

WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow June 19, 2018 to June 25, 2018 MAX cfs

The target flow is distributed from east to west (S-333, S-12D, S-12C, S-12B, and S-12A) to keep WCA 3A releases away from sub-population A of the Cape Sable seaside sparrow

-----Data Summary -----	June 9, 2018	to	June 15, 2018
WCA-3A Stage (end of week)	10.84		ft. msl
Angel's	5.99		ft. msl
G-3273	6.69		ft. msl

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	1.11	1.16
S-140		2.13
ENP		M

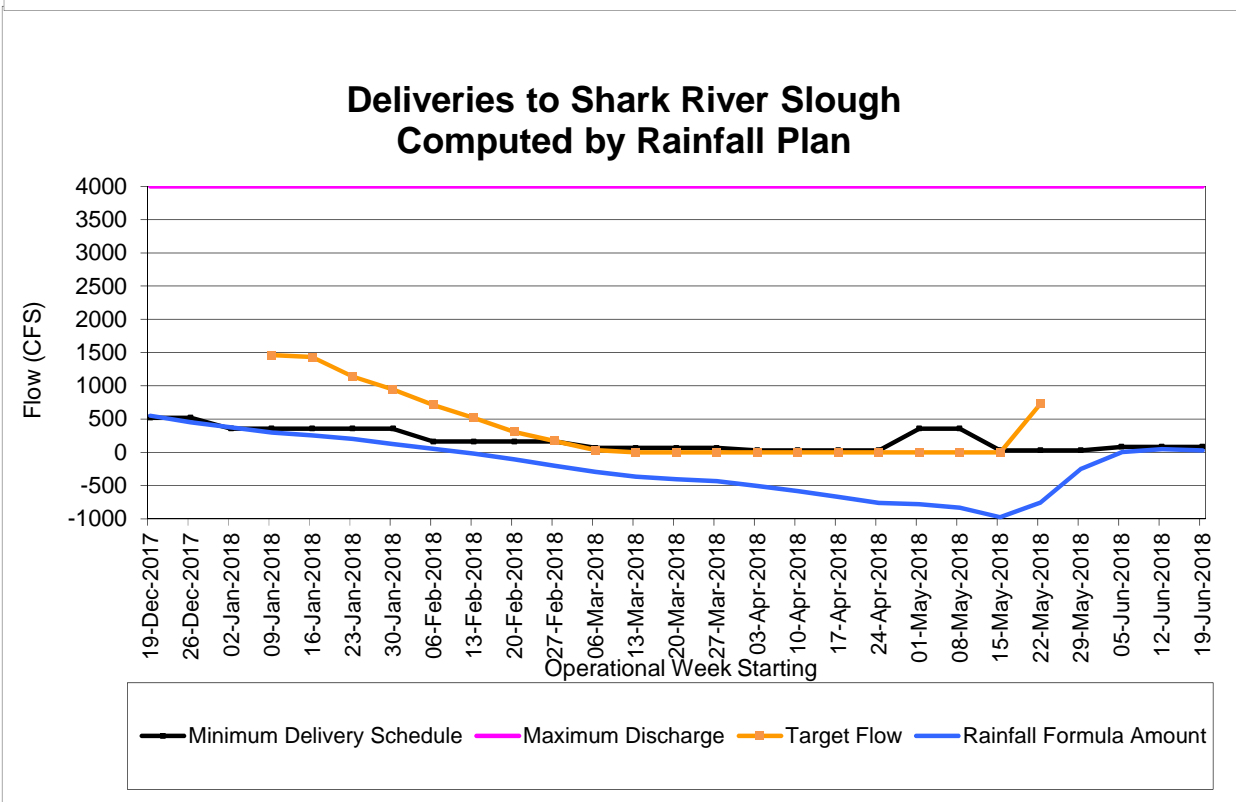
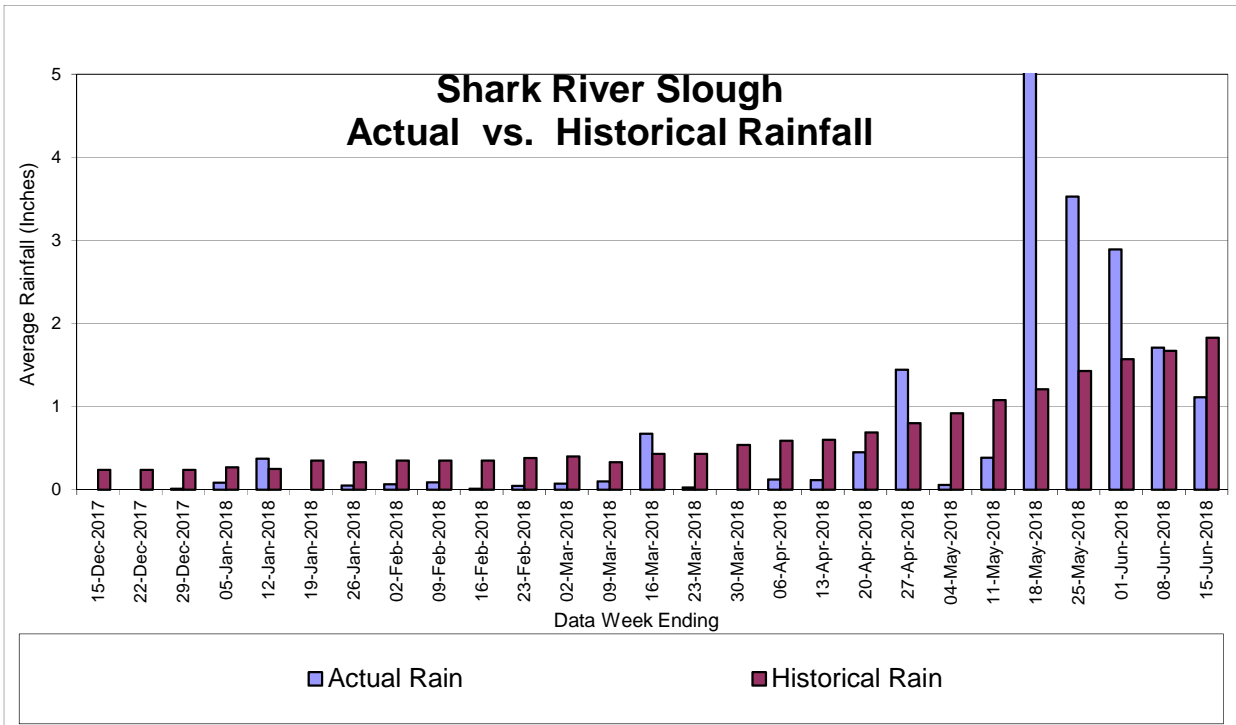
This Week's Avg	1.11	1.64
Pre-Project Avg	1.83	1.55

-----Transition Zone Information -----		
WCA-3A is in Zone A	Discharge Coeff. (cfs/ft) =	MAX
Supplemental discharge is	MAX	cfs
Distance to Bottom of Current Zone		-1.24 feet
Distance to Top of Current Zone	N/A	feet

-----Statistical Parameters -----			
Rainfall Formula Amount			27 cfs
Last Week's Rainfall Formula			50 cfs
Pre-project Mean Discharge			54 cfs
Rainfall Excess Terms	RL1 -1.59	RL2 4.94	RL3 -5.27

COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**



WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow January 9, 2018 to January 15, 2018 1464 cfs

S-12 Discharge 659 cfs
 S-333 Discharge 805 cfs

-----Data Summary -----

	December 30, 2017	to	January 5, 2018
WCA-3A Stage (end of week)	10.44		ft. msl
Angel's	6.61		ft. msl
G-3273	7.49		ft. msl

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	0.09	0.80
S-140		0.92
ENP		M

This Week's Avg	0.09	0.86
Pre-Project Avg	0.27	0.75

-----Transition Zone Information -----

WCA-3A is in Zone E1 **Discharge Coeff. (cfs/ft) = 2500**

Supplemental discharge is 1164 cfs
 Distance to Bottom of Current Zone -0.47 feet
 Distance to Top of Current Zone 0.03 feet

-----Statistical Parameters -----

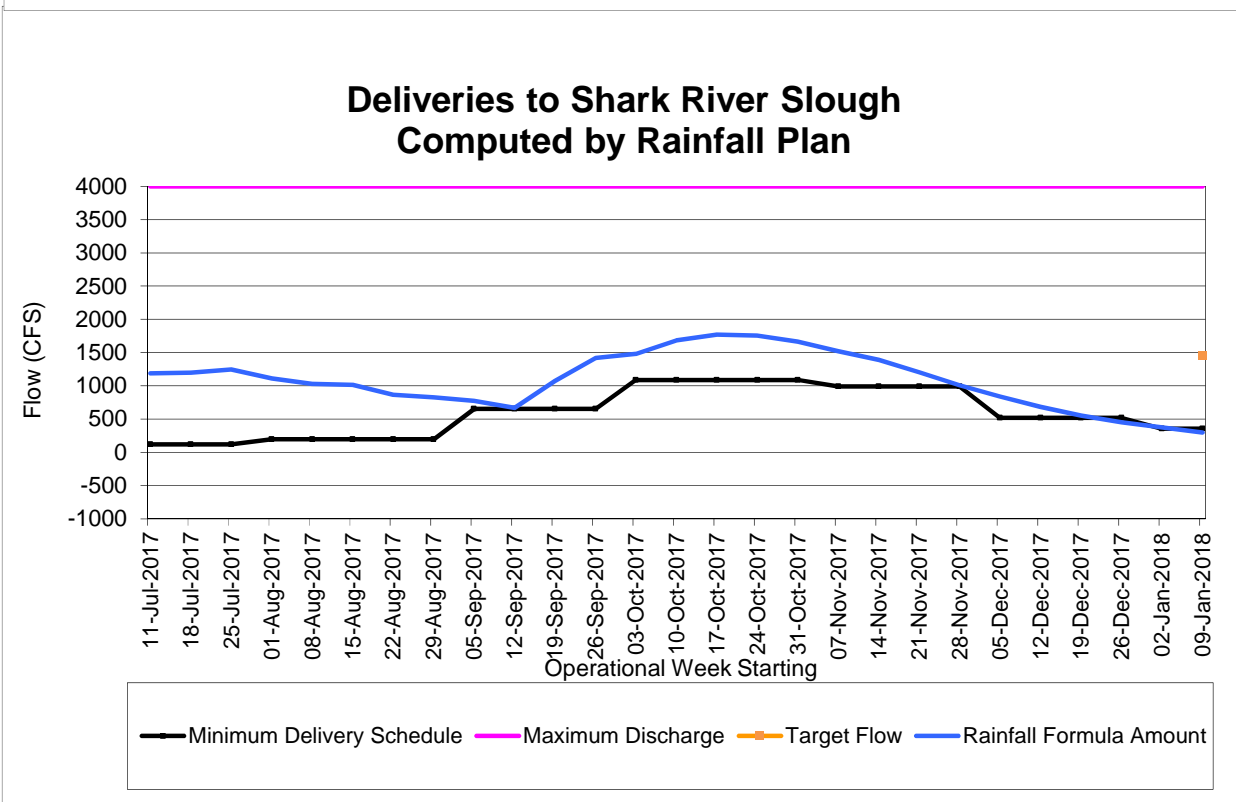
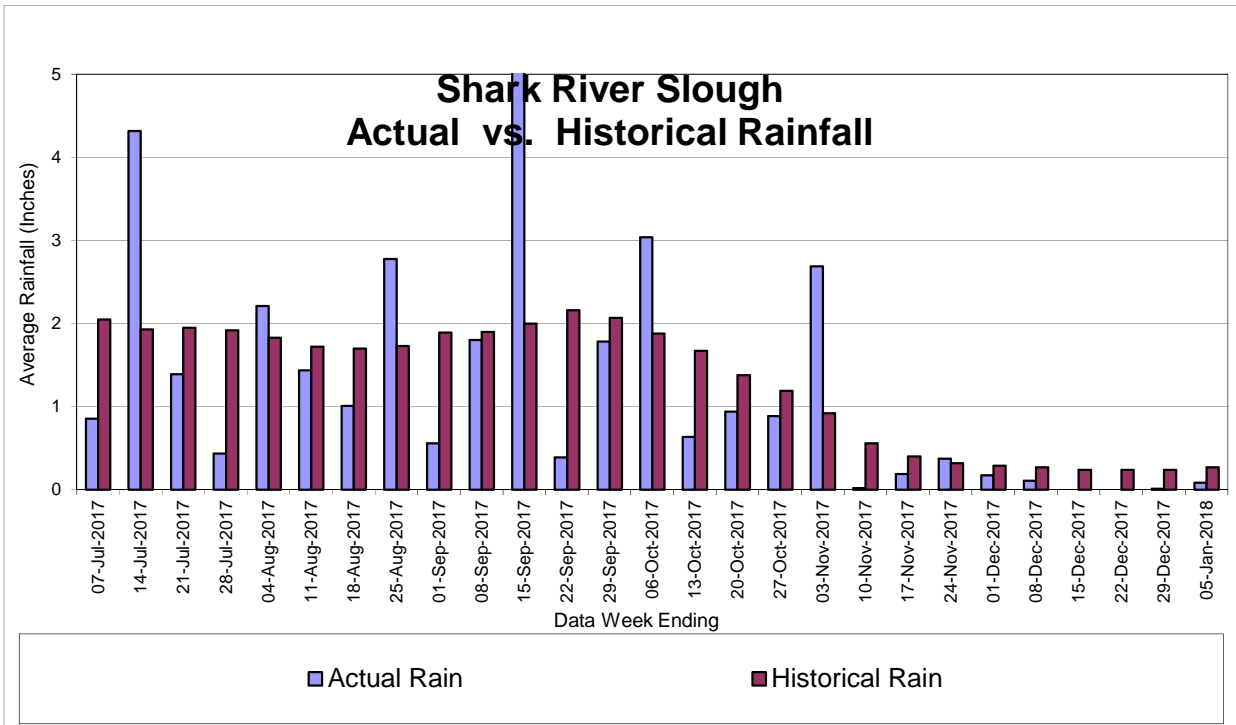
Rainfall Formula Amount 300 cfs
 Last Week's Rainfall Formula 373 cfs
 Pre-project Mean Discharge 247 cfs

Rainfall Excess Terms

RL1 -0.57	RL2 -1.03	RL3 -0.08
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COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**



WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow January 16, 2018 to January 22, 2018 1432 cfs

S-12 Discharge 645 cfs
 S-333 Discharge 788 cfs

-----Data Summary -----

	January 6, 2018	to	January 12, 2018
WCA-3A Stage (end of week)	10.40		ft. msl
Angel's	6.38		ft. msl
G-3273	7.41		ft. msl

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	0.37	0.73
S-140		0.81
ENP		M

This Week's Avg	0.37	0.77
Pre-Project Avg	0.25	0.77

-----Transition Zone Information -----

WCA-3A is in Zone E1 **Discharge Coeff. (cfs/ft) = 2500**

Supplemental discharge is 1175 cfs
 Distance to Bottom of Current Zone -0.47 feet
 Distance to Top of Current Zone 0.02 feet

-----Statistical Parameters -----

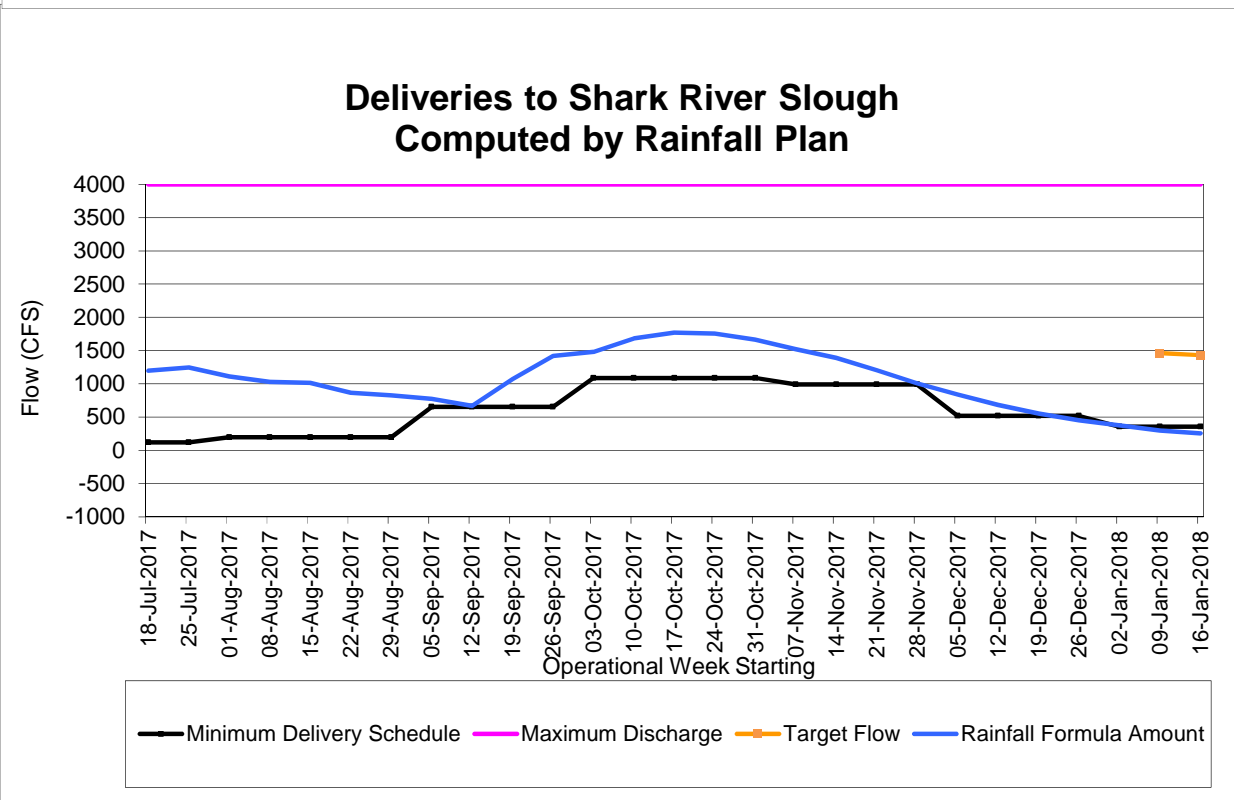
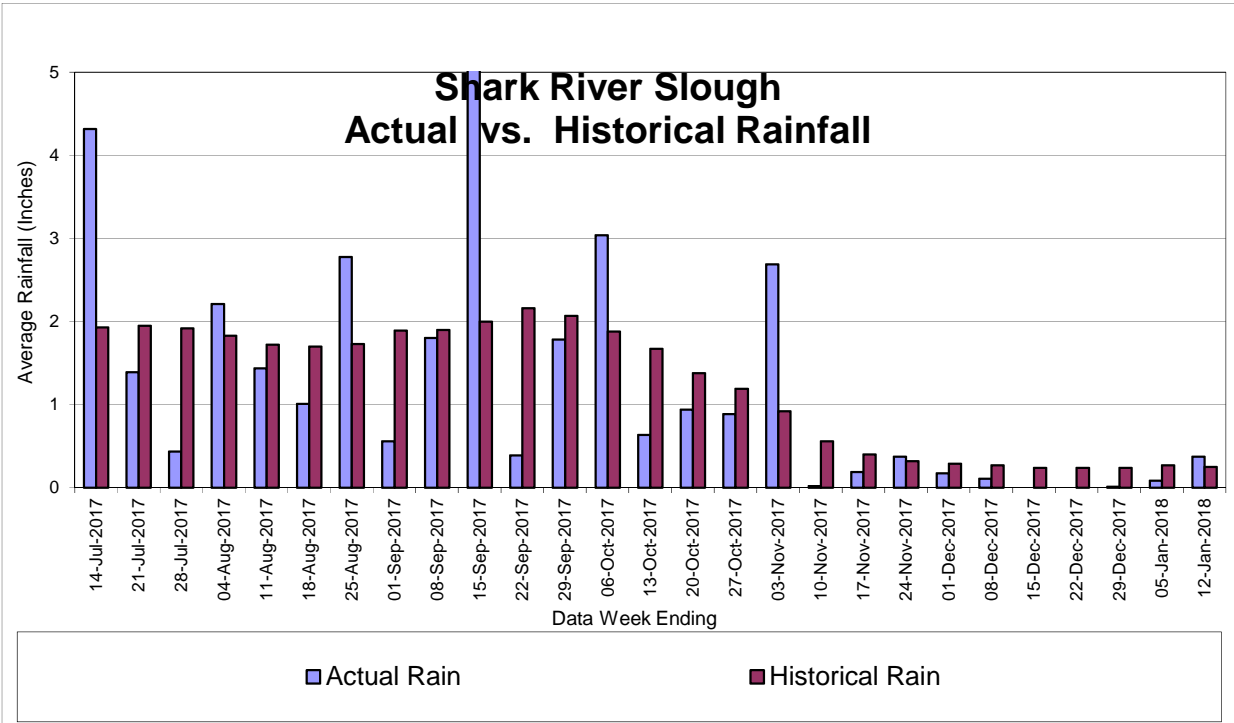
Rainfall Formula Amount 257 cfs
 Last Week's Rainfall Formula 300 cfs
 Pre-project Mean Discharge 216 cfs

Rainfall Excess Terms

RL1 -0.15	RL2 -1.03	RL3 -1.54
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COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**



WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow January 23, 2018 to January 29, 2018 1138 cfs

S-12 Discharge 512 cfs
 S-333 Discharge 626 cfs

-----Data Summary -----

	January 13, 2018	to	January 19, 2018
WCA-3A Stage (end of week)	10.26		ft. msl
Angel's	6.24		ft. msl
G-3273	7.26		ft. msl

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	0.00	0.89
S-140		1.19
ENP		M

This Week's Avg	0.00	1.04
Pre-Project Avg	0.35	0.81

-----Transition Zone Information -----

WCA-3A is in Zone E1 **Discharge Coeff. (cfs/ft) = 2500**

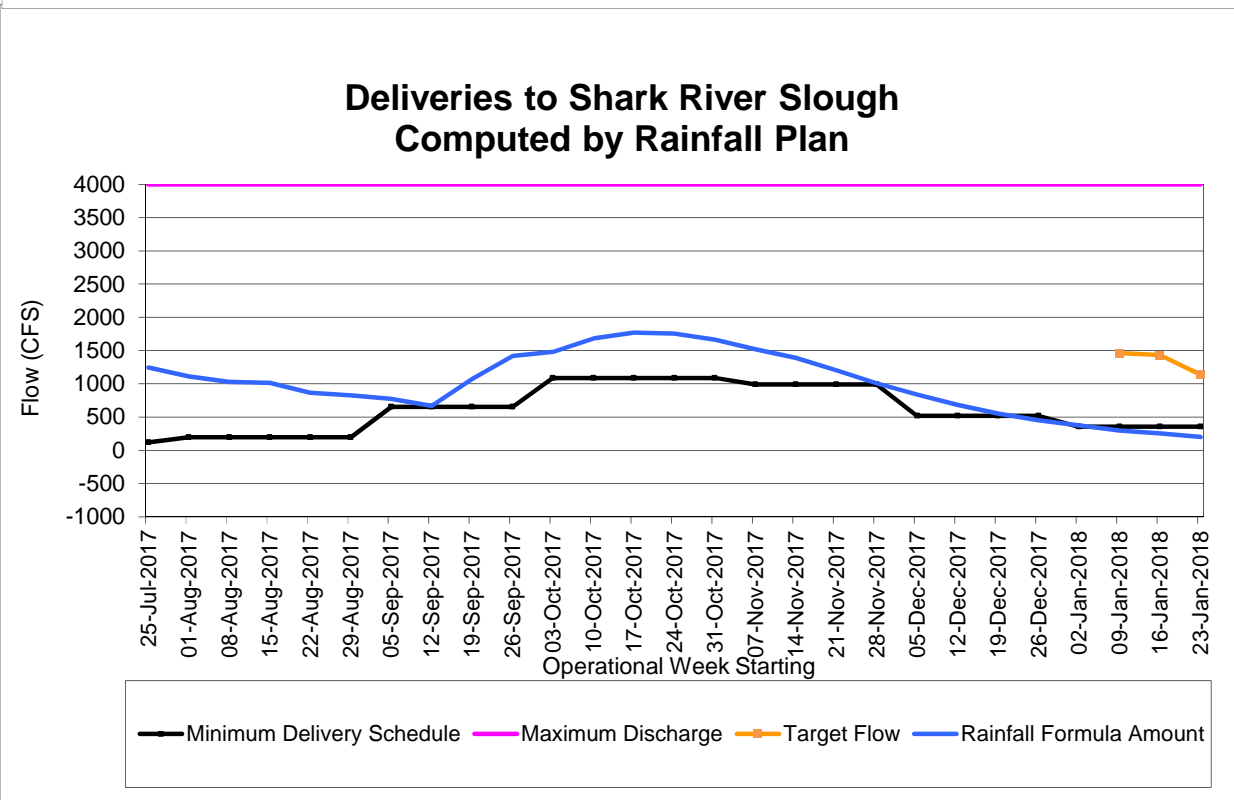
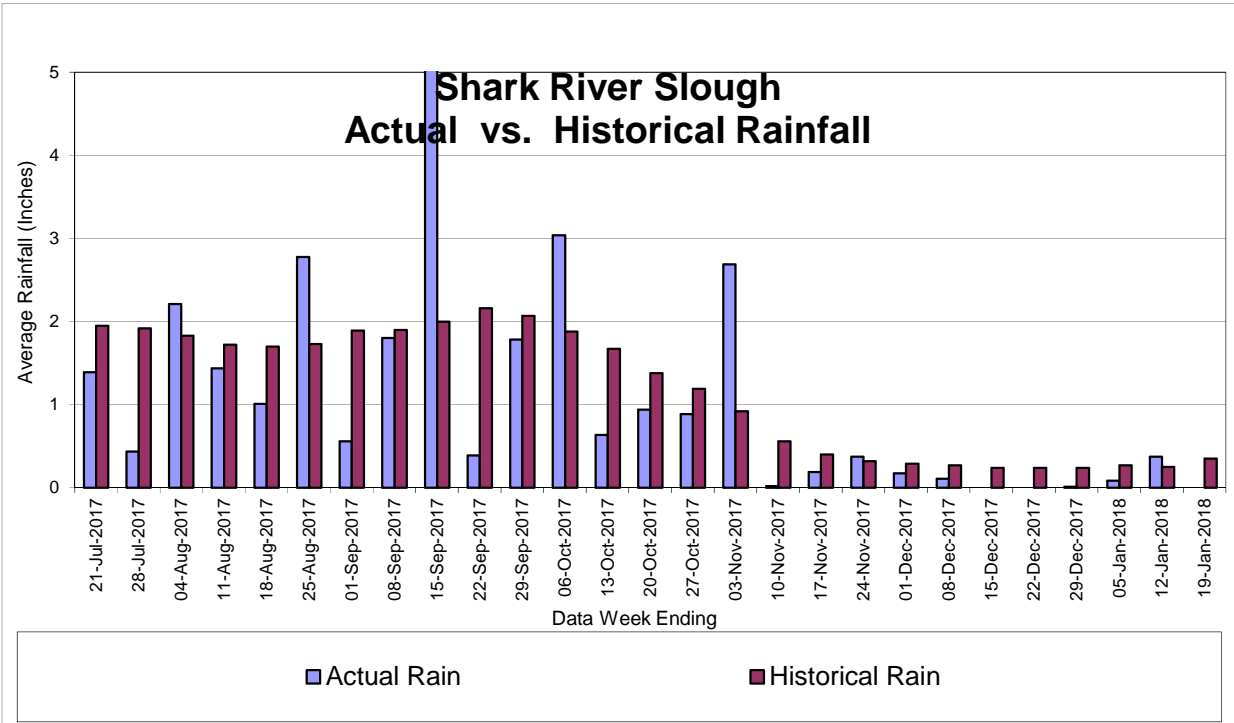
Supplemental discharge is	937 cfs
Distance to Bottom of Current Zone	-0.37 feet
Distance to Top of Current Zone	0.11 feet

-----Statistical Parameters -----

Rainfall Formula Amount	201 cfs	
Last Week's Rainfall Formula	257 cfs	
Pre-project Mean Discharge	186 cfs	
Rainfall Excess Terms		
RL1 -0.41	RL2 -1.09	RL3 -1.08

COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**



WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow January 30, 2018 to February 5, 2018 948 cfs

S-12 Discharge 427 cfs
 S-333 Discharge 521 cfs

-----Data Summary -----

	January 20, 2018	to	January 26, 2018
WCA-3A Stage (end of week)	10.17		ft. msl
Angel's	5.95		ft. msl
G-3273	7.14		ft. msl

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	0.05	0.78
S-140		0.87
ENP		M

This Week's Avg	0.05	0.83
Pre-Project Avg	0.33	0.83

-----Transition Zone Information -----

WCA-3A is in Zone E1 Discharge Coeff. (cfs/ft) = 2500

Supplemental discharge is 824 cfs
 Distance to Bottom of Current Zone -0.33 feet
 Distance to Top of Current Zone 0.16 feet

-----Statistical Parameters -----

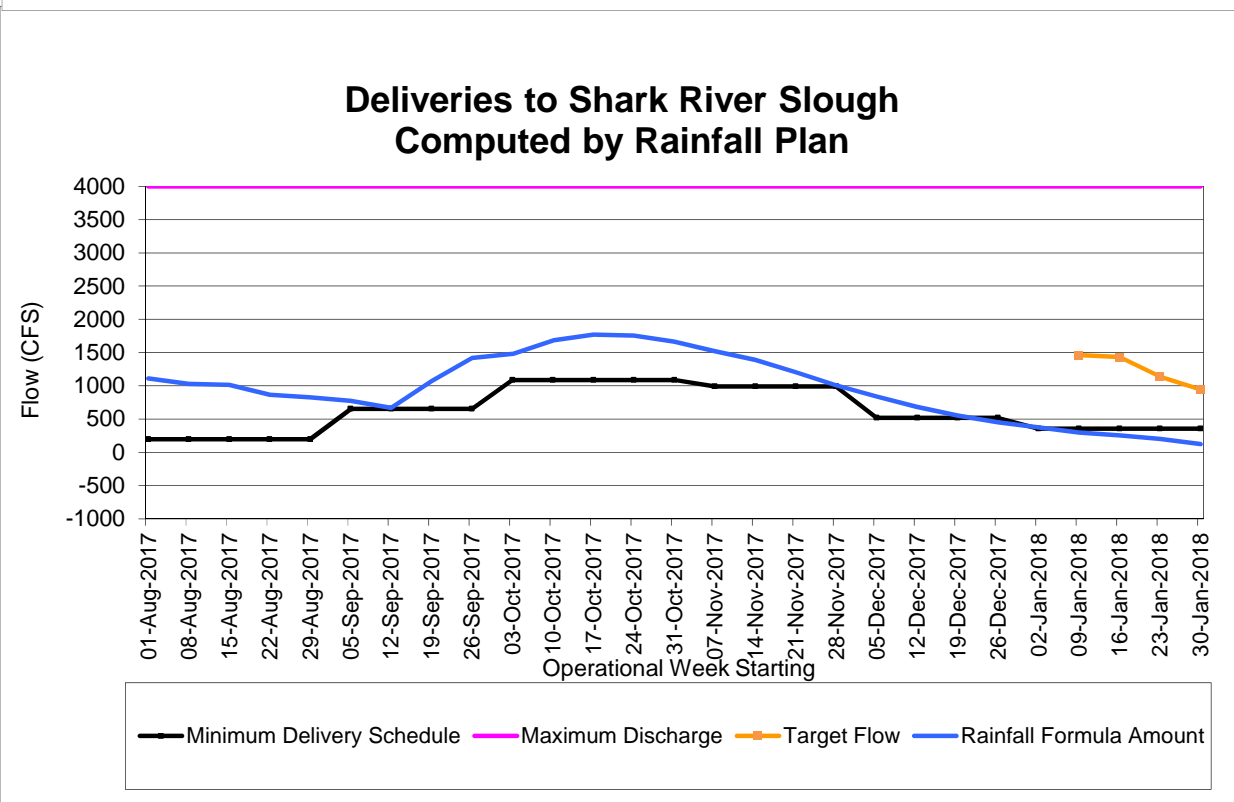
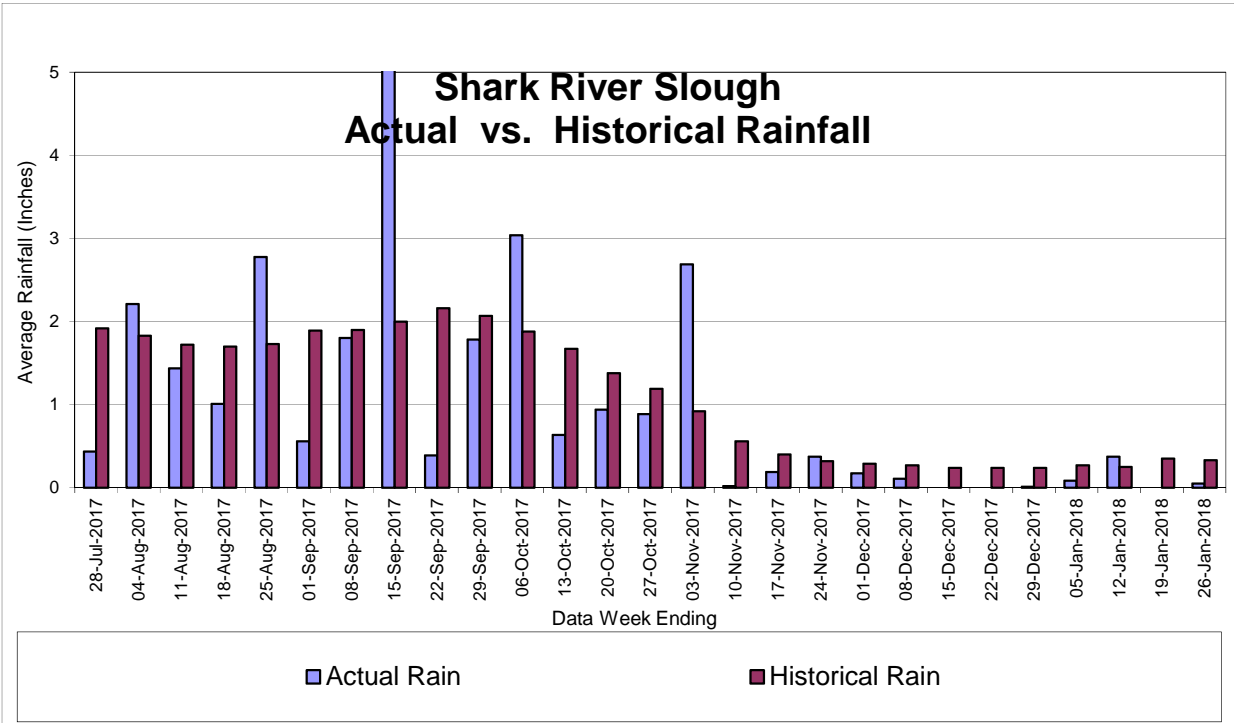
Rainfall Formula Amount 124 cfs
 Last Week's Rainfall Formula 201 cfs
 Pre-project Mean Discharge 153 cfs

Rainfall Excess Terms

RL1 -0.81	RL2 -0.67	RL3 -0.85
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COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**



WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow February 6, 2018 to February 12, 2018 **714 cfs**

S-12 Discharge 321 cfs
 S-333 Discharge 393 cfs

-----Data Summary -----

	January 27, 2018	to	February 2, 2018
WCA-3A Stage (end of week)	10.06		ft. msl
Angel's	5.72		ft. msl
G-3273	6.97		ft. msl

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	0.07	0.87
S-140		1.87
ENP		M

