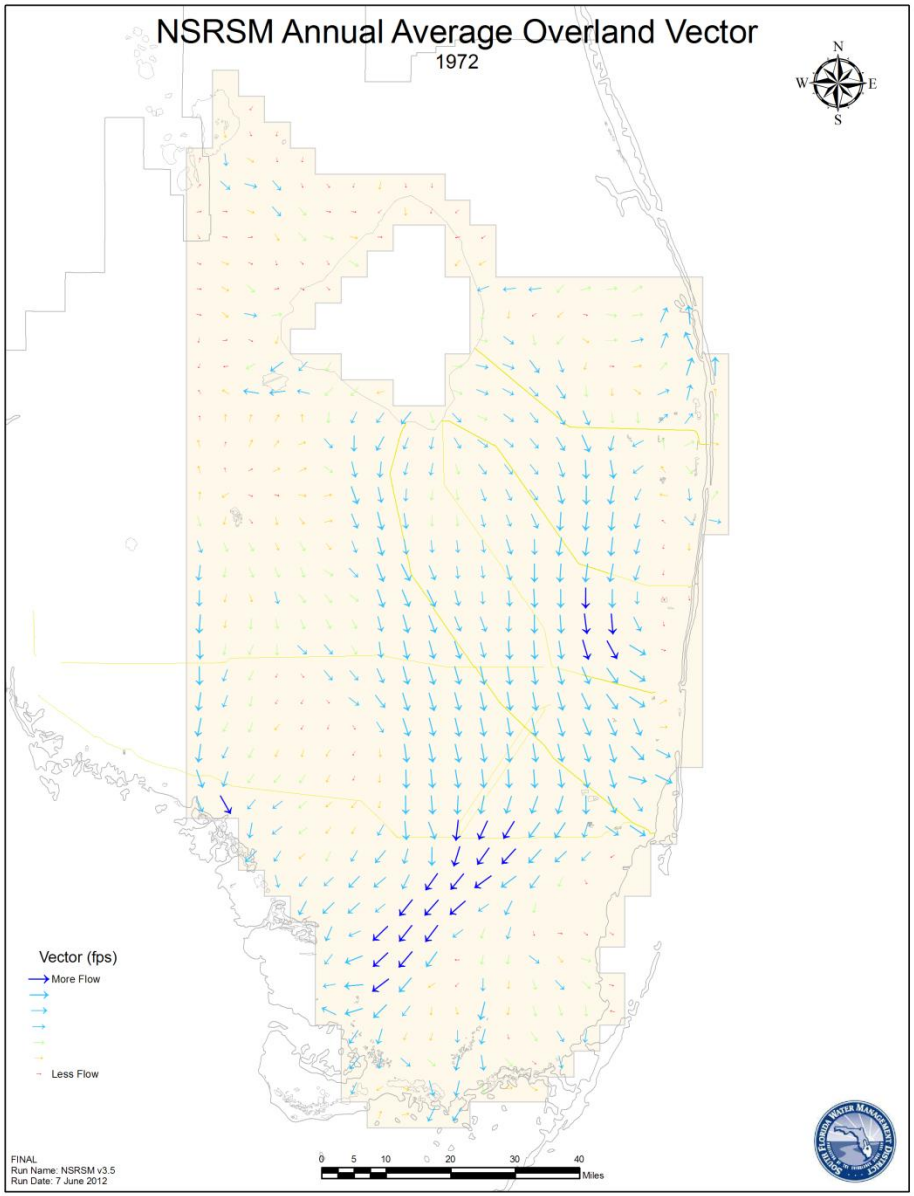

NSM Annual Average Overland Vector
1970
N
W
E
S
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

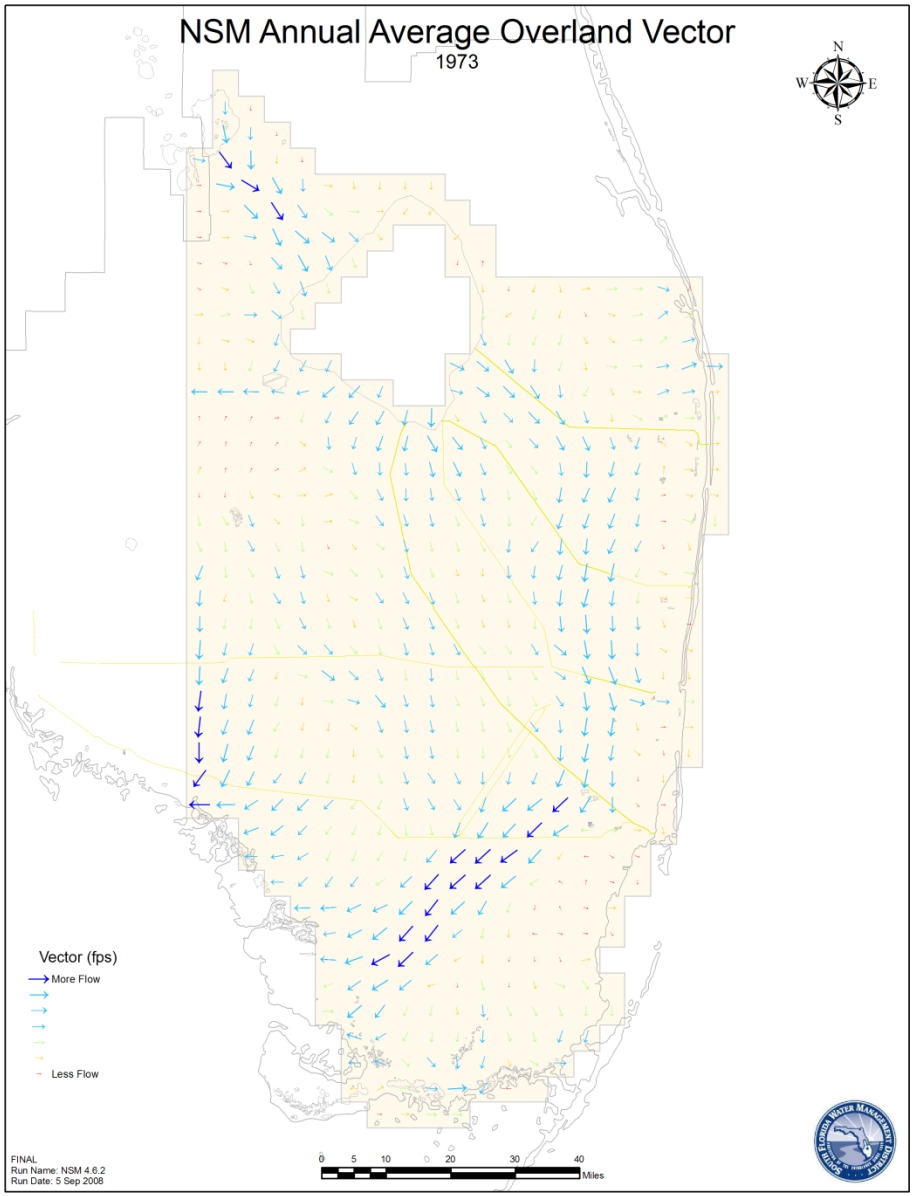

NSRSM Annual Average Overland Vector
1970
N
W
E
S
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

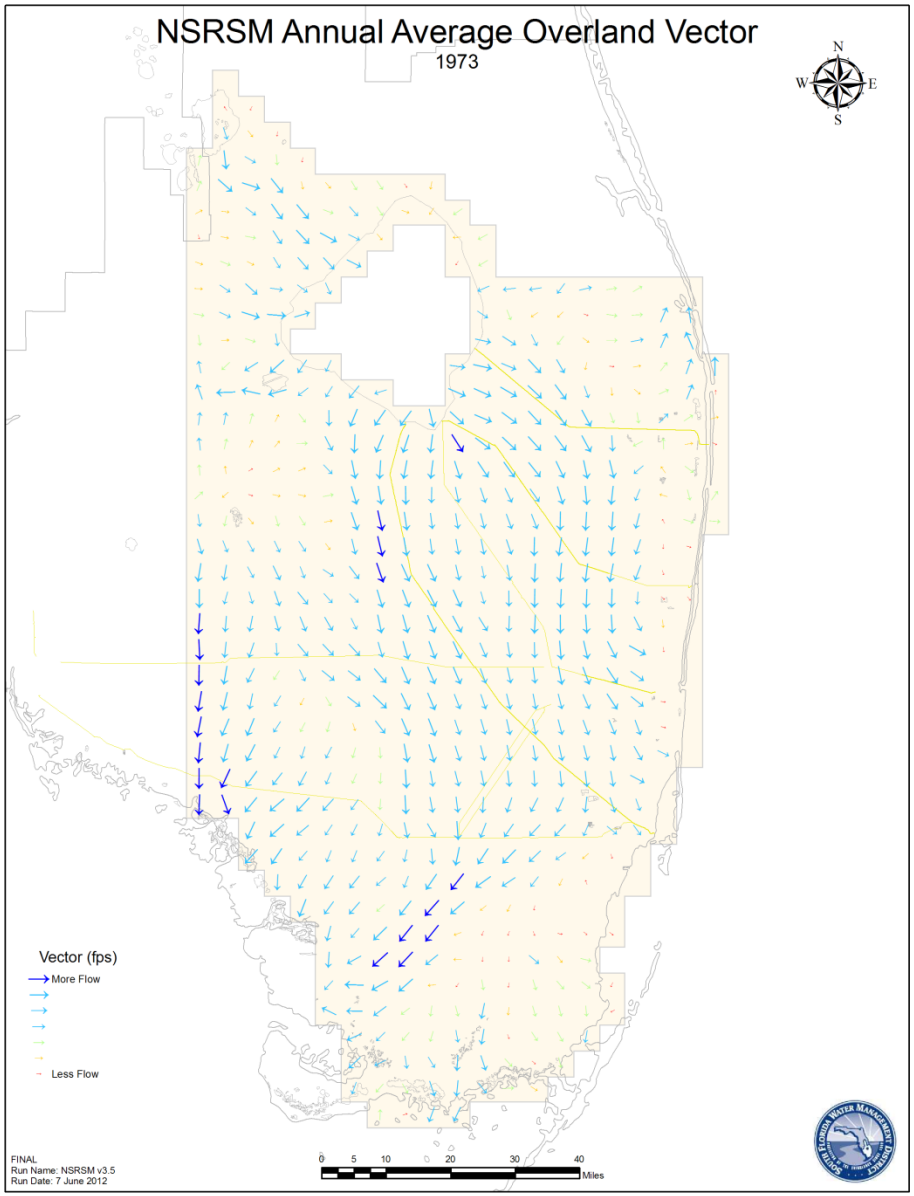

NSM Annual Average Overland Vector
1971
N
W
E
S
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

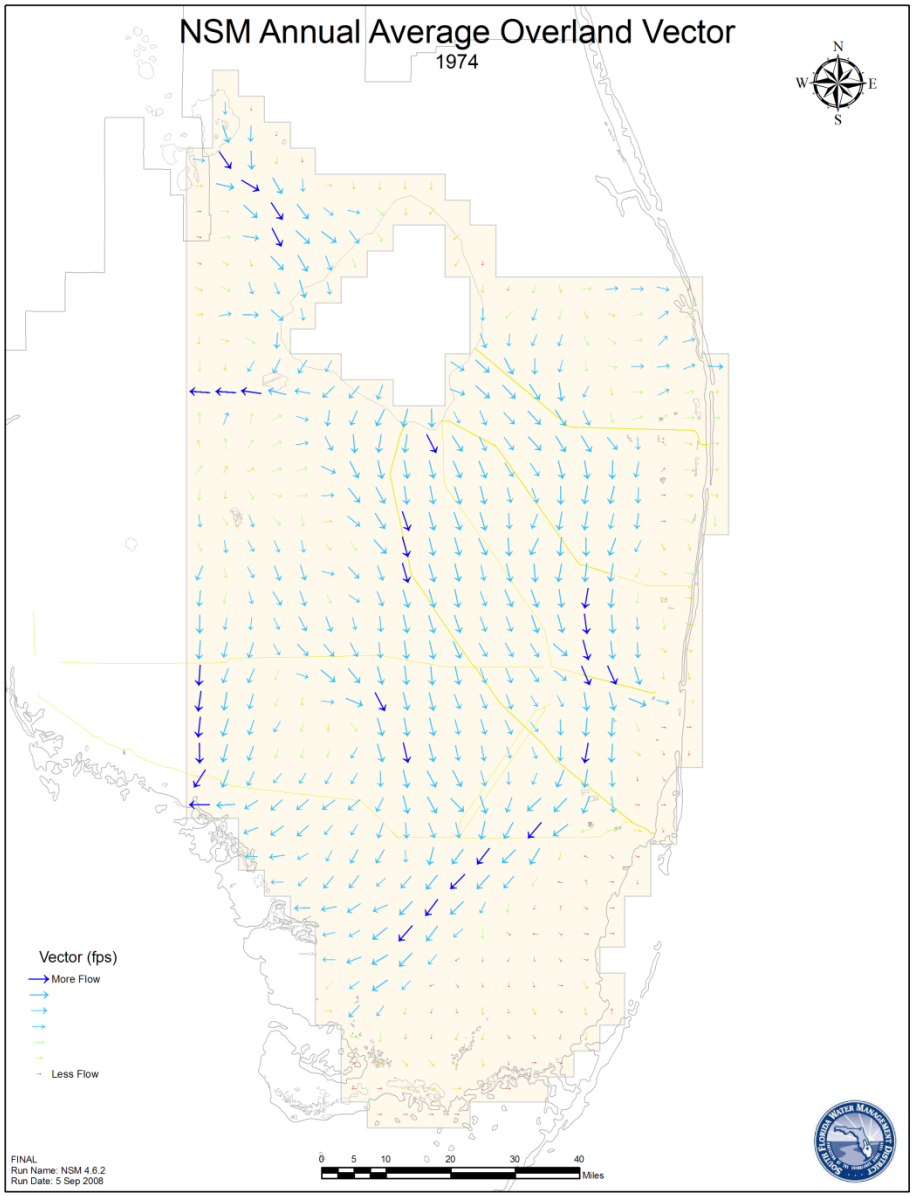

NSRSM Annual Average Overland Vector
1971
N
W
E
S
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

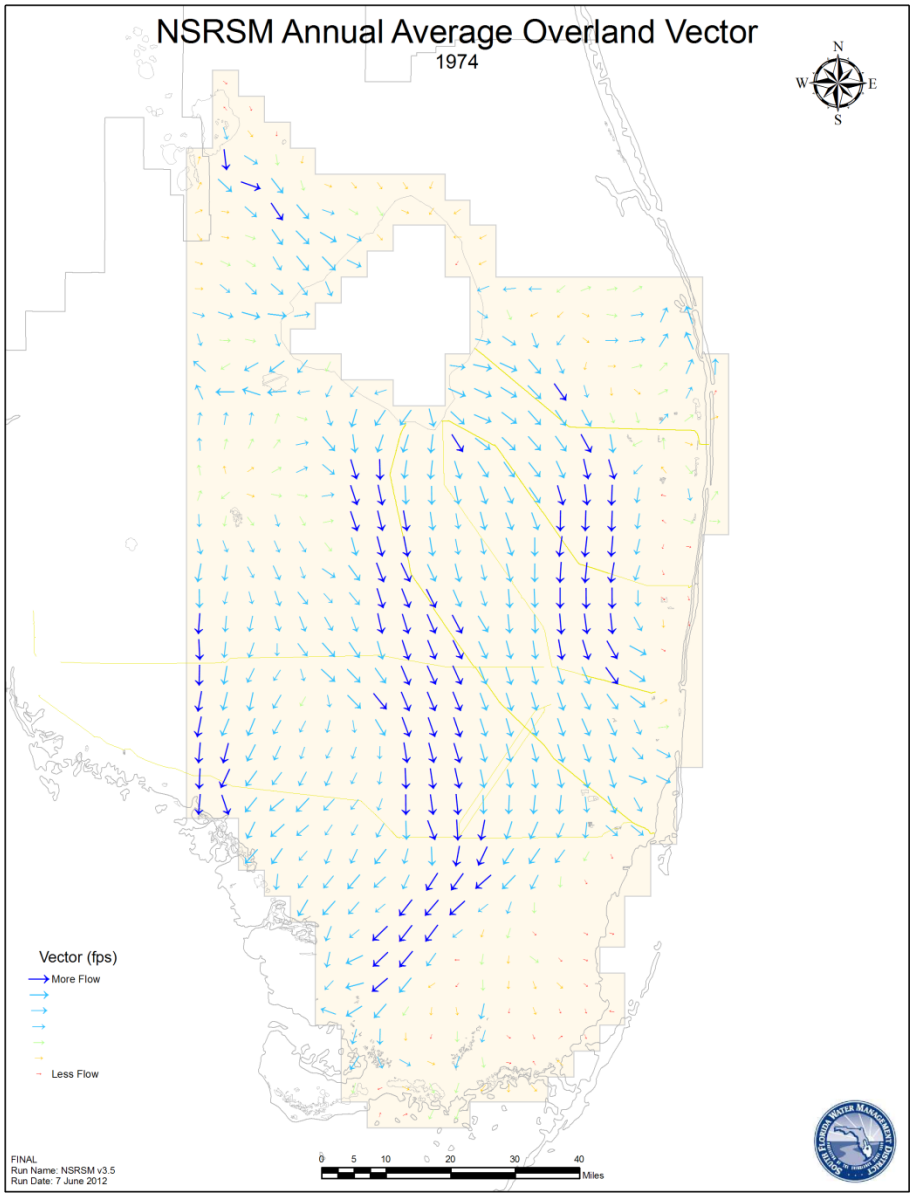

NSM Annual Average Overland Vector
1972
N
W
E
S
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

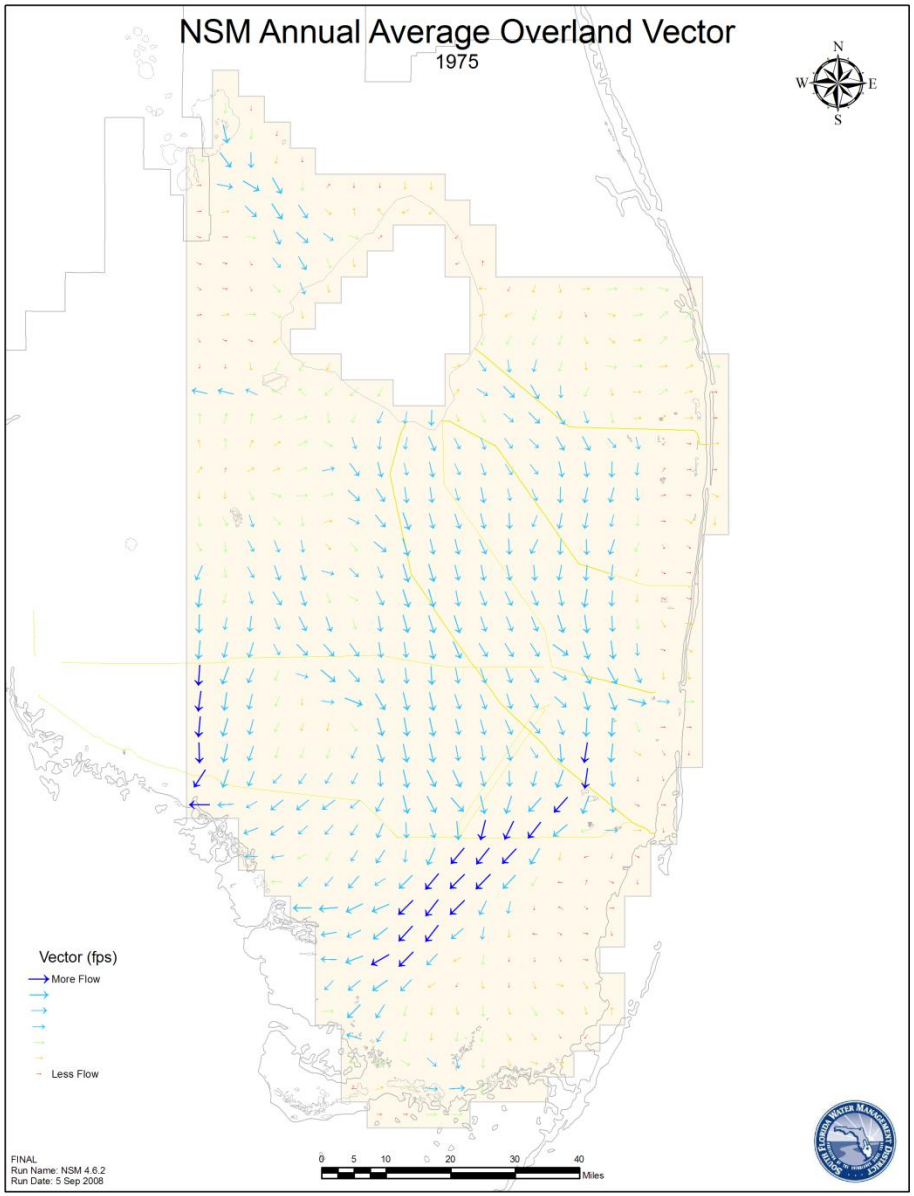

NSRSM Annual Average Overland Vector
1972
N
W
E
S
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

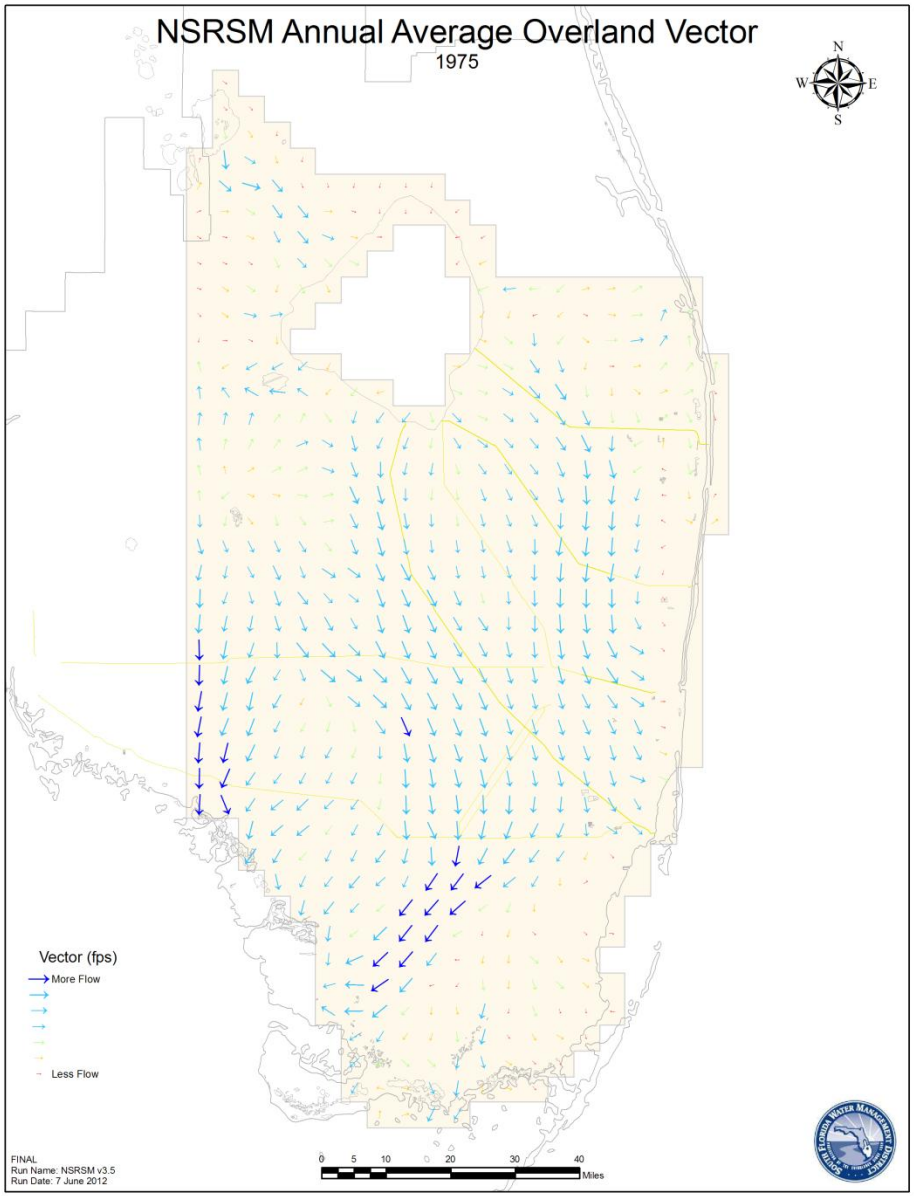

NSM Annual Average Overland Vector
1973
N
W
E
S
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

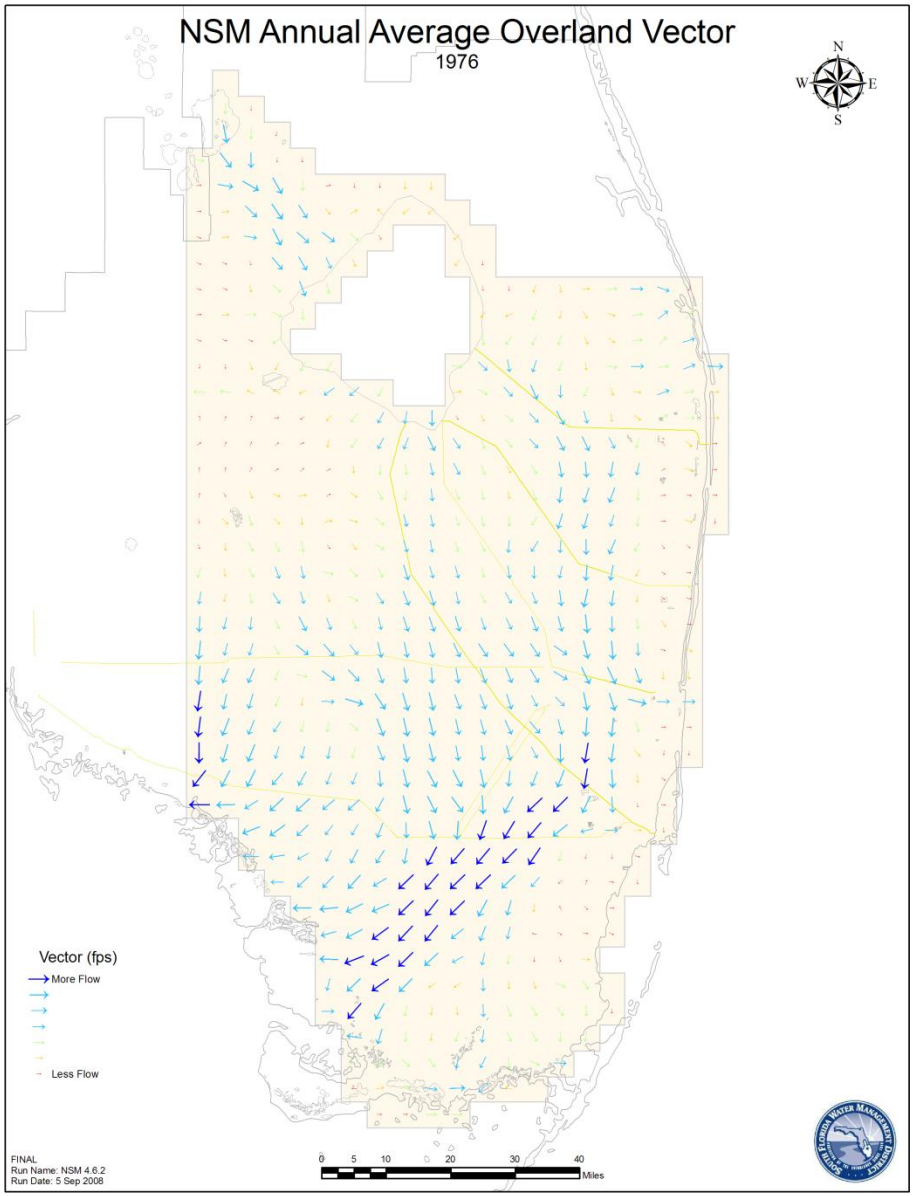

NSRSM Annual Average Overland Vector
1973
N
W
E
S
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

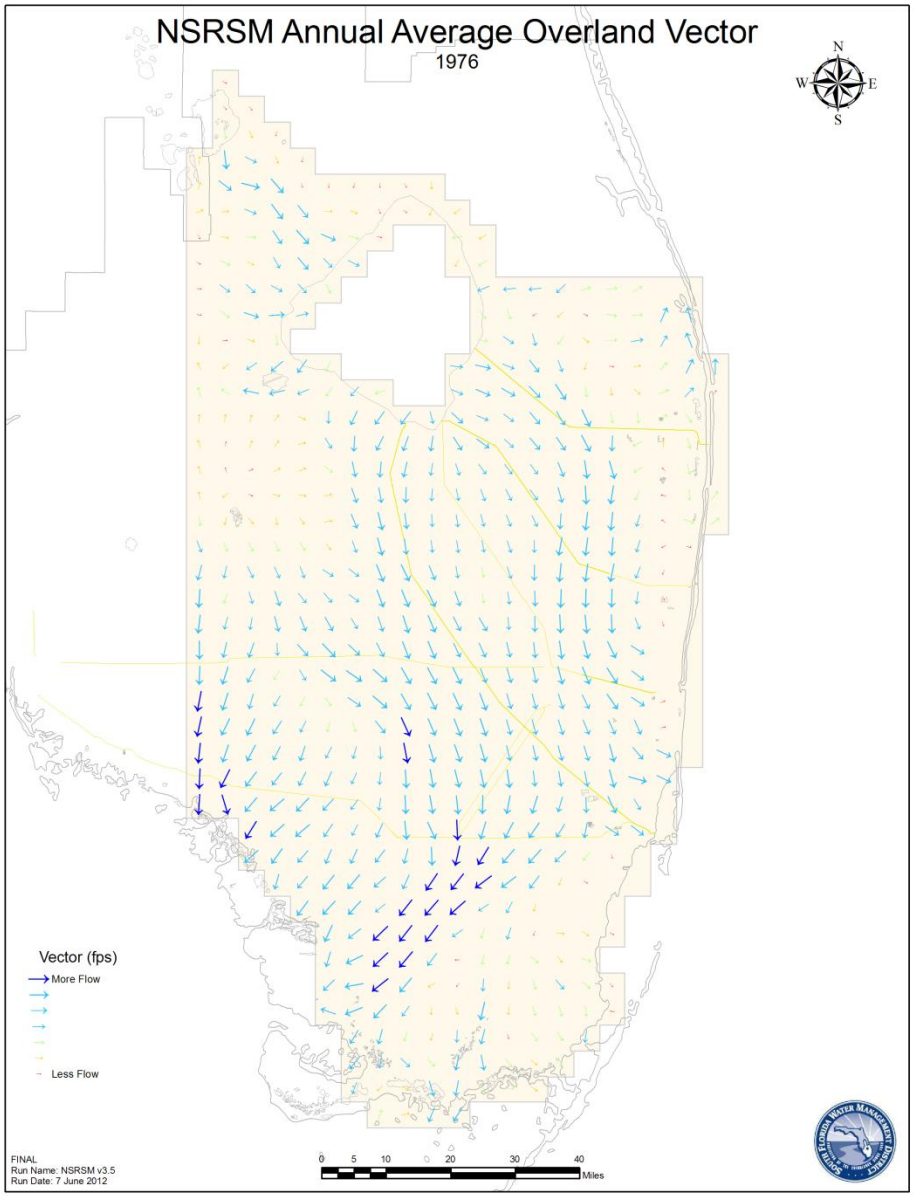

NSM Annual Average Overland Vector
1974
N
W
E
S
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

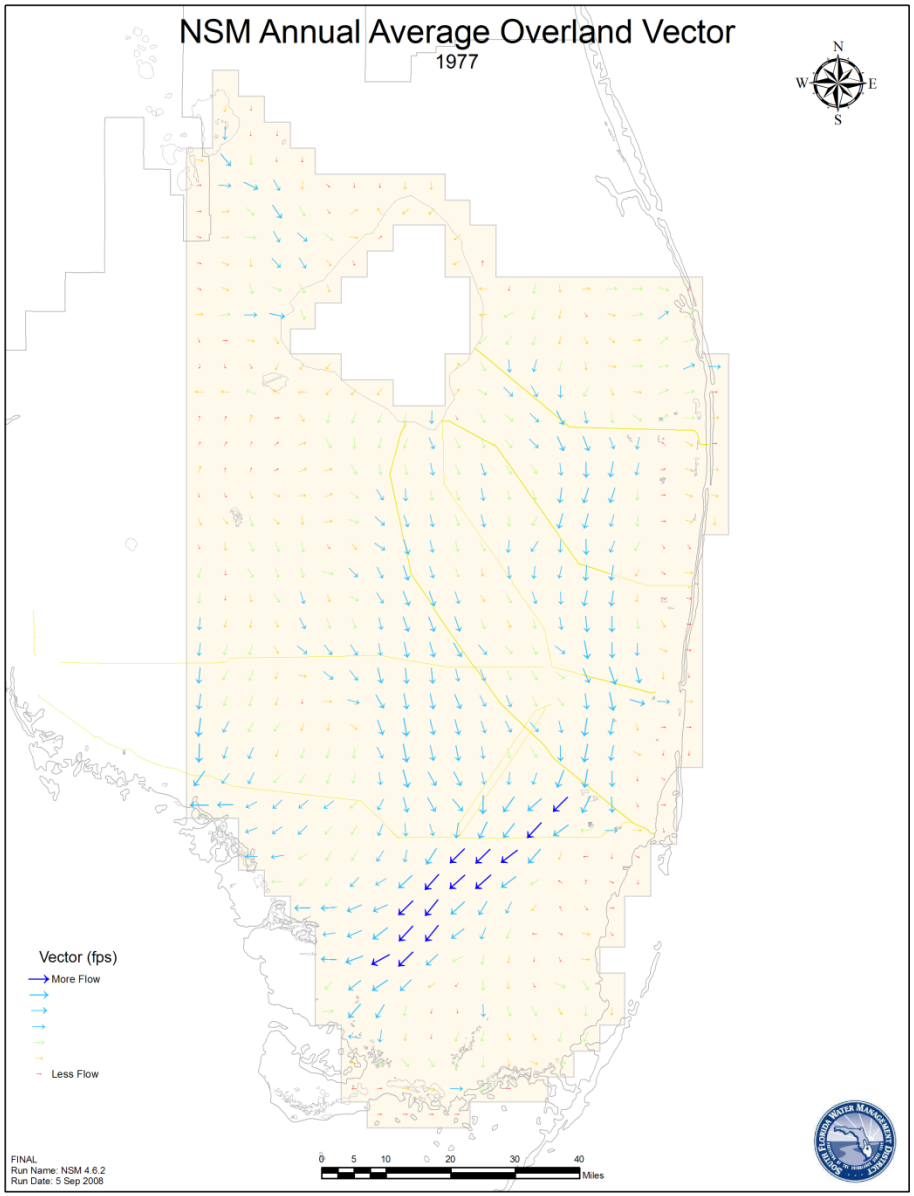

NSRSM Annual Average Overland Vector
1974
N
W
E
S
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

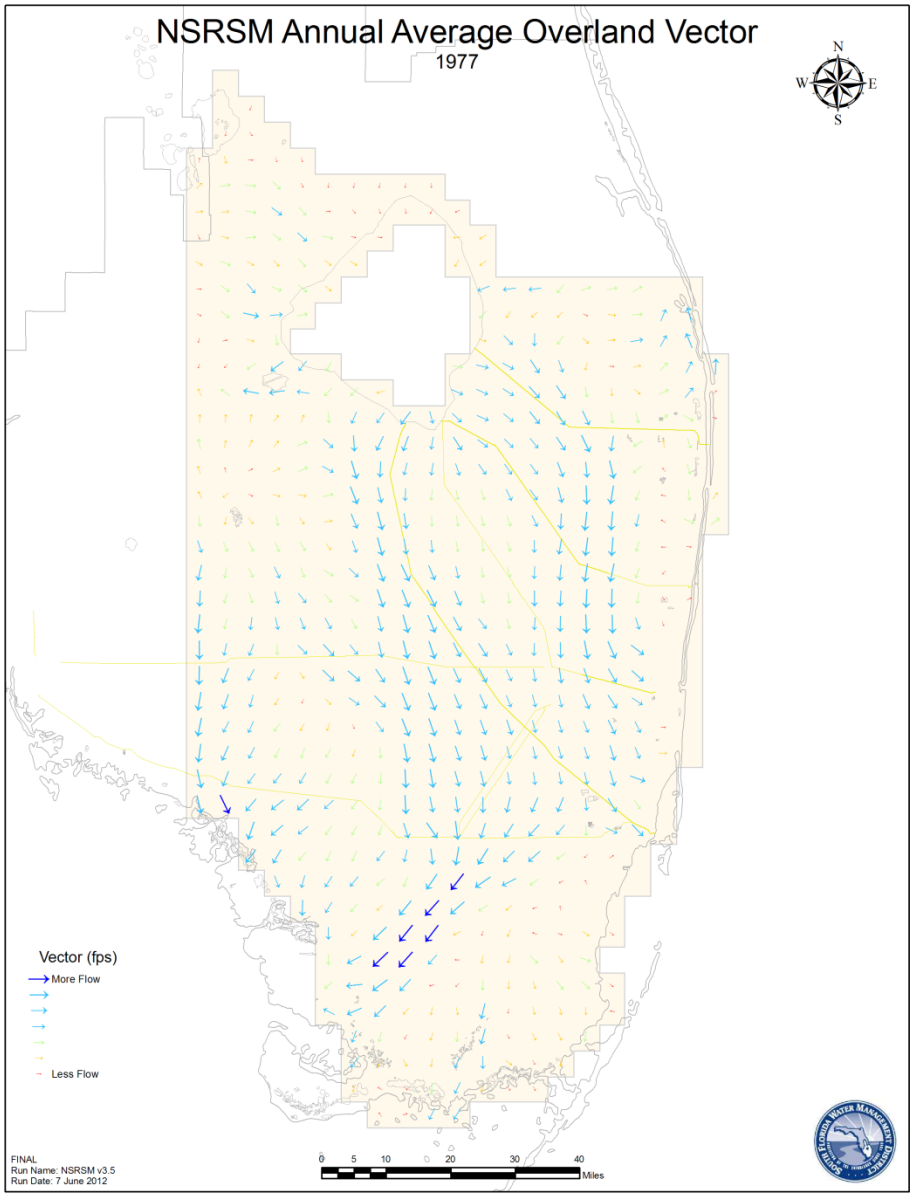

NSM Annual Average Overland Vector
1975
N
W
E
S
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

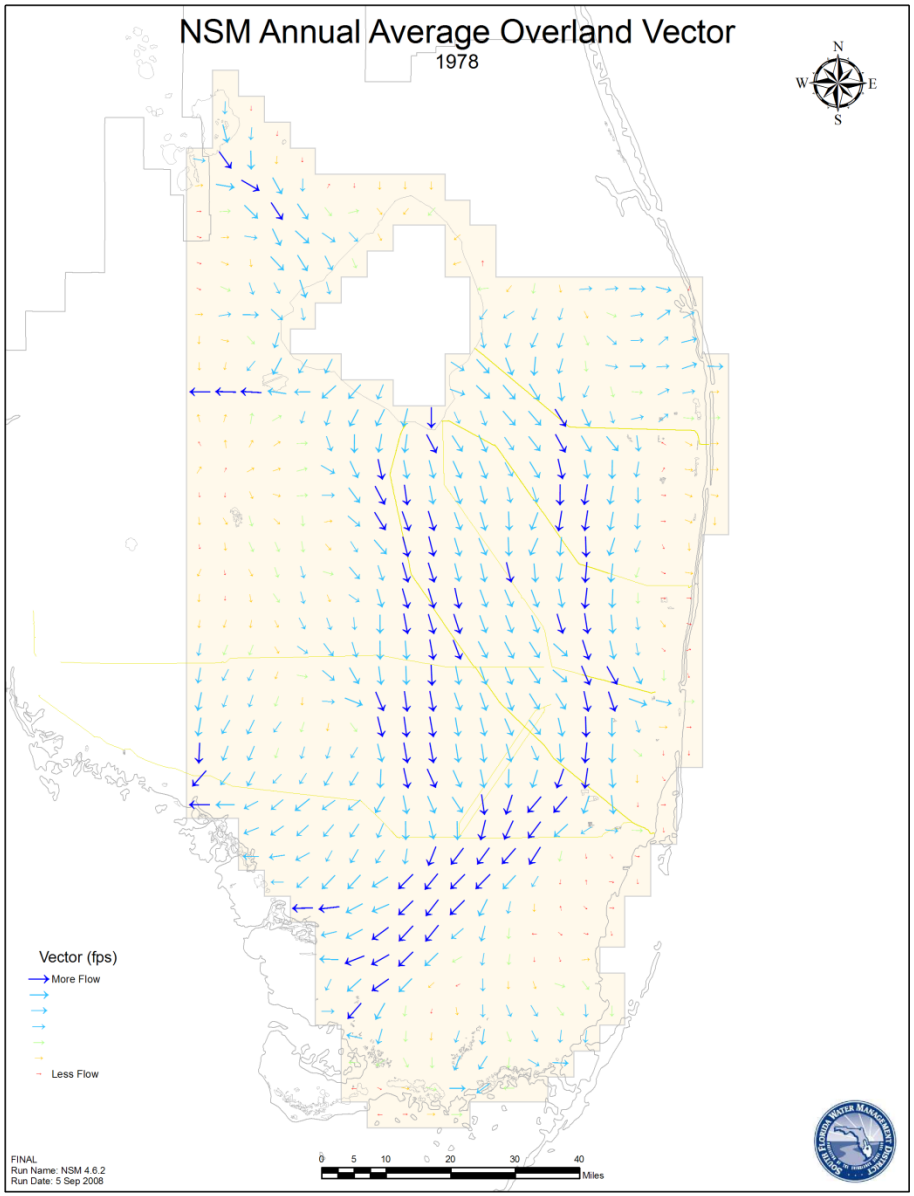

NSRSM Annual Average Overland Vector
1975
N
W
E
S
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

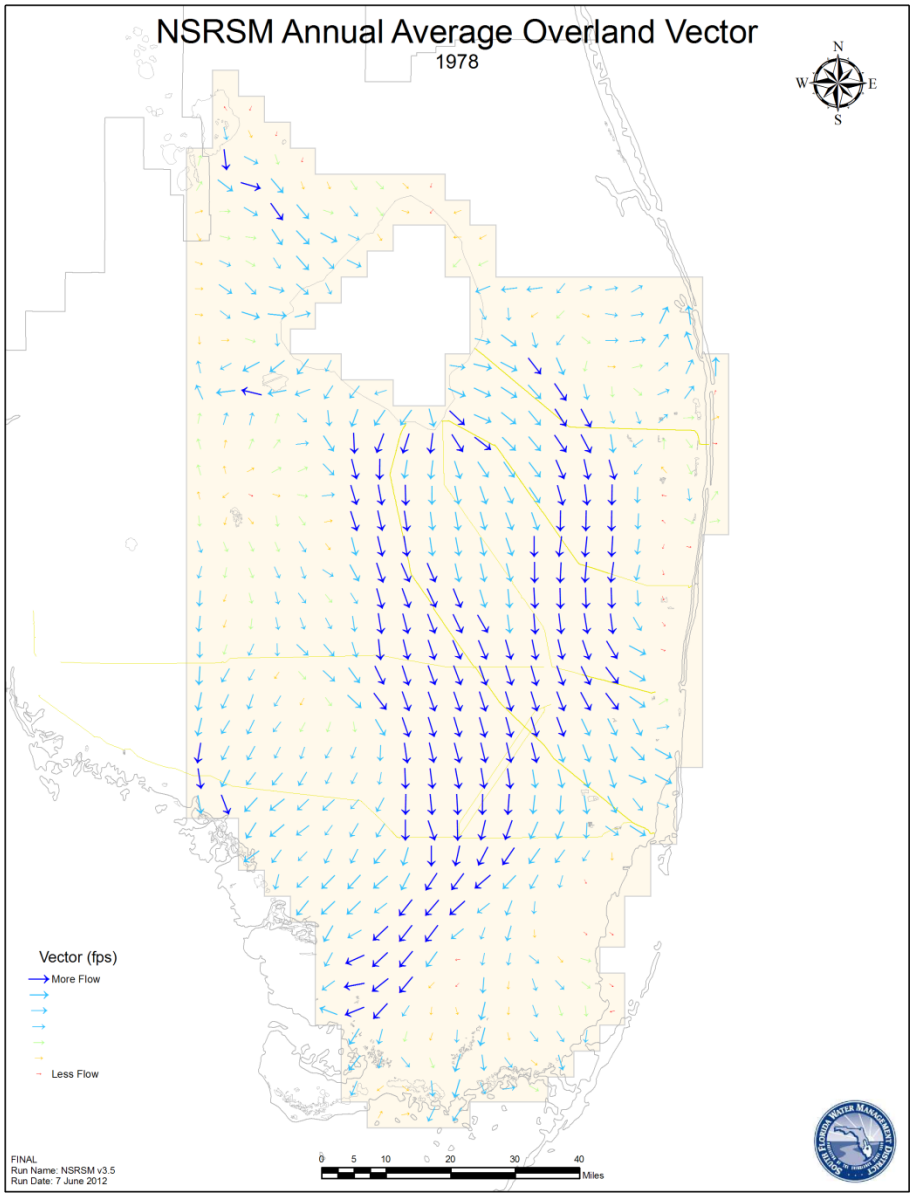

NSM Annual Average Overland Vector
1976
N
W
E
S
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

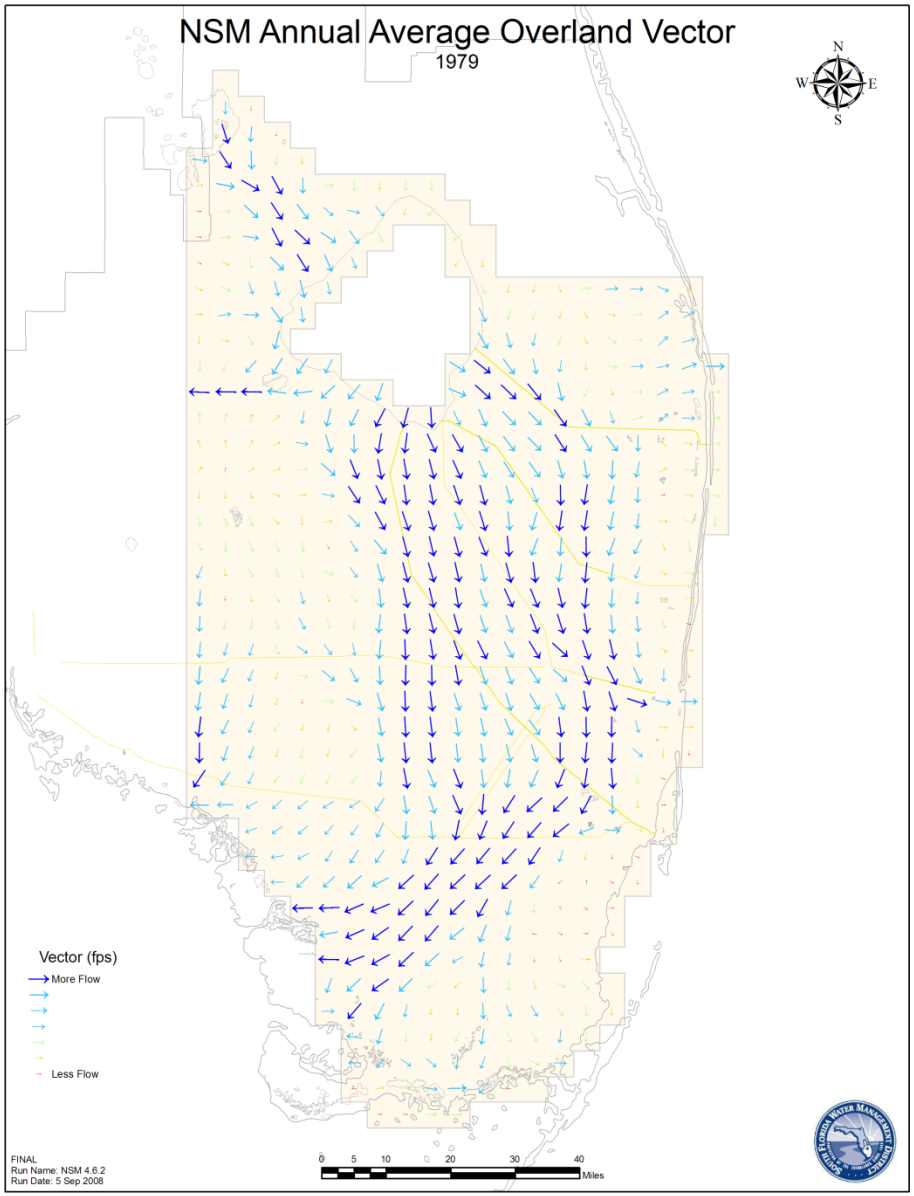

NSRSM Annual Average Overland Vector
1976
N
W
E
S
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

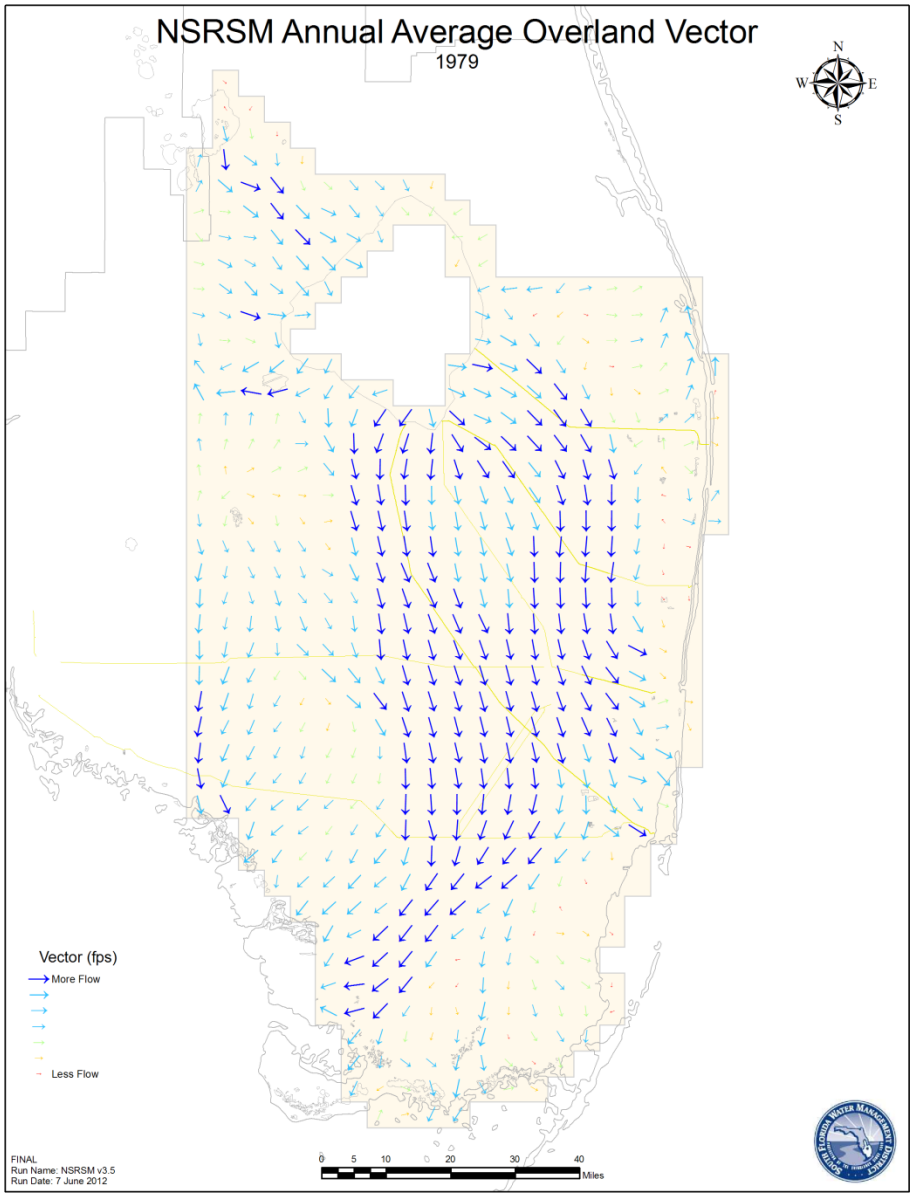

NSM Annual Average Overland Vector
1977
N
W
E
S
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

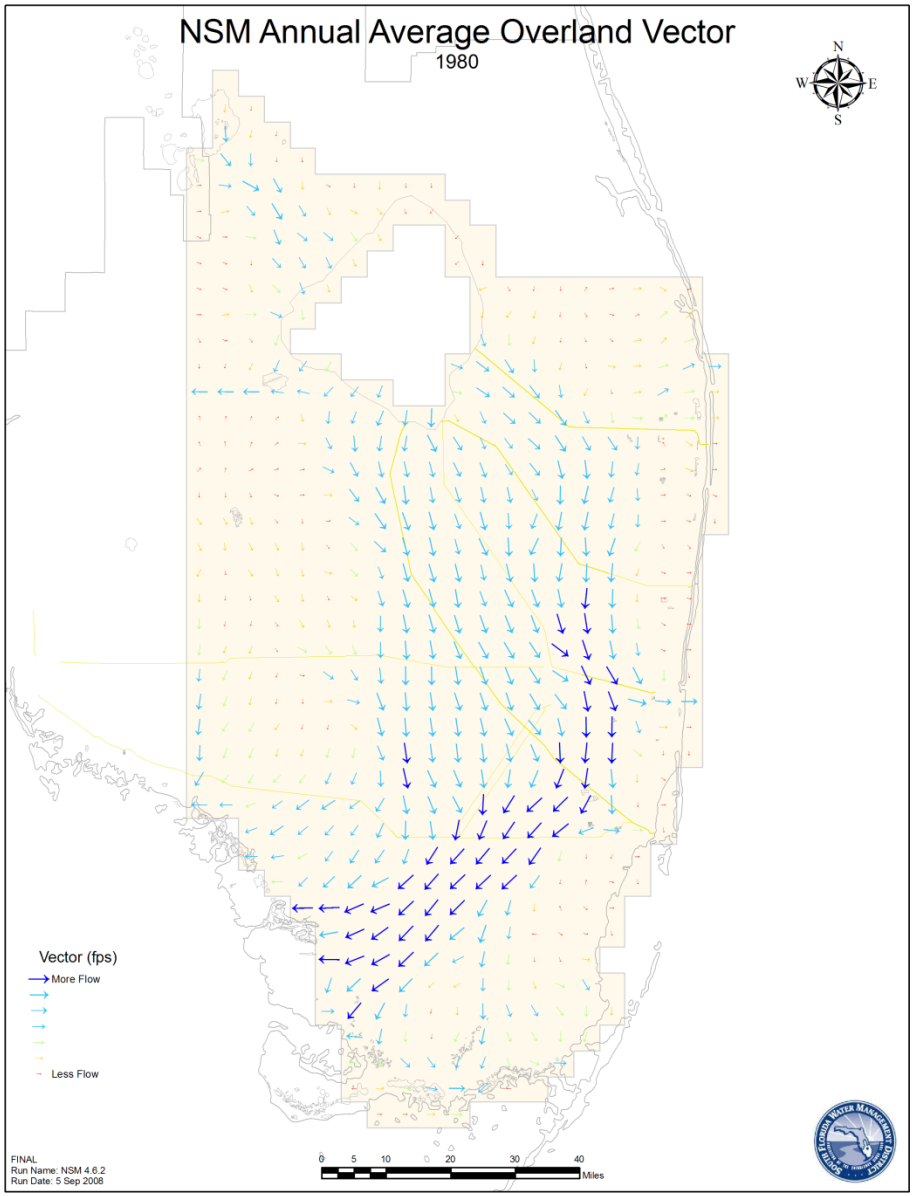

NSRSM Annual Average Overland Vector
1977
N
W
E
S
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

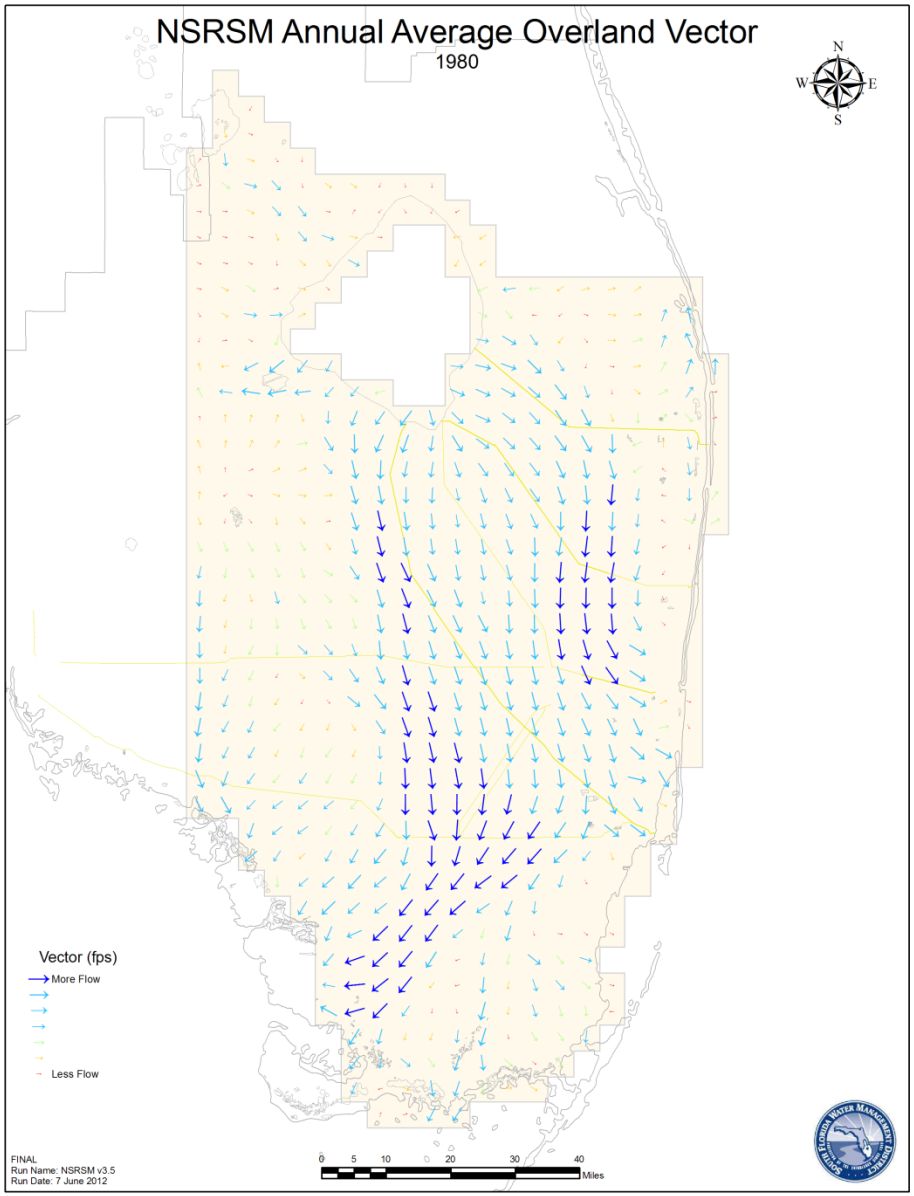

NSM Annual Average Overland Vector
1978
N
W
E
S
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

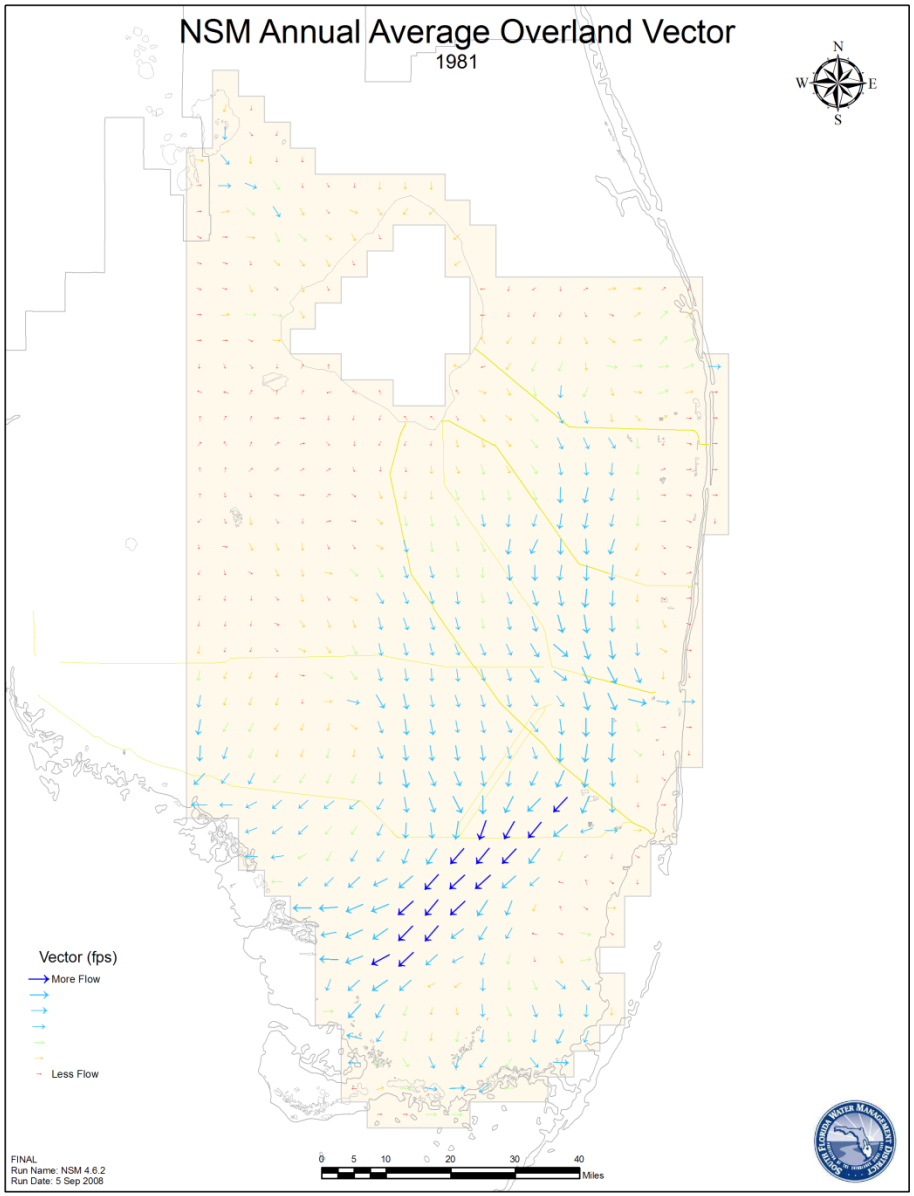

NSRSM Annual Average Overland Vector
1978
N
W
E
S
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

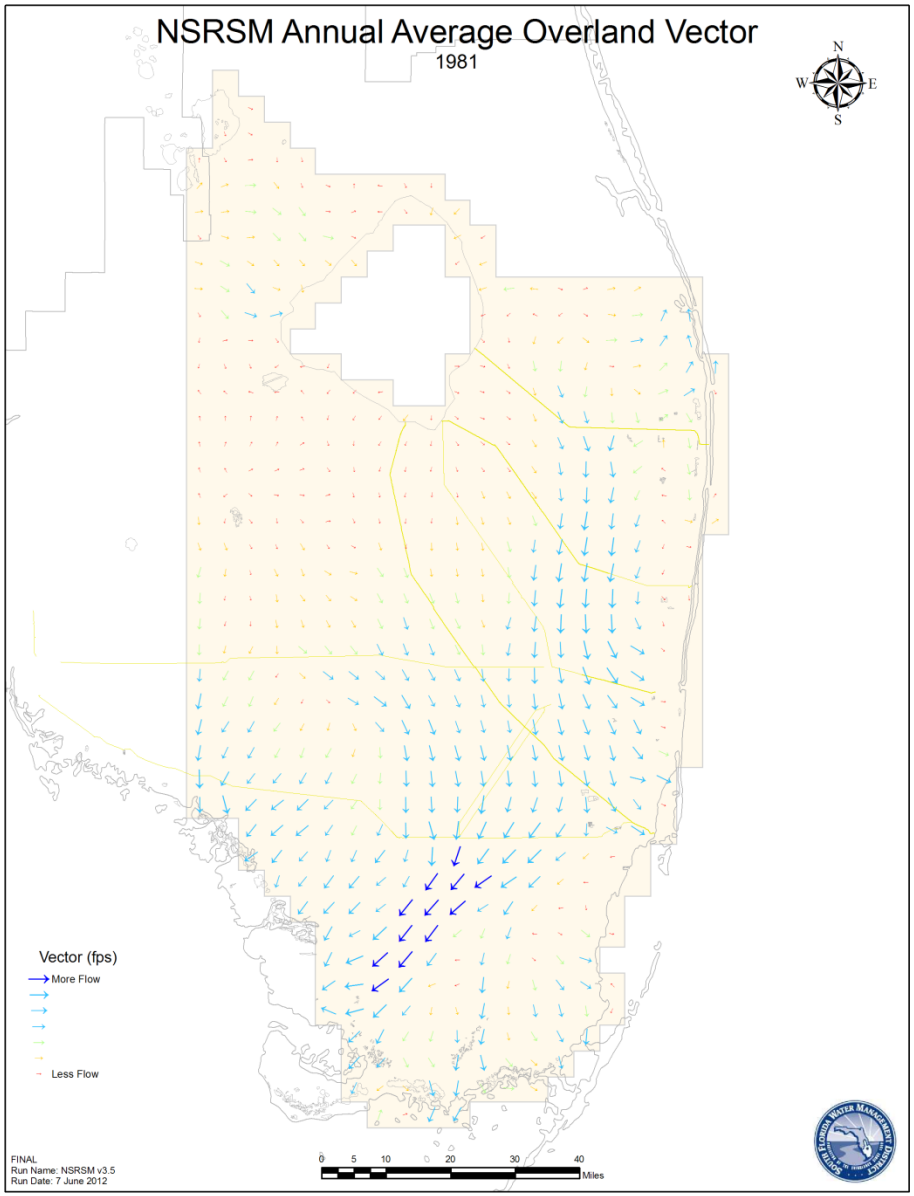

NSM Annual Average Overland Vector
1979
N
W
E
S
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

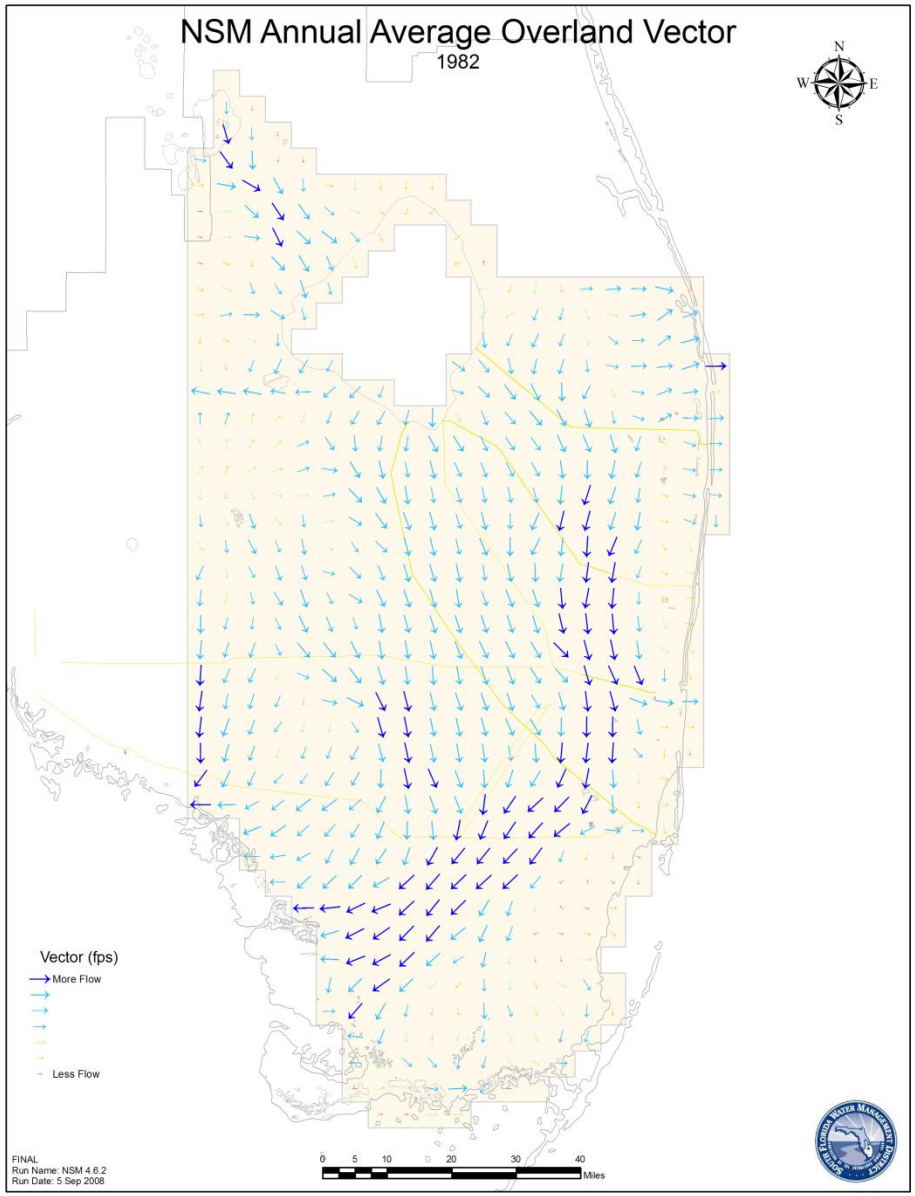

NSRSM Annual Average Overland Vector
1979
N
W
E
S
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

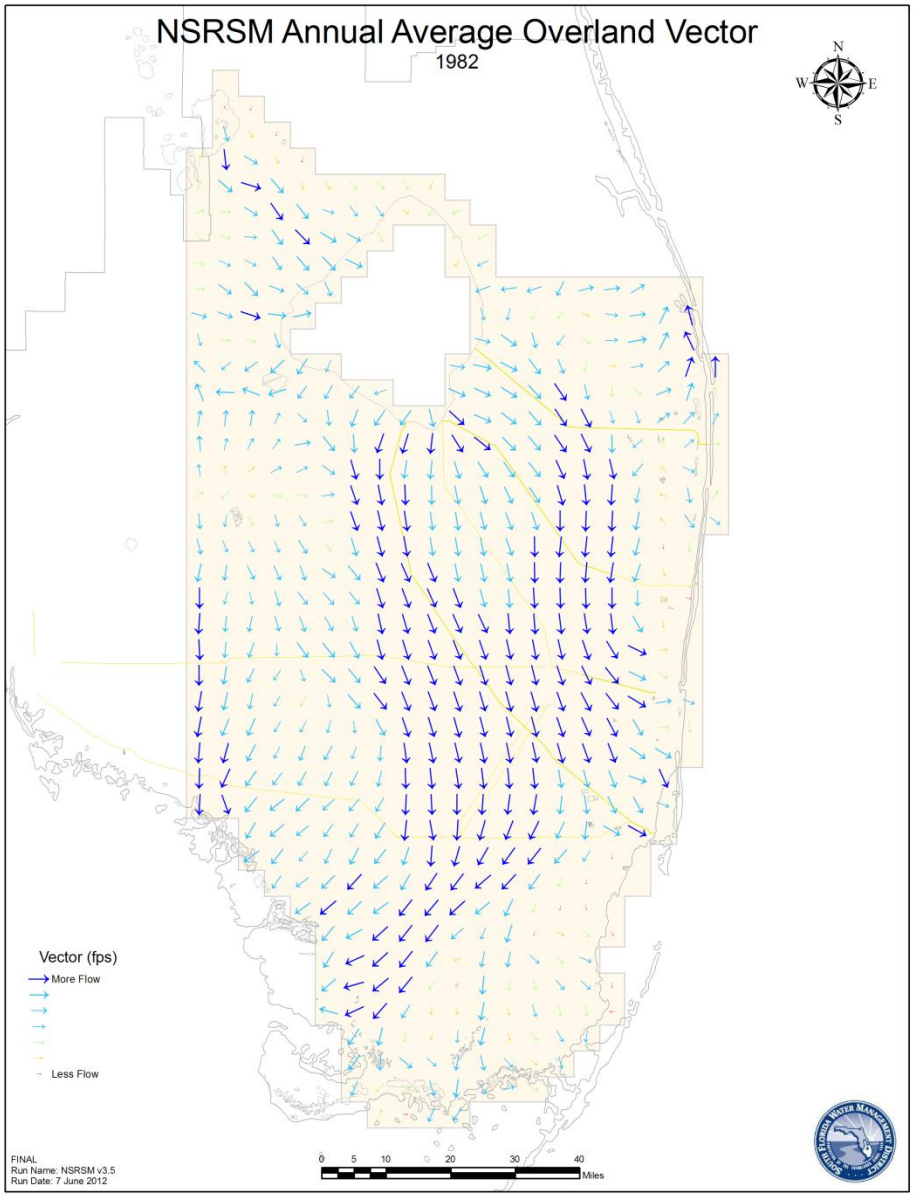

NSM Annual Average Overland Vector
1980
N
W
E
S
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