This Week's Avg	0.07	1.37
Pre-Project Avg	0.35	0.88

-----Transition Zone Information -----

WCA-3A is in Zone E1 **Discharge Coeff. (cfs/ft) = 2500**

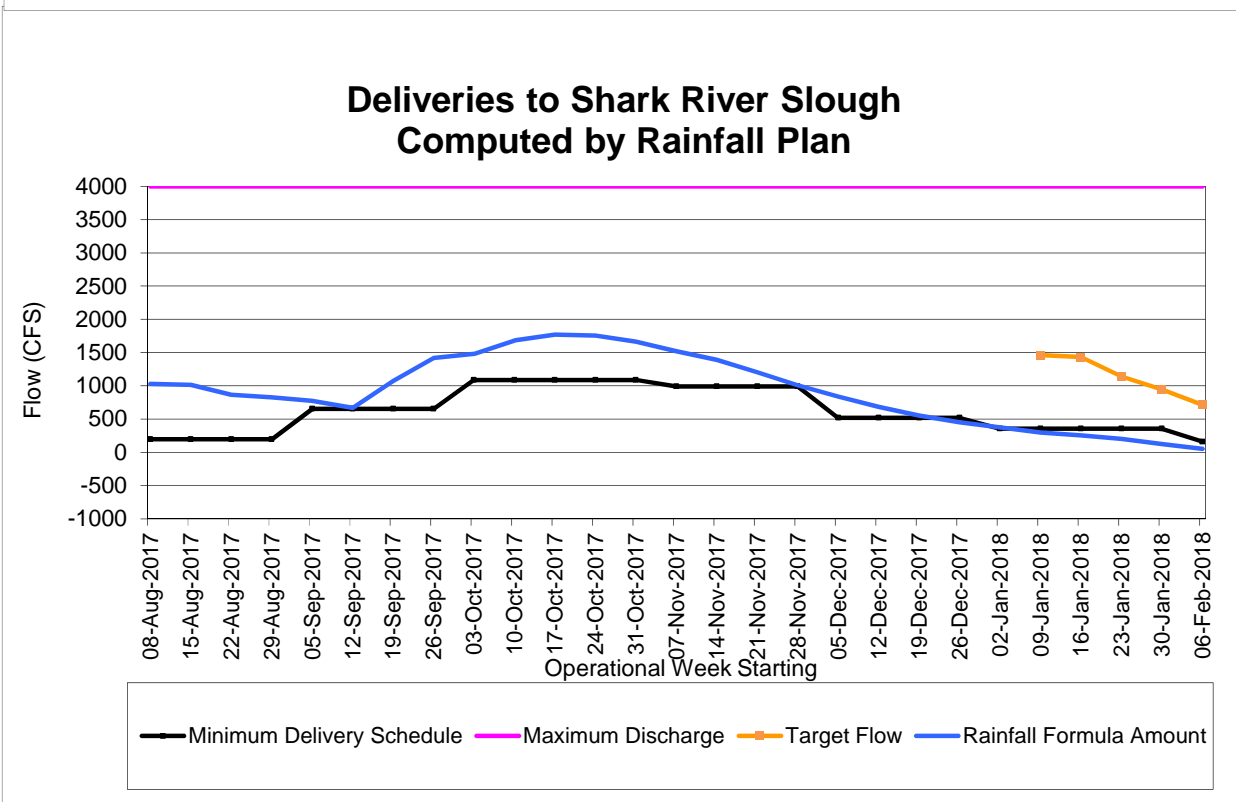
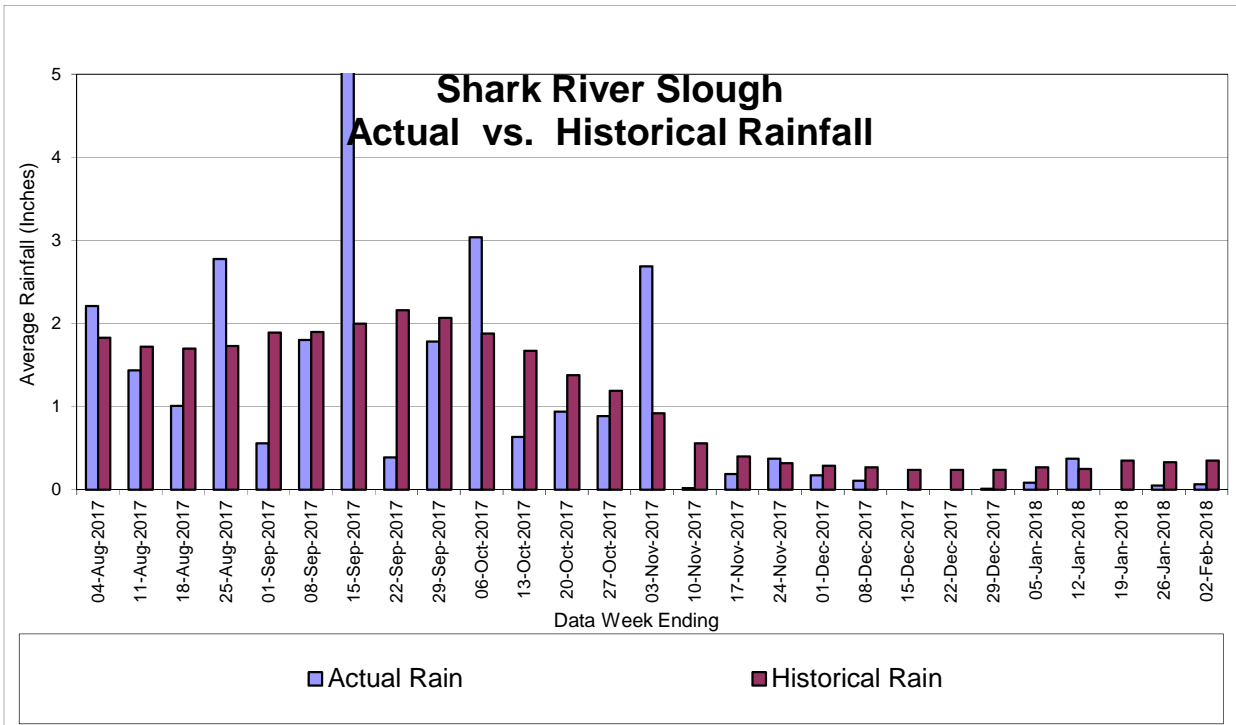
Supplemental discharge is	660 cfs
Distance to Bottom of Current Zone	-0.26 feet
Distance to Top of Current Zone	0.22 feet

-----Statistical Parameters -----

Rainfall Formula Amount	54 cfs
Last Week's Rainfall Formula	124 cfs
Pre-project Mean Discharge	130 cfs
Rainfall Excess Terms	
RL1 -0.96	RL2 -0.98
	RL3 -1.03

COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**



WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow February 13, 2018 to February 19, 2018 **522 cfs**

S-12 Discharge 235 cfs
 S-333 Discharge 287 cfs

-----Data Summary -----

	February 3, 2018	to	February 9, 2018
WCA-3A Stage (end of week)	9.96		ft. msl
Angel's	5.85		ft. msl
G-3273	6.86		ft. msl

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	0.09	0.89
S-140		1.65
ENP		M

This Week's Avg	0.09	1.27
Pre-Project Avg	0.35	0.94

-----Transition Zone Information -----

WCA-3A is in Zone E1 **Discharge Coeff. (cfs/ft) = 2500**

Supplemental discharge is 522 cfs
 Distance to Bottom of Current Zone -0.21 feet
 Distance to Top of Current Zone 0.27 feet

-----Statistical Parameters -----

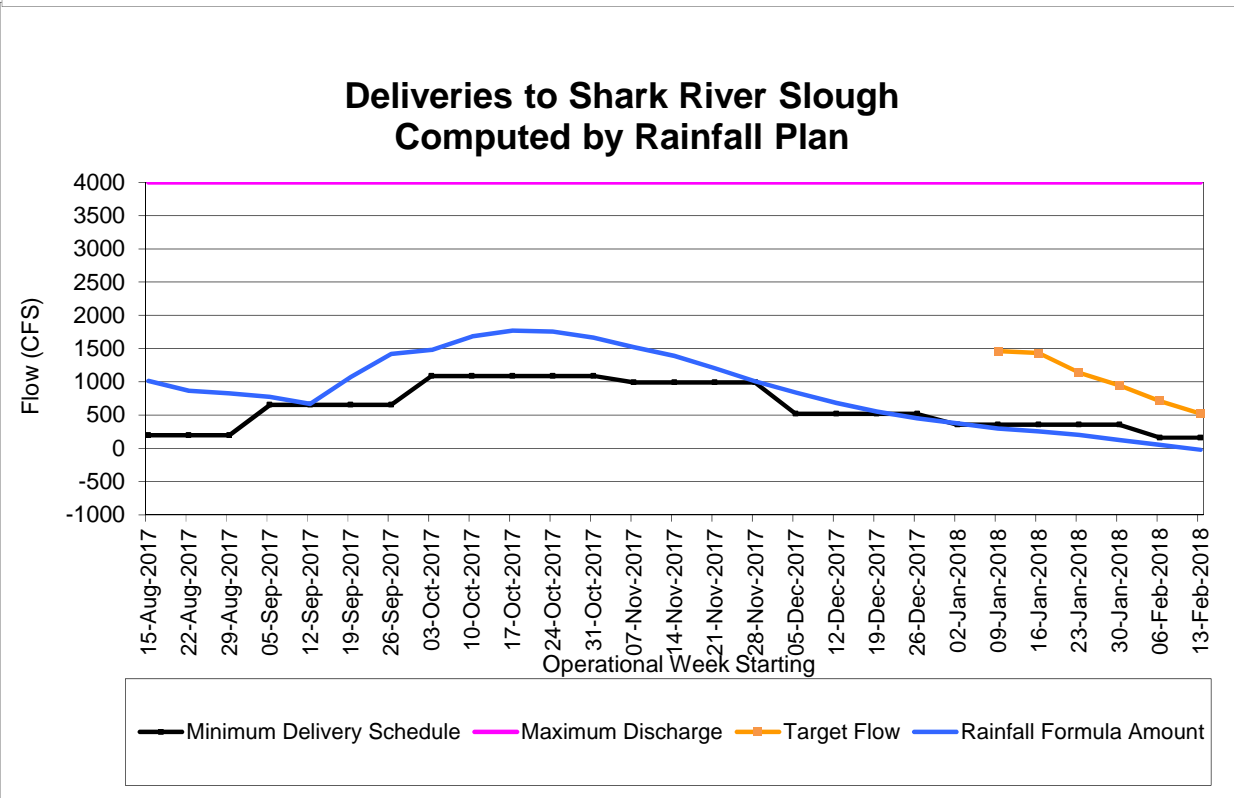
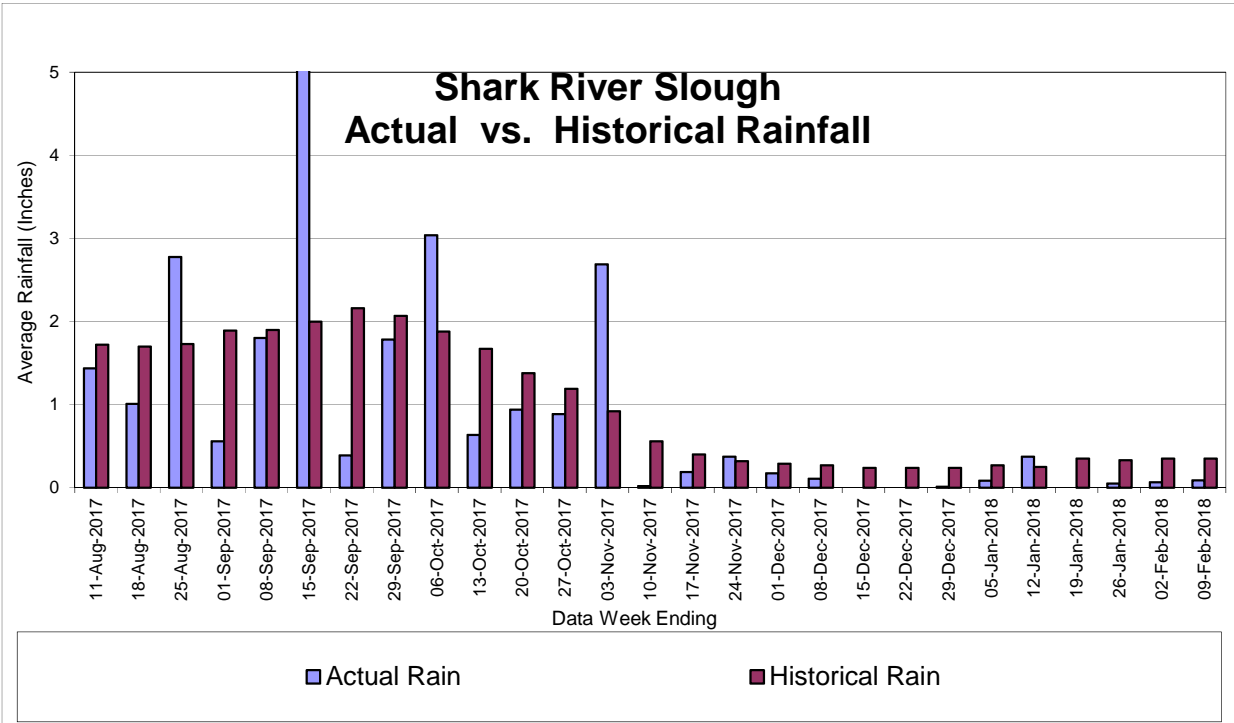
Rainfall Formula Amount -22 cfs
 Last Week's Rainfall Formula 54 cfs
 Pre-project Mean Discharge 110 cfs

Rainfall Excess Terms

RL1 -1.20	RL2 -0.96	RL3 -1.03
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COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**



WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow February 20, 2018 to February 26, 2018 **308 cfs**

S-12 Discharge 139 cfs
 S-333 Discharge 170 cfs

-----Data Summary -----

	February 10, 2018	to	February 16, 2018	
WCA-3A Stage (end of week)	9.83		ft. msl	
Angel's	6.26		ft. msl	
G-3273	7.30		ft. msl	

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	0.01	1.08
S-140		2.27
ENP		M

This Week's Avg	0.01	1.68
Pre-Project Avg	0.35	1.01

-----Transition Zone Information -----

WCA-3A is in Zone E1 **Discharge Coeff. (cfs/ft) = 2500**

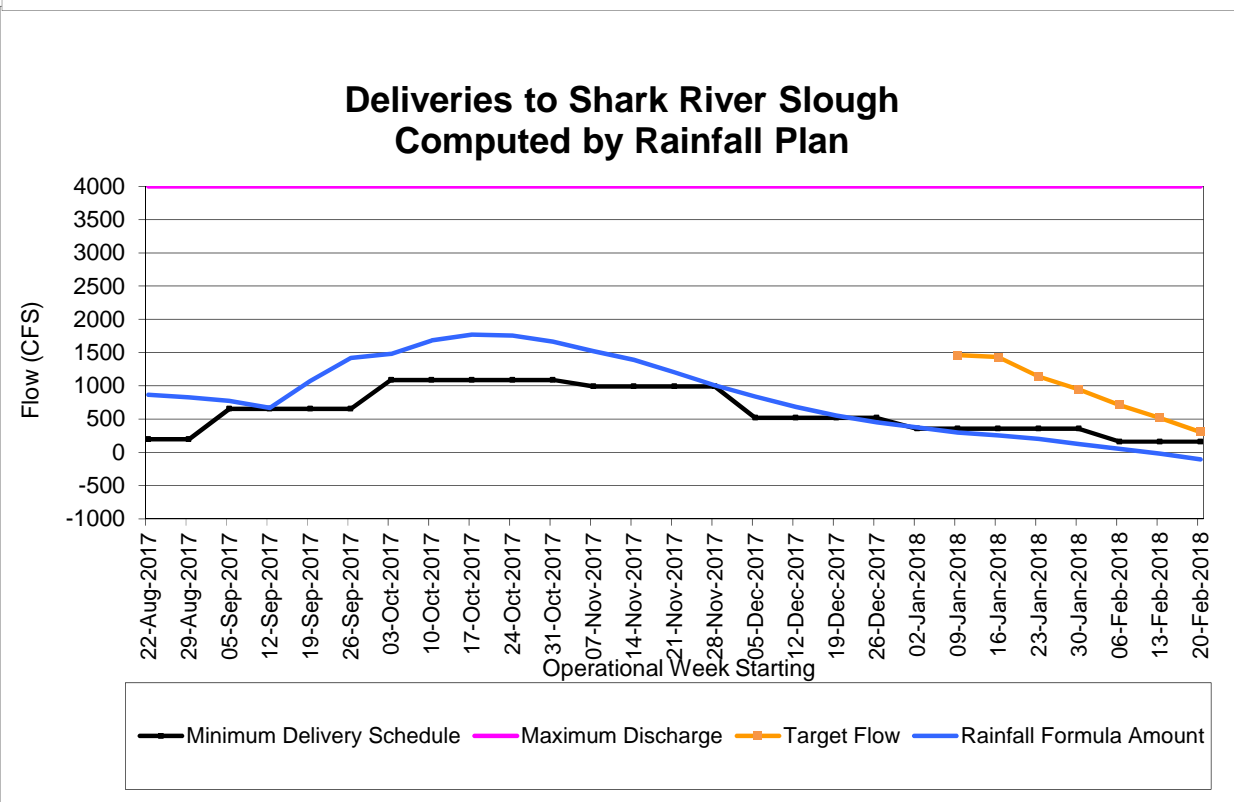
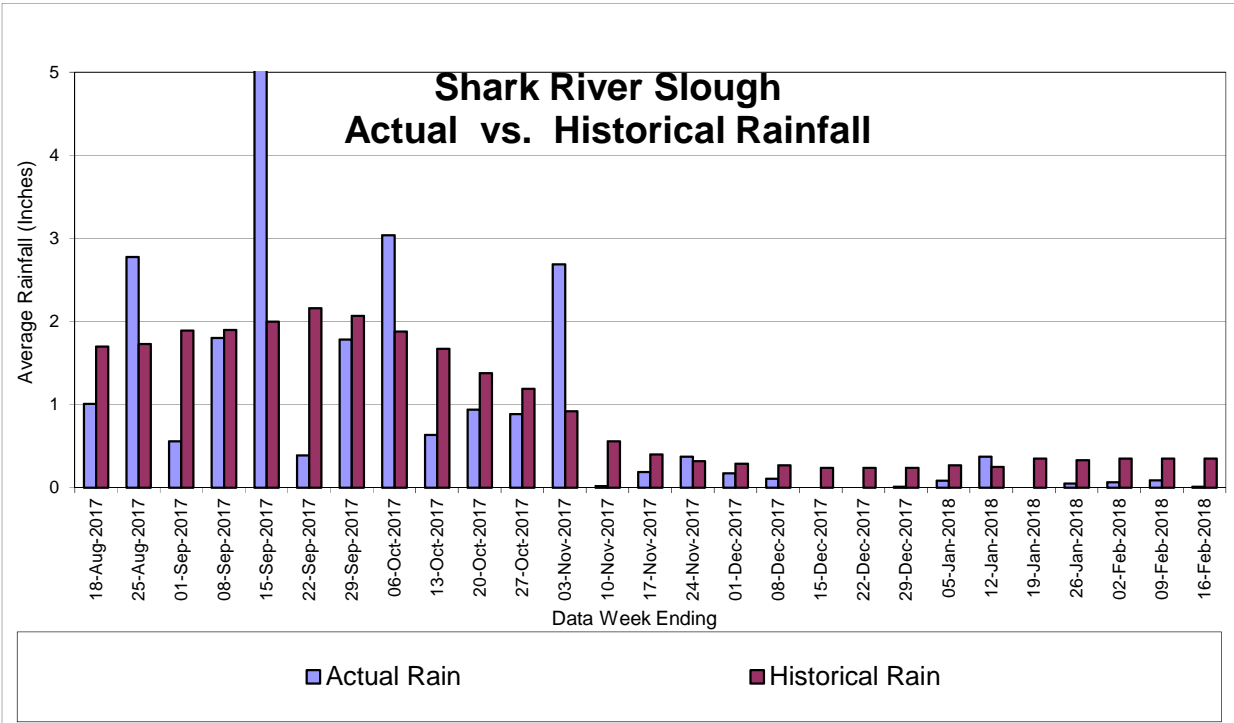
Supplemental discharge is	308 cfs
Distance to Bottom of Current Zone	-0.12 feet
Distance to Top of Current Zone	0.36 feet

-----Statistical Parameters -----

Rainfall Formula Amount	-104 cfs	
Last Week's Rainfall Formula	-22 cfs	
Pre-project Mean Discharge	88 cfs	
Rainfall Excess Terms		
RL1 -1.39	RL2 -1.37	RL3 -1.09

COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**



WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow February 27, 2018 to March 5, 2018 170 cfs

S-12 Discharge 77 cfs
 S-333 Discharge 94 cfs

-----Data Summary -----

	February 17, 2018	to	February 23, 2018
WCA-3A Stage (end of week)	9.73		ft. msl
Angel's	5.65		ft. msl
G-3273	6.61		ft. msl

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	0.05	1.27
S-140		2.46
ENP		M

This Week's Avg	0.05	1.87
Pre-Project Avg	0.38	1.08

-----Transition Zone Information -----

WCA-3A is in Zone E1 Discharge Coeff. (cfs/ft) = 2500

Supplemental discharge is 170 cfs
 Distance to Bottom of Current Zone -0.07 feet
 Distance to Top of Current Zone 0.41 feet

-----Statistical Parameters -----

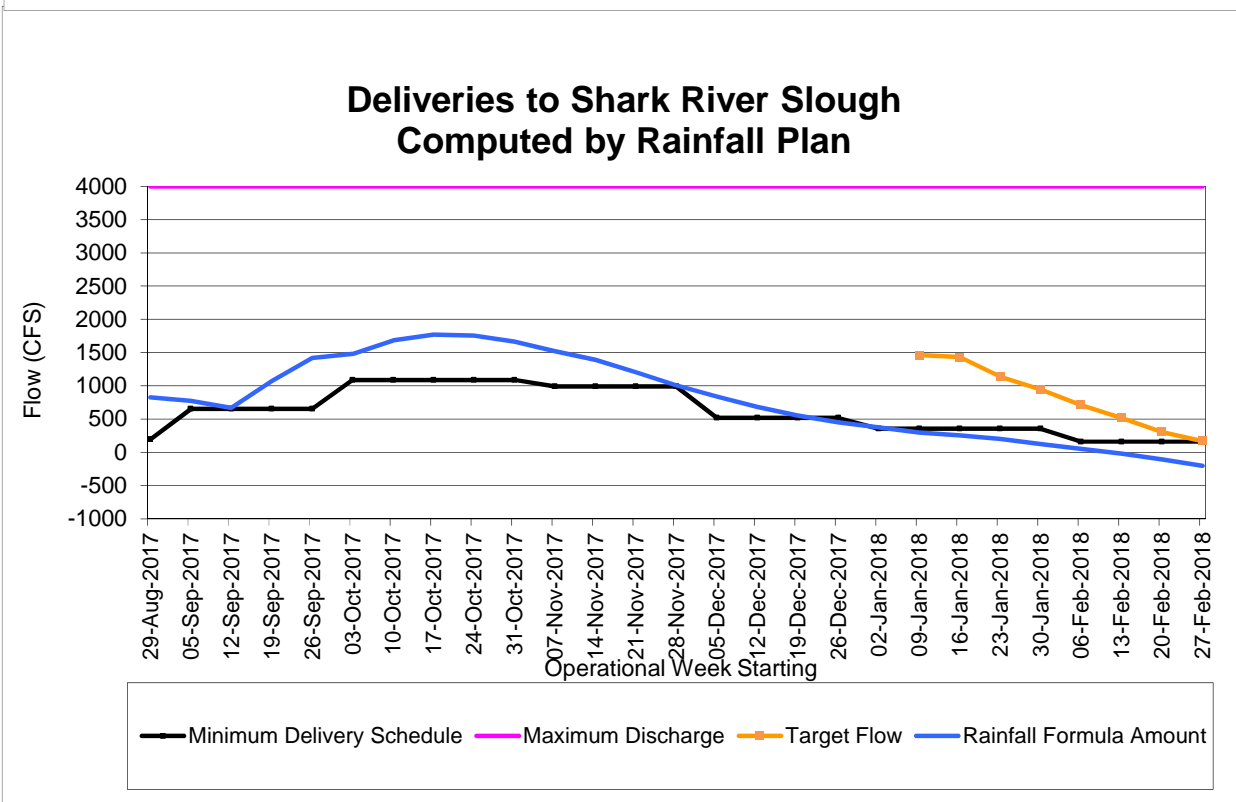
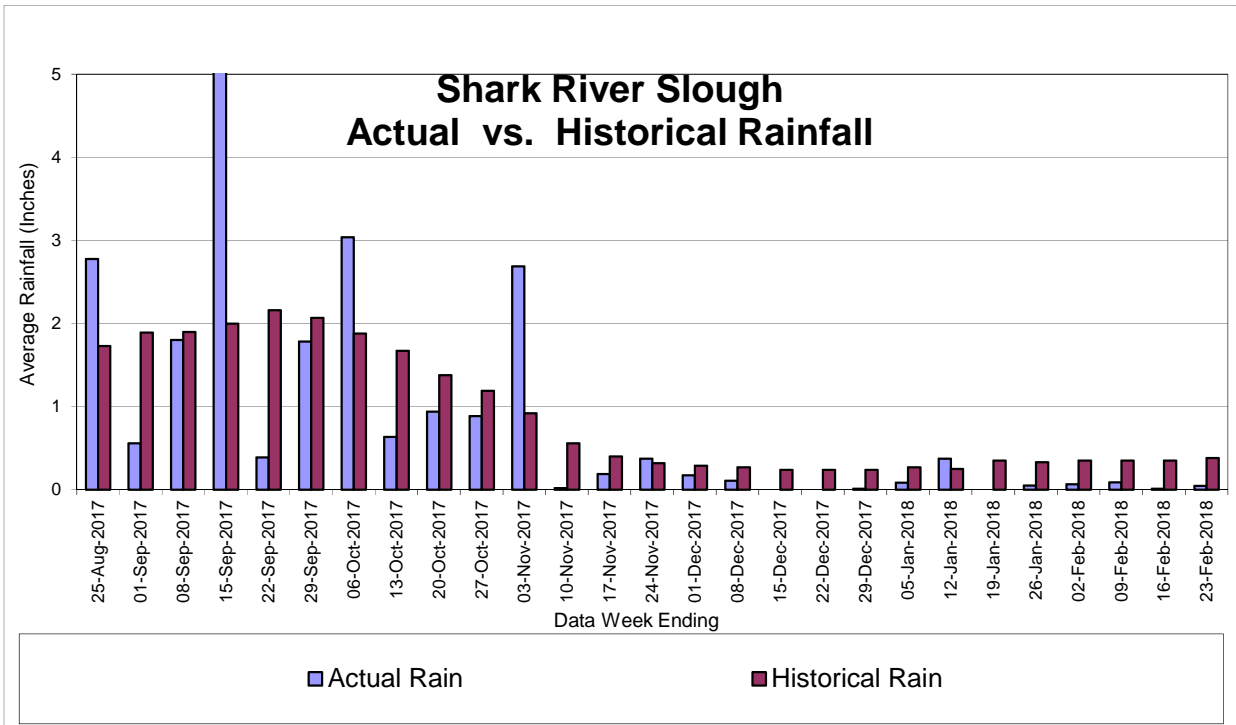
Rainfall Formula Amount -200 cfs
 Last Week's Rainfall Formula -104 cfs
 Pre-project Mean Discharge 69 cfs

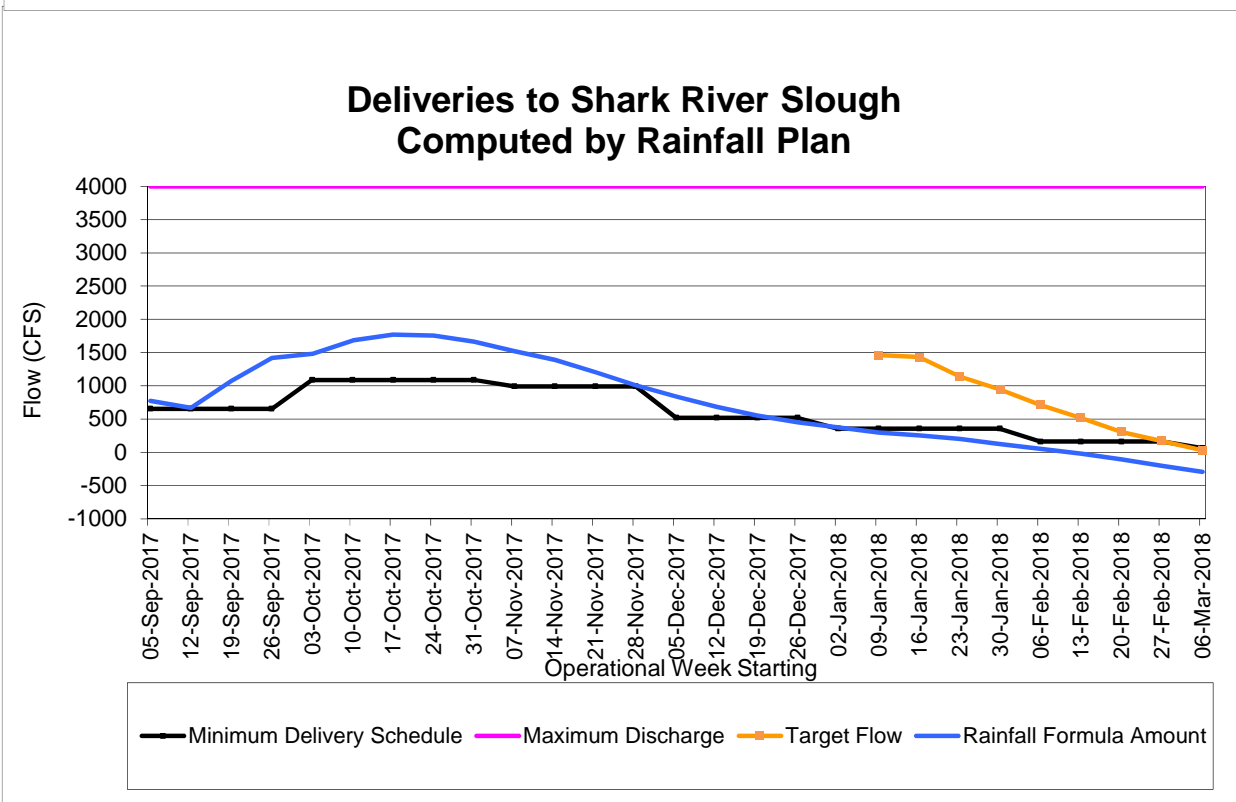
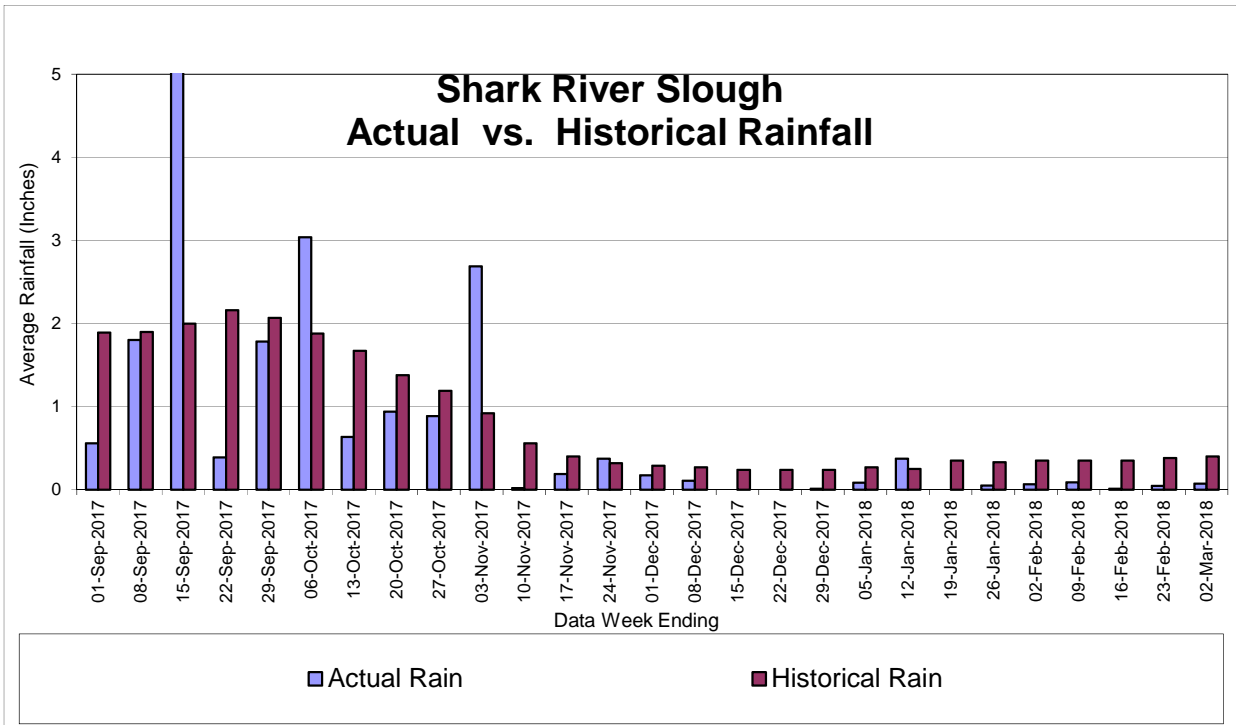
Rainfall Excess Terms

RL1 -1.83	RL2 -2.01	RL3 -0.67
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COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**





WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow March 13, 2018 to March 19, 2018 0 cfs

S-12 Discharge 0 cfs
 S-333 Discharge 0 cfs

-----Data Summary -----

	March 3, 2018	to	March 9, 2018	
WCA-3A Stage (end of week)	9.50		ft. msl	
Angel's	5.39		ft. msl	
G-3273	6.26		ft. msl	

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	0.10	1.59
S-140		2.30
ENP		M

This Week's Avg	0.10	1.94
Pre-Project Avg	0.33	1.22

-----Transition Zone Information -----

WCA-3A is in Zone E **Discharge Coeff. (cfs/ft) = 2500**

Supplemental discharge is 0 cfs

Distance to Bottom of Current Zone N/A feet

Distance to Top of Current Zone 0.07 feet

-----Statistical Parameters -----

Rainfall Formula Amount -367 cfs

Last Week's Rainfall Formula -293 cfs

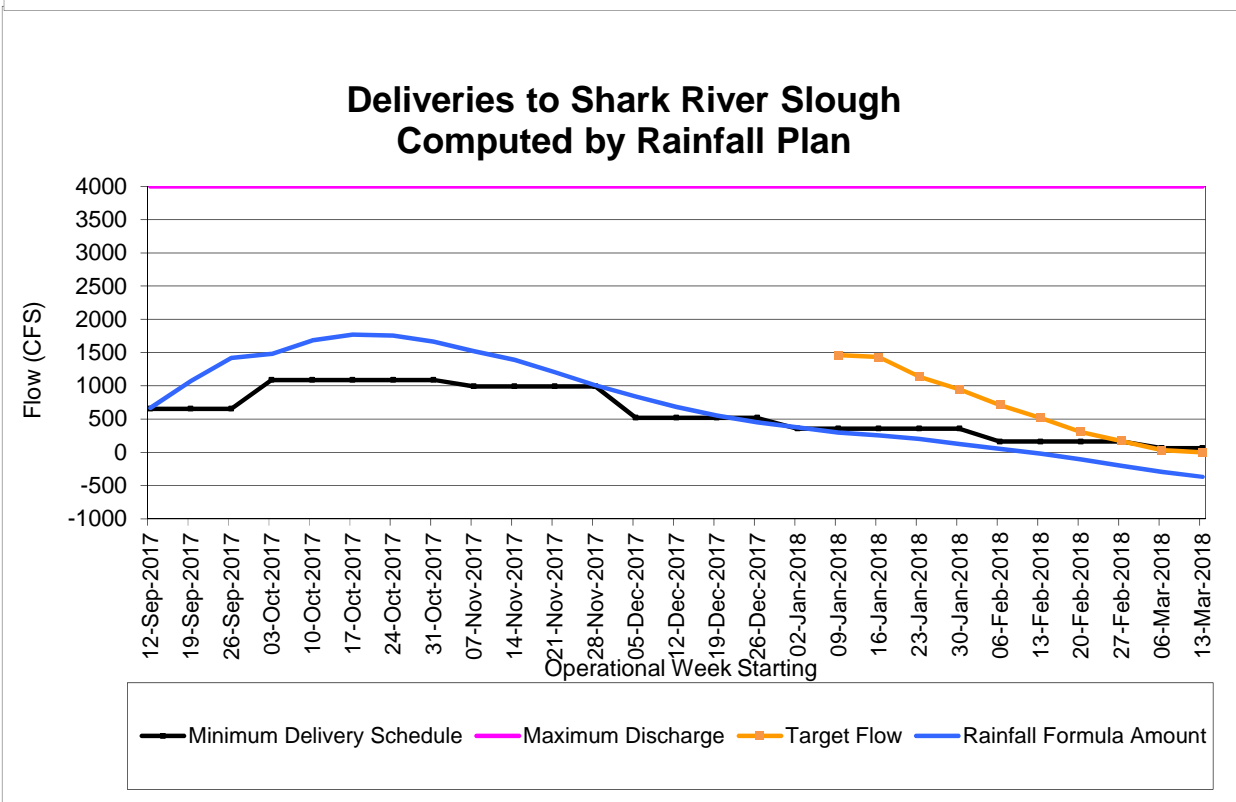
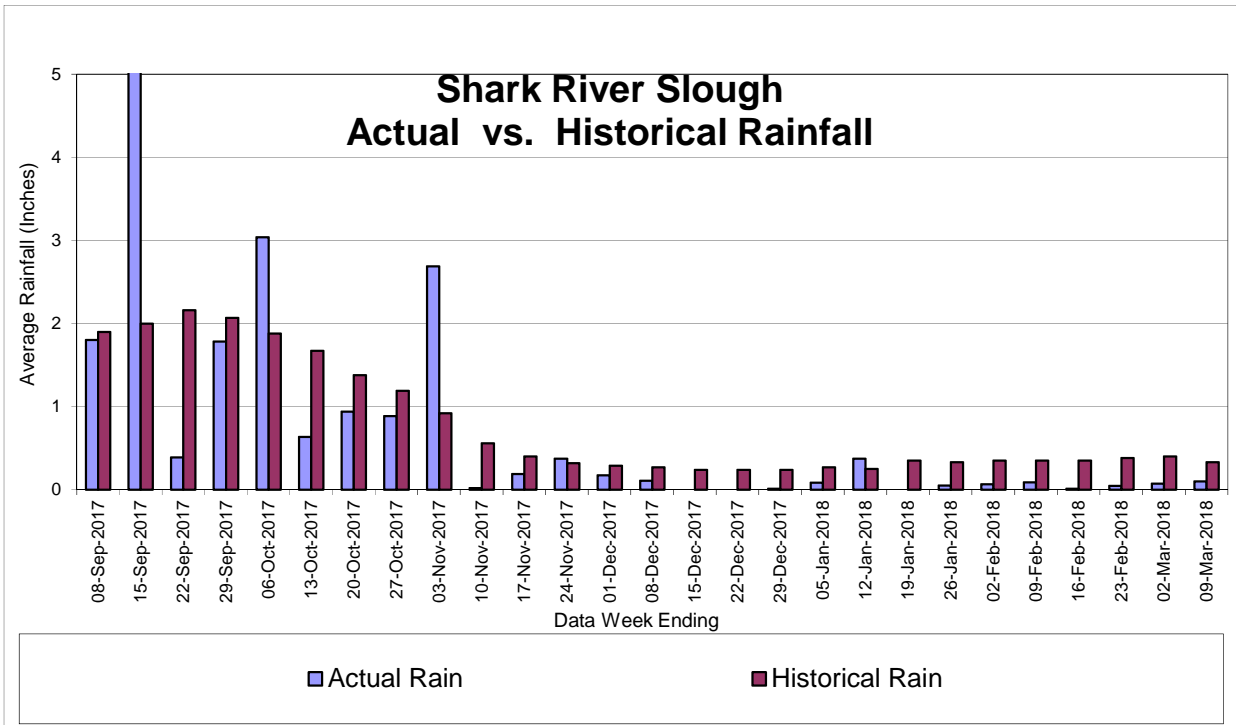
Pre-project Mean Discharge 35 cfs