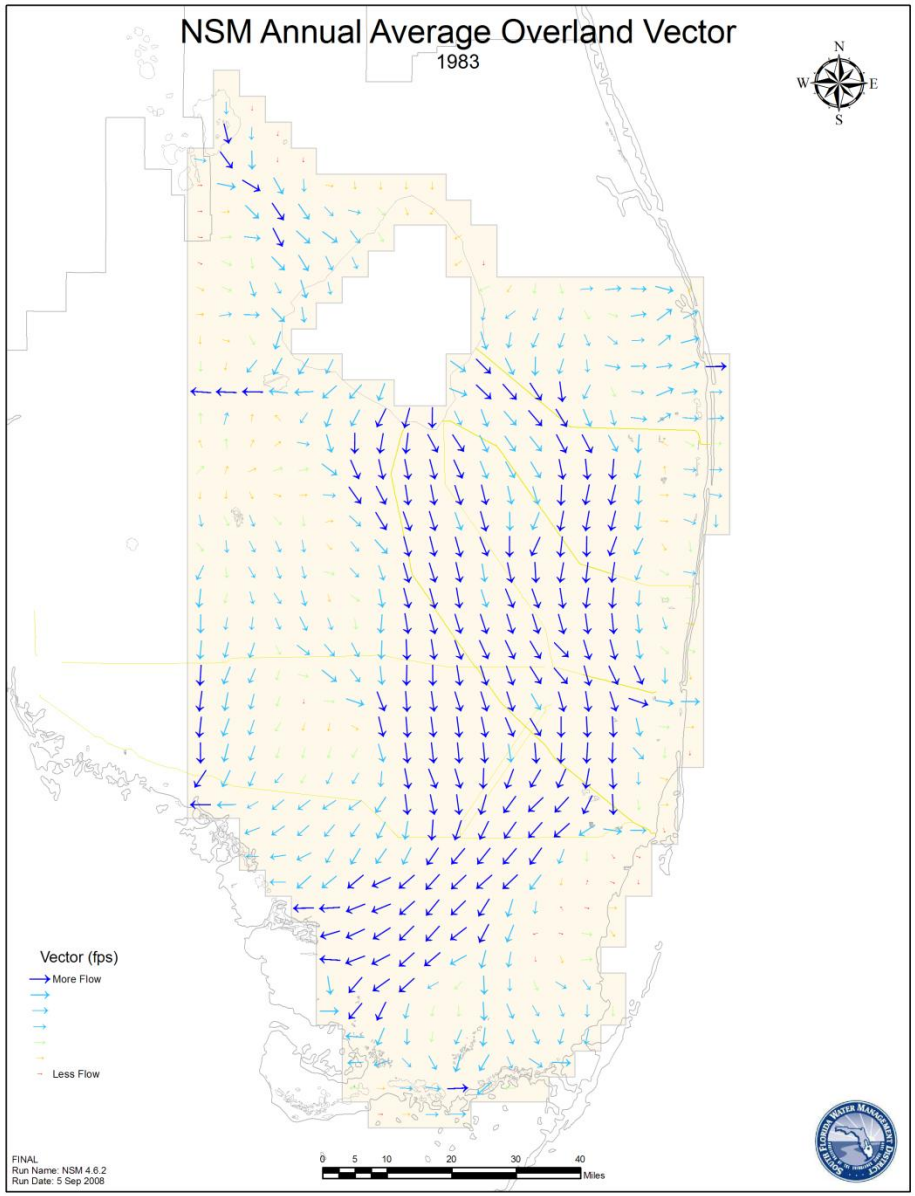

NSRSM Annual Average Overland Vector
1980
N
W
E
S
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

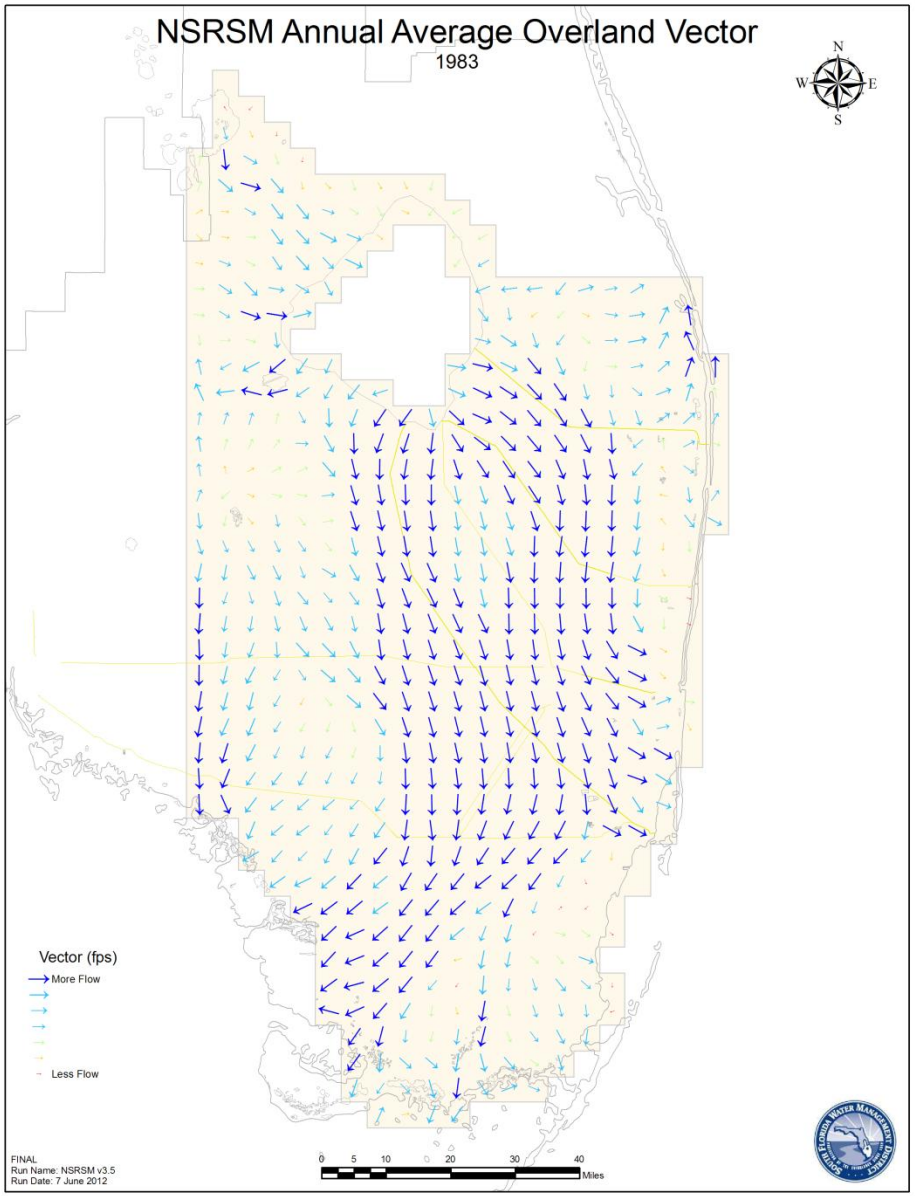

NSM Annual Average Overland Vector
1981
N
W
E
S
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

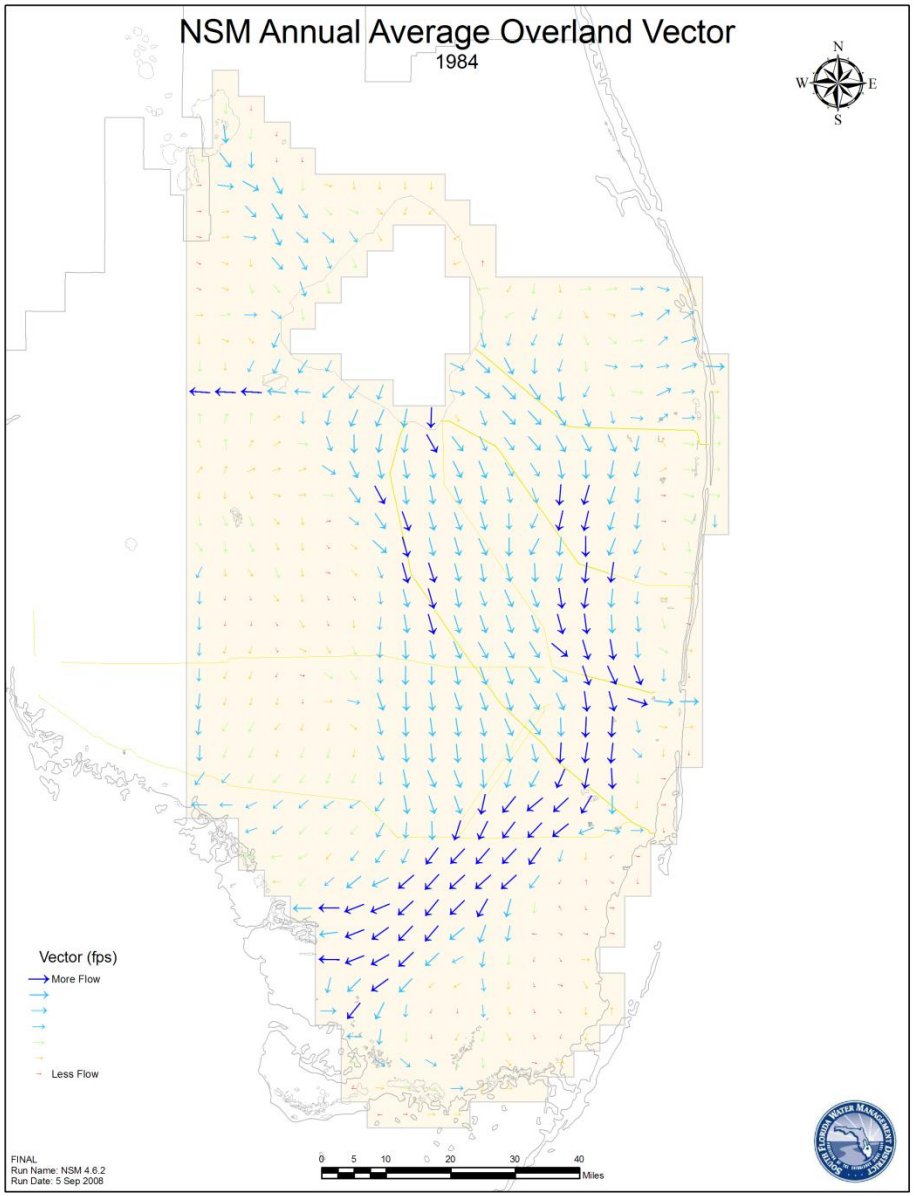

NSRSM Annual Average Overland Vector
1981
N
W
E
S
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

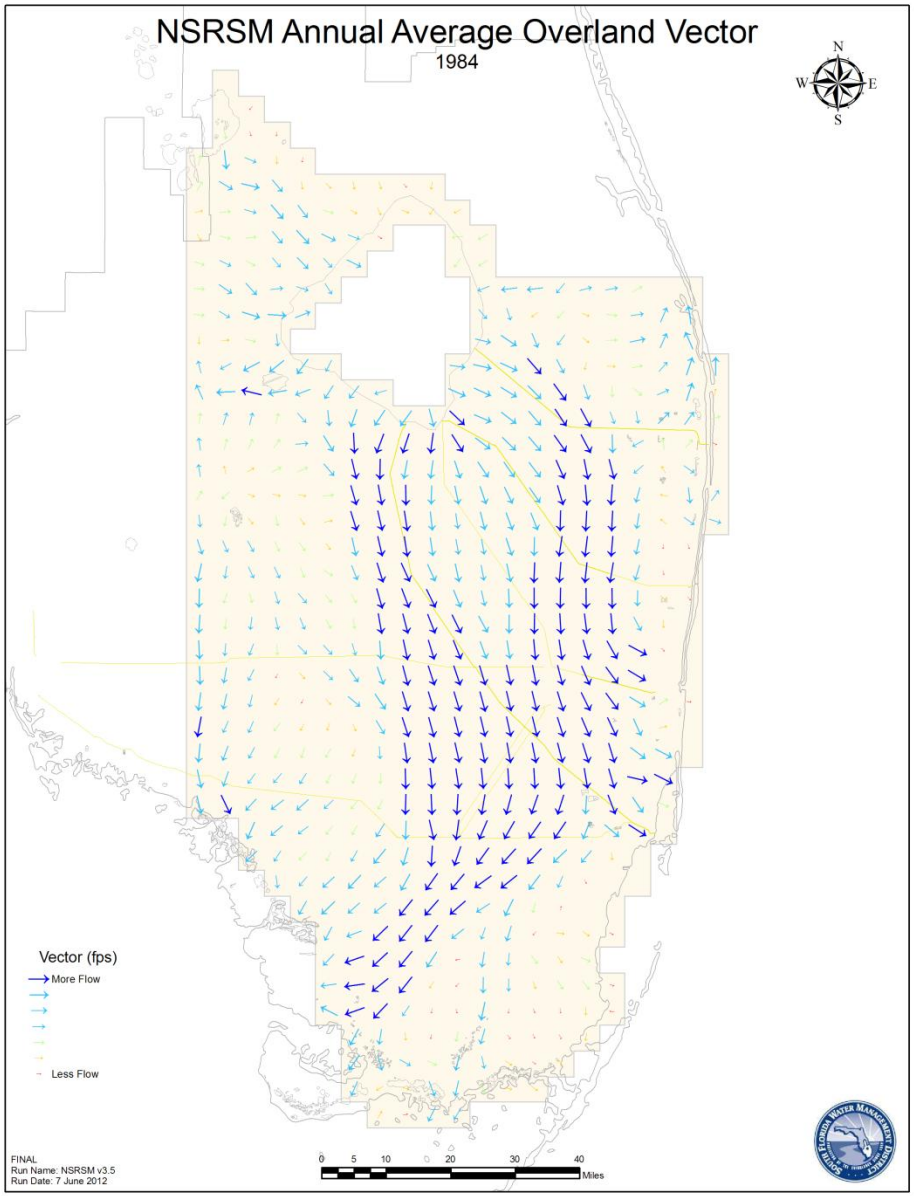

NSM Annual Average Overland Vector
1982
N
W
E
S
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

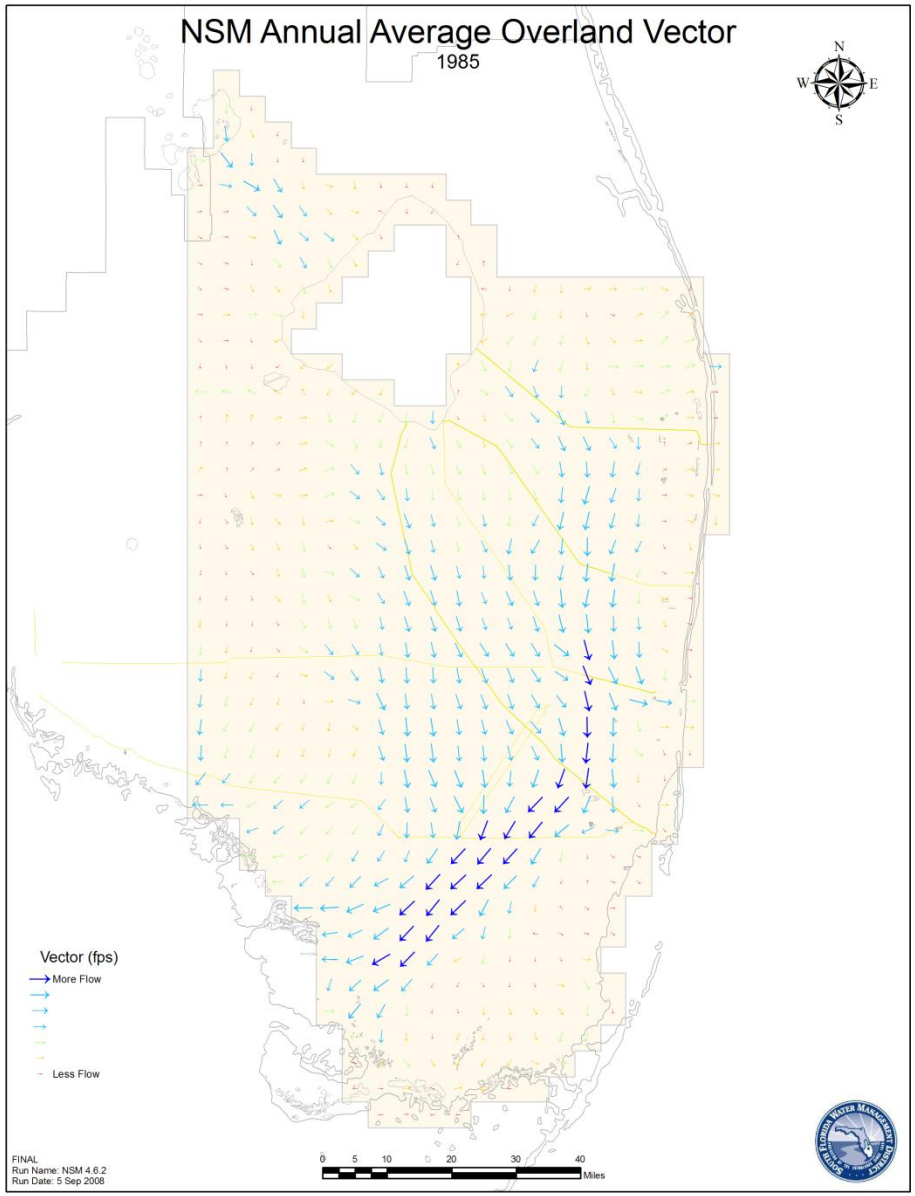

NSRSM Annual Average Overland Vector
1982
N
W
E
S
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles


NSM Annual Average Overland Vector
1983
N
W
E
S
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles


NSRSM Annual Average Overland Vector
1983
N
W
E
S
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles


NSM Annual Average Overland Vector
1984
N
W
E
S
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles


NSRSM Annual Average Overland Vector
1984
N
W
E
S
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles


NSM Annual Average Overland Vector
1985
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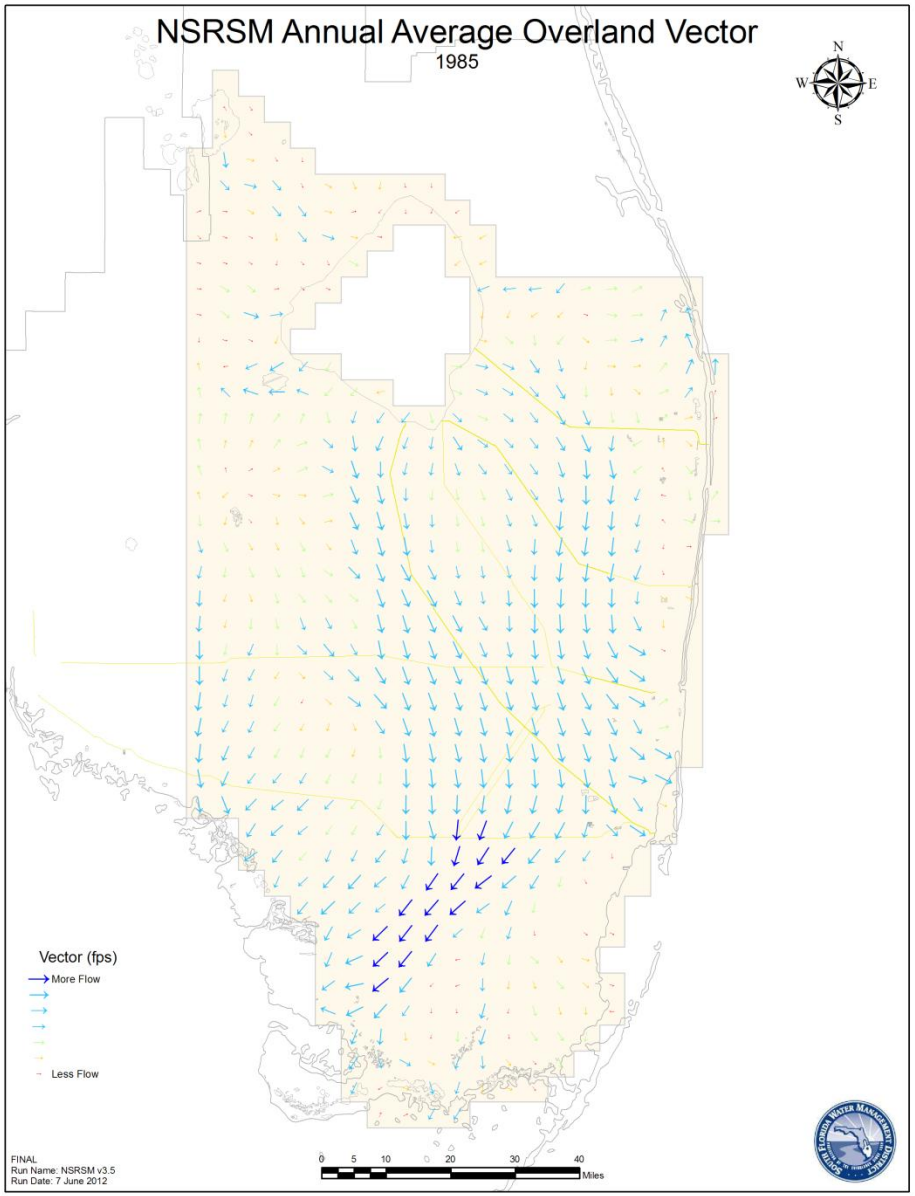
W
E
S
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles


NSRSM Annual Average Overland Vector
1985
N
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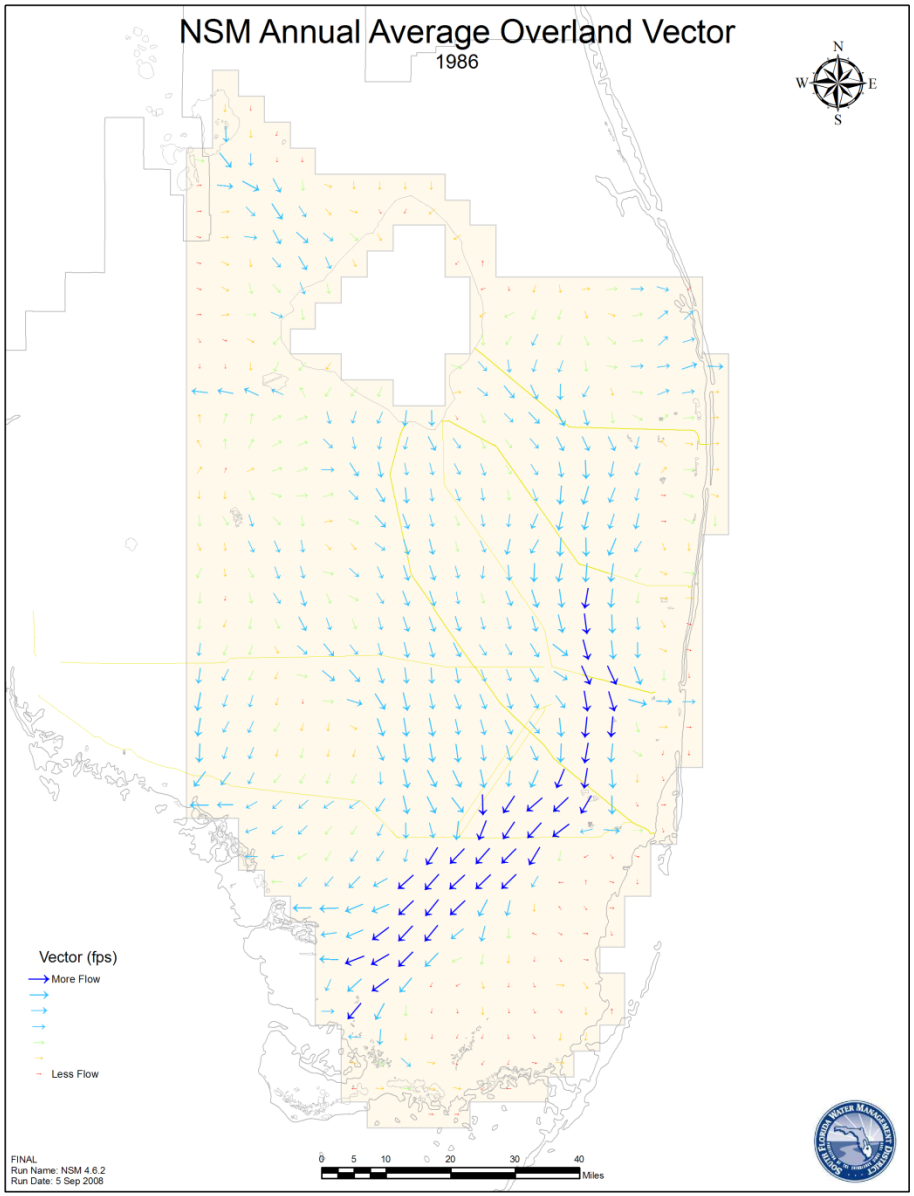
E
S
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles


NSM Annual Average Overland Vector
1986
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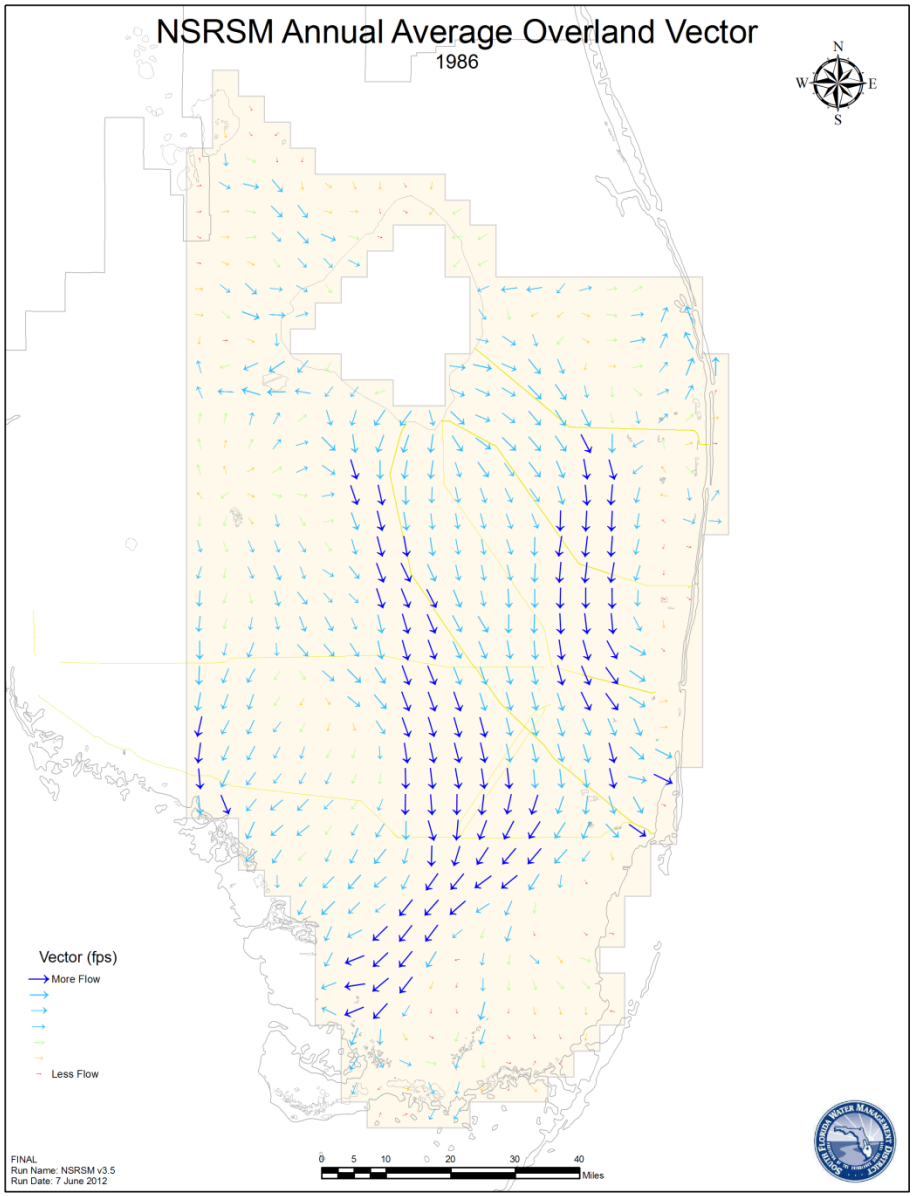
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles


NSRSM Annual Average Overland Vector
1986
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Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
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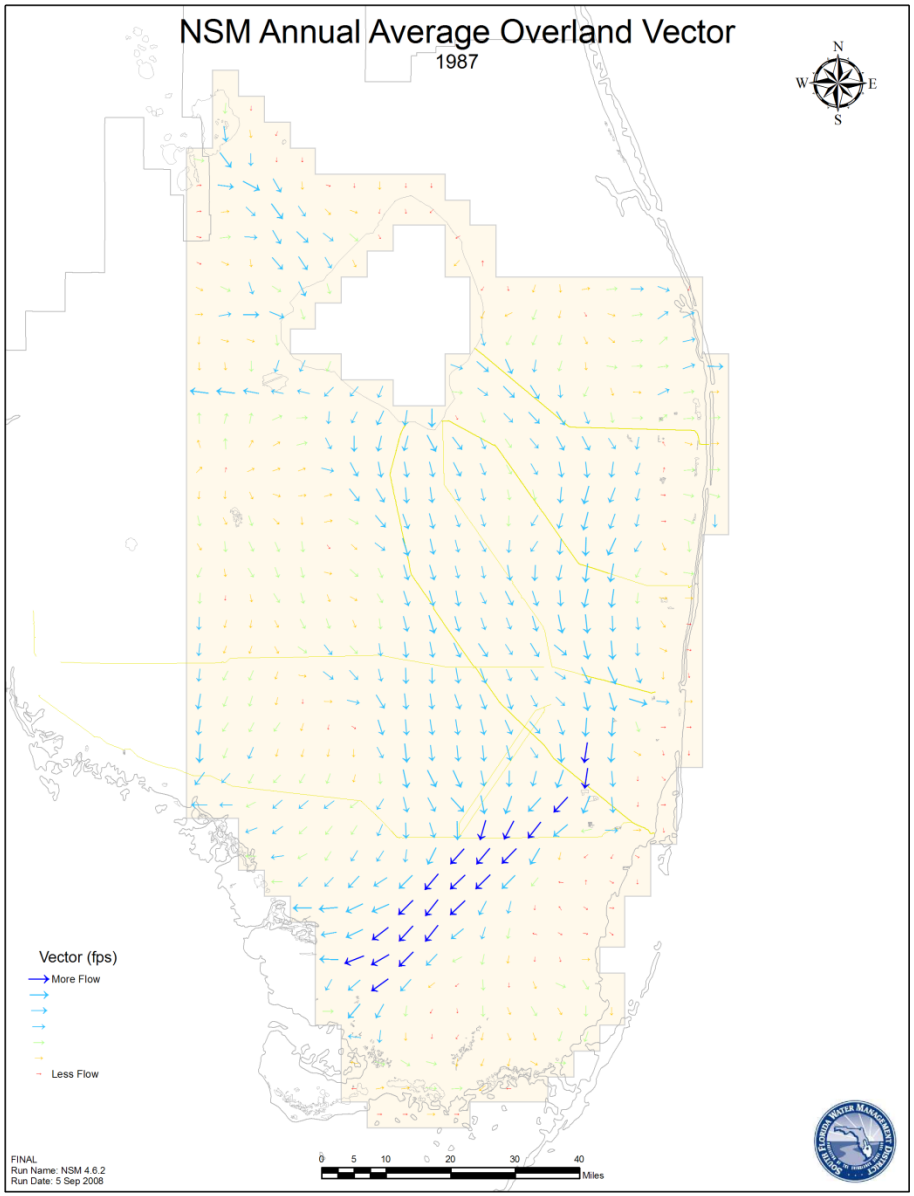
Miles


NSM Annual Average Overland Vector
1987
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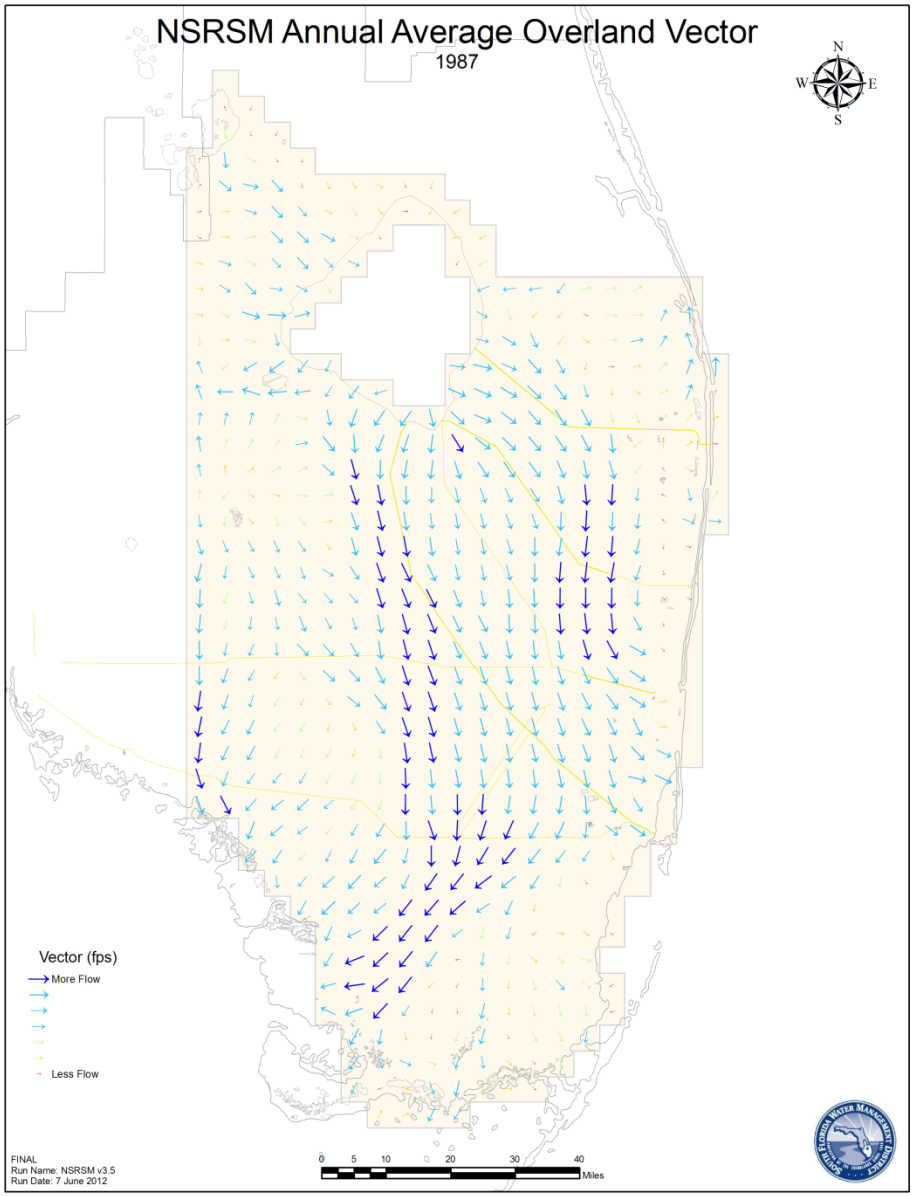
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles


NSRSM Annual Average Overland Vector
1987
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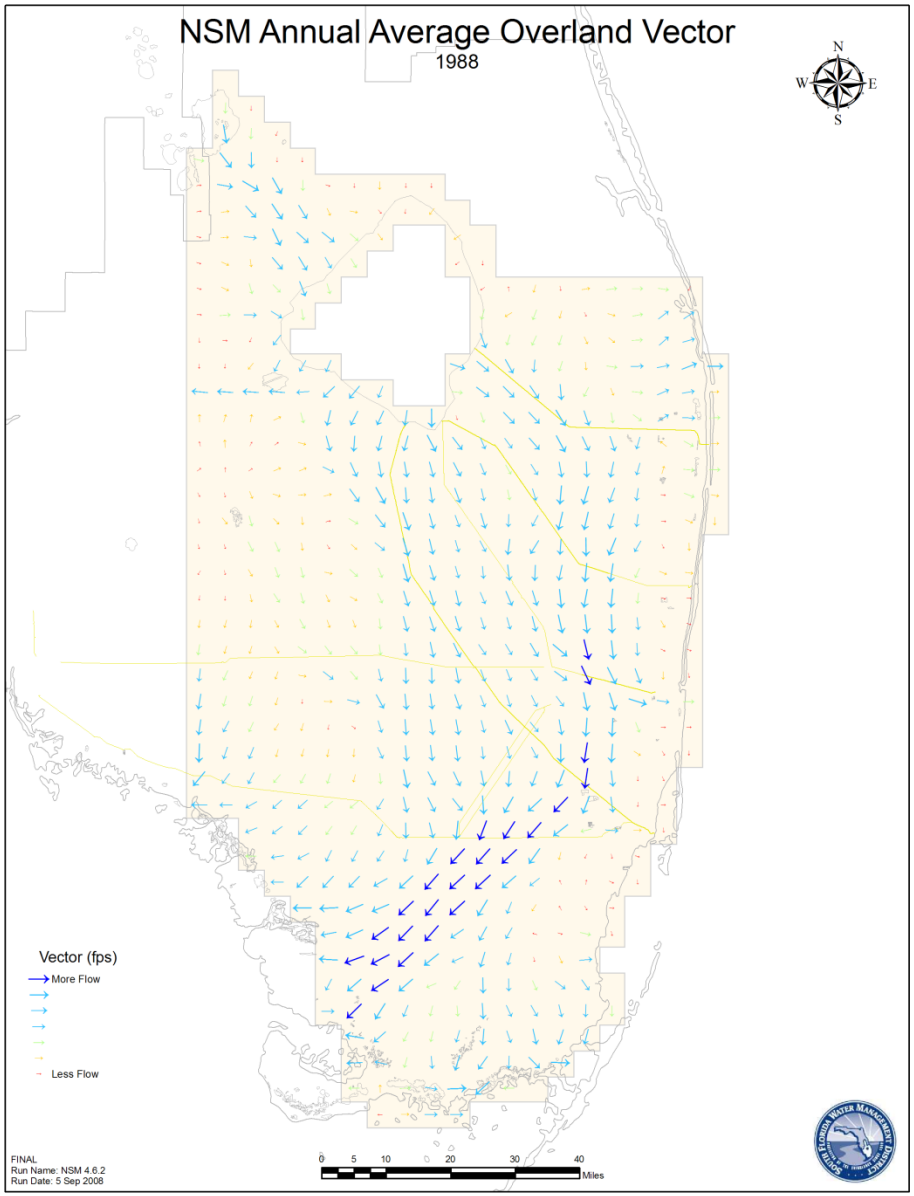
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles


NSM Annual Average Overland Vector
1988
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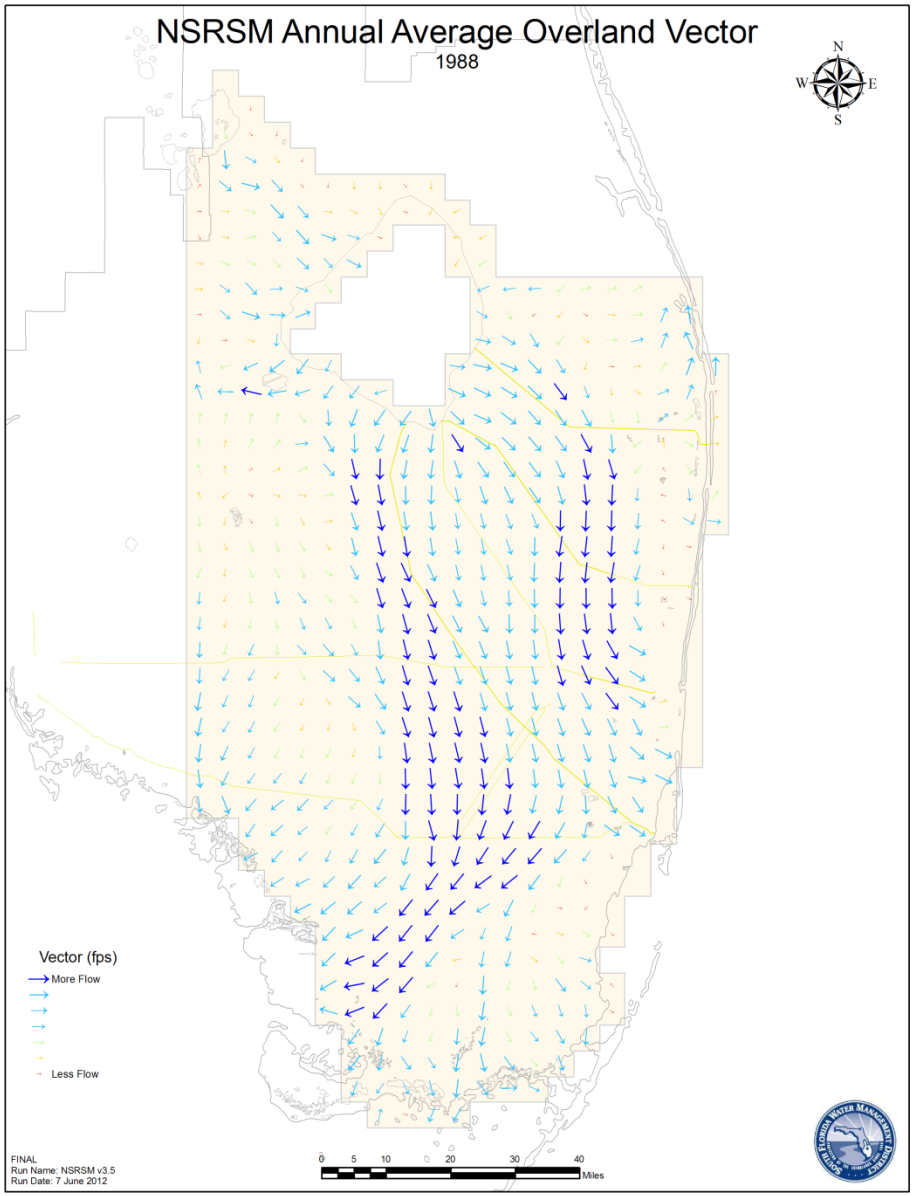
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles


NSRSM Annual Average Overland Vector
1988
N
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Vector (fps)
More Flow
Less Flow
FINAL
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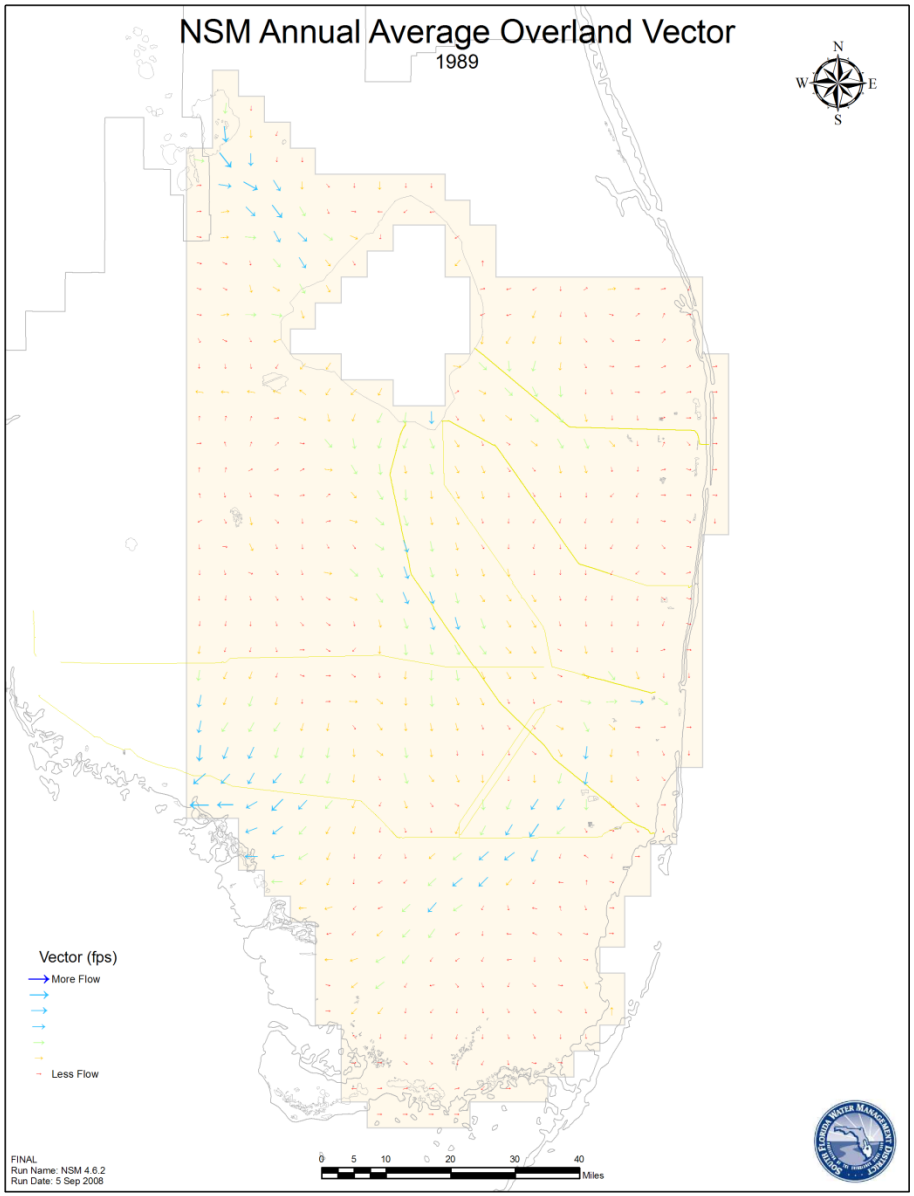
0 5 10 20 30 40
Miles


NSM Annual Average Overland Vector
1989
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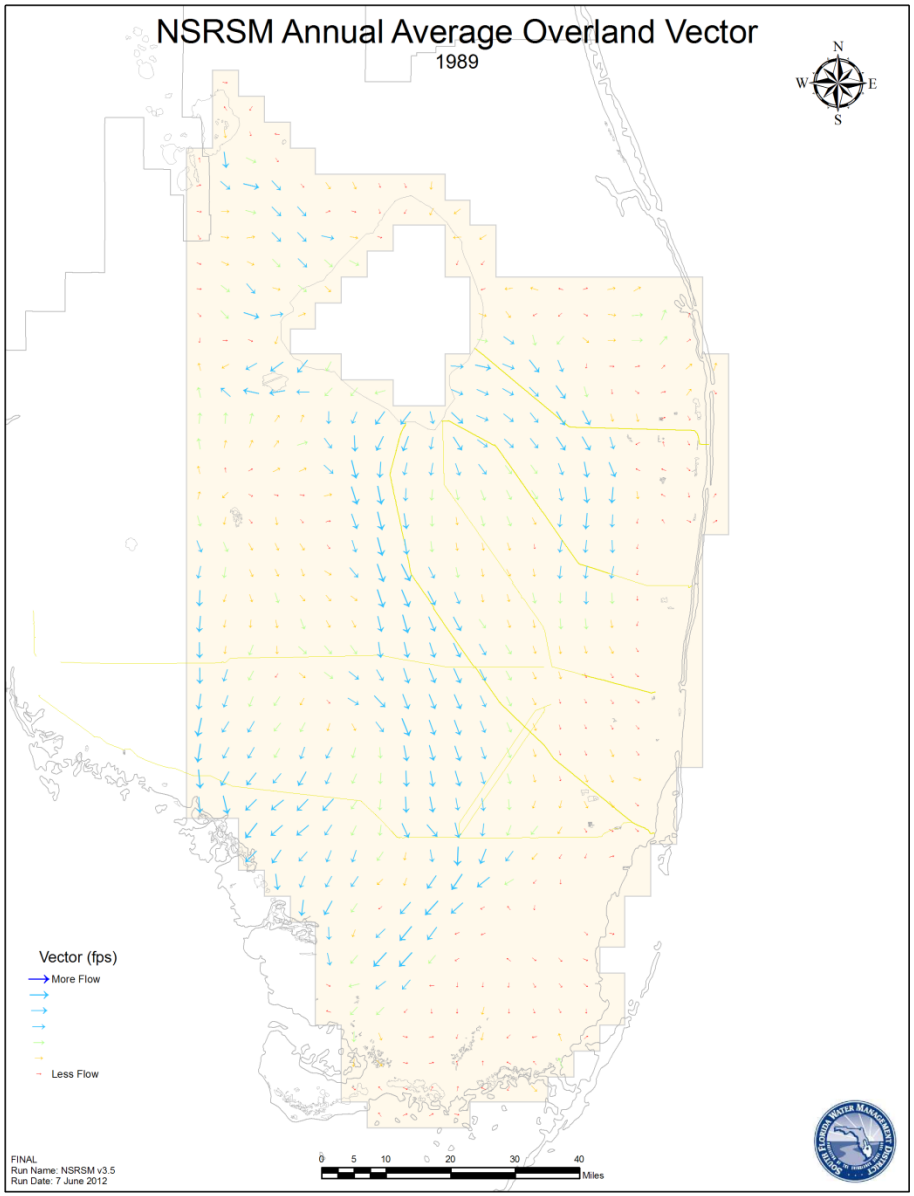
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles


NSRSM Annual Average Overland Vector
1989
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Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSRSM v3.5
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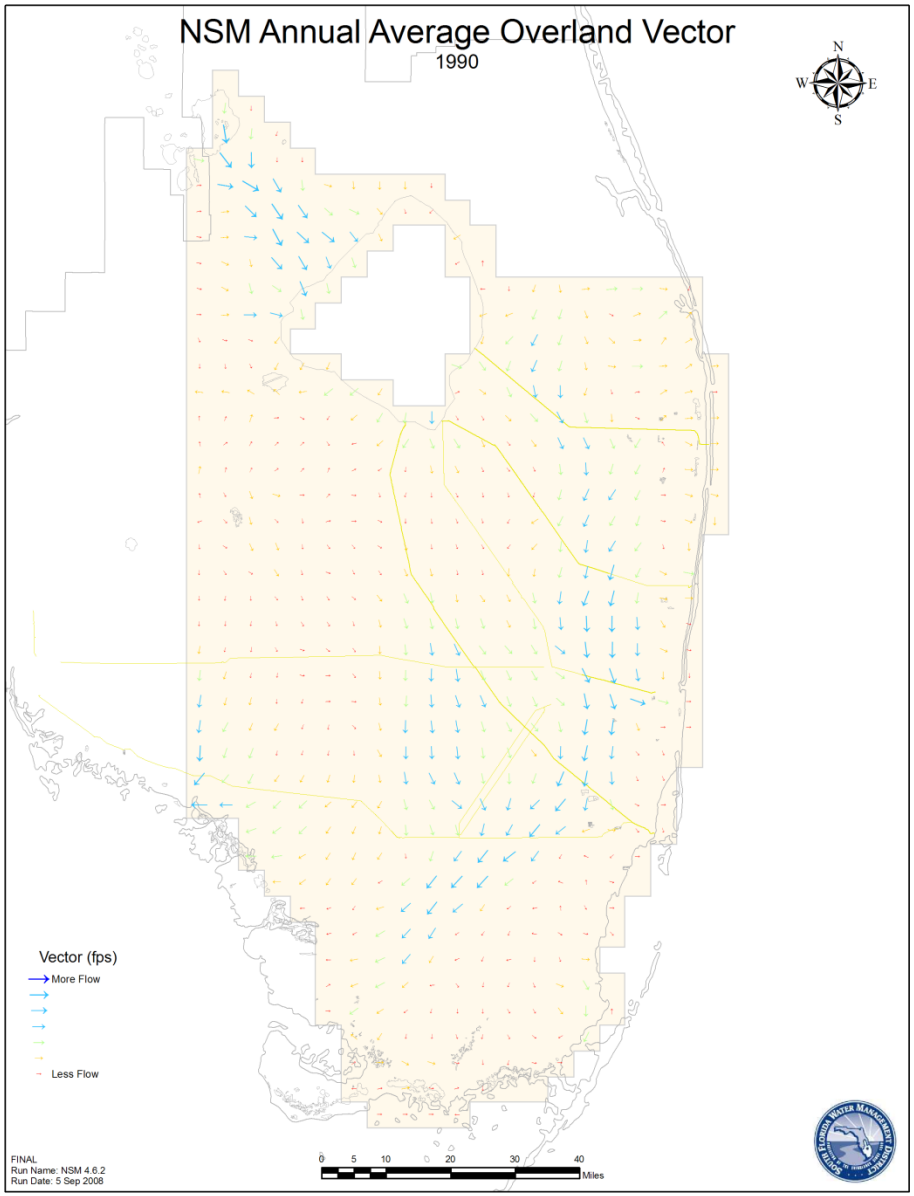
0 5 10 20 30 40
Miles


NSM Annual Average Overland Vector
1990
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Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSM 4.6.2
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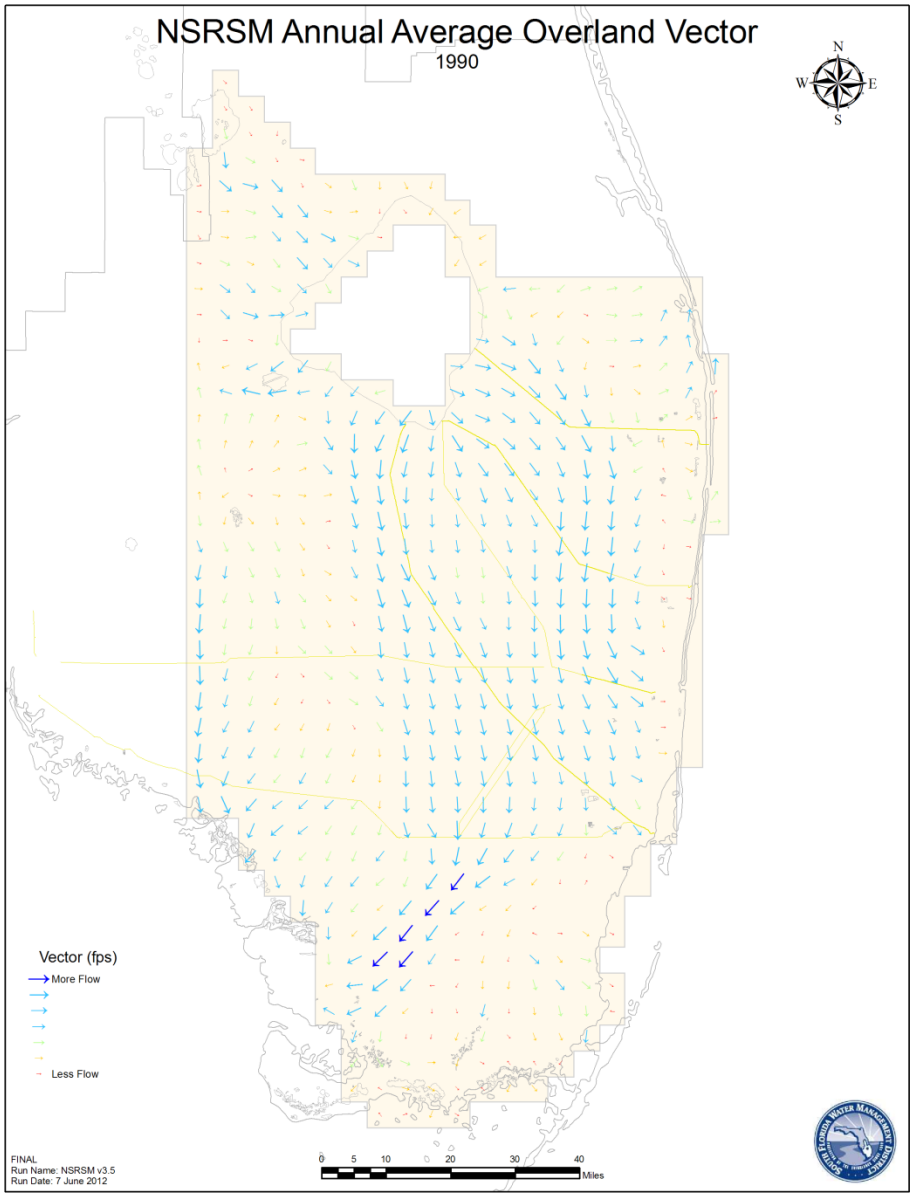
Miles


NSRSM Annual Average Overland Vector
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Vector (fps)
More Flow
Less Flow
FINAL
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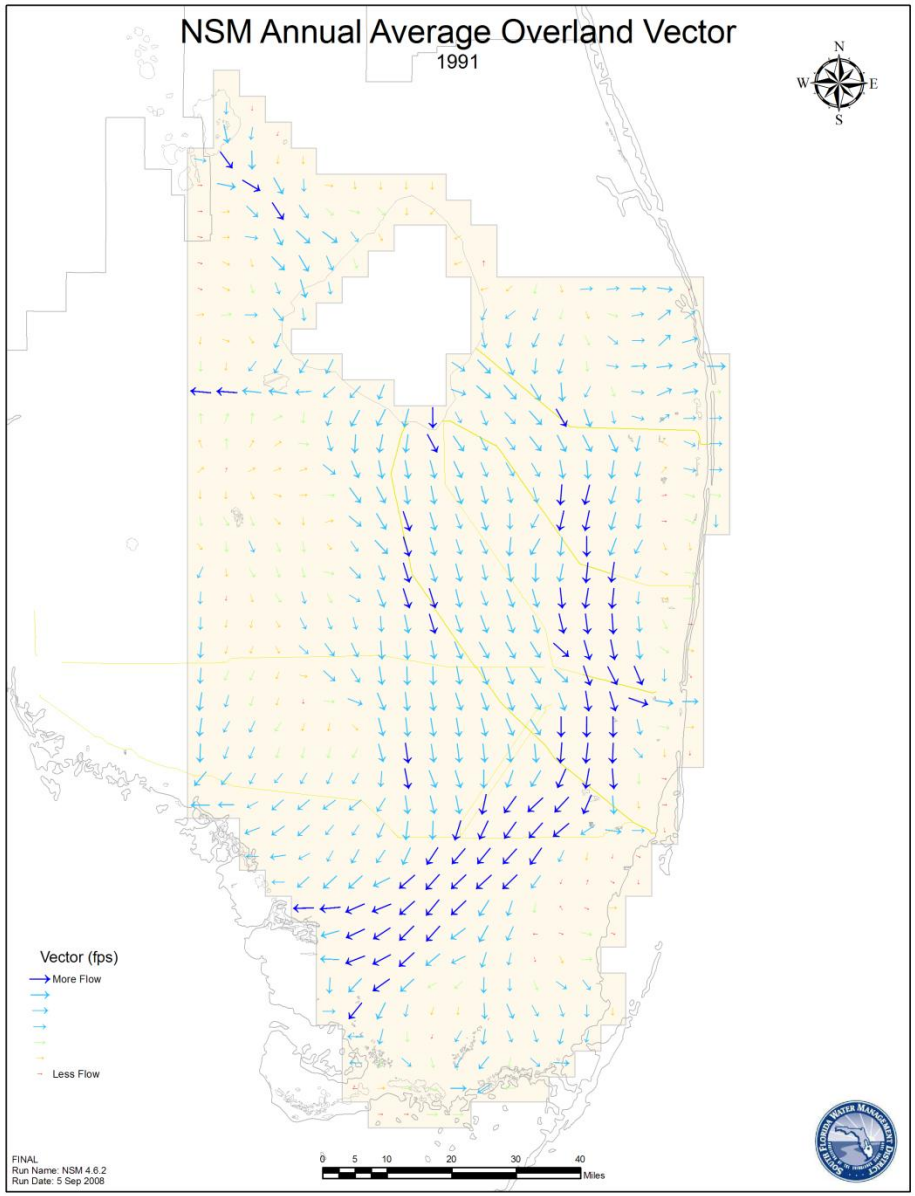
NSM Annual Average Overland Vector
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FINAL
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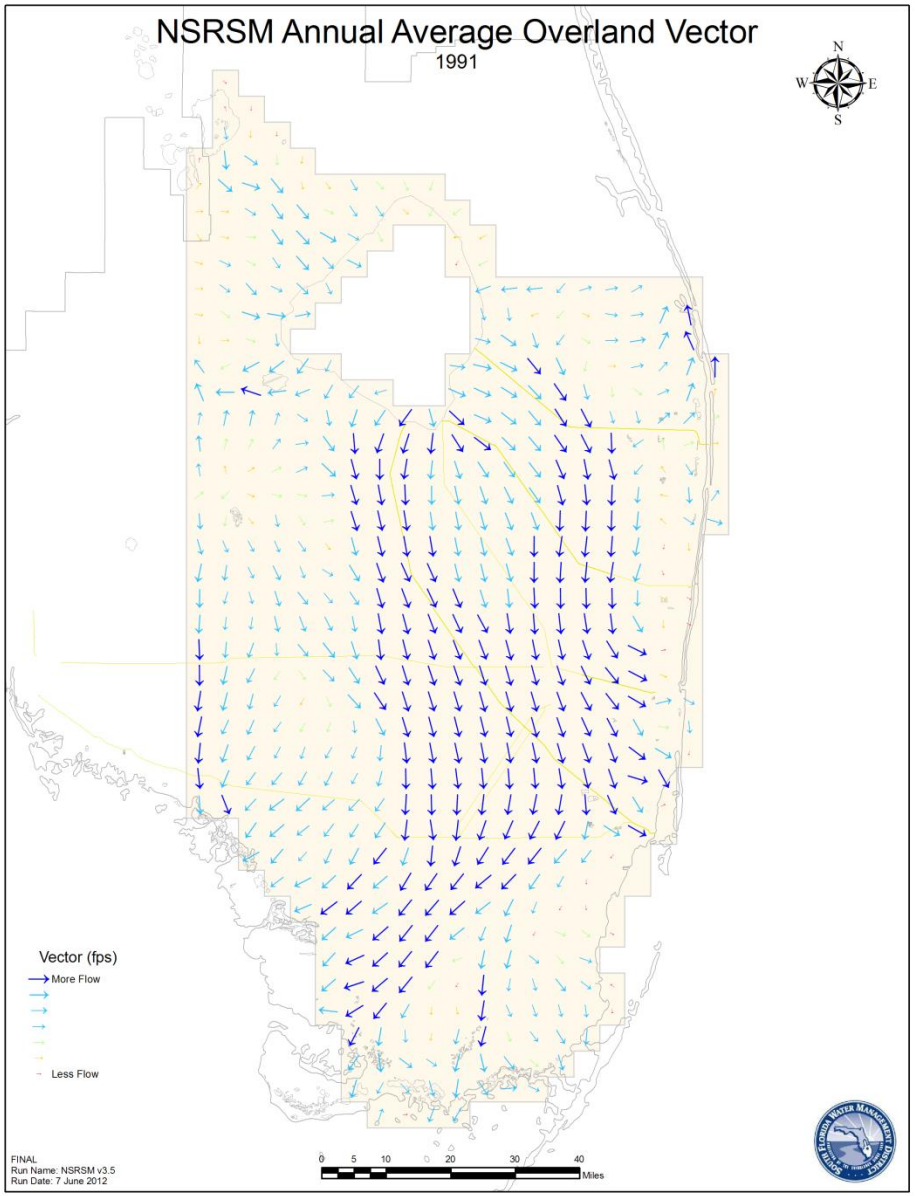
NSRSM Annual Average Overland Vector
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Vector (fps)
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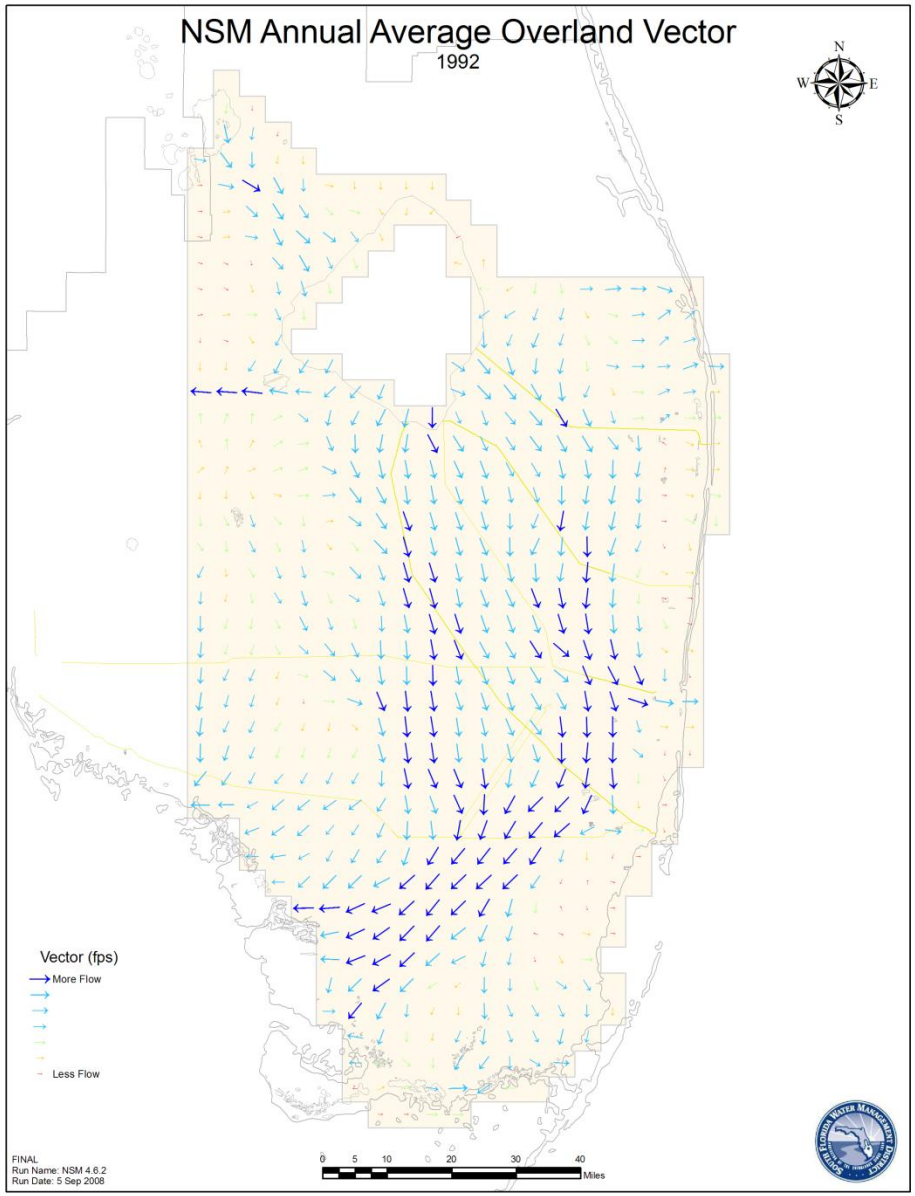
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Vector (fps)
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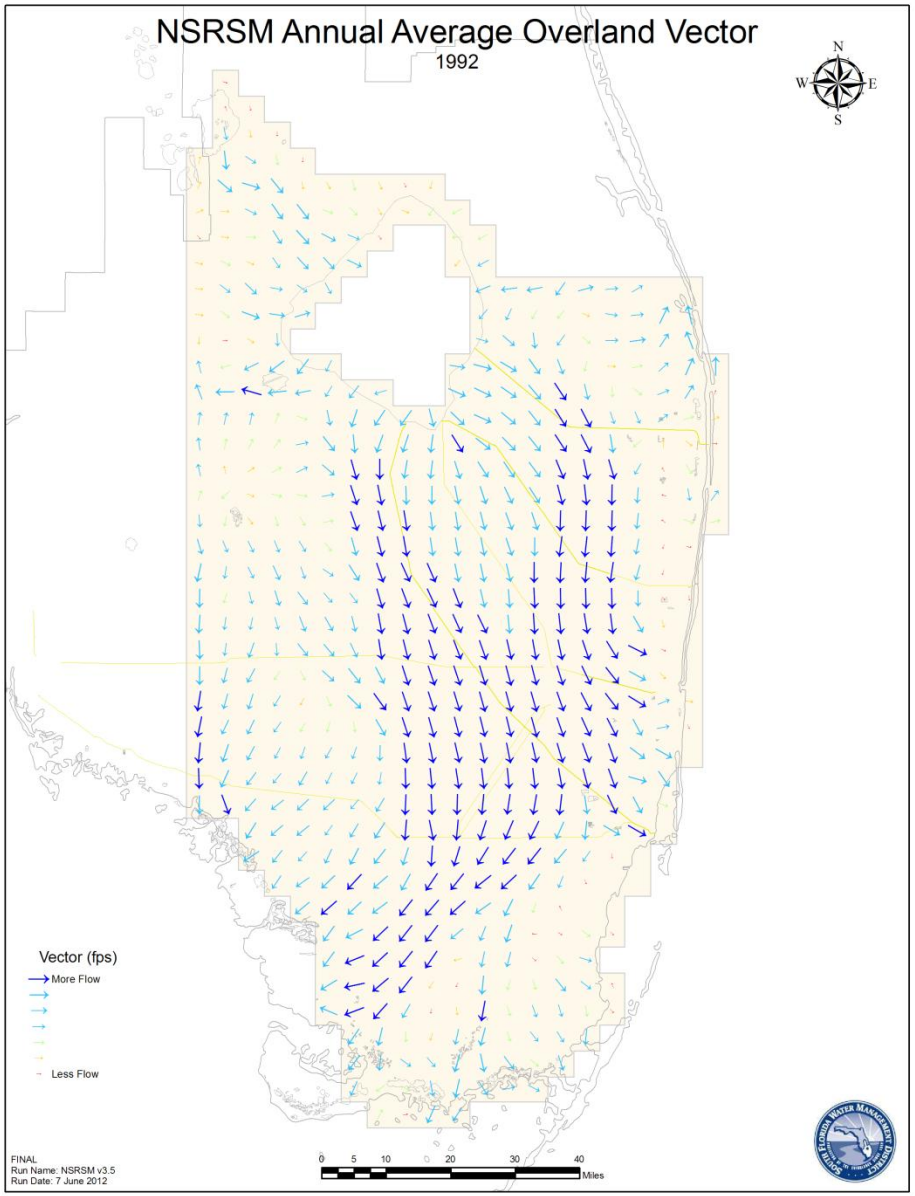
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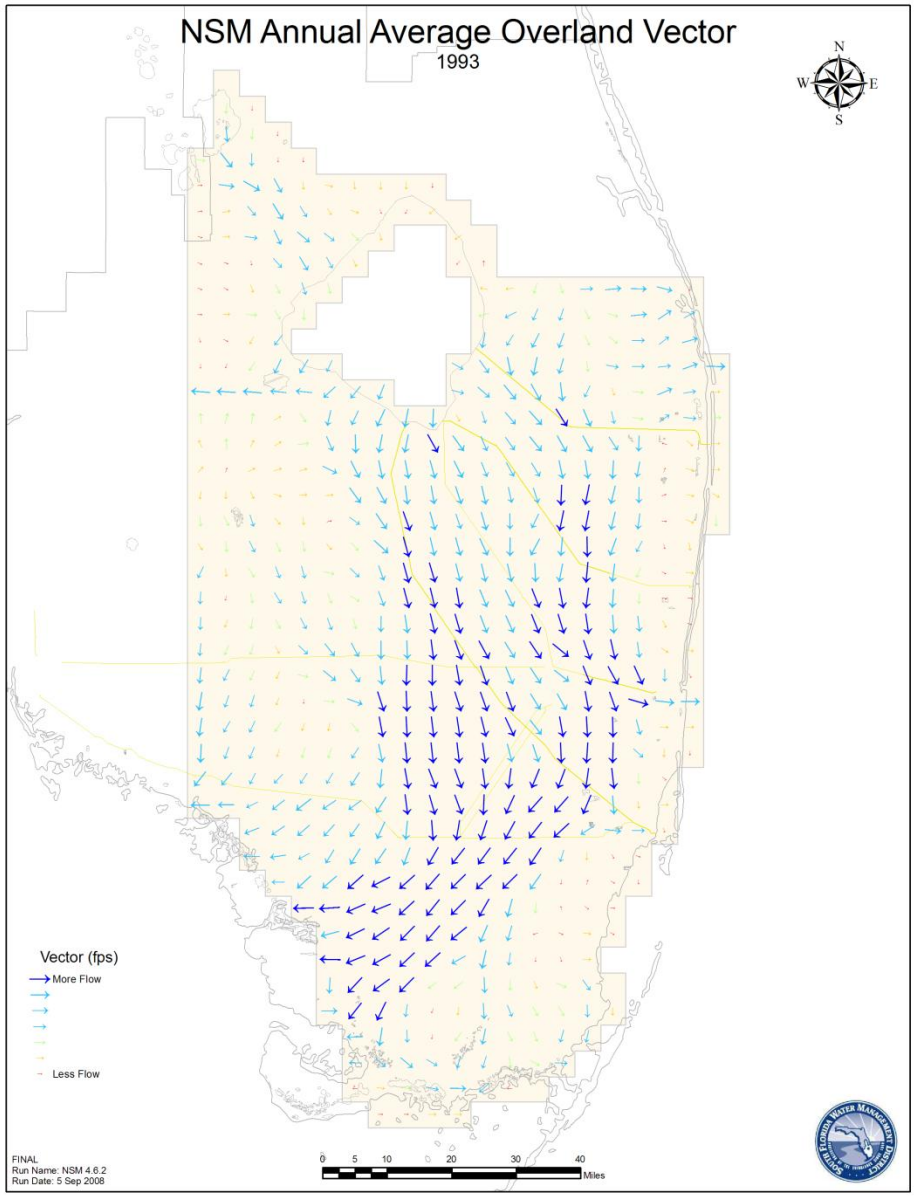
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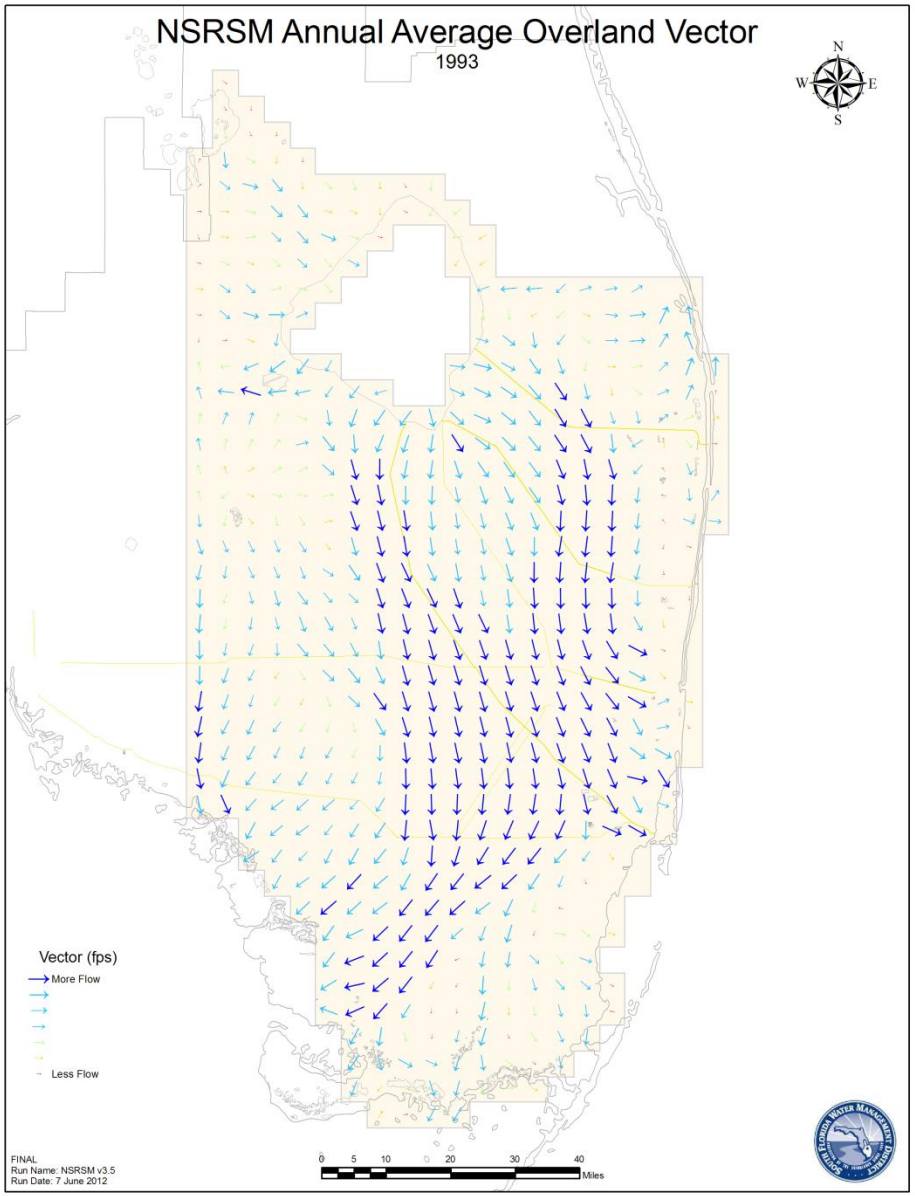
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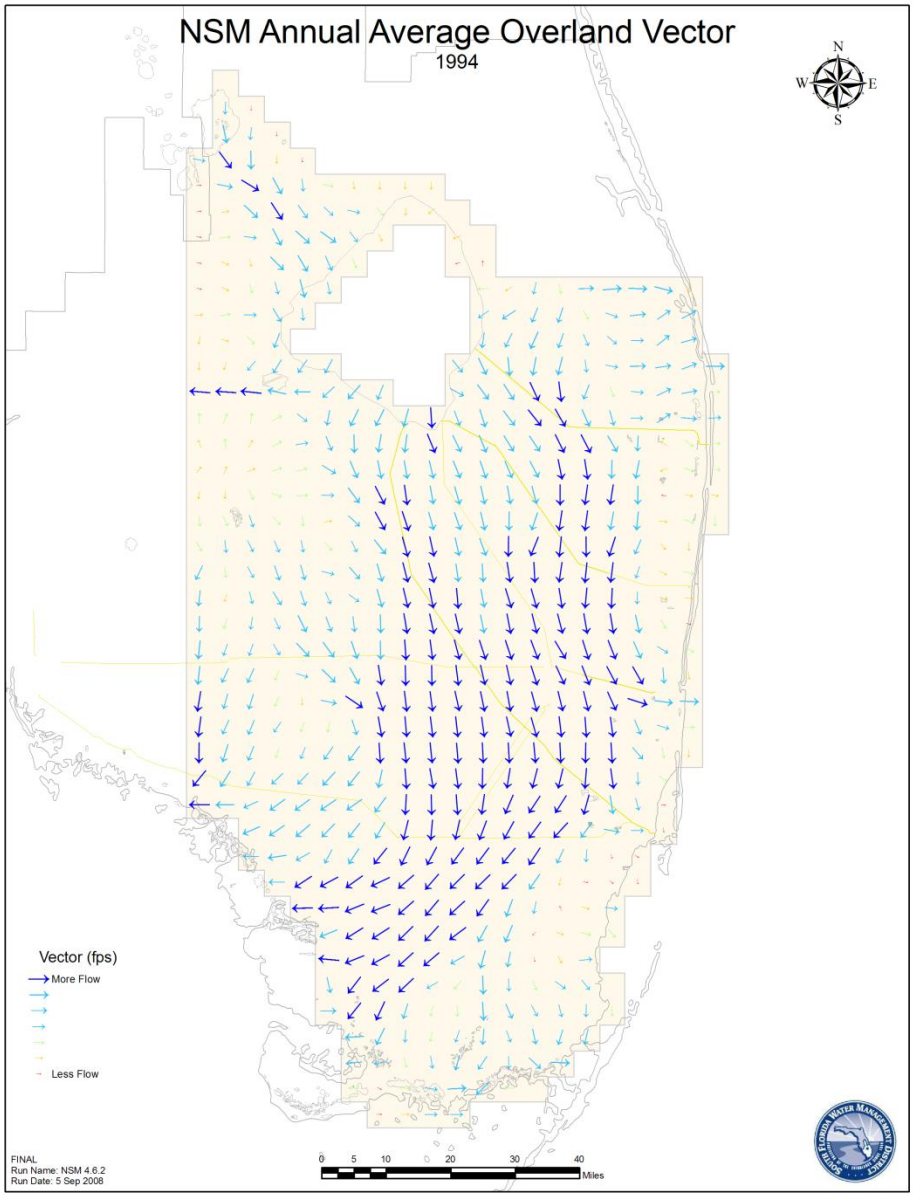
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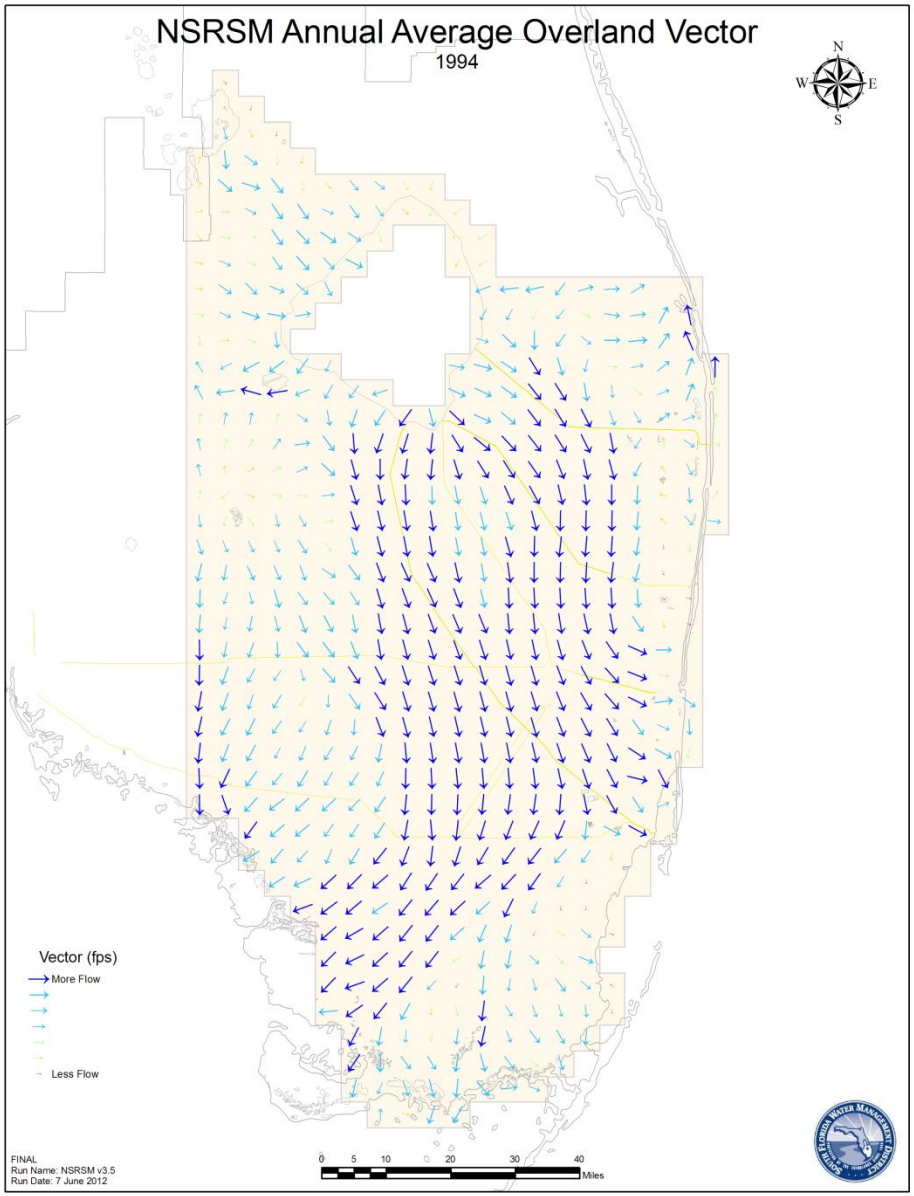
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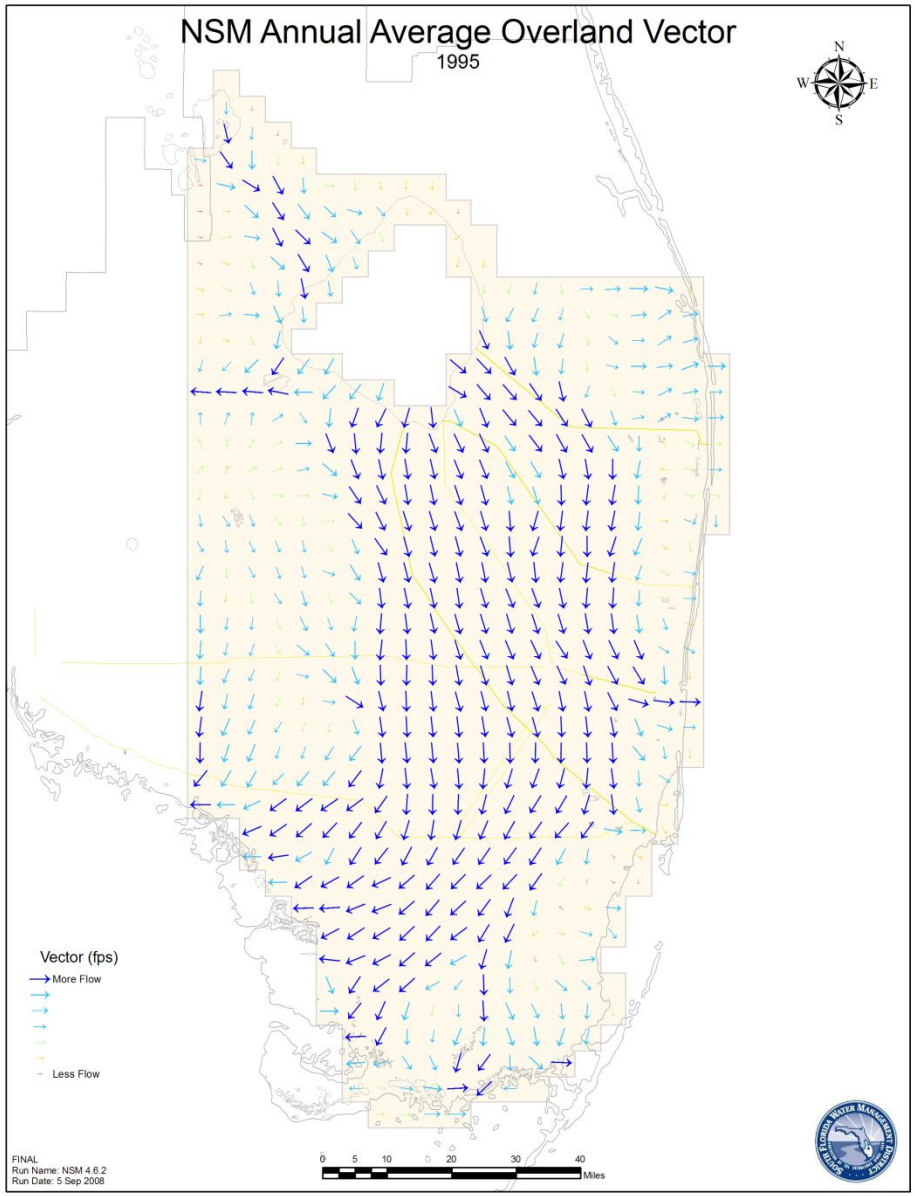
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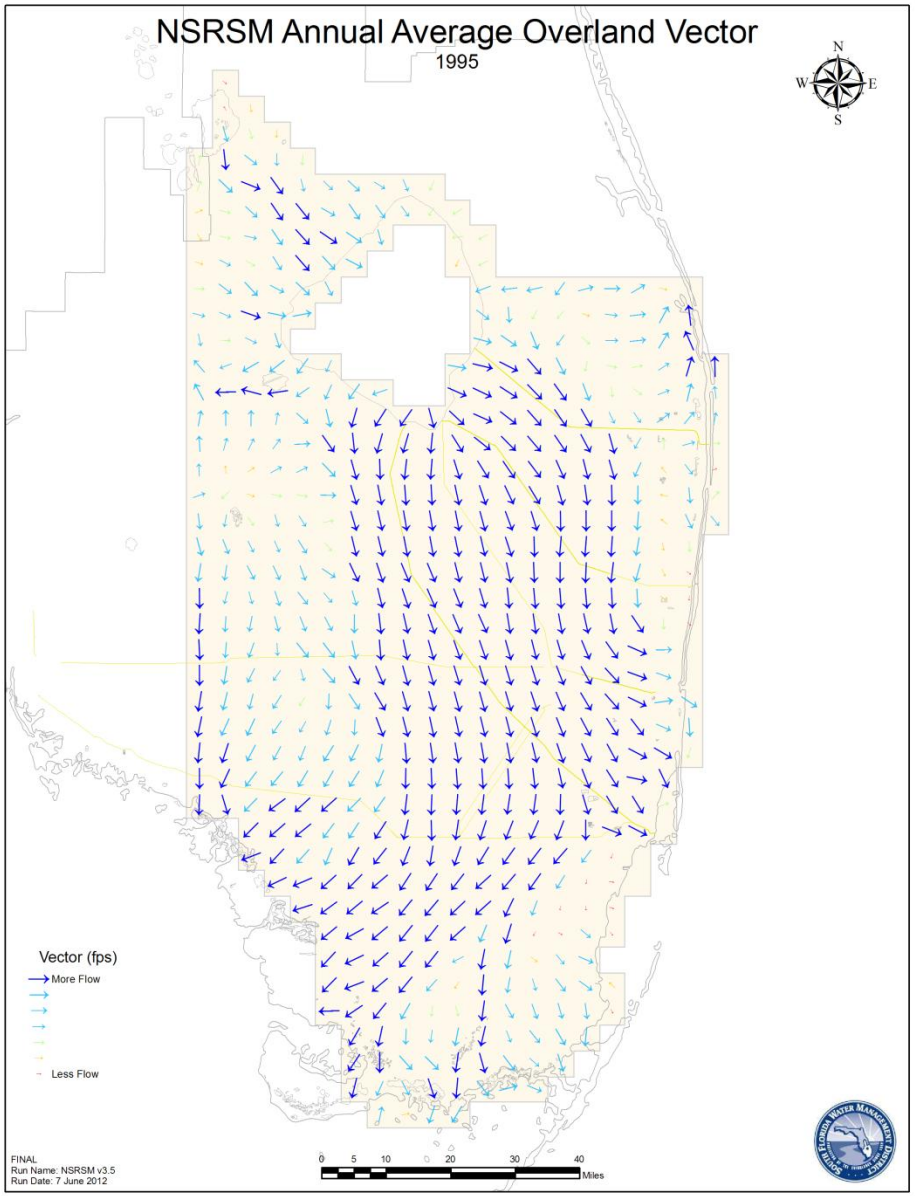
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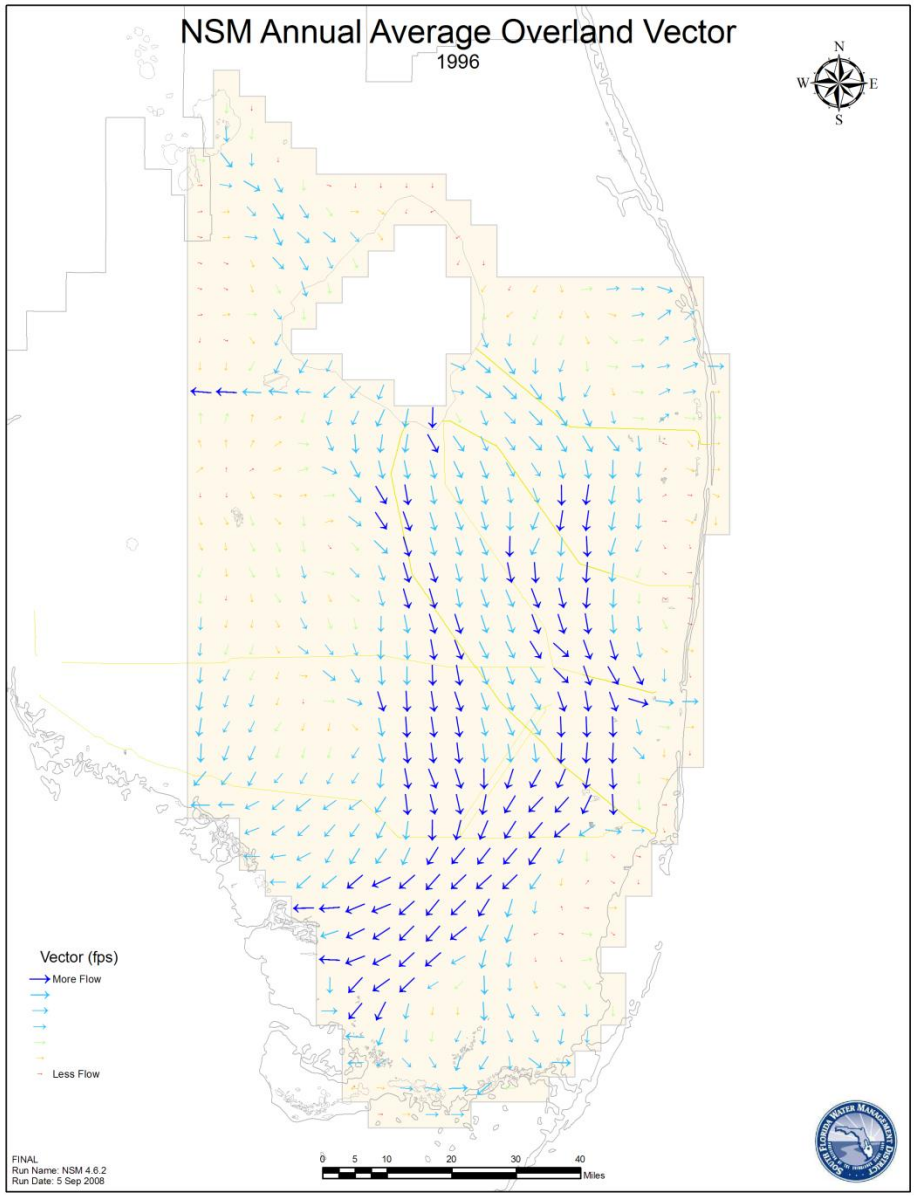
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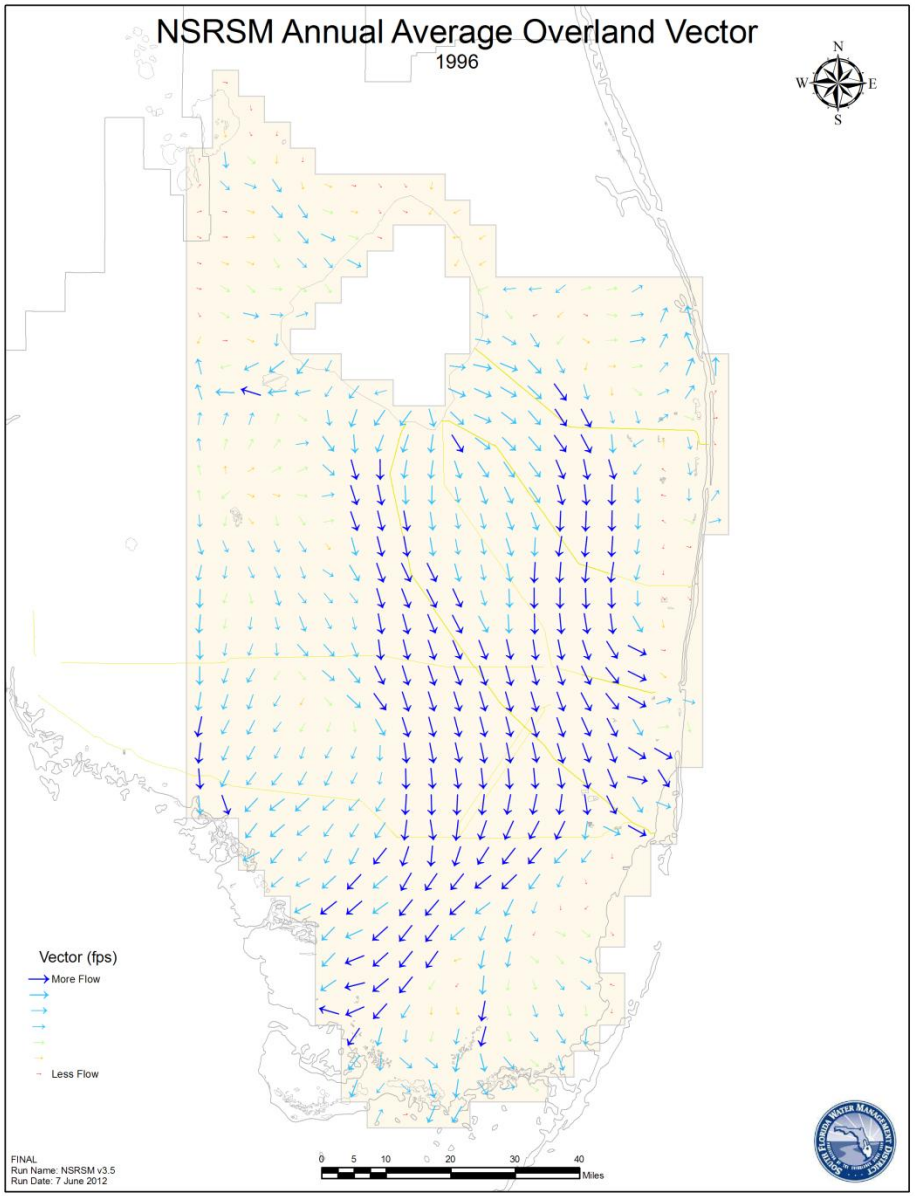
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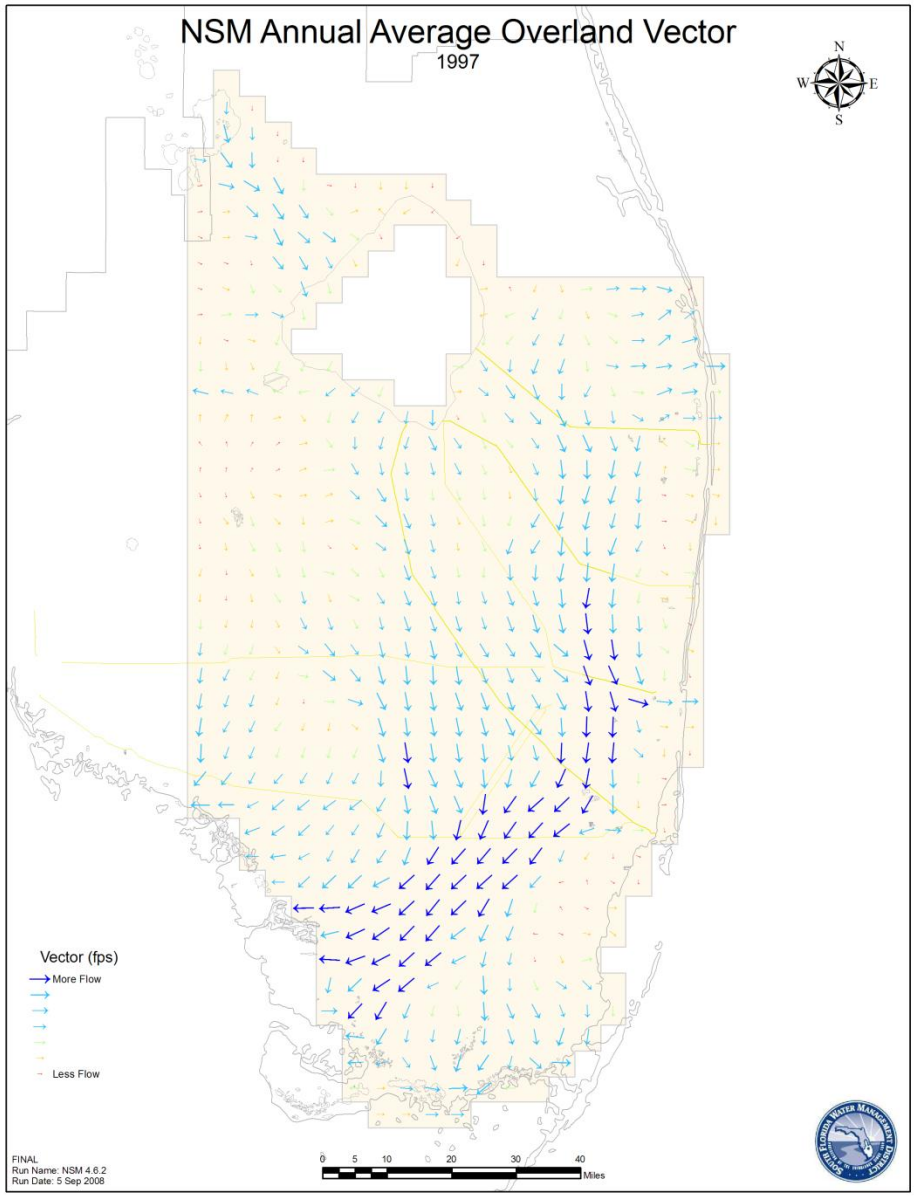
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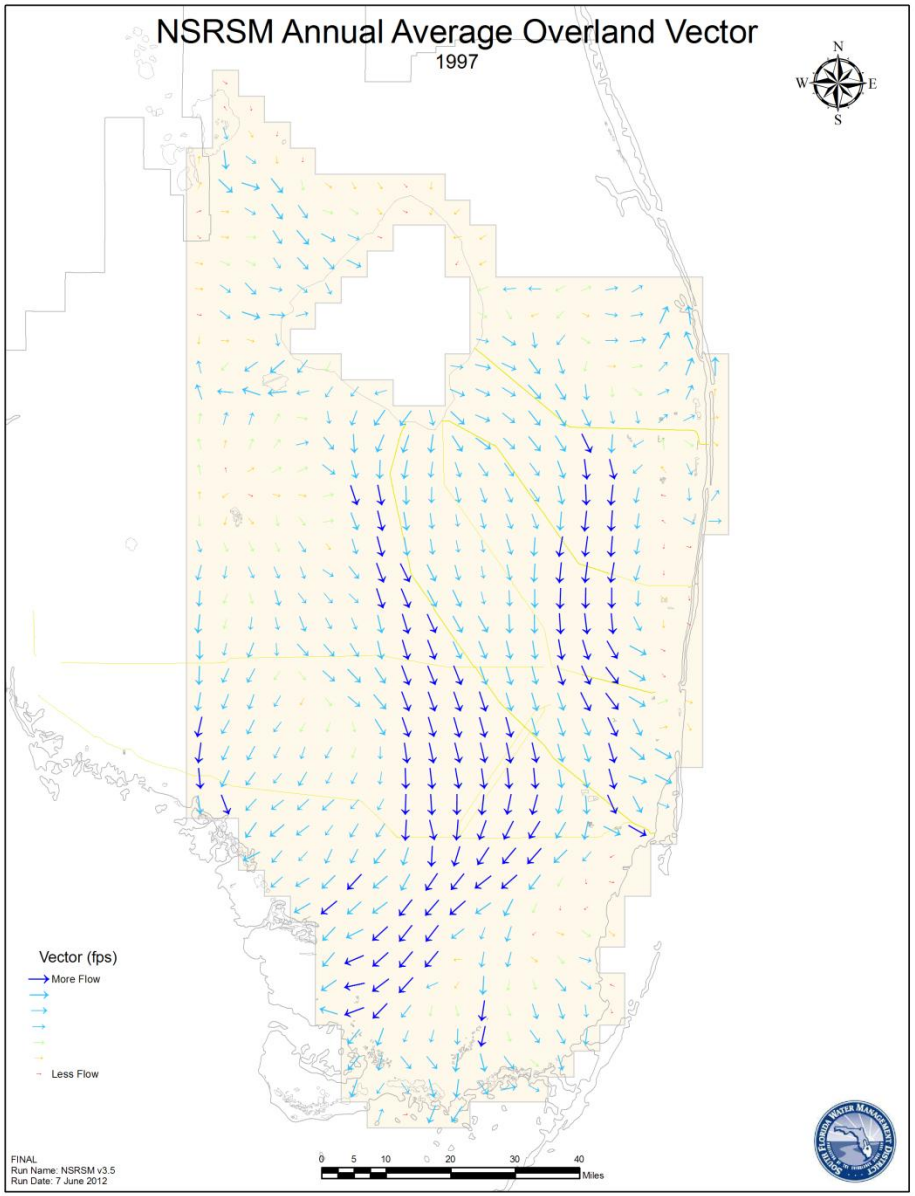
NSRSM Annual Average Overland Vector
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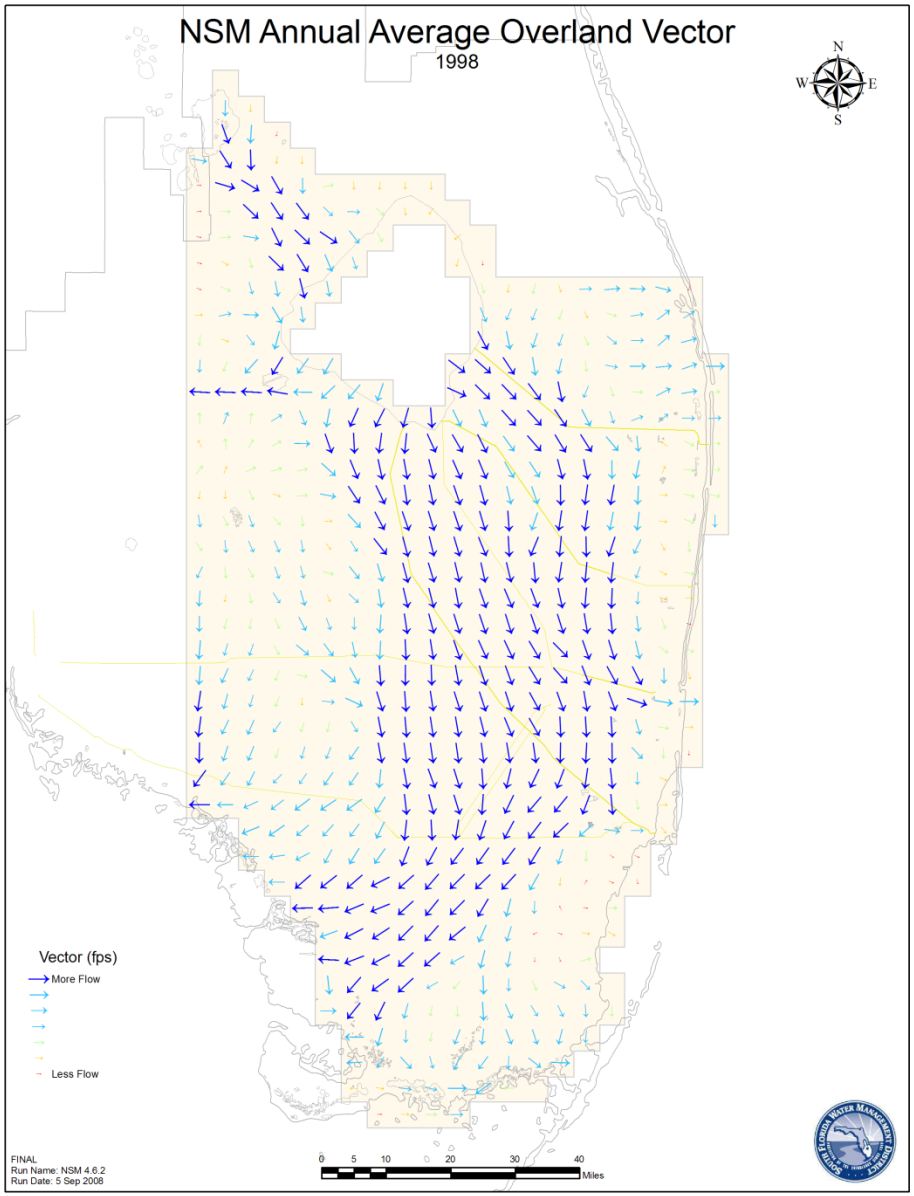
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Vector (fps)
More Flow
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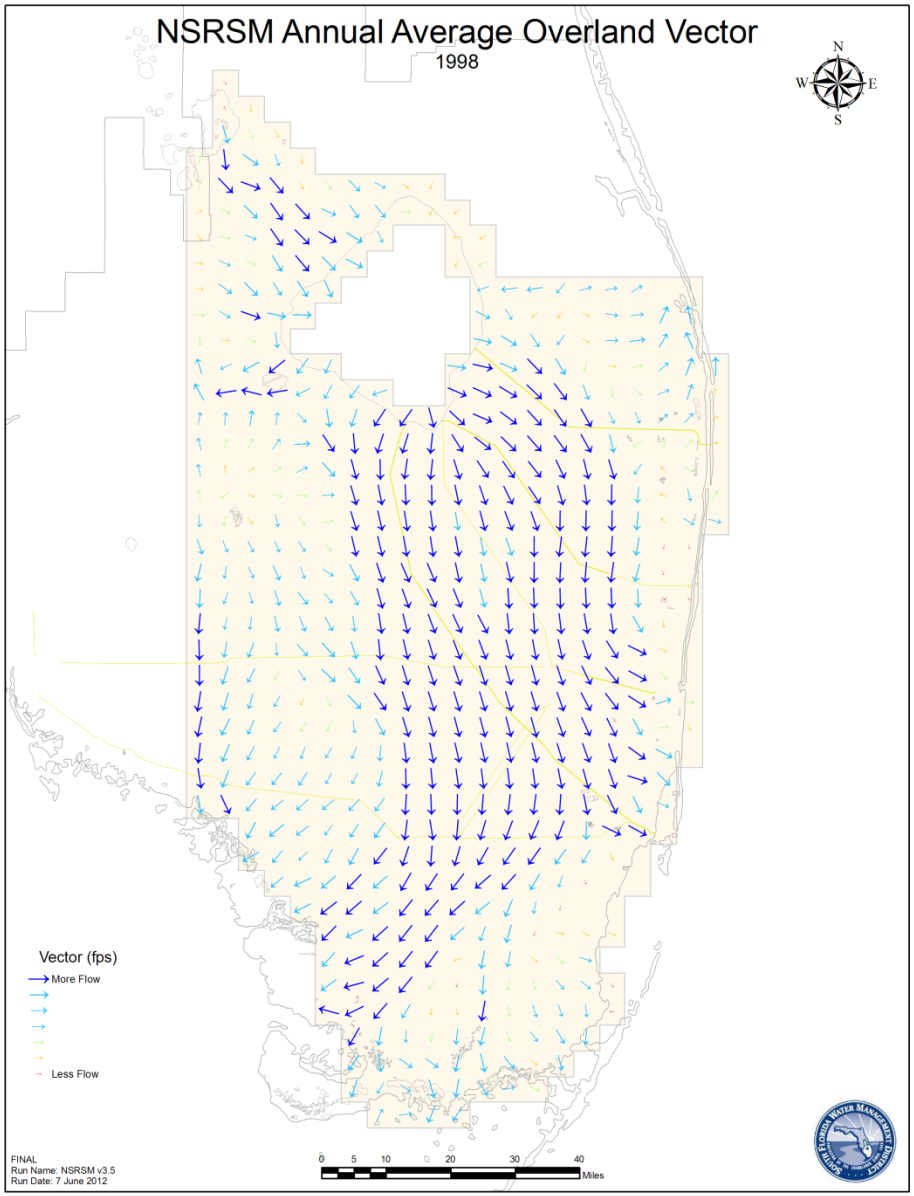
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Vector (fps)
More Flow
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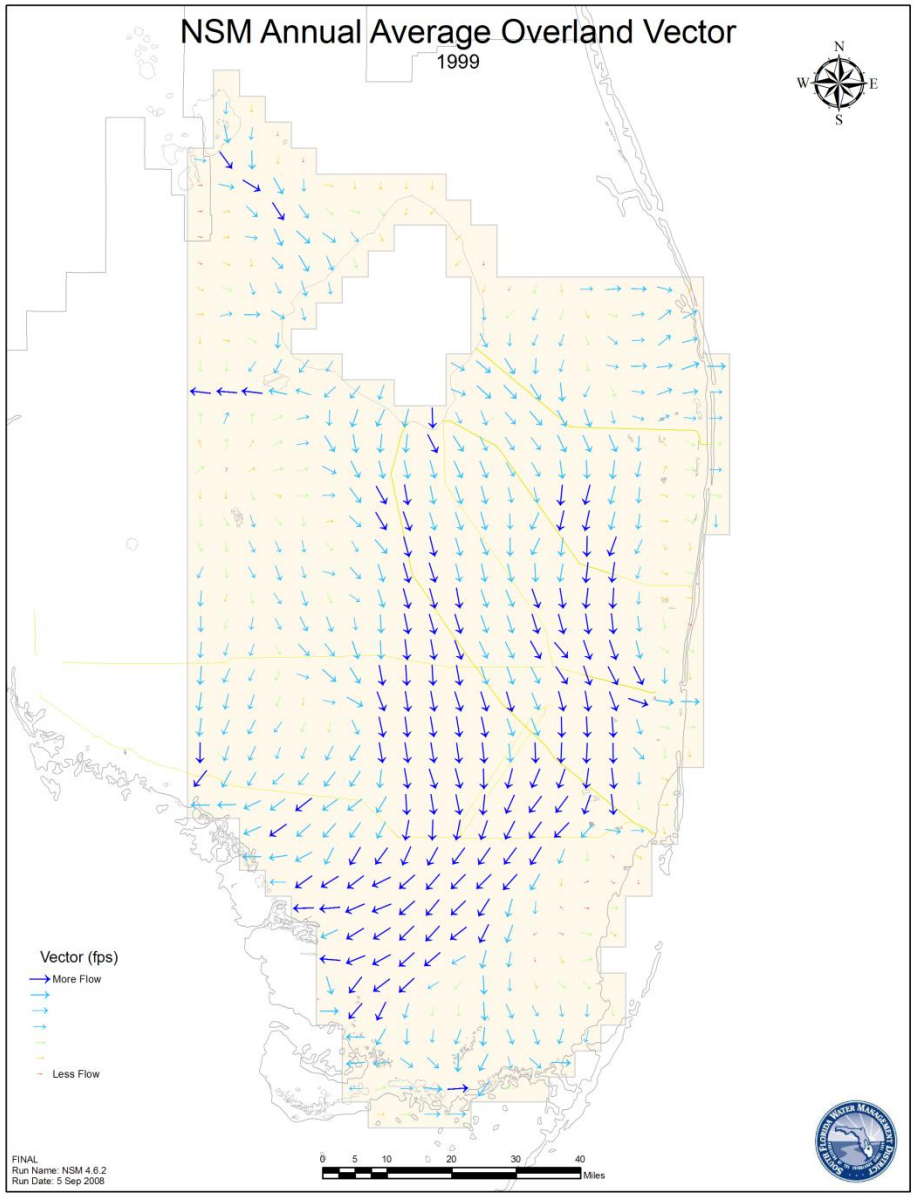
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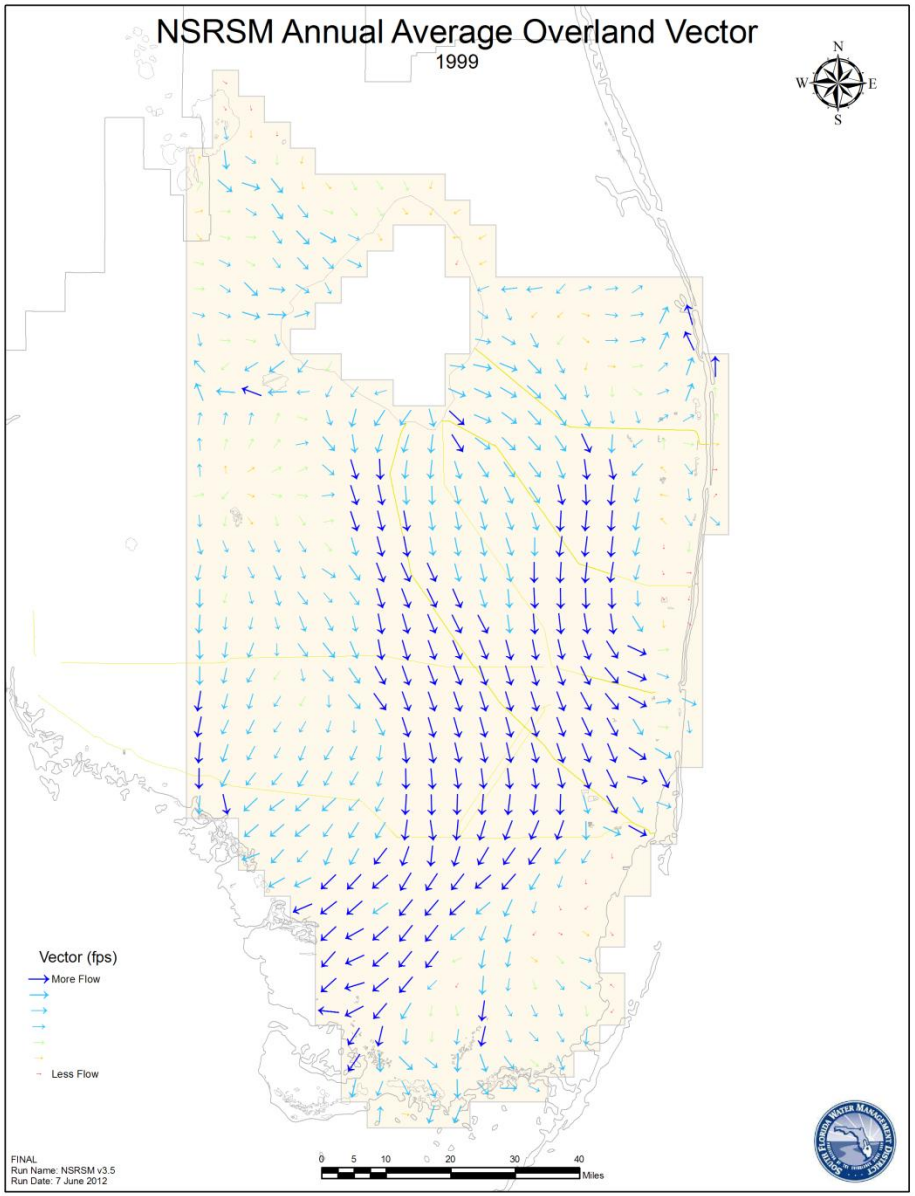
Miles


NSRSM Annual Average Overland Vector
1999
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Vector (fps)
More Flow
Less Flow
FINAL
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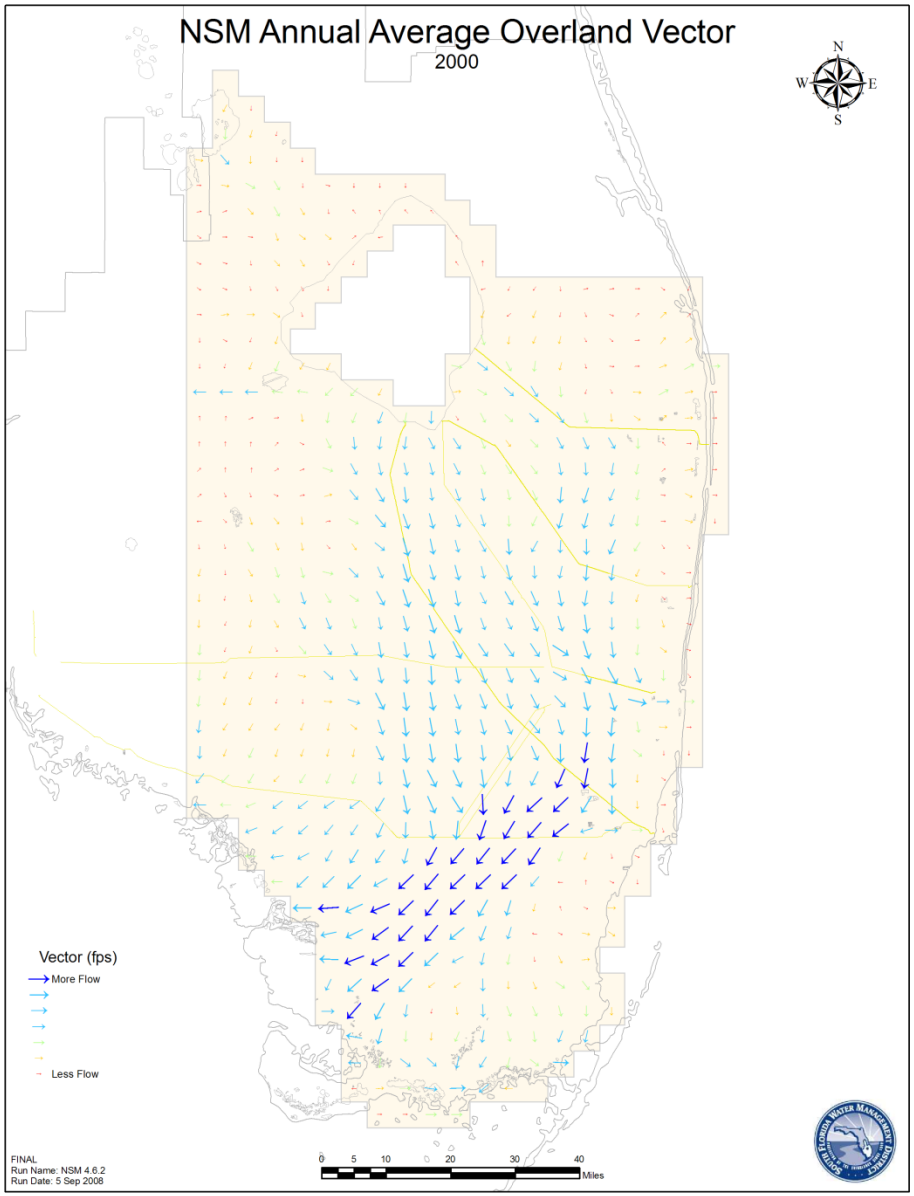
0 5 10 20 30 40
Miles


NSM Annual Average Overland Vector
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Vector (fps)
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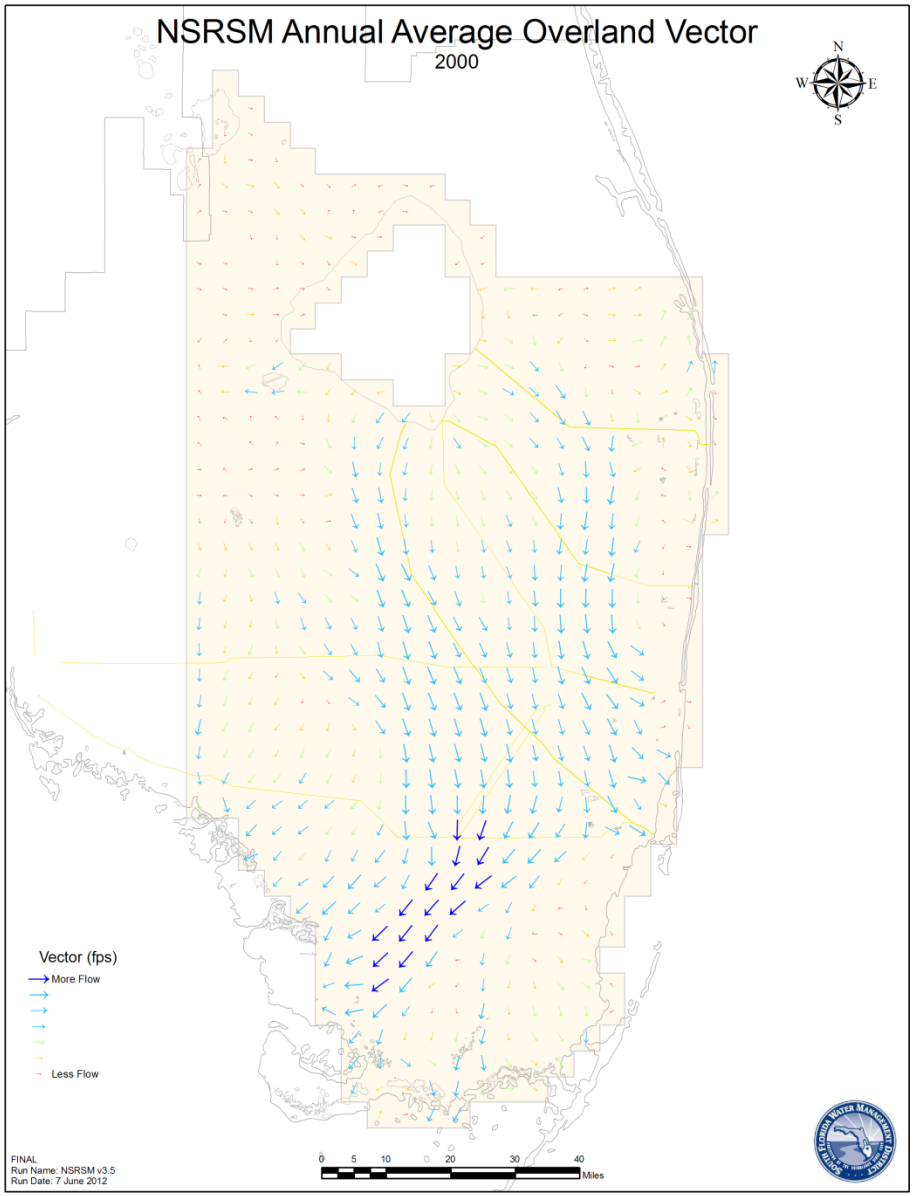
NSRSM Annual Average Overland Vector
2000
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Vector (fps)
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FINAL
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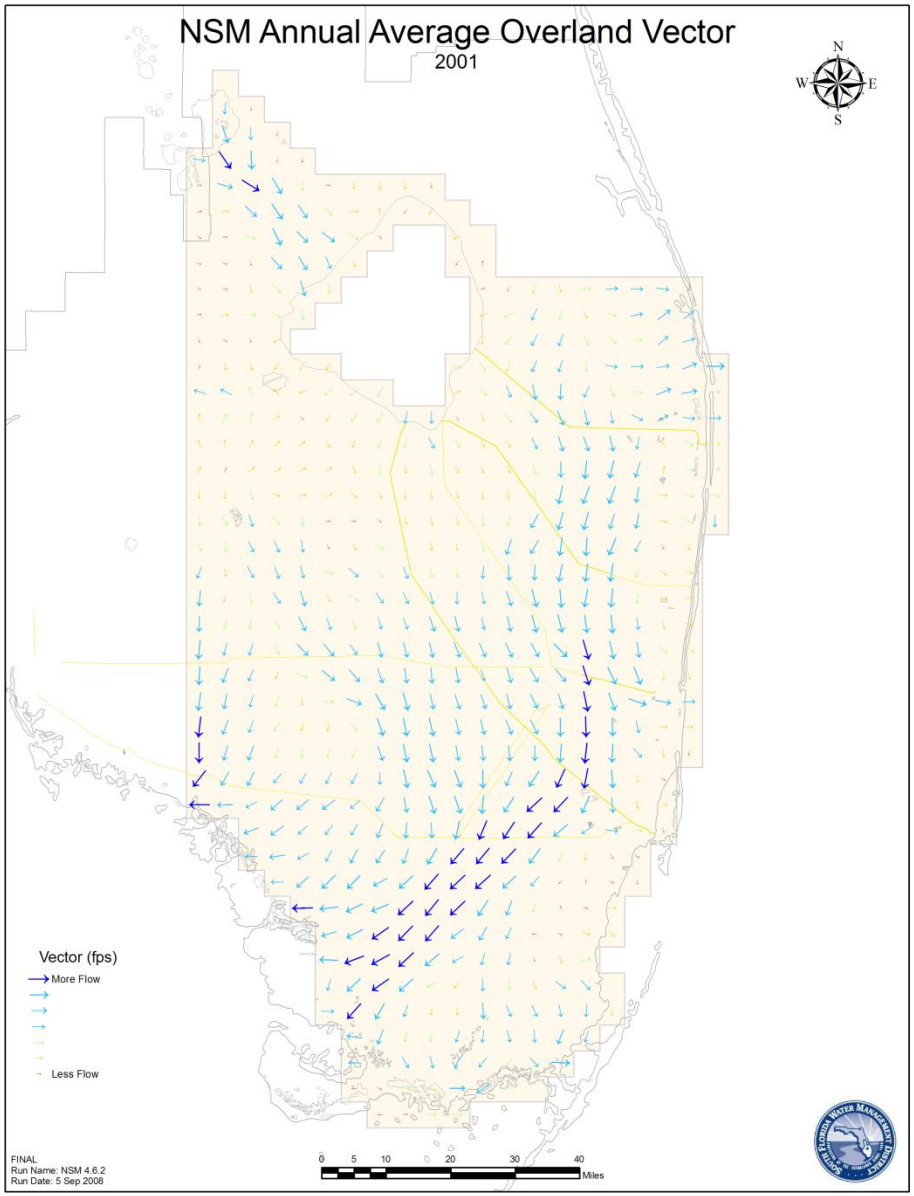
NSM Annual Average Overland Vector
2001
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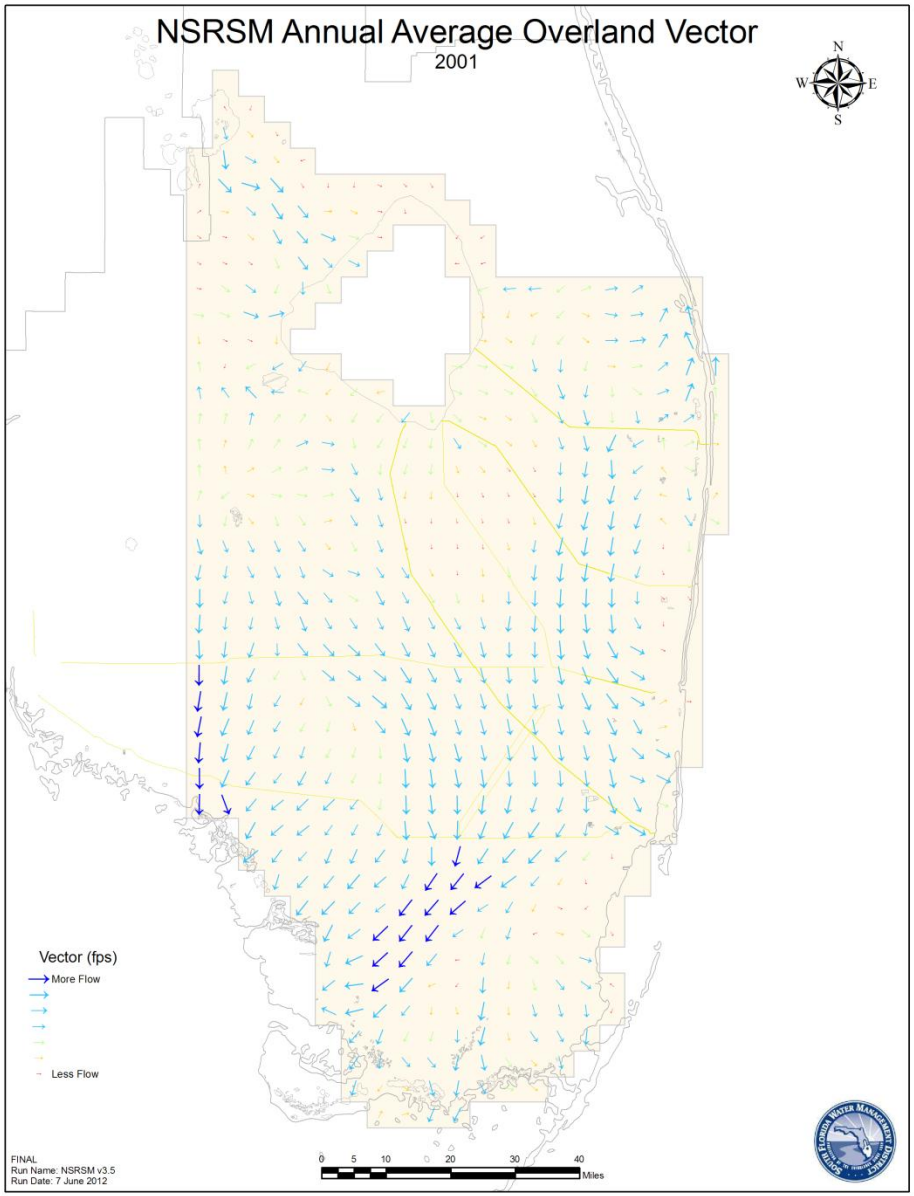
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles


NSRSM Annual Average Overland Vector
2001
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Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
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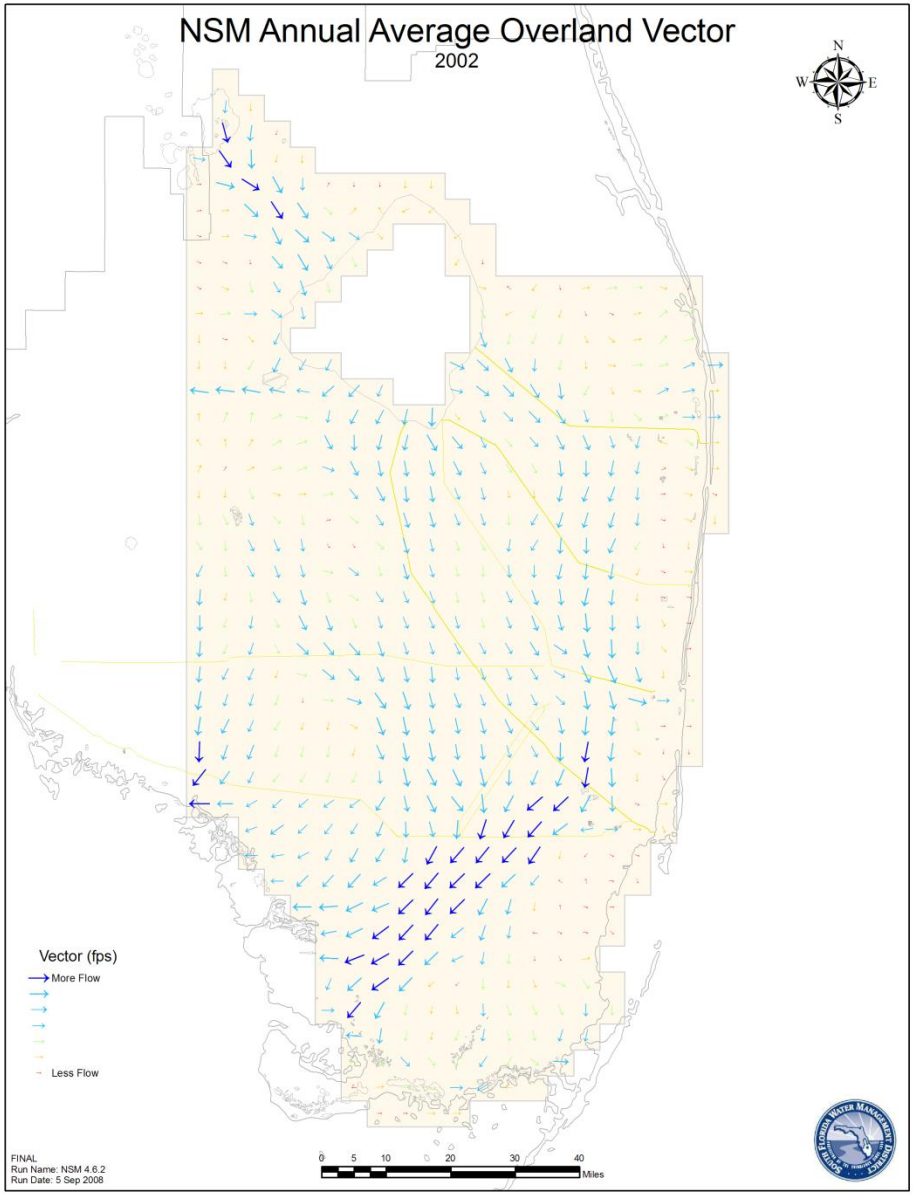
Miles


NSM Annual Average Overland Vector
2002
N
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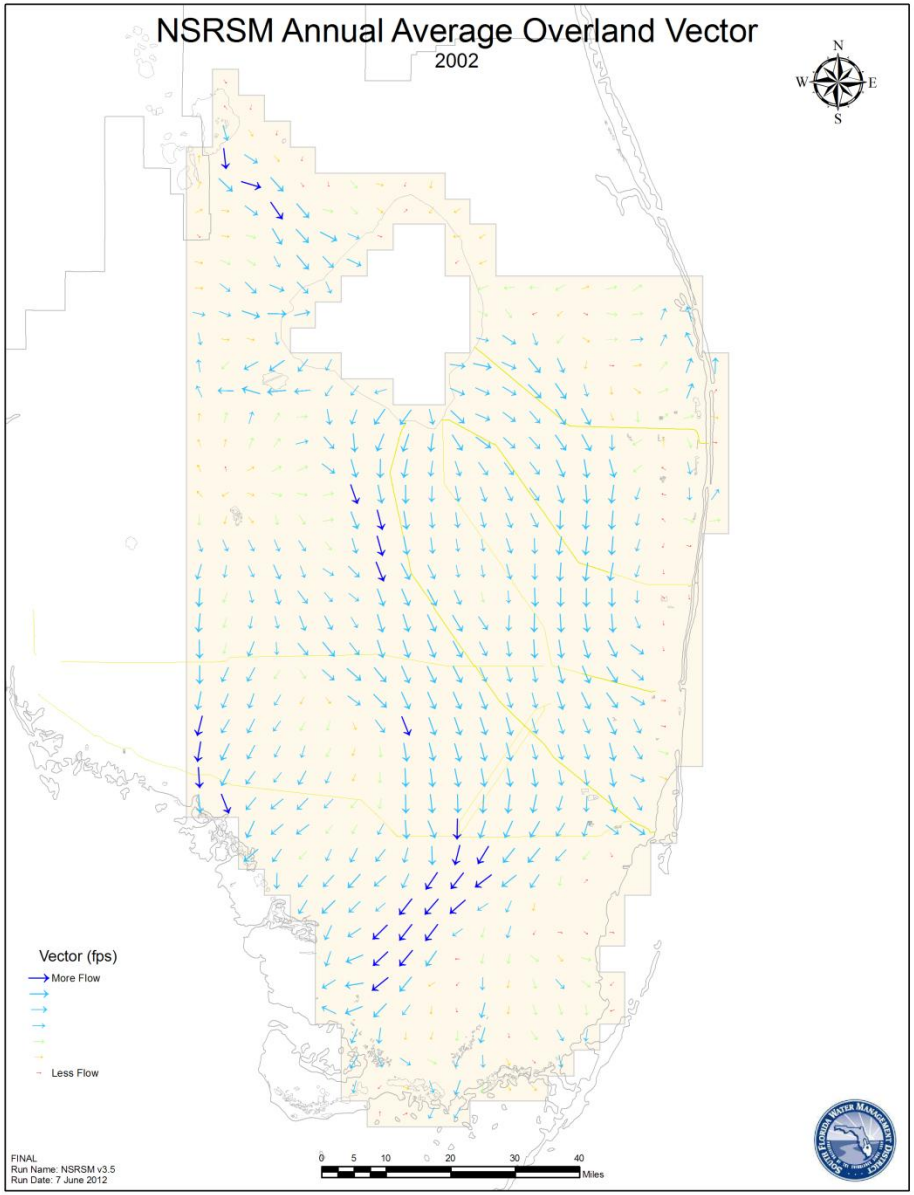
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles


NSRSM Annual Average Overland Vector
2002
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Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSRSM v3.5
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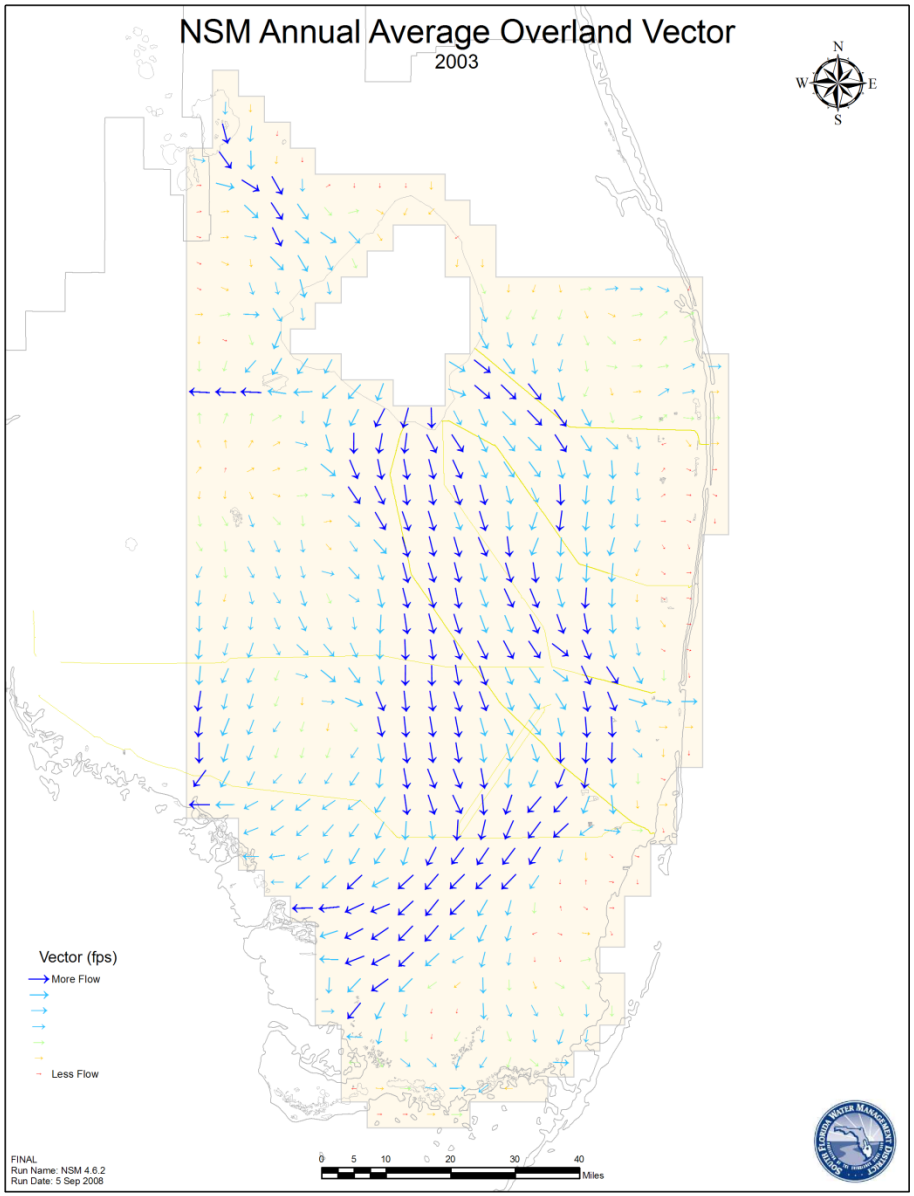
Miles