Rainfall Excess Terms

RL1 -1.74	RL2 -3.03	RL3 -0.96
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COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**



WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow March 20, 2018

to March 26, 2018

0 cfs

The target flow is distributed from east to west (S-333, S-12D, S-12C, S-12B, and S-12A) to keep WCA 3A releases away from sub-population A of the Cape Sable seaside sparrow

-----Data Summary -----	March 10, 2018	to	March 16, 2018
WCA-3A Stage (end of week)	9.43		ft. msl
Angel's	5.20		ft. msl
G-3273	6.04		ft. msl

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	0.67	1.58
S-140		2.58
ENP		M

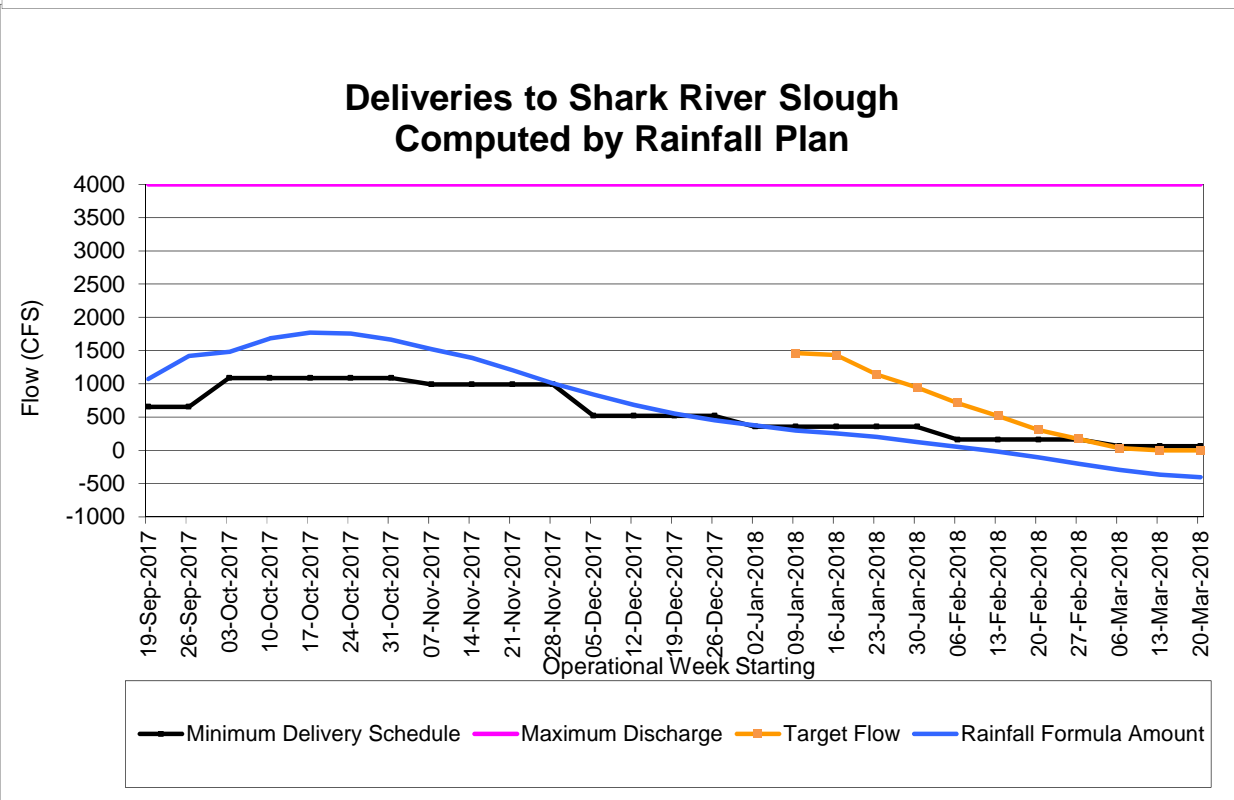
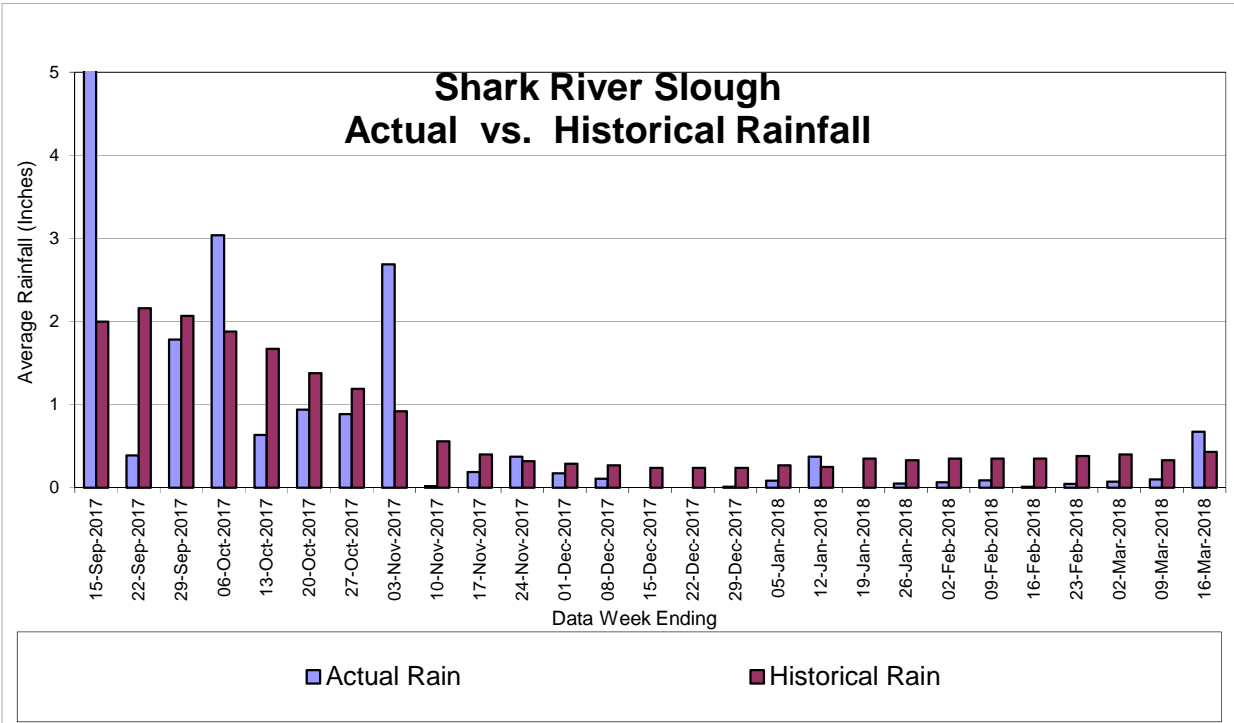
This Week's Avg	0.67	2.08
Pre-Project Avg	0.43	1.29

-----Transition Zone Information -----		
WCA-3A is in Zone E	Discharge Coeff. (cfs/ft) =	2500
Supplemental discharge is		0 cfs
Distance to Bottom of Current Zone	N/A	feet
Distance to Top of Current Zone		0.10 feet

-----Statistical Parameters -----			
Rainfall Formula Amount			-402 cfs
Last Week's Rainfall Formula			-367 cfs
Pre-project Mean Discharge			25 cfs
Rainfall Excess Terms			
	RL1 -1.20	RL2 -3.28	RL3 -1.37

COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**



WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow March 27, 2018

to April 2, 2018

0 cfs

The target flow is distributed from east to west (S-333, S-12D, S-12C, S-12B, and S-12A) to keep WCA 3A releases away from sub-population A of the Cape Sable seaside sparrow

-----Data Summary -----	March 17, 2018	to	March 23, 2018
WCA-3A Stage (end of week)	9.31		ft. msl
Angel's	4.95		ft. msl
G-3273	5.73		ft. msl

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	0.03	1.87
S-140		2.33
ENP		M

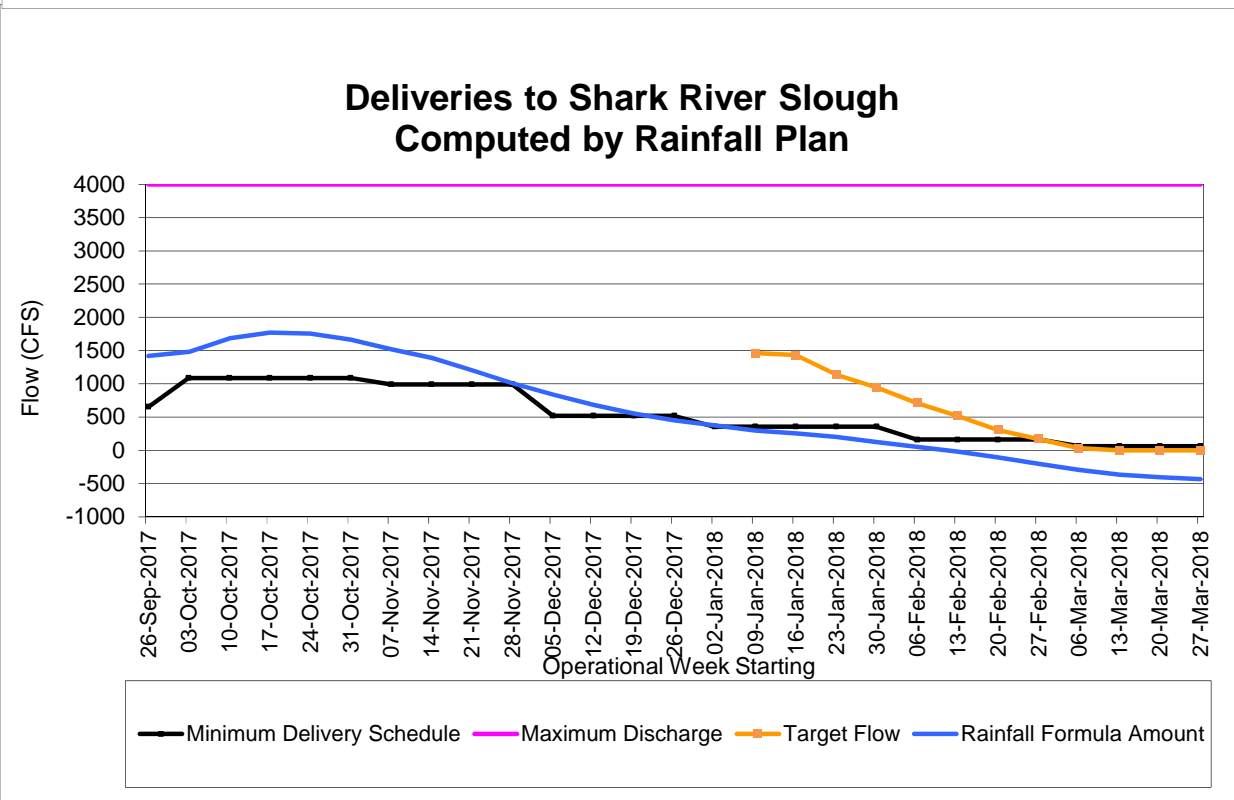
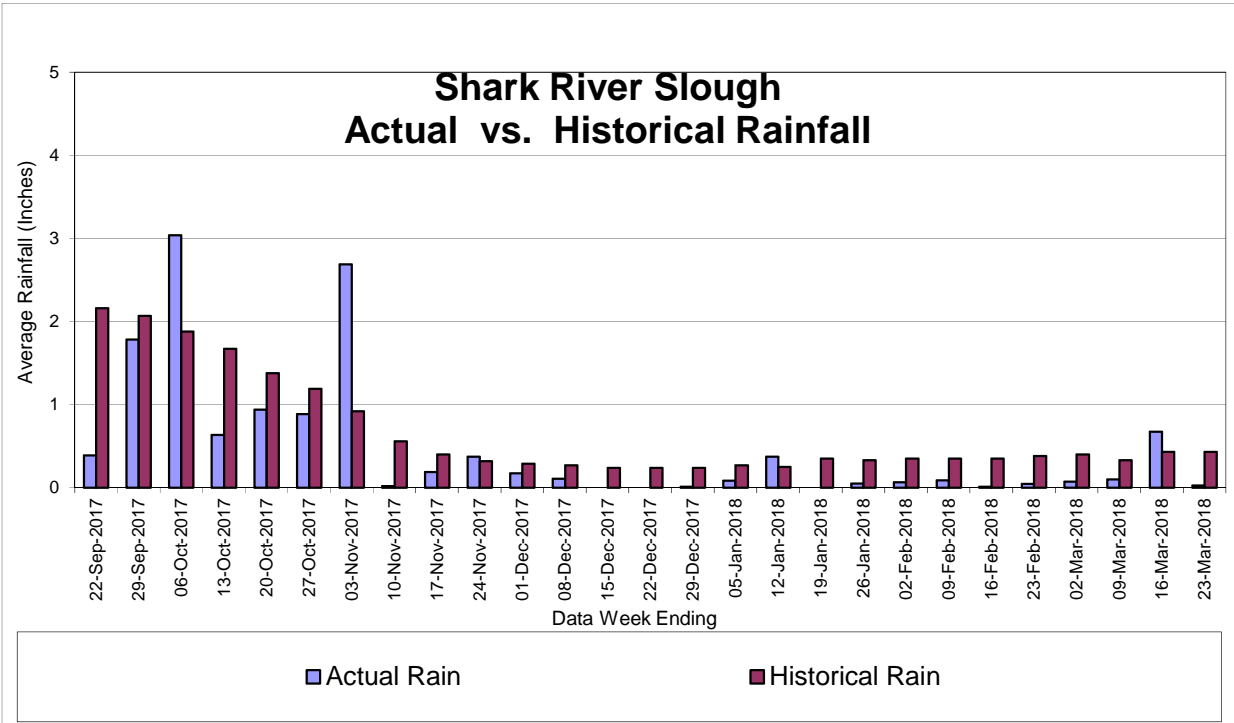
This Week's Avg	0.03	2.10
Pre-Project Avg	0.43	1.36

-----Transition Zone Information -----		
WCA-3A is in Zone E	Discharge Coeff. (cfs/ft) =	2500
Supplemental discharge is		0 cfs
Distance to Bottom of Current Zone	N/A	feet
Distance to Top of Current Zone		0.17 feet

-----Statistical Parameters -----			
Rainfall Formula Amount			-434 cfs
Last Week's Rainfall Formula			-402 cfs
Pre-project Mean Discharge			26 cfs
Rainfall Excess Terms			
	RL1 -1.38	RL2 -3.57	RL3 -2.01

COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**



WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow April 3, 2018

to April 9, 2018

0 cfs

The target flow is distributed from east to west (S-333, S-12D, S-12C, S-12B, and S-12A) to keep WCA 3A releases away from sub-population A of the Cape Sable seaside sparrow

-----Data Summary -----	March 24, 2018	to	March 30, 2018
WCA-3A Stage (end of week)	9.19		ft. msl
Angel's	4.71		ft. msl
G-3273	5.25		ft. msl

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	0.00	1.76
S-140		2.90
ENP		M

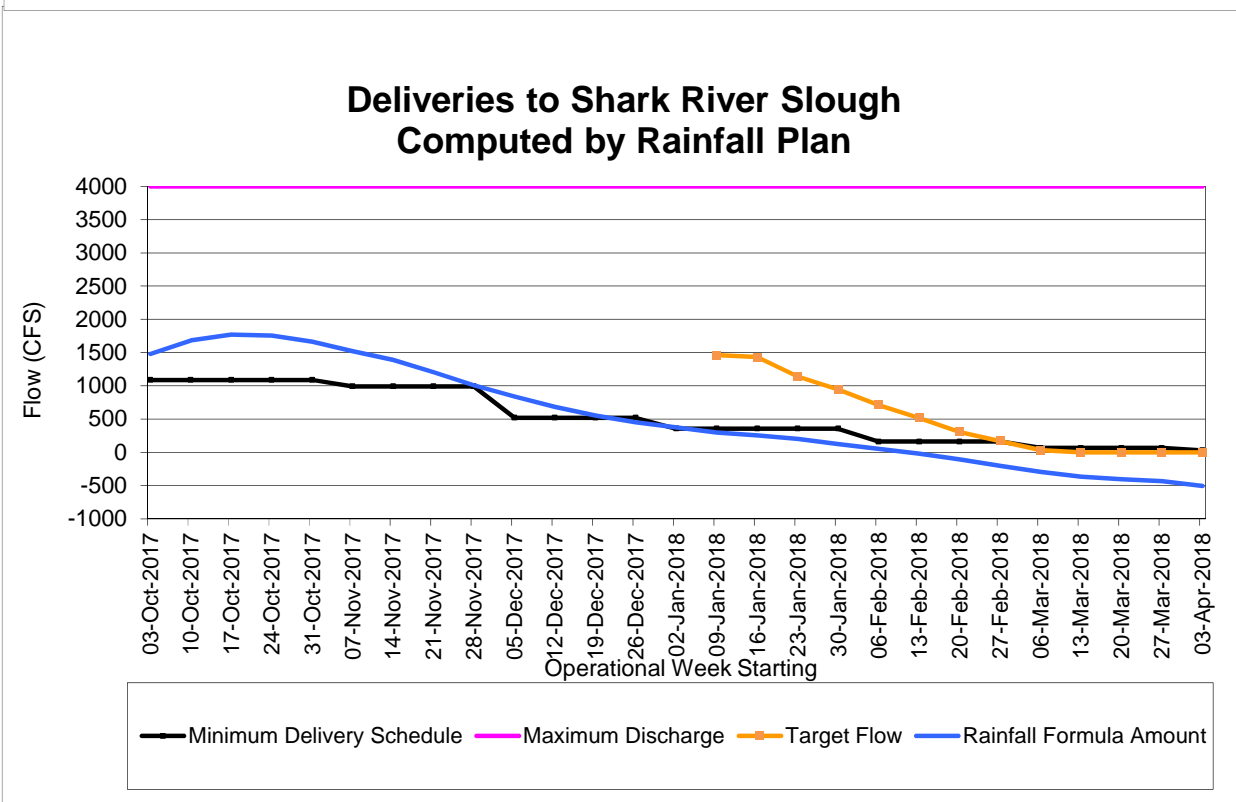
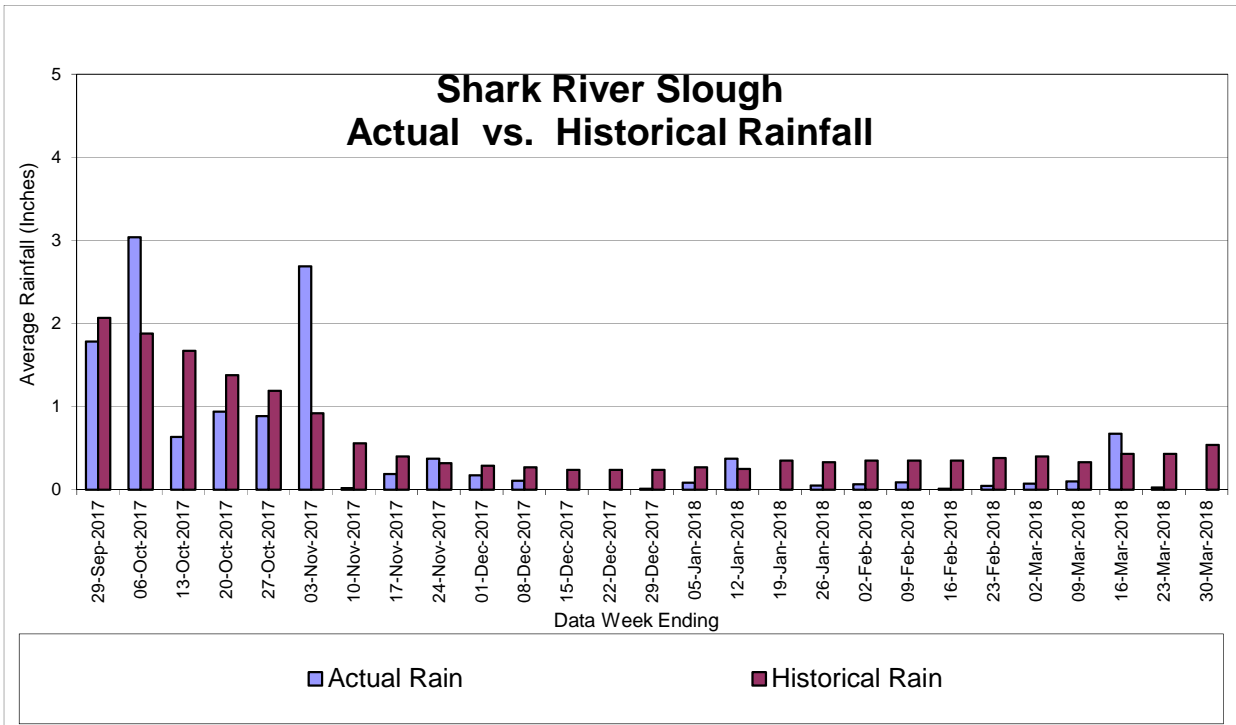
This Week's Avg	0.00	2.33
Pre-Project Avg	0.54	1.41

-----Transition Zone Information -----		
WCA-3A is in Zone E	Discharge Coeff. (cfs/ft) =	2500
Supplemental discharge is		0 cfs
Distance to Bottom of Current Zone	N/A	feet
Distance to Top of Current Zone		0.25 feet

-----Statistical Parameters -----		
Rainfall Formula Amount		-504 cfs
Last Week's Rainfall Formula		-434 cfs
Pre-project Mean Discharge		31 cfs
Rainfall Excess Terms		
RL1 -2.27	RL2 -3.08	RL3 -2.35

COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**



WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow April 10, 2018

to April 16, 2018

0 cfs

The target flow is distributed from east to west (S-333, S-12D, S-12C, S-12B, and S-12A) to keep WCA 3A releases away from sub-population A of the Cape Sable seaside sparrow

-----Data Summary -----	March 31, 2018	to	April 6, 2018
WCA-3A Stage (end of week)	9.09		ft. msl
Angel's	4.50		ft. msl
G-3273	4.94		ft. msl

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	0.12	1.92
S-140		2.81
ENP		M

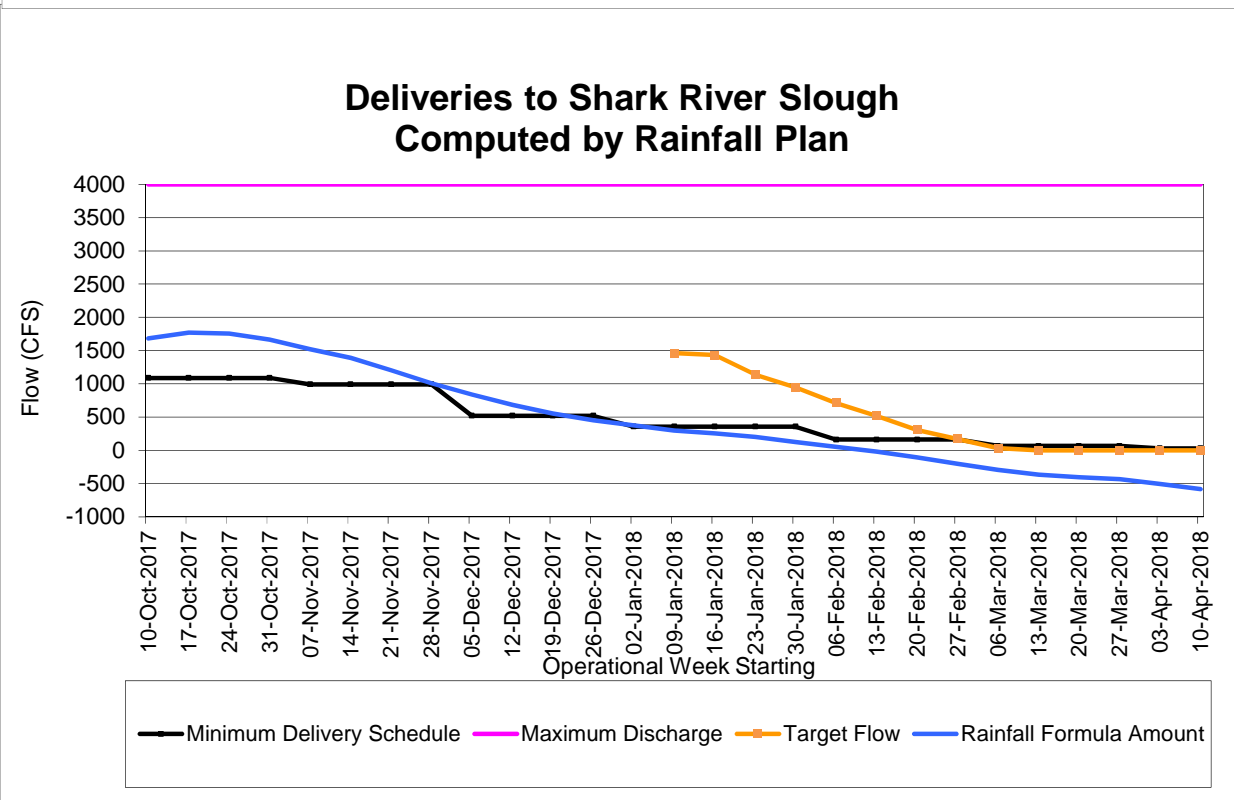
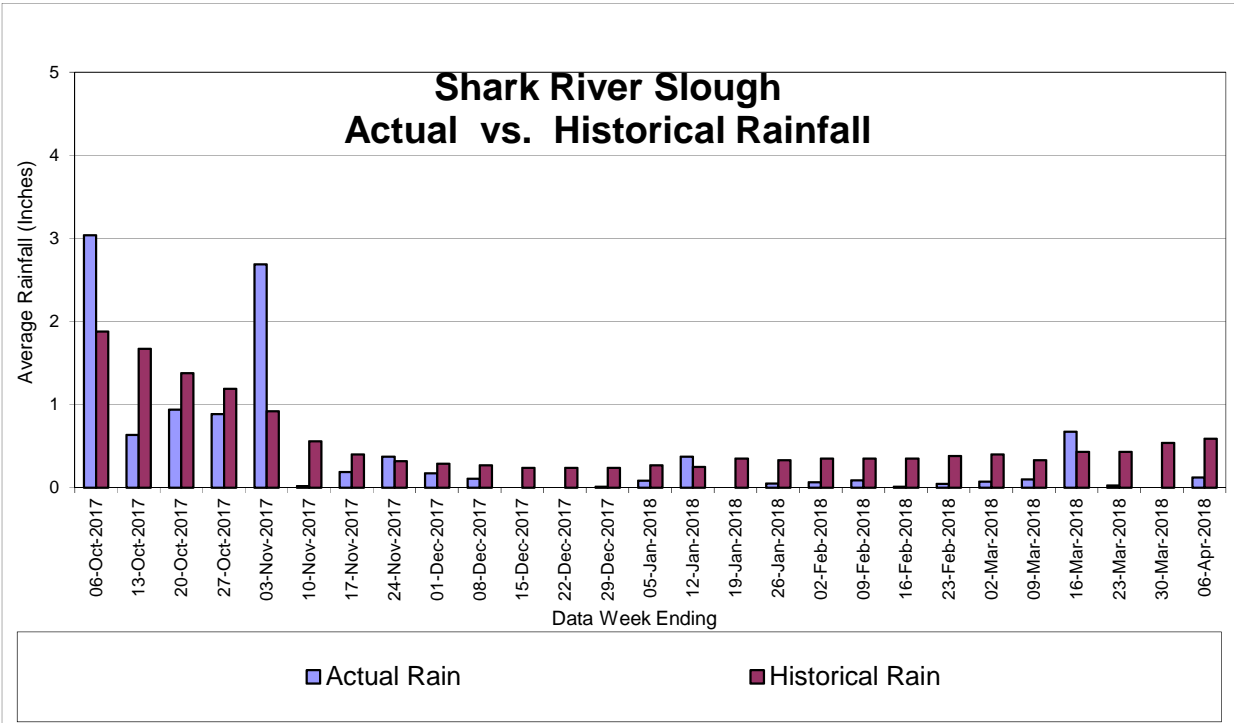
This Week's Avg	0.12	2.36
Pre-Project Avg	0.59	1.47

-----Transition Zone Information -----		
WCA-3A is in Zone E	Discharge Coeff. (cfs/ft) =	2500
Supplemental discharge is		0 cfs
Distance to Bottom of Current Zone	N/A	feet
Distance to Top of Current Zone		0.30 feet

-----Statistical Parameters -----		
Rainfall Formula Amount		-582 cfs
Last Week's Rainfall Formula		-504 cfs
Pre-project Mean Discharge		32 cfs
Rainfall Excess Terms		
RL1 -2.46	RL2 -3.12	RL3 -3.03

COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**



WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow April 17, 2018

to April 23, 2018

0 cfs

The target flow is distributed from east to west (S-333, S-12D, S-12C, S-12B, and S-12A) to keep WCA 3A releases away from sub-population A of the Cape Sable seaside sparrow

-----Data Summary -----	April 7, 2018	to	April 13, 2018
WCA-3A Stage (end of week)	9.00		ft. msl
Angel's	4.28		ft. msl
G-3273	4.61		ft. msl

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	0.12	2.09
S-140		3.54
ENP		M

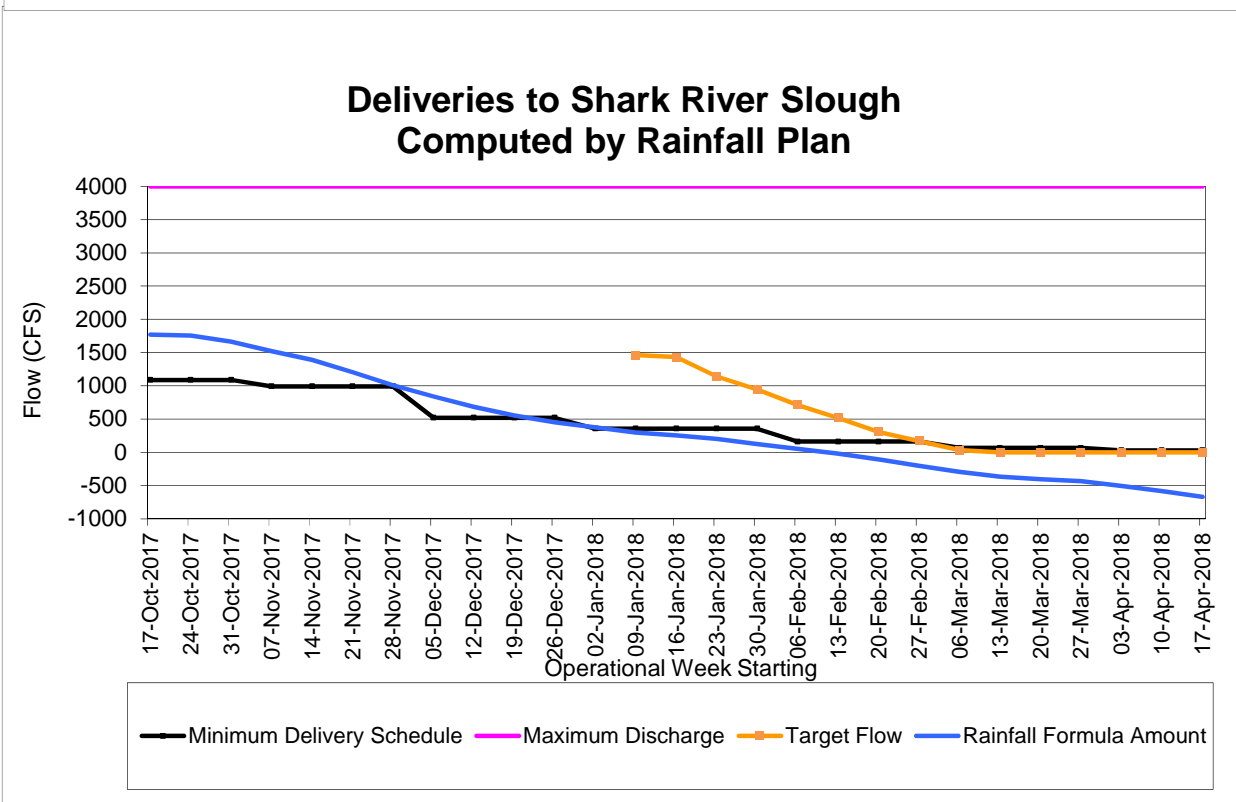
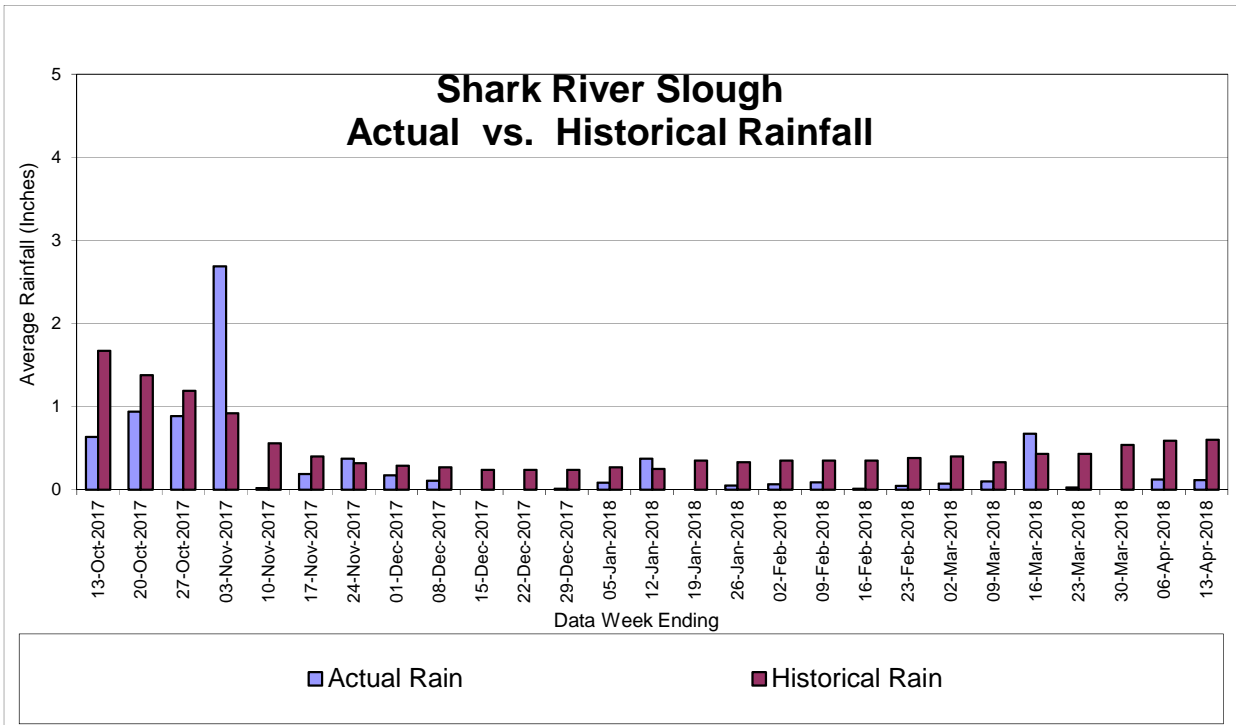
This Week's Avg	0.12	2.81
Pre-Project Avg	0.60	1.51