NSM Annual Average Overland Vector
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N
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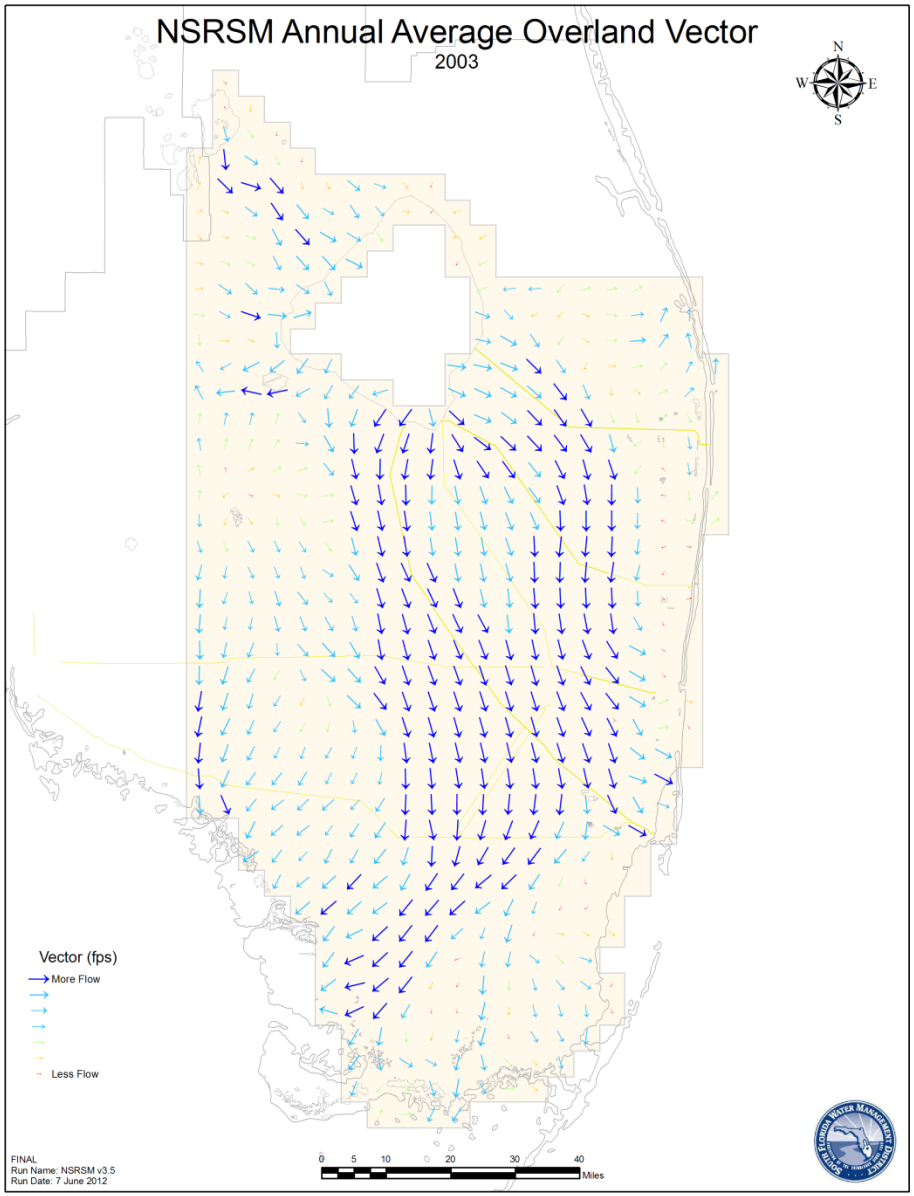
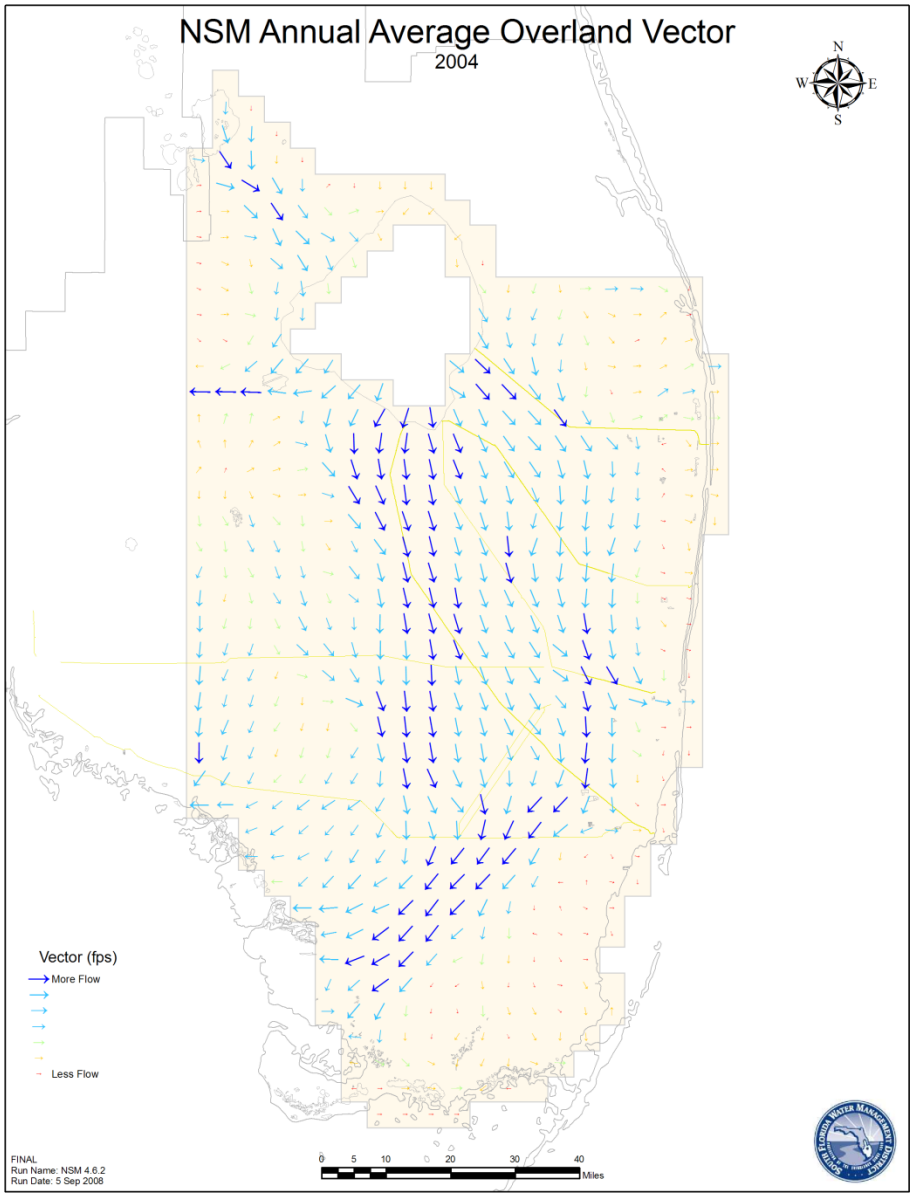
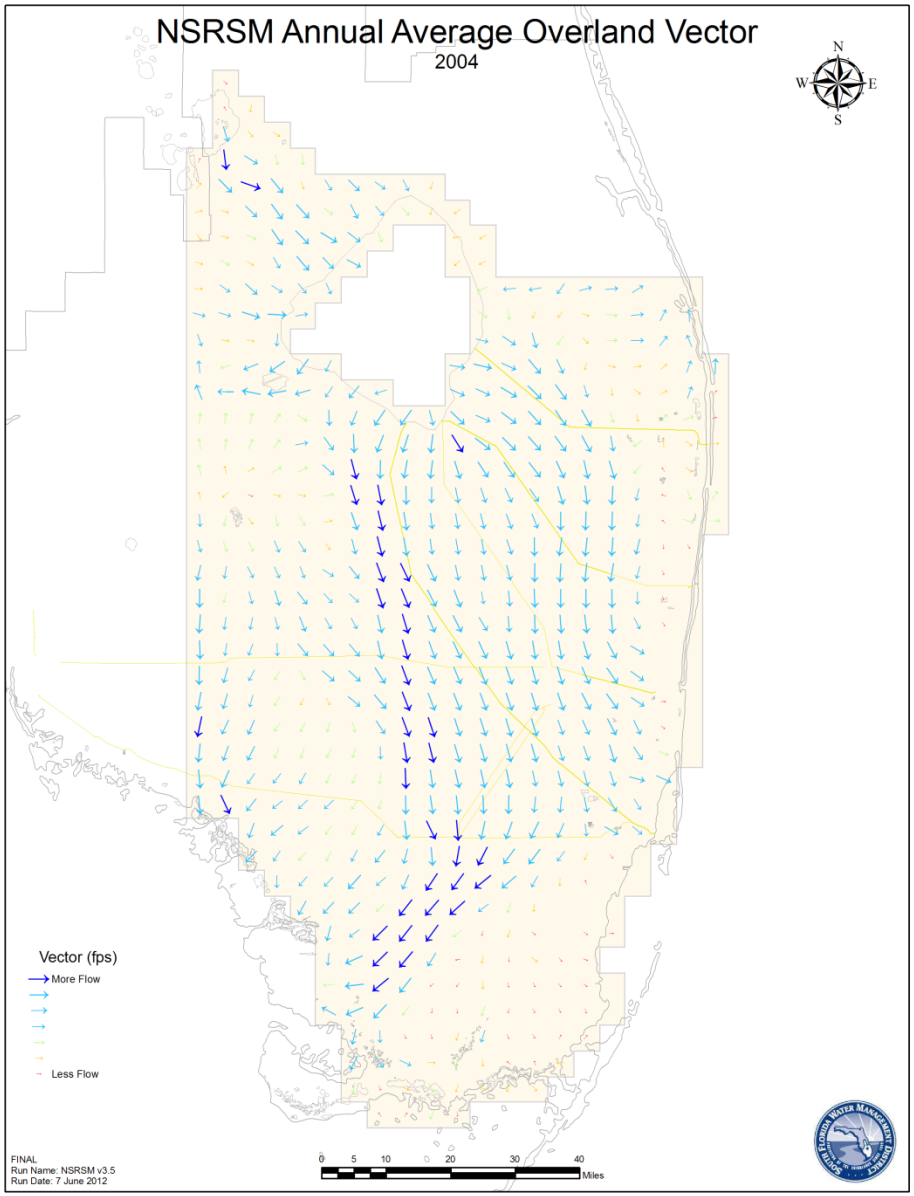
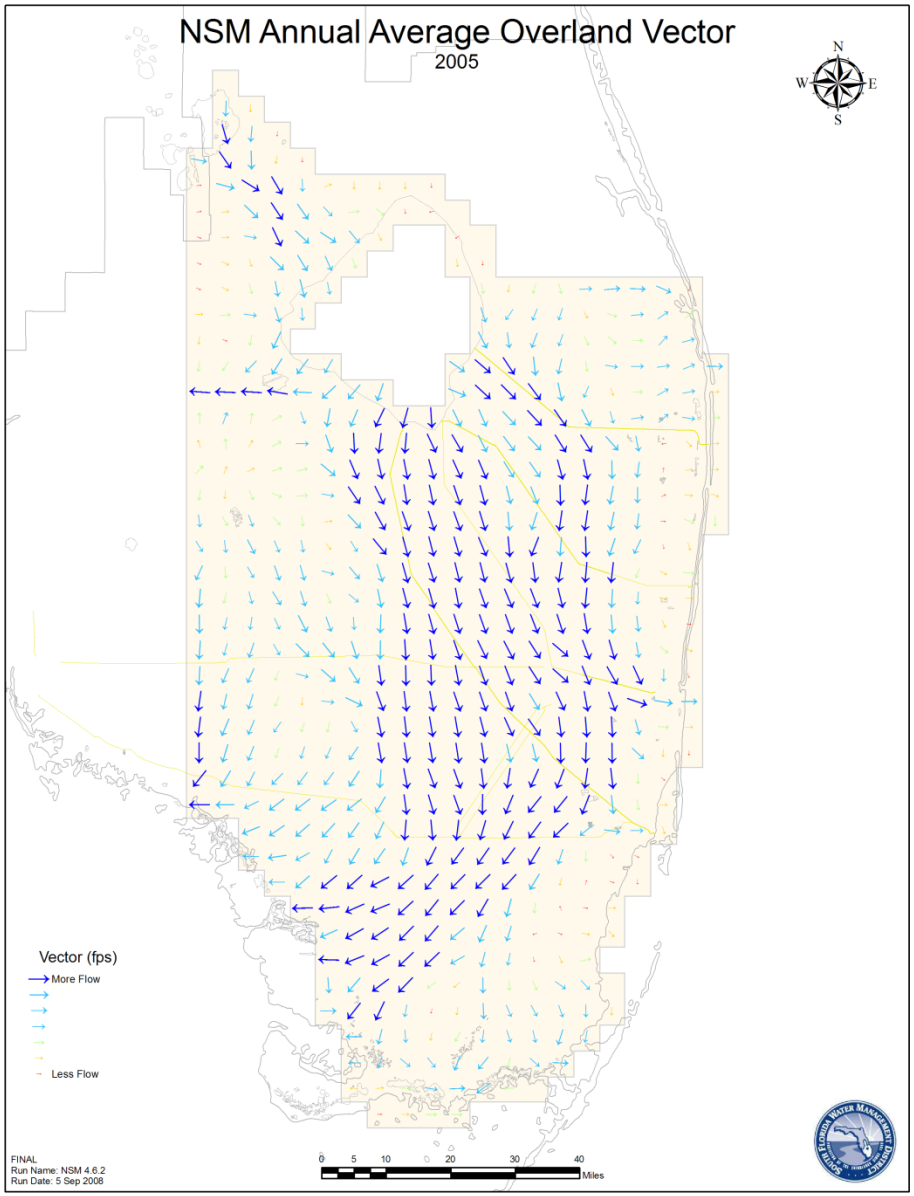
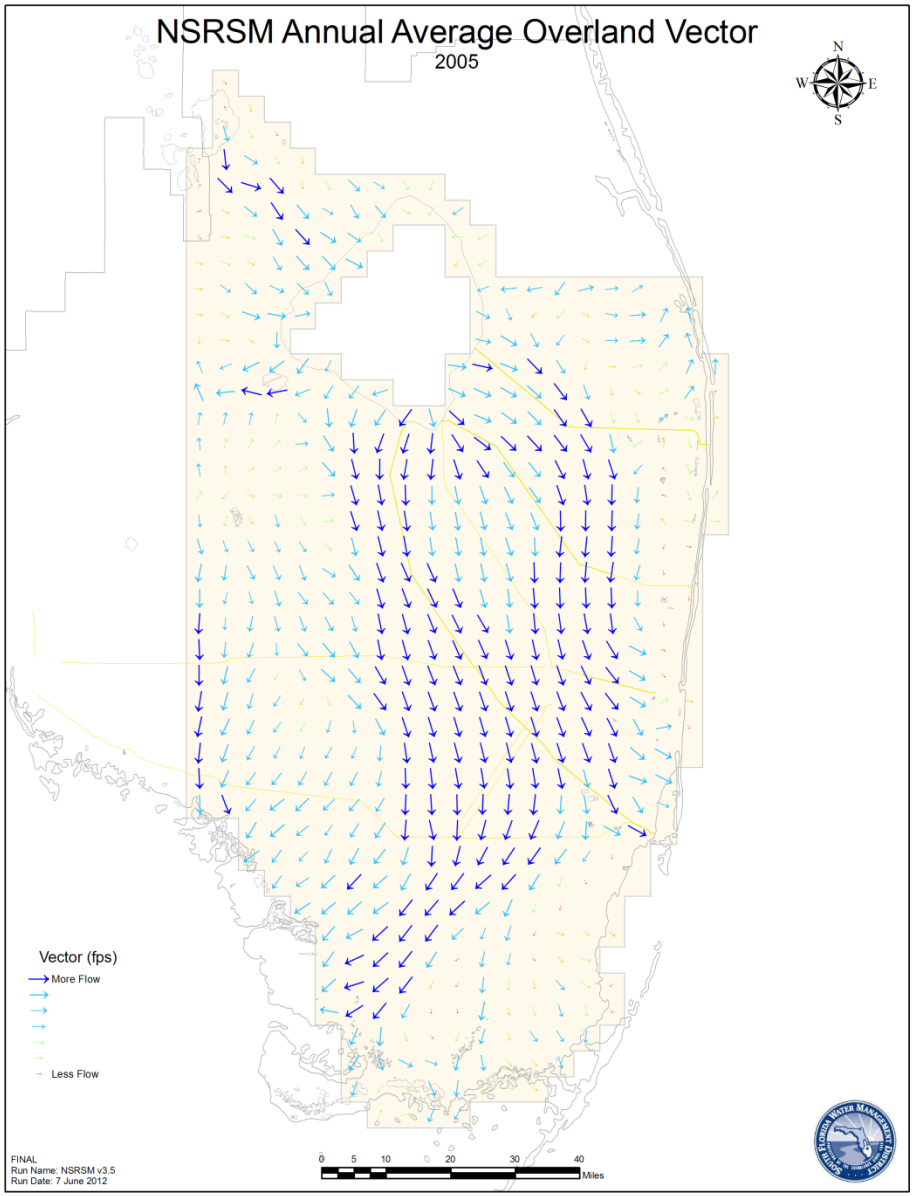
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

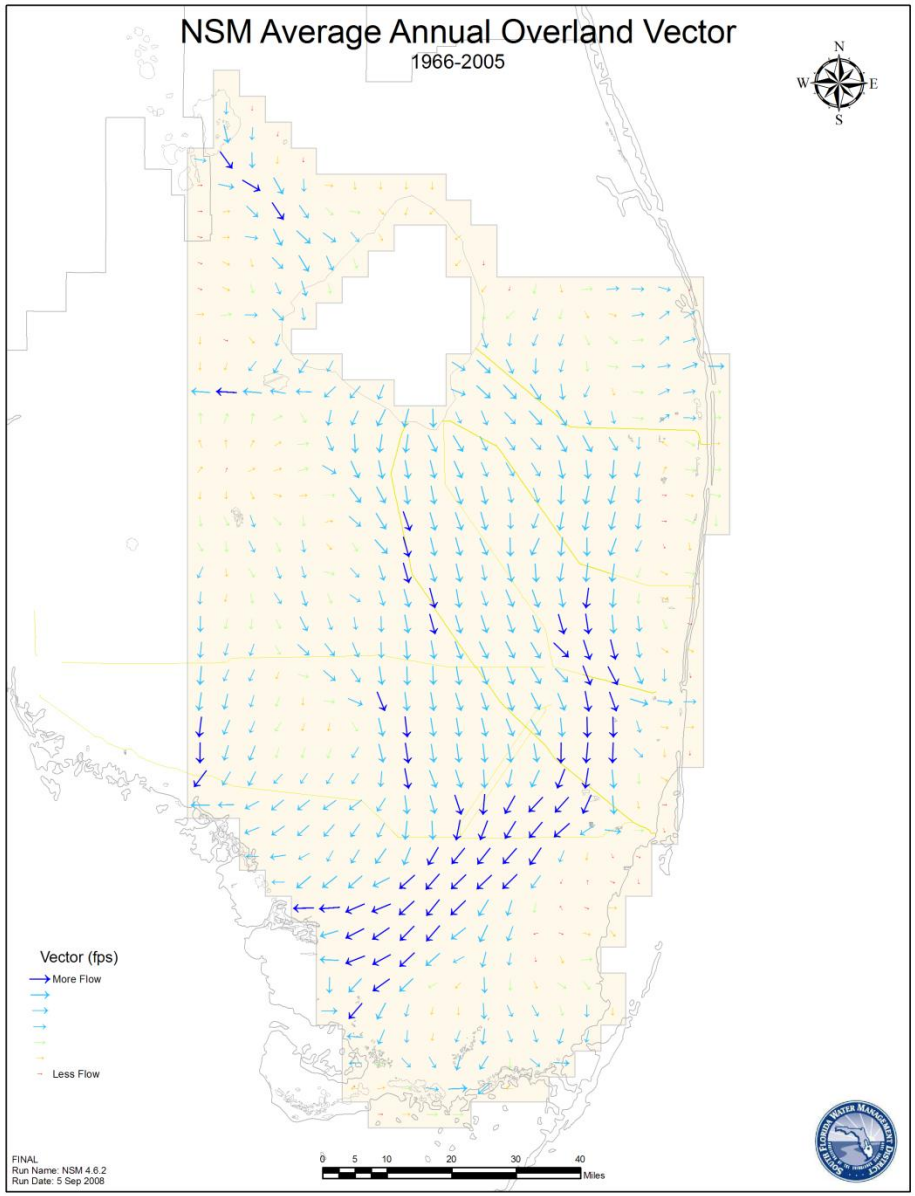

NSRSM Annual Average Overland Vector
2003
N
W
E
S
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

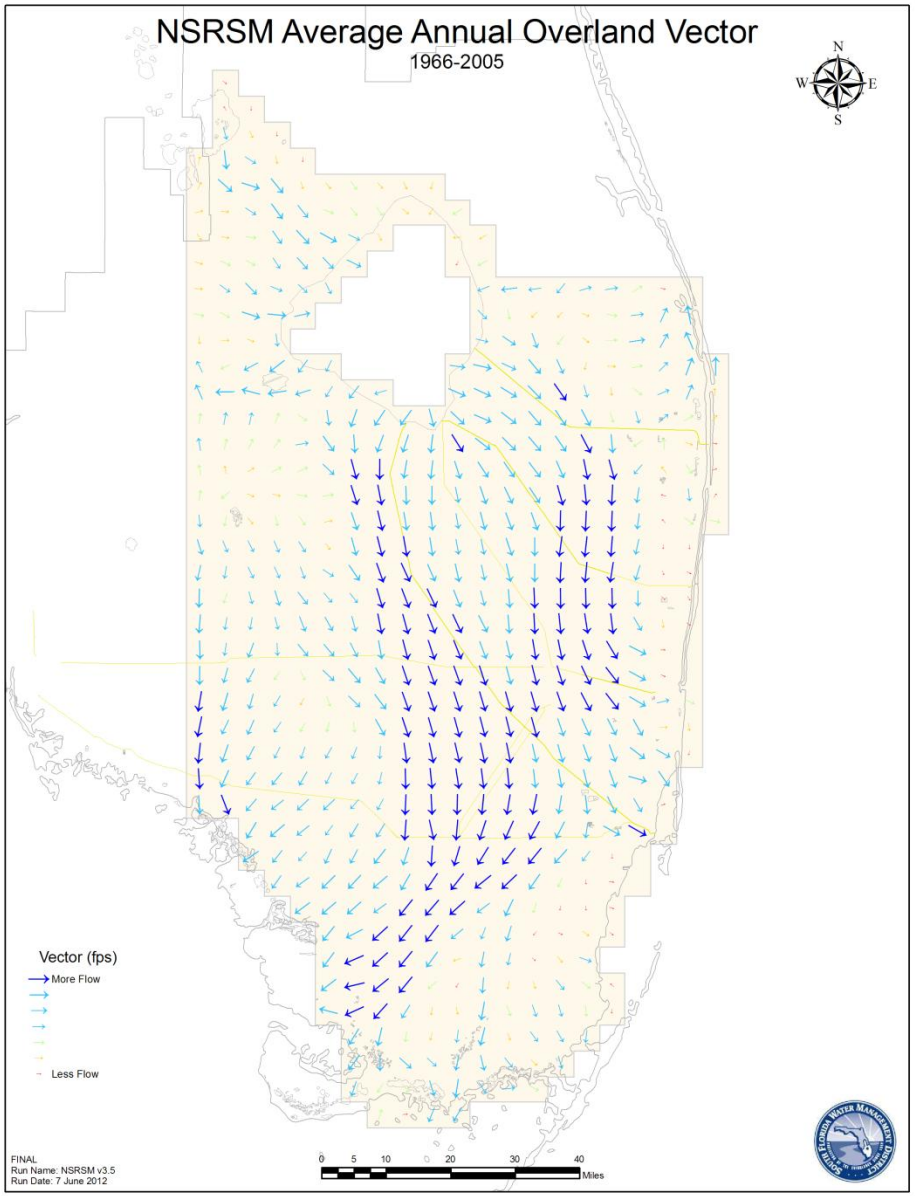

NSM Annual Average Overland Vector
2004
N
W
E
S
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles


NSRSM Annual Average Overland Vector
2004
N
W
E
S
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

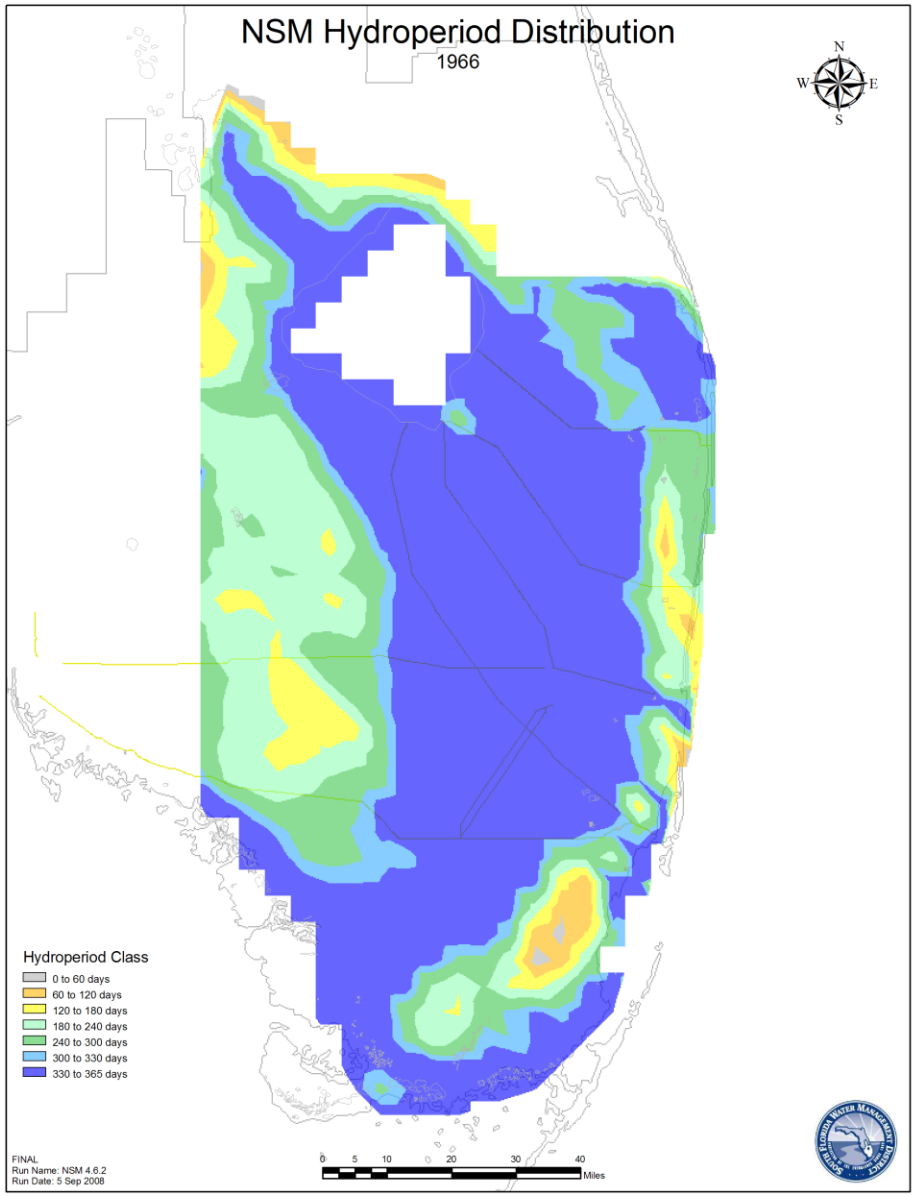

NSM Annual Average Overland Vector
2005
N
W
E
S
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

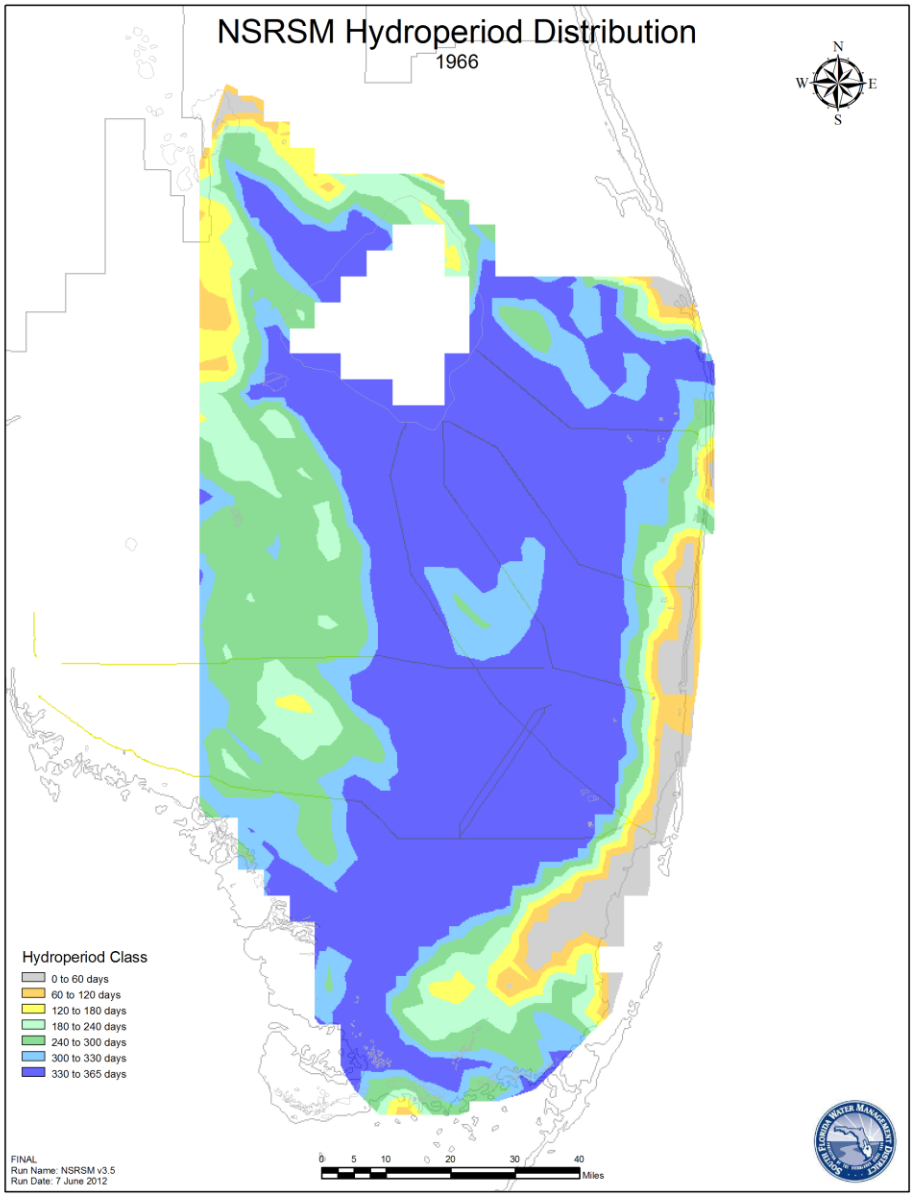

NSRSM Annual Average Overland Vector
2005
N
W
E
S
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

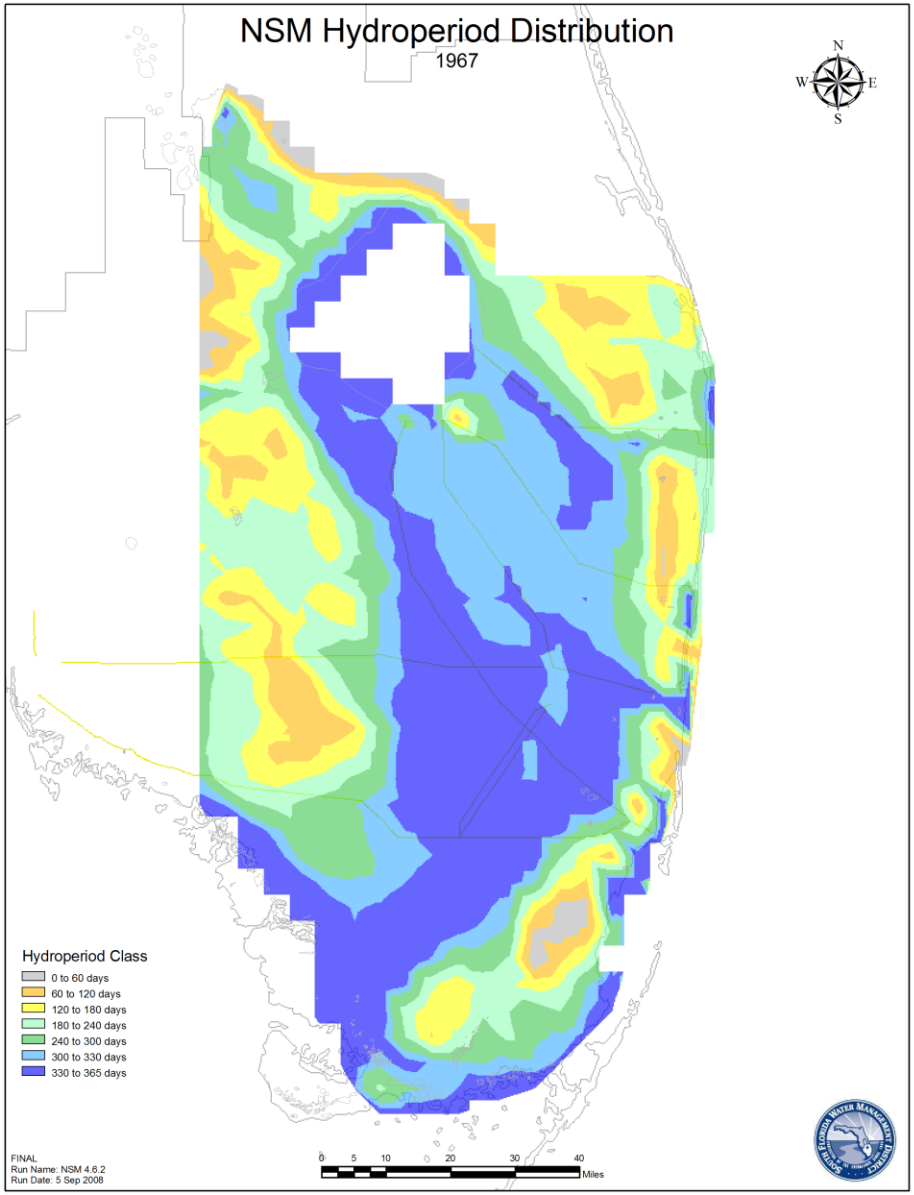

NSM Average Annual Overland Vector
1966-2005
N
W
E
S
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

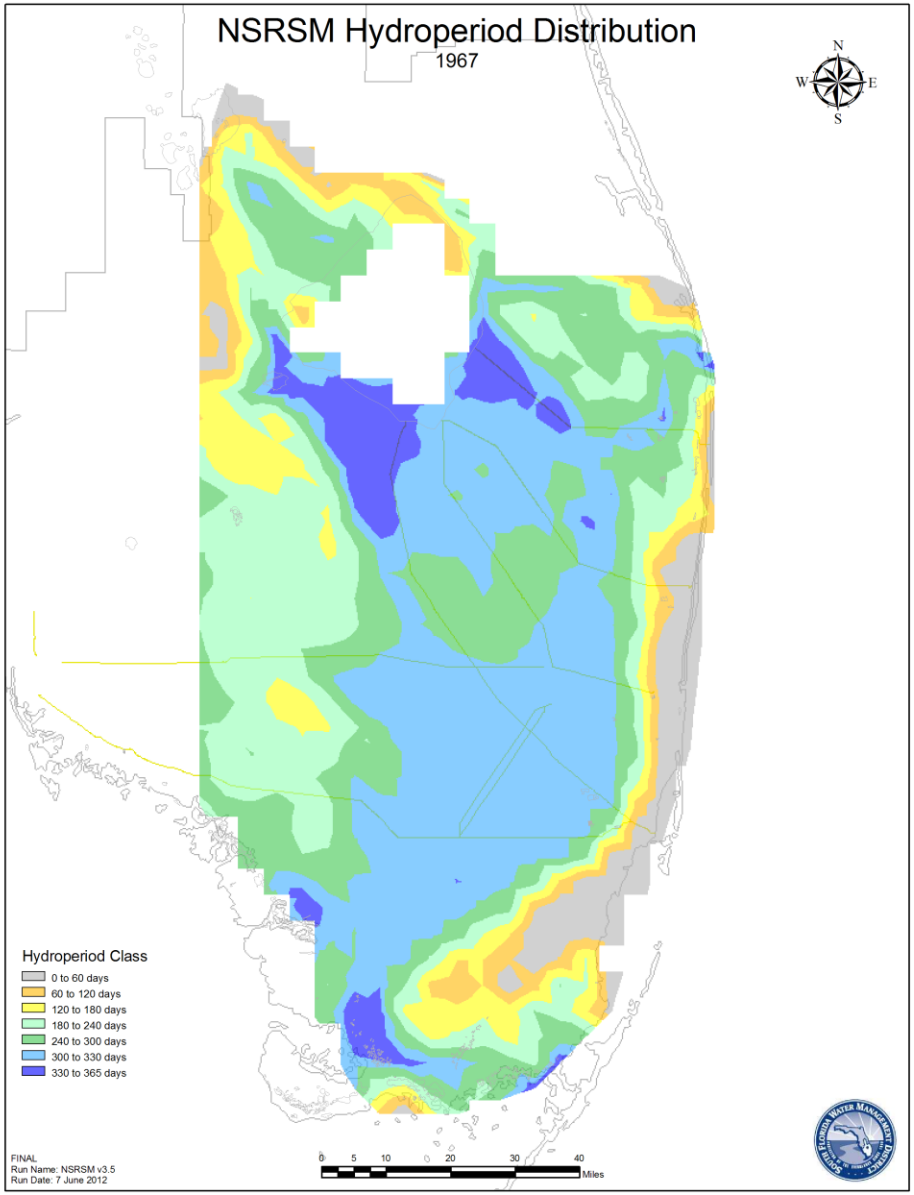

NSRSM Average Annual Overland Vector
1966-2005
N
W
E
S
Vector (fps)
More Flow
Less Flow
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

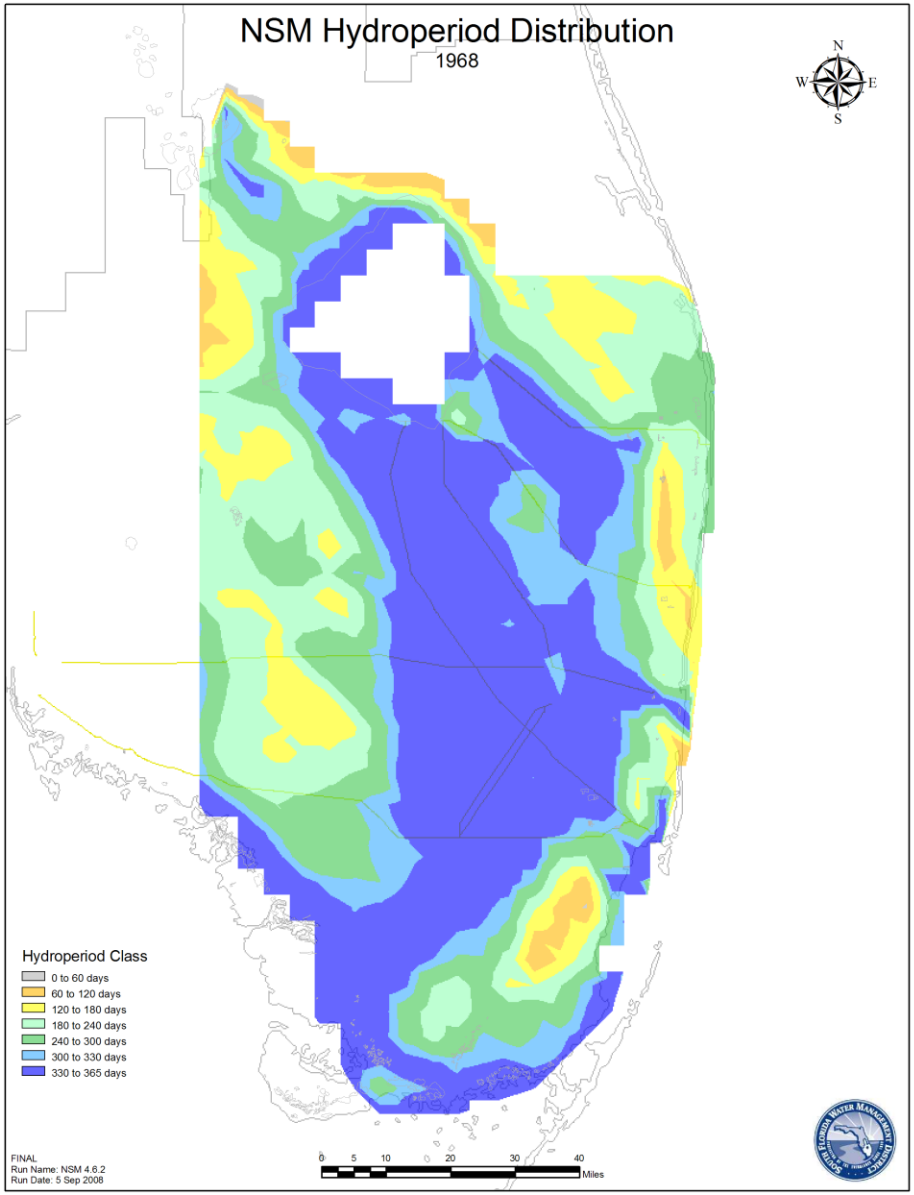
Appendix E
Comparison of Annual Average Inundation (1966-2005)

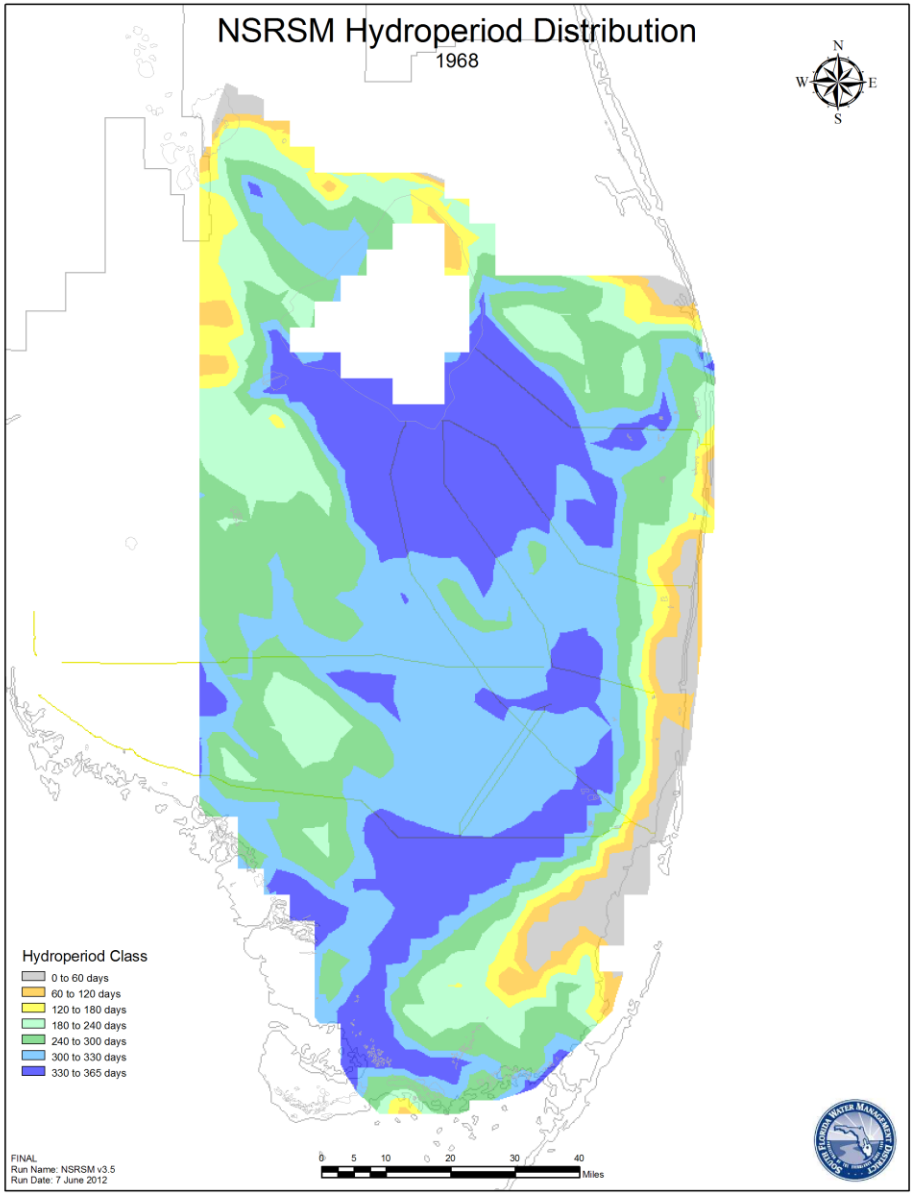

NSM Hydroperiod Distribution
1966
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

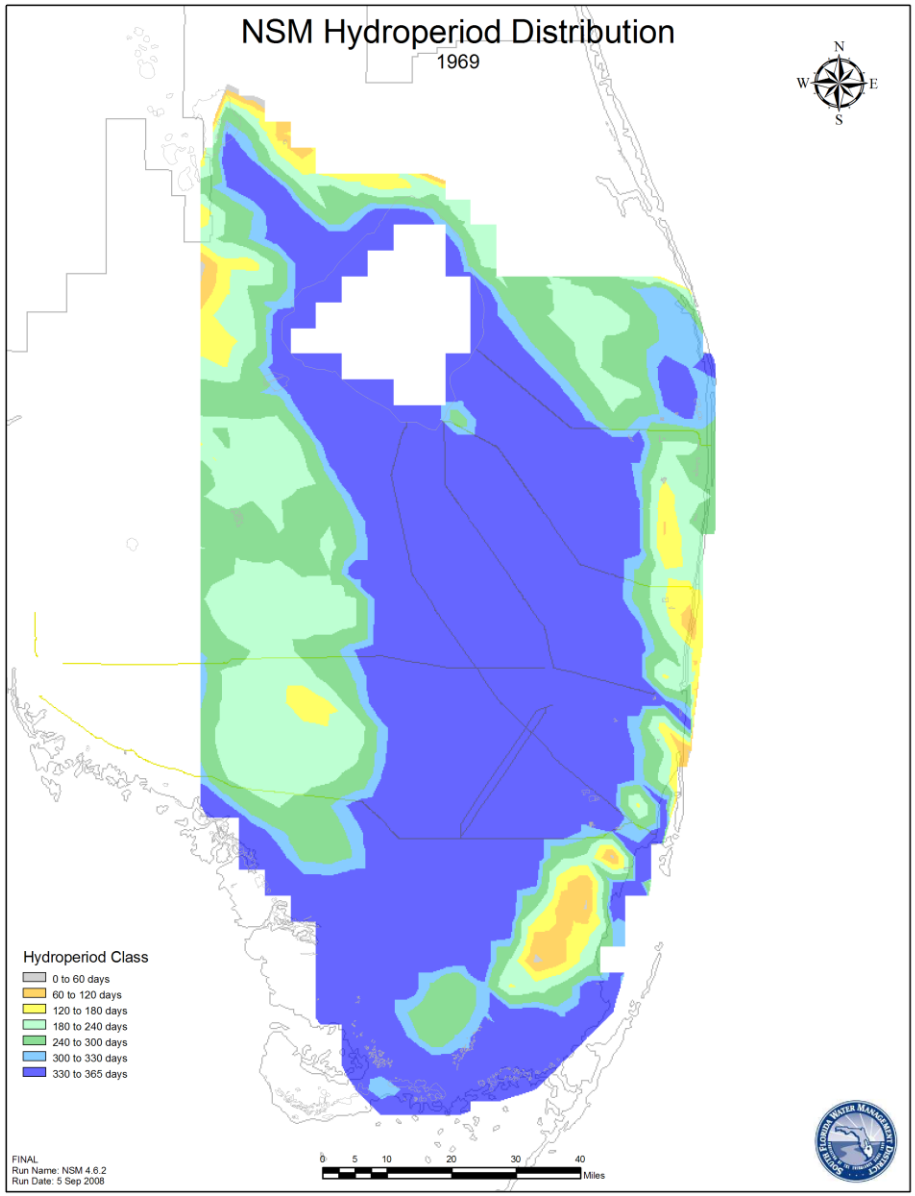

NSRSM Hydroperiod Distribution
1966
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

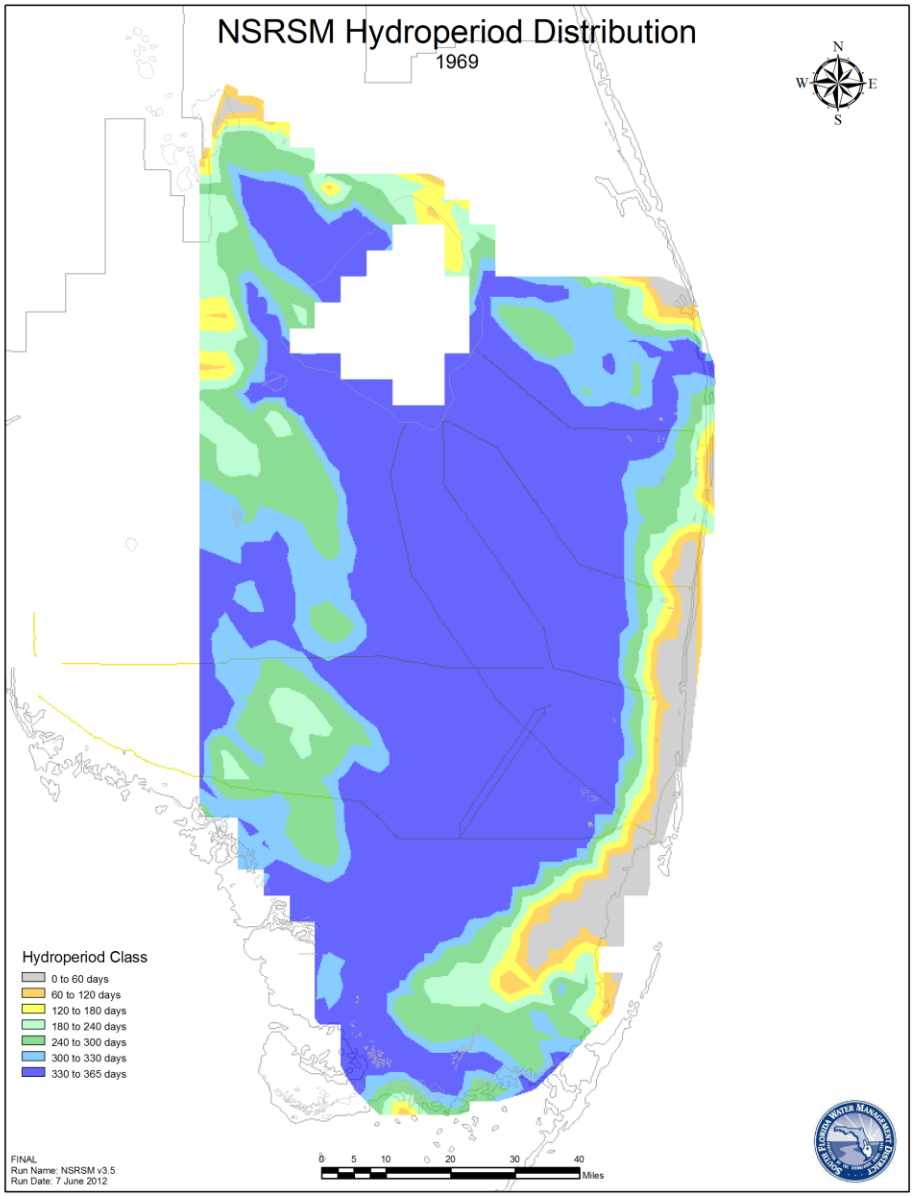

NSM Hydroperiod Distribution
1967
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

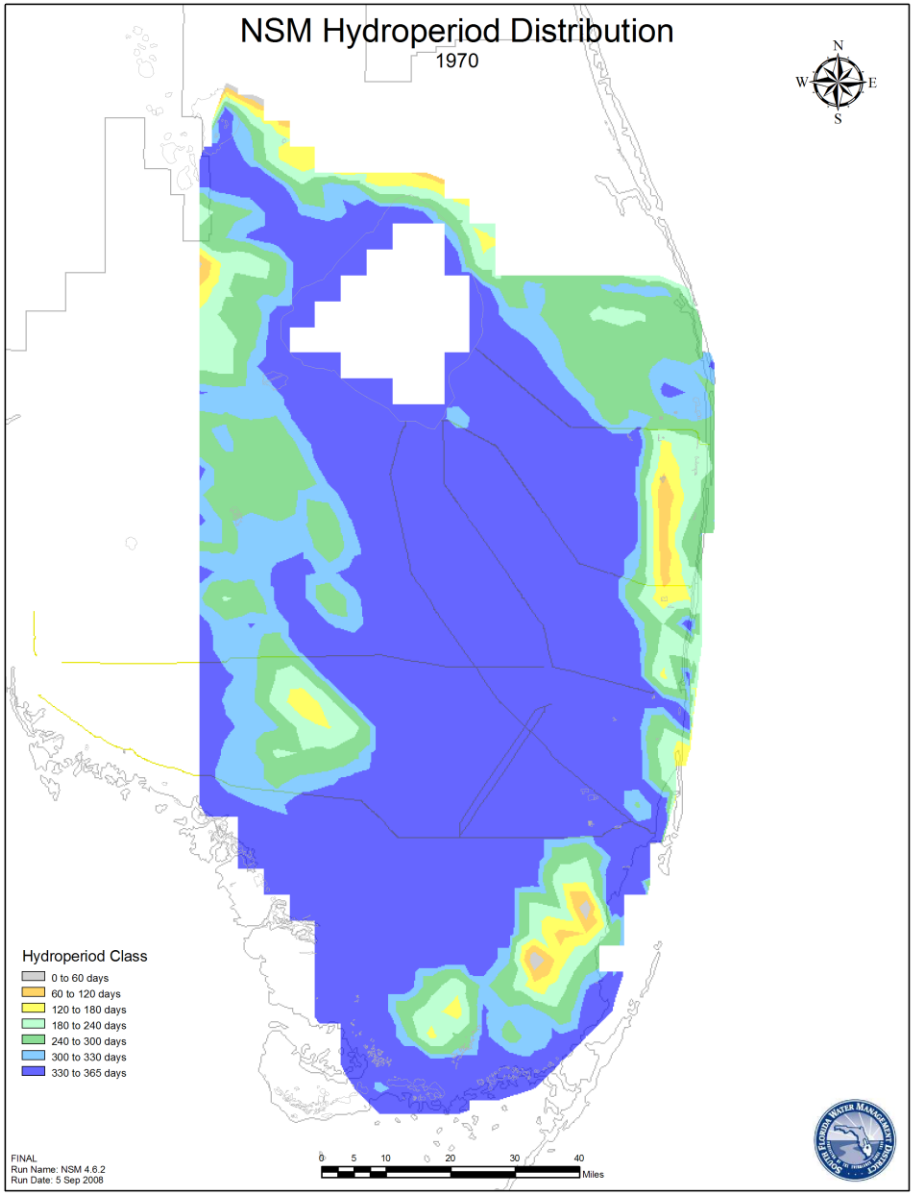

NSRSM Hydroperiod Distribution
1967
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

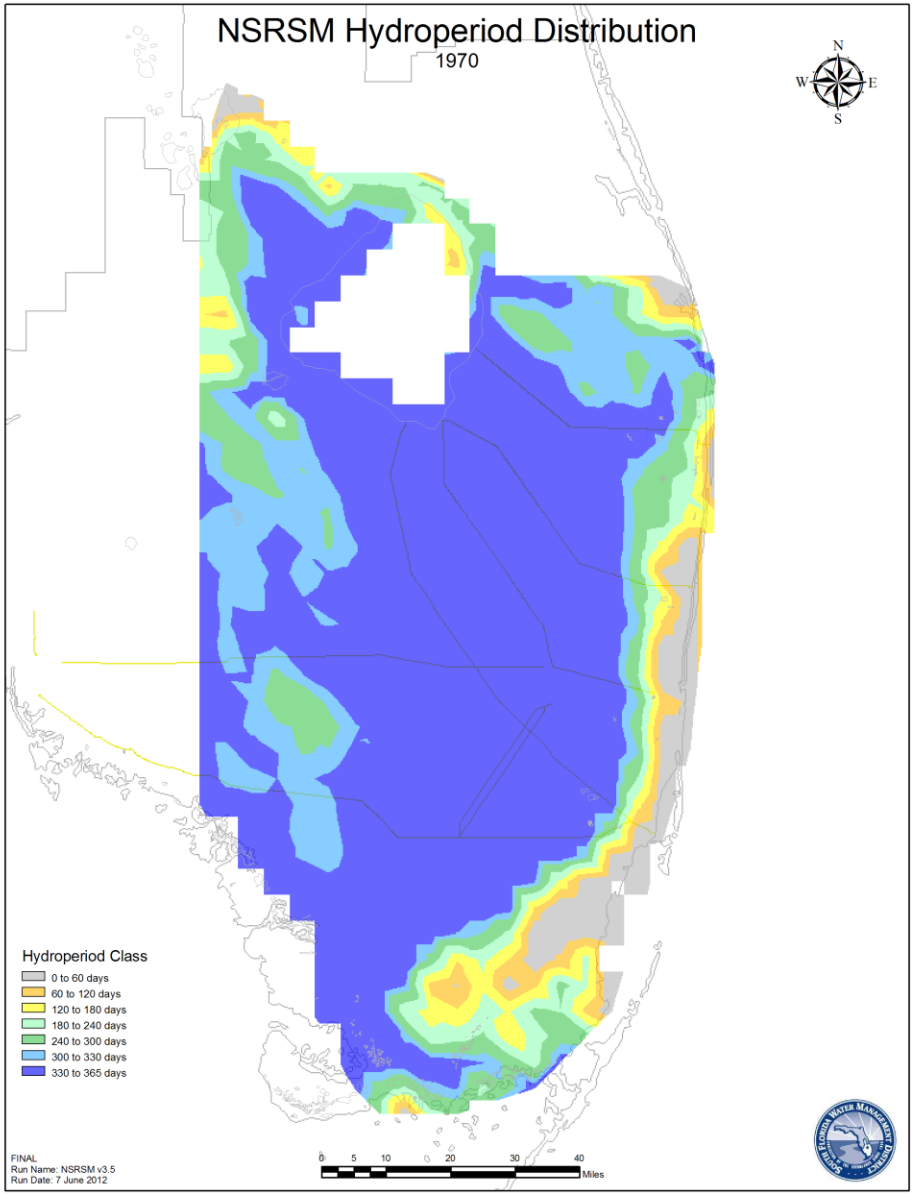

NSM Hydroperiod Distribution
1968
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

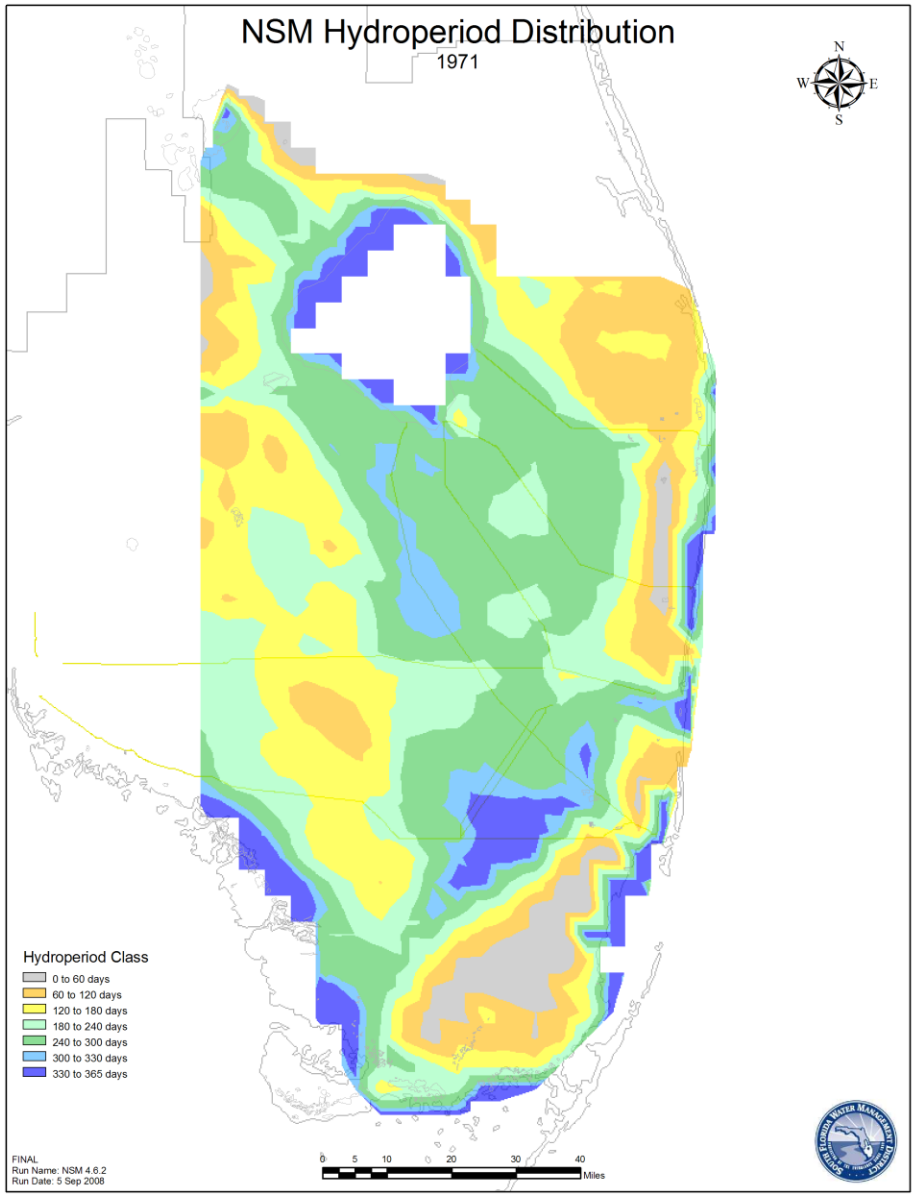

NSRSM Hydroperiod Distribution
1968
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

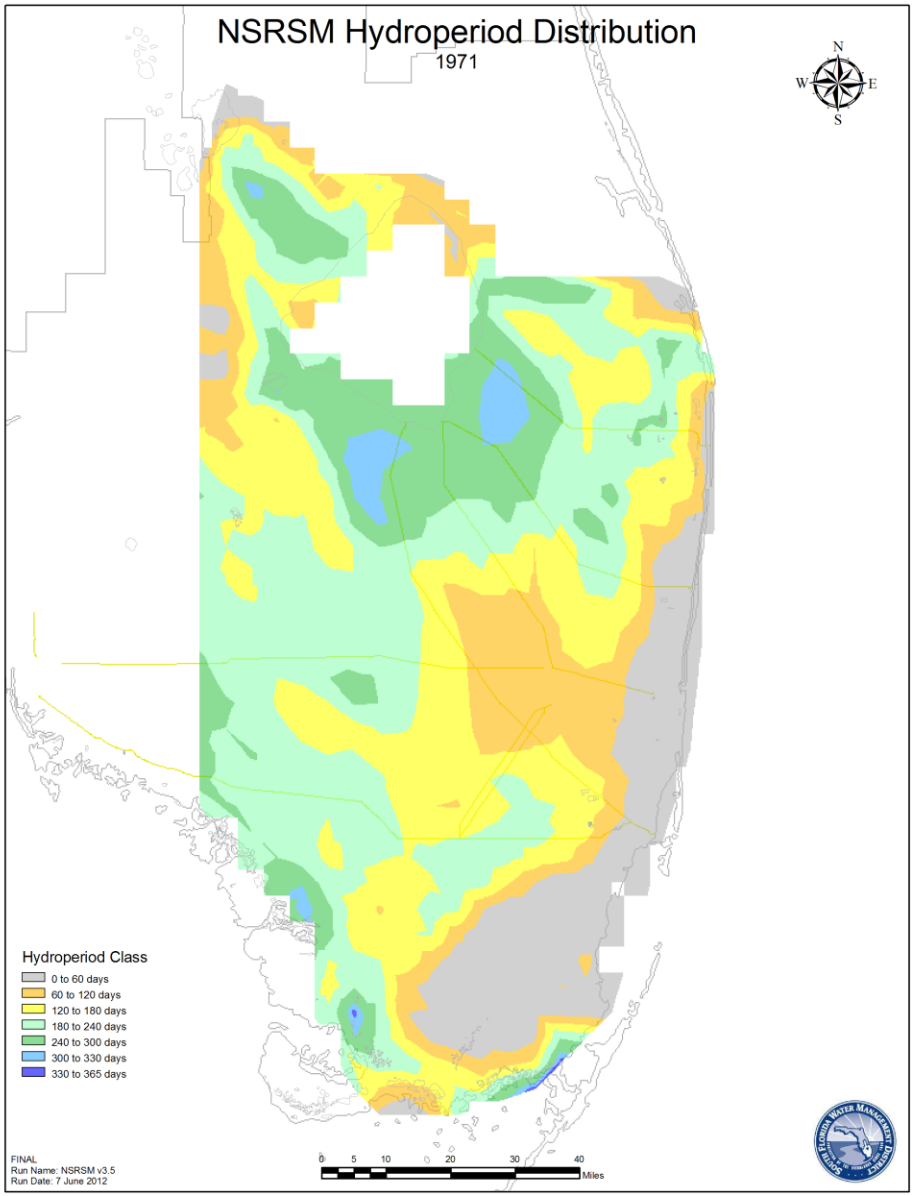

NSM Hydroperiod Distribution
1969
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

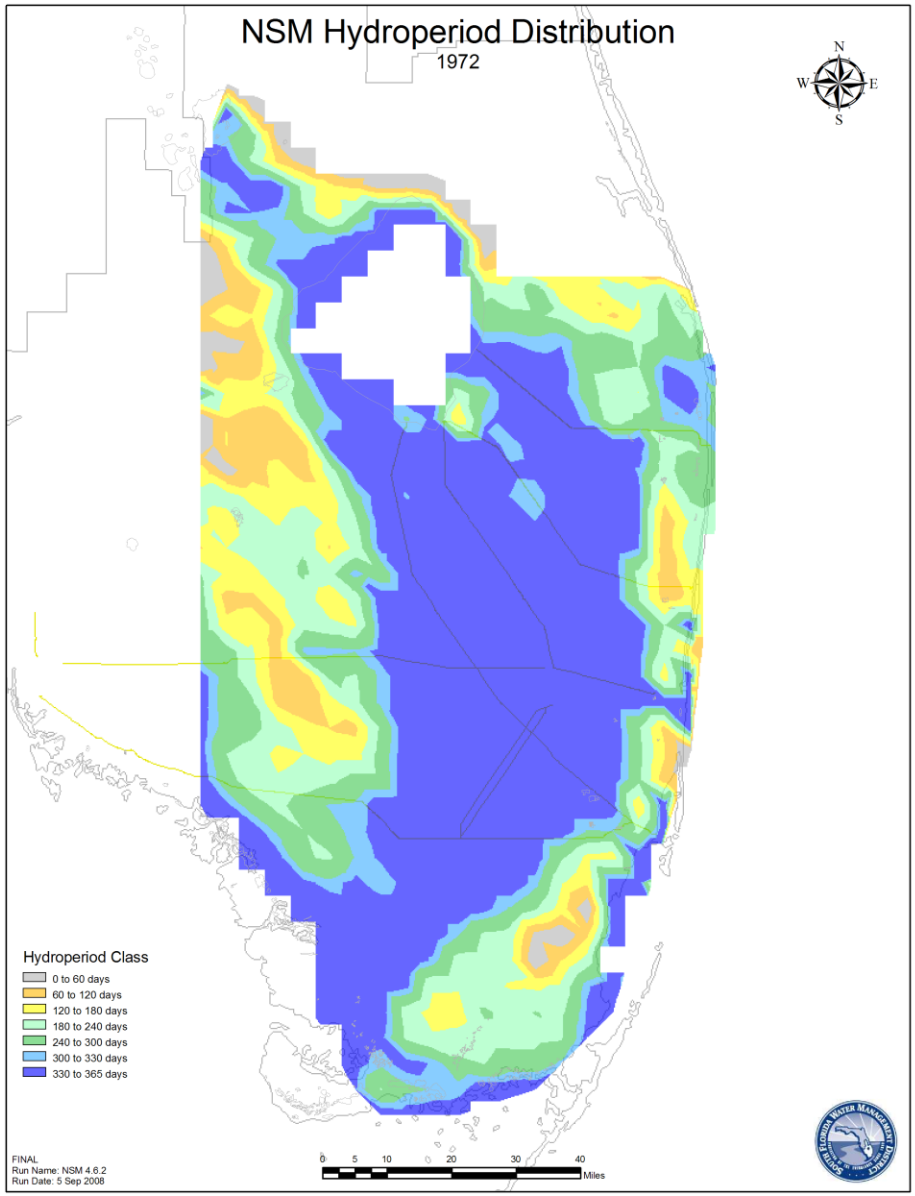

NSRSM Hydroperiod Distribution
1969
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

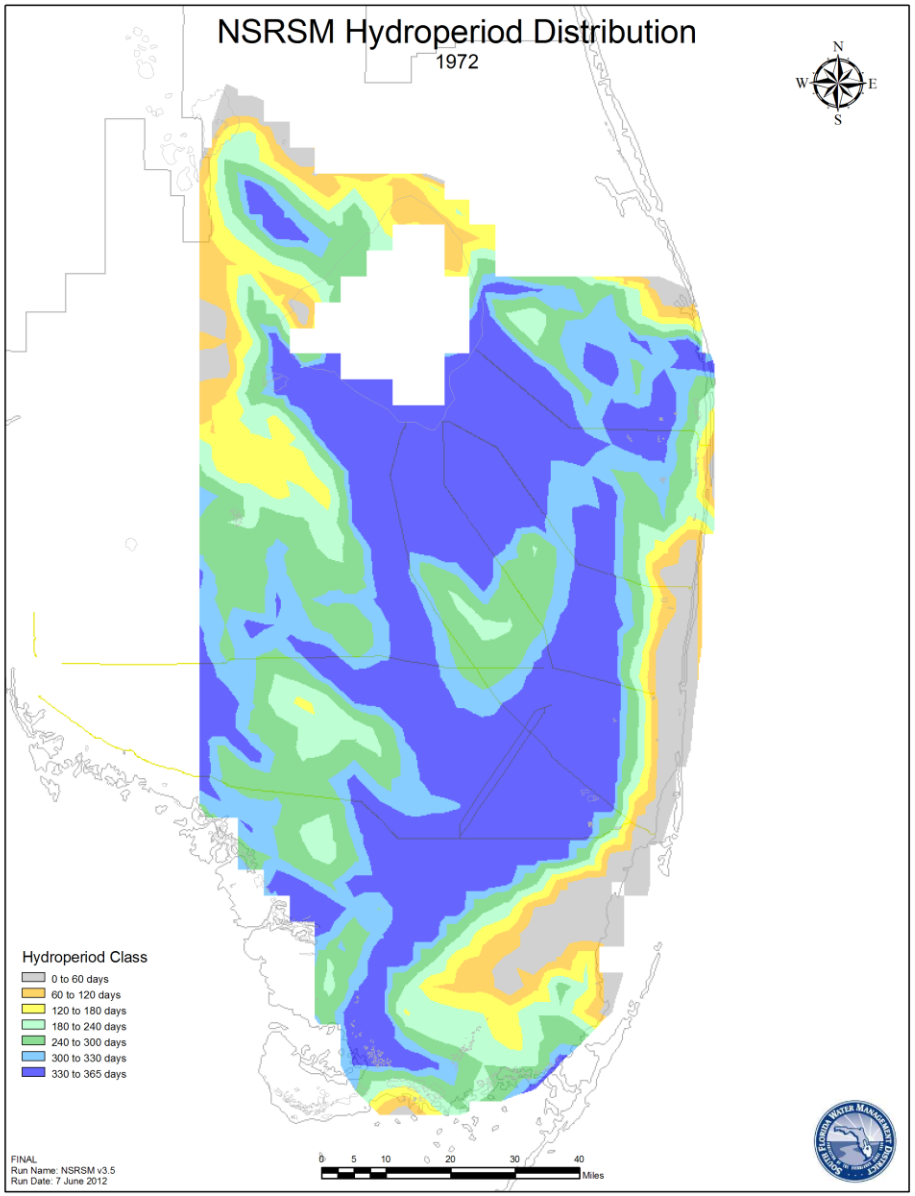

NSM Hydroperiod Distribution
1970
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

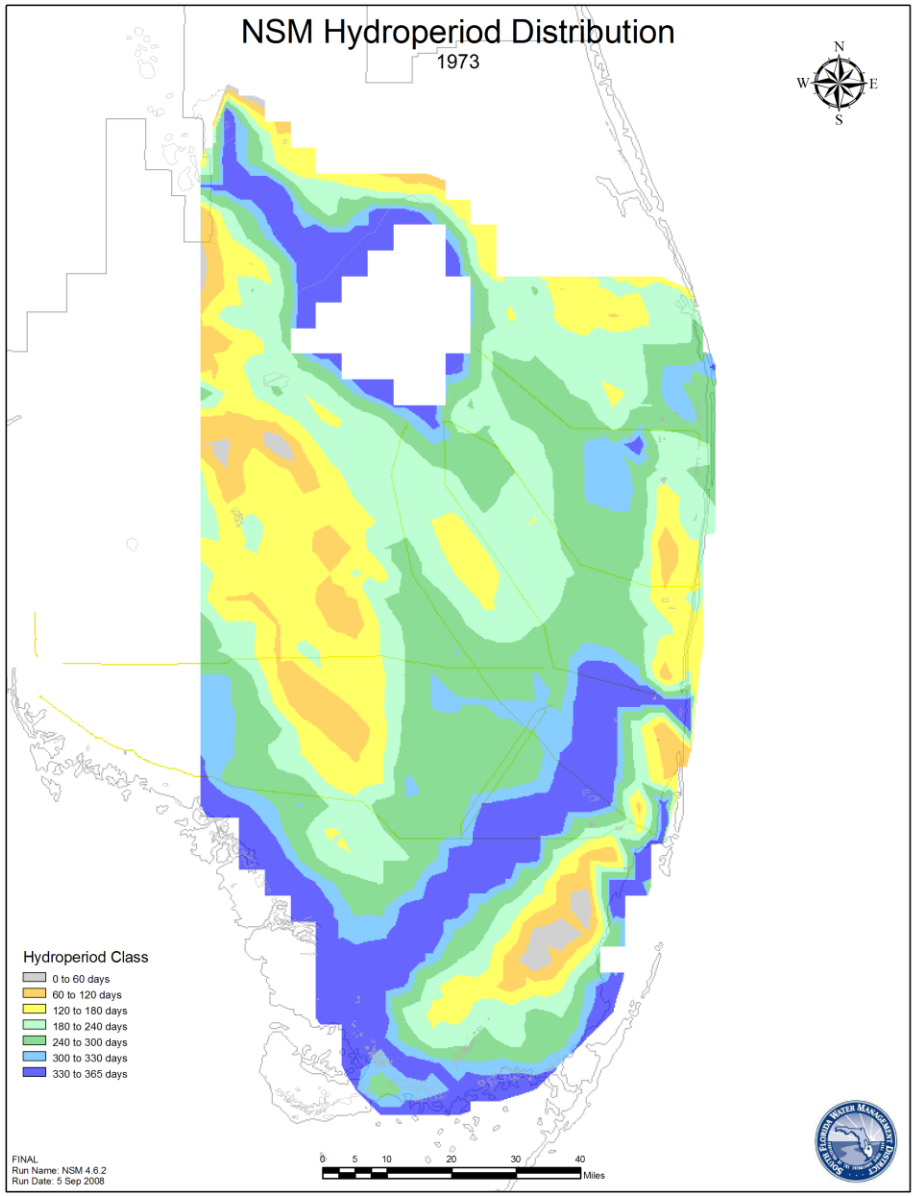

NSRSM Hydroperiod Distribution
1970
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

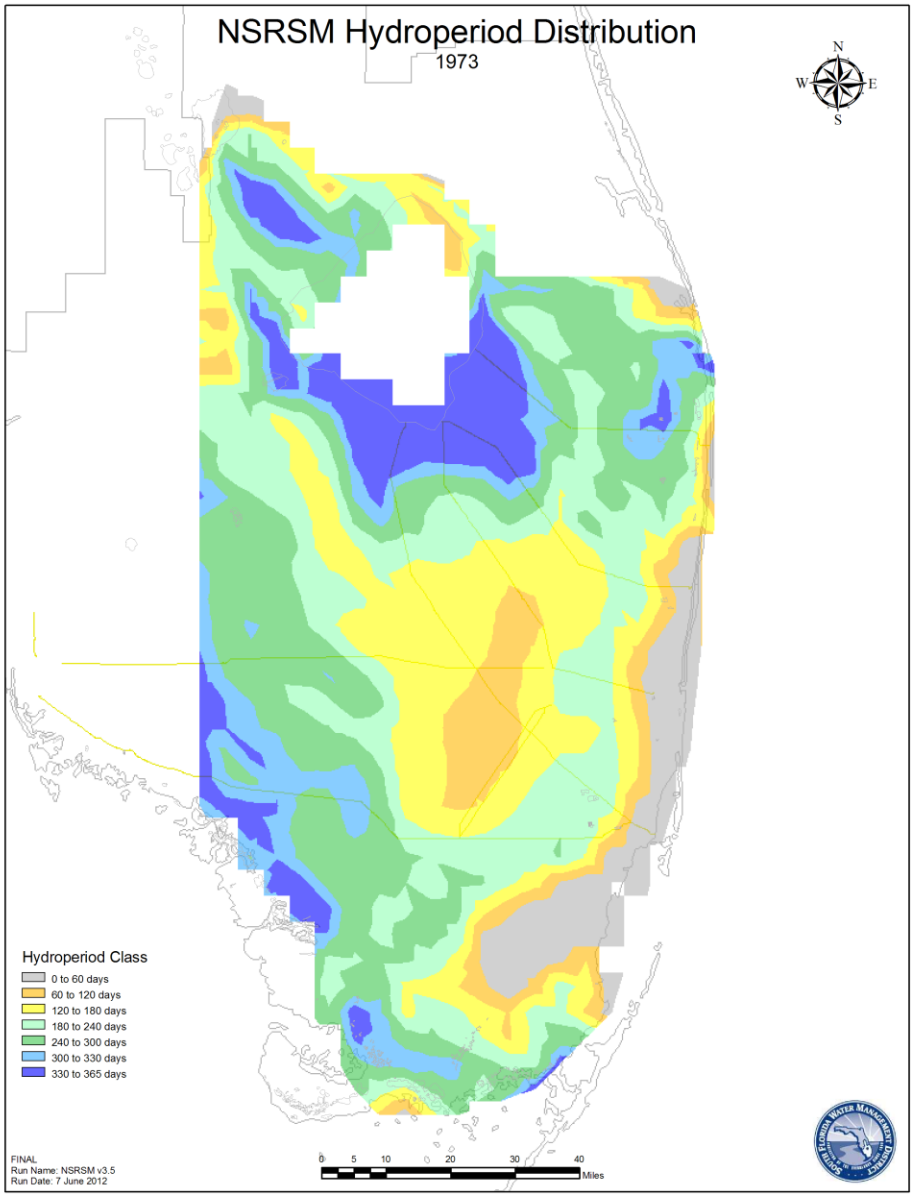

NSM Hydroperiod Distribution
1971
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

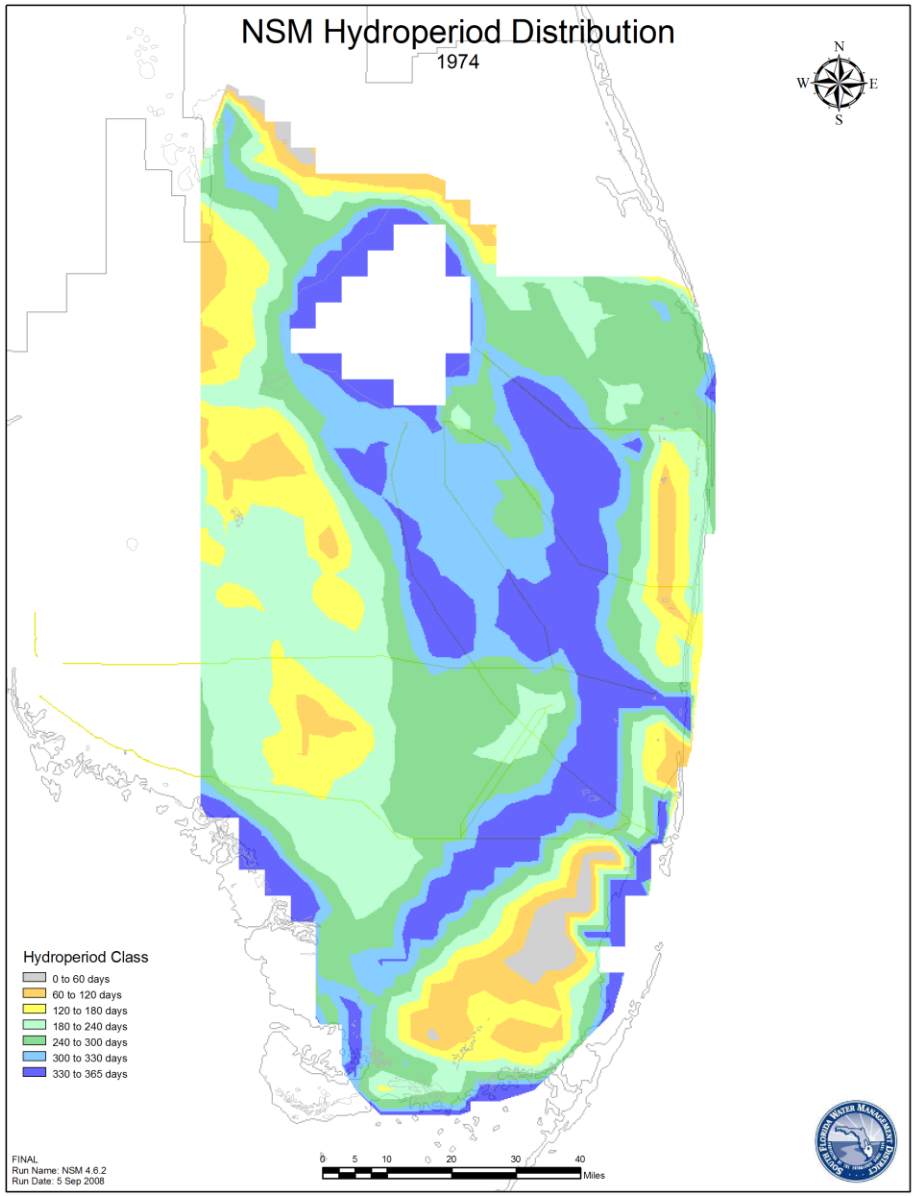

NSRSM Hydroperiod Distribution
1971
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