-----Transition Zone Information -----		
WCA-3A is in Zone E	Discharge Coeff. (cfs/ft) =	2500
Supplemental discharge is		0 cfs
Distance to Bottom of Current Zone	N/A	feet
Distance to Top of Current Zone		0.35 feet

-----Statistical Parameters -----			
Rainfall Formula Amount			-667 cfs
Last Week's Rainfall Formula			-582 cfs
Pre-project Mean Discharge			31 cfs
Rainfall Excess Terms	RL1 -2.71	RL2 -3.47	RL3 -3.28

COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**



WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow April 24, 2018

to April 30, 2018

0 cfs

The target flow is distributed from east to west (S-333, S-12D, S-12C, S-12B, and S-12A) to keep WCA 3A releases away from sub-population A of the Cape Sable seaside sparrow

-----Data Summary -----	April 14, 2018	to	April 20, 2018
WCA-3A Stage (end of week)	8.81		ft. msl
Angel's	4.32		ft. msl
G-3273	4.58		ft. msl

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	0.45	2.00
S-140		4.12
ENP		M

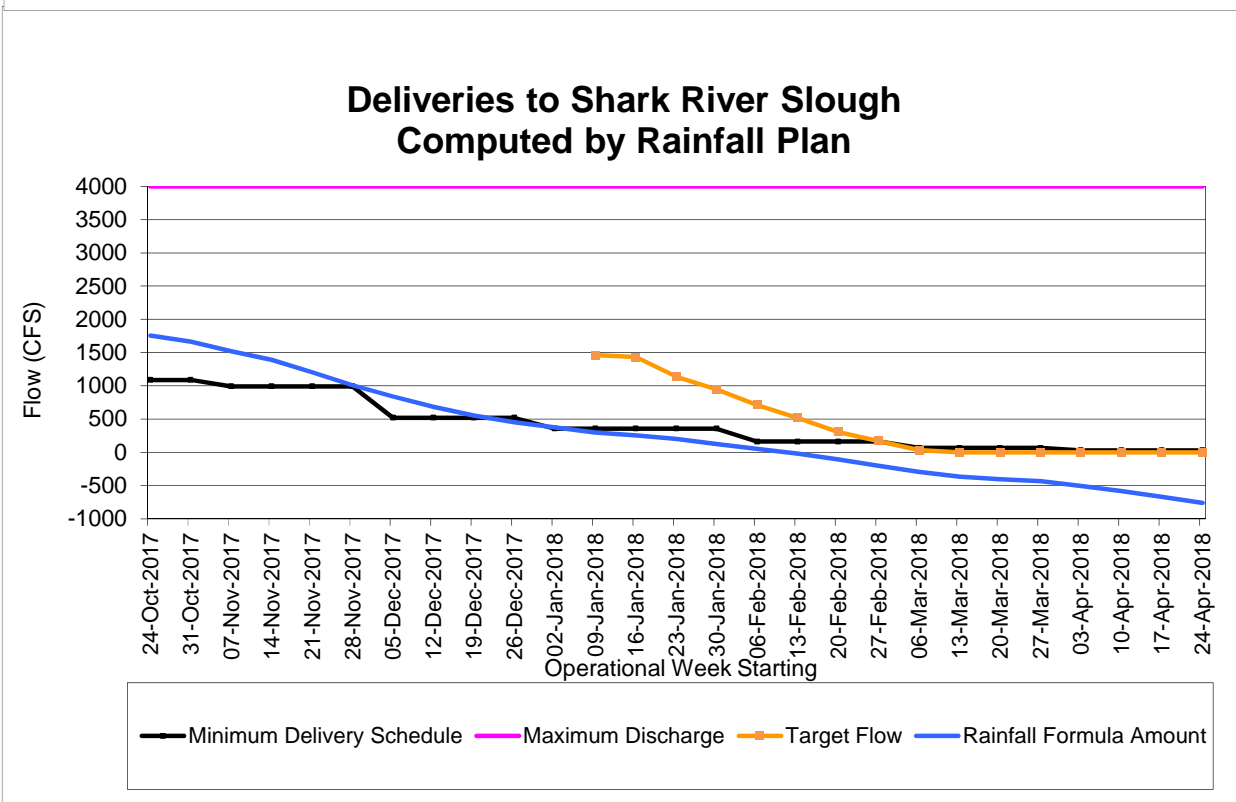
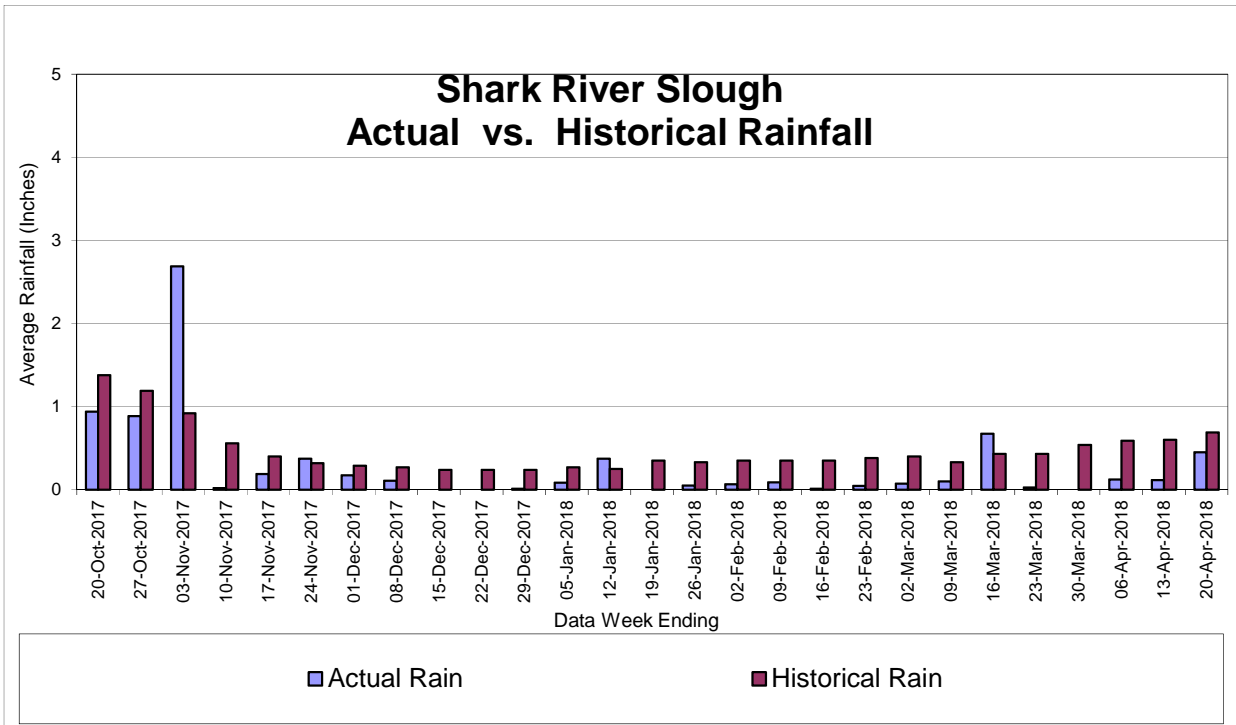
This Week's Avg	0.45	3.06
Pre-Project Avg	0.69	1.54

-----Transition Zone Information -----		
WCA-3A is in Zone E	Discharge Coeff. (cfs/ft) =	2500
Supplemental discharge is		0 cfs
Distance to Bottom of Current Zone	N/A	feet
Distance to Top of Current Zone		0.49 feet

-----Statistical Parameters -----			
Rainfall Formula Amount			-759 cfs
Last Week's Rainfall Formula			-667 cfs
Pre-project Mean Discharge			29 cfs
Rainfall Excess Terms			
	RL1 -2.98	RL2 -3.84	RL3 -3.57

COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**



WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow May 1, 2018

to May 7, 2018

0 cfs

The target flow is distributed from east to west (S-333, S-12D, S-12C, S-12B, and S-12A) to keep WCA 3A releases away from sub-population A of the Cape Sable seaside sparrow

-----Data Summary -----	April 21, 2018	to	April 27, 2018
WCA-3A Stage (end of week)	8.92		ft. msl
Angel's	4.44		ft. msl
G-3273	5.05		ft. msl

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	1.45	1.83
S-140		3.56
ENP		M

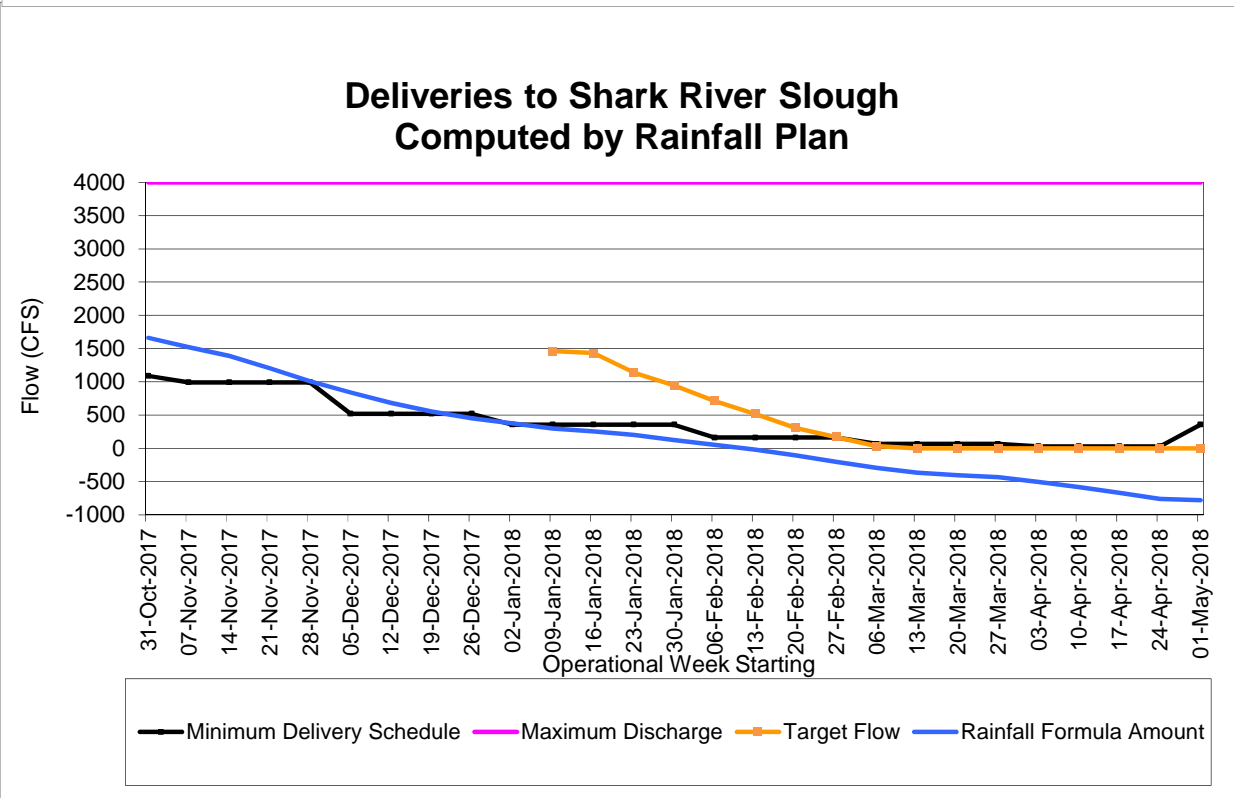
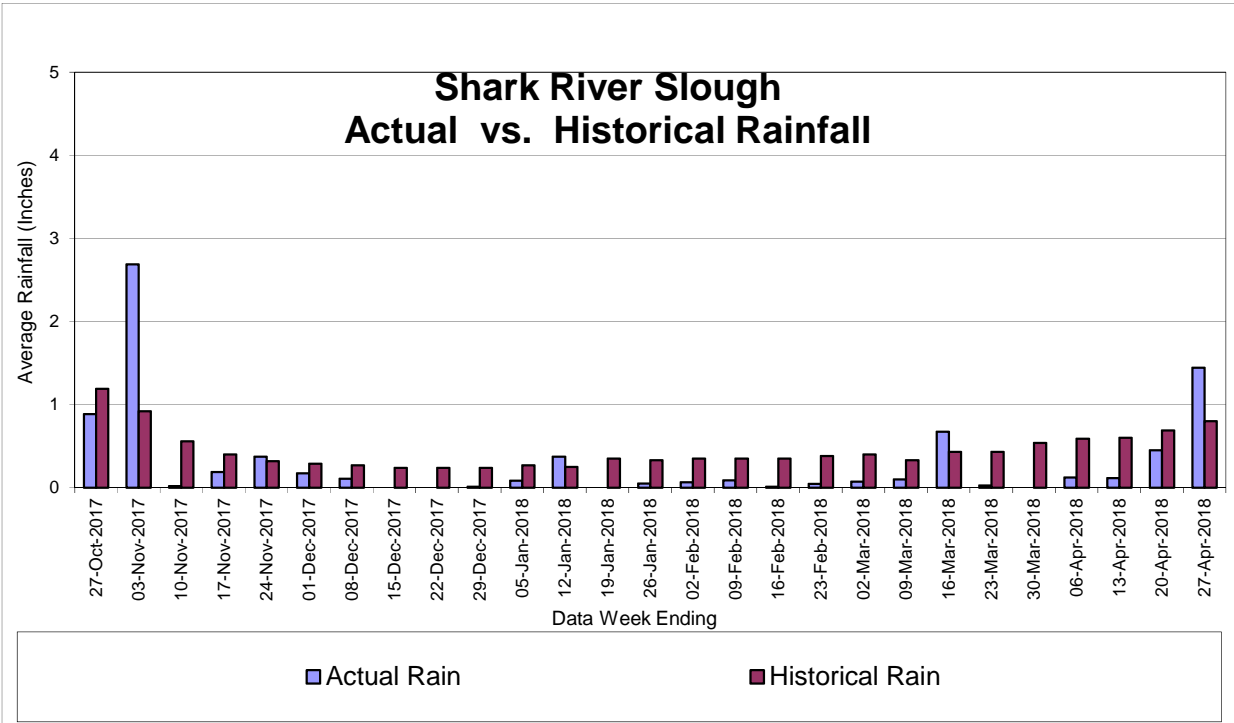
This Week's Avg	1.45	2.70
Pre-Project Avg	0.80	1.58

-----Transition Zone Information -----		
WCA-3A is in Zone E	Discharge Coeff. (cfs/ft) =	2500
Supplemental discharge is		0 cfs
Distance to Bottom of Current Zone	N/A	feet
Distance to Top of Current Zone		0.34 feet

-----Statistical Parameters -----			
Rainfall Formula Amount			-743 cfs
Last Week's Rainfall Formula			-759 cfs
Pre-project Mean Discharge			24 cfs
Rainfall Excess Terms			
	RL1 -0.99	RL2 -4.98	RL3 -3.08

COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**



WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow May 8, 2018

to May 14, 2018

0 cfs

The target flow is distributed from east to west (S-333, S-12D, S-12C, S-12B, and S-12A) to keep WCA 3A releases away from sub-population A of the Cape Sable seaside sparrow

-----Data Summary -----	April 28, 2018	to	May 4, 2018
WCA-3A Stage (end of week)	8.78		ft. msl
Angel's	4.31		ft. msl
G-3273	4.43		ft. msl

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	0.06	1.89
S-140		4.28
ENP		M

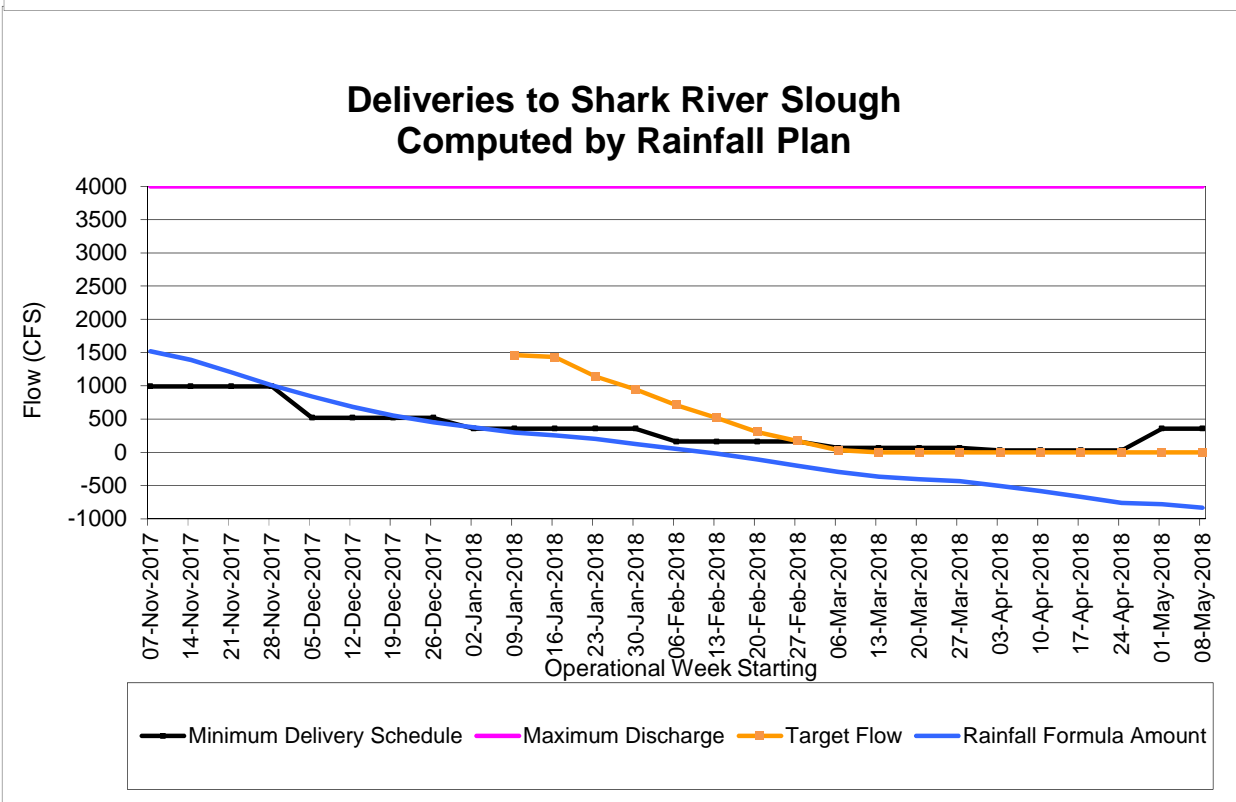
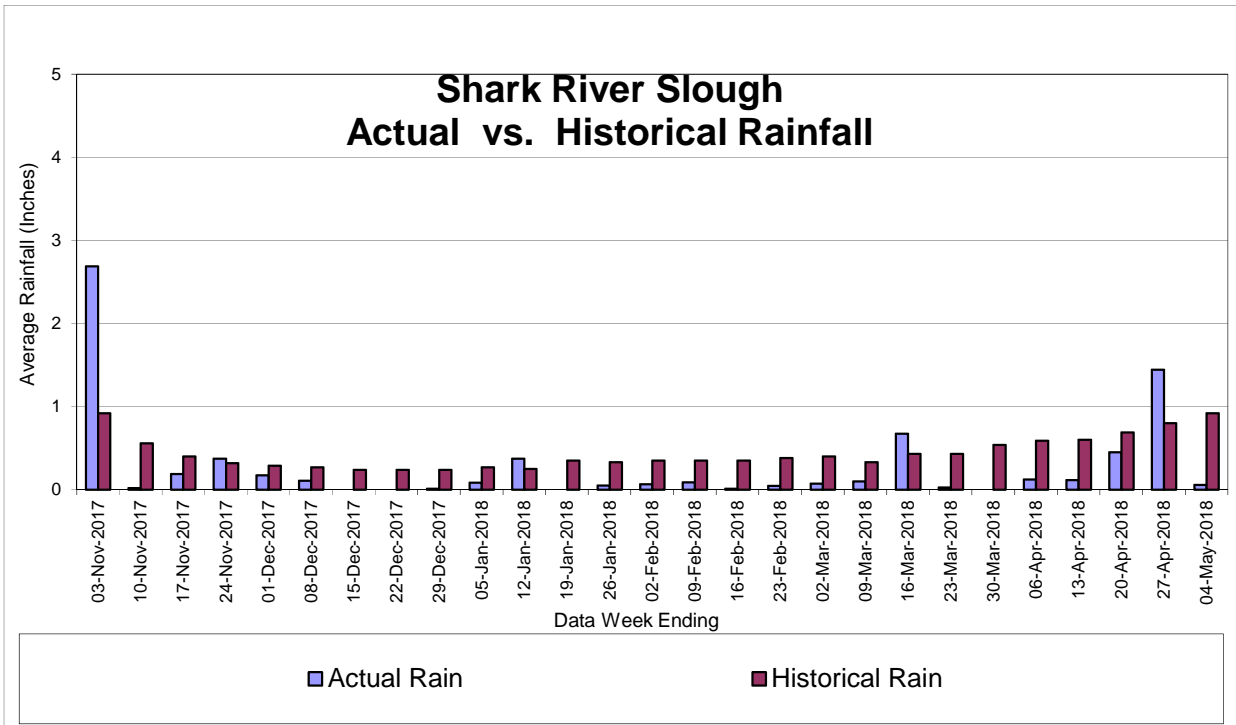
This Week's Avg	0.06	3.08
Pre-Project Avg	0.92	1.60

-----Transition Zone Information -----		
WCA-3A is in Zone E	Discharge Coeff. (cfs/ft) =	2500
Supplemental discharge is		0 cfs
Distance to Bottom of Current Zone	N/A	feet
Distance to Top of Current Zone		0.44 feet

-----Statistical Parameters -----		
Rainfall Formula Amount		-705 cfs
Last Week's Rainfall Formula		-780 cfs
Pre-project Mean Discharge		16 cfs
Rainfall Excess Terms		
RL1	0.11	RL2 -5.44
		RL3 -3.12

COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**



WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow May 15, 2018

to May 21, 2018

0 cfs

The target flow is distributed from east to west (S-333, S-12D, S-12C, S-12B, and S-12A) to keep WCA 3A releases away from sub-population A of the Cape Sable seaside sparrow

-----Data Summary -----	May 5, 2018	to	May 11, 2018
WCA-3A Stage (end of week)	8.67		ft. msl
Angel's	4.53		ft. msl
G-3273	4.77		ft. msl

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	0.39	1.70
S-140		5.01
ENP		M

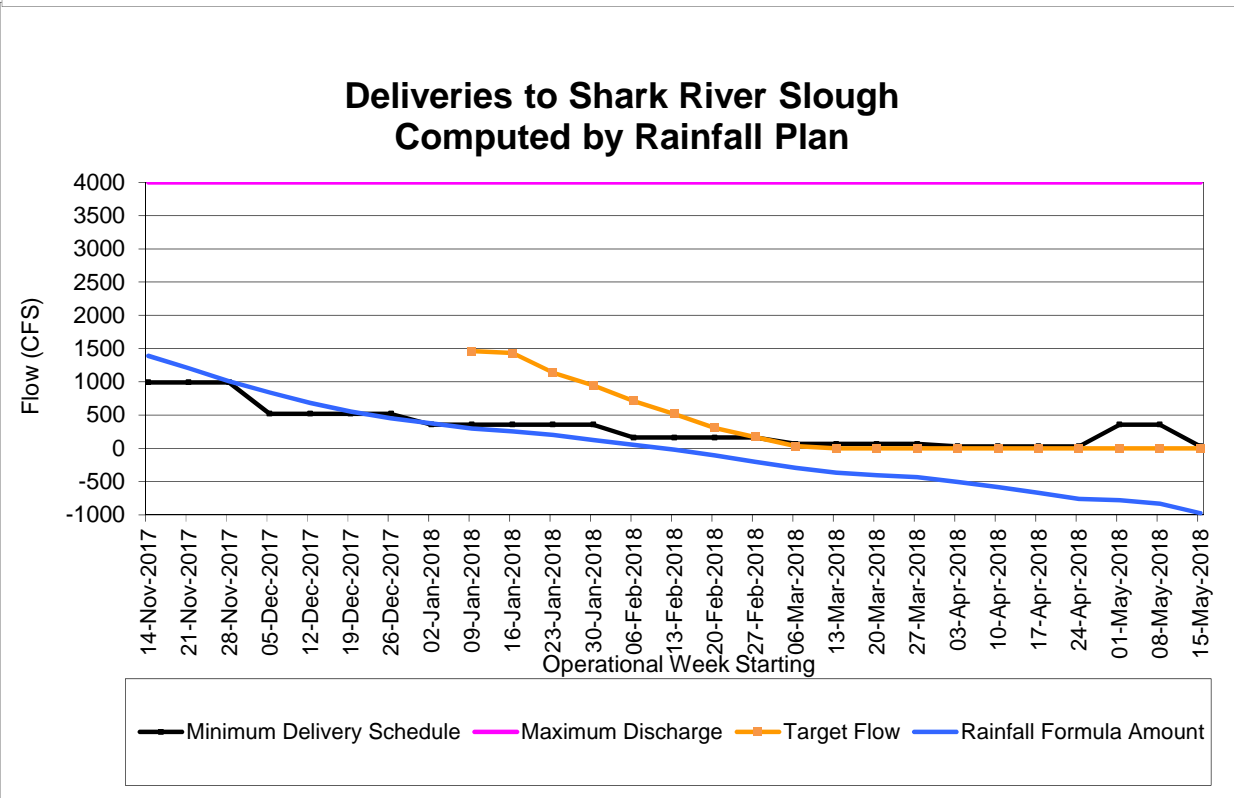
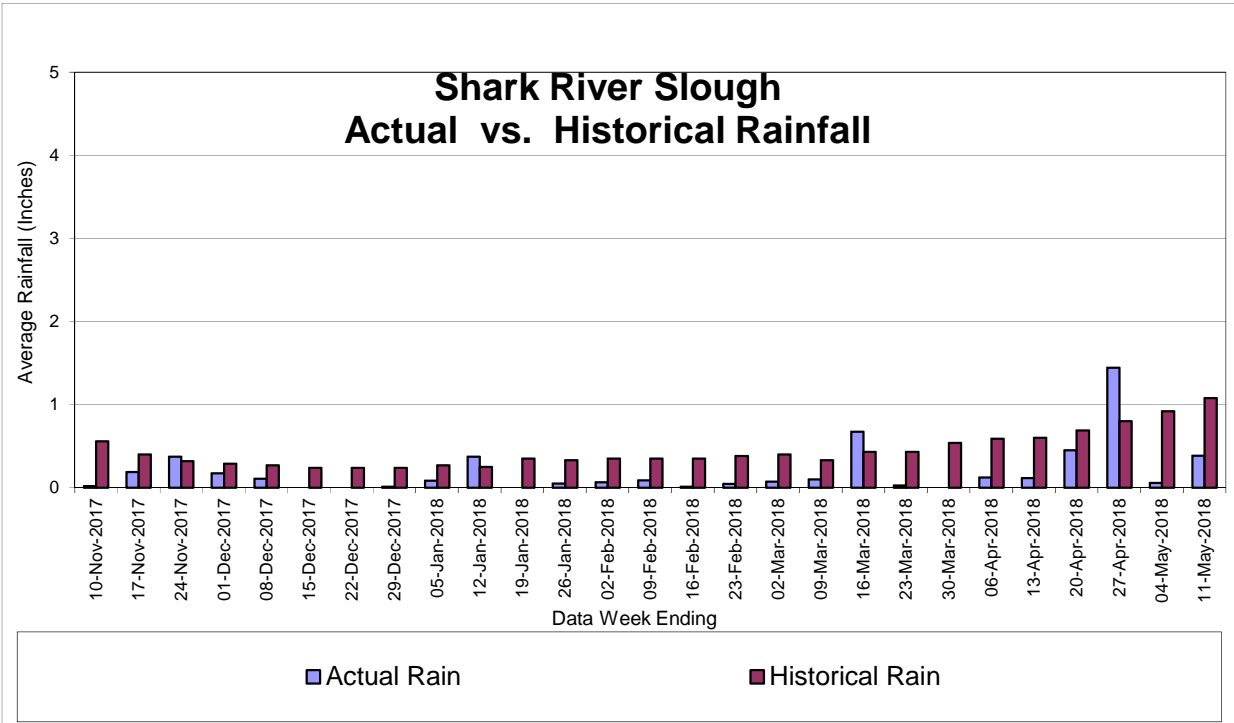
This Week's Avg	0.39	3.36
Pre-Project Avg	1.08	1.61

-----Transition Zone Information -----		
WCA-3A is in Zone E	Discharge Coeff. (cfs/ft) =	2500
Supplemental discharge is		0 cfs
Distance to Bottom of Current Zone	N/A	feet
Distance to Top of Current Zone		0.50 feet

-----Statistical Parameters -----			
Rainfall Formula Amount			-973 cfs
Last Week's Rainfall Formula			-832 cfs
Pre-project Mean Discharge			13 cfs
Rainfall Excess Terms			
	RL1 -4.14	RL2 -4.41	RL3 -3.47

COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**



WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow May 22, 2018

to May 28, 2018

734 cfs

The target flow is distributed from east to west (S-333, S-12D, S-12C, S-12B, and S-12A) to keep WCA 3A releases away from sub-population A of the Cape Sable seaside sparrow

-----Data Summary -----	May 12, 2018	to	May 18, 2018
WCA-3A Stage (end of week)	9.42		ft. msl
Angel's	5.59		ft. msl
G-3273	6.14		ft. msl

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	5.25	1.61
S-140		1.78
ENP		M

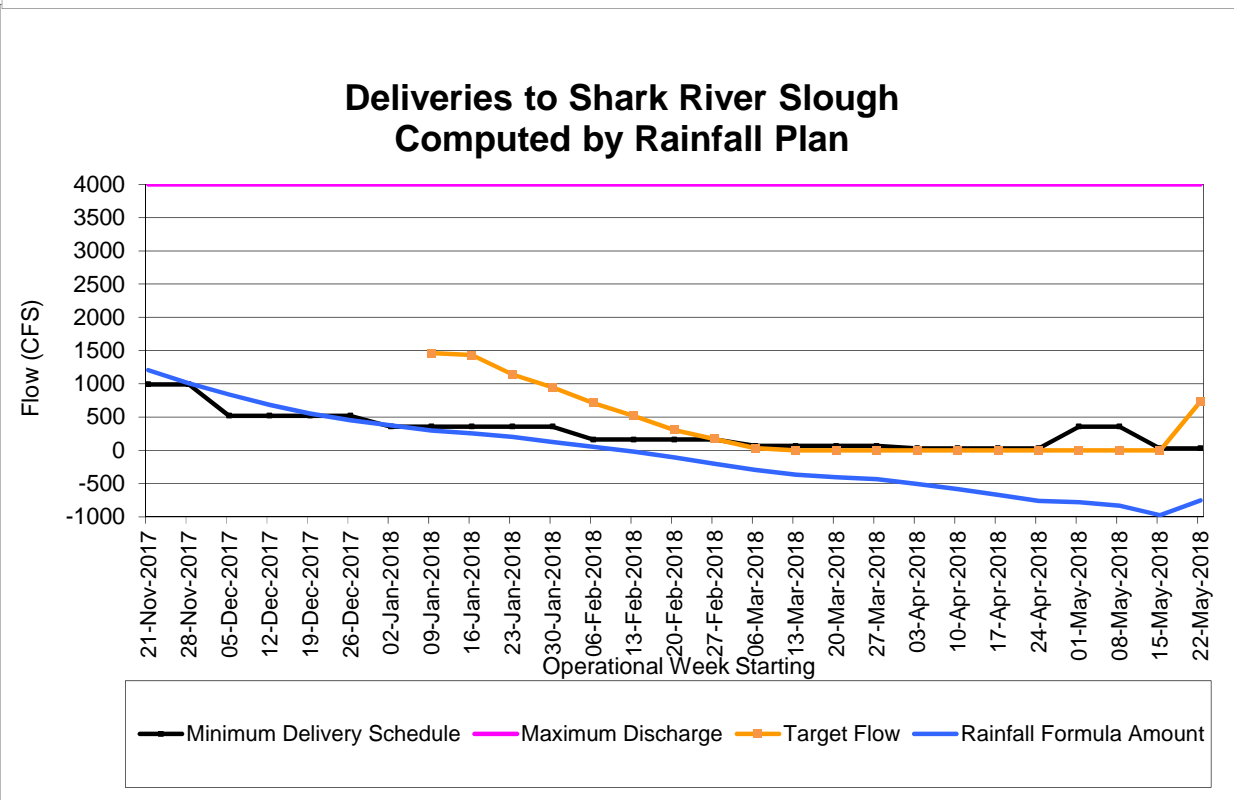
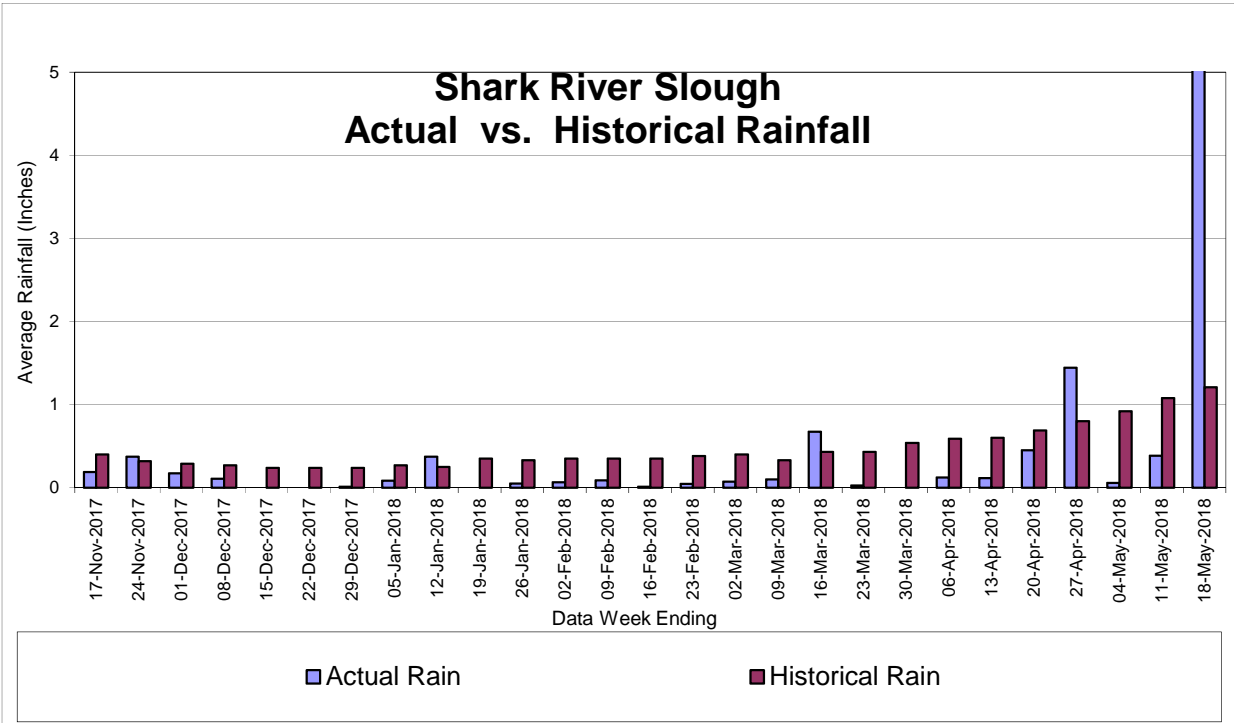
This Week's Avg	5.25	1.70
Pre-Project Avg	1.21	1.62

-----Transition Zone Information -----	
WCA-3A is in Zone E1	Discharge Coeff. (cfs/ft) = 2500
Supplemental discharge is	734 cfs
Distance to Bottom of Current Zone	-0.29 feet
Distance to Top of Current Zone	0.16 feet

-----Statistical Parameters -----			
Rainfall Formula Amount			-750 cfs
Last Week's Rainfall Formula			-973 cfs
Pre-project Mean Discharge			12 cfs
Rainfall Excess Terms			
	RL1 1.88	RL2 -5.27	RL3 -3.84

COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**



WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow **May 29, 2018** to **June 4, 2018** **MAX** cfs

The target flow is distributed from east to west (S-333, S-12D, S-12C, S-12B, and S-12A) to keep WCA 3A releases away from sub-population A of the Cape Sable seaside sparrow

-----Data Summary -----	May 19, 2018	to	May 25, 2018
WCA-3A Stage (end of week)	9.96		ft. msl
Angel's	6.23		ft. msl
G-3273	6.52		ft. msl

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	3.53	1.59
S-140		1.64
ENP		M