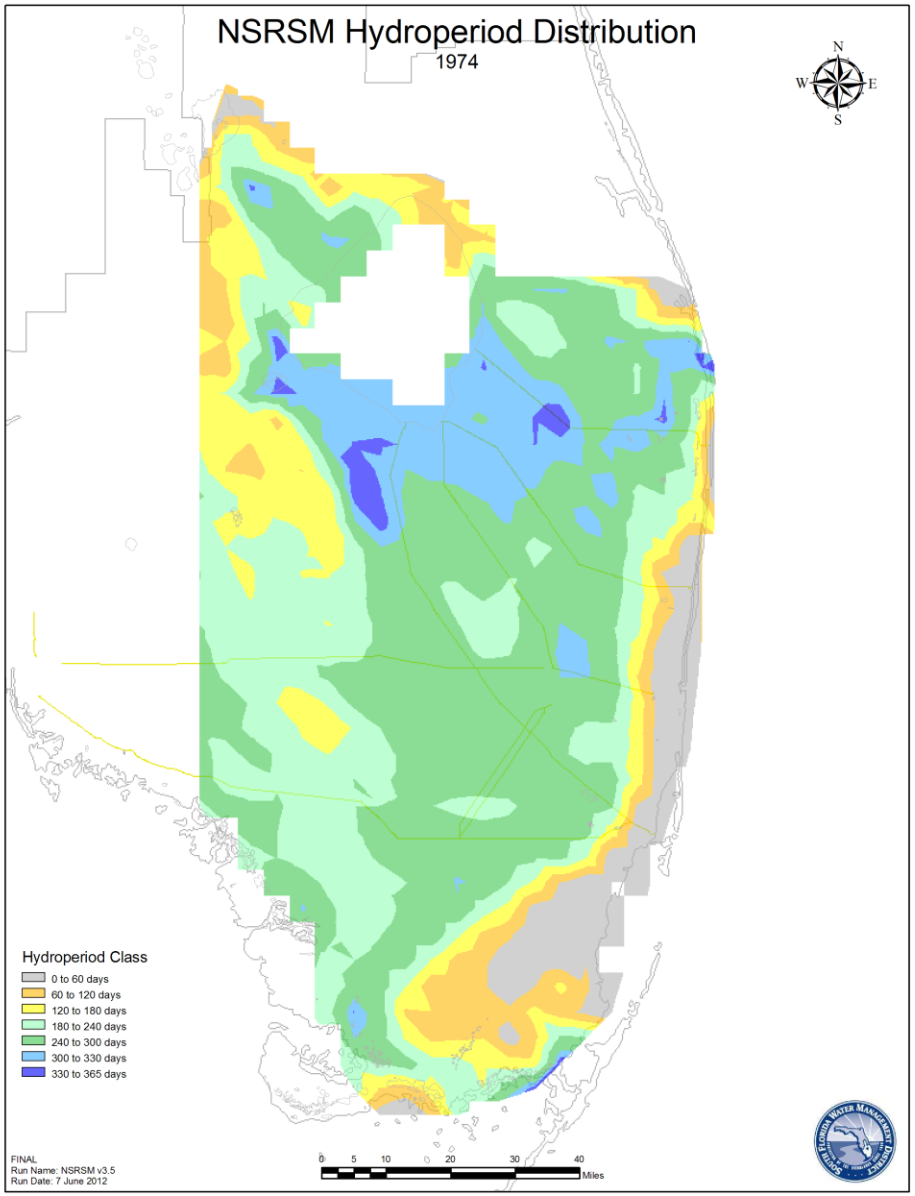

NSM Hydroperiod Distribution
1972
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

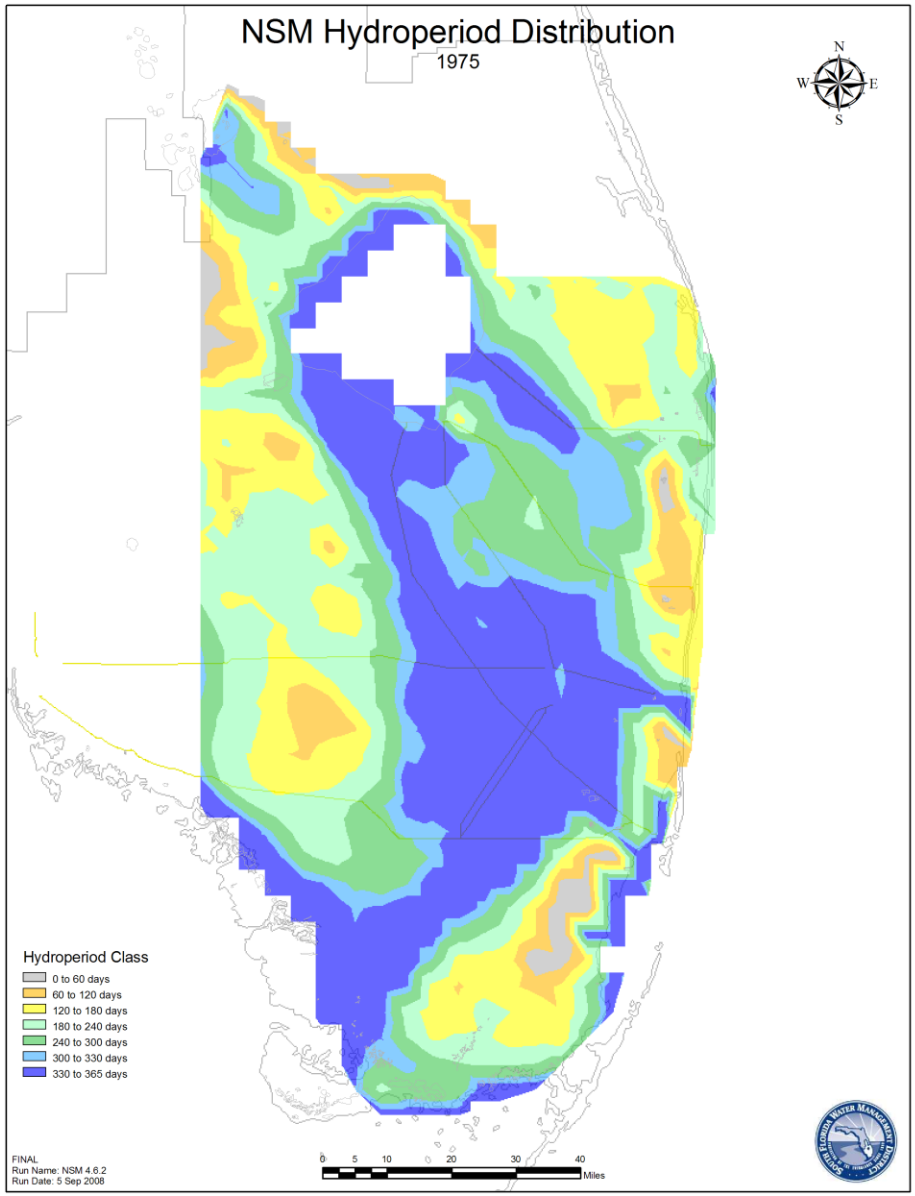

NSRSM Hydroperiod Distribution
1972
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

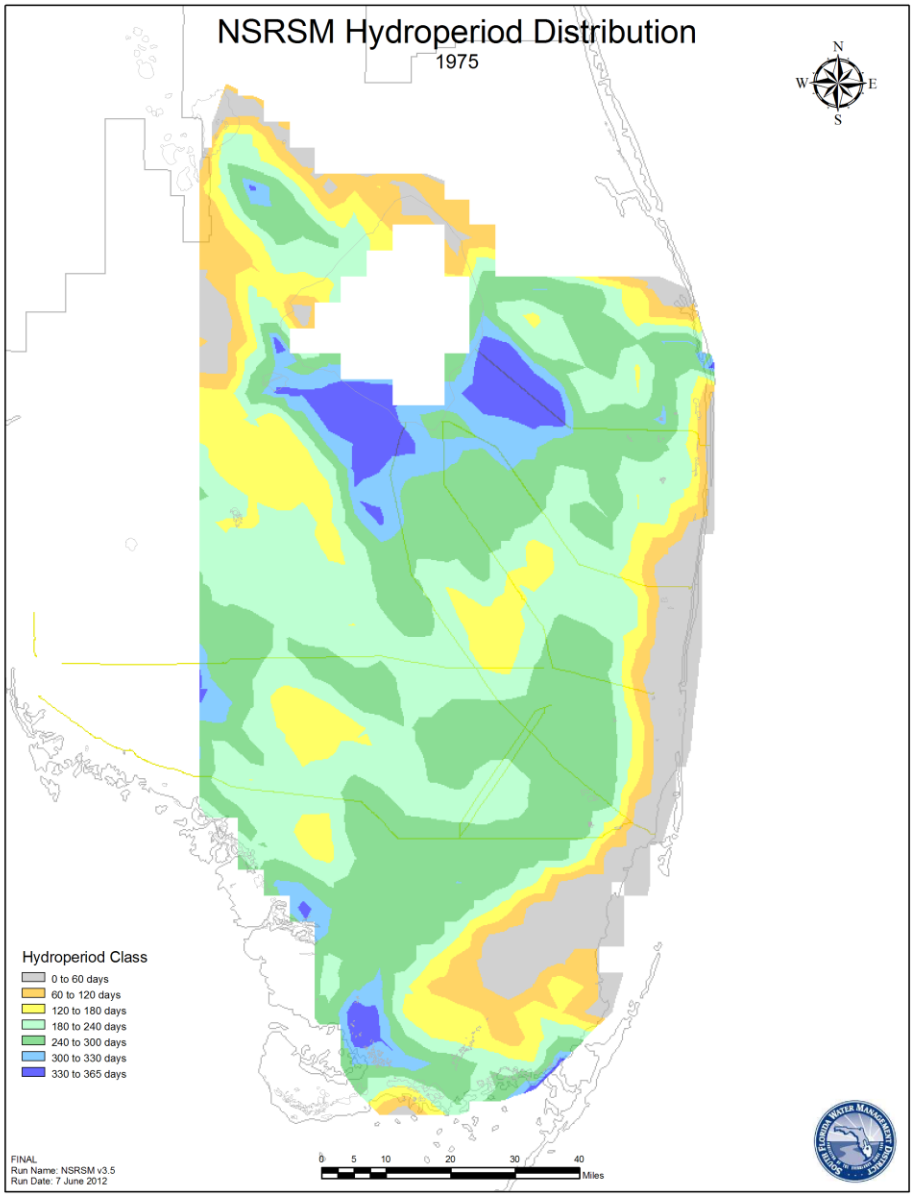

NSM Hydroperiod Distribution
1973
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

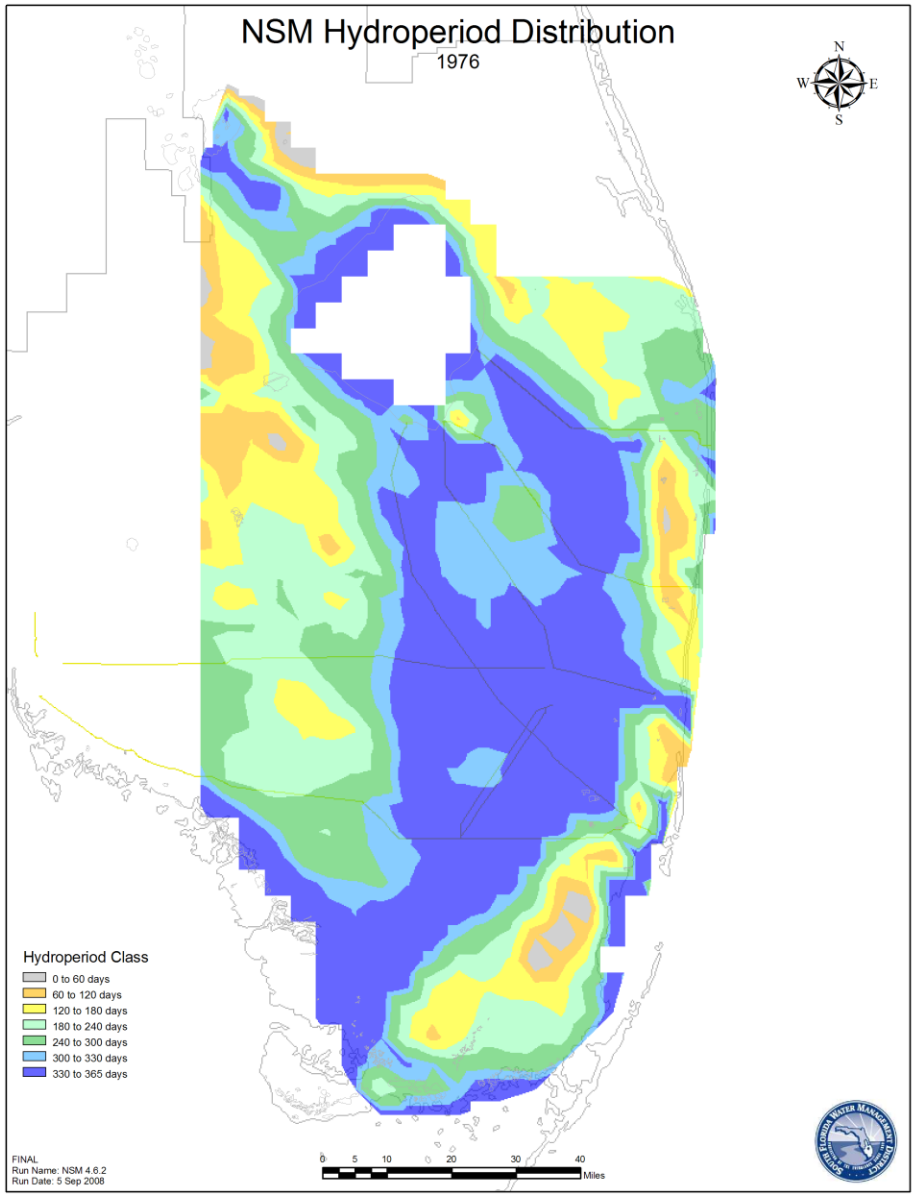

NSRSM Hydroperiod Distribution
1973
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

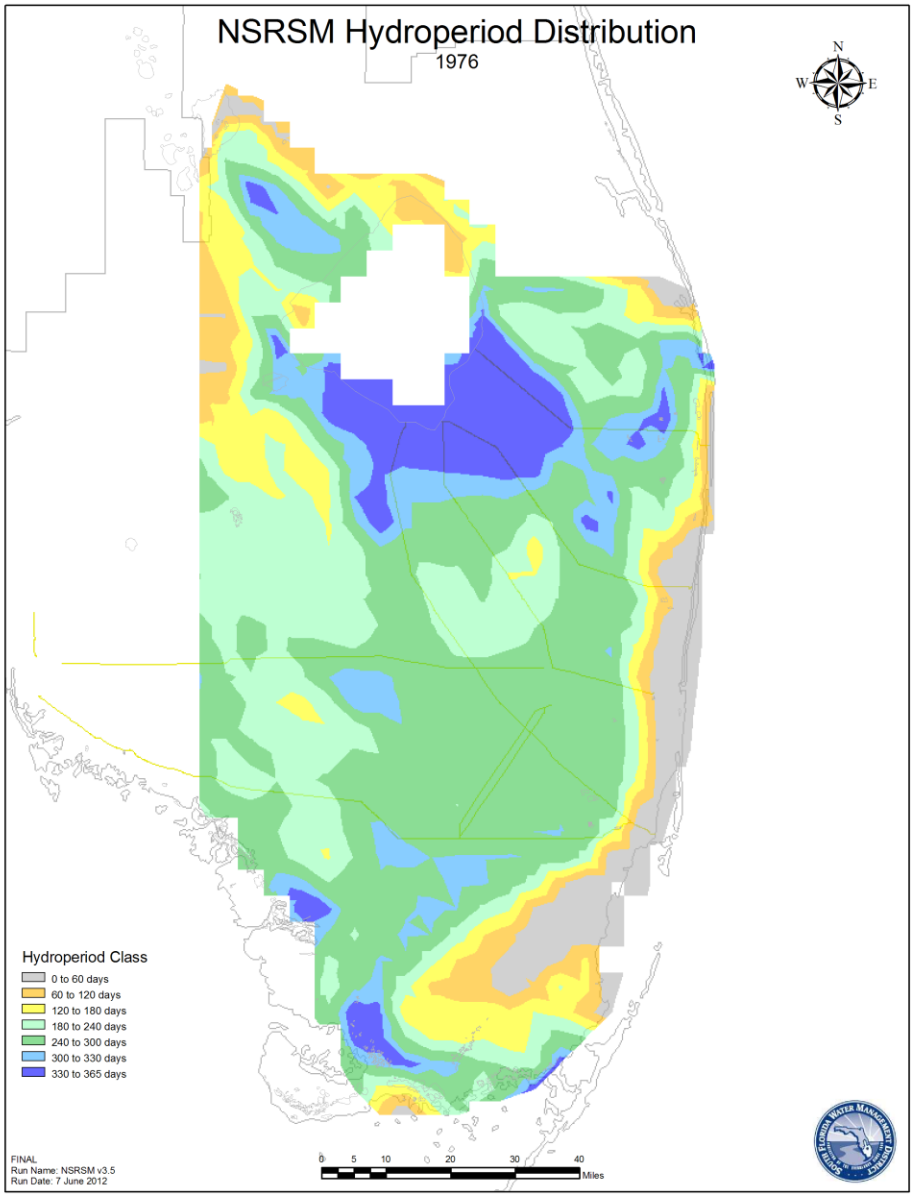

NSM Hydroperiod Distribution
1974
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

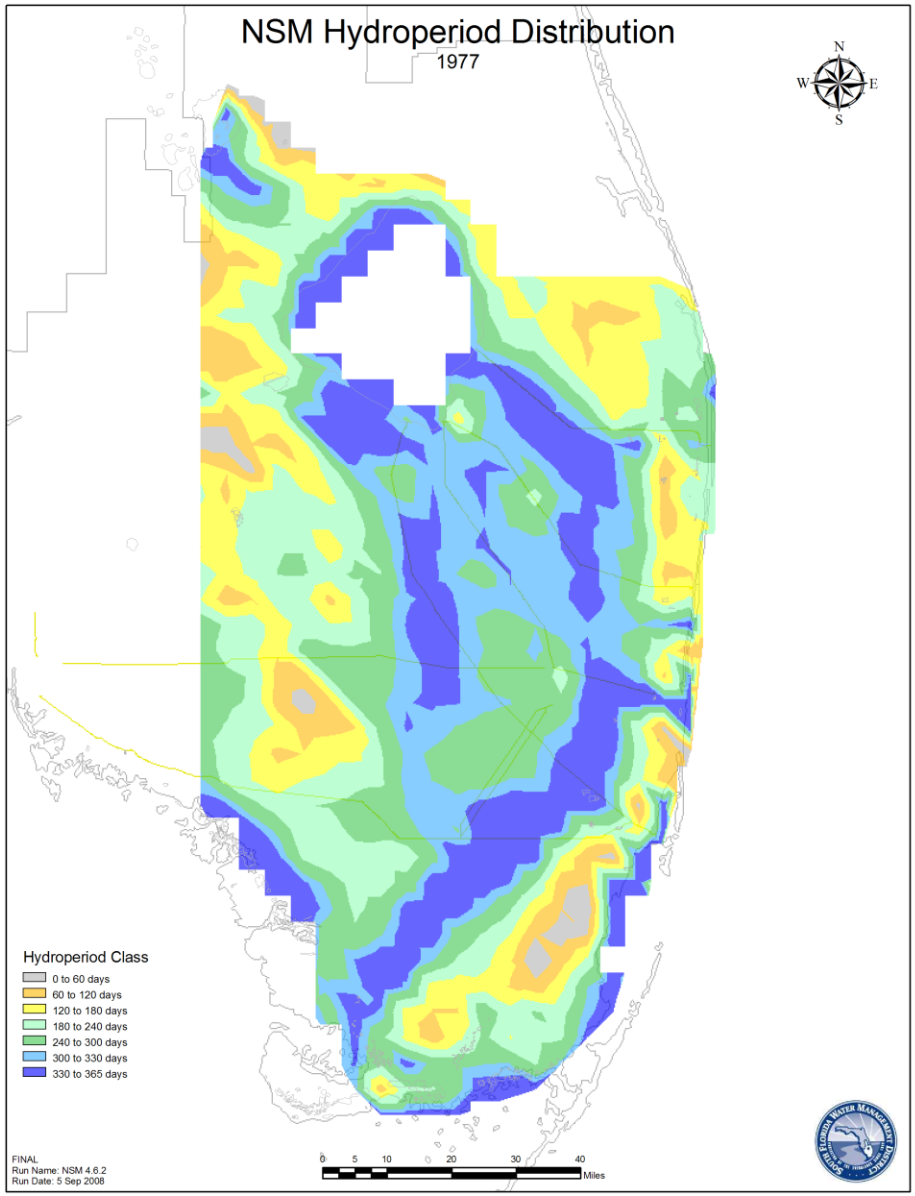

NSRSM Hydroperiod Distribution
1974
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

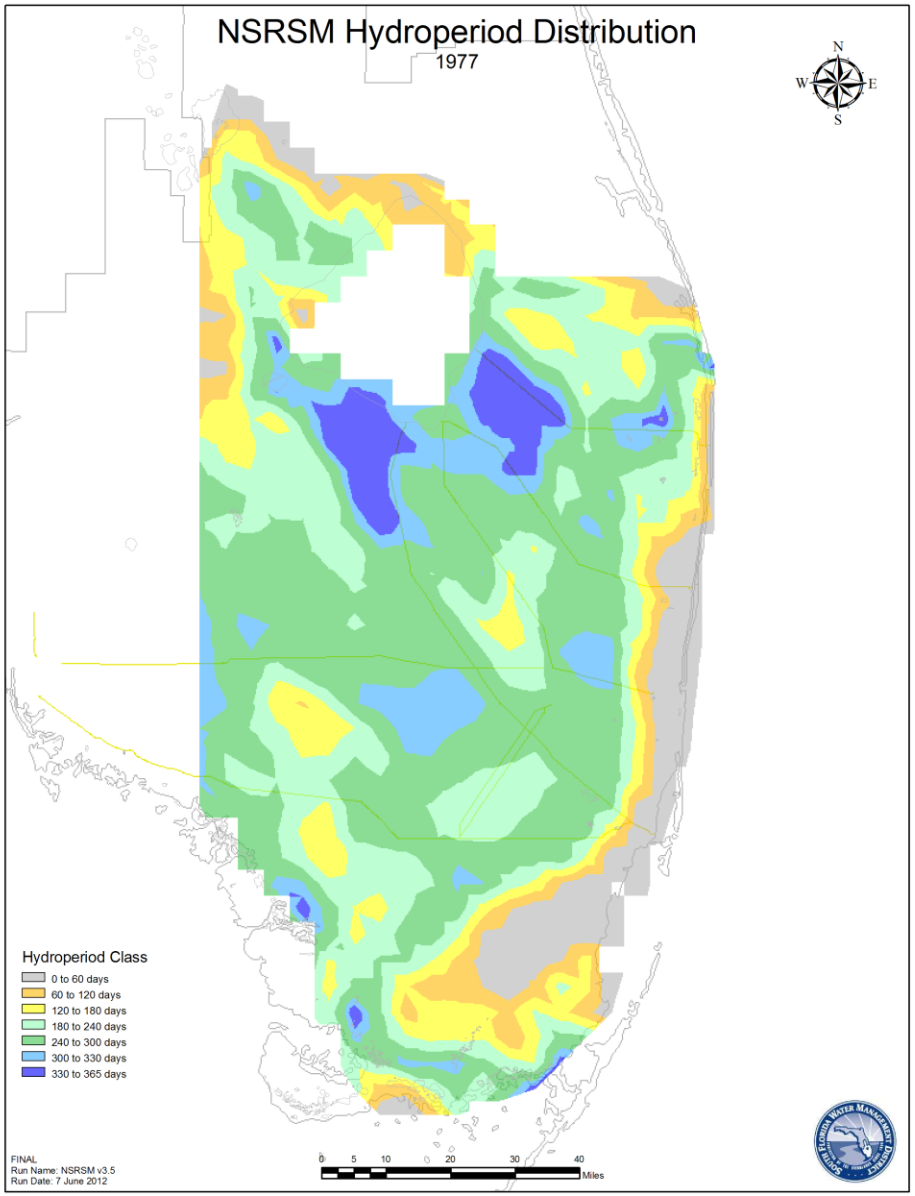

NSM Hydroperiod Distribution
1975
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

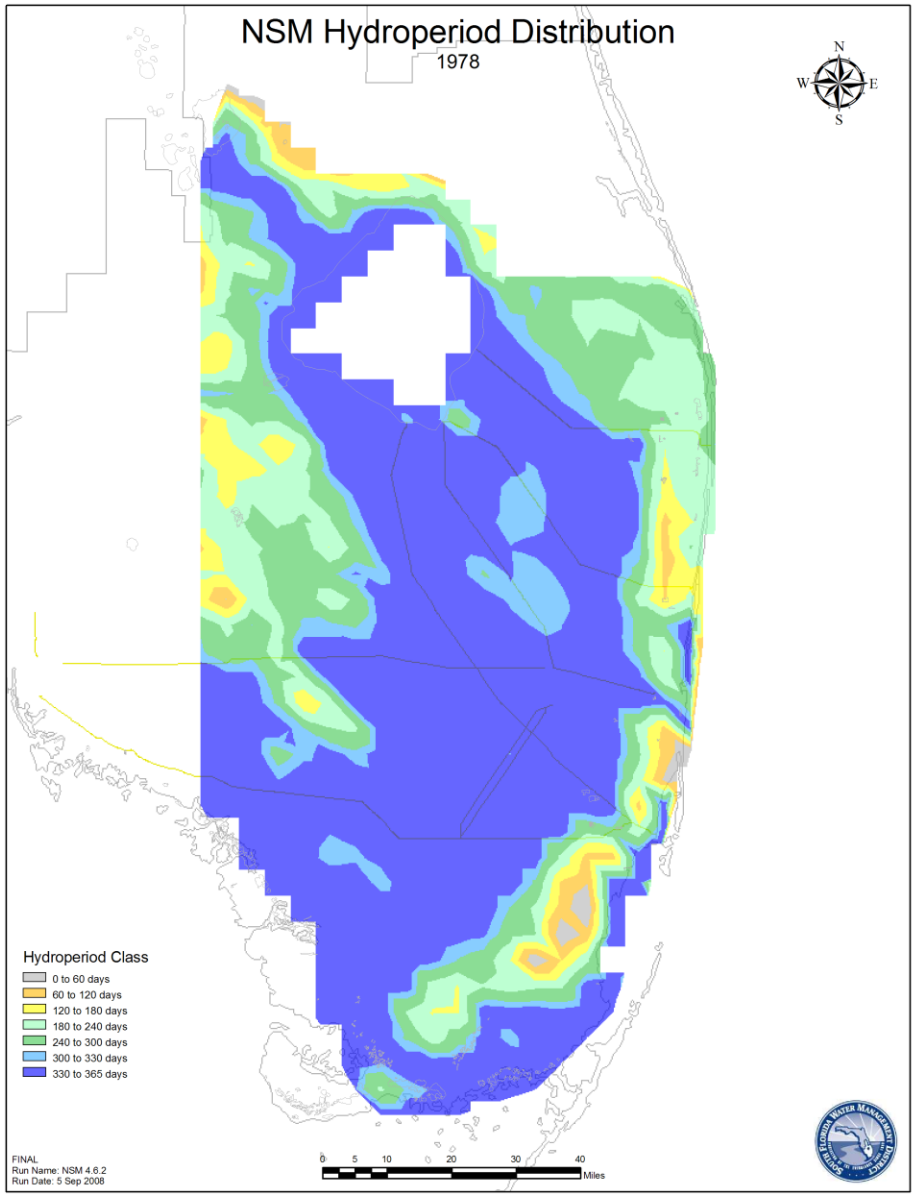

NSRSM Hydroperiod Distribution
1975
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

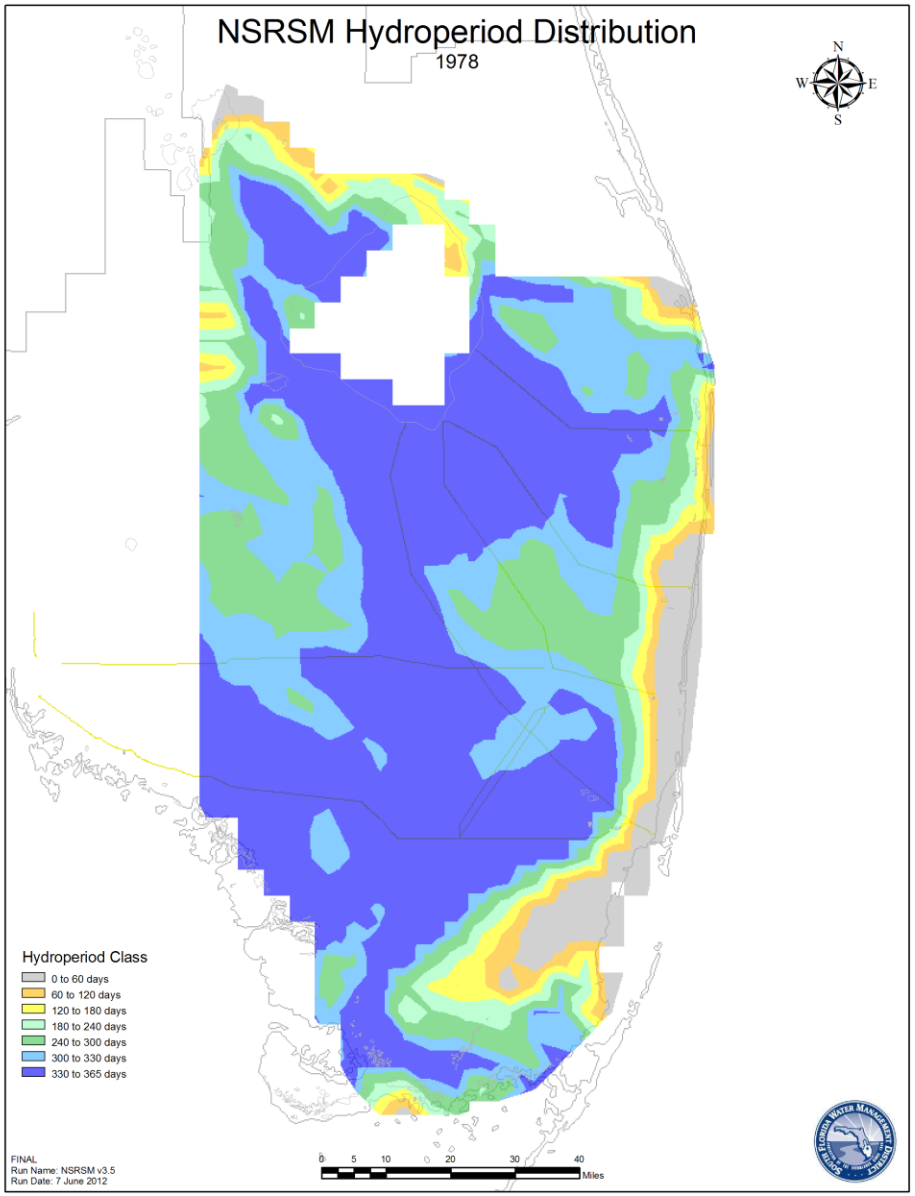

NSM Hydroperiod Distribution
1976
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

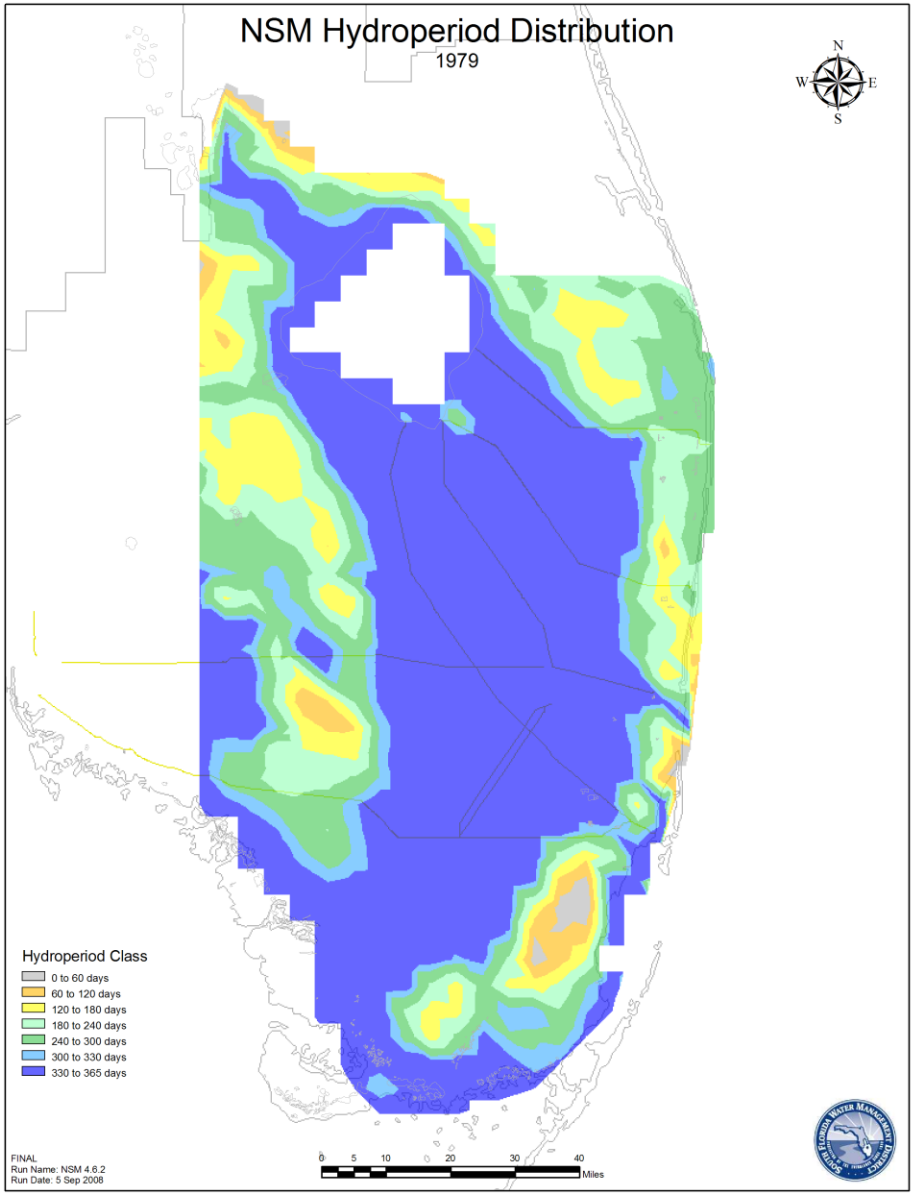

NSRSM Hydroperiod Distribution
1976
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

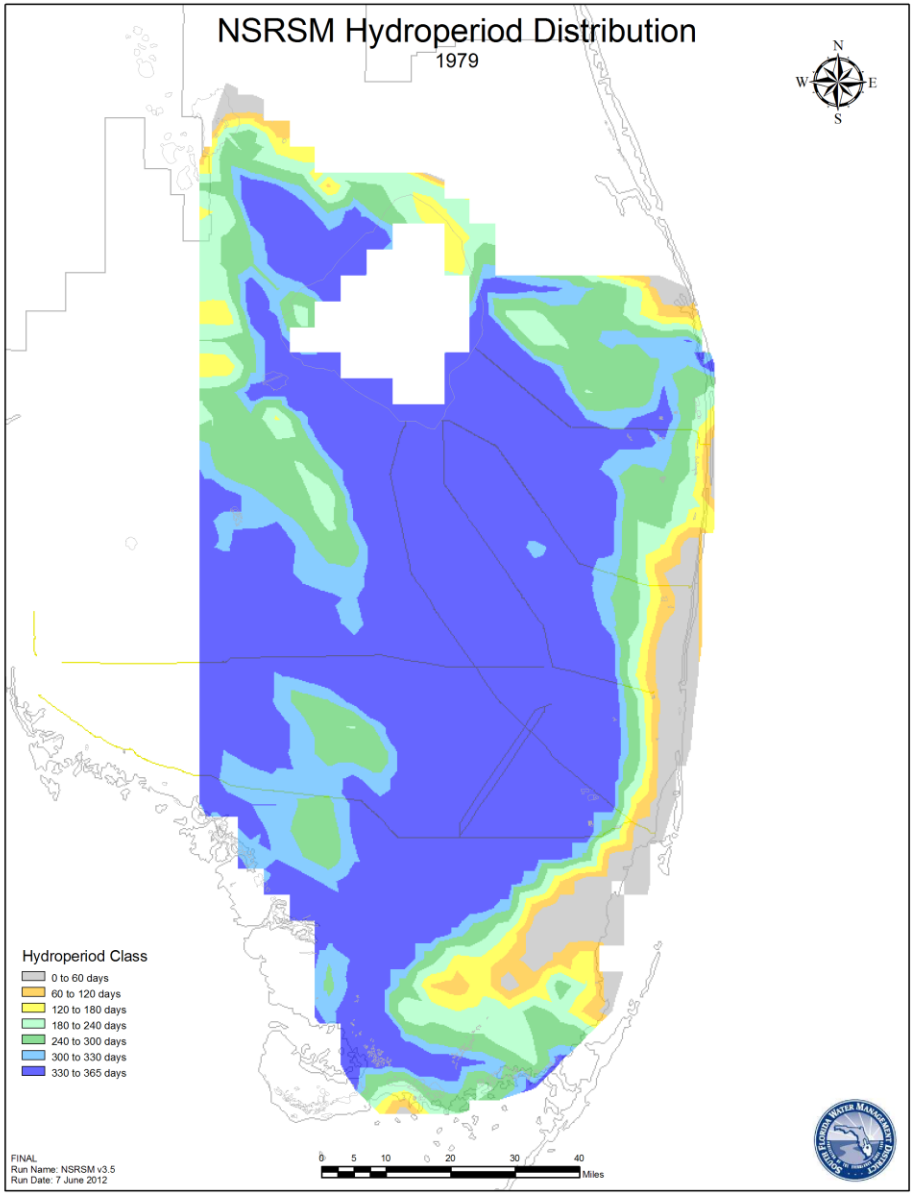

NSM Hydroperiod Distribution
1977
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

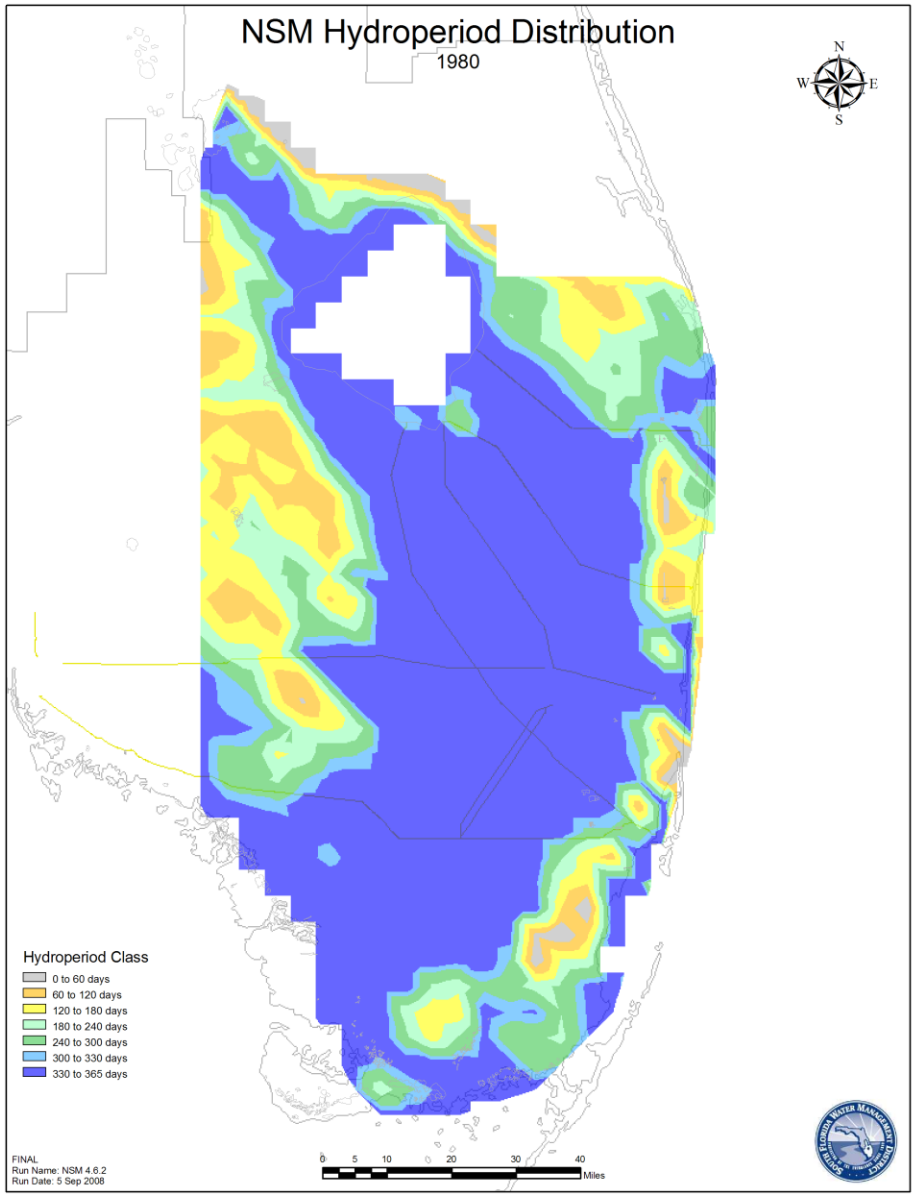

NSRSM Hydroperiod Distribution
1977
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

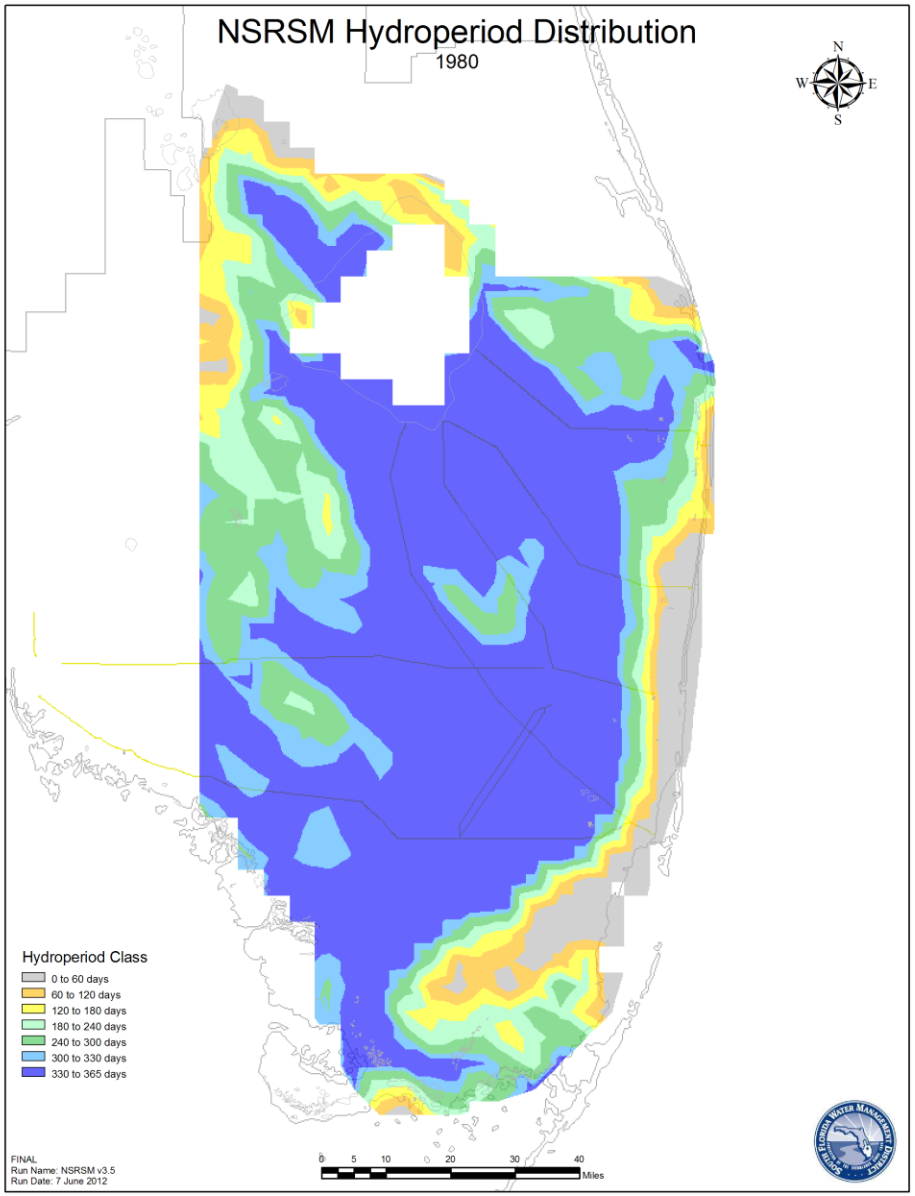

NSM Hydroperiod Distribution
1978
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles


NSRSM Hydroperiod Distribution
1978
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles


NSM Hydroperiod Distribution
1979
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles


NSRSM Hydroperiod Distribution
1979
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles


NSM Hydroperiod Distribution
1980
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles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1980
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
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240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
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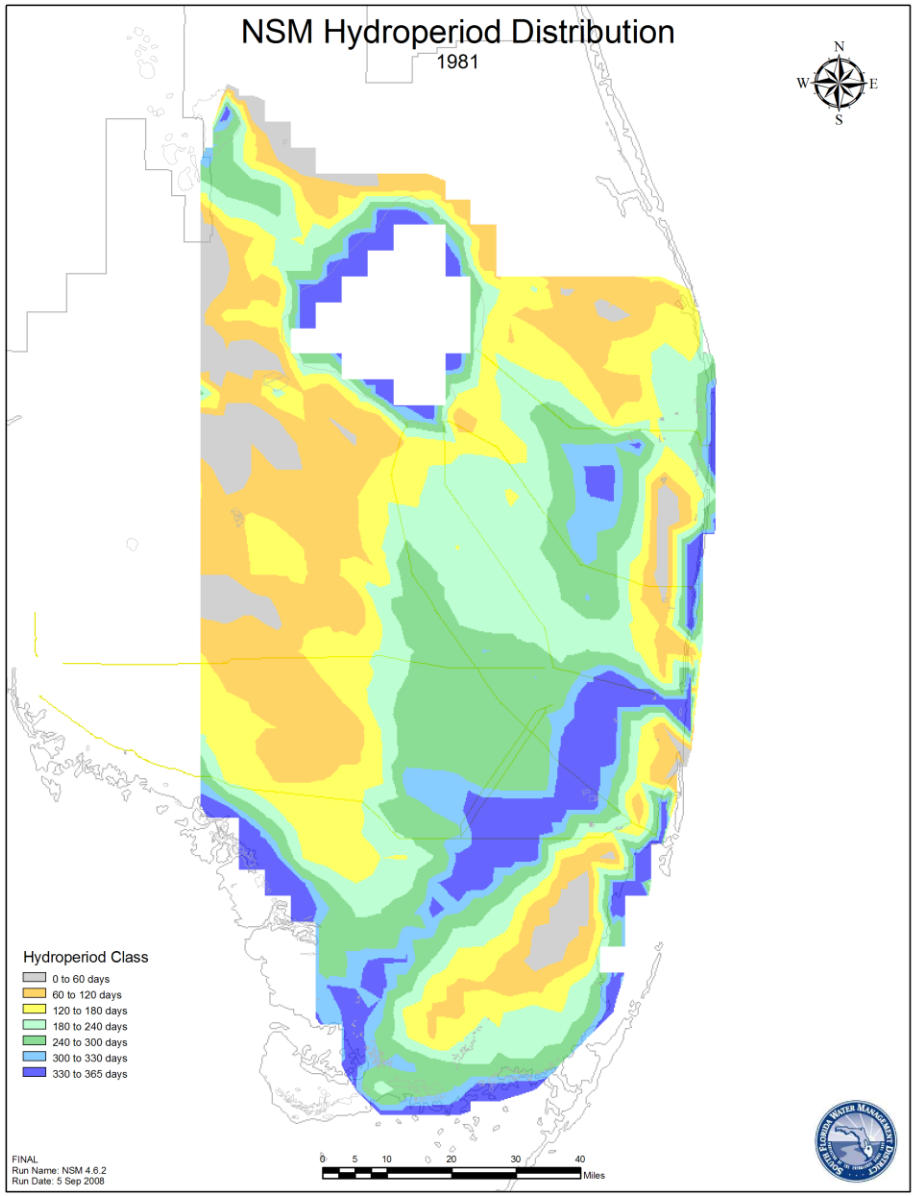
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1981
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
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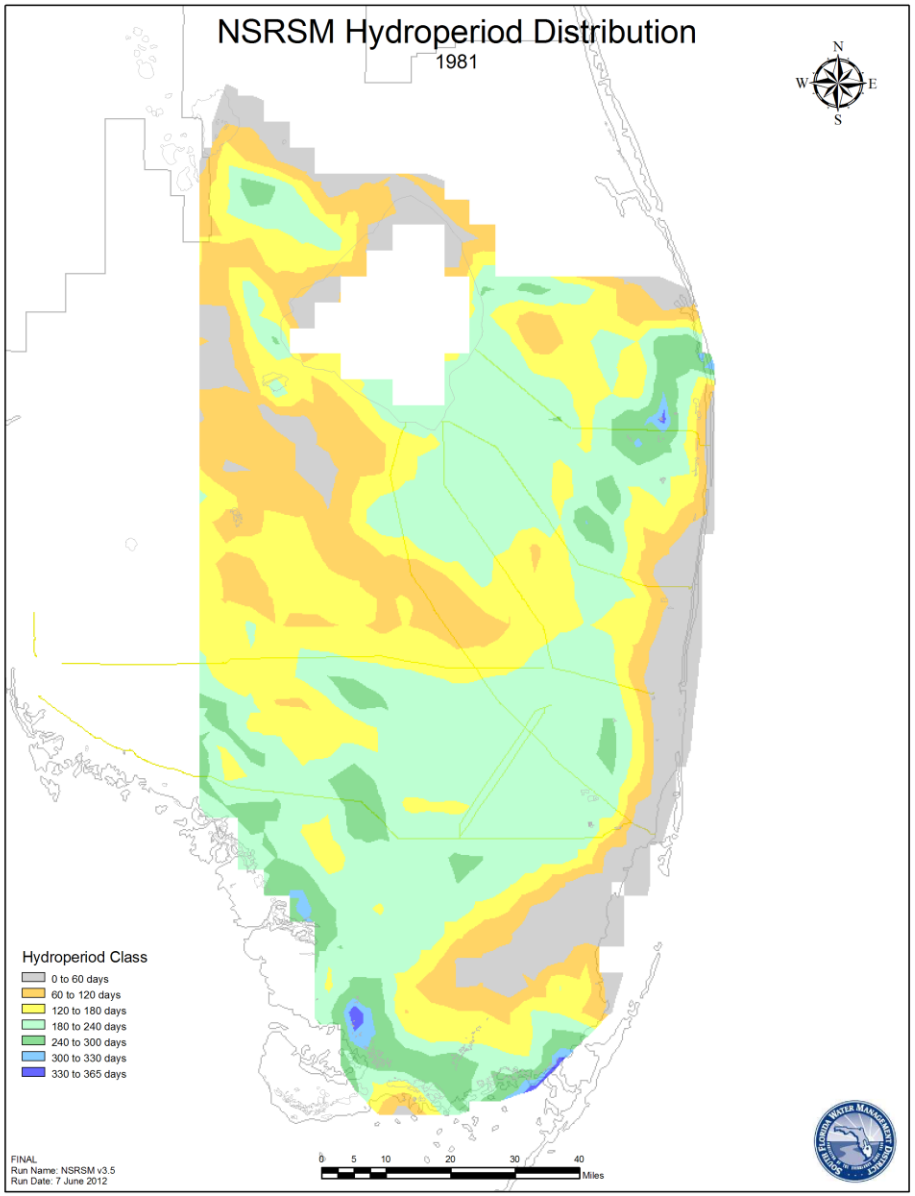
300 to 330 days
330 to 365 days
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles