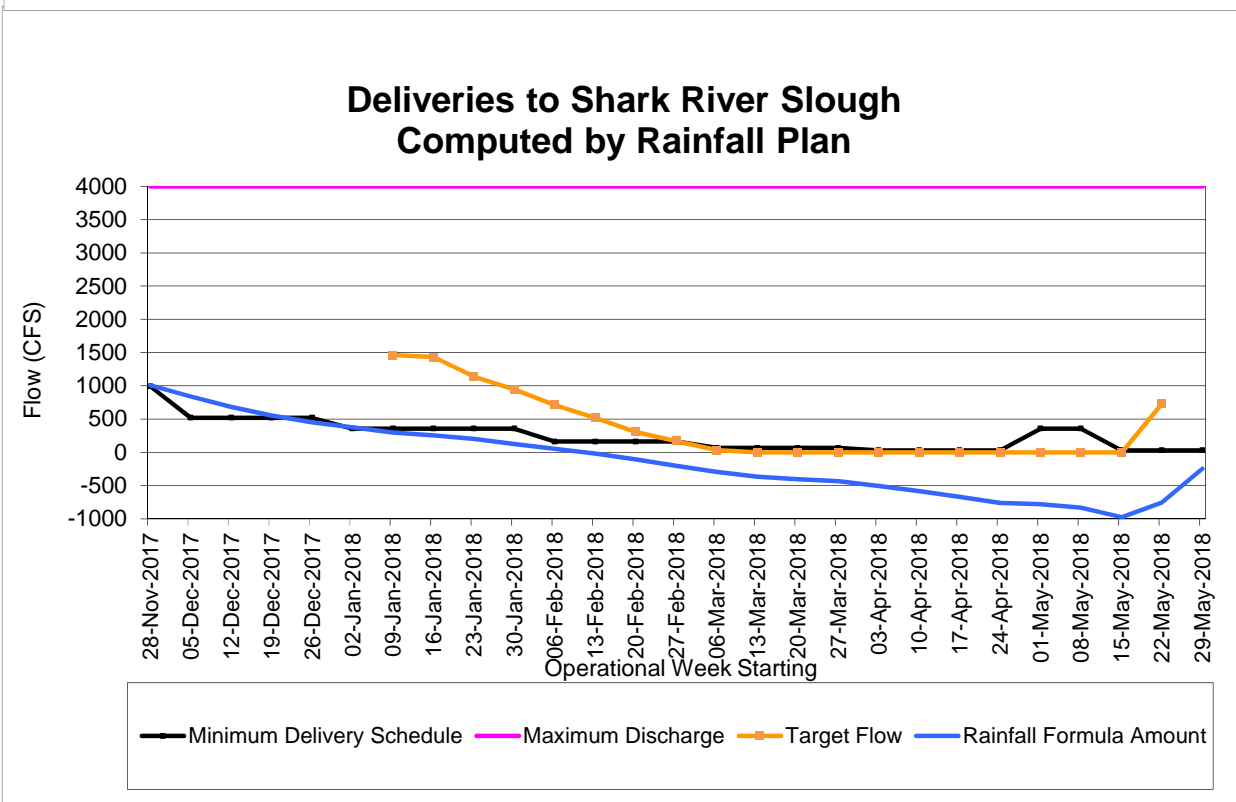
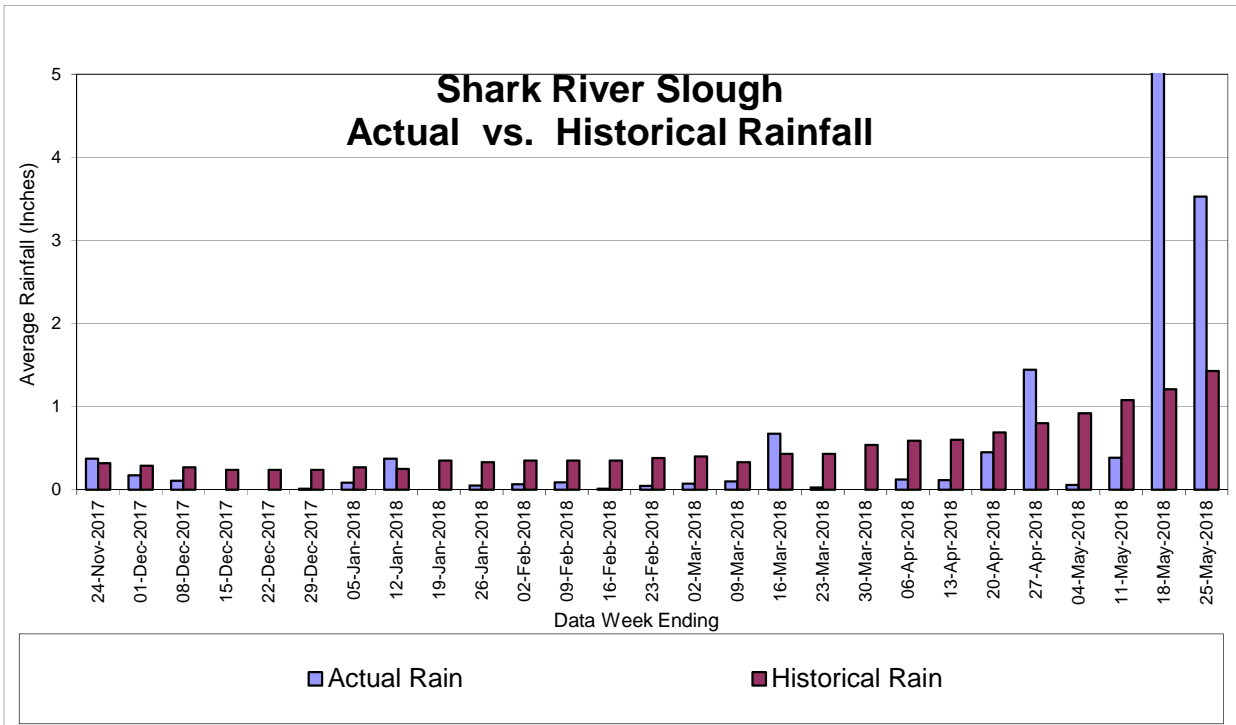
This Week's Avg	3.53	1.61
Pre-Project Avg	1.43	1.61

-----Transition Zone Information -----		
WCA-3A is in Zone A	Discharge Coeff. (cfs/ft) =	MAX
Supplemental discharge is	MAX	cfs
Distance to Bottom of Current Zone		-0.43 feet
Distance to Top of Current Zone	N/A	feet

-----Statistical Parameters -----		
Rainfall Formula Amount		-245 cfs
Last Week's Rainfall Formula		-750 cfs
Pre-project Mean Discharge		17 cfs
Rainfall Excess Terms		
RL1	6.07	RL2 -5.84
		RL3 -4.98

COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**



WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow June 5, 2018 to June 11, 2018 MAX cfs

The target flow is distributed from east to west (S-333, S-12D, S-12C, S-12B, and S-12A) to keep WCA 3A releases away from sub-population A of the Cape Sable seaside sparrow

-----Data Summary -----	May 26, 2018	to	June 1, 2018
WCA-3A Stage (end of week)	10.37		ft. msl
Angel's	5.73		ft. msl
G-3273	6.46		ft. msl

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	2.89	1.35
S-140		2.76
ENP		M

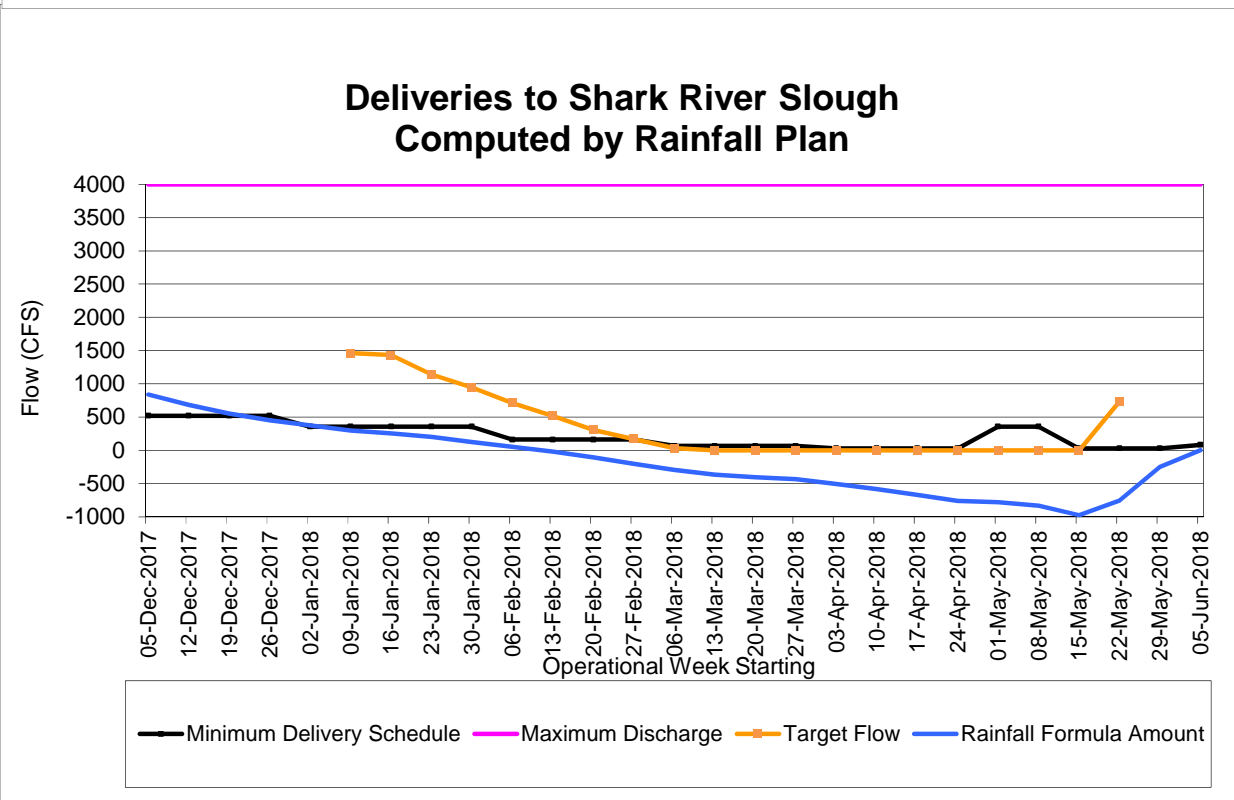
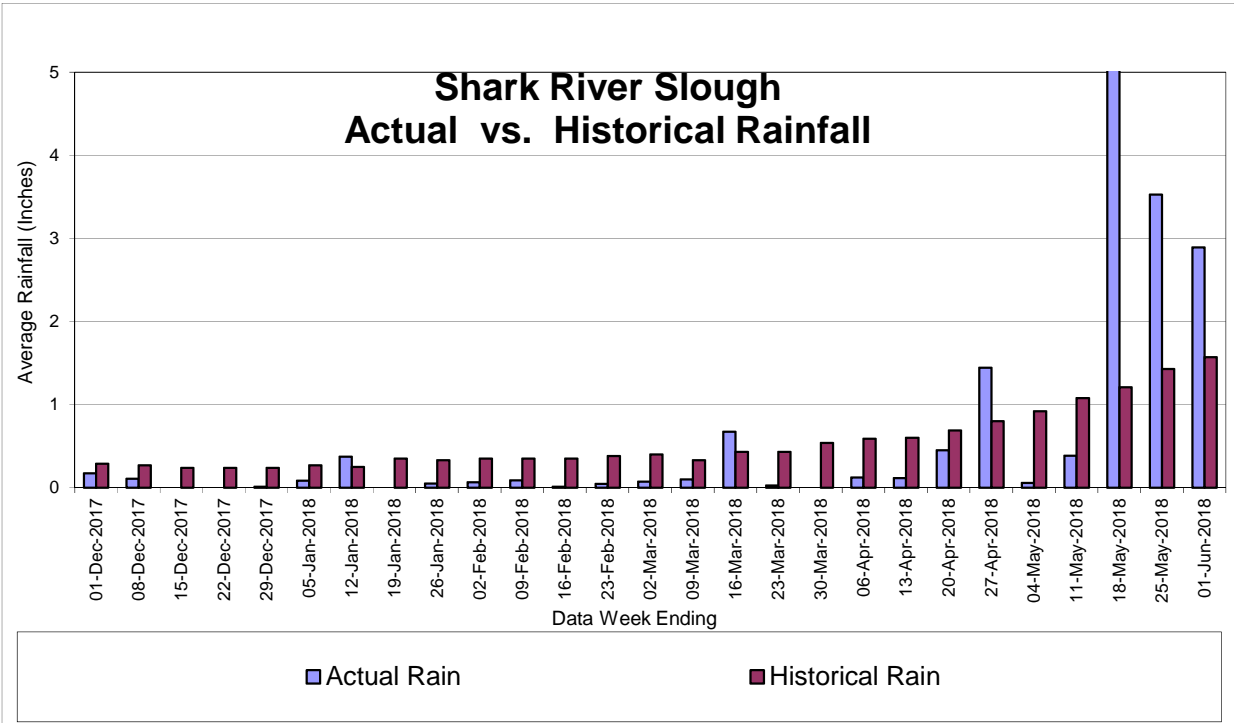
This Week's Avg	2.89	2.05
Pre-Project Avg	1.57	1.61

-----Transition Zone Information -----		
WCA-3A is in Zone A	Discharge Coeff. (cfs/ft) =	MAX
Supplemental discharge is	MAX	cfs
Distance to Bottom of Current Zone		-0.86 feet
Distance to Top of Current Zone	N/A	feet

-----Statistical Parameters -----			
Rainfall Formula Amount			5 cfs
Last Week's Rainfall Formula			-245 cfs
Pre-project Mean Discharge			27 cfs
Rainfall Excess Terms	RL1 3.06	RL2 -0.42	RL3 -5.44

COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**



WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow June 12, 2018 to June 18, 2018 MAX cfs

The target flow is distributed from east to west (S-333, S-12D, S-12C, S-12B, and S-12A) to keep WCA 3A releases away from sub-population A of the Cape Sable seaside sparrow

-----Data Summary -----	June 2, 2018	to	June 8, 2018
WCA-3A Stage (end of week)	10.64		ft. msl
Angel's	6.37		ft. msl
G-3273	6.51		ft. msl

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	1.71	2.05
S-140		3.24
ENP		M

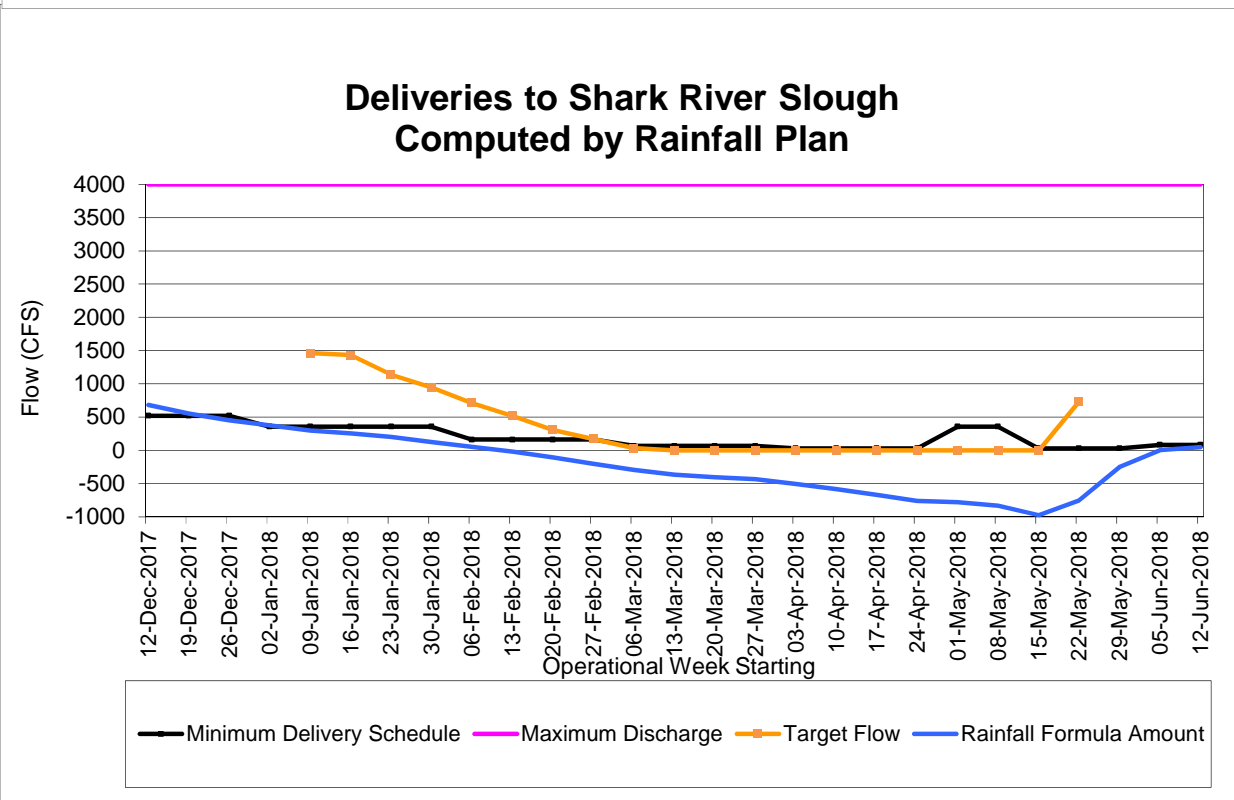
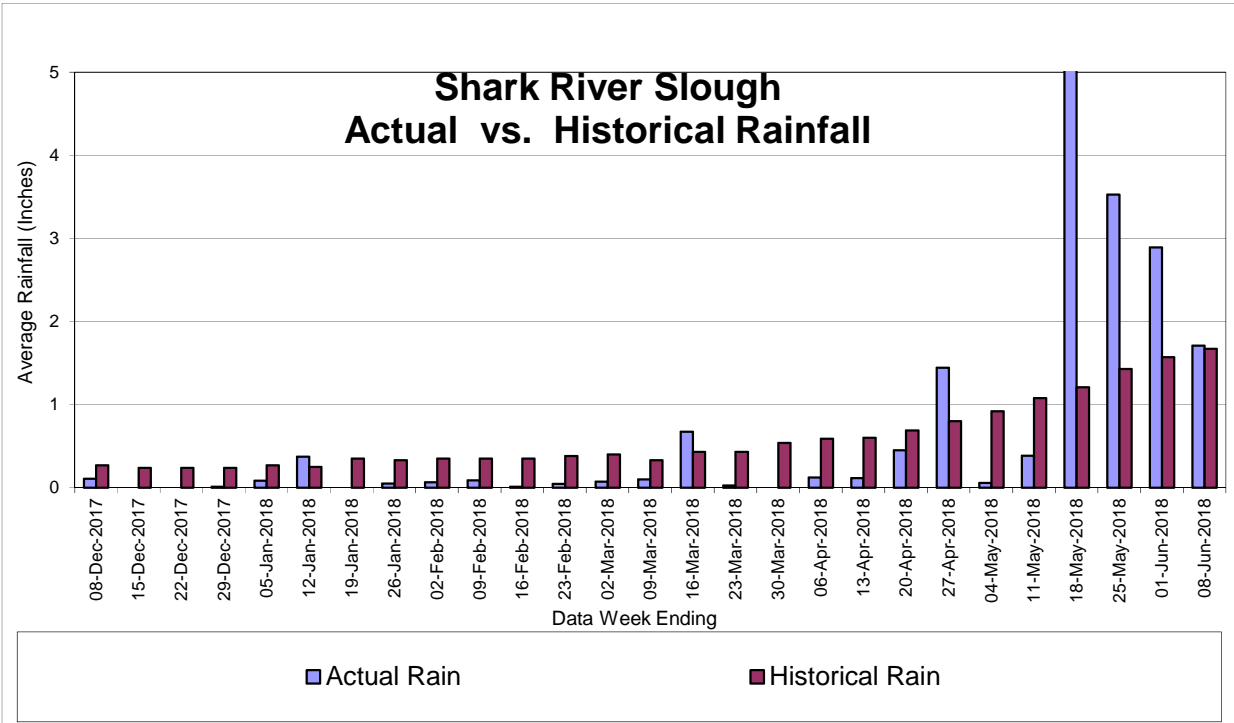
This Week's Avg	1.71	2.64
Pre-Project Avg	1.67	1.59

-----Transition Zone Information -----		
WCA-3A is in Zone A	Discharge Coeff. (cfs/ft) =	MAX
Supplemental discharge is	MAX	cfs
Distance to Bottom of Current Zone		-1.09 feet
Distance to Top of Current Zone	N/A	feet

-----Statistical Parameters -----		
Rainfall Formula Amount		50 cfs
Last Week's Rainfall Formula		5 cfs
Pre-project Mean Discharge		40 cfs
Rainfall Excess Terms		
	RL1 0.16	RL2 1.93
		RL3 -4.41

COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**



WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow June 26, 2018 to July 2, 2018 MAX cfs

The target flow is distributed from east to west (S-333, S-12D, S-12C, S-12B, and S-12A) to keep WCA 3A releases away from sub-population A of the Cape Sable seaside sparrow

-----Data Summary -----	June 16, 2018	to	June 22, 2018
WCA-3A Stage (end of week)	10.84		ft. msl
Angel's	5.93		ft. msl
G-3273	6.77		ft. msl

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	0.65	1.81
S-140		2.40
ENP		M

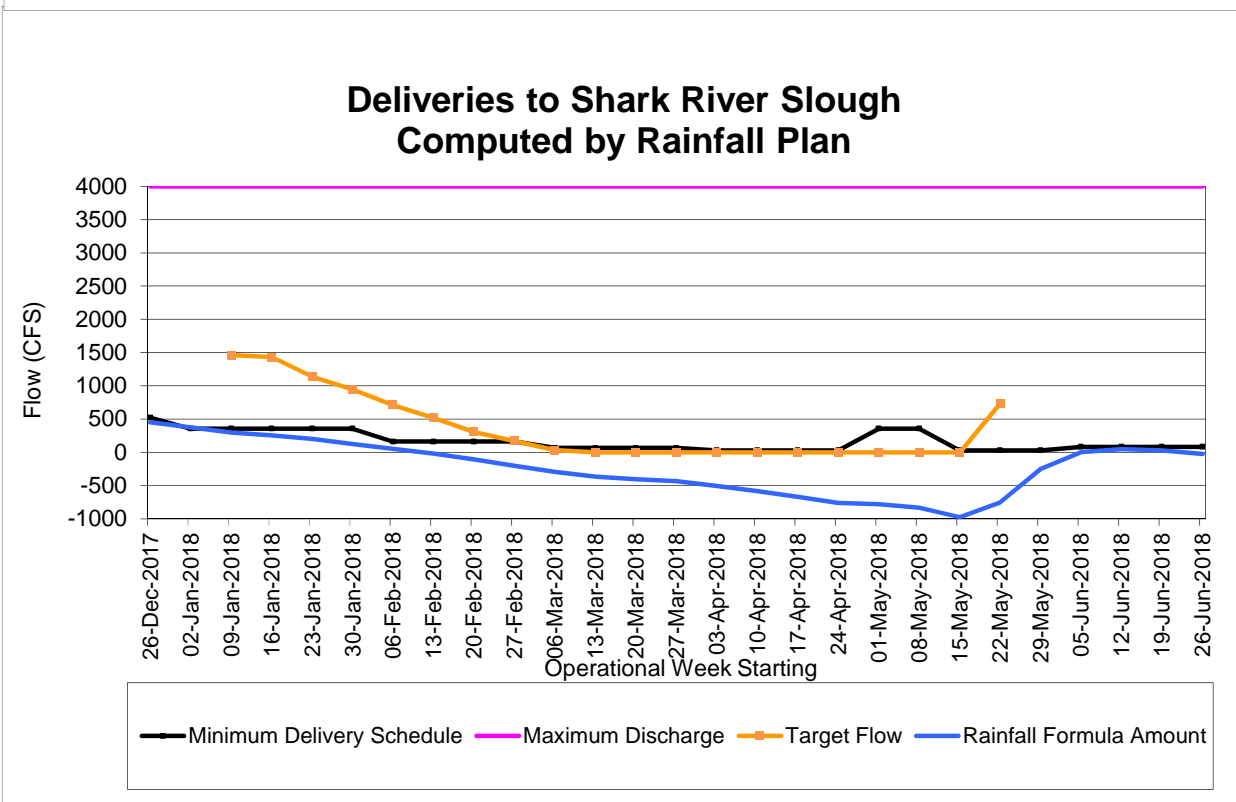
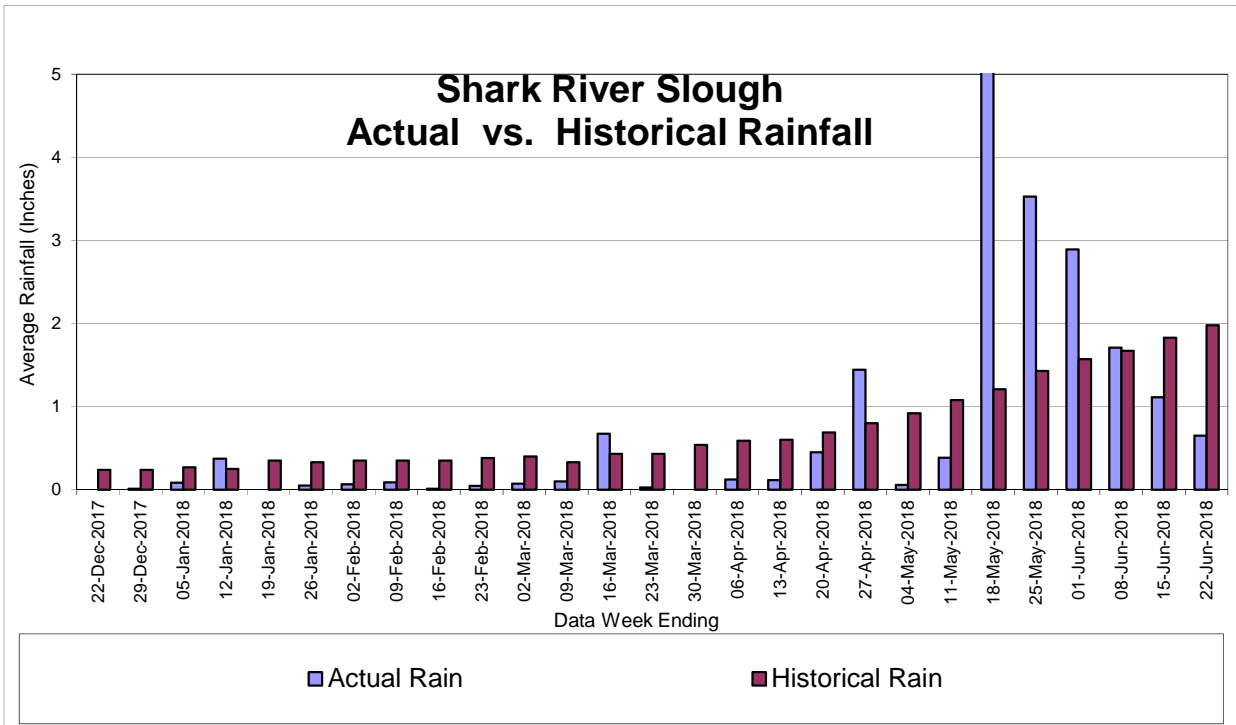
This Week's Avg	0.65	2.10
Pre-Project Avg	1.98	1.51

-----Transition Zone Information -----		
WCA-3A is in Zone A	Discharge Coeff. (cfs/ft) =	MAX
Supplemental discharge is	MAX	cfs
Distance to Bottom of Current Zone		-1.20 feet
Distance to Top of Current Zone	N/A	feet

-----Statistical Parameters -----		
Rainfall Formula Amount		-26 cfs
Last Week's Rainfall Formula		27 cfs
Pre-project Mean Discharge		75 cfs
Rainfall Excess Terms	RL1 -2.59	RL2 6.24
		RL3 -5.84

COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**



WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow July 3, 2018 to July 9, 2018 MAX cfs

The target flow is distributed from east to west (S-333, S-12D, S-12C, S-12B, and S-12A) to keep WCA 3A releases away from sub-population A of the Cape Sable seaside sparrow

-----Data Summary -----	June 23, 2018	to	June 29, 2018
WCA-3A Stage (end of week)	10.93		ft. msl
Angel's	6.71		ft. msl
G-3273	7.00		ft. msl

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	1.93	1.93
S-140		1.59
ENP		M

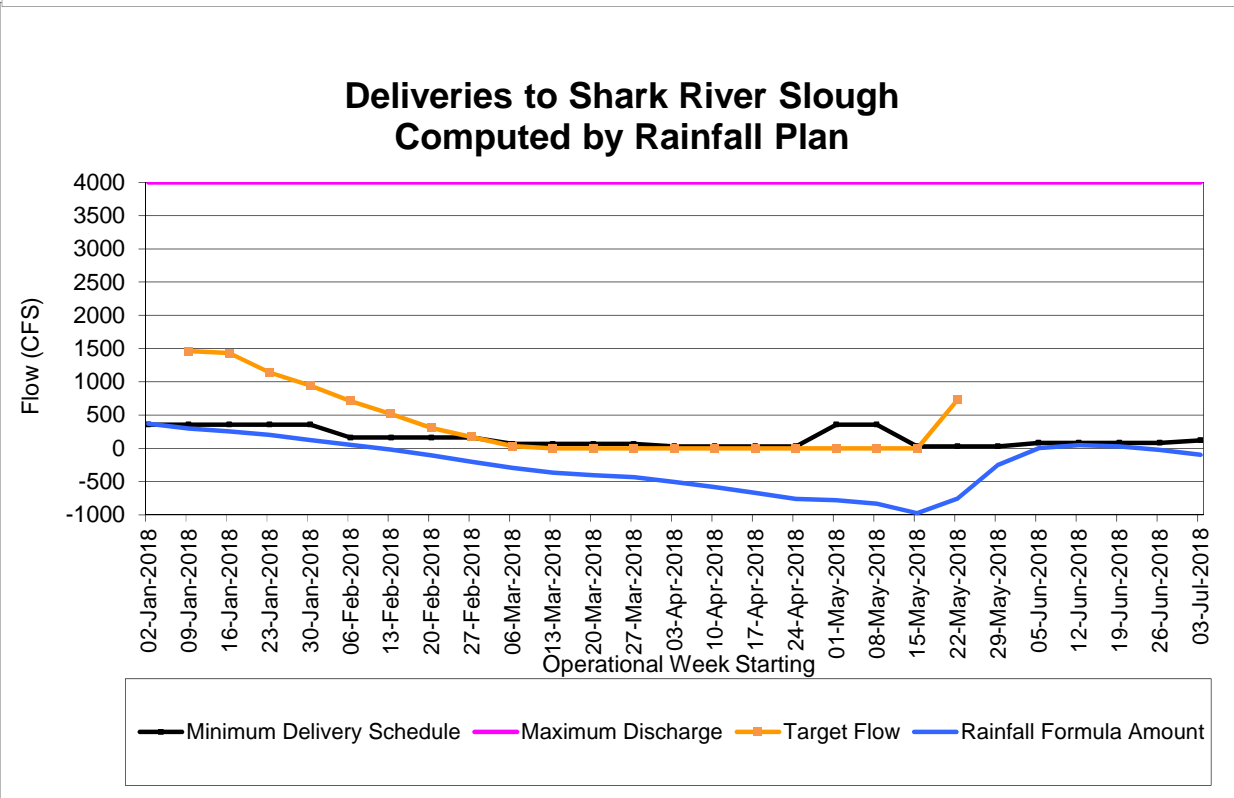
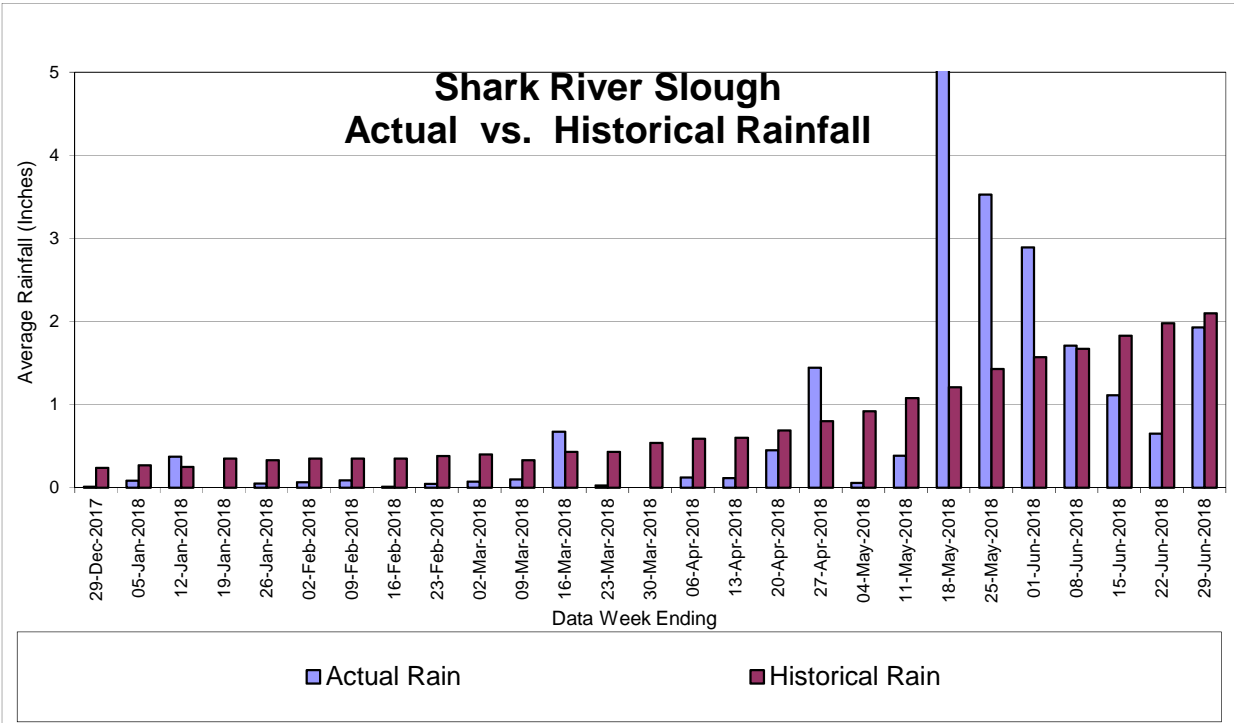
This Week's Avg	1.93	1.76
Pre-Project Avg	2.10	1.49

-----Transition Zone Information -----		
WCA-3A is in Zone A	Discharge Coeff. (cfs/ft) =	MAX
Supplemental discharge is	MAX	cfs
Distance to Bottom of Current Zone		-1.24 feet
Distance to Top of Current Zone	N/A	feet

-----Statistical Parameters -----			
Rainfall Formula Amount			-98 cfs
Last Week's Rainfall Formula			-26 cfs
Pre-project Mean Discharge			94 cfs
Rainfall Excess Terms	RL1 -2.19	RL2 1.47	RL3 -0.42

COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**



WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow July 10, 2018 to July 16, 2018 MAX cfs

The target flow is distributed from east to west (S-333, S-12D, S-12C, S-12B, and S-12A) to keep WCA 3A releases away from sub-population A of the Cape Sable seaside sparrow

-----Data Summary -----	June 30, 2018	to	July 6, 2018
WCA-3A Stage (end of week)	10.82		ft. msl
Angel's	6.81		ft. msl
G-3273	7.13		ft. msl

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	1.36	1.79
S-140		1.66
ENP		M