NSRSM Hydroperiod Distribution
1981
N
W
E
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Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
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300 to 330 days
330 to 365 days
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
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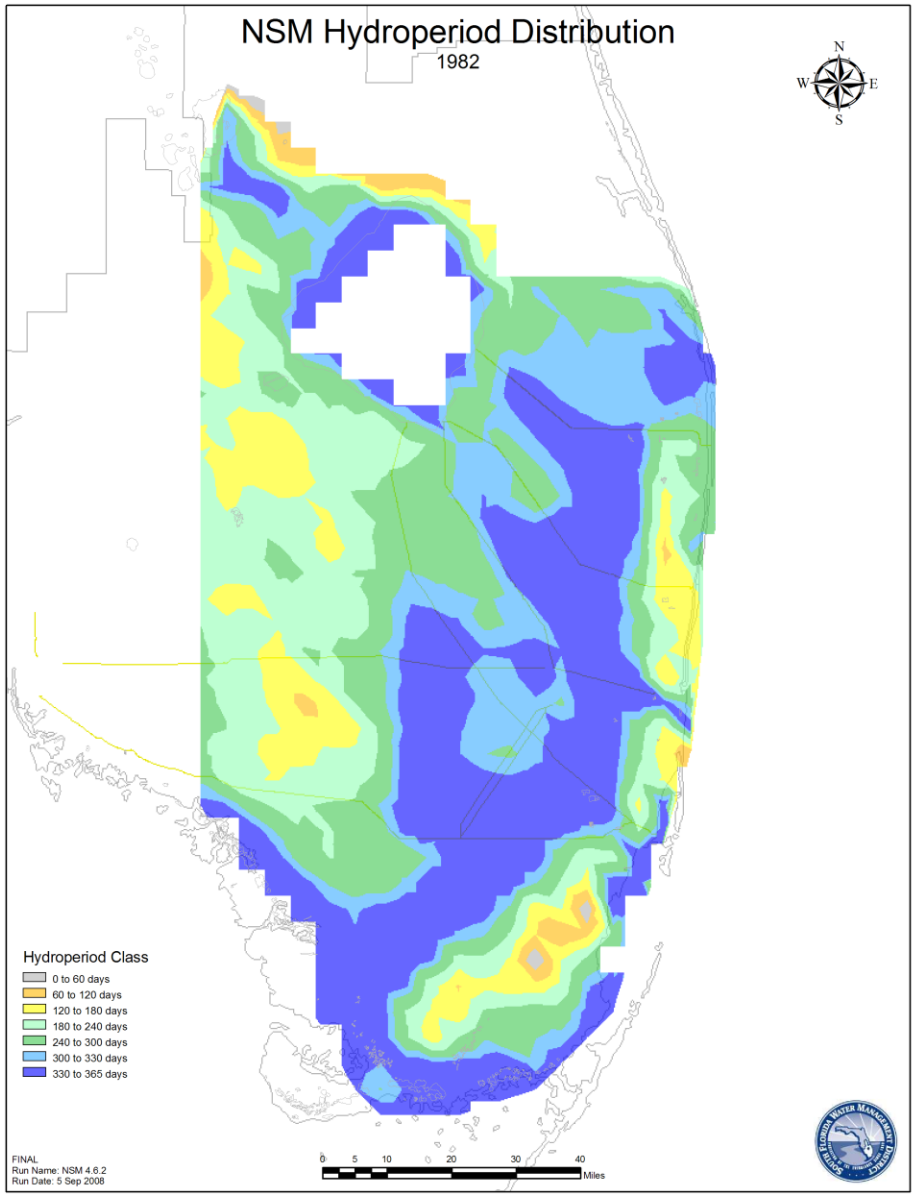
NSM Hydroperiod Distribution
1982
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
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240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
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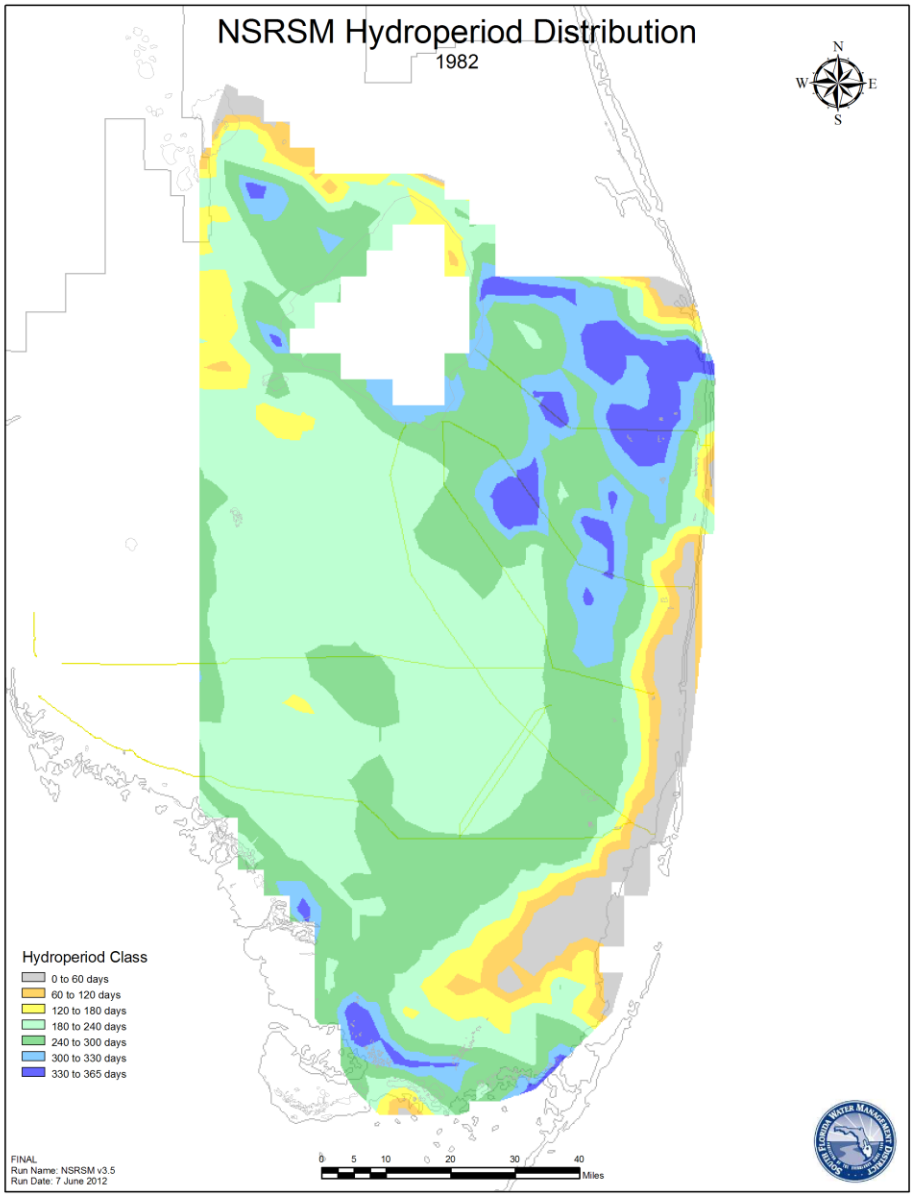
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1982
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
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330 to 365 days
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
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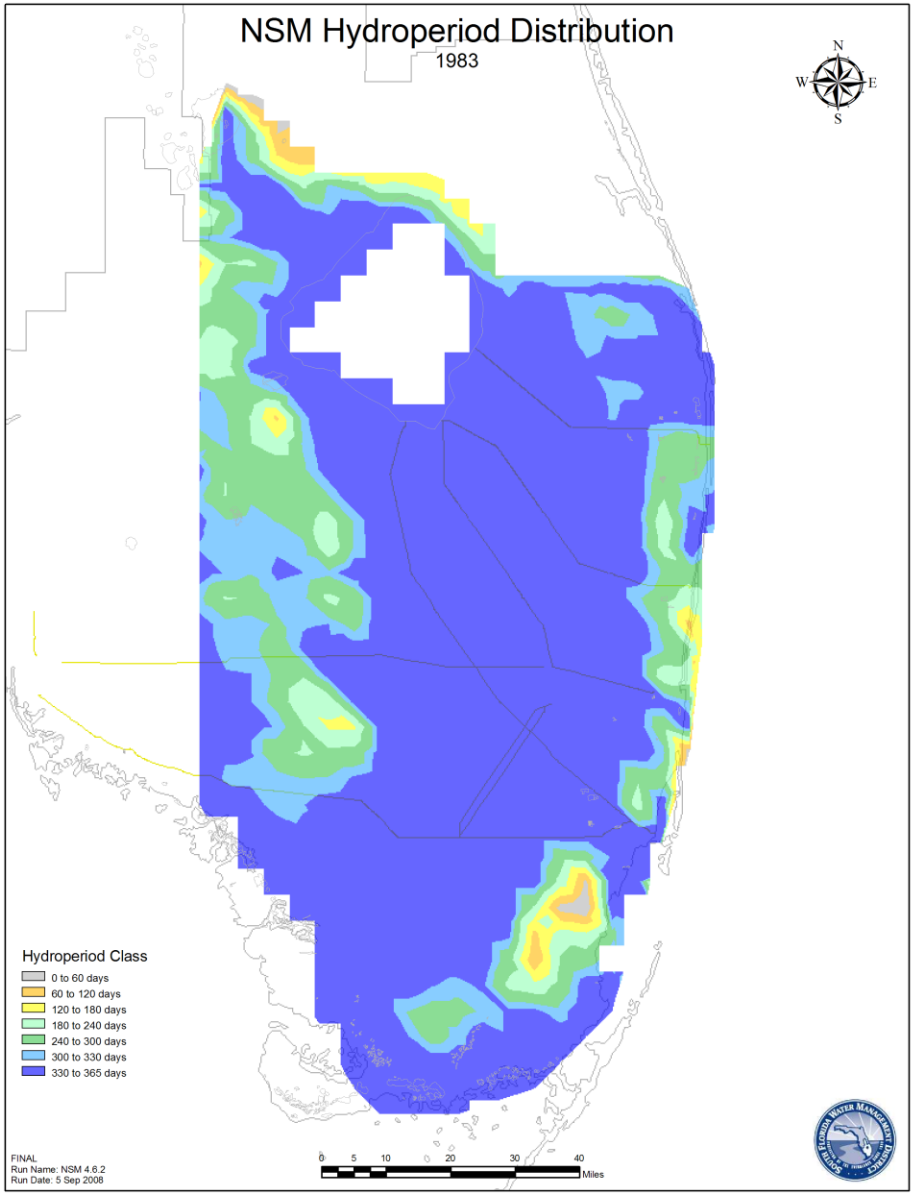
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1983
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
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300 to 330 days
330 to 365 days
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
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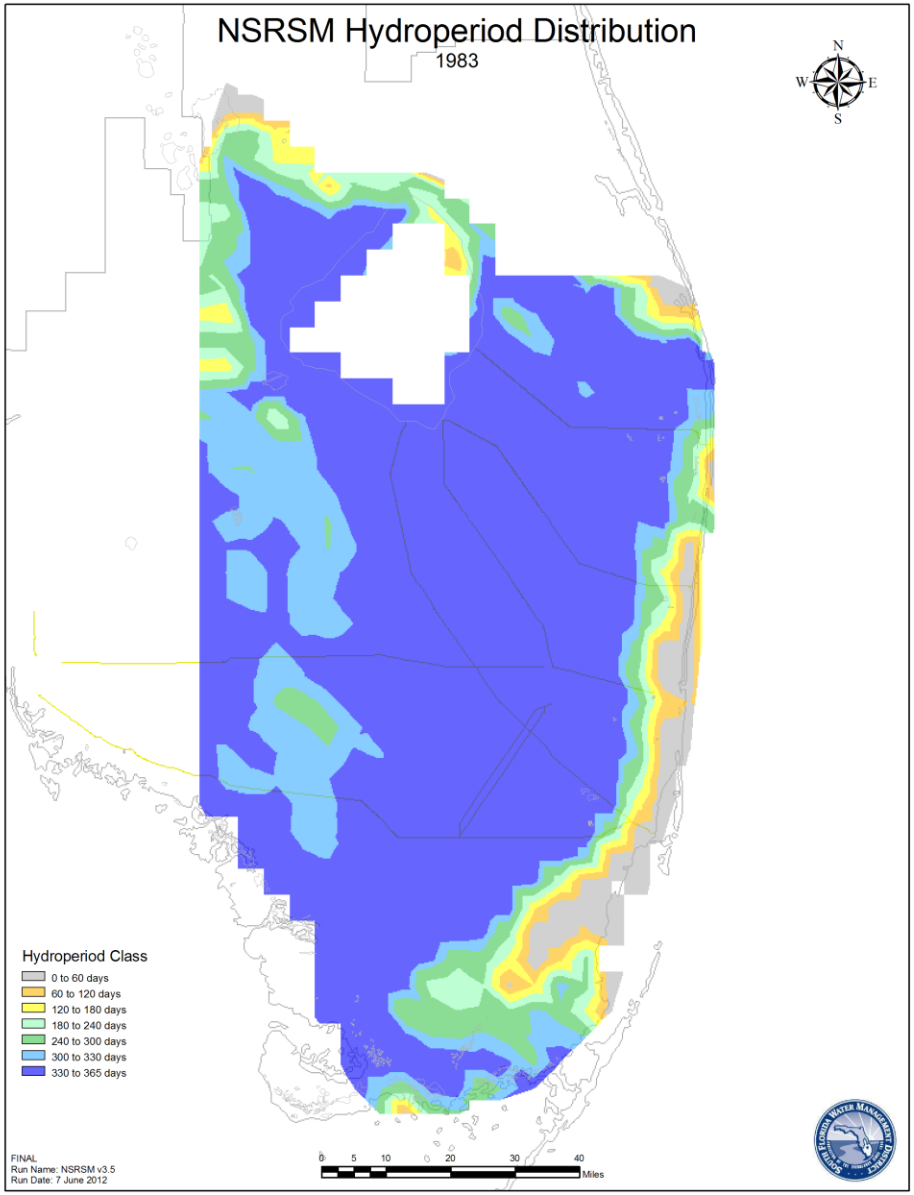
NSRSM Hydroperiod Distribution
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N
W
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Hydroperiod Class
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120 to 180 days
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330 to 365 days
FINAL
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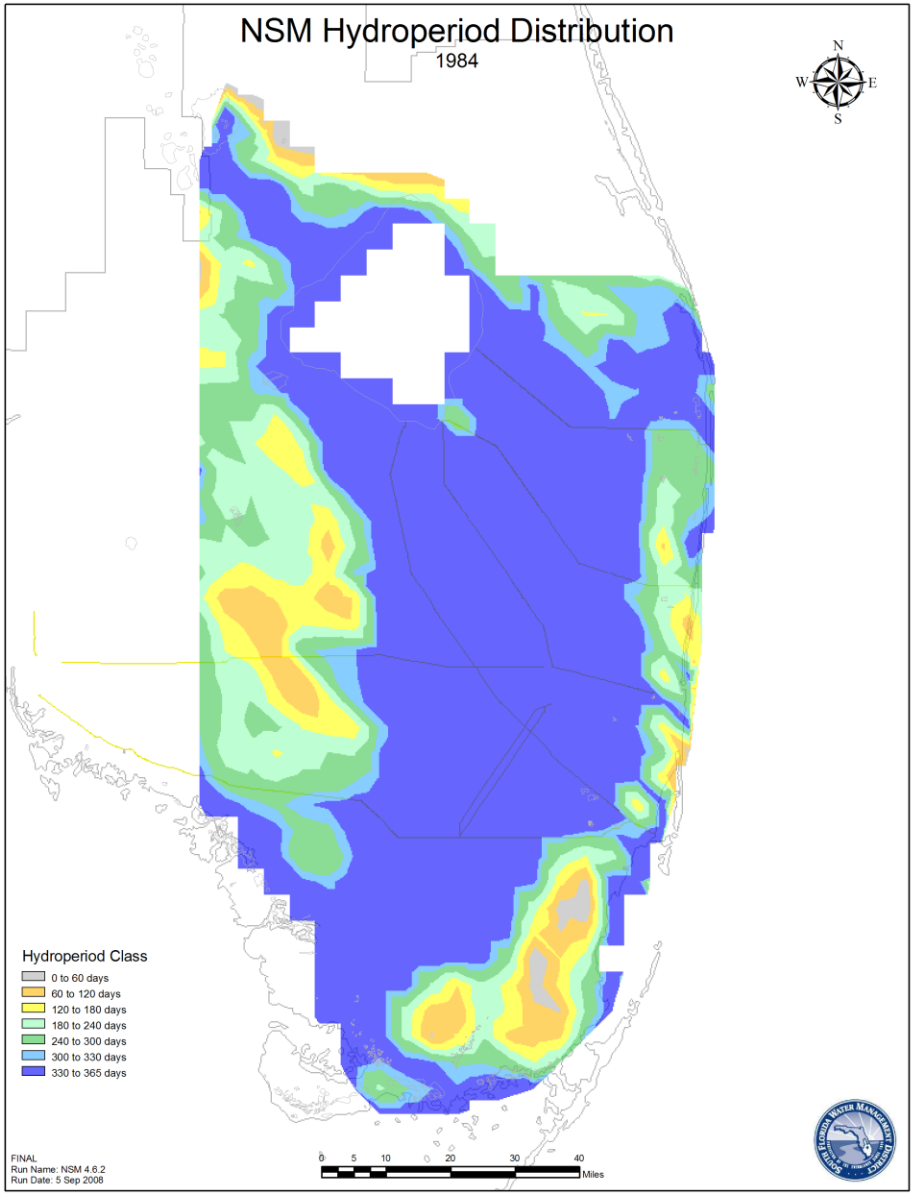
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1984
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Hydroperiod Class
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120 to 180 days
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330 to 365 days
FINAL
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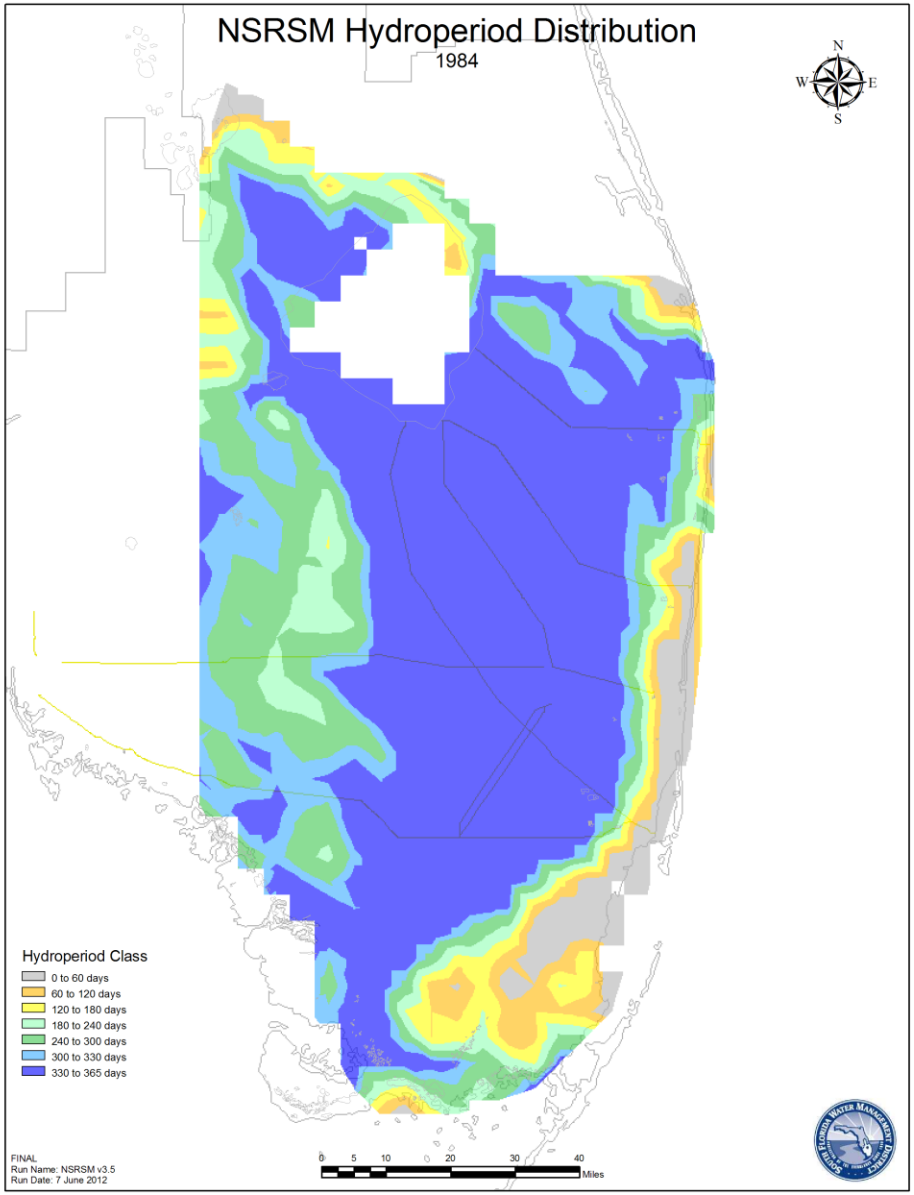
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N
W
E
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Hydroperiod Class
0 to 60 days
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120 to 180 days
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300 to 330 days
330 to 365 days
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
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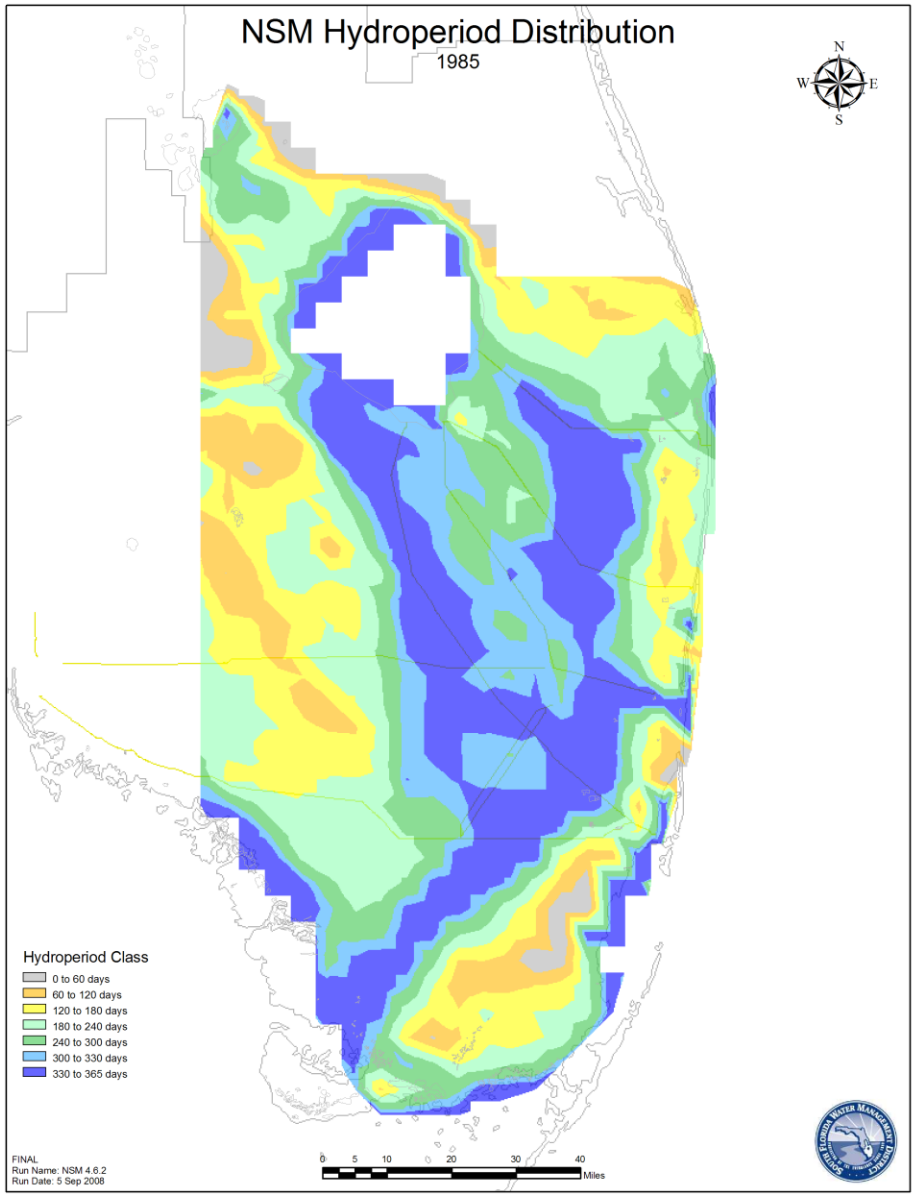
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1985
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E
S
Hydroperiod Class
0 to 60 days
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120 to 180 days
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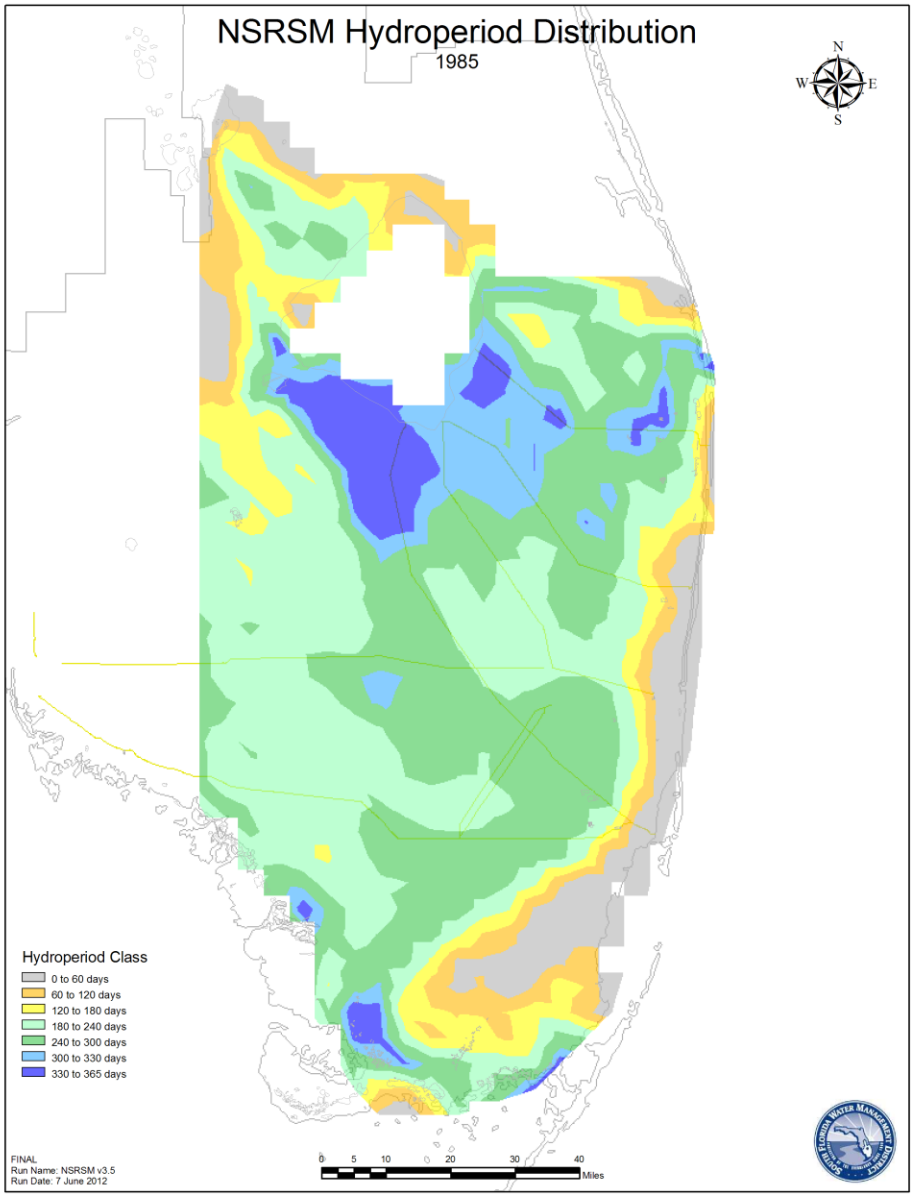
300 to 330 days
330 to 365 days
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles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Hydroperiod Class
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330 to 365 days
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
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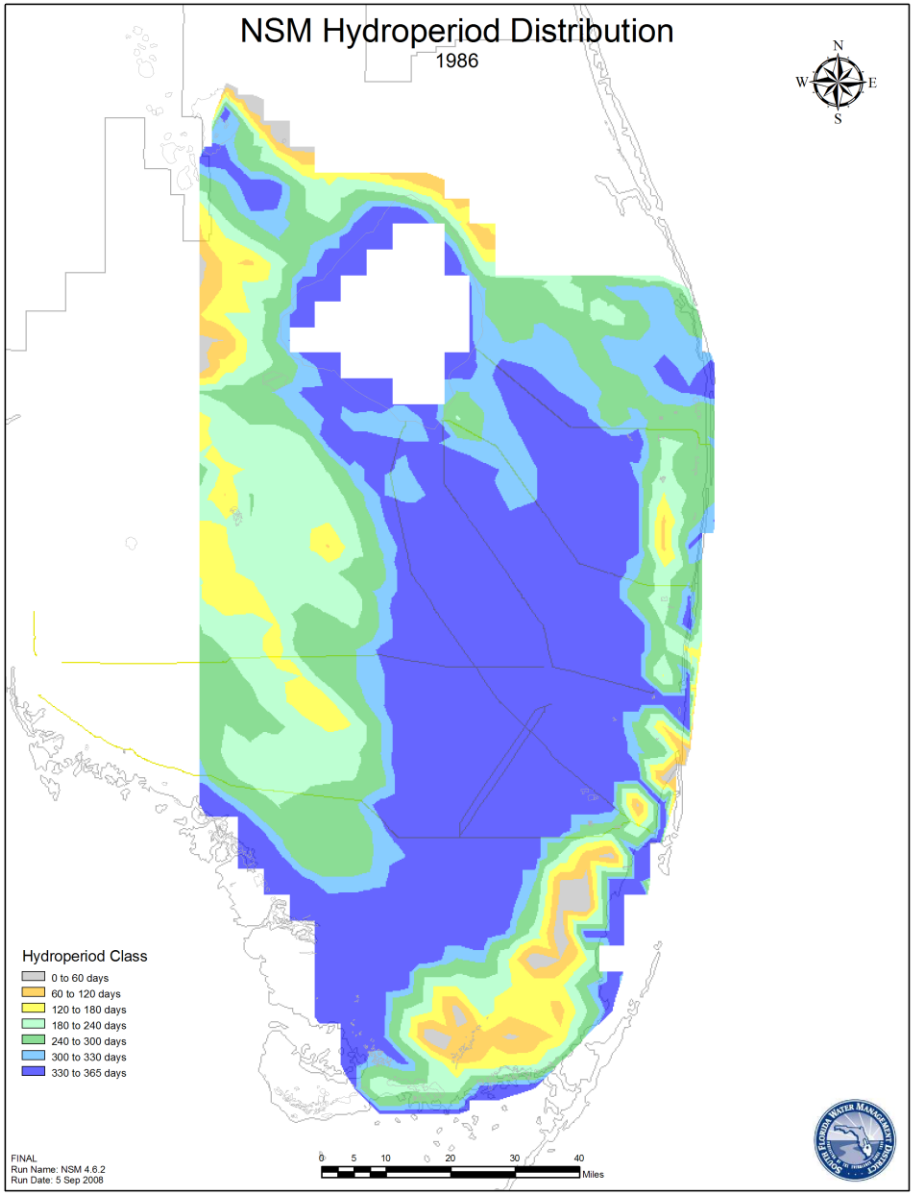
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1986
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E
S
Hydroperiod Class
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120 to 180 days
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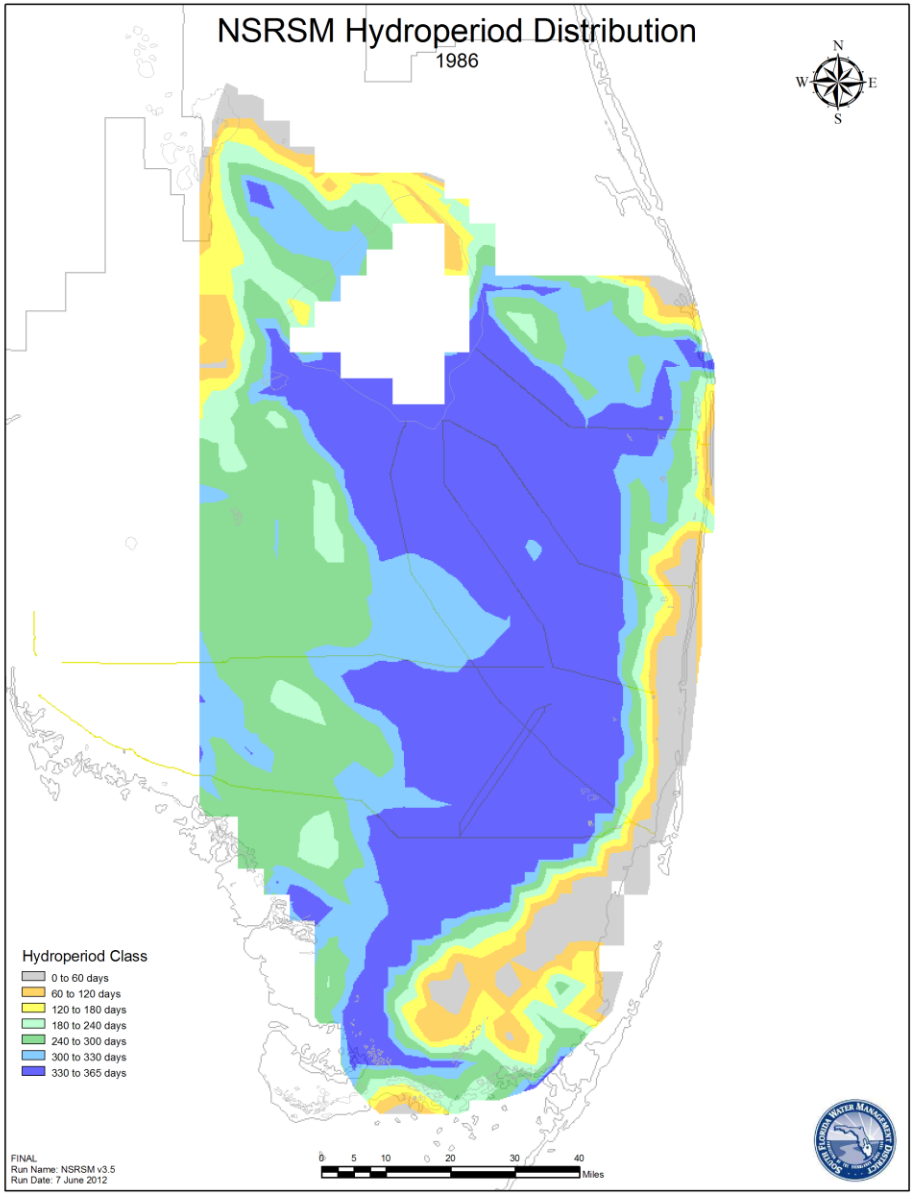
300 to 330 days
330 to 365 days
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles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Hydroperiod Class
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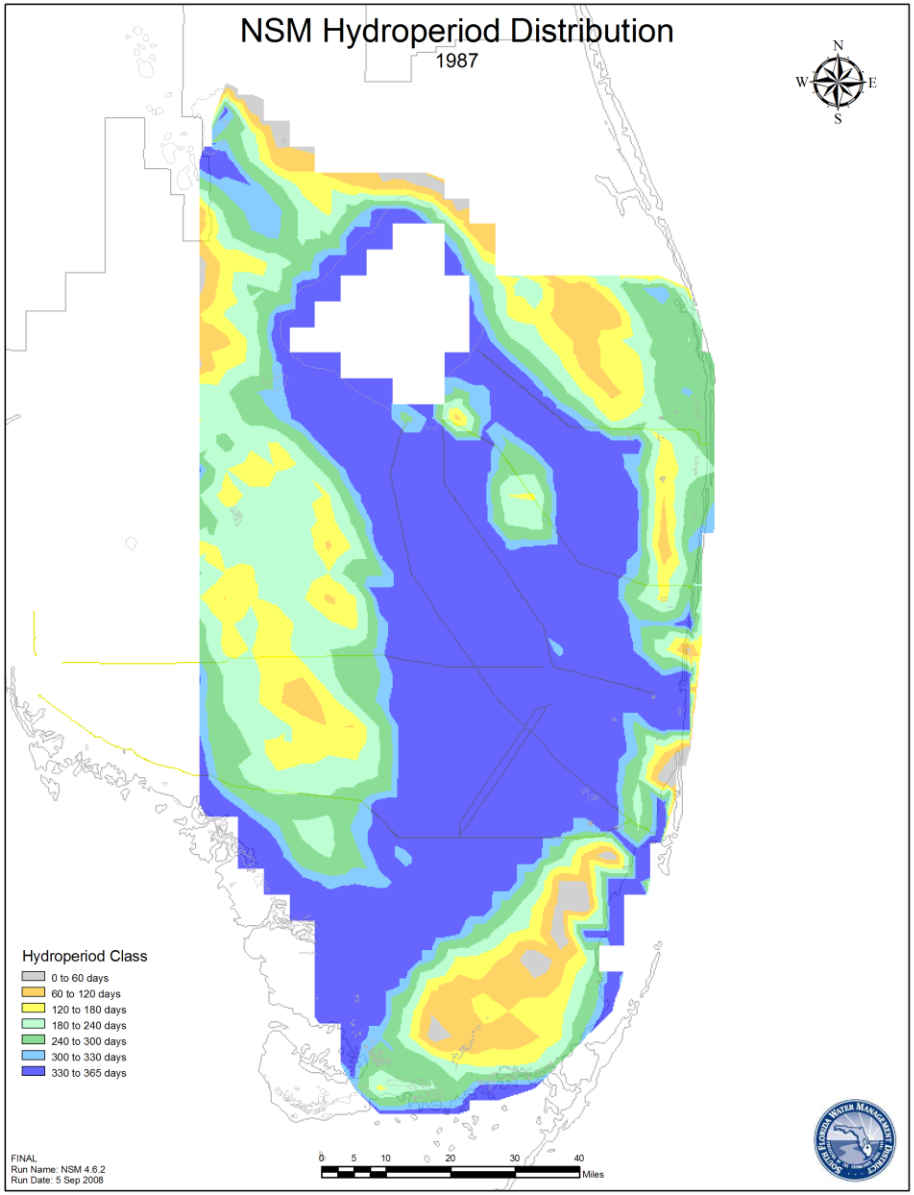
330 to 365 days
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles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1987
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Hydroperiod Class
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330 to 365 days
FINAL
Run Name: NSM 4.6.2
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0 5 10 20 30 40
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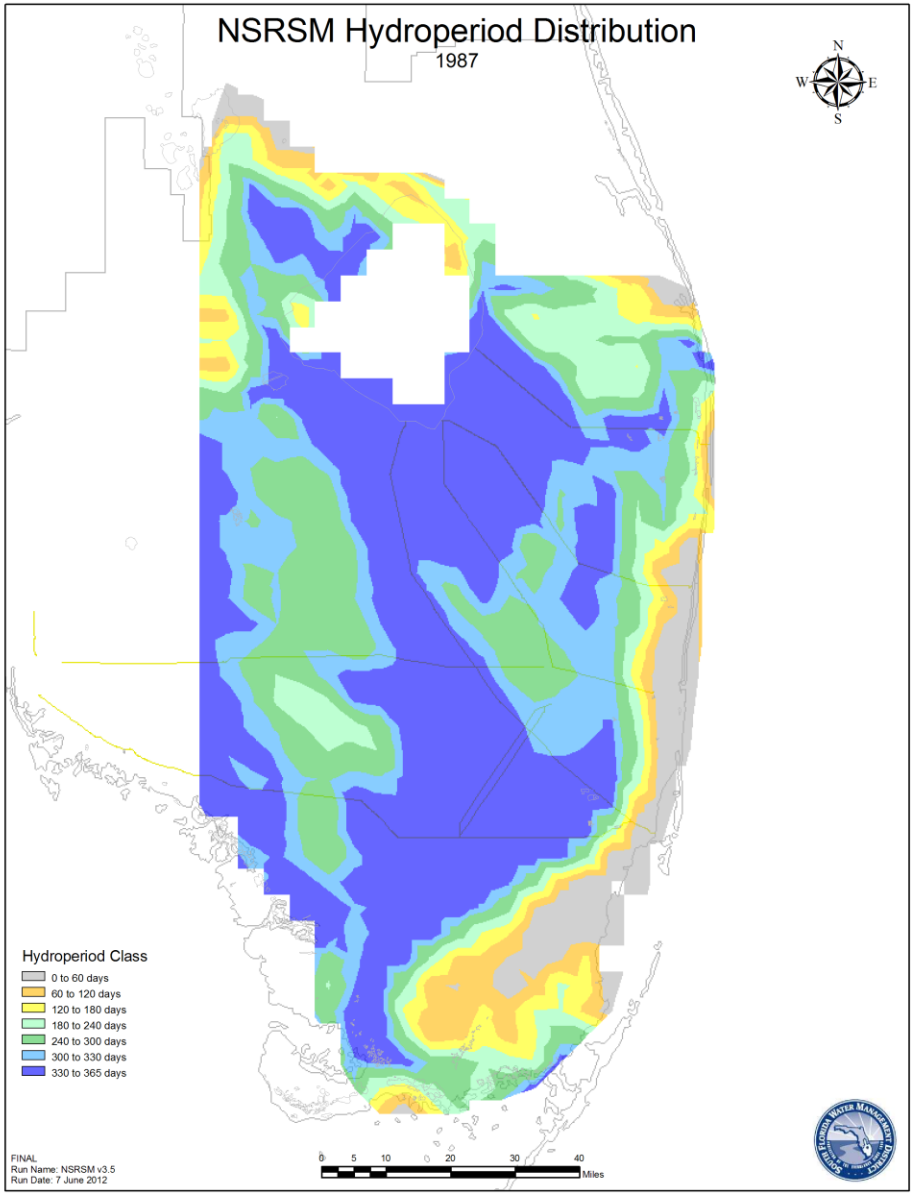
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Hydroperiod Class
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330 to 365 days
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
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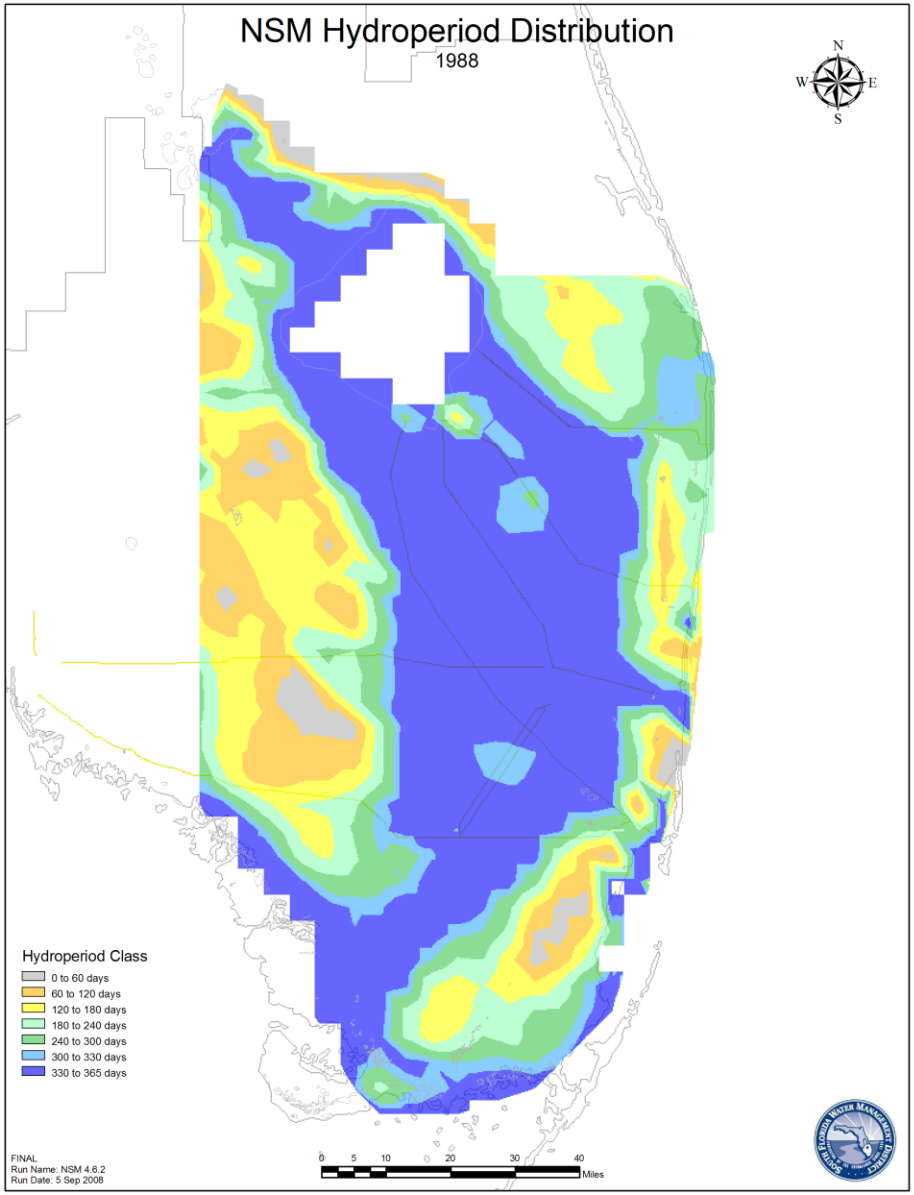
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1988
N
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Hydroperiod Class
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330 to 365 days
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0 5 10 20 30 40
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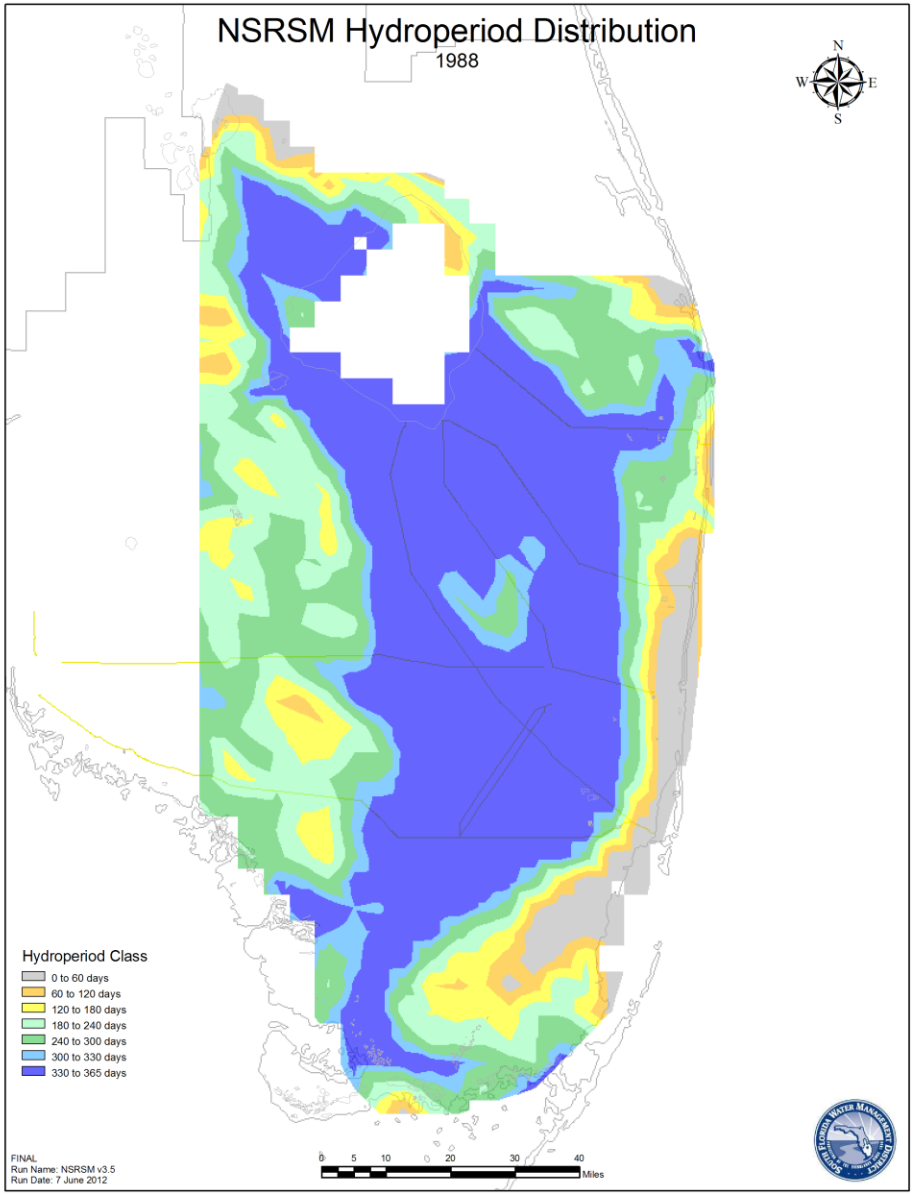
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Hydroperiod Class
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330 to 365 days
FINAL
Run Name: NSRSM v3.5
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0 5 10 20 30 40
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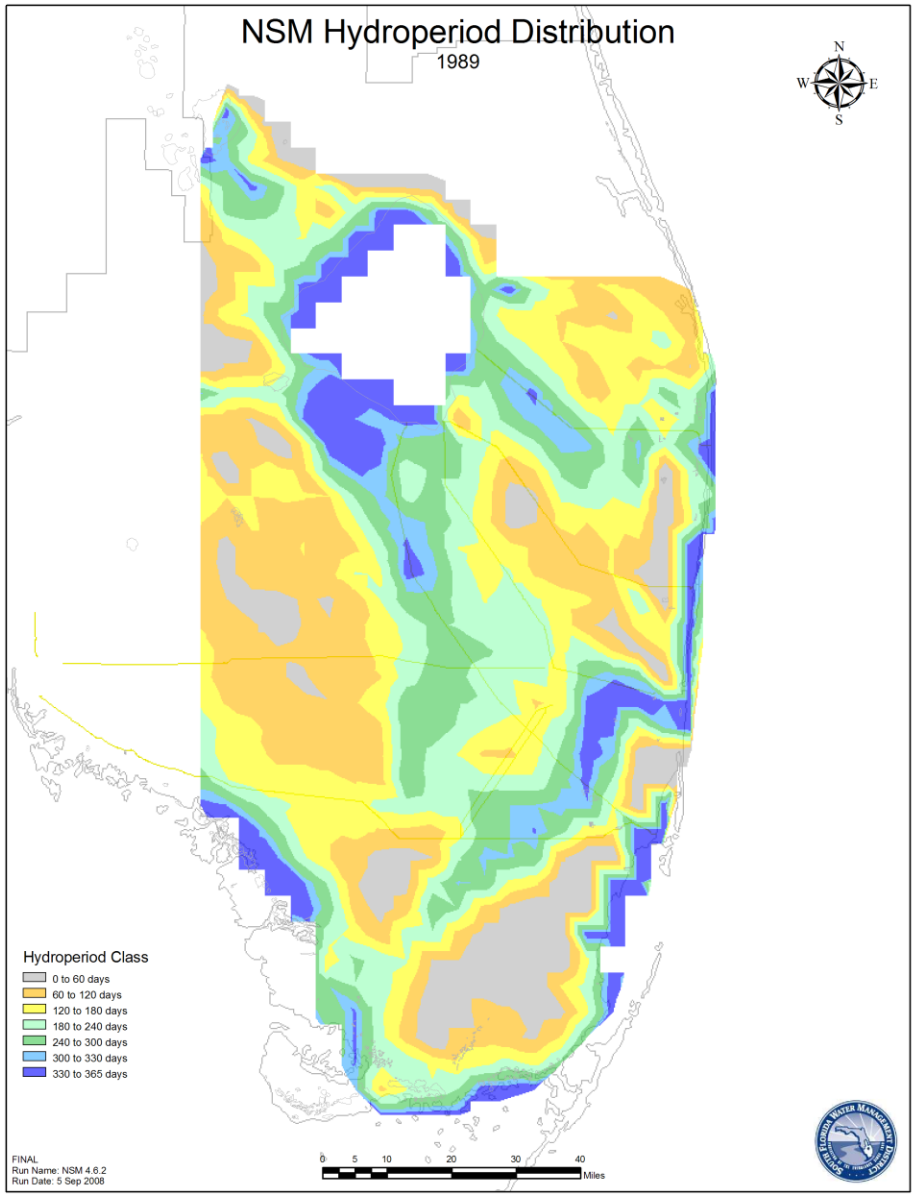
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1989
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W
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S
Hydroperiod Class
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120 to 180 days
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330 to 365 days
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
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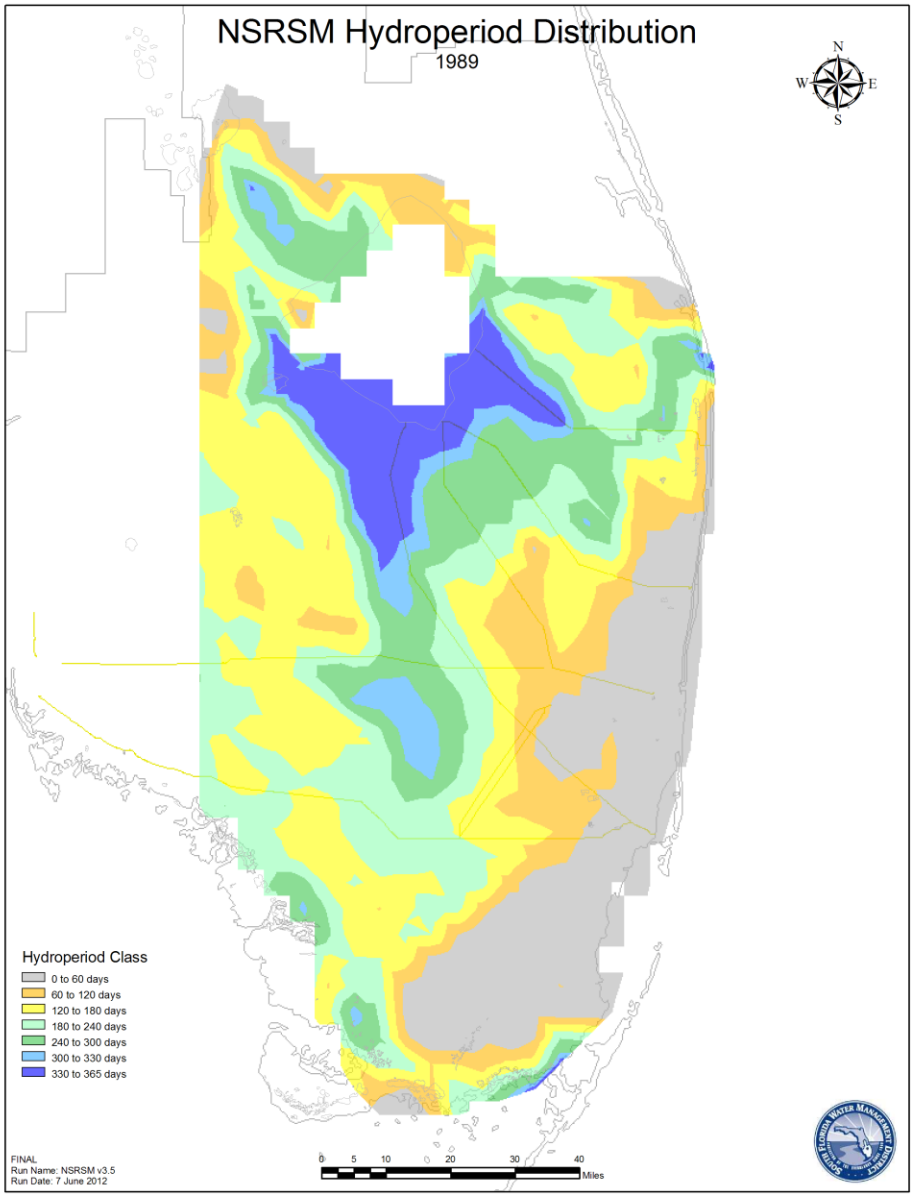
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Hydroperiod Class
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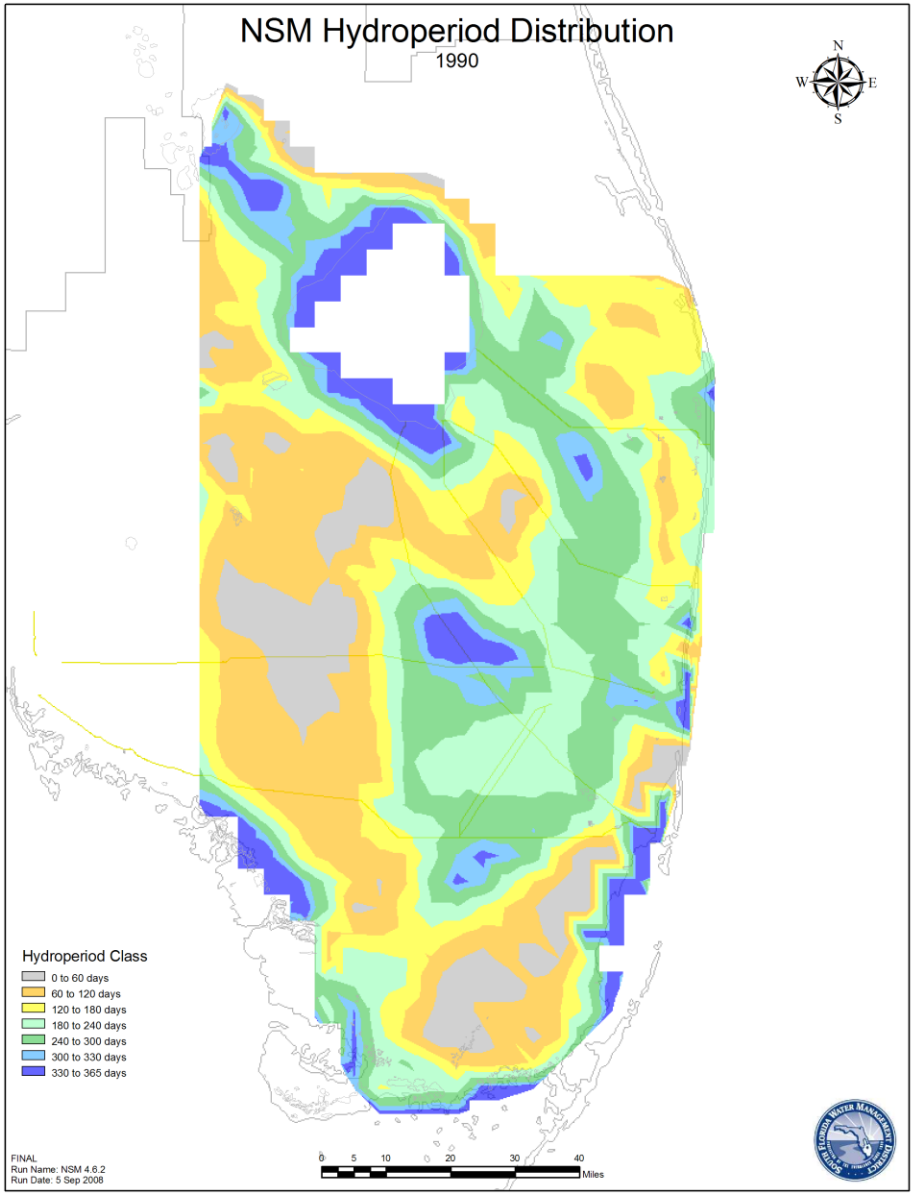
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Hydroperiod Class
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Run Name: NSM 4.6.2
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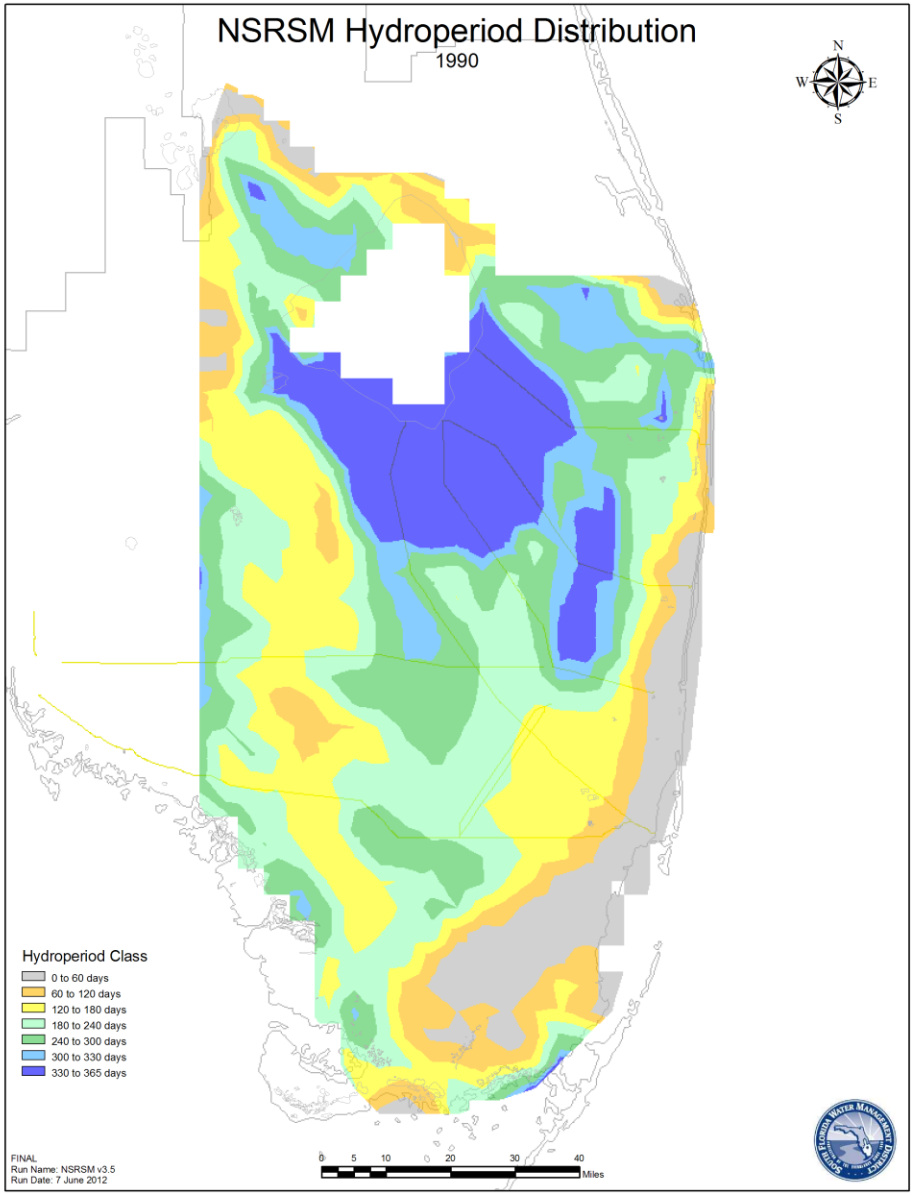
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Hydroperiod Class
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330 to 365 days
FINAL
Run Name: NSRSM v3.5
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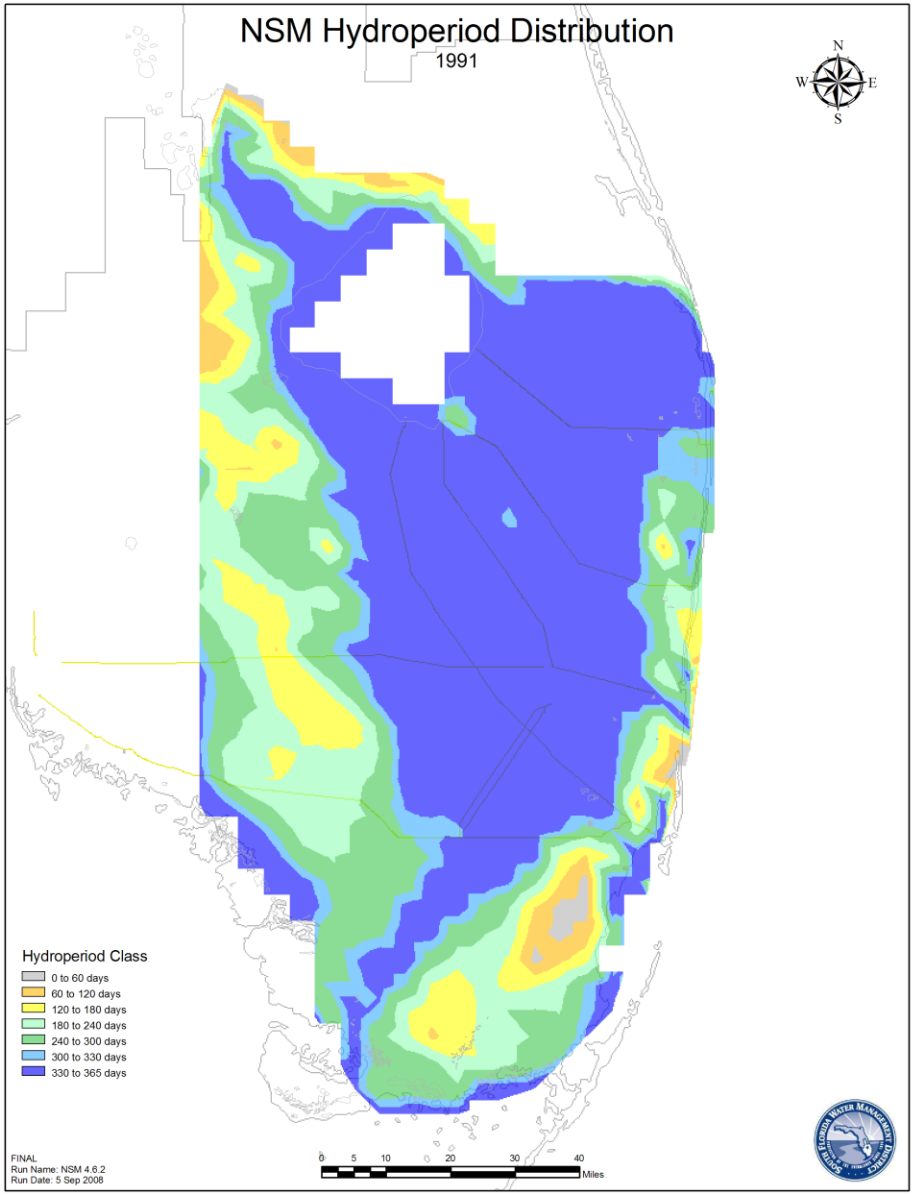
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Hydroperiod Class
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Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
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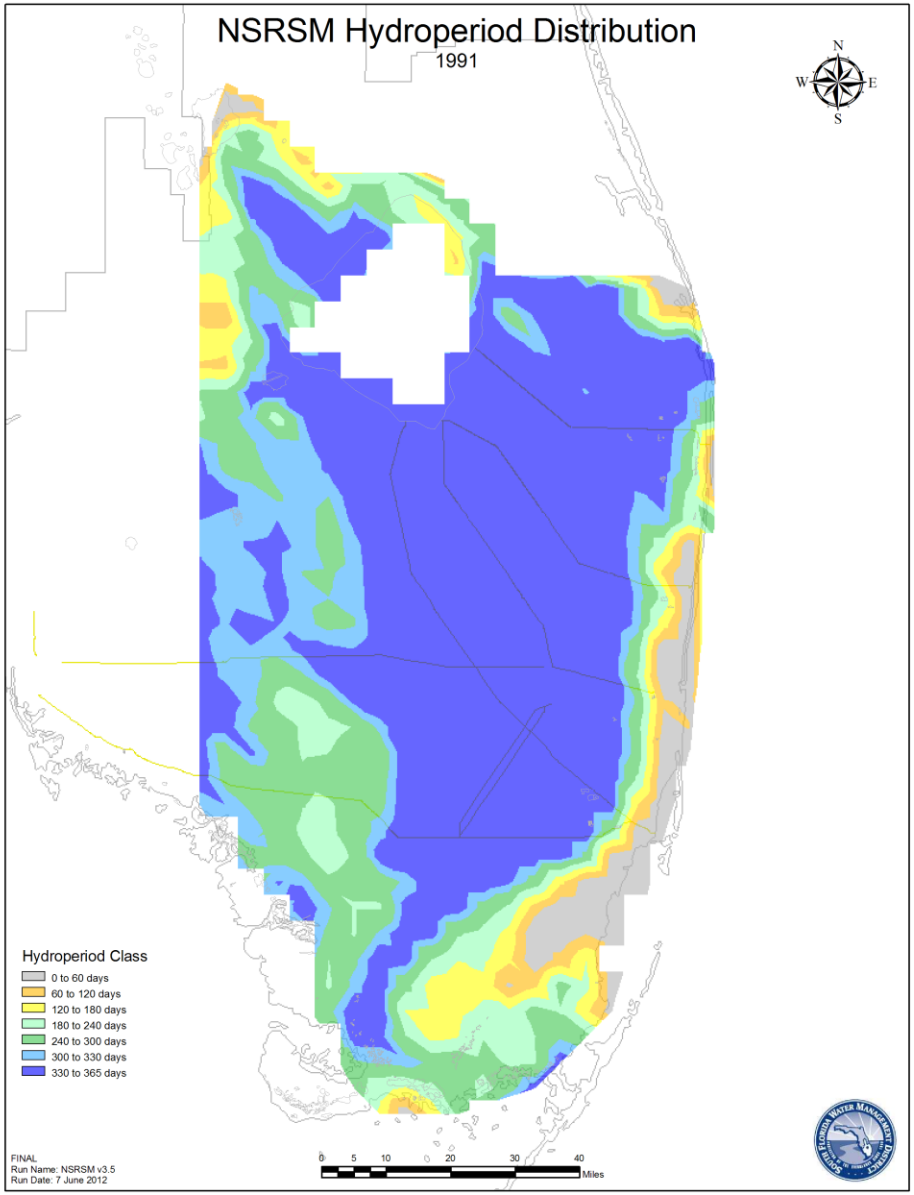
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Hydroperiod Class
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FINAL
Run Name: NSRSM v3.5
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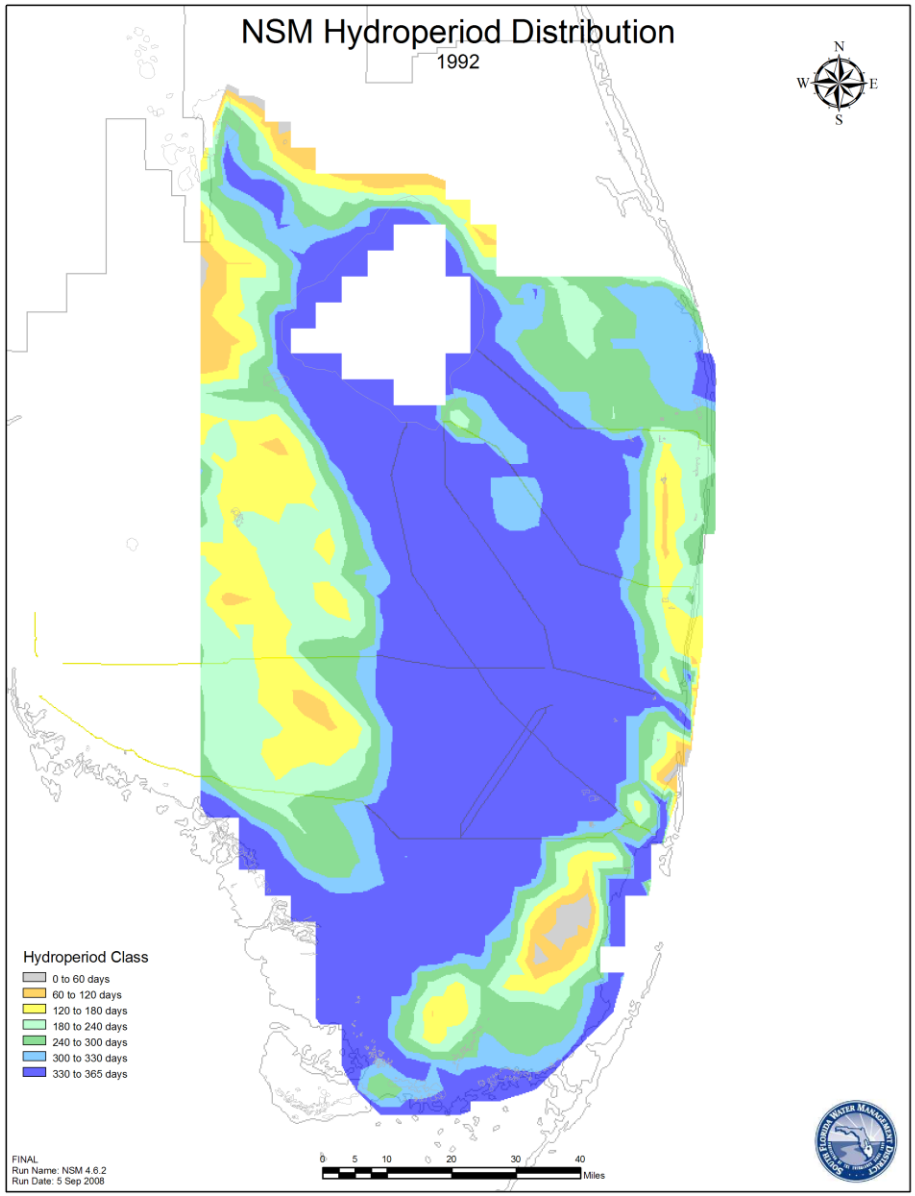
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330 to 365 days
FINAL
Run Name: NSM 4.6.2
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0 5 10 20 30 40
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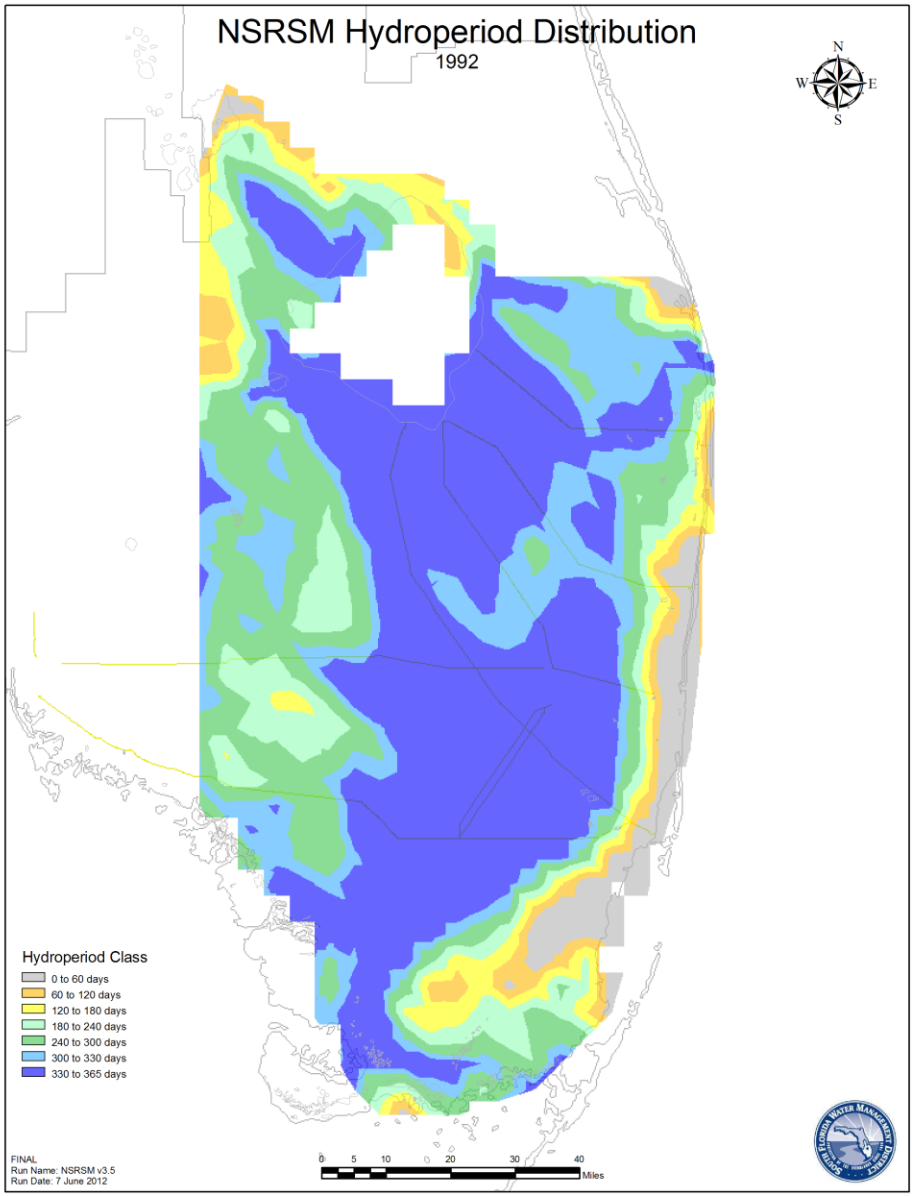
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Hydroperiod Class
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FINAL
Run Name: NSRSM v3.5
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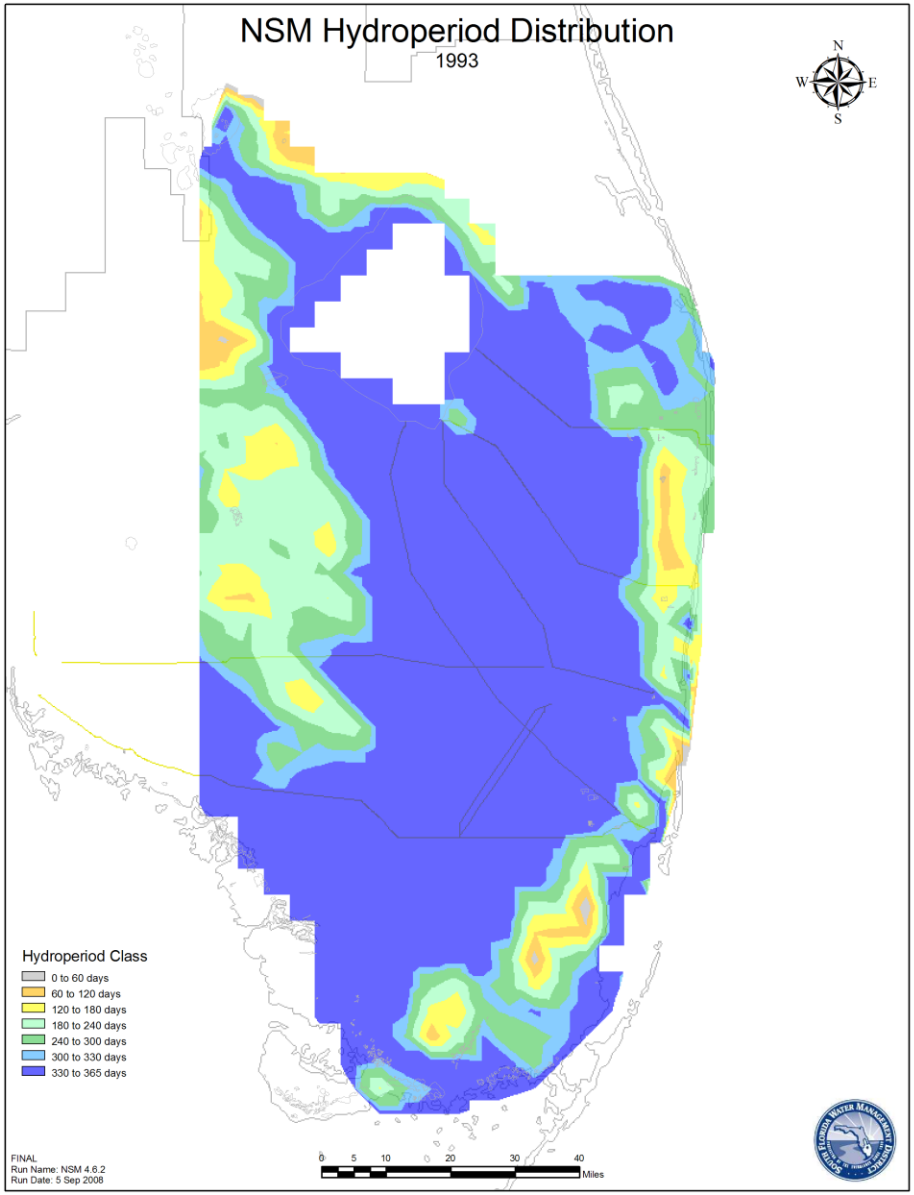
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1993
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Hydroperiod Class
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FINAL
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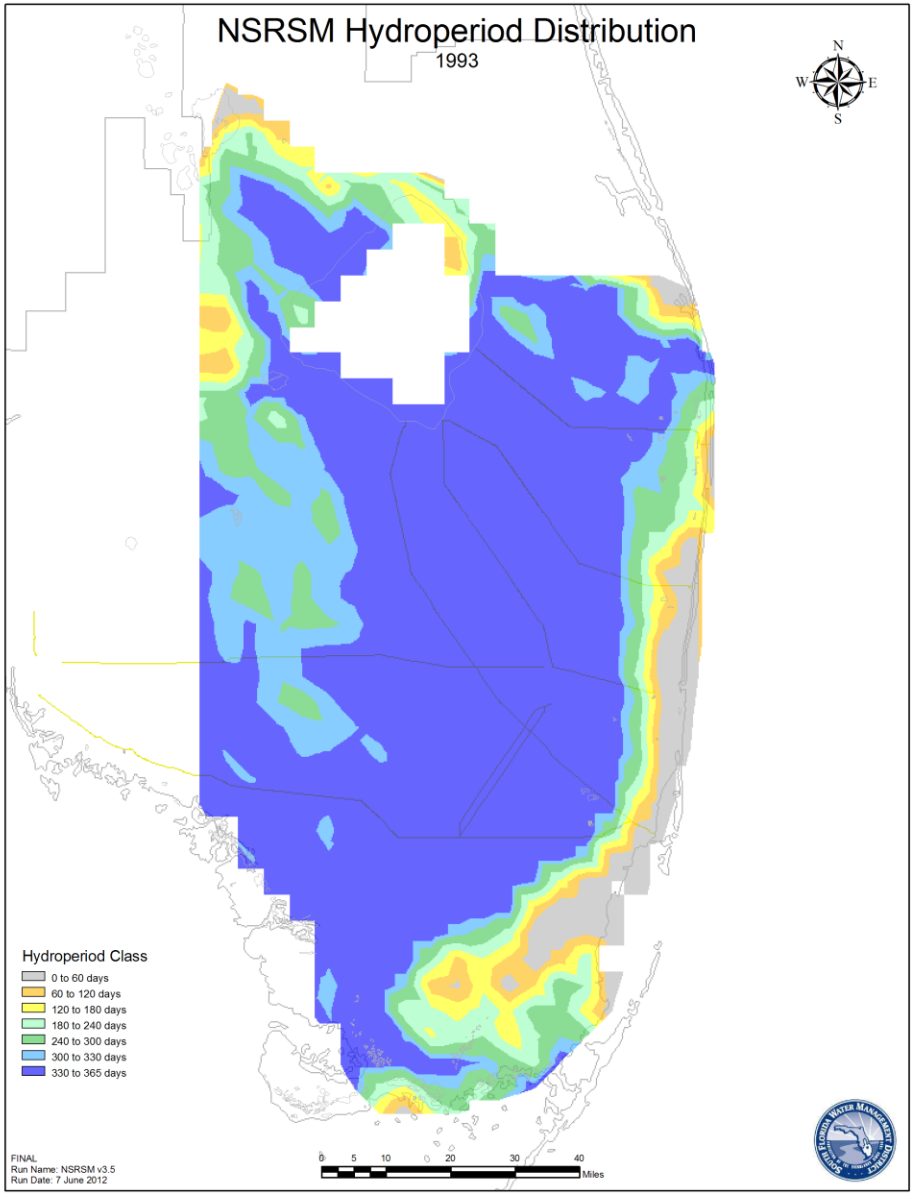
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Hydroperiod Class
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330 to 365 days
FINAL
Run Name: NSRSM v3.5
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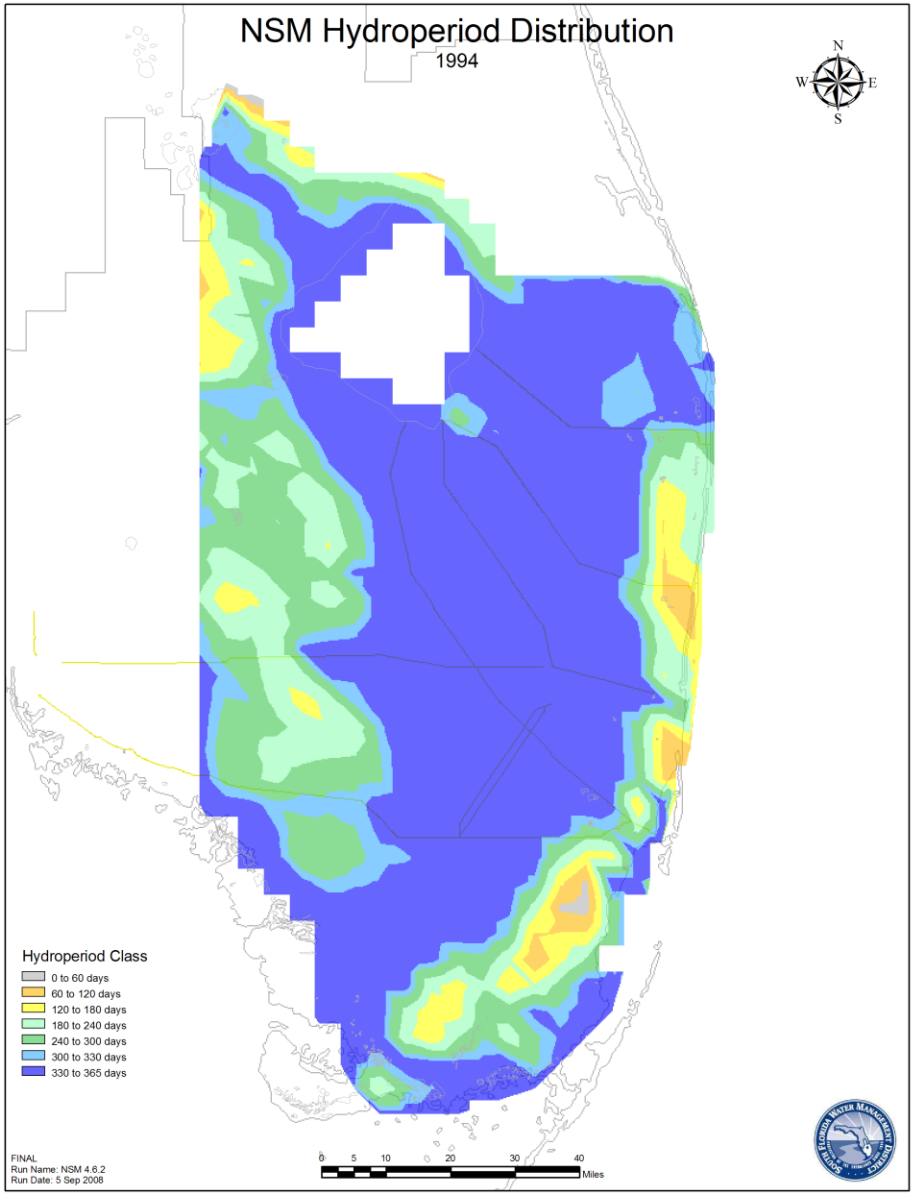
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1994
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Hydroperiod Class
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120 to 180 days
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330 to 365 days
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
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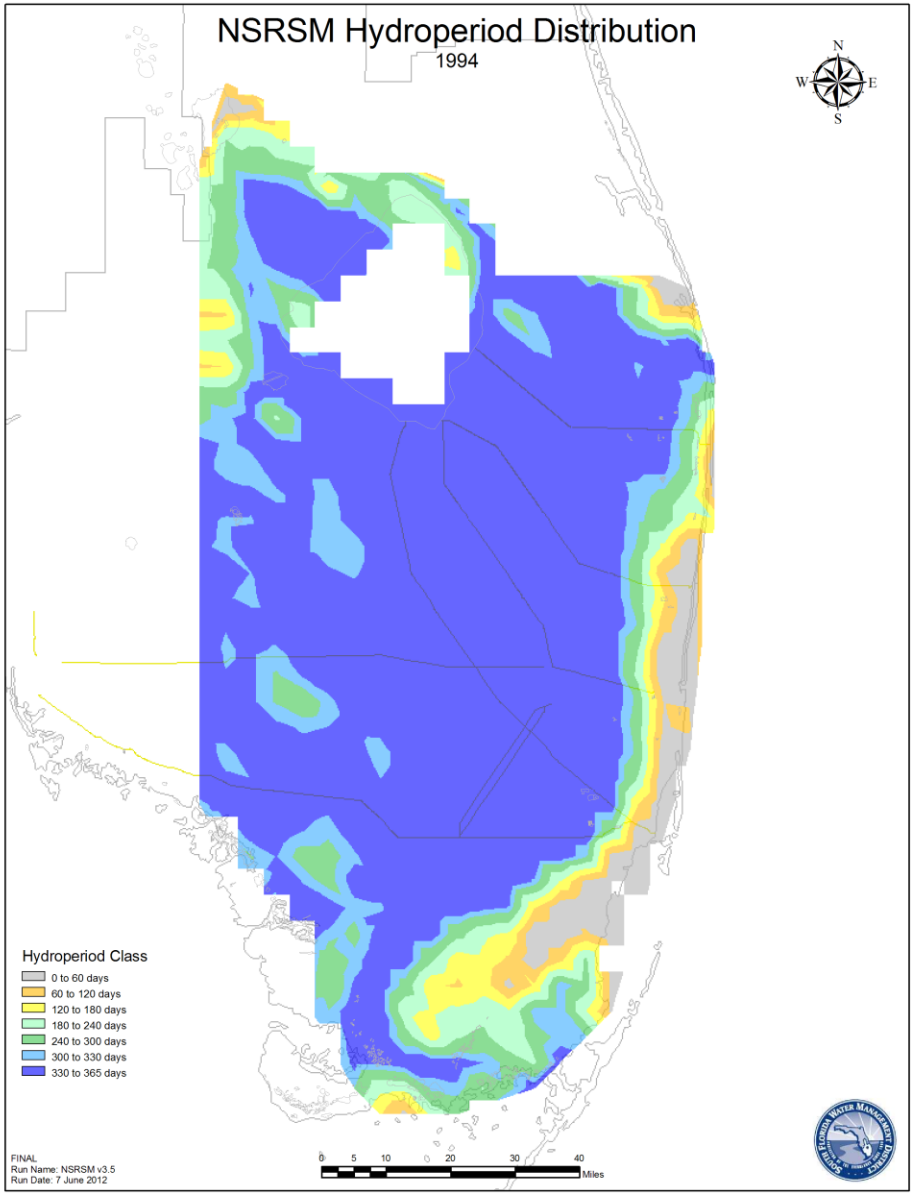
Miles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1994
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E
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Hydroperiod Class
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330 to 365 days
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
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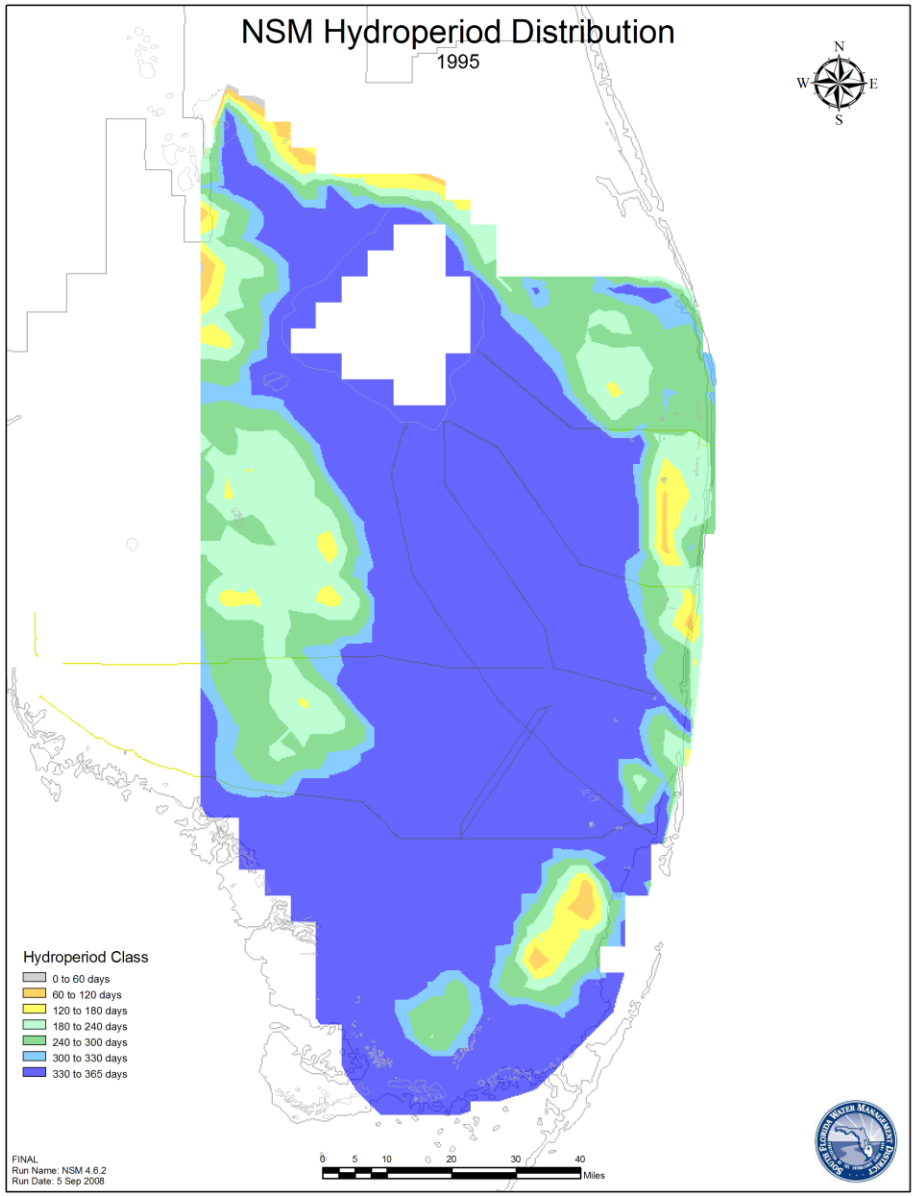
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1995
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E
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Hydroperiod Class
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60 to 120 days
120 to 180 days
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330 to 365 days
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
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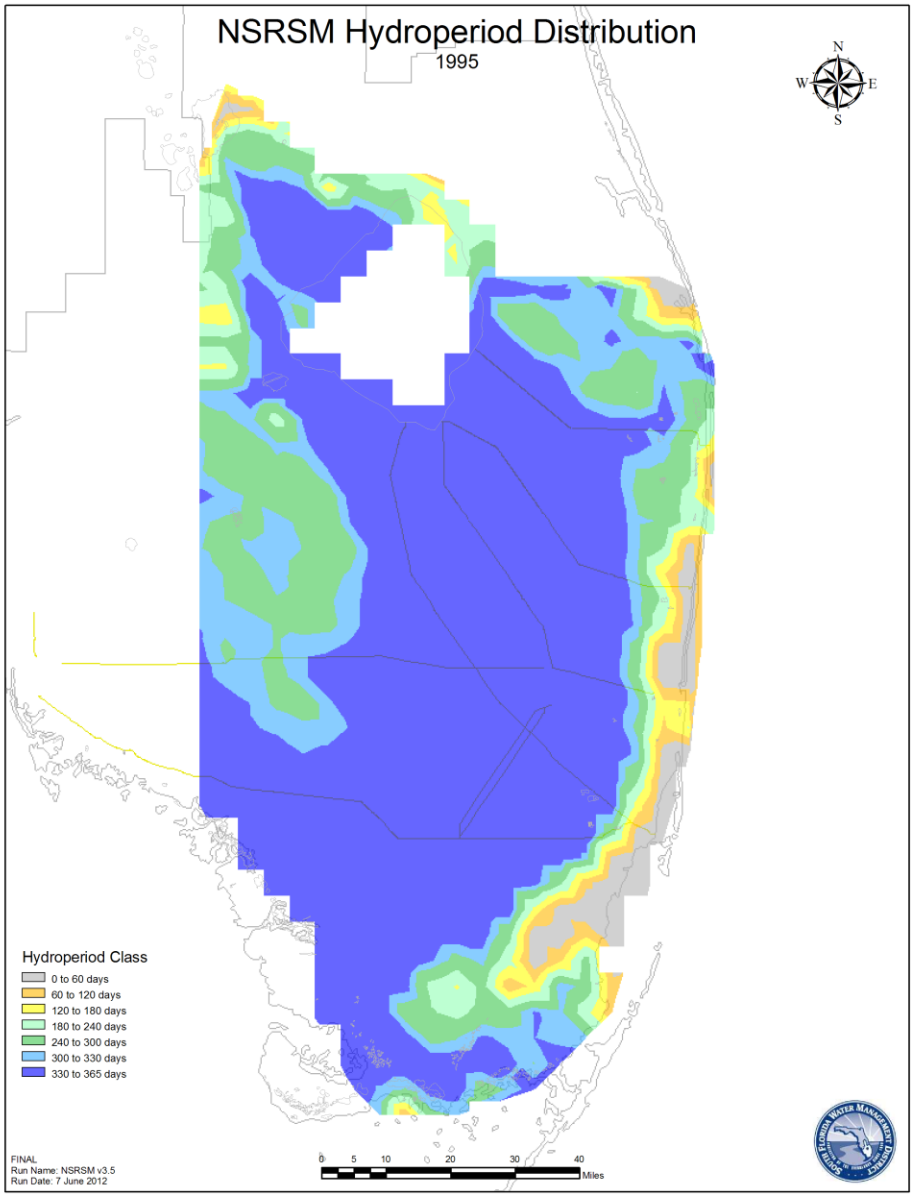
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Hydroperiod Class
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330 to 365 days
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
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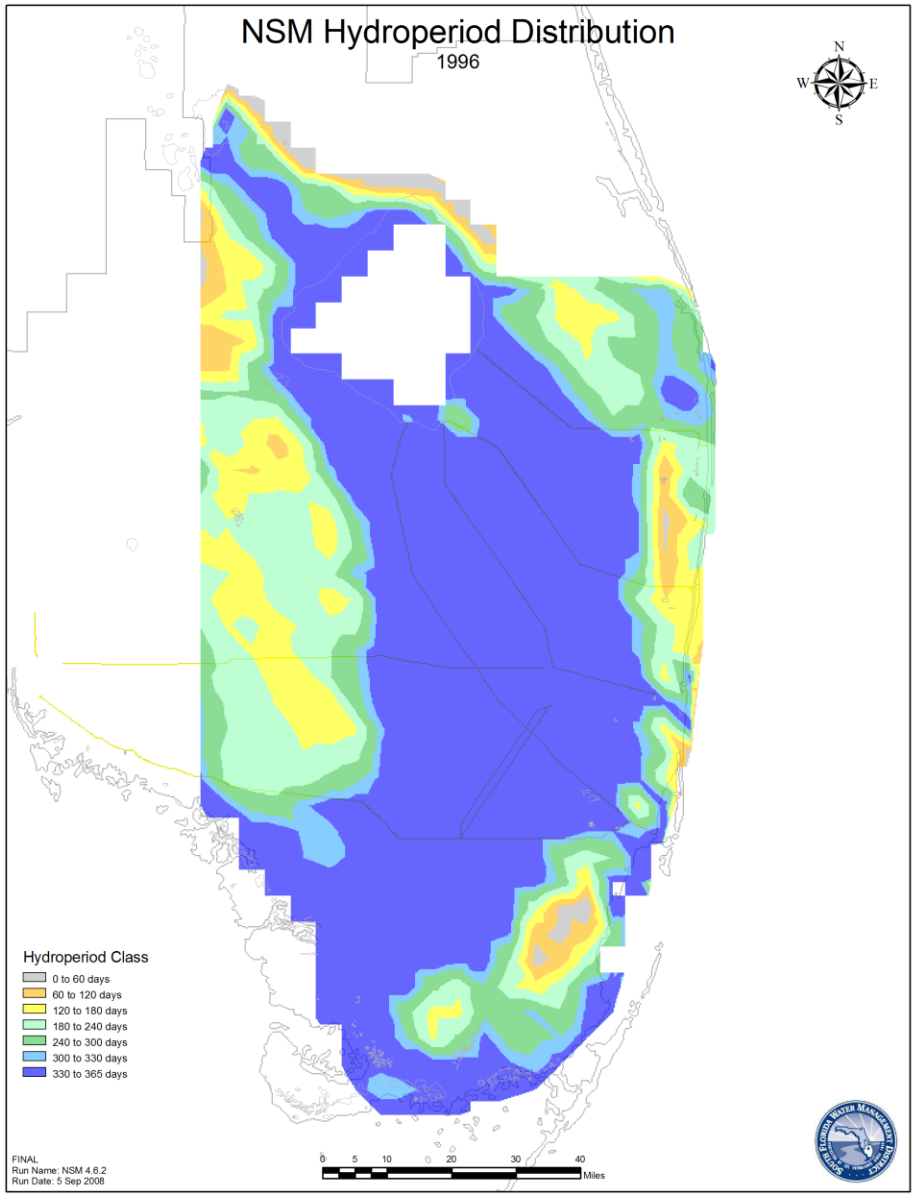
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FINAL
Run Name: NSM 4.6.2
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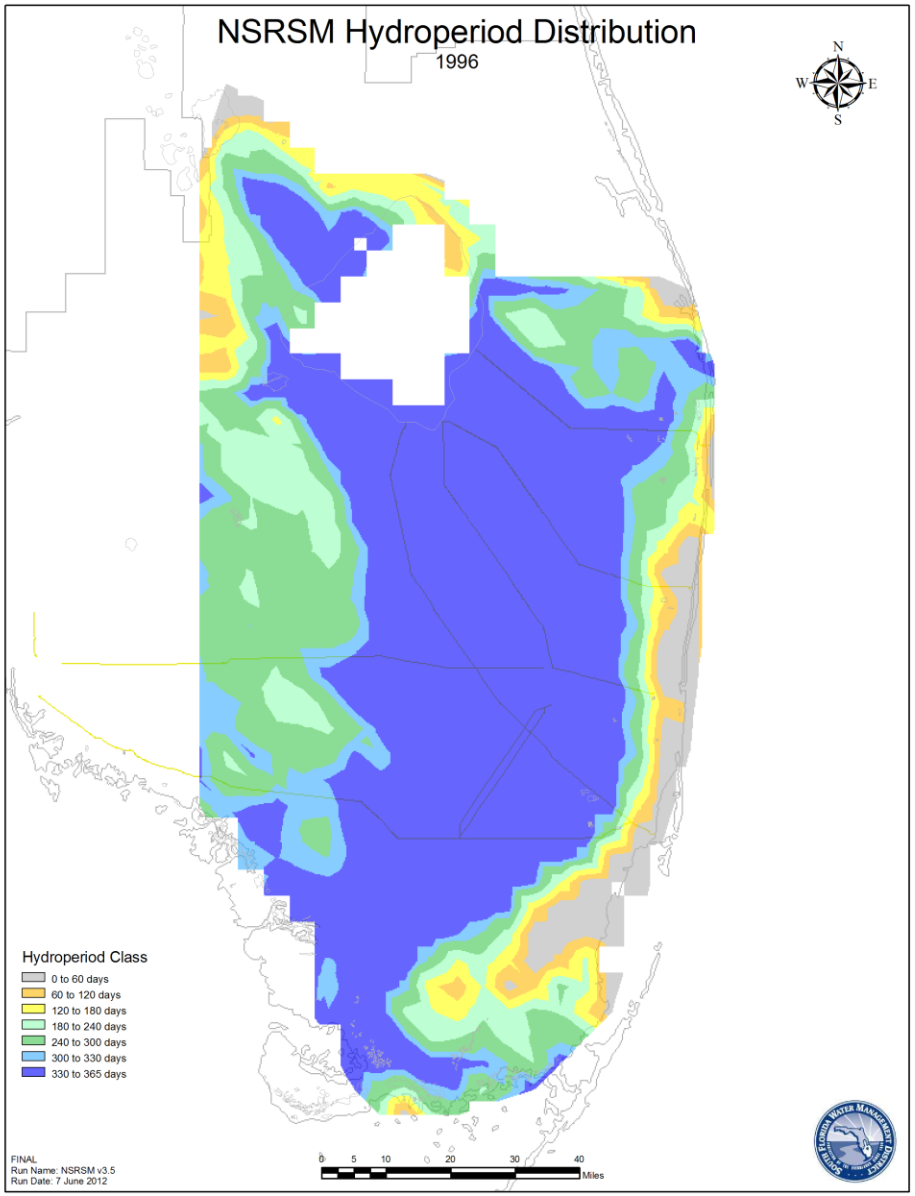
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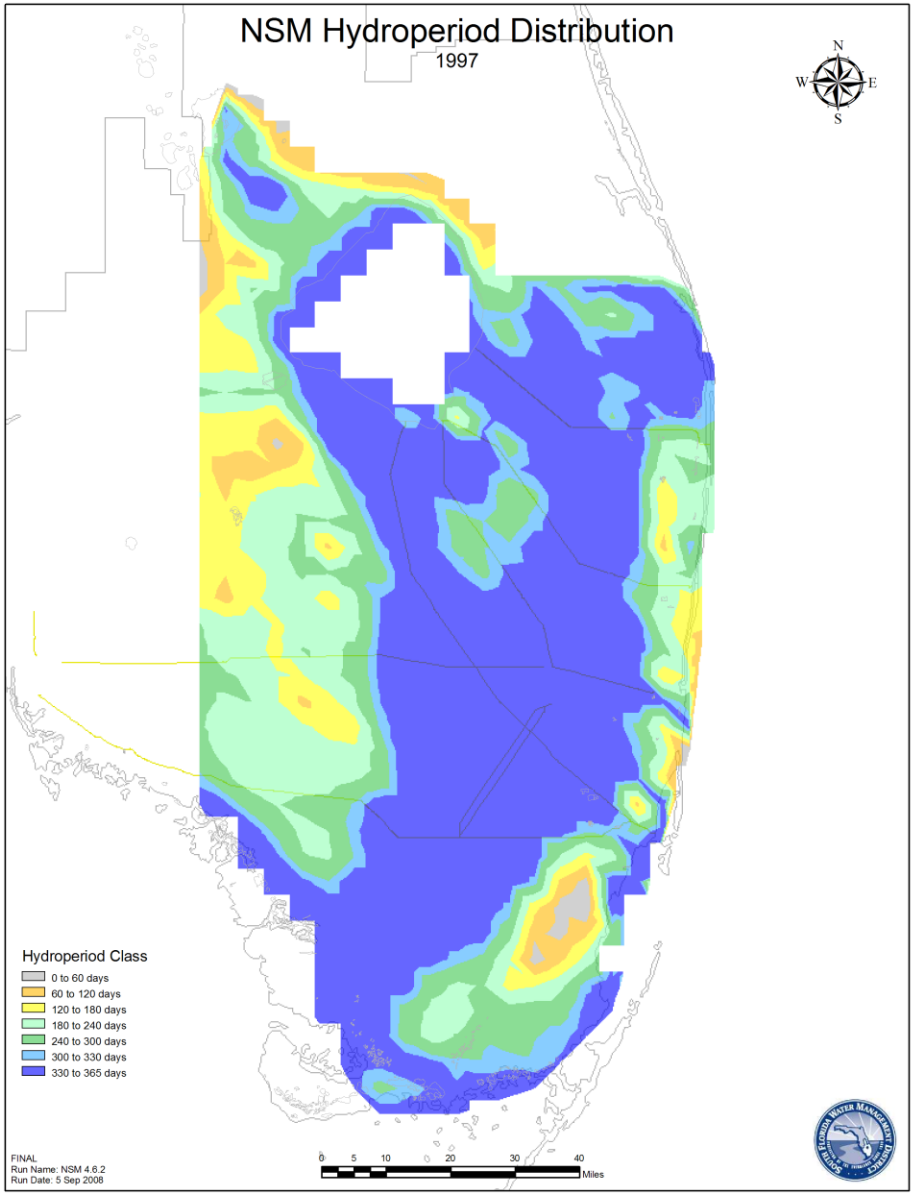
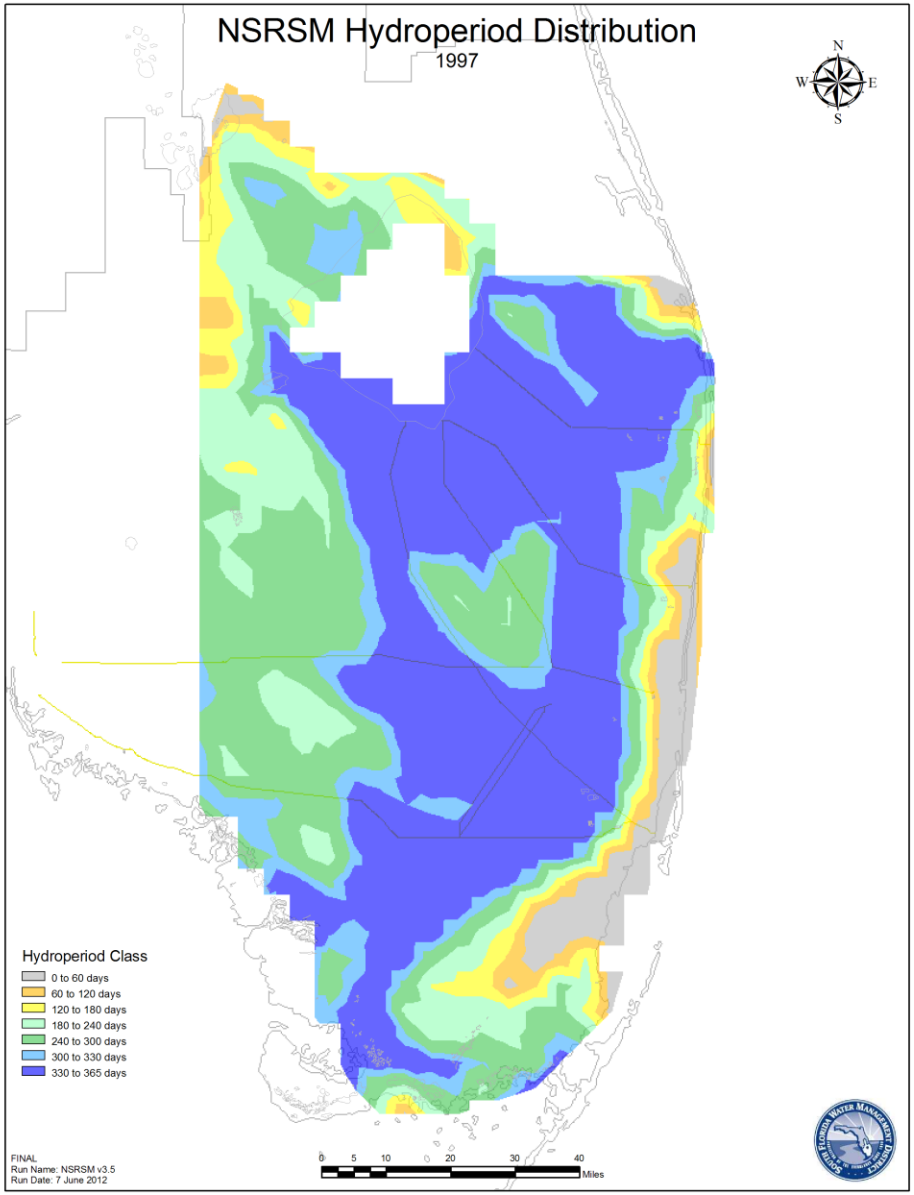
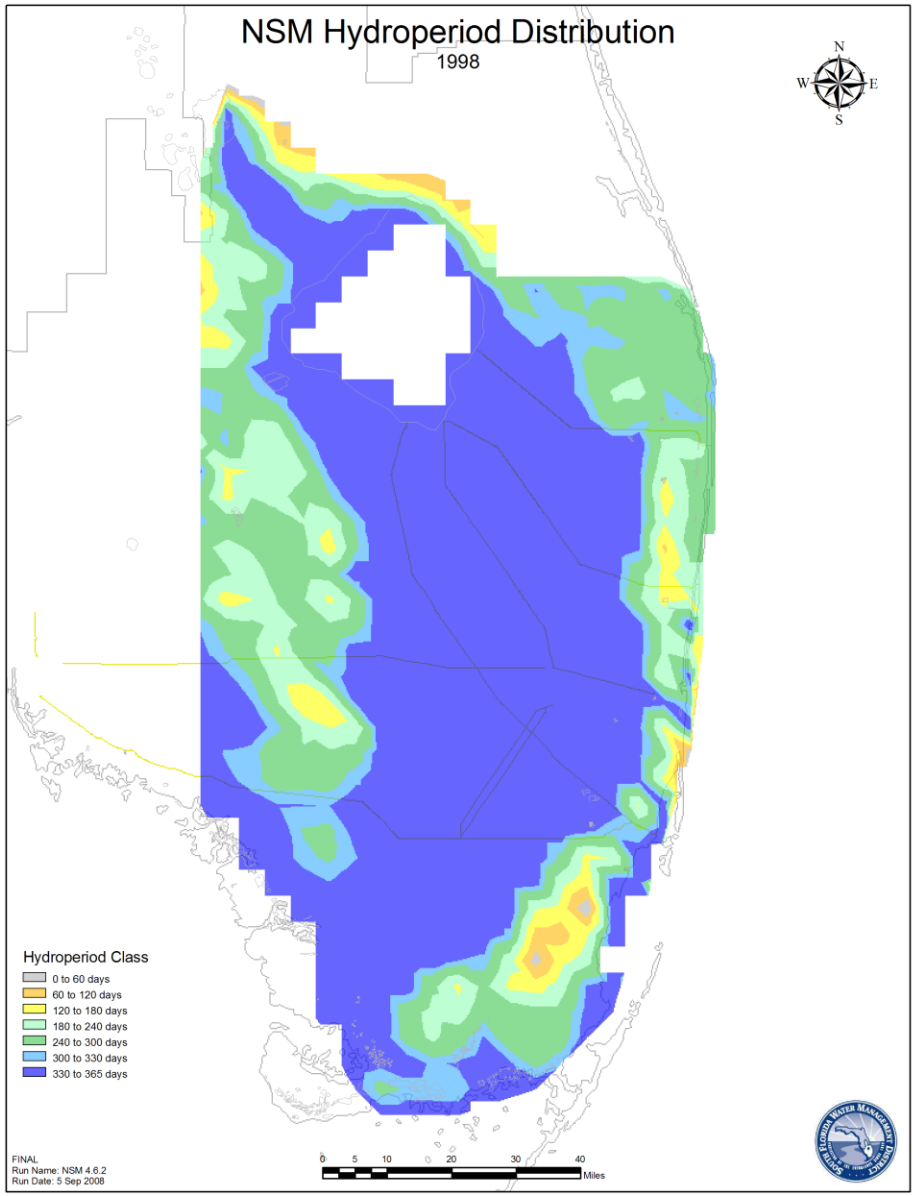
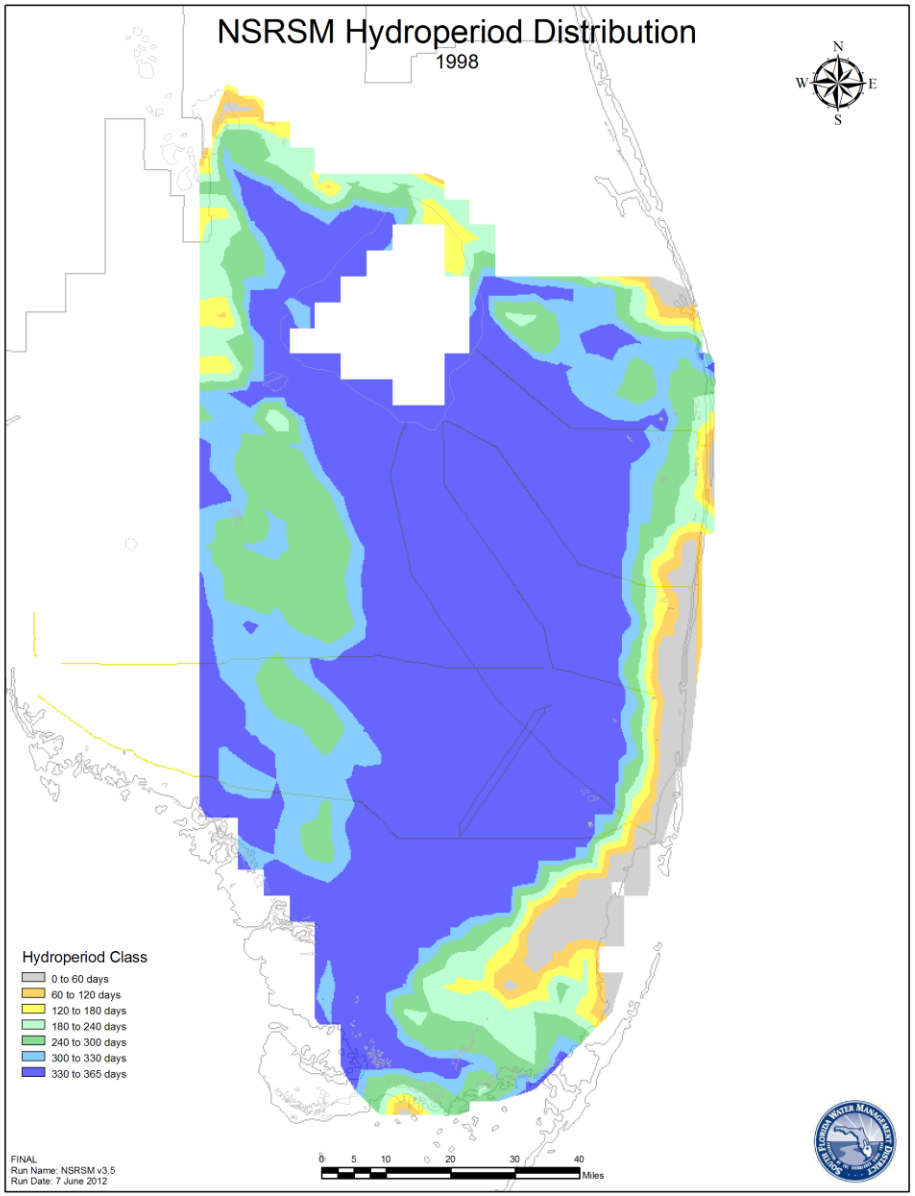
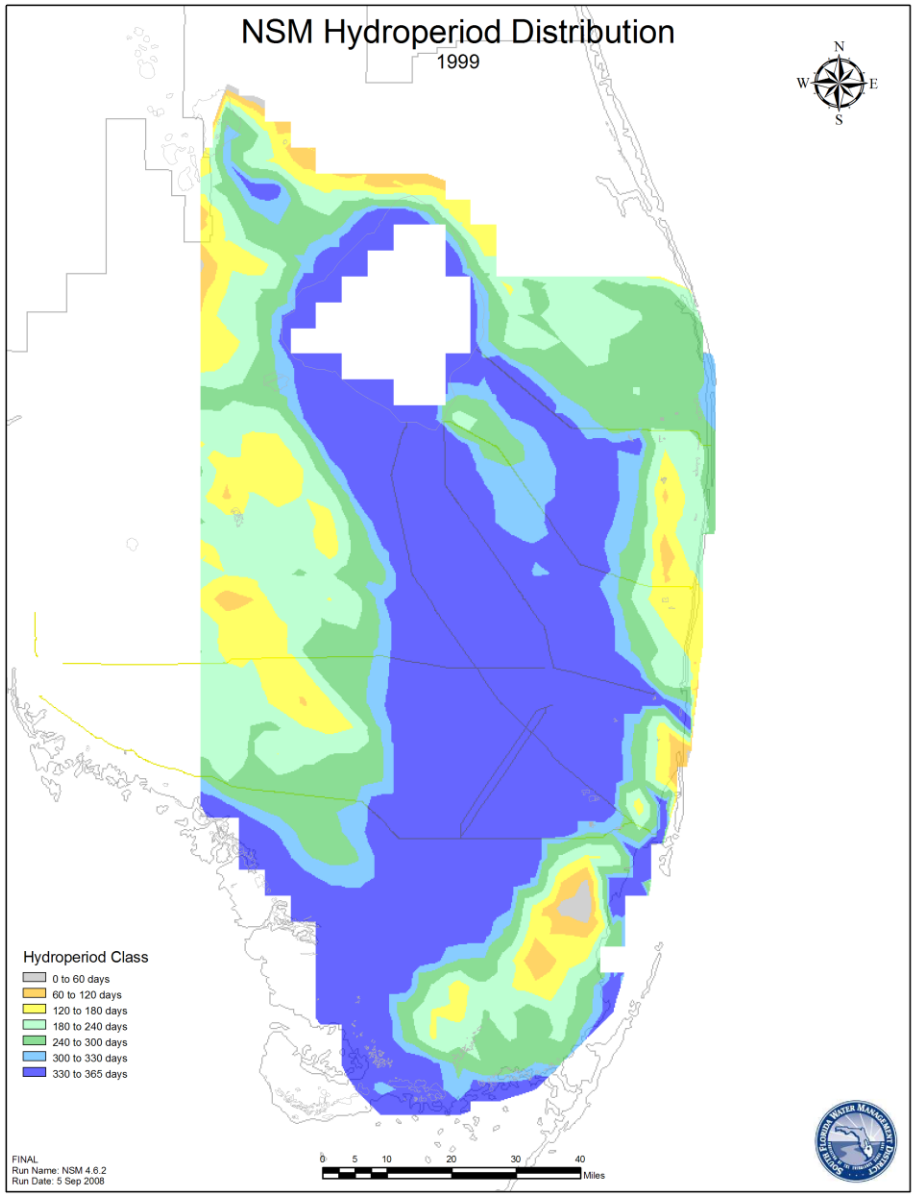
0 5 10 20 30 40
Miles