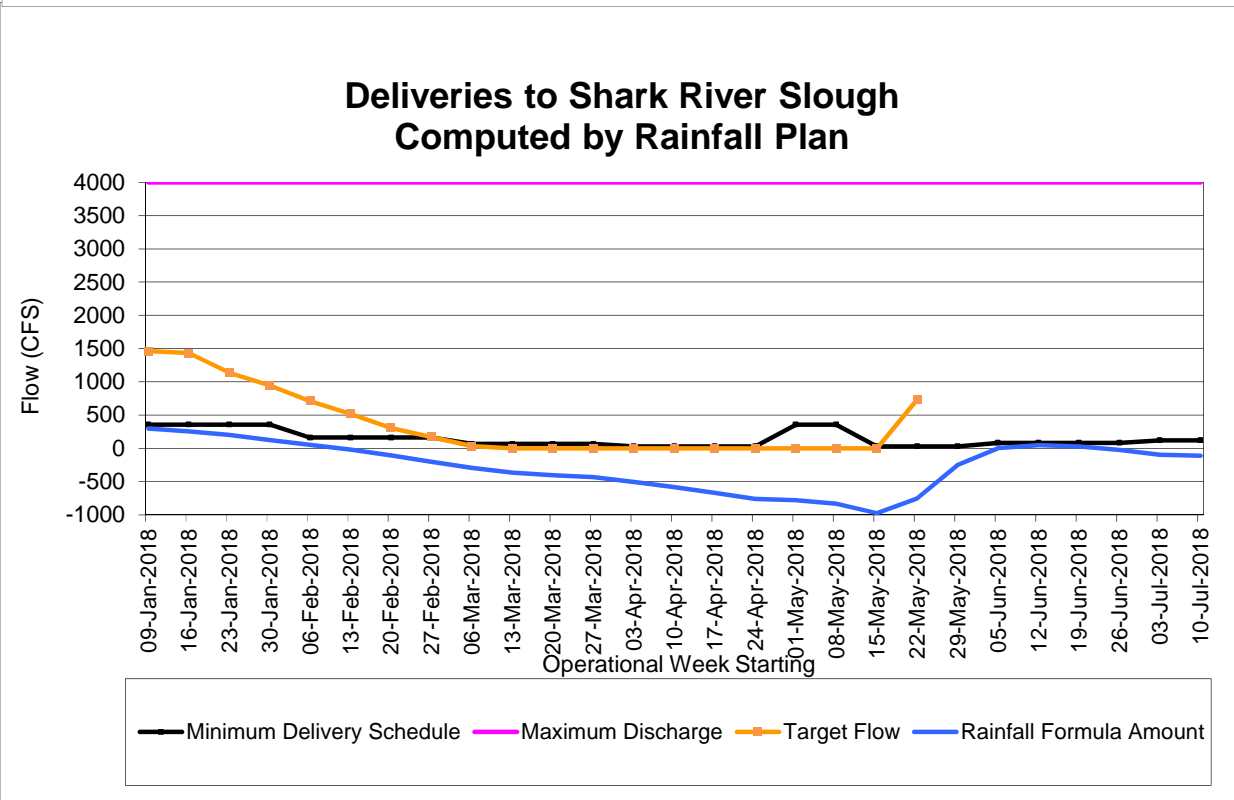
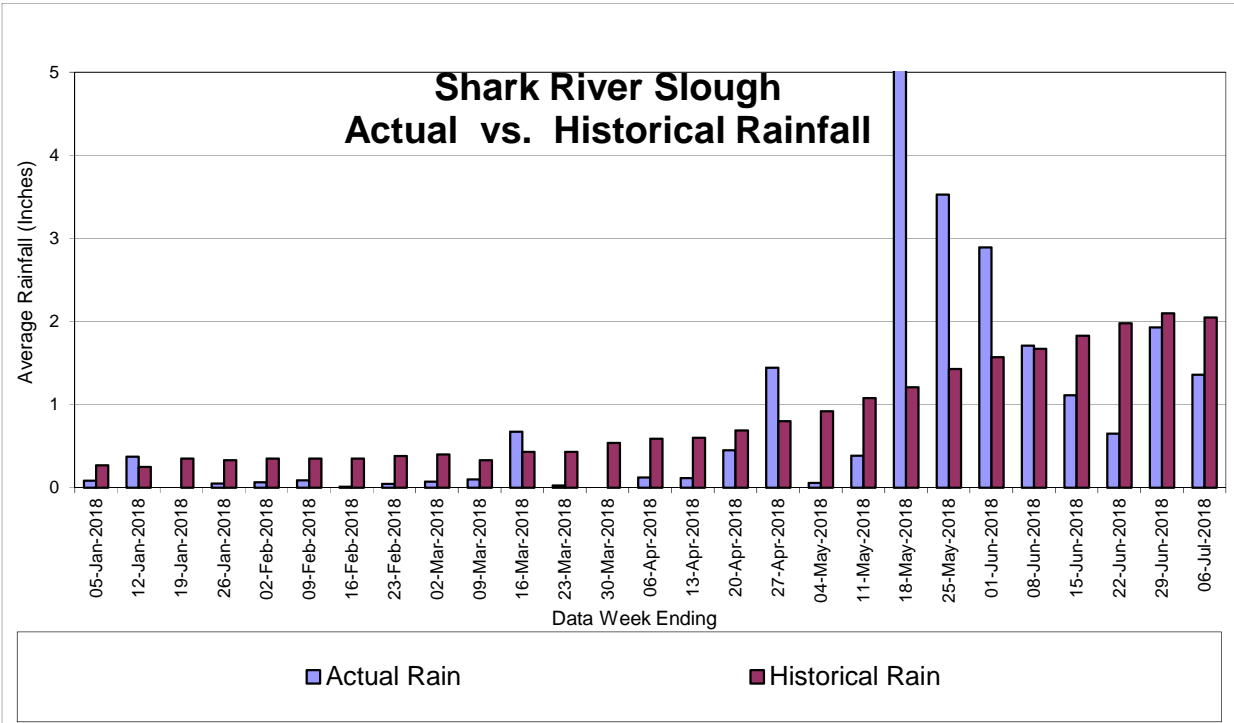
This Week's Avg	1.36	1.73
Pre-Project Avg	2.05	1.45

-----Transition Zone Information -----		
WCA-3A is in Zone A	Discharge Coeff. (cfs/ft) =	MAX
Supplemental discharge is	MAX	cfs
Distance to Bottom of Current Zone		-1.08 feet
Distance to Top of Current Zone	N/A	feet

-----Statistical Parameters -----		
Rainfall Formula Amount		-113 cfs
Last Week's Rainfall Formula		-98 cfs
Pre-project Mean Discharge		111 cfs
Rainfall Excess Terms	RL1 -1.30	RL2 -2.43
		RL3 1.93

COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**



WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow July 17, 2018 to July 23, 2018 MAX cfs

The target flow is distributed from east to west (S-333, S-12D, S-12C, S-12B, and S-12A) to keep WCA 3A releases away from sub-population A of the Cape Sable seaside sparrow

-----Data Summary -----	July 7, 2018	to	July 13, 2018
WCA-3A Stage (end of week)	10.74		ft. msl
Angel's	7.03		ft. msl
G-3273	7.23		ft. msl

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	1.13	1.53
S-140		1.67
ENP		M

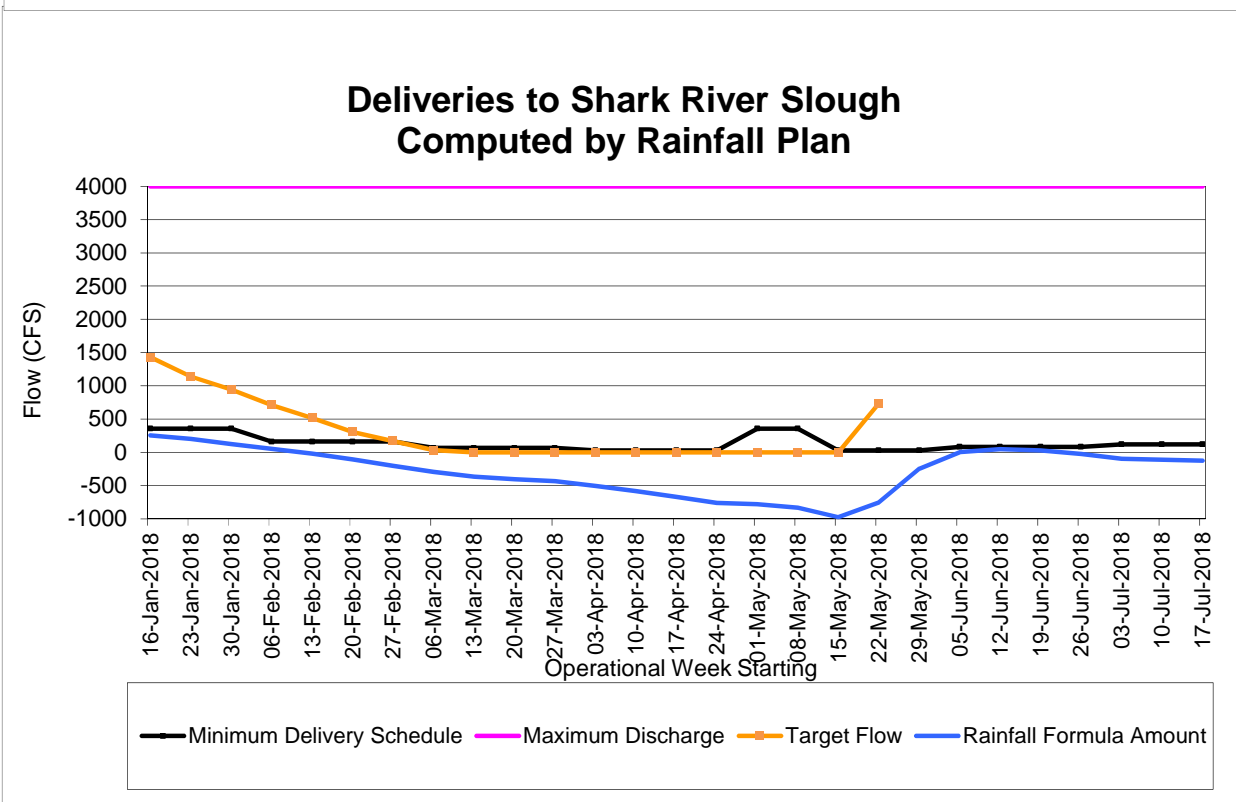
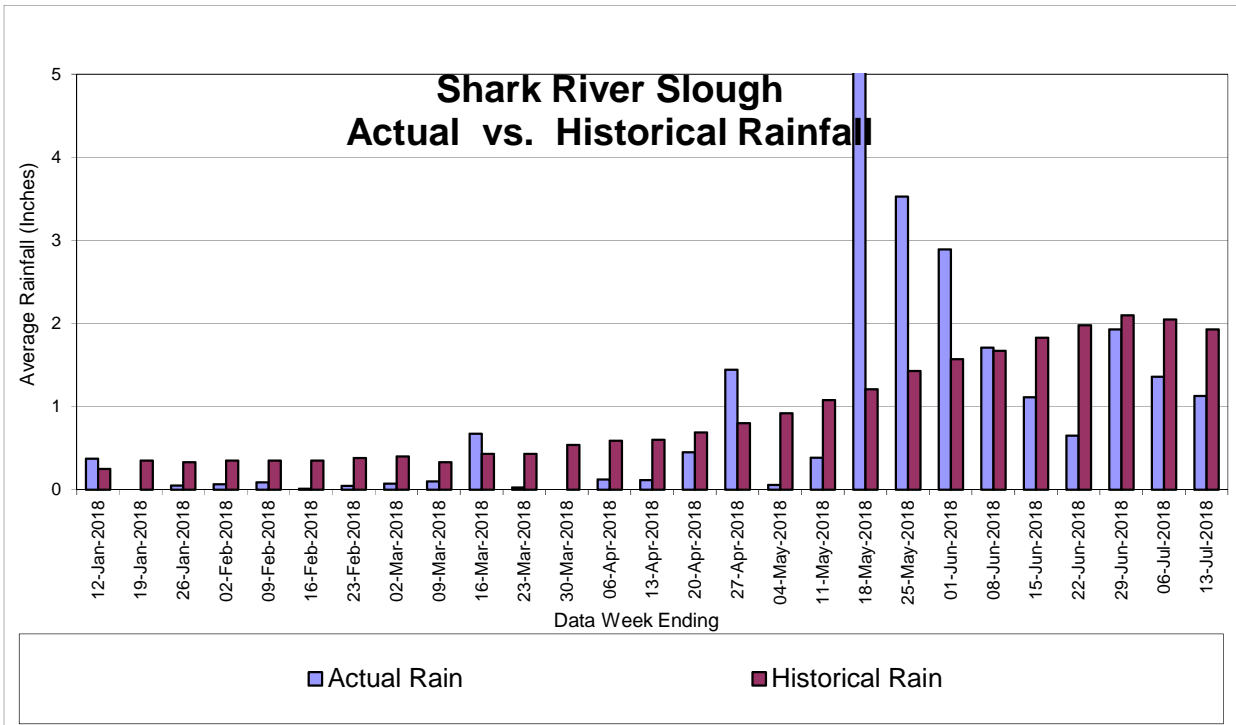
This Week's Avg	1.13	1.60
Pre-Project Avg	1.93	1.45

-----Transition Zone Information -----		
WCA-3A is in Zone A	Discharge Coeff. (cfs/ft) =	MAX
Supplemental discharge is	MAX	cfs
Distance to Bottom of Current Zone		-0.96 feet
Distance to Top of Current Zone	N/A	feet

-----Statistical Parameters -----		
Rainfall Formula Amount		-125 cfs
Last Week's Rainfall Formula		-113 cfs
Pre-project Mean Discharge		128 cfs
Rainfall Excess Terms	RL1 -1.83	RL2 -3.78
		RL3 4.94

COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**



WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow July 24, 2018

to July 30, 2018

0 cfs

The target flow is distributed from east to west (S-333, S-12D, S-12C, S-12B, and S-12A) to keep WCA 3A releases away from sub-population A of the Cape Sable seaside sparrow

-----Data Summary -----	July 14, 2018	to	July 20, 2018
WCA-3A Stage (end of week)	10.62		ft. msl
Angel's	6.80	-12	ft. msl
G-3273	7.24		ft. msl

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	1.13	1.53
S-140		1.67
ENP		M

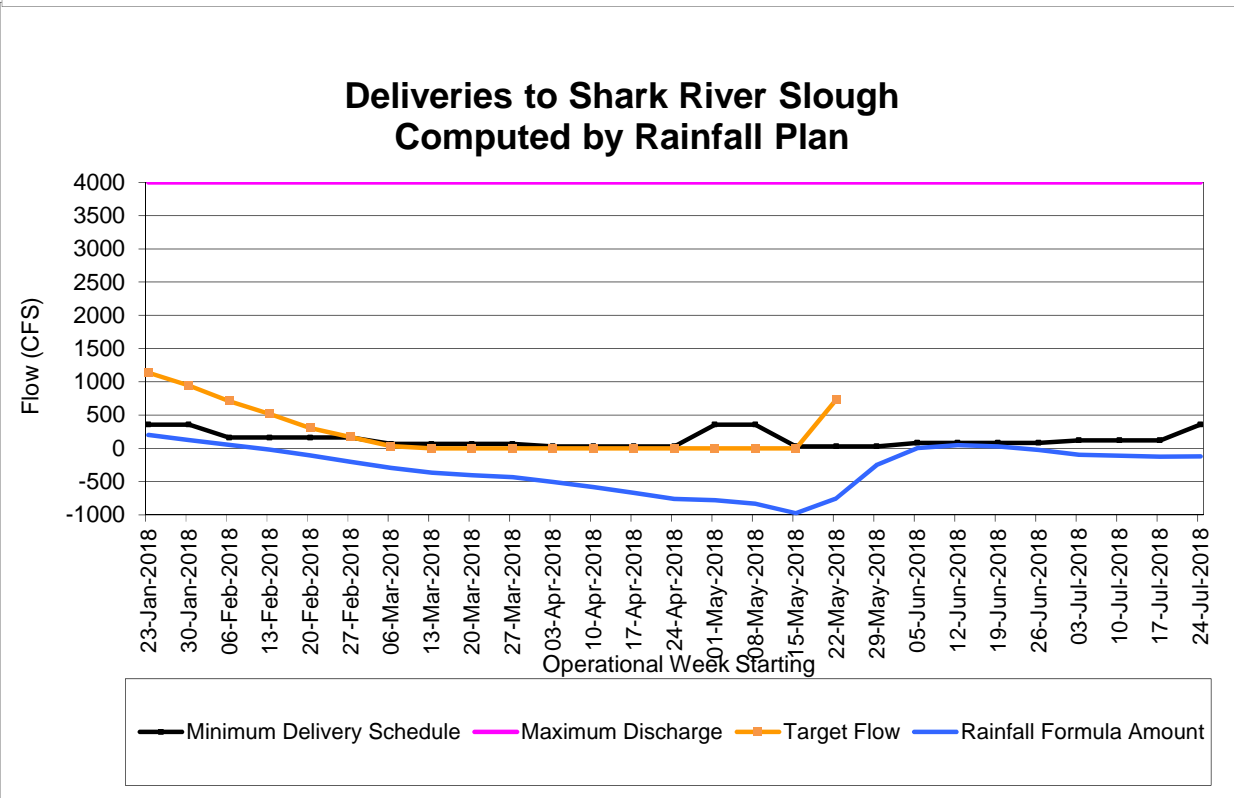
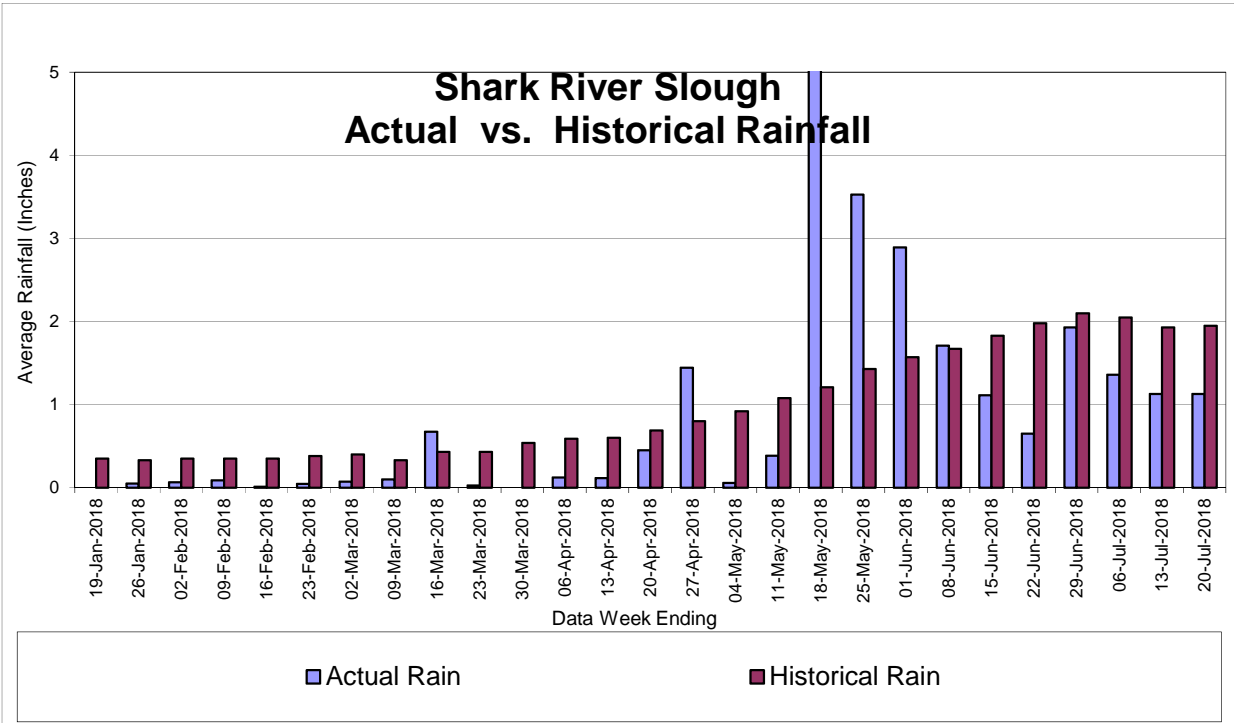
This Week's Avg	1.13	1.60
Pre-Project Avg	1.95	1.43

-----Transition Zone Information -----		
WCA-3A is in Zone A	Discharge Coeff. (cfs/ft) =	MAX
Supplemental discharge is	MAX	cfs
Distance to Bottom of Current Zone		-0.79 feet
Distance to Top of Current Zone	N/A	feet

-----Statistical Parameters -----			
Rainfall Formula Amount			-115 cfs
Last Week's Rainfall Formula			-125 cfs
Pre-project Mean Discharge			148 cfs
Rainfall Excess Terms	RL1 -1.73	RL2 -3.89	RL3 6.24

COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**



WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow July 31, 2018 to August 6, 2018 MAX cfs

The target flow is distributed from east to west (S-333, S-12D, S-12C, S-12B, and S-12A) to keep WCA 3A releases away from sub-population A of the Cape Sable seaside sparrow

-----Data Summary -----	July 21, 2018	to	July 27, 2018
WCA-3A Stage (end of week)	10.61		ft. msl
Angel's	6.97		ft. msl
G-3273	7.30		ft. msl

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	2.06	2.11
S-140 (historical)		1.68
ENP		M

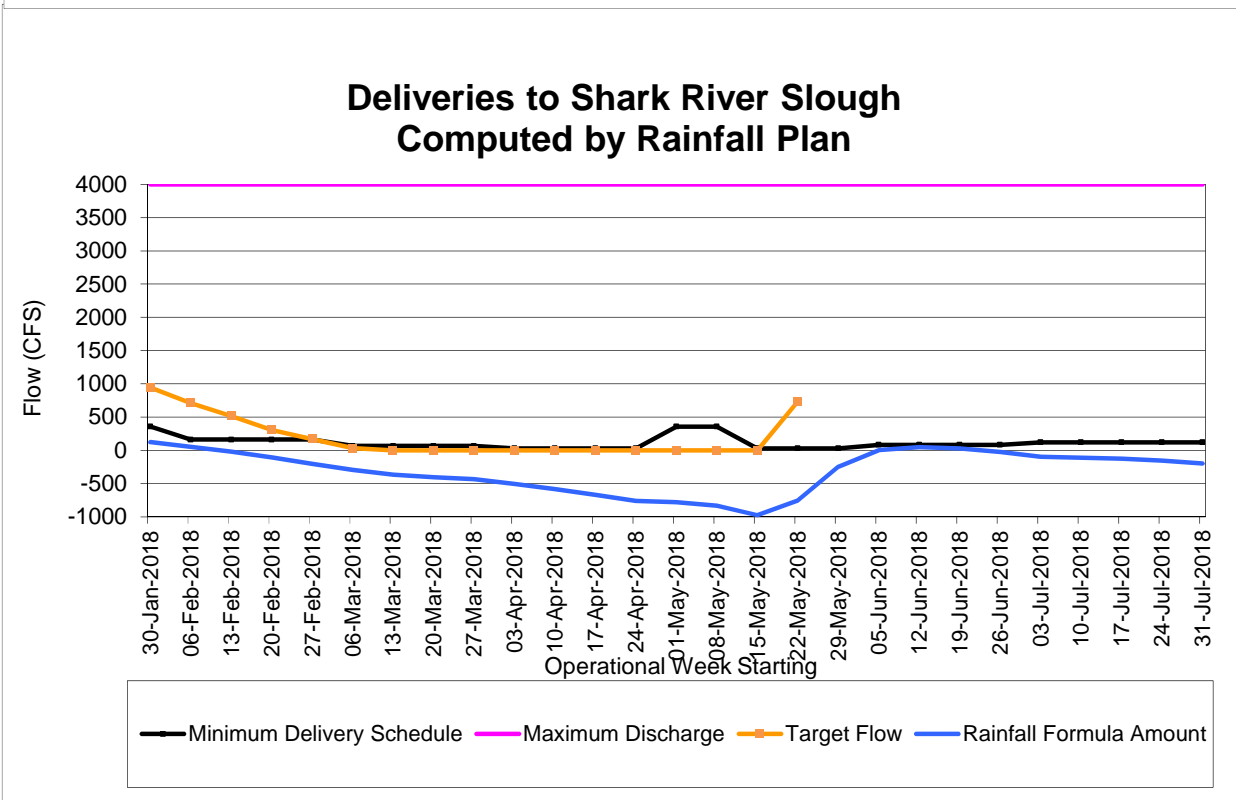
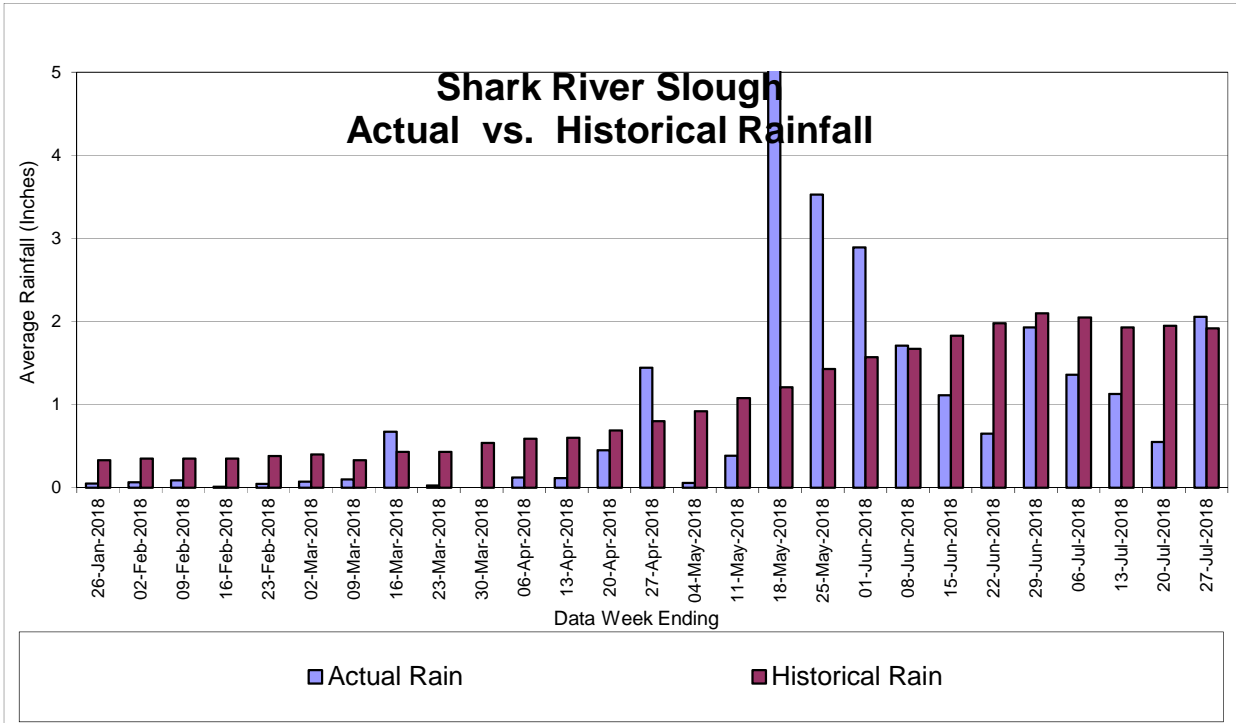
This Week's Avg	2.06	1.90
Pre-Project Avg	1.92	1.42

-----Transition Zone Information -----		
WCA-3A is in Zone A	Discharge Coeff. (cfs/ft) =	MAX
Supplemental discharge is	MAX	cfs
Distance to Bottom of Current Zone		-0.74 feet
Distance to Top of Current Zone	N/A	feet

-----Statistical Parameters -----		
Rainfall Formula Amount		-197 cfs
Last Week's Rainfall Formula		-156 cfs
Pre-project Mean Discharge		162 cfs
Rainfall Excess Terms	RL1 -1.85	RL2 -4.02
		RL3 1.47

COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**



WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow August 7, 2018 to August 13, 2018 MAX cfs

The target flow is distributed from east to west (S-333, S-12D, S-12C, S-12B, and S-12A) to keep WCA 3A releases away from sub-population A of the Cape Sable seaside sparrow

-----Data Summary -----	July 28, 2018	to	August 3, 2018
WCA-3A Stage (end of week)	10.58		ft. msl
Angel's	6.86		ft. msl
G-3273	7.29		ft. msl

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	0.83	1.94
S-140 (historical)		1.66
ENP		M

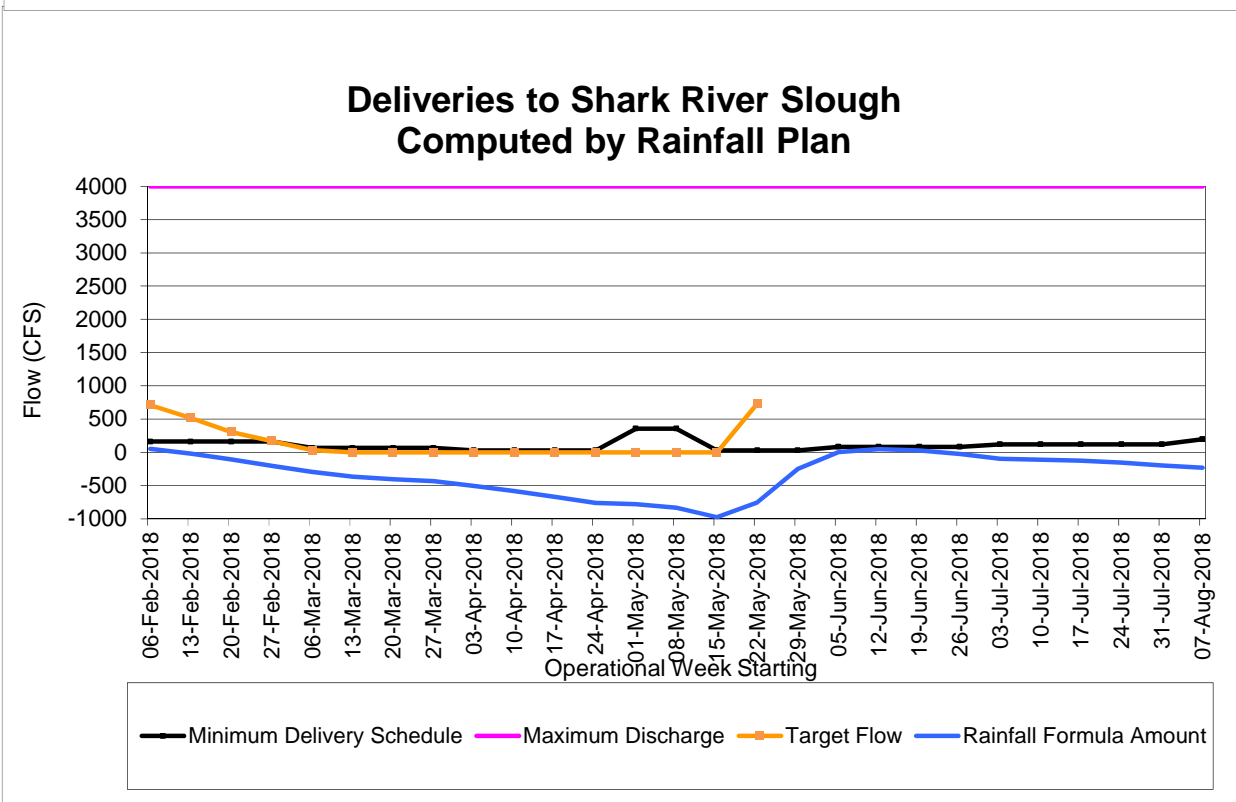
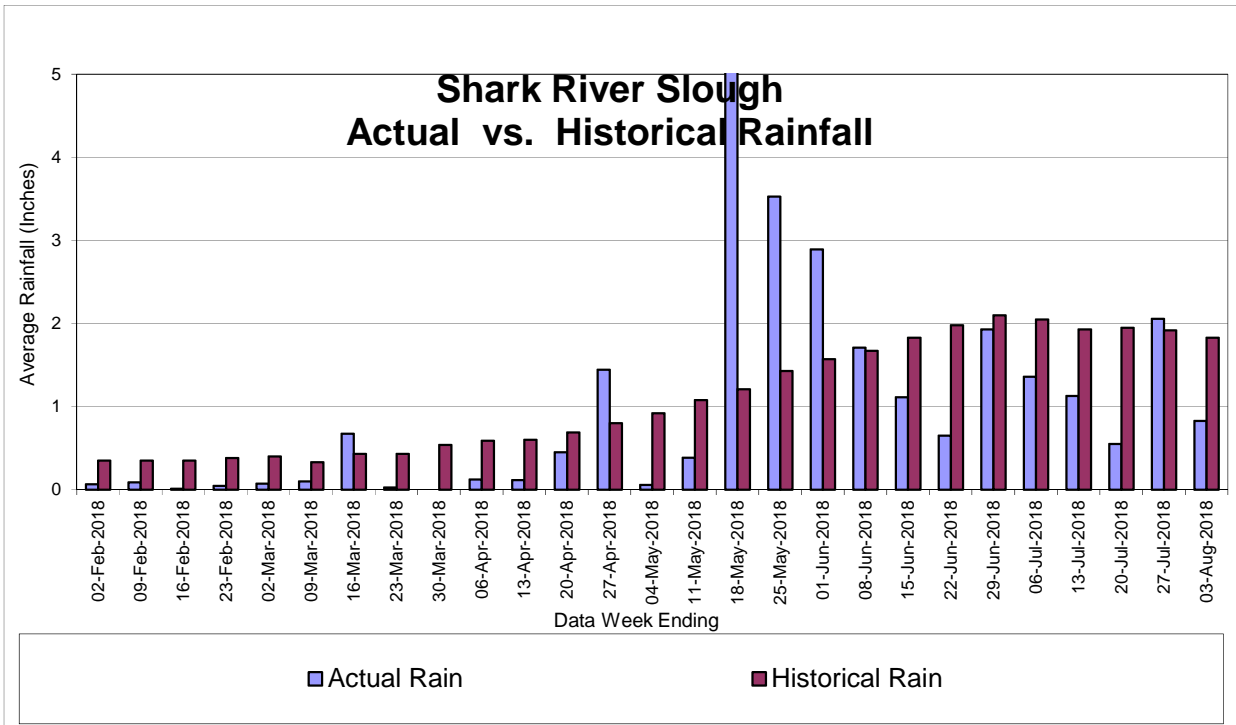
This Week's Avg	0.83	1.80
Pre-Project Avg	1.83	1.42

-----Transition Zone Information -----		
WCA-3A is in Zone A	Discharge Coeff. (cfs/ft) =	MAX
Supplemental discharge is	MAX	cfs
Distance to Bottom of Current Zone		-0.66 feet
Distance to Top of Current Zone	N/A	feet

-----Statistical Parameters -----			
Rainfall Formula Amount			-232 cfs
Last Week's Rainfall Formula			-197 cfs
Pre-project Mean Discharge			175 cfs
Rainfall Excess Terms	RL1 -1.55	RL2 -3.82	RL3 -2.43

COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**



WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow August 14, 2018 to August 20, 2018 MAX cfs

The target flow is distributed from east to west (S-333, S-12D, S-12C, S-12B, and S-12A) to keep WCA 3A releases away from sub-population A of the Cape Sable seaside sparrow

-----Data Summary -----	August 4, 2018	to	August 10, 2018
WCA-3A Stage (end of week)	10.50		ft. msl
Angel's	7.17		ft. msl
G-3273	7.55		ft. msl

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	0.89	2.02
S-140		1.62
ENP		M

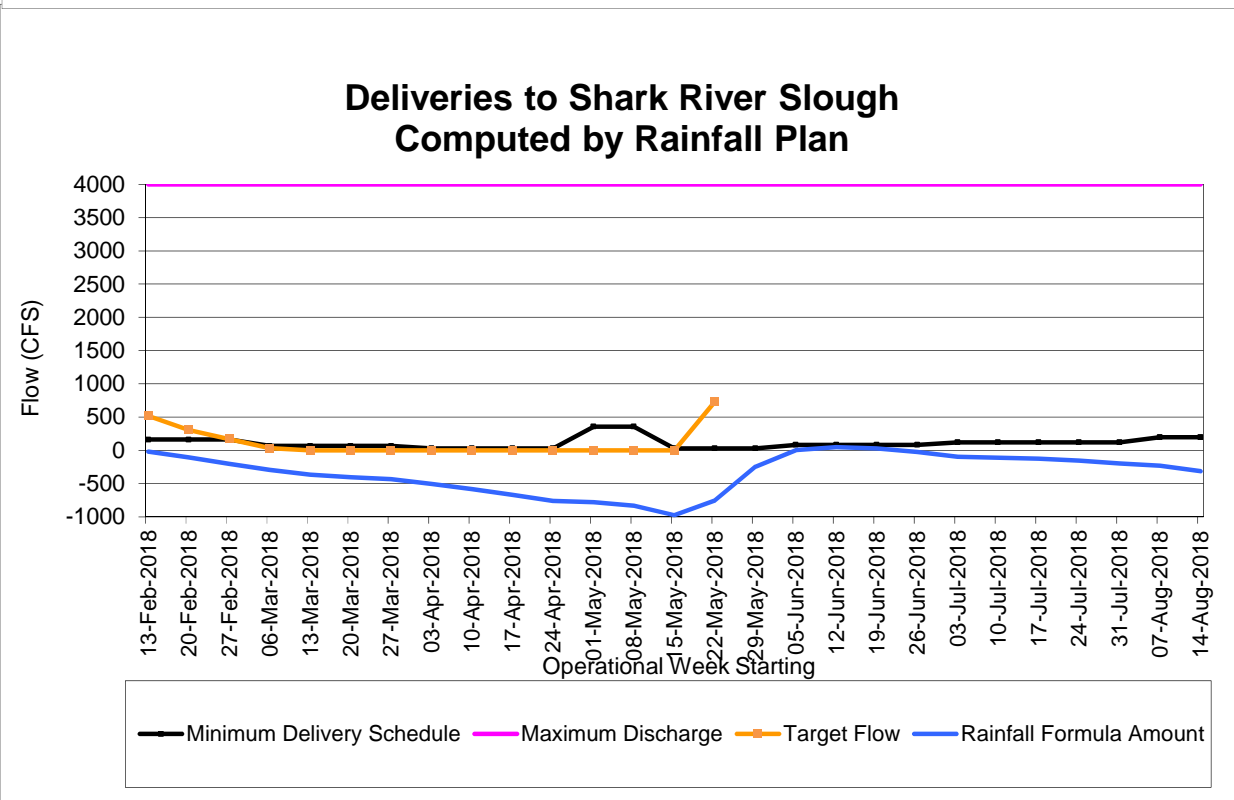
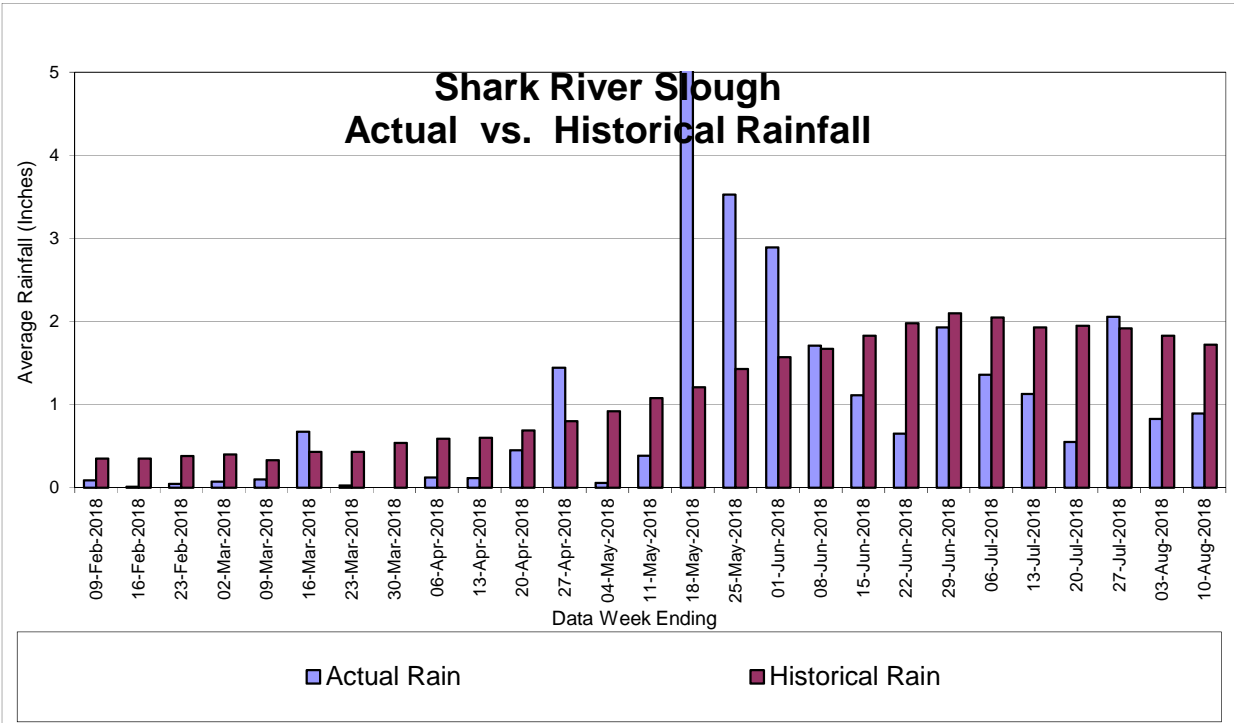
This Week's Avg	0.89	1.82
Pre-Project Avg	1.72	1.42

-----Transition Zone Information -----		
WCA-3A is in Zone A	Discharge Coeff. (cfs/ft) =	MAX
Supplemental discharge is	MAX	cfs
Distance to Bottom of Current Zone		-0.54 feet
Distance to Top of Current Zone	N/A	feet

-----Statistical Parameters -----			
Rainfall Formula Amount			-311 cfs
Last Week's Rainfall Formula			-232 cfs
Pre-project Mean Discharge			185 cfs
Rainfall Excess Terms	RL1 -2.45	RL2 -3.68	RL3 -3.78

COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**



WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow August 21, 2018 to August 27, 2018 MAX cfs

The target flow is distributed from east to west (S-333, S-12D, S-12C, S-12B, and S-12A) to keep WCA 3A releases away from sub-population A of the Cape Sable seaside sparrow

-----Data Summary -----	August 11, 2018	to	August 17, 2018
WCA-3A Stage (end of week)	10.44		ft. msl
Angel's	7.13		ft. msl
G-3273	7.43		ft. msl

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	0.96	2.02
S-140		1.68
ENP		M

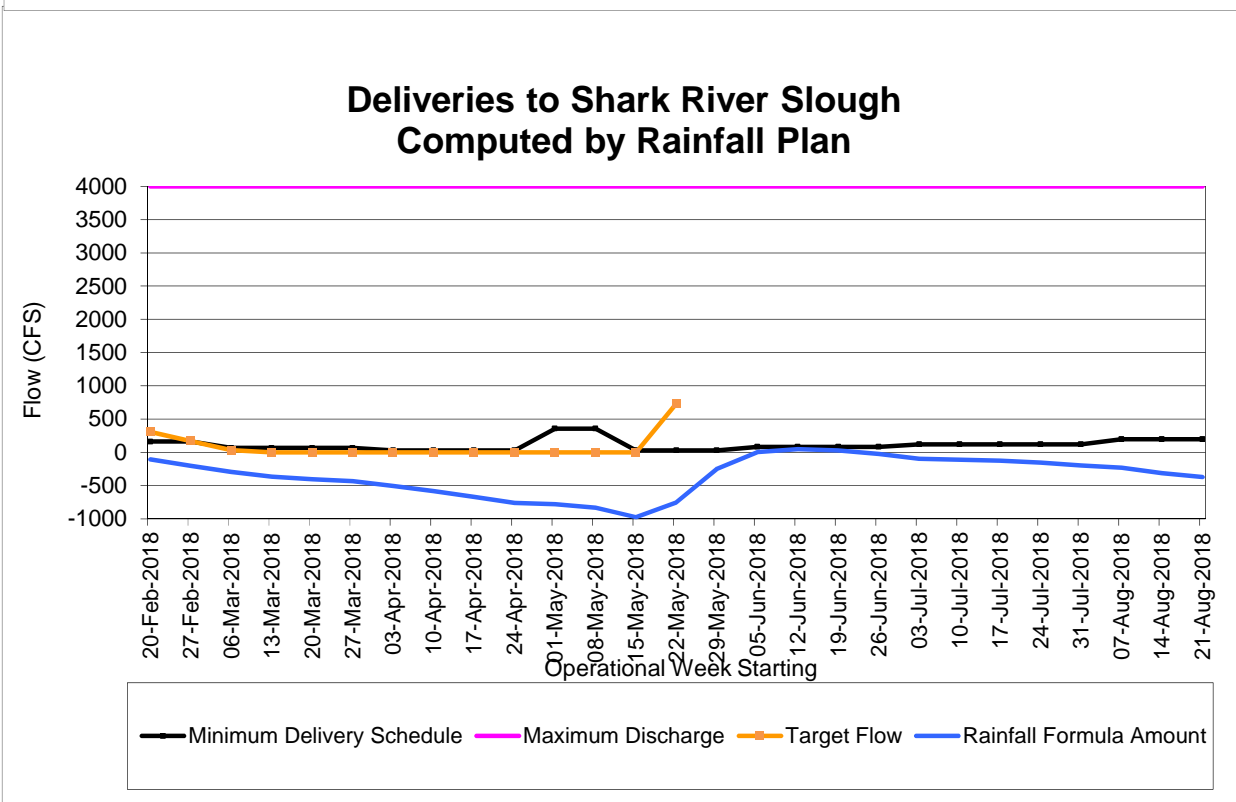
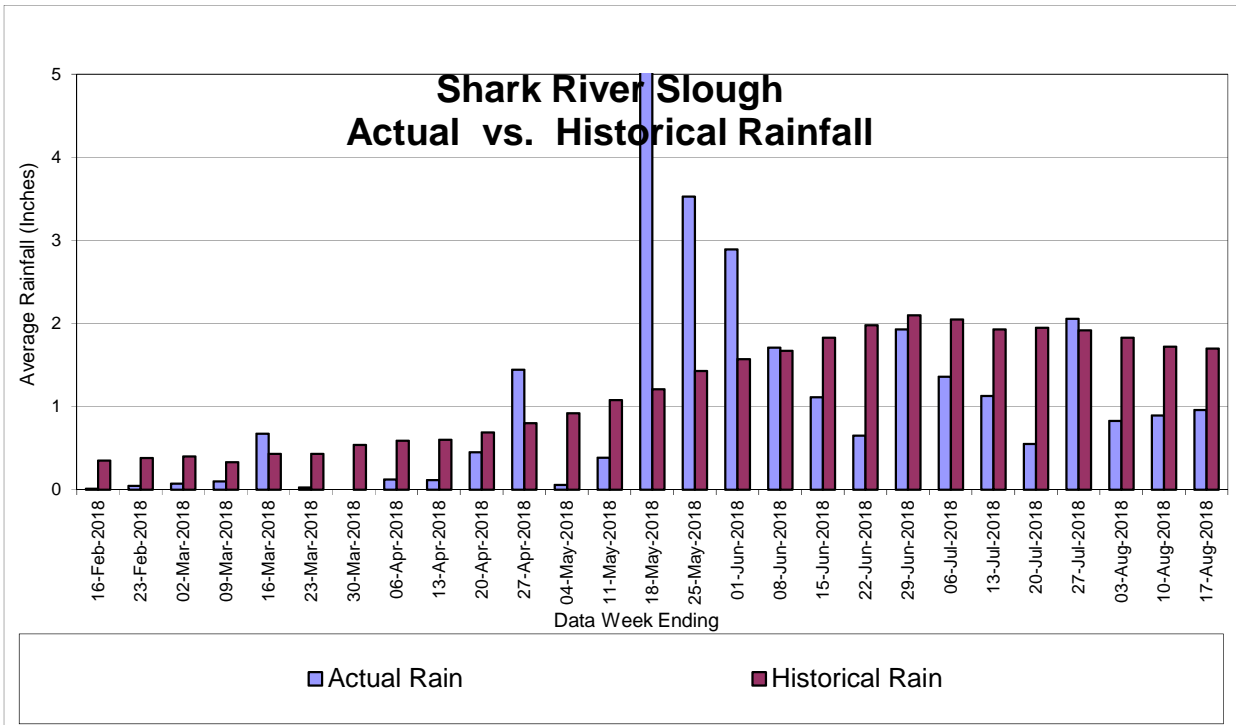
This Week's Avg	0.96	1.85
Pre-Project Avg	1.70	1.39

-----Transition Zone Information -----		
WCA-3A is in Zone A	Discharge Coeff. (cfs/ft) =	MAX
Supplemental discharge is	MAX	cfs
Distance to Bottom of Current Zone		-0.43 feet
Distance to Top of Current Zone	N/A	feet

-----Statistical Parameters -----			
Rainfall Formula Amount			-369 cfs
Last Week's Rainfall Formula			-311 cfs
Pre-project Mean Discharge			199 cfs
Rainfall Excess Terms	RL1 -2.26	RL2 -4.07	RL3 -3.89

COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**



WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow August 28, 2018 to September 3, 2018 MAX cfs

The target flow is distributed from east to west (S-333, S-12D, S-12C, S-12B, and S-12A) to keep WCA 3A releases away from sub-population A of the Cape Sable seaside sparrow

-----Data Summary -----	August 18, 2018	to	August 24, 2018
WCA-3A Stage (end of week)	10.47		ft. msl
Angel's	7.09		ft. msl
G-3273	7.44		ft. msl

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	1.48	2.02
S-140		1.65
ENP		M

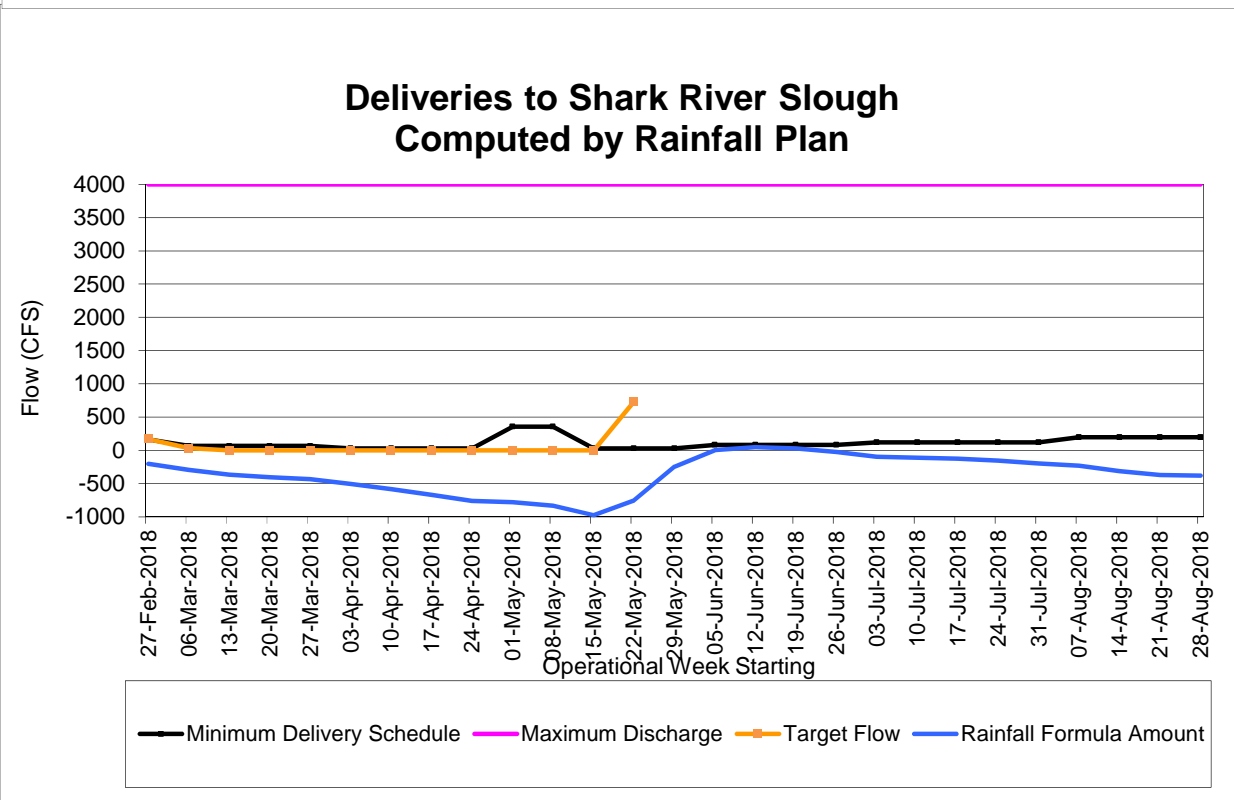
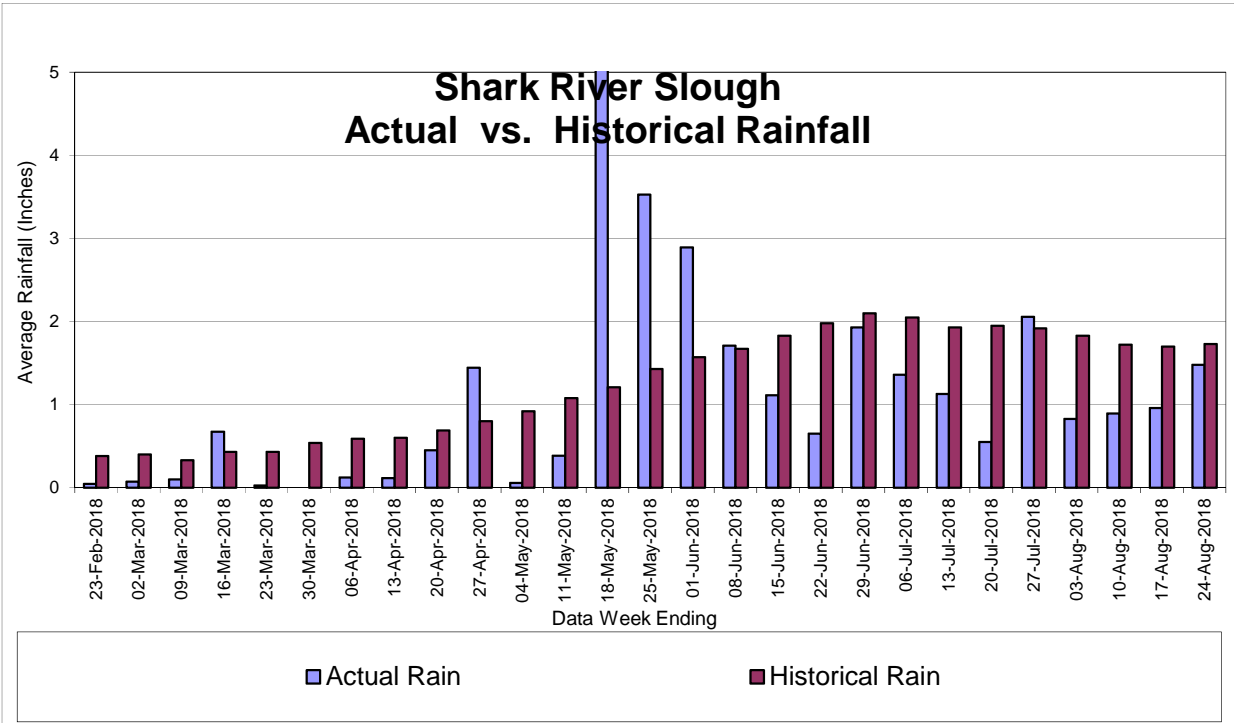
This Week's Avg	1.48	1.83
Pre-Project Avg	1.73	1.40

-----Transition Zone Information -----		
WCA-3A is in Zone A	Discharge Coeff. (cfs/ft) =	MAX
Supplemental discharge is	MAX	cfs
Distance to Bottom of Current Zone		-0.41 feet
Distance to Top of Current Zone	N/A	feet

-----Statistical Parameters -----			
Rainfall Formula Amount			-381 cfs
Last Week's Rainfall Formula			-369 cfs
Pre-project Mean Discharge			223 cfs
Rainfall Excess Terms	RL1 -1.71	RL2 -4.30	RL3 -4.02

COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**



WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow September 4, 2018 to September 10, 2018 **MAX** cfs

The target flow is distributed from east to west (S-333, S-12D, S-12C, S-12B, and S-12A) to keep WCA 3A releases away from sub-population A of the Cape Sable seaside sparrow

-----Data Summary -----	August 25, 2018	to	August 31, 2018
WCA-3A Stage (end of week)	10.49		ft. msl
Angel's	7.08		ft. msl
G-3273	7.46		ft. msl

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	1.10	1.93
S-140		1.52
ENP		M

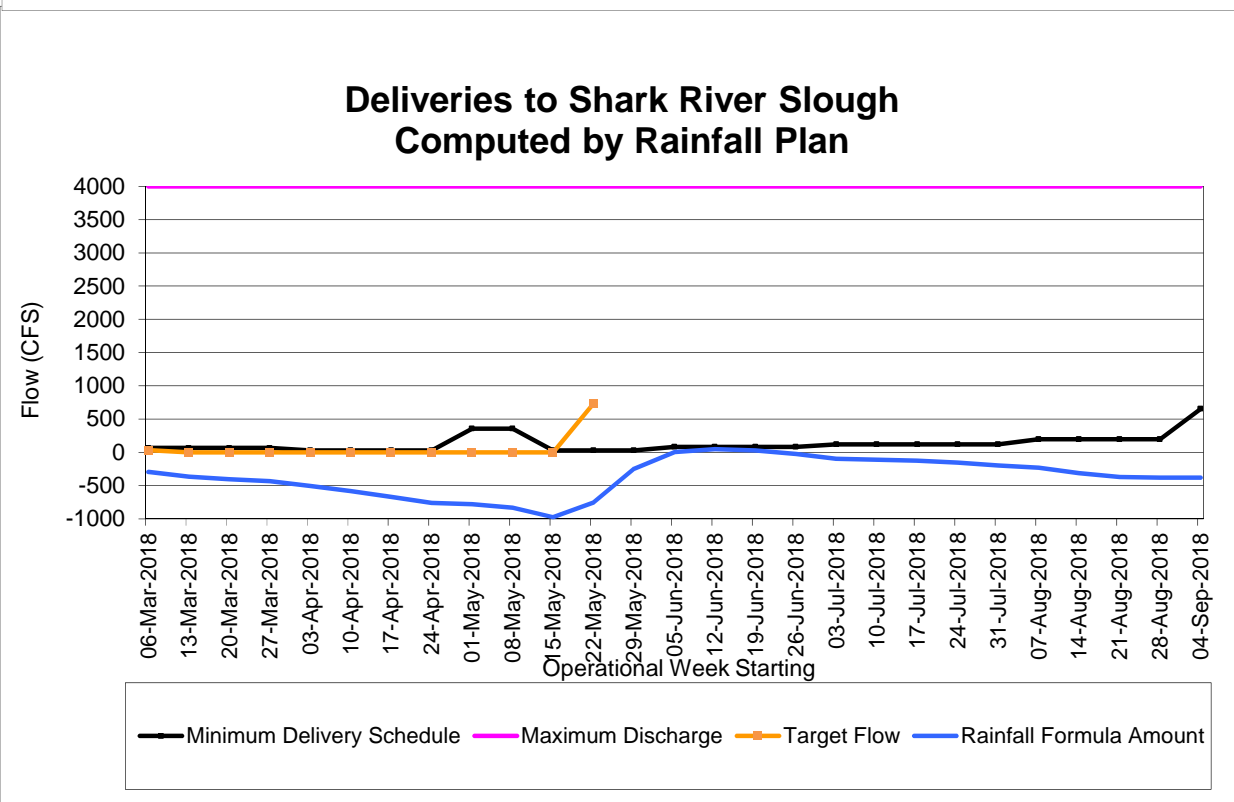
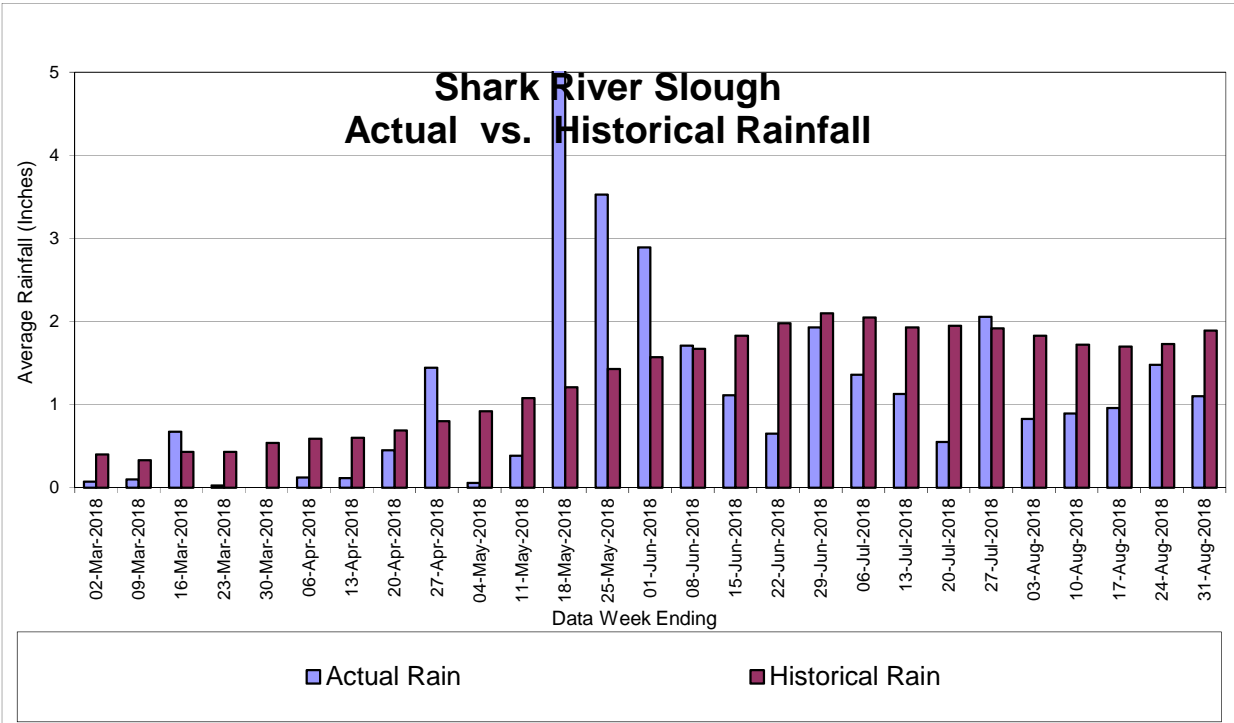
This Week's Avg	1.10	1.73
Pre-Project Avg	1.89	1.36

-----Transition Zone Information -----		
WCA-3A is in Zone A	Discharge Coeff. (cfs/ft) =	MAX
Supplemental discharge is	MAX	cfs
Distance to Bottom of Current Zone		-0.39 feet
Distance to Top of Current Zone	N/A	feet

-----Statistical Parameters -----			
Rainfall Formula Amount			-379 cfs
Last Week's Rainfall Formula			-381 cfs
Pre-project Mean Discharge			257 cfs
Rainfall Excess Terms	RL1 -1.68	RL2 -3.80	RL3 -3.82

COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**



WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow **September 11, 2018** to **September 17, 2018** **MAX** cfs

The target flow is distributed from east to west (S-333, S-12D, S-12C, S-12B, and S-12A) to keep WCA 3A releases away from sub-population A of the Cape Sable seaside sparrow

-----Data Summary -----	September 1, 2018	to	September 7, 2018
WCA-3A Stage (end of week)	10.74		ft. msl
Angel's	7.61		ft. msl
G-3273	7.74		ft. msl

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	2.83	1.28
S-140		1.50
ENP		M

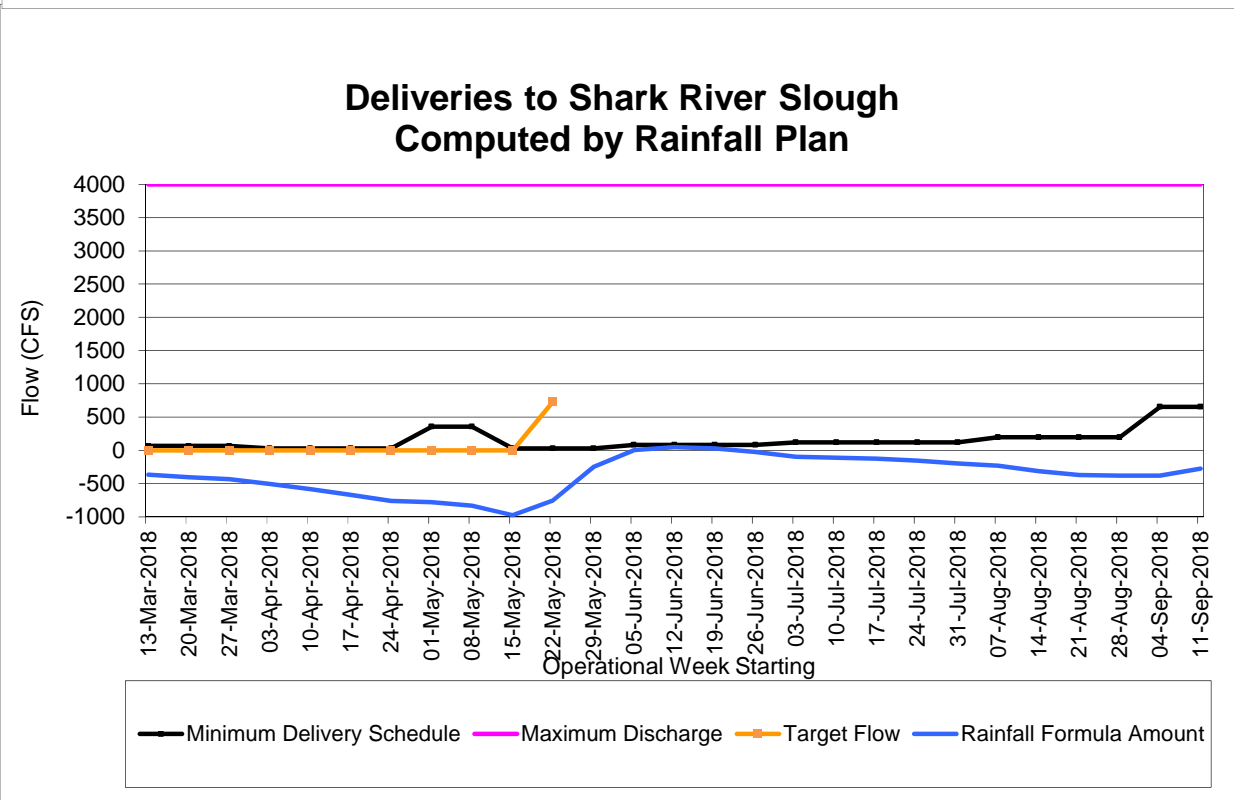
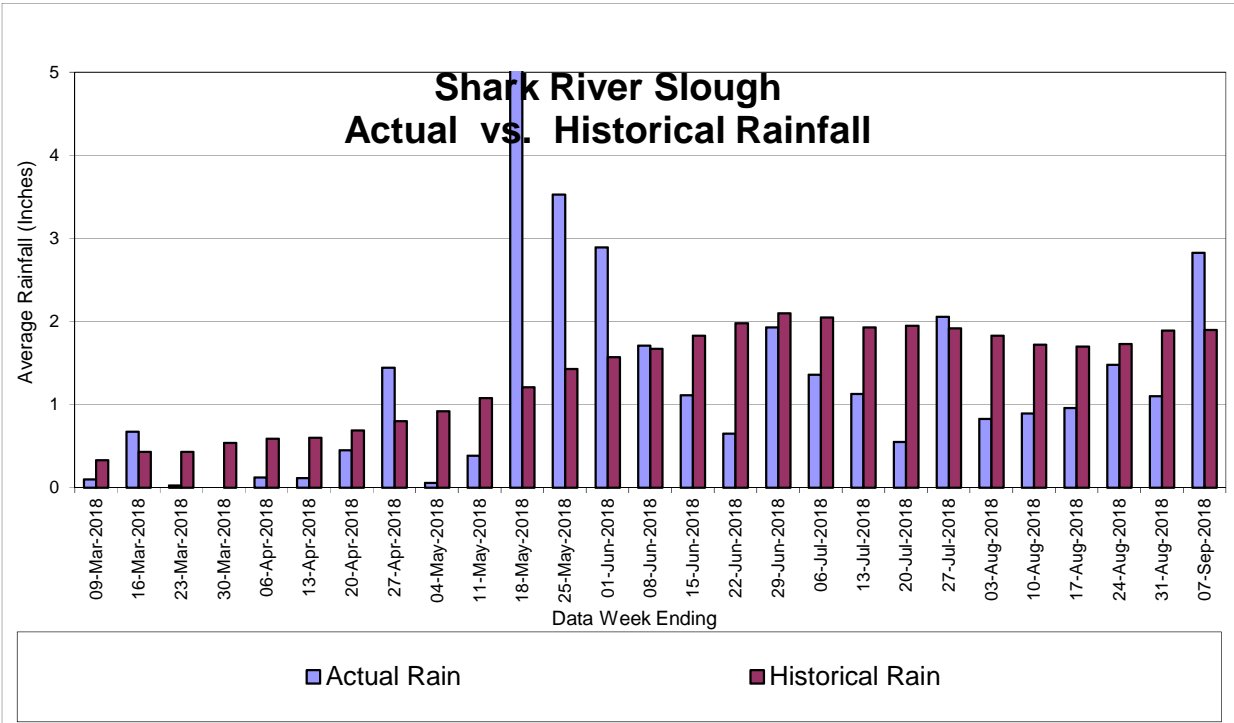
This Week's Avg	2.83	1.39
Pre-Project Avg	1.90	1.34

-----Transition Zone Information -----		
WCA-3A is in Zone A	Discharge Coeff. (cfs/ft) =	MAX
Supplemental discharge is	MAX	cfs
Distance to Bottom of Current Zone		-0.59 feet
Distance to Top of Current Zone	N/A	feet

-----Statistical Parameters -----			
Rainfall Formula Amount			-276 cfs
Last Week's Rainfall Formula			-379 cfs
Pre-project Mean Discharge			310 cfs
Rainfall Excess Terms			
	RL1 -0.20	RL2 -4.16	RL3 -3.68

COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**



WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow September 18, 2018 to September 24, 2018 MAX cfs

The target flow is distributed from east to west (S-333, S-12D, S-12C, S-12B, and S-12A) to keep WCA 3A releases away from sub-population A of the Cape Sable seaside sparrow

----Data Summary ----	September 8, 2018	to	September 14, 2018
WCA-3A Stage (end of week)	10.75		ft. msl
Angel's	7.43		ft. msl
G-3273	7.64		ft. msl

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	1.42	1.74
S-140		1.49
ENP		M
This Week's Avg	1.42	1.62
Pre-Project Avg	2.00	1.31

----Transition Zone Information ----

WCA-3A is in Zone A	Discharge Coeff. (cfs/ft) =	MAX
Supplemental discharge is	MAX	cfs
Distance to Bottom of Current Zone		-0.56 feet
Distance to Top of Current Zone	N/A	feet

----Projected Supplemental Discharge Considering Upstream Water Levels----

	Stage (ft-NGVD)	Regulation Stage (ft-NGVD)	Excess Storage (ac-ft)	Depth (ft)
WCA-1	16.58	16.80	0	
WCA-2A	13.39	12.65	75,900	
Others			0	
Total Storage Adjustment			75,900	0.18
WCA-3A	10.75			
Adjusted WCA-3A	10.93			

Adjusted WCA-3A is in Zone A	Discharge Coeff. (cfs/ft) =	MAX
Supplemental discharge is	MAX	cfs
Distance to Bottom of Current Zone		-0.73 feet
Distance to Top of Current Zone	N/A	feet

----Statistical Parameters ----

Rainfall Formula Amount	-143 cfs
Last Week's Rainfall Formula	-276 cfs
Pre-project Mean Discharge	385 cfs
Rainfall Excess Terms	
RL1 0.06	RL2 -3.94
RL3	-4.07

COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**

WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow **September 18, 2018** to **September 24, 2018** **MAX** cfs

The target flow is distributed from east to west (S-333, S-12D, S-12C, S-12B, and S-12A) to keep WCA 3A releases away from sub-population A of the Cape Sable seaside sparrow

-----Data Summary -----	September 8, 2018	to	September 14, 2018
WCA-3A Stage (end of week)	10.75		ft. msl
Angel's	7.43		ft. msl
G-3273	7.64		ft. msl

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	1.42	1.74
S-140		1.49
ENP		M