NSM Hydroperiod Distribution
1997
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles


NSRSM Hydroperiod Distribution
1997
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles


NSM Hydroperiod Distribution
1998
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles


NSRSM Hydroperiod Distribution
1998
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles


NSM Hydroperiod Distribution
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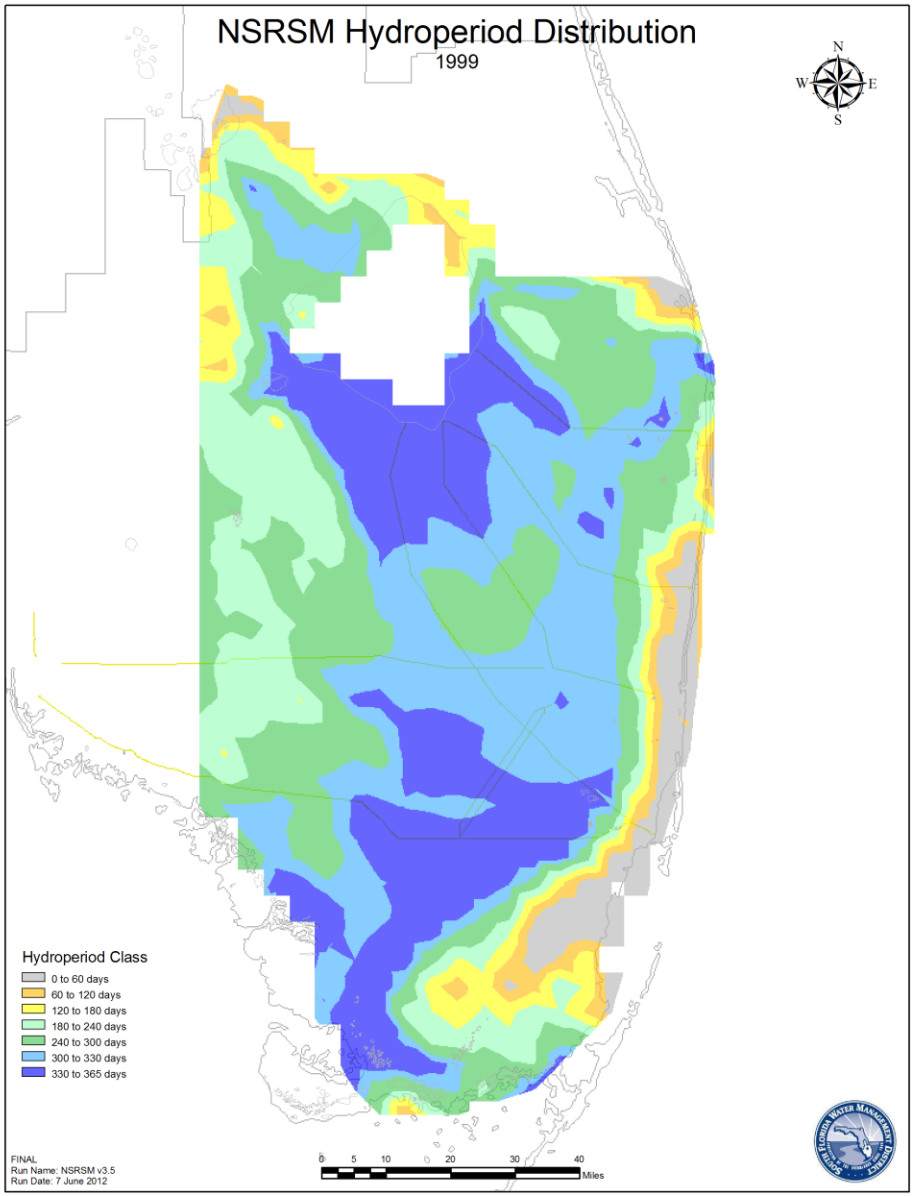
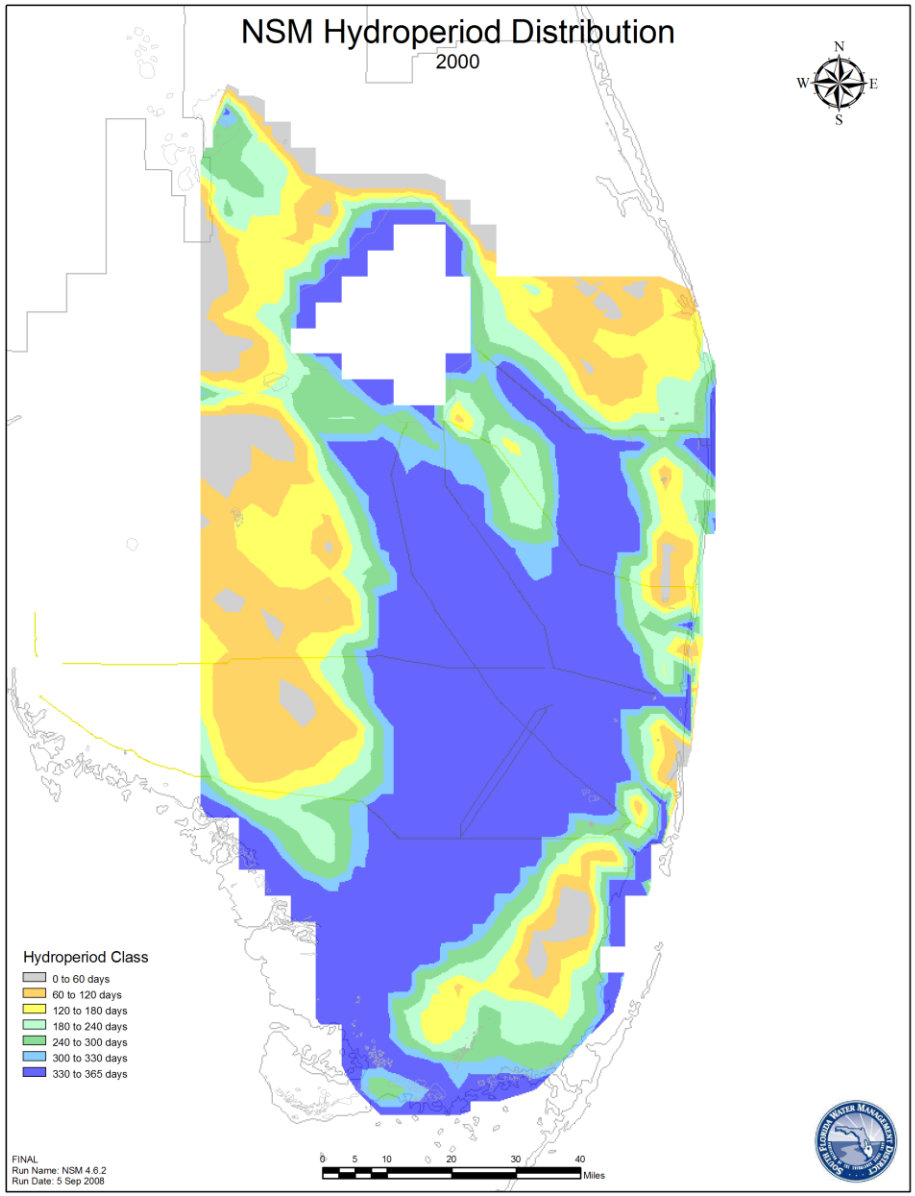
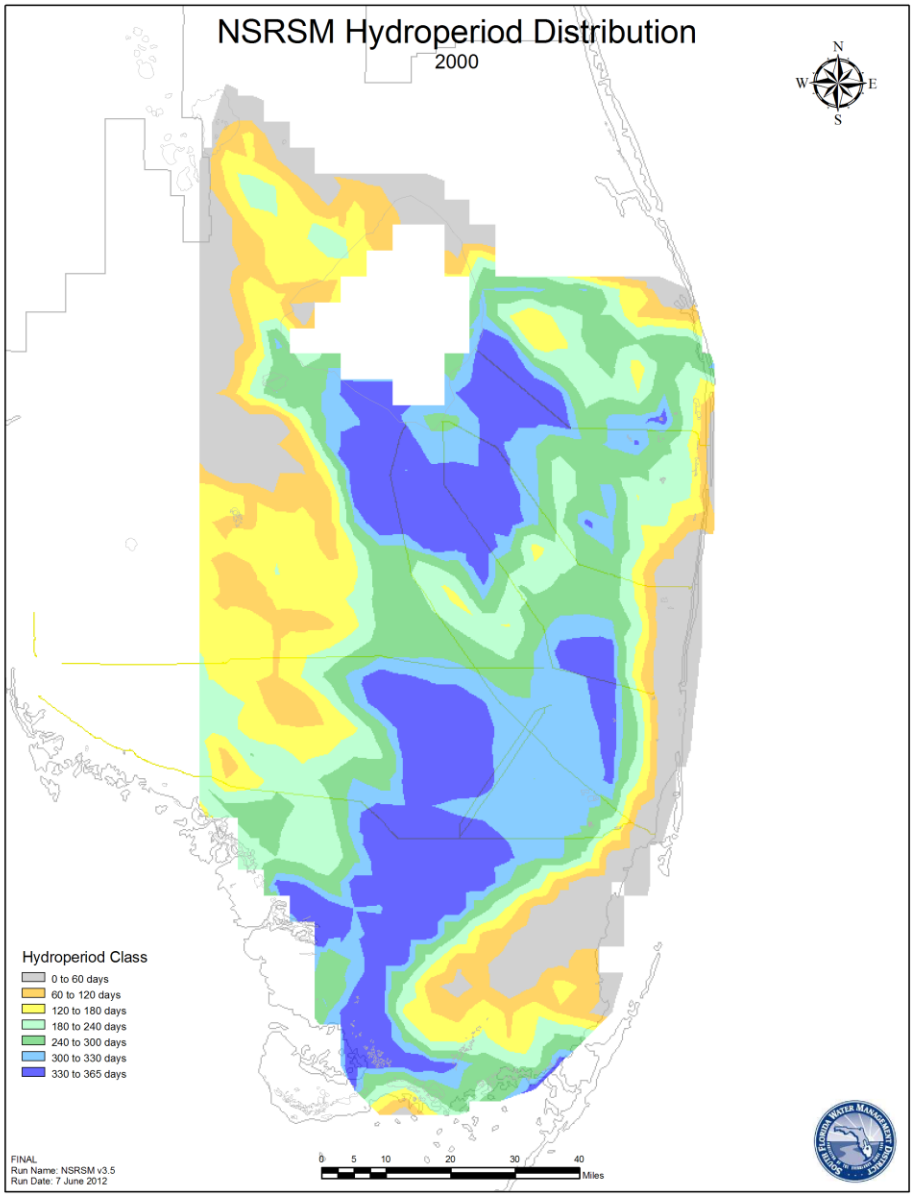
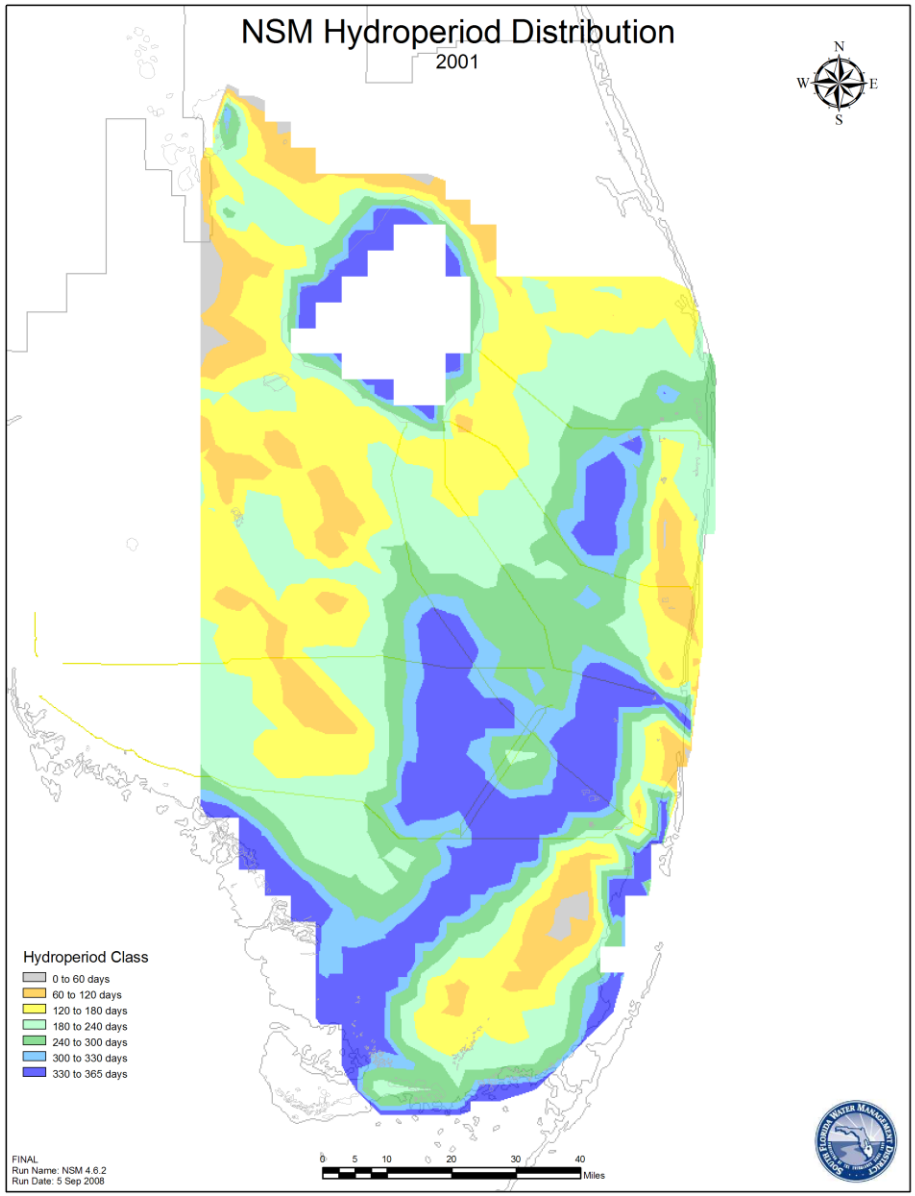
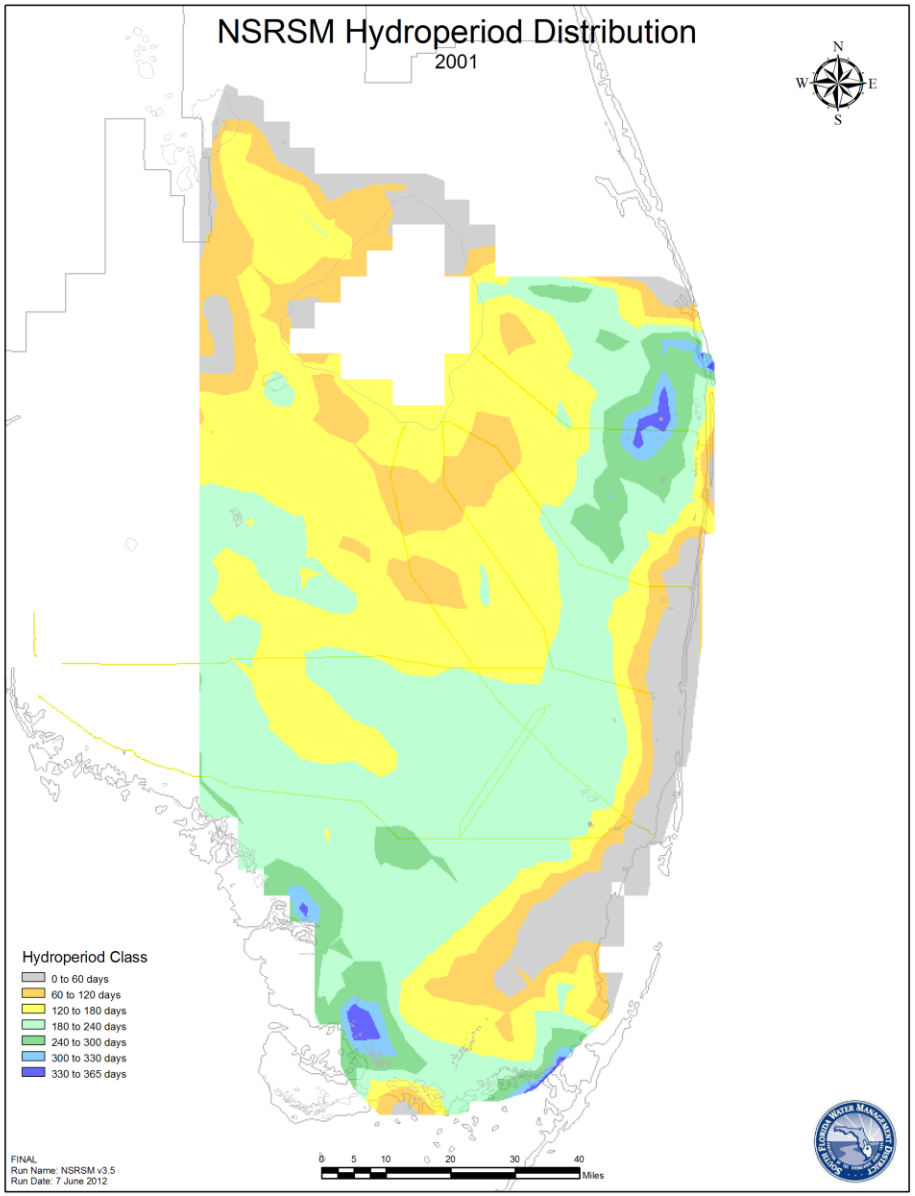
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

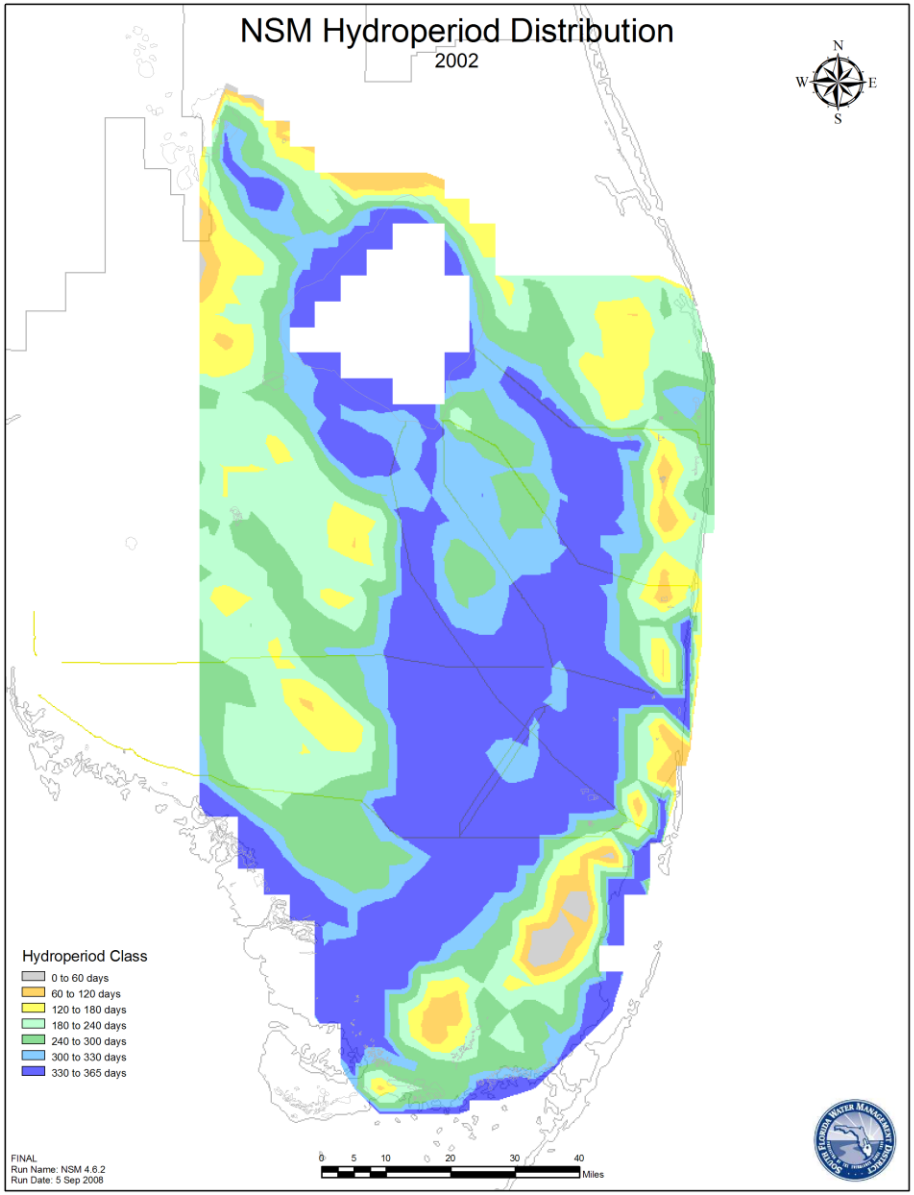

NSRSM Hydroperiod Distribution
1999
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

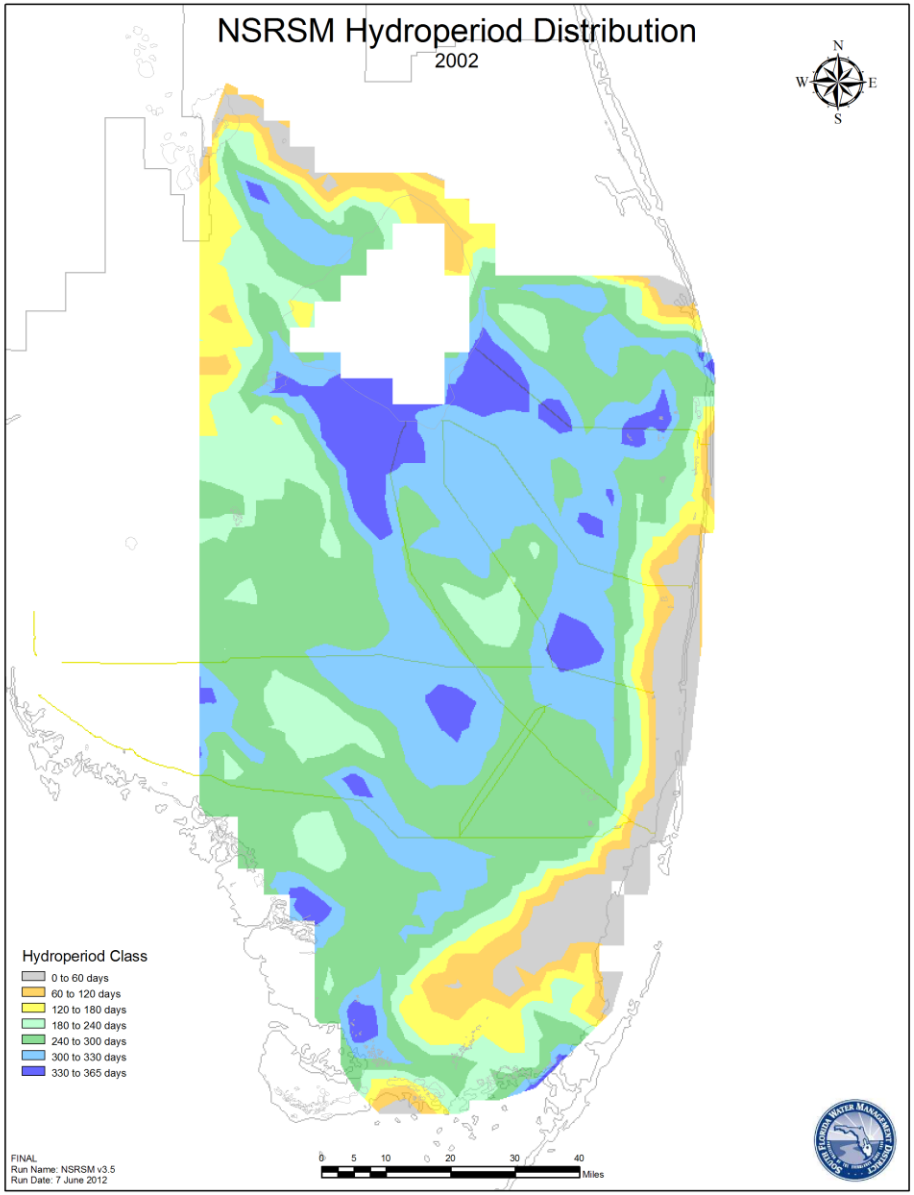

NSM Hydroperiod Distribution
2000
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

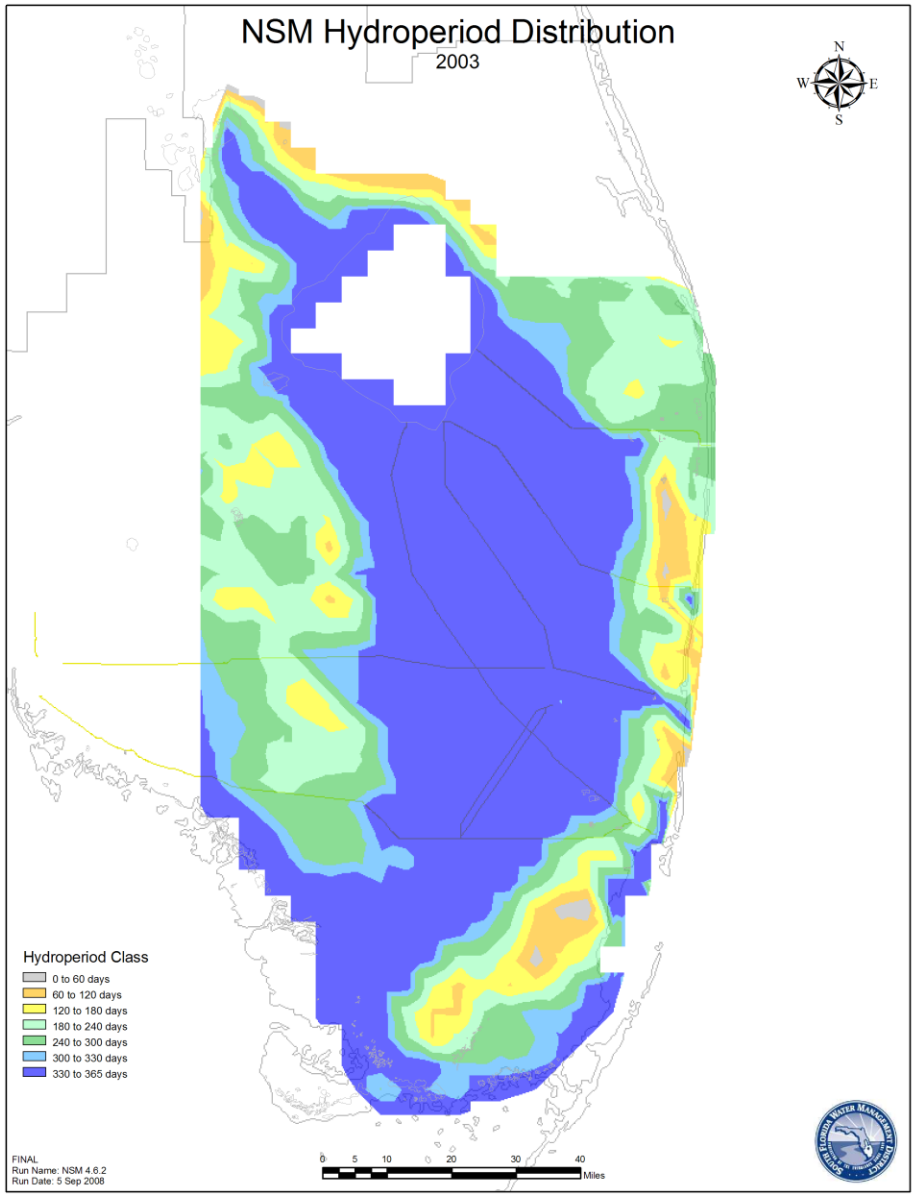

NSRSM Hydroperiod Distribution
2000
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

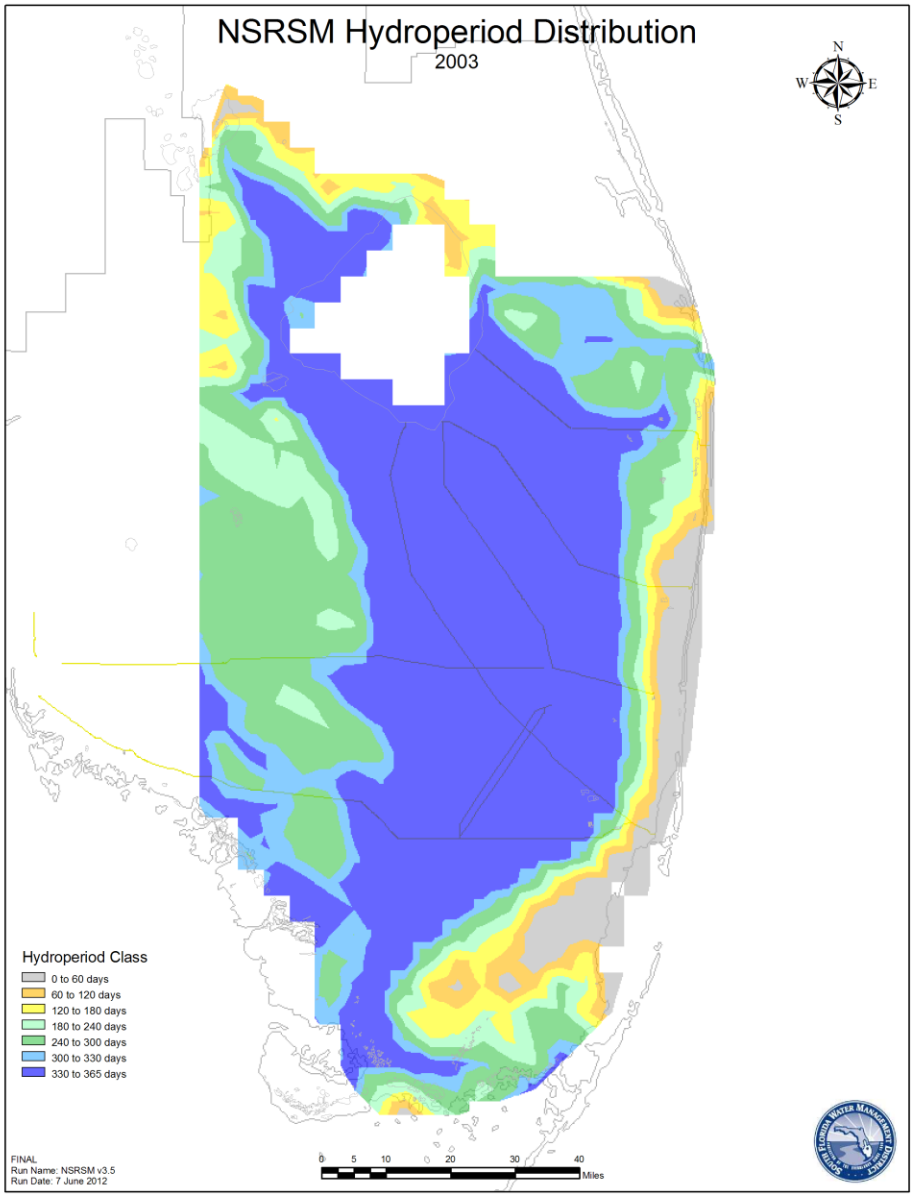

NSM Hydroperiod Distribution
2001
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

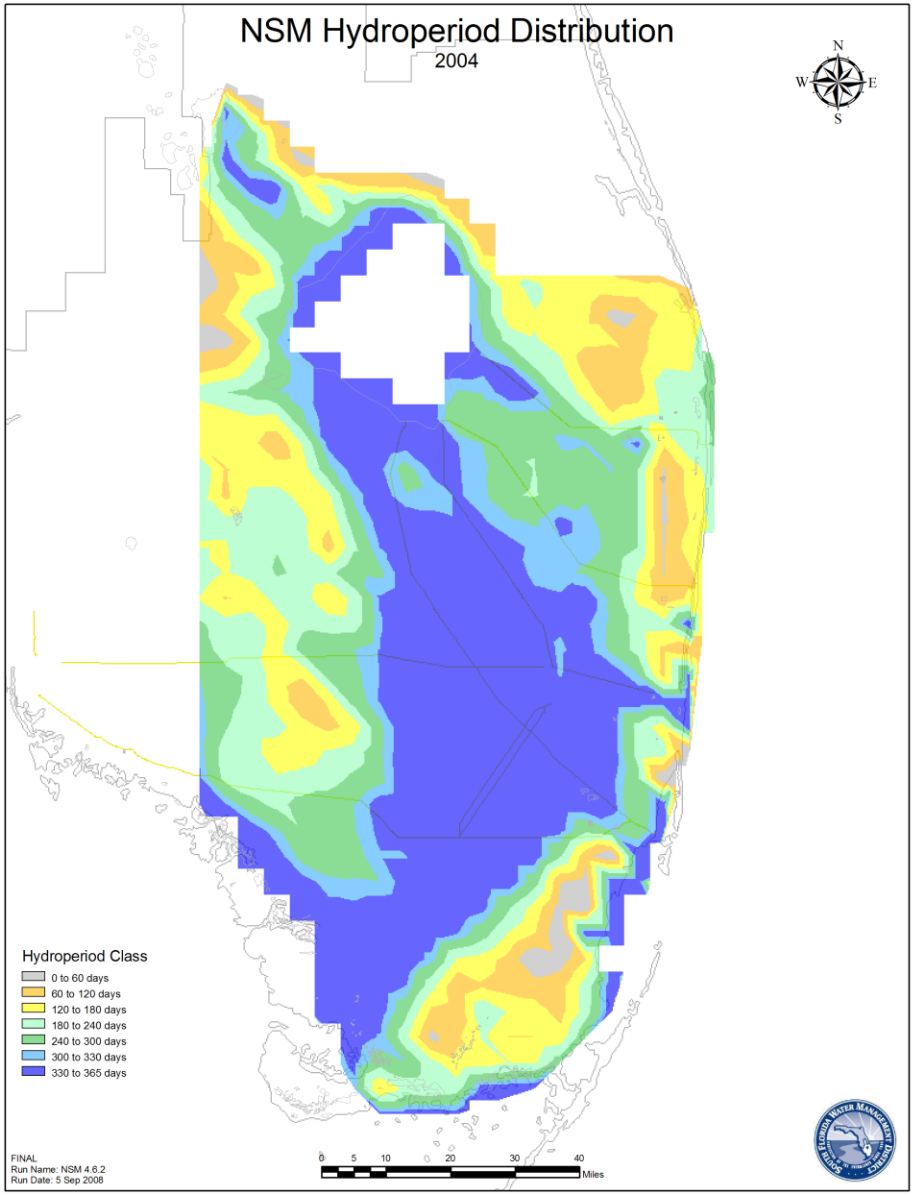

NSRSM Hydroperiod Distribution
2001
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

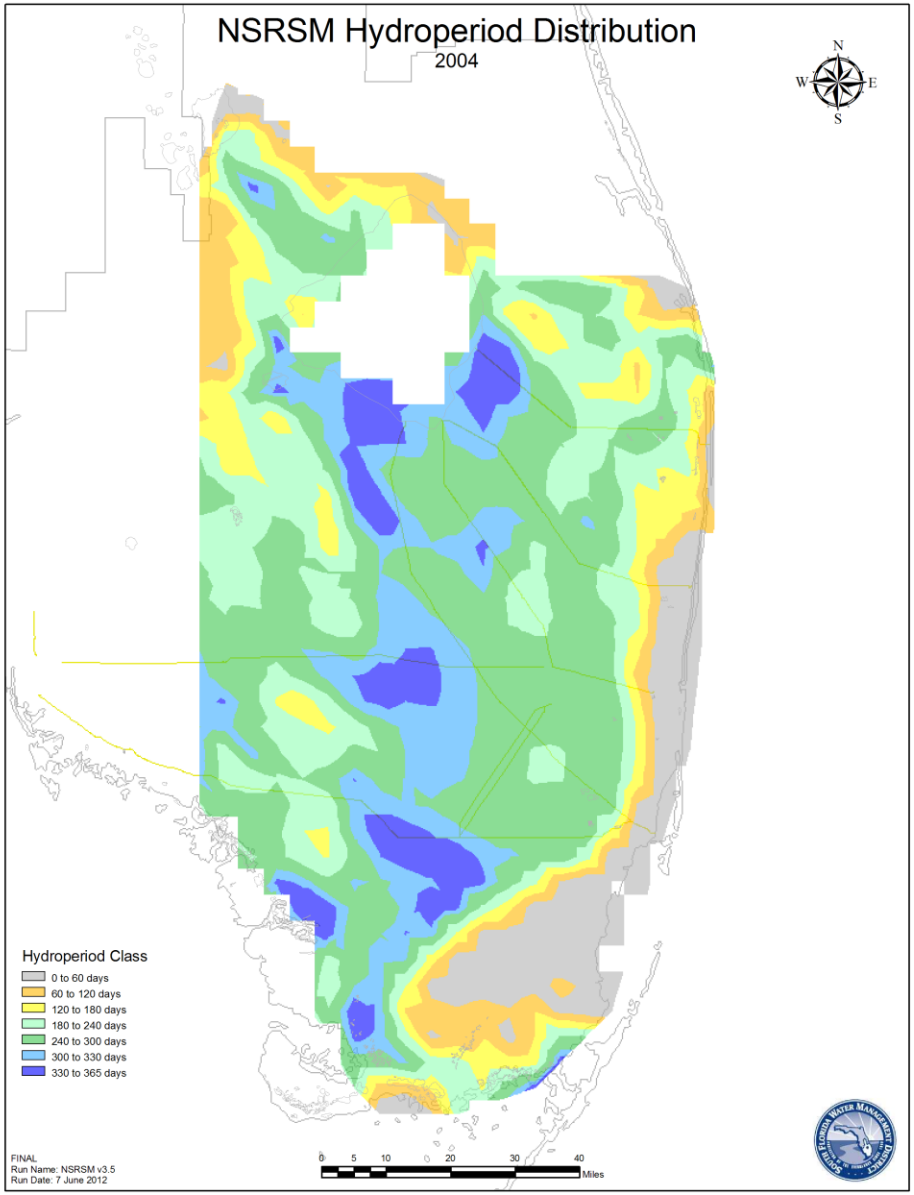

NSM Hydroperiod Distribution
2002
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

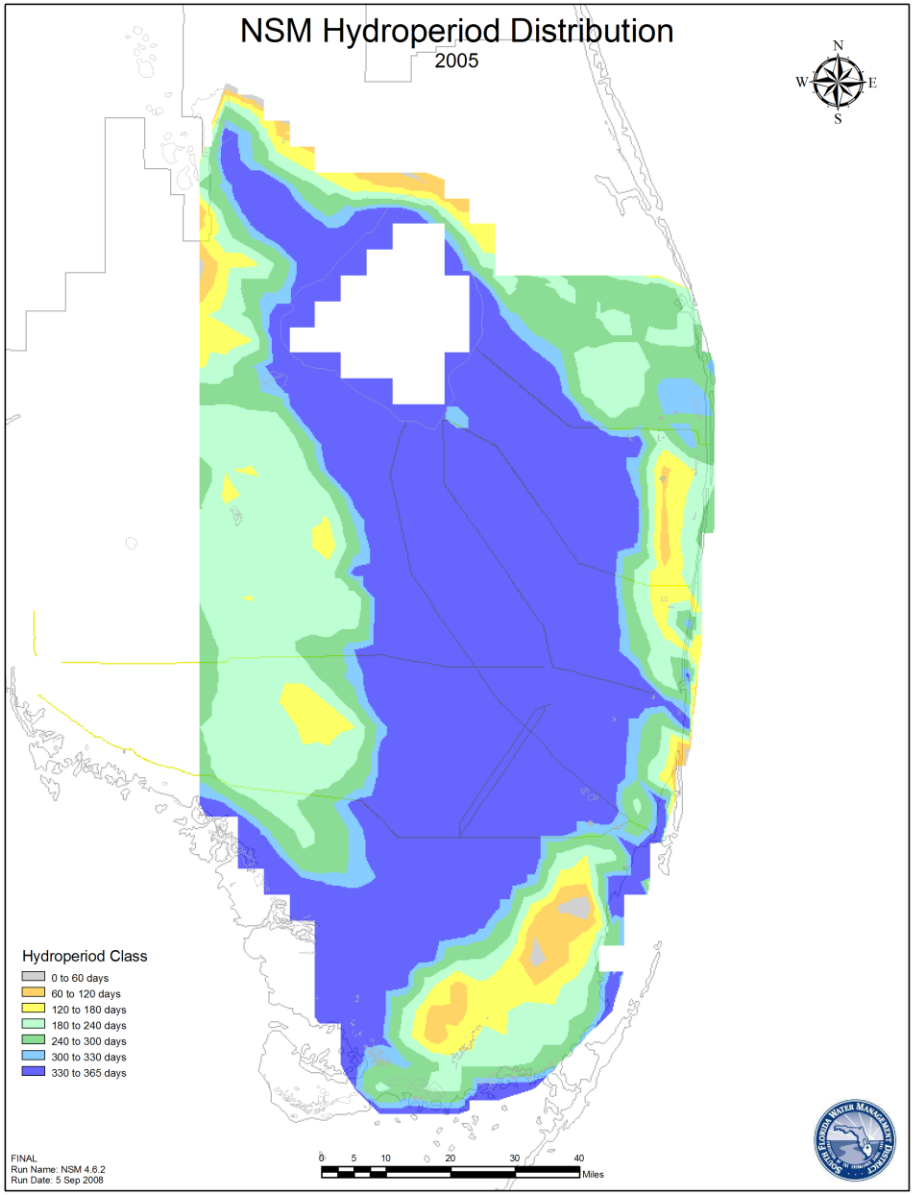

NSRSM Hydroperiod Distribution
2002
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

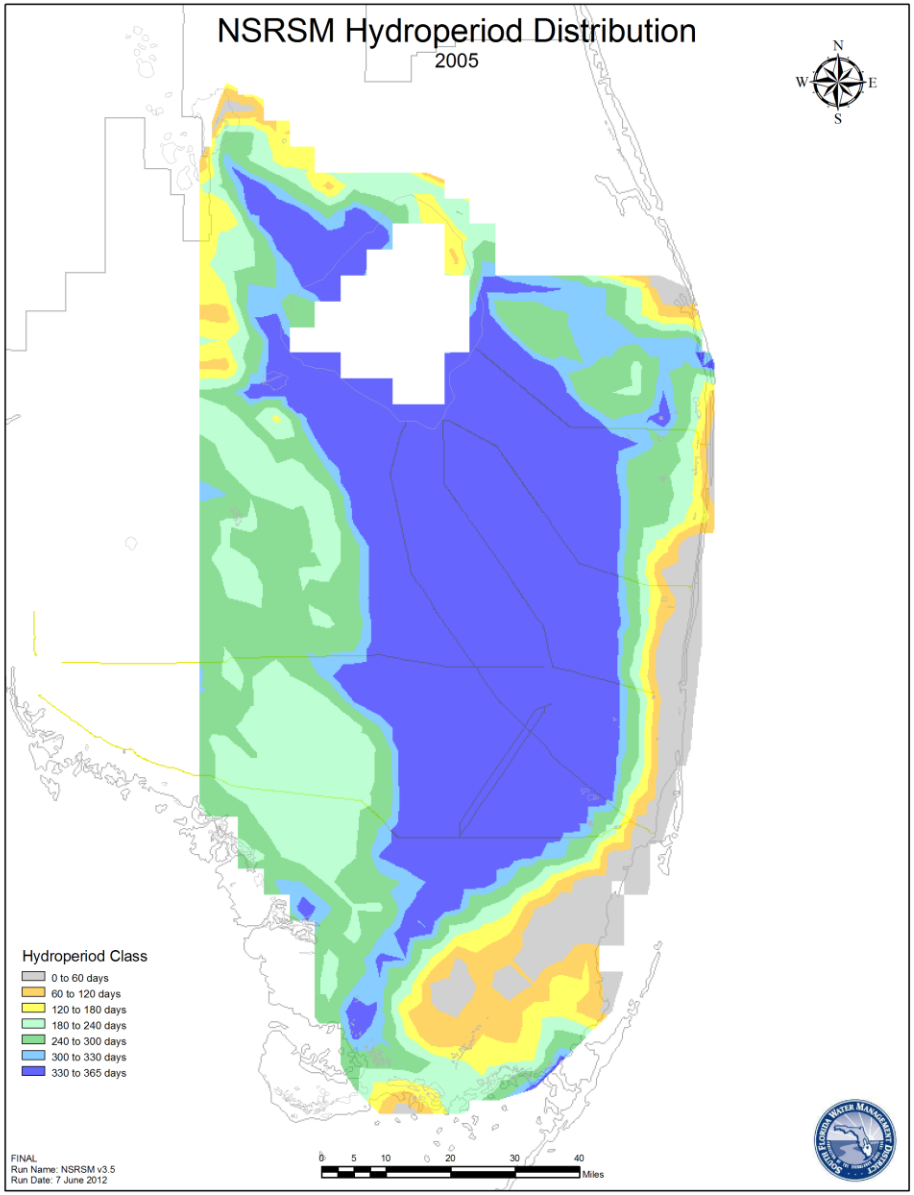

NSM Hydroperiod Distribution
2003
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

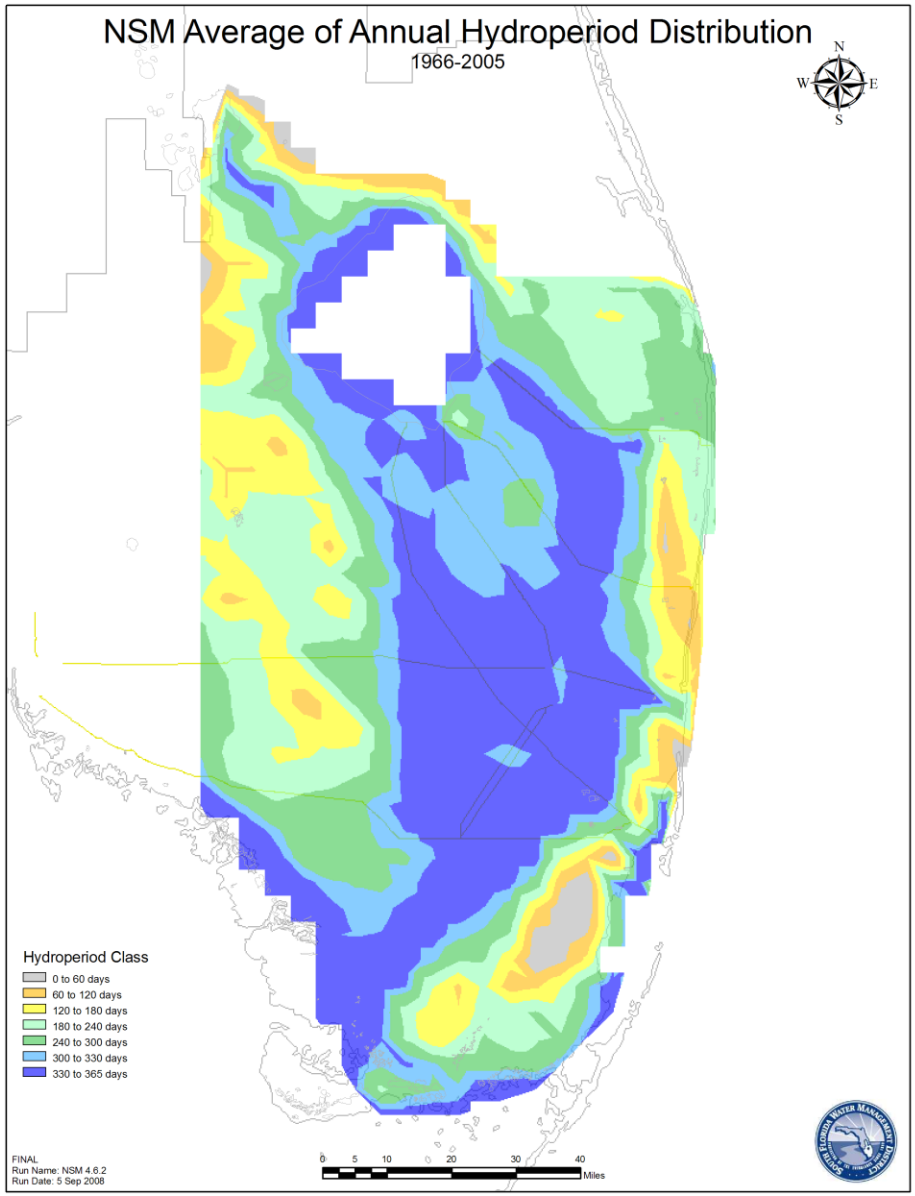

NSRSM Hydroperiod Distribution
2003
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

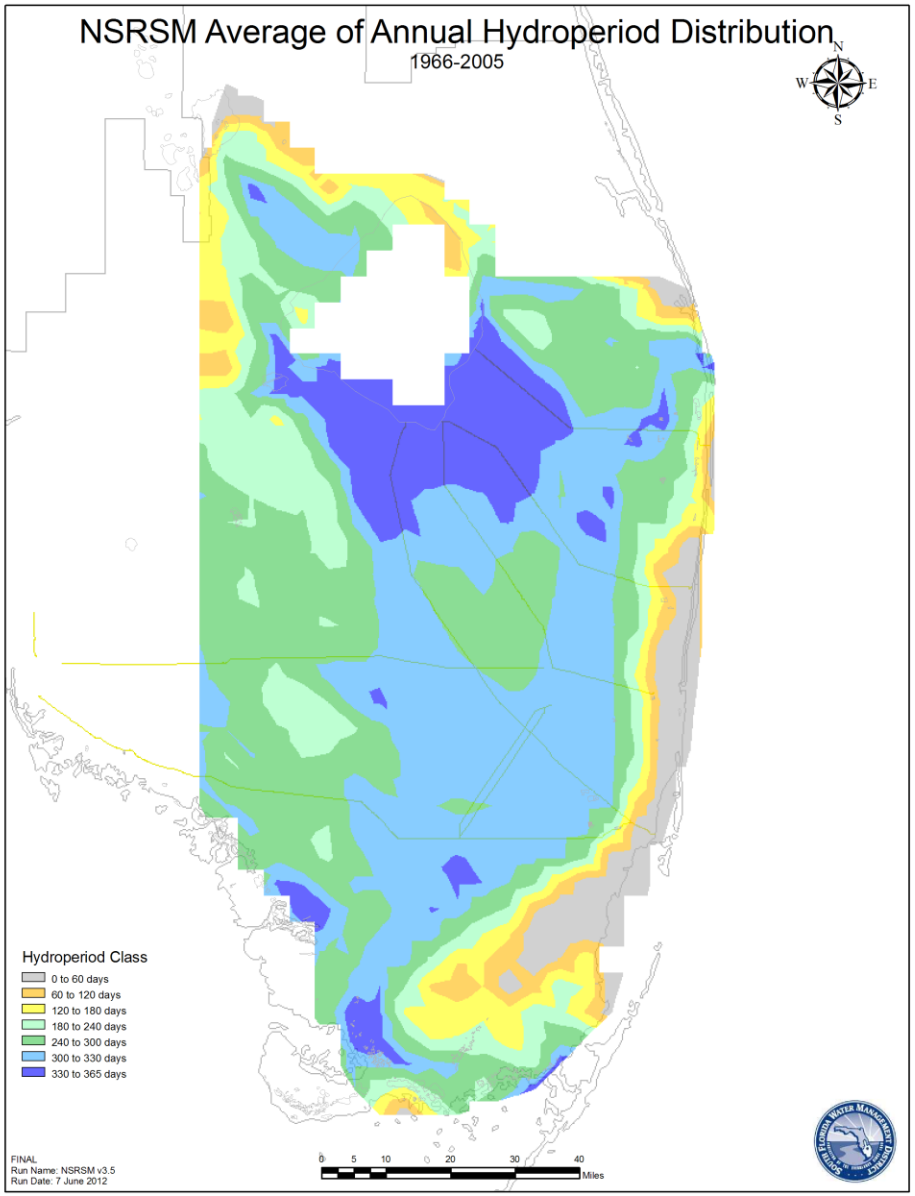

NSM Hydroperiod Distribution
2004
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles


NSRSM Hydroperiod Distribution
2004
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

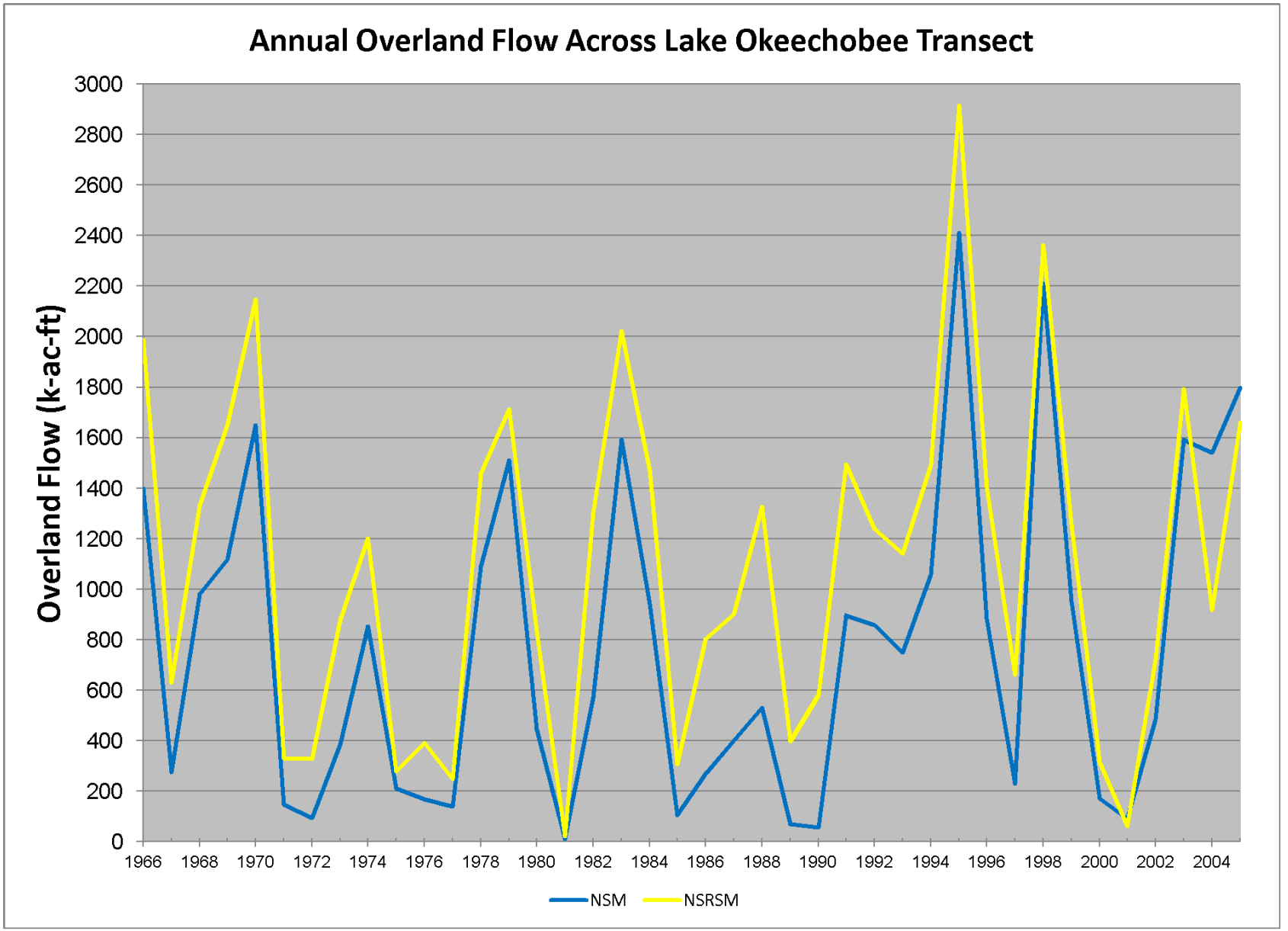

NSM Hydroperiod Distribution
2005
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

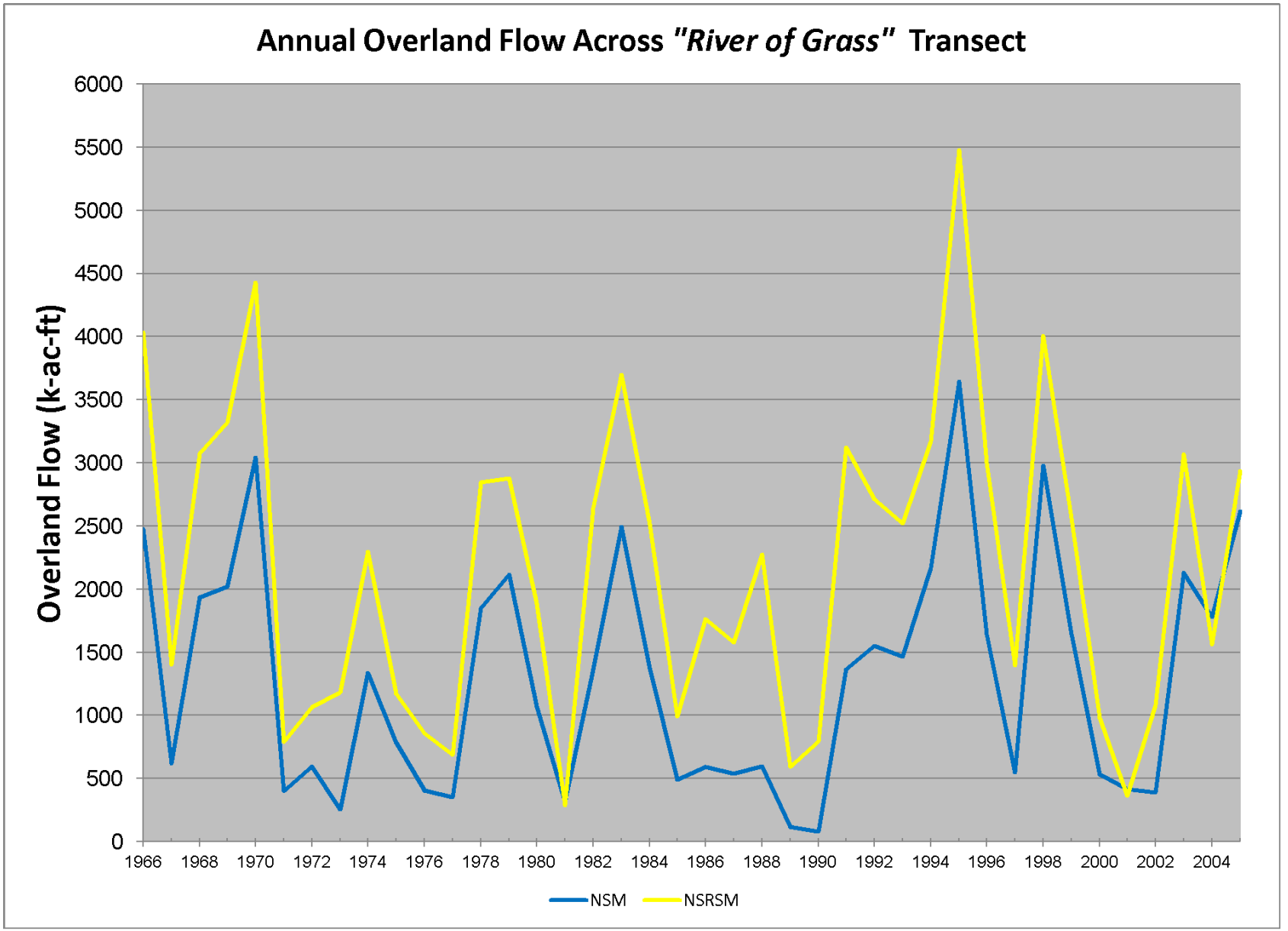

NSRSM Hydroperiod Distribution
2005
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

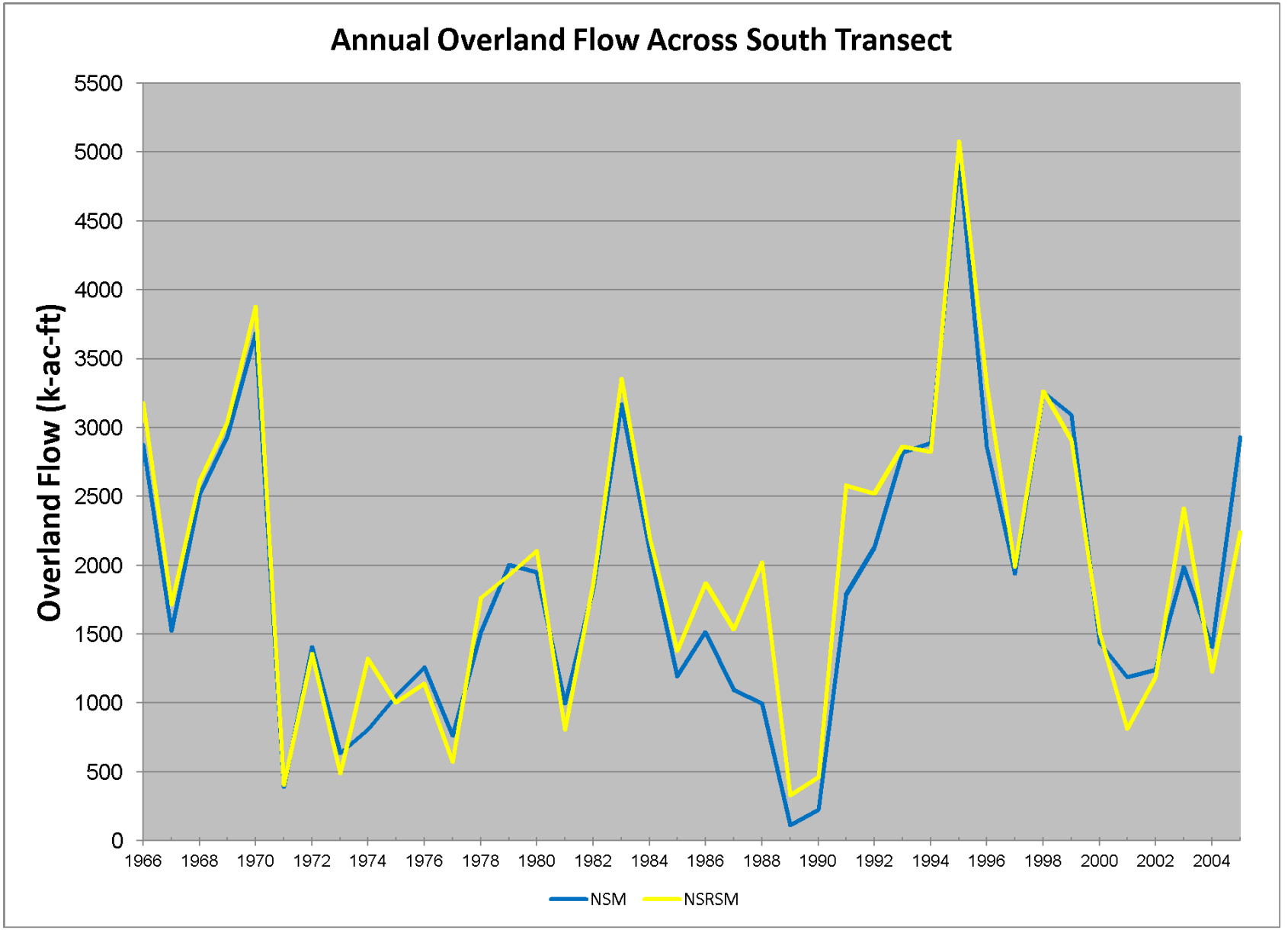

NSM Average of Annual Hydroperiod Distribution
1966-2005
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSM 4.6.2
Run Date: 5 Sep 2008
0 5 10 20 30 40
Miles

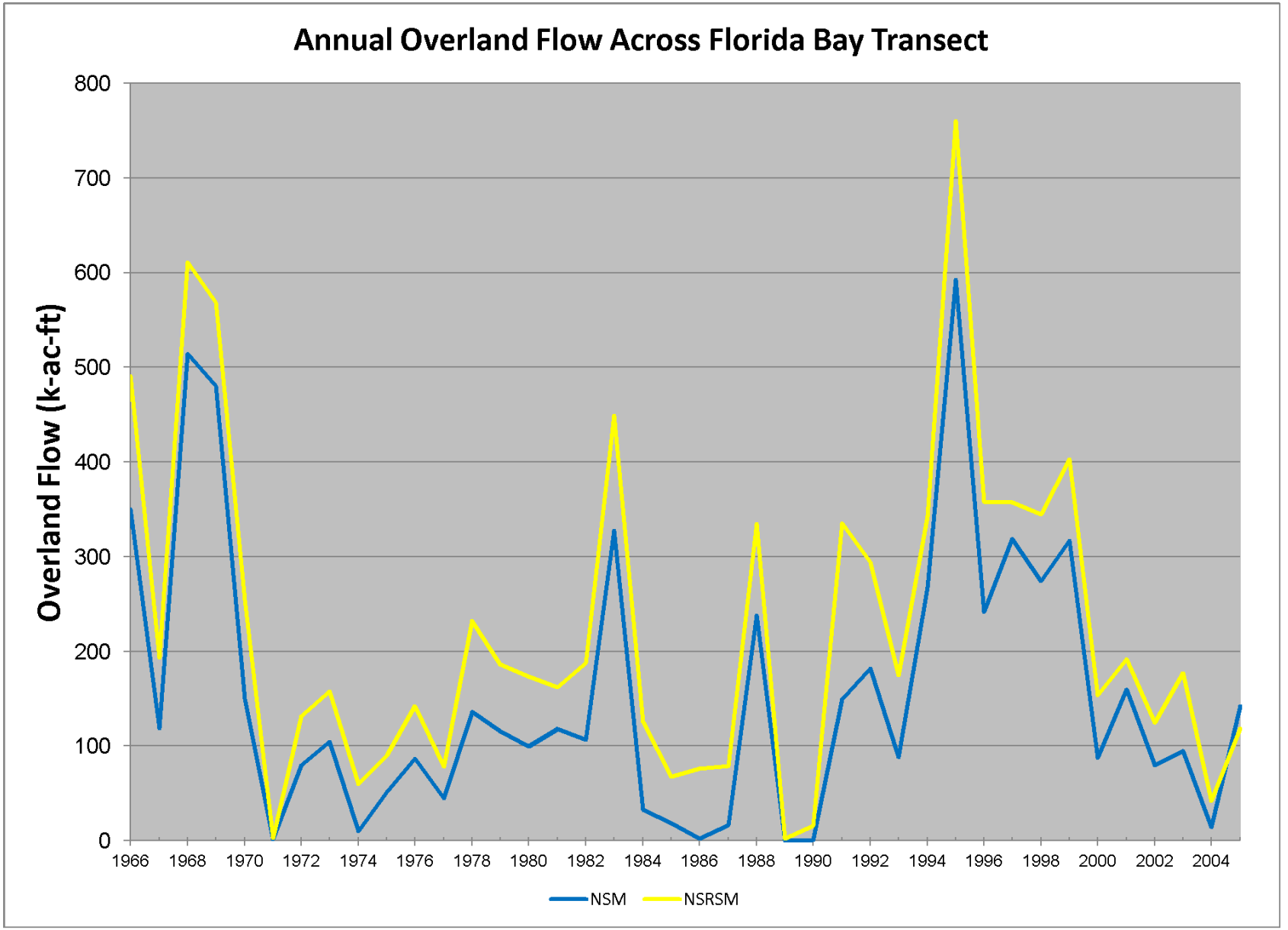

NSRSM Average of Annual Hydroperiod Distribution
1966-2005
N
W
E
S
Hydroperiod Class
0 to 60 days
60 to 120 days
120 to 180 days
180 to 240 days
240 to 300 days
300 to 330 days
330 to 365 days
FINAL
Run Name: NSRSM v3.5
Run Date: 7 June 2012
0 5 10 20 30 40
Miles

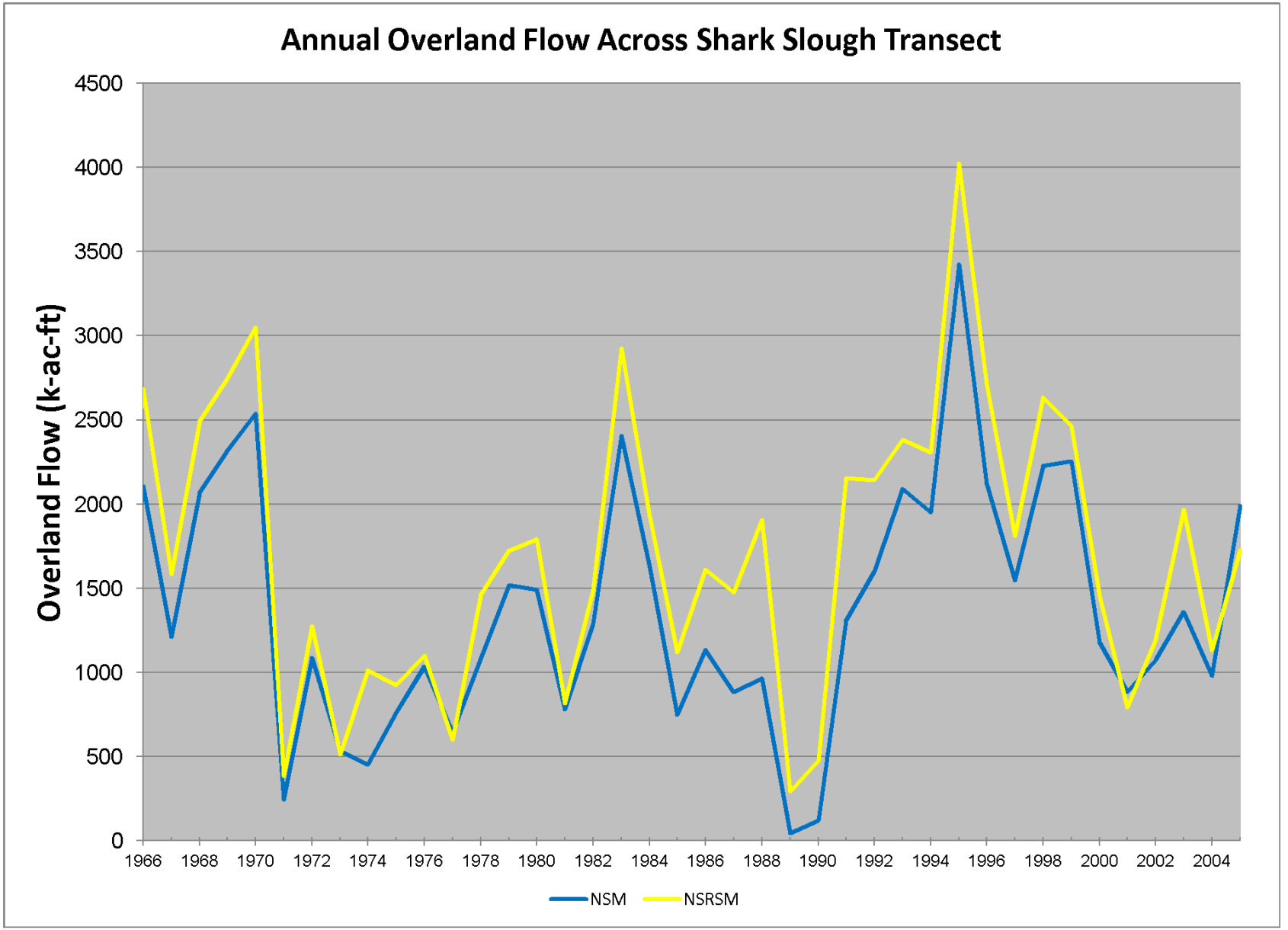
Appendix F
Comparison of Annual Average Overland Transect Flow (1966-2005)

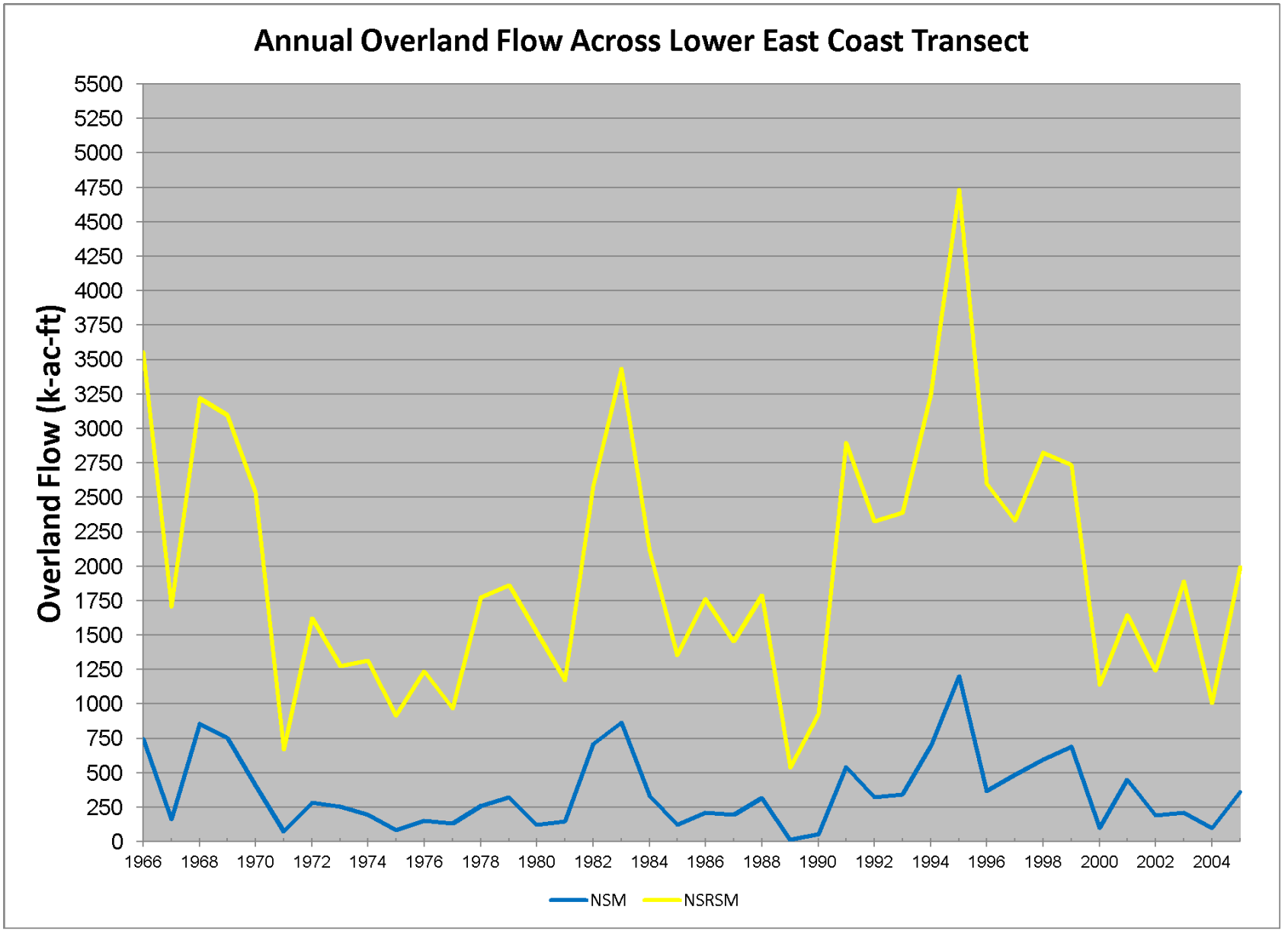

Annual Overland Flow Across Lake Okeechobee Transect
Overland Flow (k-ac-ft)
3000
2800
2600
2400
2200
2000
1800
1600
1400
1200
1000
800
600
400
200
0
1966
1968
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
NSM
NSRSM

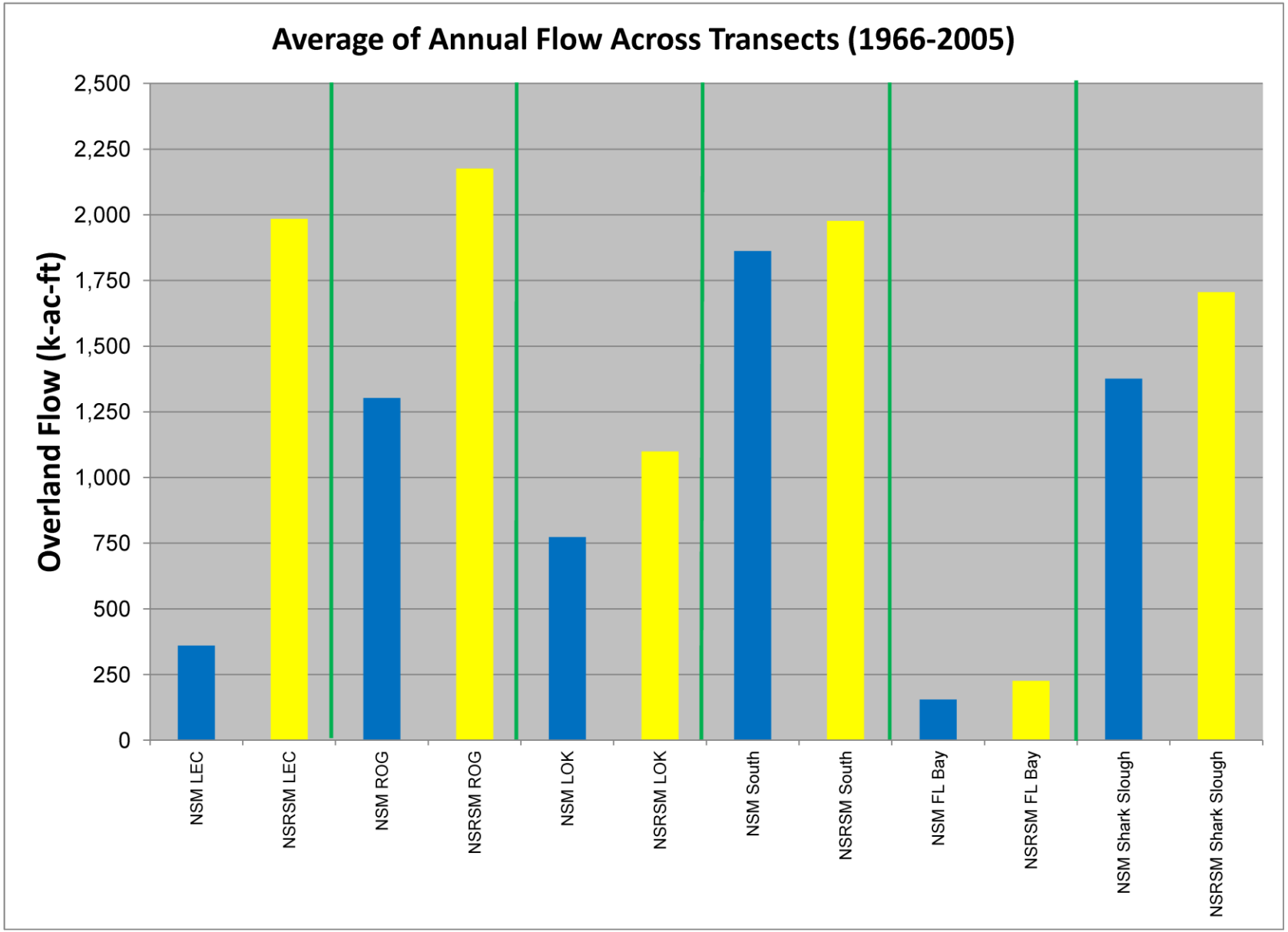

Annual Overland Flow Across "River of Grass" Transect
Overland Flow (k-ac-ft)
6000
5500
5000
4500
4000
3500
3000
2500
2000
1500
1000
500
0
1966
1968
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
NSM
NSRSM


Annual Overland Flow Across South Transect
Overland Flow (k-ac-ft)
5500
5000
4500
4000
3500
3000
2500
2000
1500
1000
500
0
1966
1968
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
NSM
NSRSM


Annual Overland Flow Across Florida Bay Transect
Overland Flow (k-ac-ft)
800
700
600
500
400
300
200
100
0
1966
1968
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
NSM
NSRSM


Annual Overland Flow Across Shark Slough Transect
Overland Flow (k-ac-ft)
4500
4000
3500
3000
2500
2000
1500
1000
500
0
1966
1968
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
NSM
NSRSM


Annual Overland Flow Across Lower East Coast Transect
Overland Flow (k-ac-ft)
5500
5250
5000
4750
4500
4250
4000
3750
3500
3250
3000
2750
2500
2250
2000
1750
1500
1250
1000
750
500
250
0
1966
1968
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
NSM
NSRSM


Average of Annual Flow Across Transects (1966-2005)
Overland Flow (k-ac-ft)
2,500
2,250
2,000
1,750
1,500
1,250
1,000
750
500
250
0
NSM LEC
NSRSM LEC
NSM ROG
NSRSM ROG
NSM LOK
NSRSM LOK
NSM South
NSRSM South
NSM FL Bay
NSRSM FL Bay
NSM Shark Slough
NSRSM Shark Slough

Appendix G
Topographic Comparison of NSM v4.6.2, NSM 4.6.2 SENS4 and NSRSM v3.5.2

MSR#363 Addendum: Topographic Comparison of NSM v4.6.2, NSM v4.6.2 SENS4 and NSRSM v3.5.2

By Clay Brown

South Florida Water Management District

Water Resources Division

Water Supply Bureau

Hydrologic and Environmental Systems Modeling Section

May 2013

Acknowledgments

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Jose Otero, Section Lead

Technical Direction

Clay Brown, Lead Engineer

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Table 21. Conversion factors, datums and acronyms.

Multiply	By	To Obtain
Length		
inch (in)	2.54	centimeter (cm)
inch (in)	25.4	millimeter (mm)
foot (ft)	0.3048	meter (m)
mile (mi)	1.609	kilometer (km)
Area		
square foot (ft^2)	0.0929	square meter (m^2)
square mile (mi^2)	2.590	square kilometer (km^2)
square mile (mi^2)	259.0	hectare (ha)
square mile (mi^2)	640.0	acre
Volume		
cubic foot (ft^3)	0.2832	cubic meter (m^3)
acre-foot	1233.48	cubic meter (m^3)
Flow rate		
acre-foot per year (acre-ft/yr)	1233.046	cubic meter per year (m^3/yr)
foot per second (ft/s)	0.3048	meter per second (m/s)
foot per day (ft/d)	0.3048	meter per day (m/d)
cubic foot per day (ft^3/d)	0.2832	cubic meter per day (m^3/d)
inch per year (in/yr)	25.4	millimeter per year (mm/yr)
Hydraulic conductivity		
foot per day (ft/d)	0.3048	meter per day (m/d)
Transmissivity		
foot squared per day (ft^2/d)	0.0929	meter squared per day (m^2/d)
Velocity		
inch per second (in/s)	25.4	millimeter per second (mm/s)
inch per day (in/d)	2.54	centimeter per day (cm/d)
inch per year (in/yr)	2.54	centimeter per year (cm/yr)
Datums		
Vertical coordinate information is referenced to the National Geodetic Vertical Datum of 1929 (NGVD29).		
Horizontal coordinate information is referenced to the North American Datum of 1983 (NAD 83) - High Accuracy Range Network (HARN).		

SFWMD	South Florida Water Management District
USACE / COE	U.S. Army Corps of Engineers
AFY	Acre feet per year
KAFY	Thousand acre feet per year

Introduction

This report is a response to questions concerning differences in topographic elevations of NSM v4.6.2, NSM v4.6.2 SENS4 and NSRSM v3.5.2. The topographic elevations along transects for each model were compared.

COMPARISON METHODOLOGY

A comparison of topographic elevations for NSM v4.6.2 (NSM), NSM v4.6.2 SENS4 (NSM SENS4) and NSRSM v3.5.2 (NSRSM) is challenging due to model cell dimensions and spatial extents. An objective comparison between the topographic elevations models was performed by converting each mesh into an ArcMap raster surface. Each raster surface was sampled at 1 mile intervals along 9 transects, shown in Figure 1.

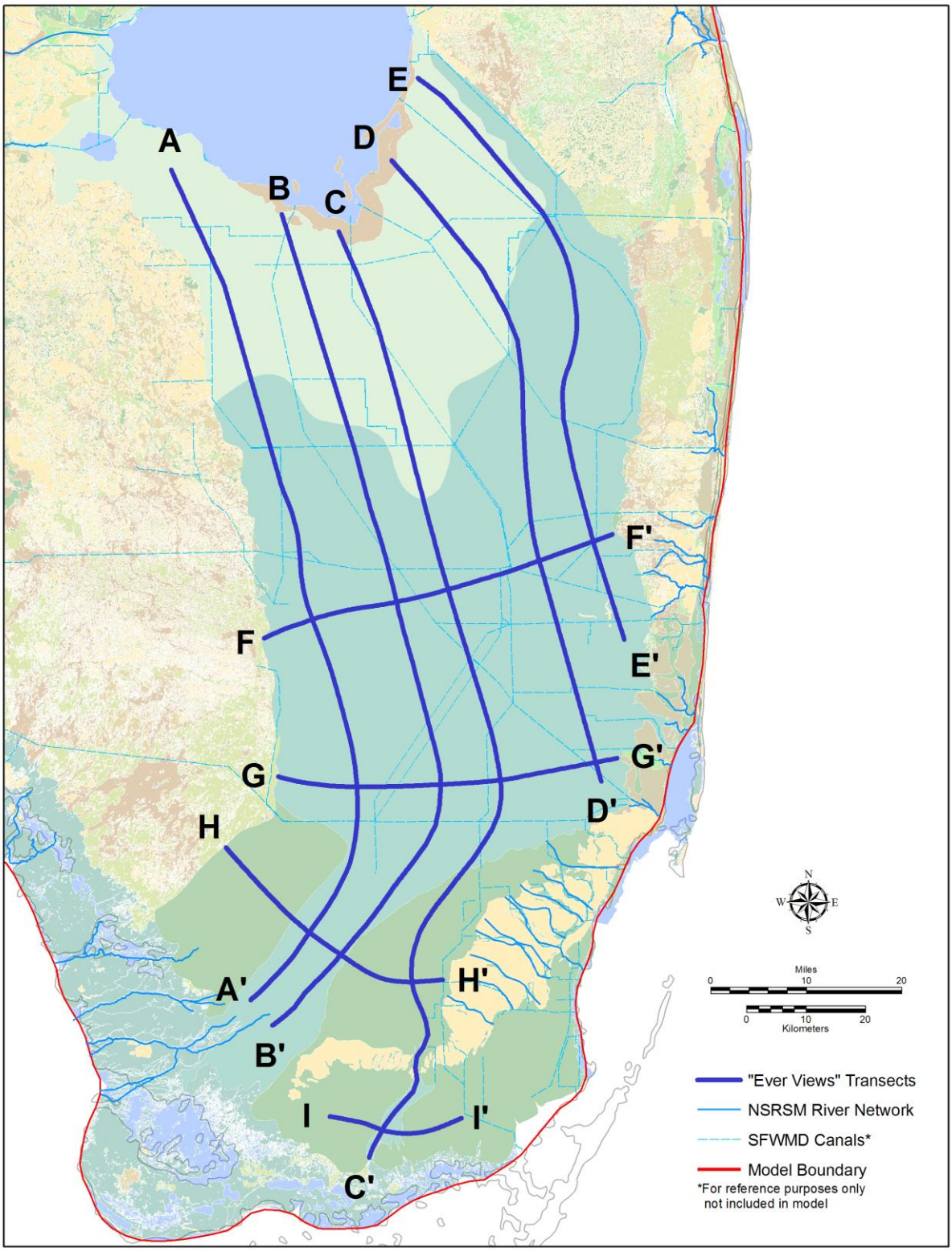

Figure 17. Transect location.

Model Comparison

Transect A-A'

A comparison of topographic elevations for Transect A-A' is shown in Figure 2. The elevations are comparable between NSM SENS4 and NSRSM. The NSM has higher elevations high prior to present day L-5 and lower elevations between present day Alligator alley and Tamiami Trail.

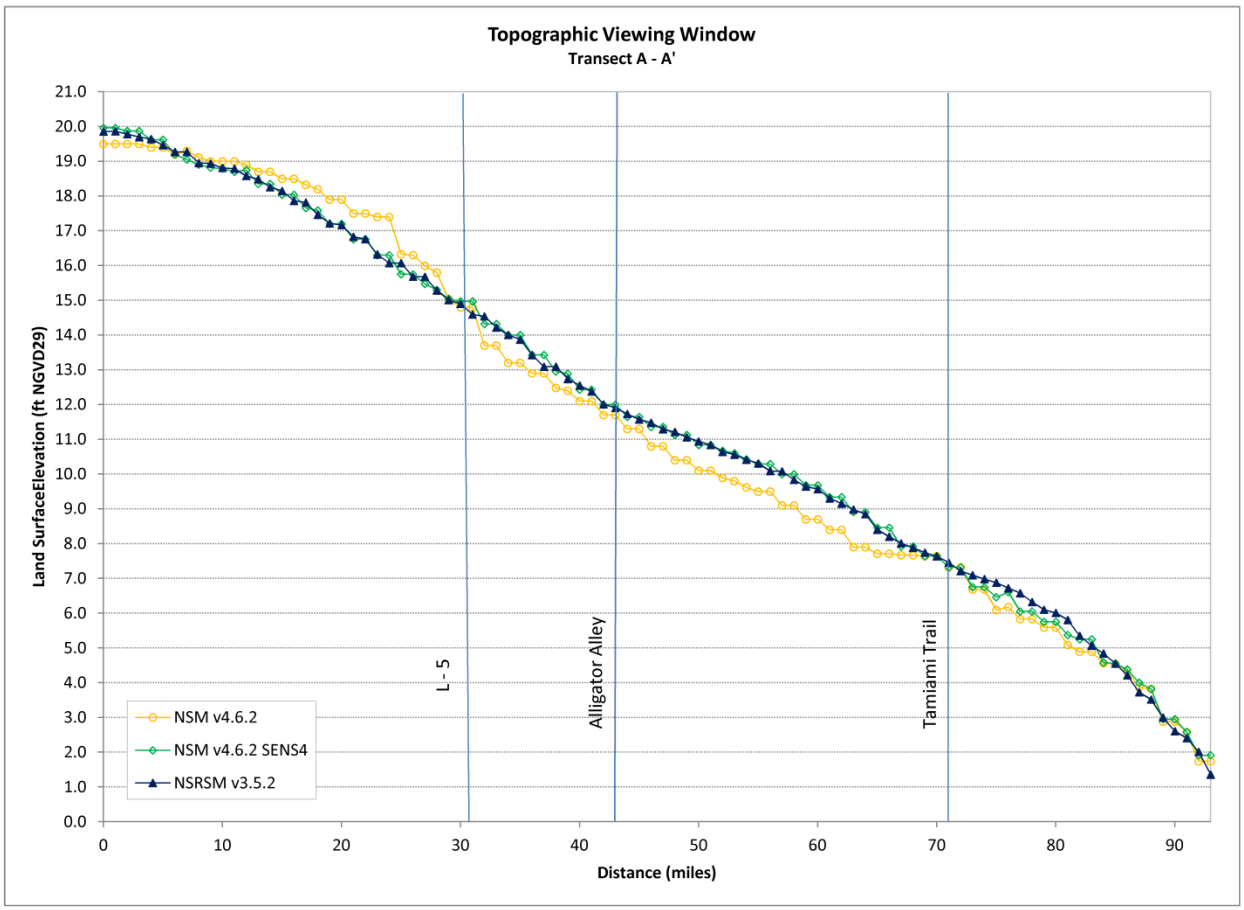

Figure 18. Comparison of Transect A-A'.

Transect B-B'

A comparison of topographic elevations for Transect B-B' is shown in Figure 3. The elevations are comparable between NSM SENS4 and NSRSM. The NSM is lower in the 7' contour elevation near present day Tamiami Trail.

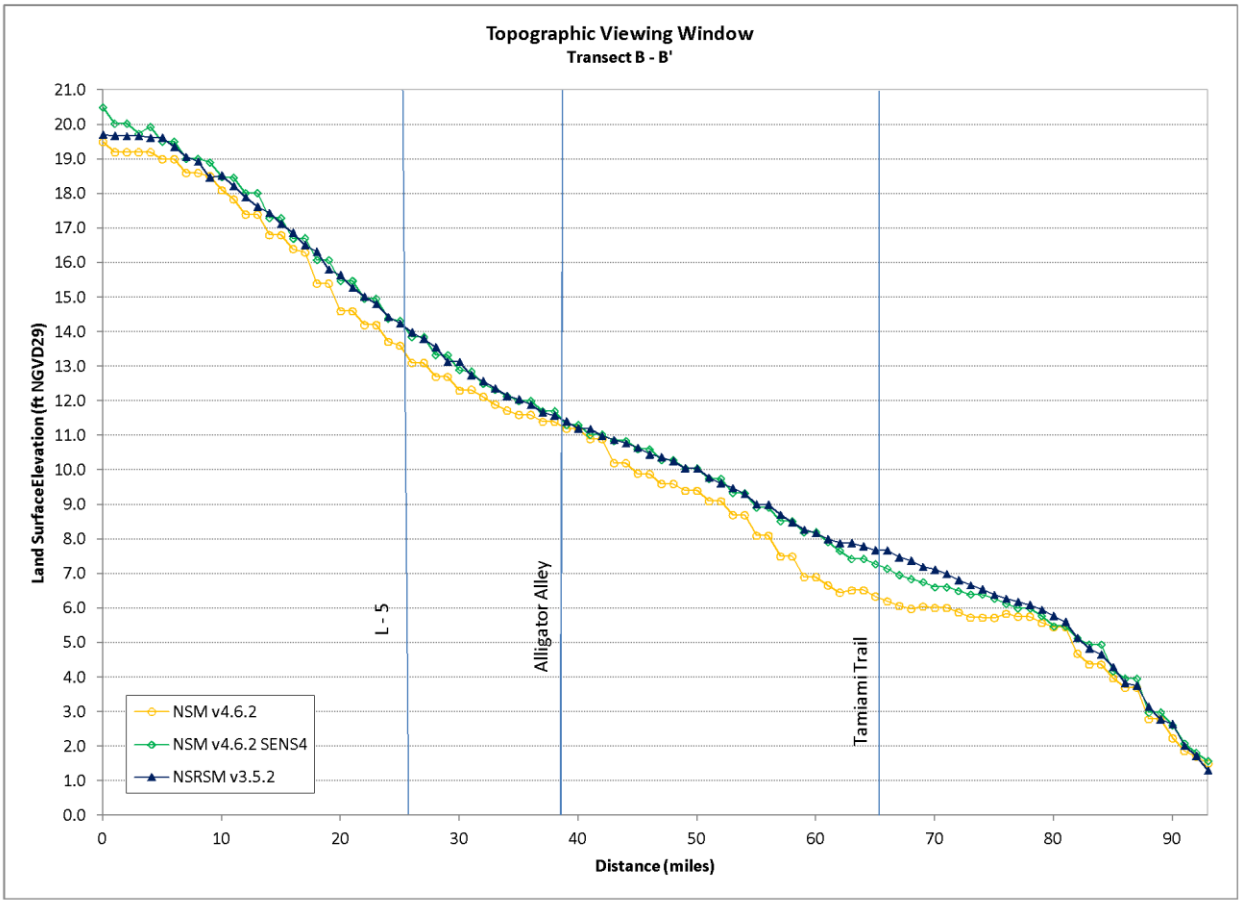

Figure 19. Comparison of Transect B-B'.

Transect C-C’

A comparison of topographic elevations for Transect C-C’ is shown in Figure 4. The NSRSM has higher elevations compared to NSM and NSM SENS4 near present day Tamiami Trail in the 7’ contour band. The NSM has lower elevations in the same area.

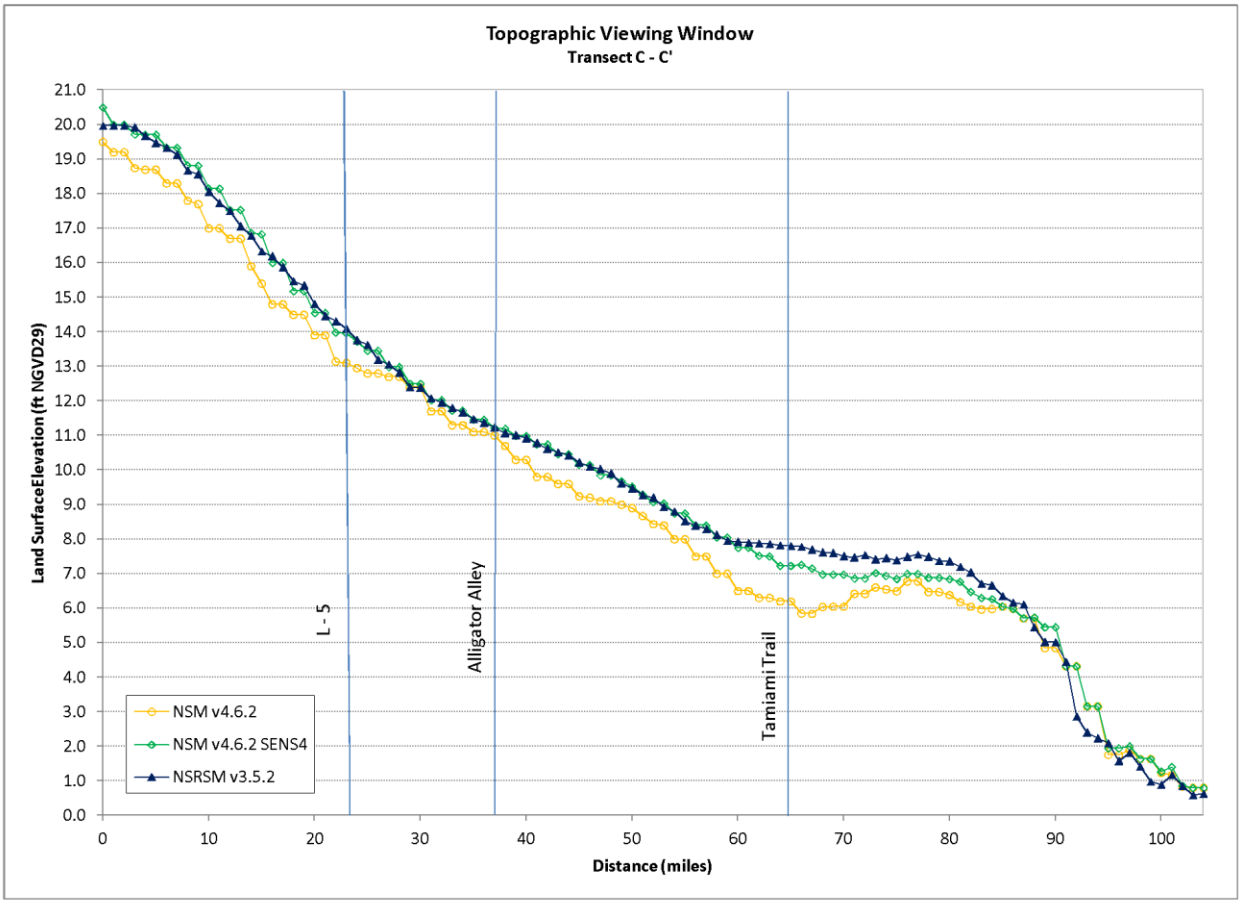

Figure 20. Comparison of Transect C-C’.

Transect D-D’

A comparison of topographic elevations for Transect D-D’ is shown in Figure 5. NSM SENS4 has slightly higher elevations between present day L-13 and Hillsboro Canal. The NSM has lower elevations near present day New North River Canal.

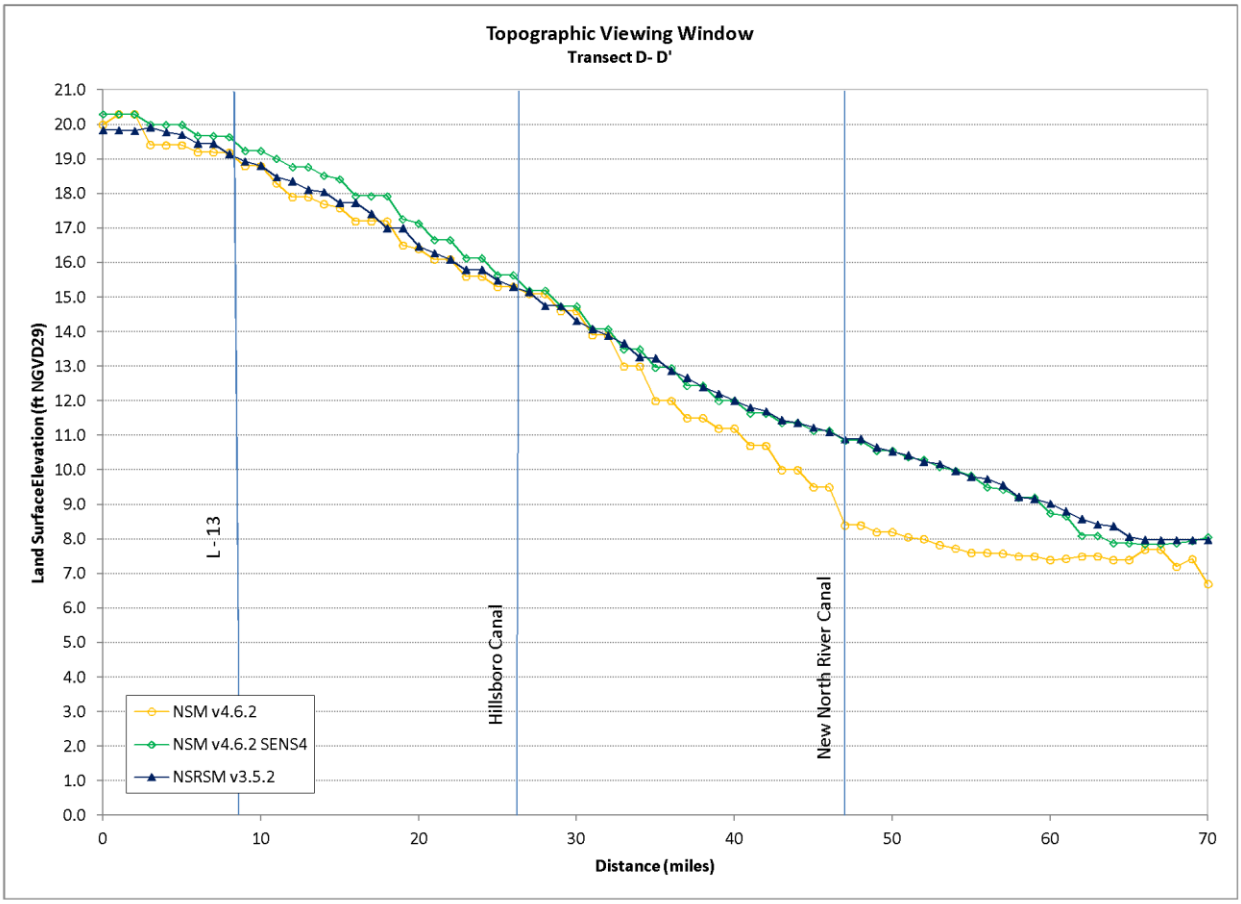

Figure 21. Comparison of Transect D-D’.

Transect E-E'

A comparison of topographic elevations for Transect E-E' shown in Figure 6. NSM SENS4 has slightly higher elevations between present day L-13 and Hillsboro Canal. The NSM has lower elevations near present day New North River Canal.

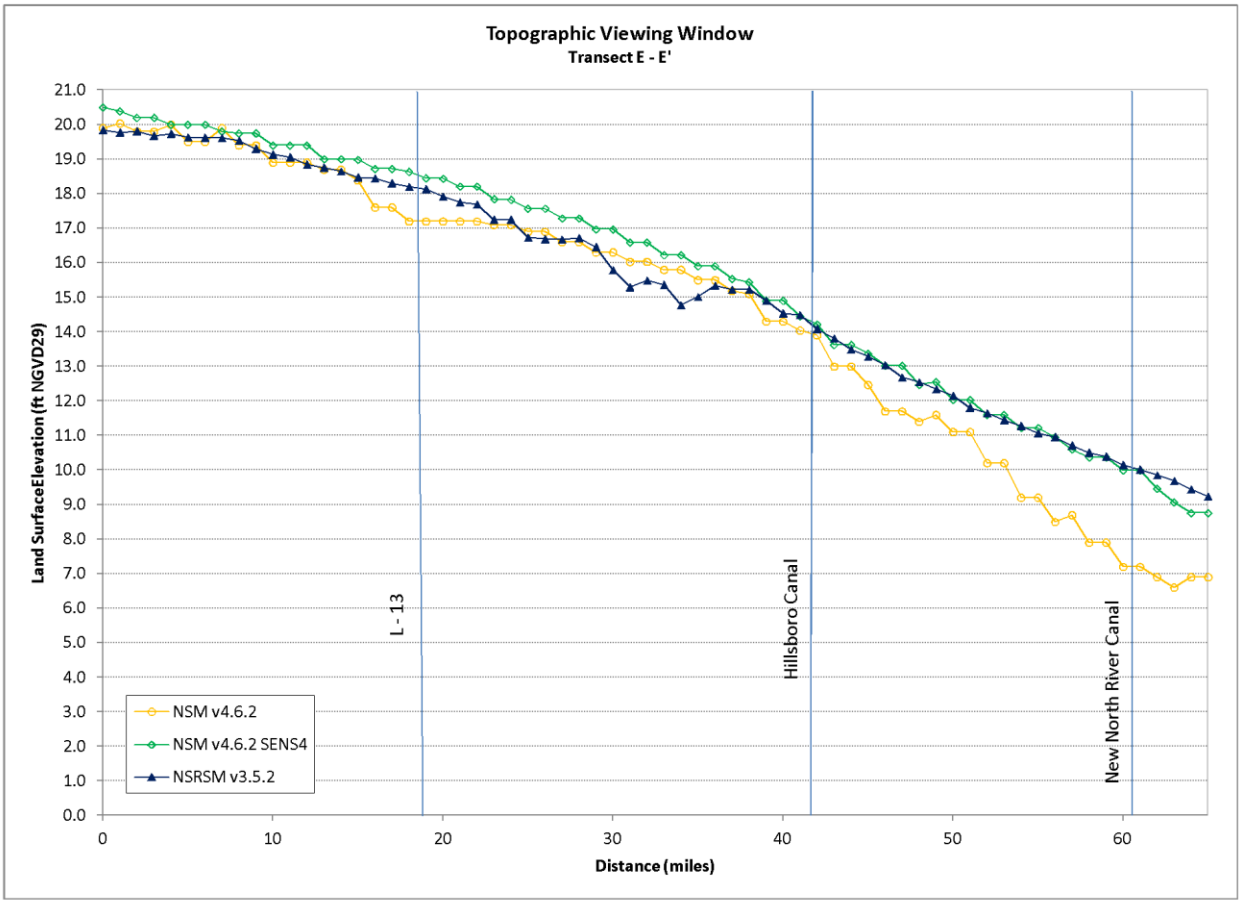

Figure 22. Comparison of Transect E-E'.

Transect F-F'

A comparison of topographic elevations for Transect F-F' shown in Figure 7. NSM has lower elevations when compared to other model elevations. NSM SENS4 and NSRSM have similar elevations.

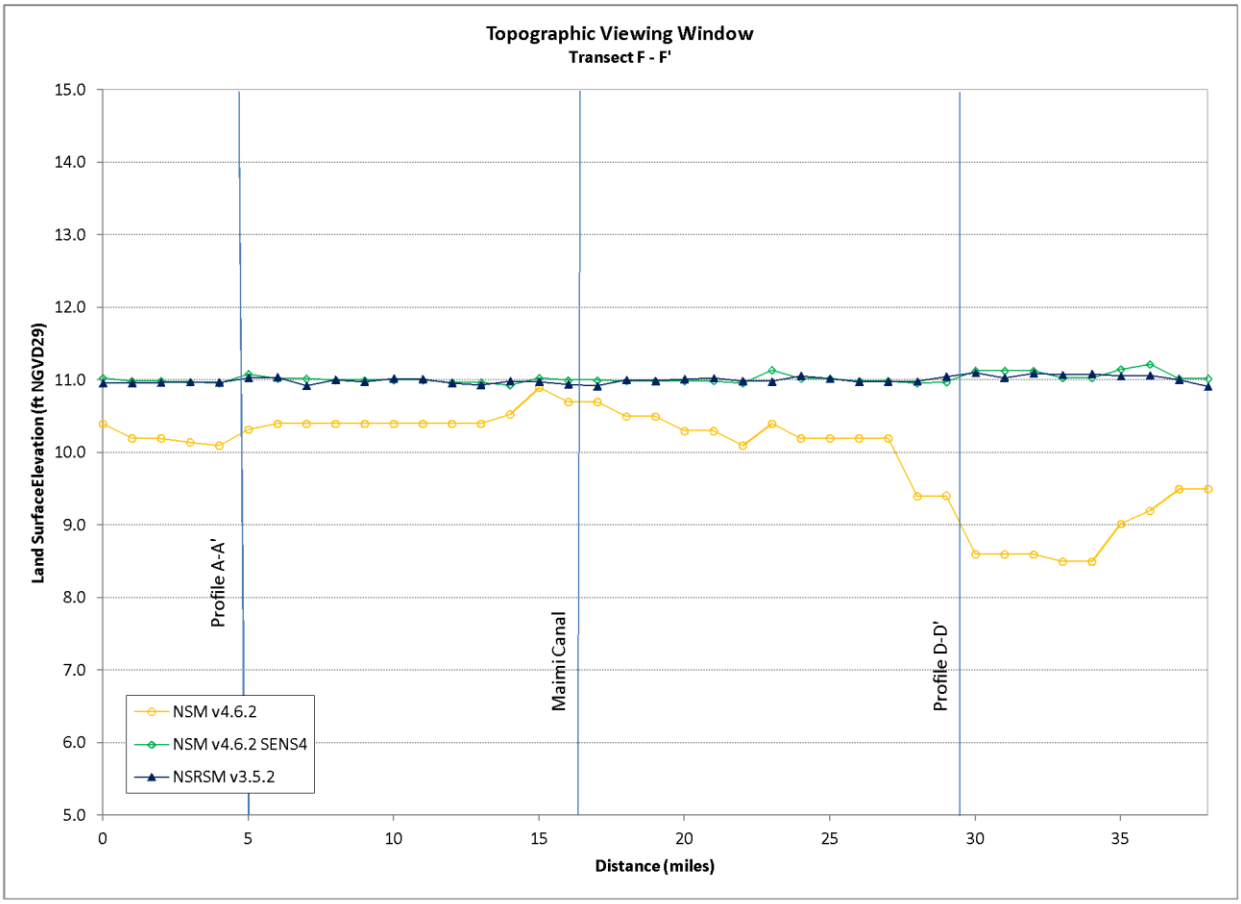

Figure 23. Comparison of Transect F-F'.

Transect G-G'

A comparison of topographic elevations for Transect G-G' shown in Figure 8. NSM has lower elevations when compared to other model elevations. NSM SENS4 and NSRSM have similar elevations.

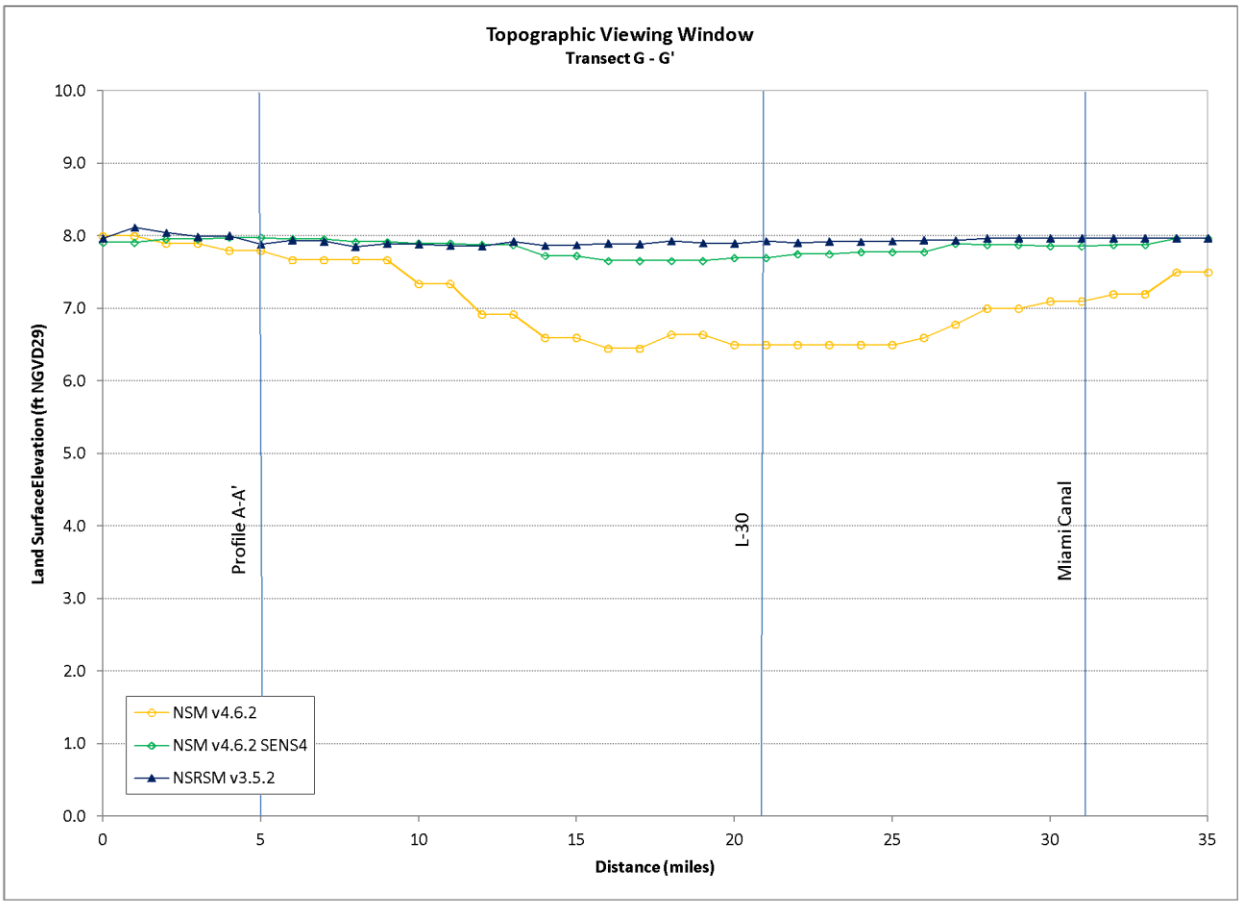

Figure 24. Comparison of Transect G-G'.

Transect H-H’

A comparison of topographic elevations for Transect H-H’ shown in Figure 9. All models for this transect display similar trends.

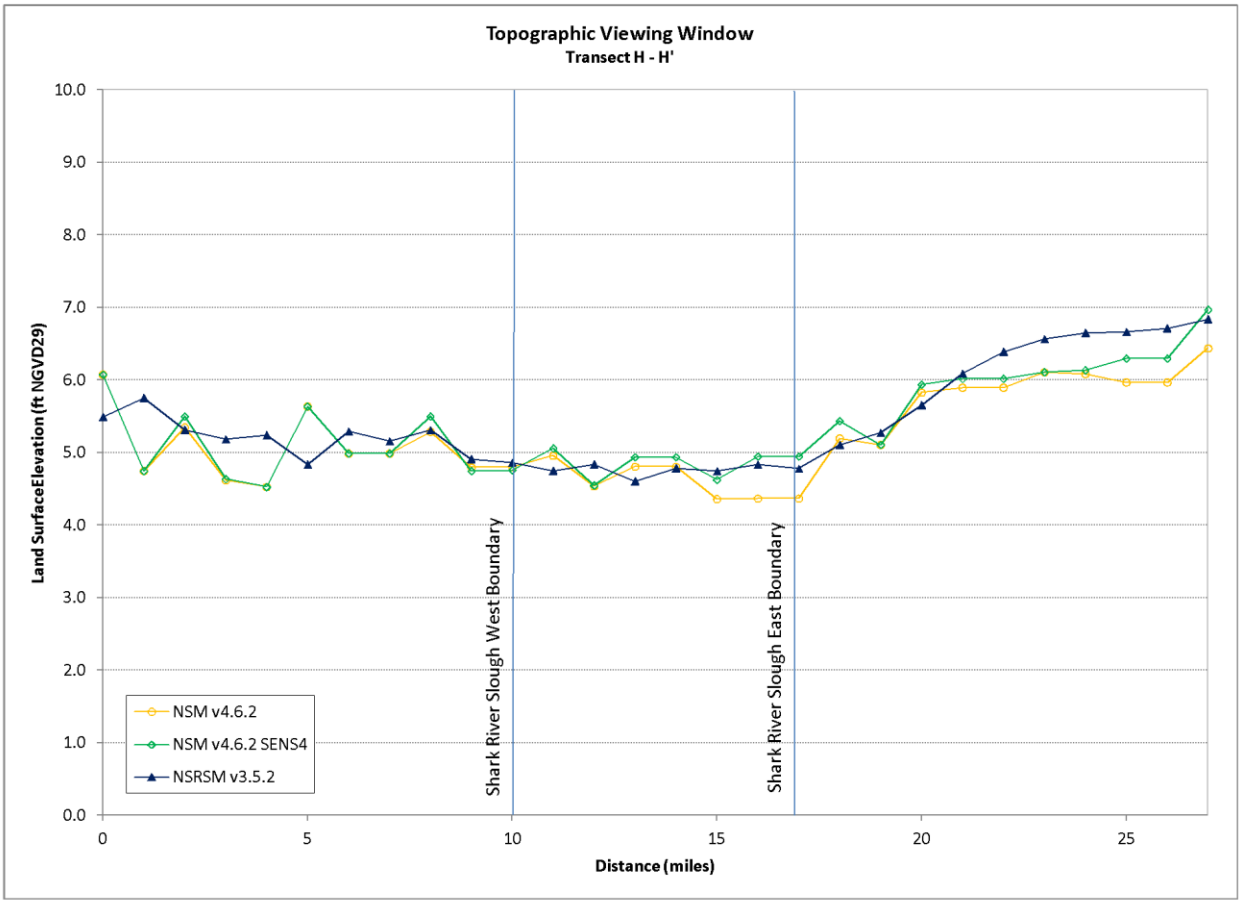

Figure 25. Comparison of Transect H-H’.

Transect I-I'

A comparison of topographic elevations for Transect I-I' shown in Figure 10. All models for this transect display similar trends.

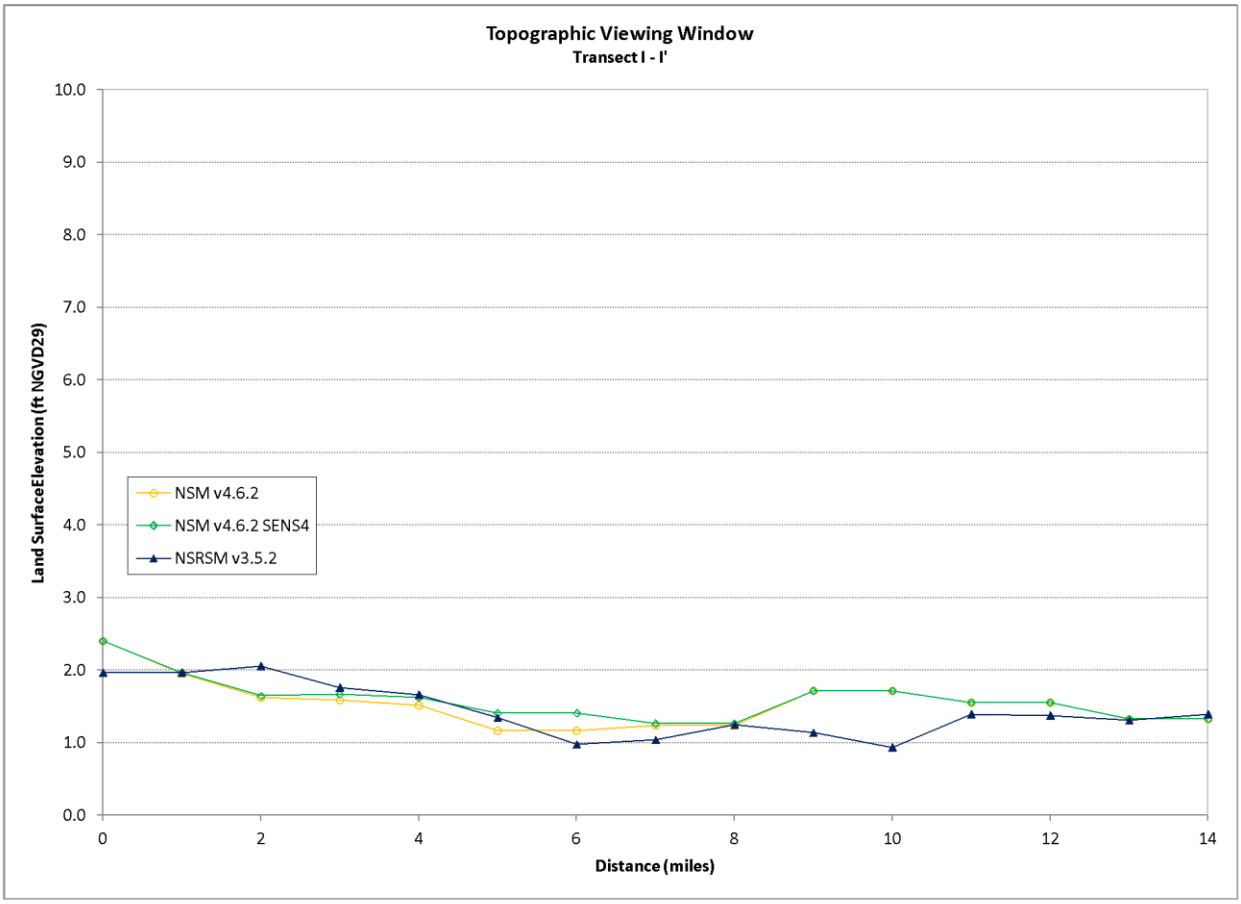

Figure 26. Comparison of Transect I-I'.