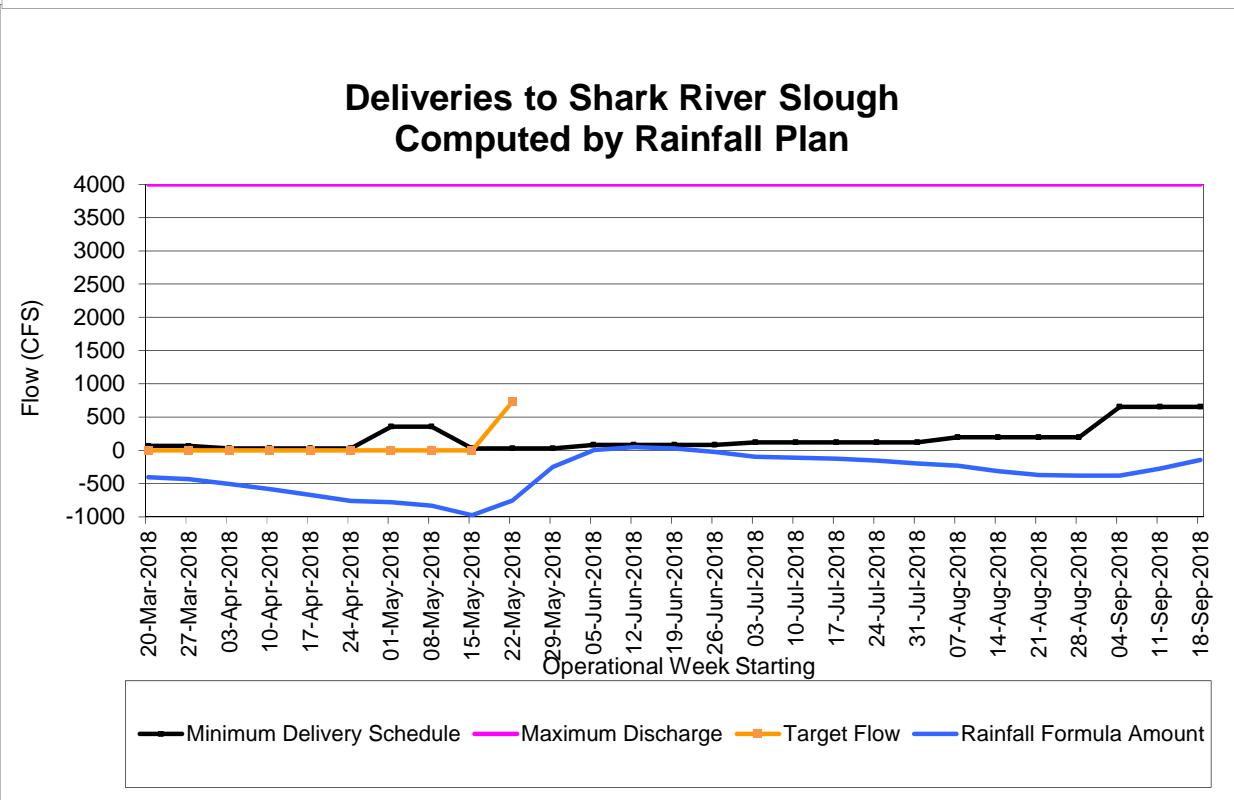
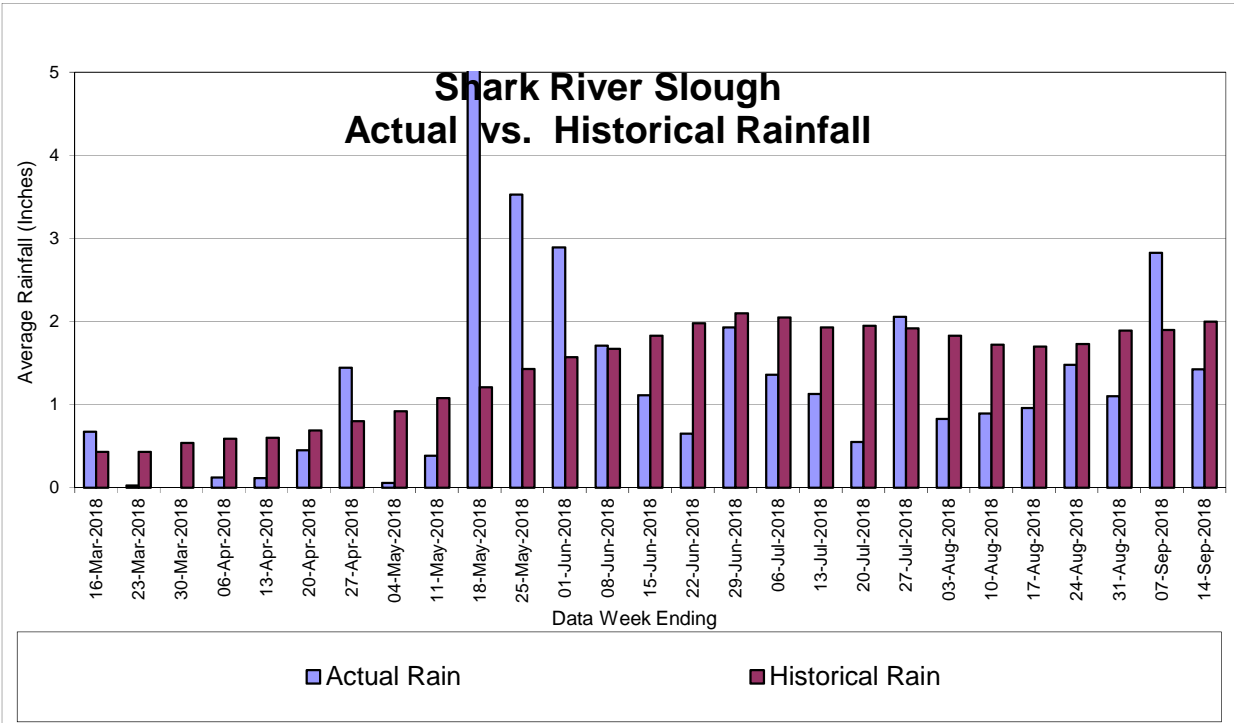
This Week's Avg	1.42	1.62
Pre-Project Avg	2.00	1.31

-----Transition Zone Information -----		
WCA-3A is in Zone A	Discharge Coeff. (cfs/ft) =	MAX
Supplemental discharge is	MAX	cfs
Distance to Bottom of Current Zone		-0.56 feet
Distance to Top of Current Zone	N/A	feet

-----Statistical Parameters -----		
Rainfall Formula Amount		-143 cfs
Last Week's Rainfall Formula		-276 cfs
Pre-project Mean Discharge		385 cfs
Rainfall Excess Terms		
RL1	0.06	RL2 -3.94
		RL3 -4.07

COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**



WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow September 25, 2018 to October 1, 2018 MAX cfs

The target flow is distributed from east to west (S-333, S-12D, S-12C, S-12B, and S-12A) to keep WCA 3A releases away from sub-population A of the Cape Sable seaside sparrow

----Data Summary ----	September 15, 2018	to	September 21, 2018
WCA-3A Stage (end of week)	10.70		ft-NGVD
Angel's	7.01		ft-NGVD
G-3273	7.52		ft-NGVD

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	0.65	1.46
S-140		1.48
ENP		M
This Week's Avg	0.65	1.47
Pre-Project Avg	2.16	1.27

----Transition Zone Information ----

WCA-3A is in Zone A	Discharge Coeff. (cfs/ft) =	MAX
Supplemental discharge is	MAX	cfs
Distance to Bottom of Current Zone		-0.46 feet
Distance to Top of Current Zone	N/A	feet

----Potential Supplemental Discharge Considering Upstream Water Levels----

	Stage (ft-NGVD)	Regulation Stage (ft-NGVD)	Excess Storage (ac-ft)	Depth (ft)
WCA-1	16.53	16.96	0	
WCA-2A	13.33	12.80	54,400	
Others			0	
Total Storage Adjustment			54,400	0.13
WCA-3A	10.70			
Adjusted WCA-3A	10.83			

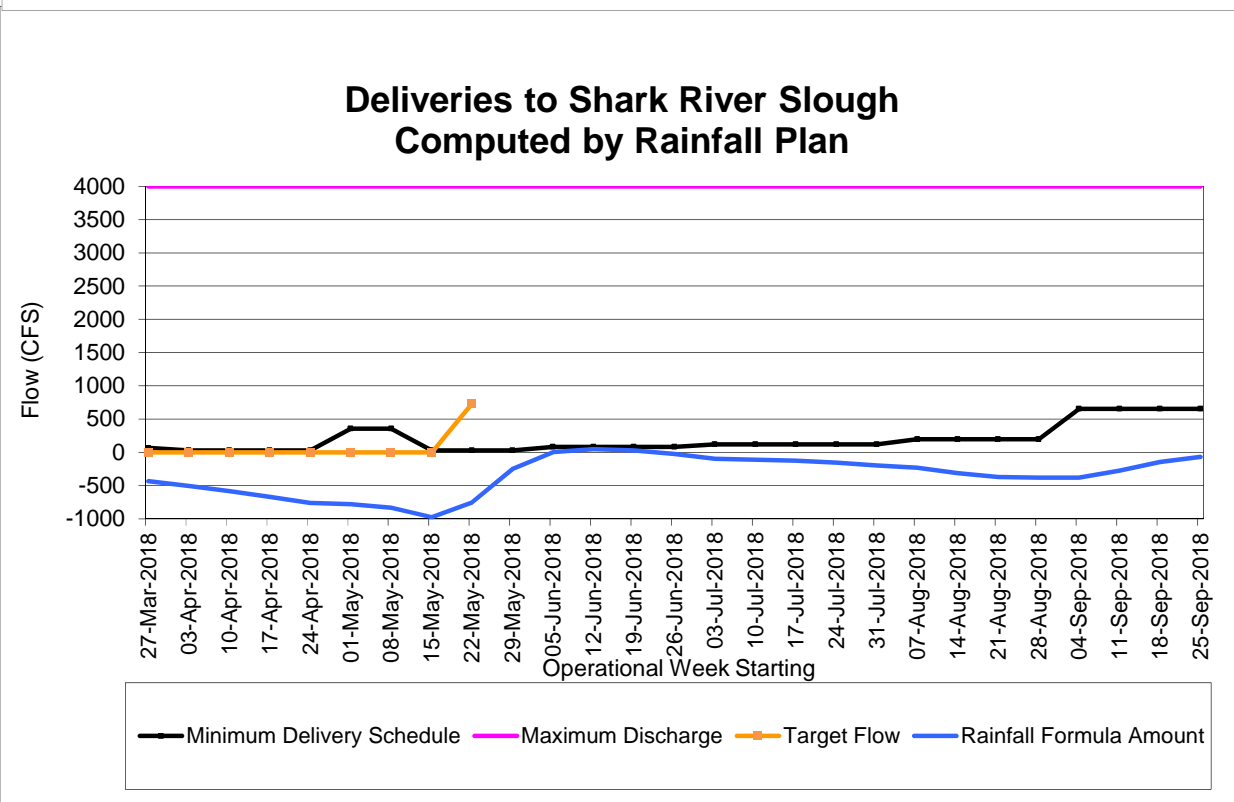
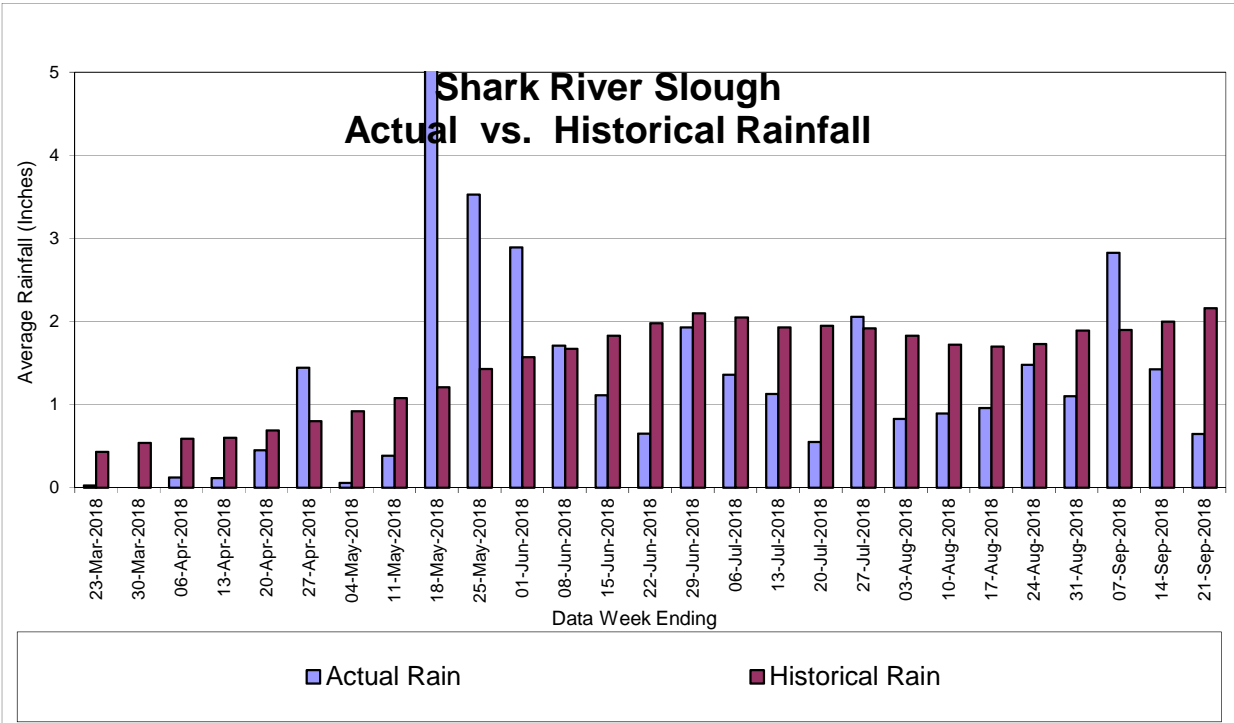
Adjusted WCA-3A is in Zone A	Discharge Coeff. (cfs/ft) =	MAX
Supplemental discharge is	MAX	cfs
Distance to Bottom of Current Zone		-0.59 feet
Distance to Top of Current Zone	N/A	feet

----Statistical Parameters ----

Rainfall Formula Amount		-69 cfs
Last Week's Rainfall Formula		-143 cfs
Pre-project Mean Discharge		540 cfs
Rainfall Excess Terms		
RL1	-2.49	RL2 -1.90
		RL3 -4.30

COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**



WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow **October 2, 2018** to **October 8, 2018** **MAX** cfs

The target flow is distributed from east to west (S-333, S-12D, S-12C, S-12B, and S-12A) to keep WCA 3A releases away from sub-population A of the Cape Sable seaside sparrow

----Data Summary ----	September 22, 2018	to	September 28, 2018
WCA-3A Stage (end of week)	10.51		ft-NGVD
Angel's	6.87		ft-NGVD
G-3273	7.48		ft-NGVD

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	0.26	1.46
S-140		1.38
ENP		M
This Week's Avg	0.26	1.42
Pre-Project Avg	2.07	1.25

----Transition Zone Information ----

WCA-3A is in Zone A	Discharge Coeff. (cfs/ft) =	MAX
Supplemental discharge is	MAX	cfs
Distance to Bottom of Current Zone		0.23 feet
Distance to Top of Current Zone	N/A	feet

----Potential Supplemental Discharge Considering Upstream Water Levels----

	Stage (ft-NGVD)	Regulation Stage (ft-NGVD)	Excess Storage (ac-ft)	Depth (ft)
WCA-1	16.54	17.04		0
WCA-2A	13.18	12.96	21,700	
Others			0	
Total Storage Adjustment			21,700	0.05
WCA-3A	10.51			
Adjusted WCA-3A	10.56			

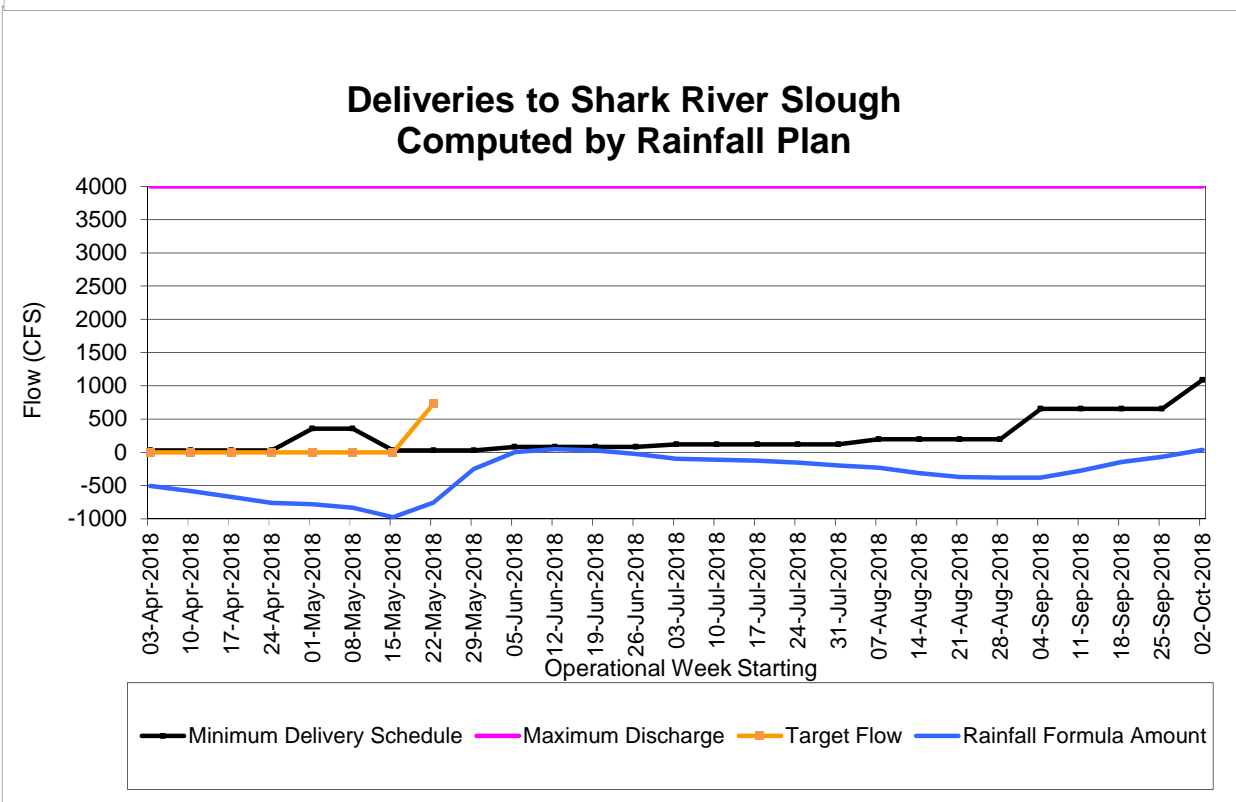
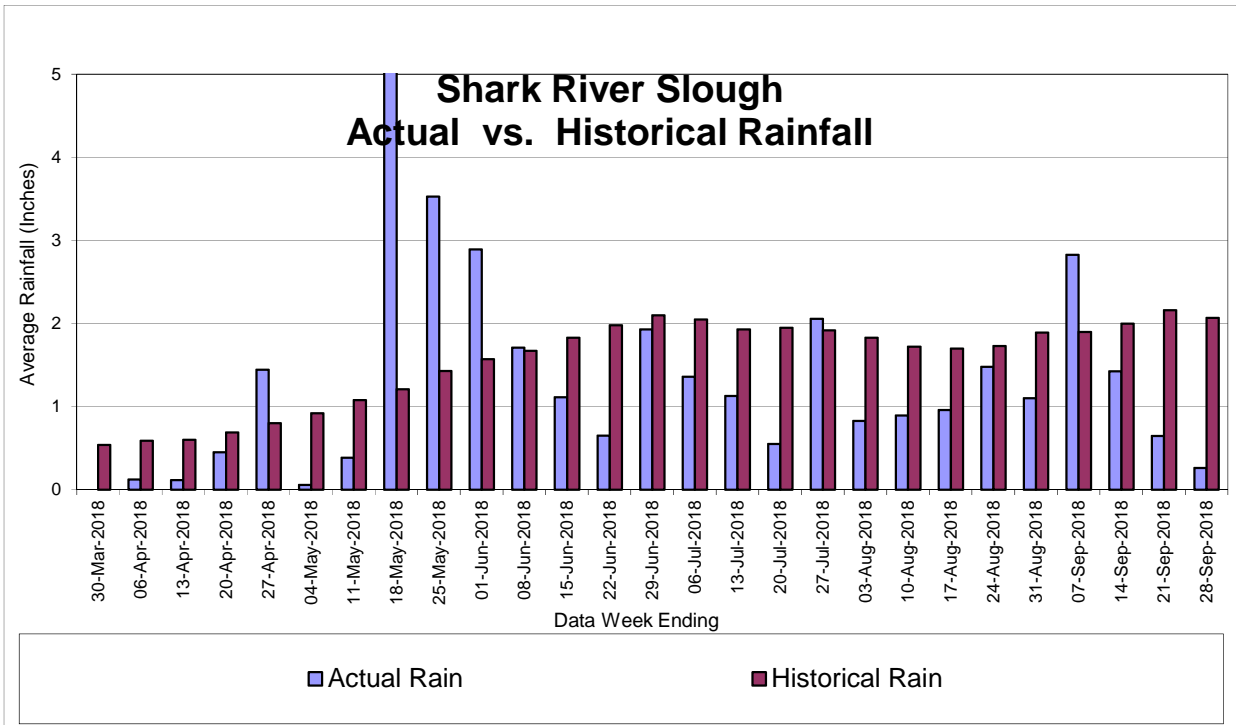
Adjusted WCA-3A is in Zone A	Discharge Coeff. (cfs/ft) =	MAX
Supplemental discharge is	MAX	cfs
Distance to Bottom of Current Zone		-0.30 feet
Distance to Top of Current Zone	N/A	feet

----Statistical Parameters ----

Rainfall Formula Amount		38 cfs
Last Week's Rainfall Formula		-69 cfs
Pre-project Mean Discharge		779 cfs
Rainfall Excess Terms		
RL1 -3.61	RL2 -1.62	RL3 -3.80

COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**



WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow **October 9, 2018** to **October 15, 2018** **MAX** cfs

The target flow is distributed from east to west (S-333, S-12D, S-12C, S-12B, and S-12A) to keep WCA 3A releases away from sub-population A of the Cape Sable seaside sparrow

----Data Summary ----	September 29, 2018	to	October 5, 2018
WCA-3A Stage (end of week)	10.36		ft-NGVD
Angel's	7.03		ft-NGVD
G-3273	7.50		ft-NGVD

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	0.29	1.71
S-140		1.39
ENP		M
This Week's Avg	0.29	1.55
Pre-Project Avg	1.88	1.21

----Transition Zone Information ----

WCA-3A is in Zone A	Discharge Coeff. (cfs/ft) =	MAX
Supplemental discharge is	MAX	cfs
Distance to Bottom of Current Zone		-0.03 feet
Distance to Top of Current Zone	N/A	feet

----Potential Supplemental Discharge Considering Upstream Water Levels----

	Stage (ft-NGVD)	Regulation Stage (ft-NGVD)	Excess Storage (ac-ft)	Depth (ft)
WCA-1	16.51	17.13	0	
WCA-2A	13.12	12.92	21,800	
Others			0	
Total Storage Adjustment			21,800	0.05
WCA-3A	10.36			
Adjusted WCA-3A	10.41			

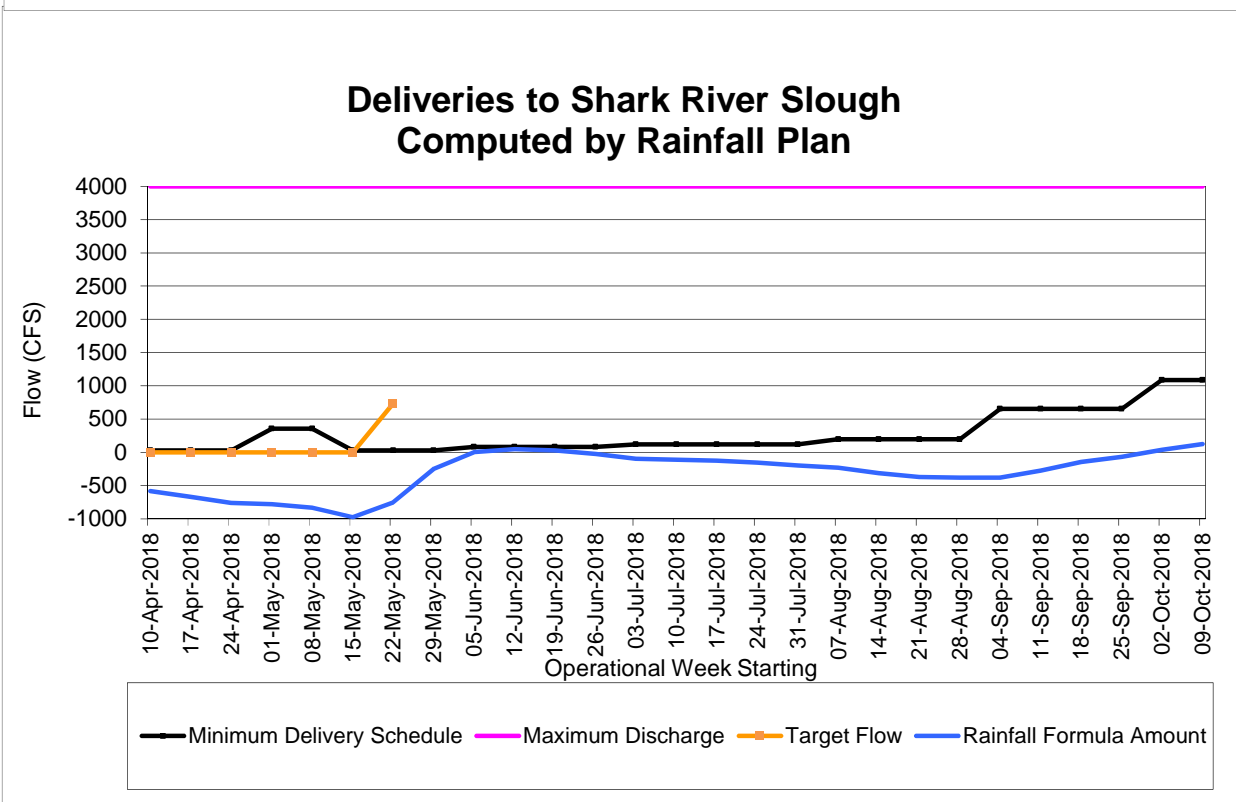
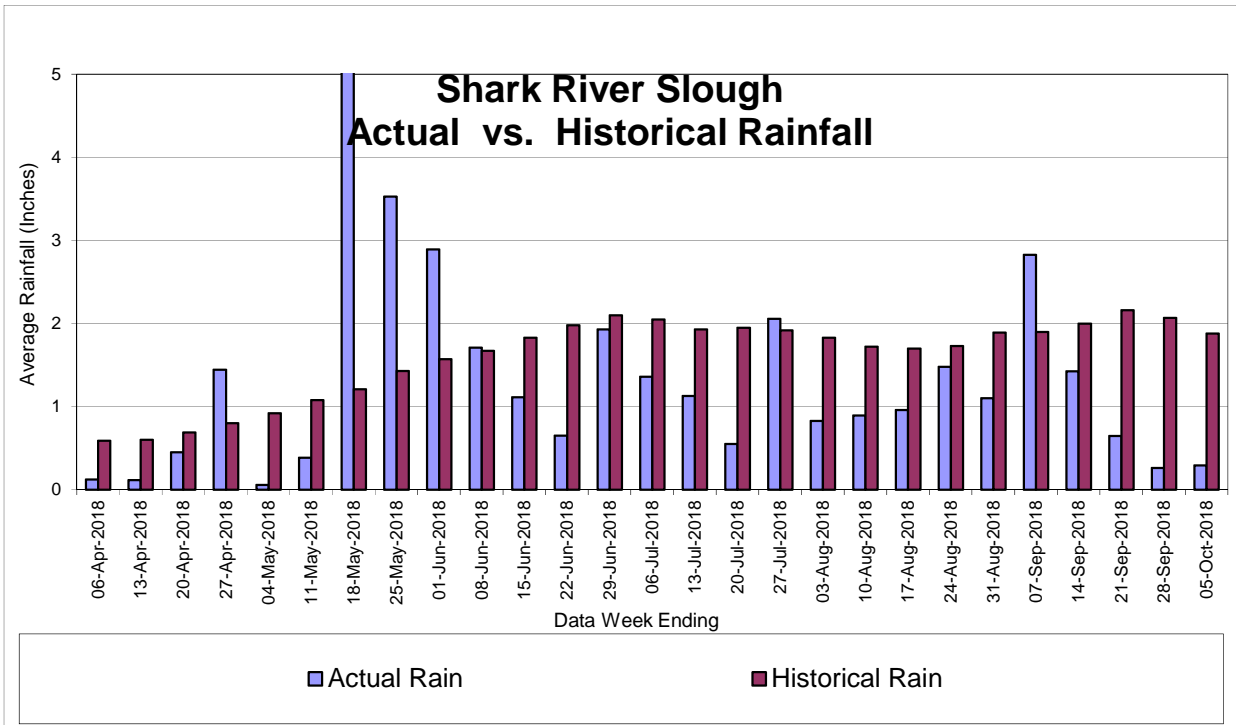
Adjusted WCA-3A is in Zone A	Discharge Coeff. (cfs/ft) =	MAX
Supplemental discharge is	MAX	cfs
Distance to Bottom of Current Zone		-0.08 feet
Distance to Top of Current Zone	N/A	feet

----Statistical Parameters ----

Rainfall Formula Amount		125 cfs
Last Week's Rainfall Formula		38 cfs
Pre-project Mean Discharge		995 cfs
Rainfall Excess Terms		
RL1 -3.80	RL2 -2.69	RL3 -4.16

COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**



WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow October 16, 2018

to October 22, 2018

2052 cfs

The target flow is distributed from east to west (S-333, S-12D, S-12C, S-12B, and S-12A) to keep WCA 3A releases away from sub-population A of the Cape Sable seaside sparrow

----Data Summary ----	October 6, 2018	to	October 12, 2018
WCA-3A Stage (end of week)	10.25		ft-NGVD
Angel's	6.87		ft-NGVD
G-3273	7.49		ft-NGVD

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	0.45	1.49
S-140		1.45
ENP		M
This Week's Avg	0.45	1.47
Pre-Project Avg	1.67	1.16

----Transition Zone Information ----

WCA-3A is in Zone D	Discharge Coeff. (cfs/ft) =	5000
Supplemental discharge is		1886 cfs
Distance to Bottom of Current Zone		-0.38 feet
Distance to Top of Current Zone		0.13 feet

----Potential Supplemental Discharge Considering Upstream Water Levels----

	Stage (ft-NGVD)	Regulation Stage (ft-NGVD)	Excess Storage (ac-ft)	Depth (ft)
WCA-1	16.55	17.21		0 5000
WCA-2A	13.22	12.81	43,600	
Others			0	
Total Storage Adjustment			43,600	0.10
WCA-3A	10.25			
Adjusted WCA-3A	10.35			

Adjusted WCA-3A is in Zone D	Discharge Coeff. (cfs/ft) =	MAX
Supplemental discharge is		2381 cfs
Distance to Bottom of Current Zone		-0.48 feet
Distance to Top of Current Zone		0.03 feet

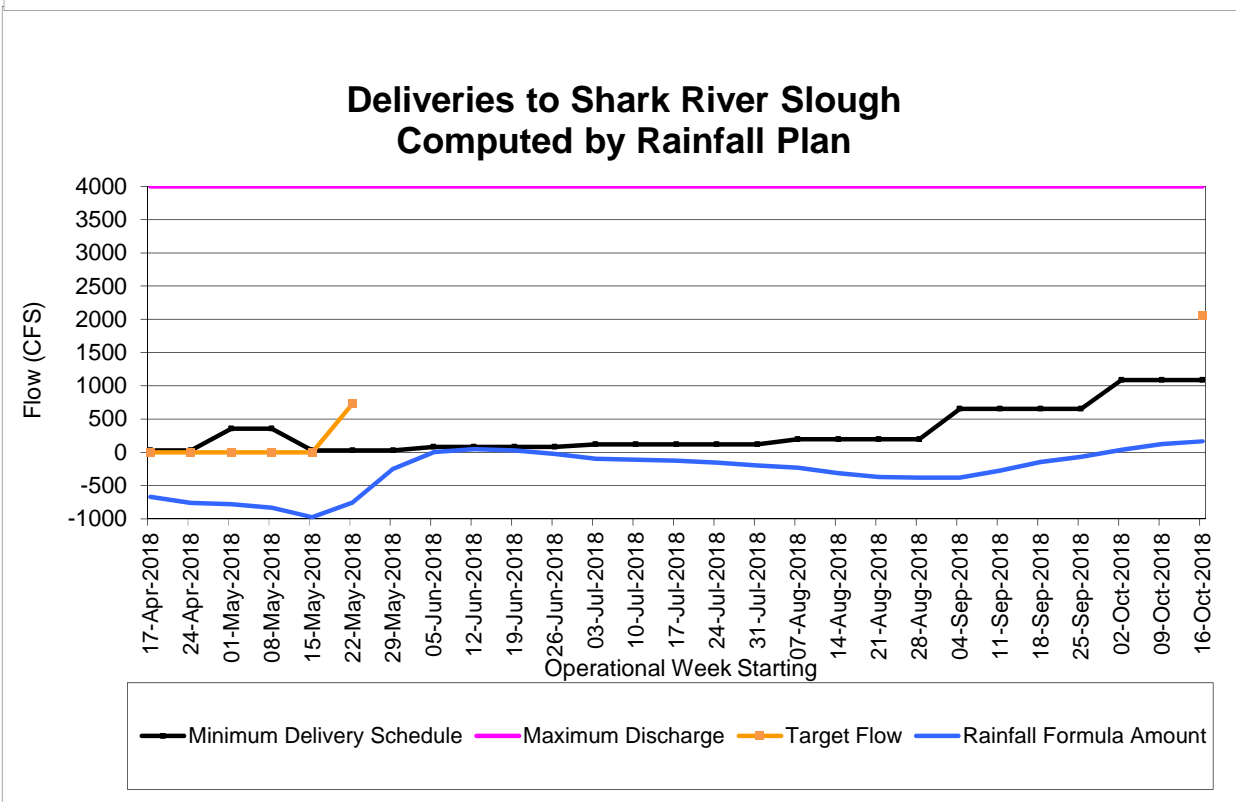
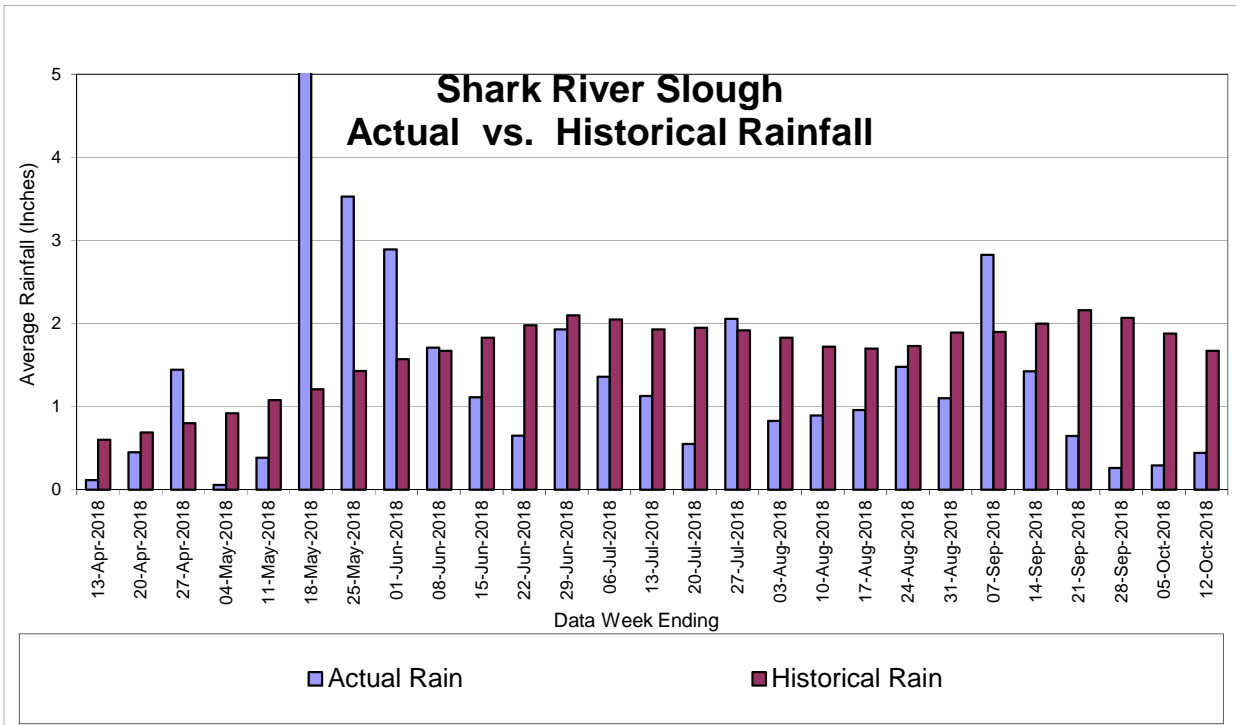
----Statistical Parameters ----

Rainfall Formula Amount	166 cfs
Last Week's Rainfall Formula	125 cfs
Pre-project Mean Discharge	1130 cfs

Rainfall Excess Terms	RL1 -3.33	RL2 -3.55	RL3	-3.94
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COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

*NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.



WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow **October 23, 2018**

to **October 29, 2018**

1009 cfs

The target flow is distributed from east to west (S-333, S-12D, S-12C, S-12B, and S-12A) to keep WCA 3A releases away from sub-population A of the Cape Sable seaside sparrow

----Data Summary ----	October 13, 2018	to	October 19, 2018
WCA-3A Stage (end of week)	10.08		ft-NGVD
Angel's	6.89		ft-NGVD
G-3273	7.47		ft-NGVD

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	0.03	1.48
S-140		1.33
ENP		M
This Week's Avg	0.03	1.40
Pre-Project Avg	1.38	1.12

----Transition Zone Information ----

WCA-3A is in Zone D	Discharge Coeff. (cfs/ft) =	5000
Supplemental discharge is		813 cfs
Distance to Bottom of Current Zone		-0.16 feet
Distance to Top of Current Zone		0.34 feet

----Potential Supplemental Discharge Considering Upstream Water Levels----

	Stage (ft-NGVD)	Regulation Stage (ft-NGVD)	Excess Storage (ac-ft)	Depth (ft)
WCA-1	16.51	17.25	0	
WCA-2A	13.14	12.69	48,900	
Others			0	
Total Storage Adjustment			48,900	0.11
WCA-3A	10.08			
Adjusted WCA-3A	10.19			

Adjusted WCA-3A is in Zone D	Discharge Coeff. (cfs/ft) =	5000
Supplemental discharge is		1369 cfs
Distance to Bottom of Current Zone		-0.27 feet
Distance to Top of Current Zone		0.23 feet

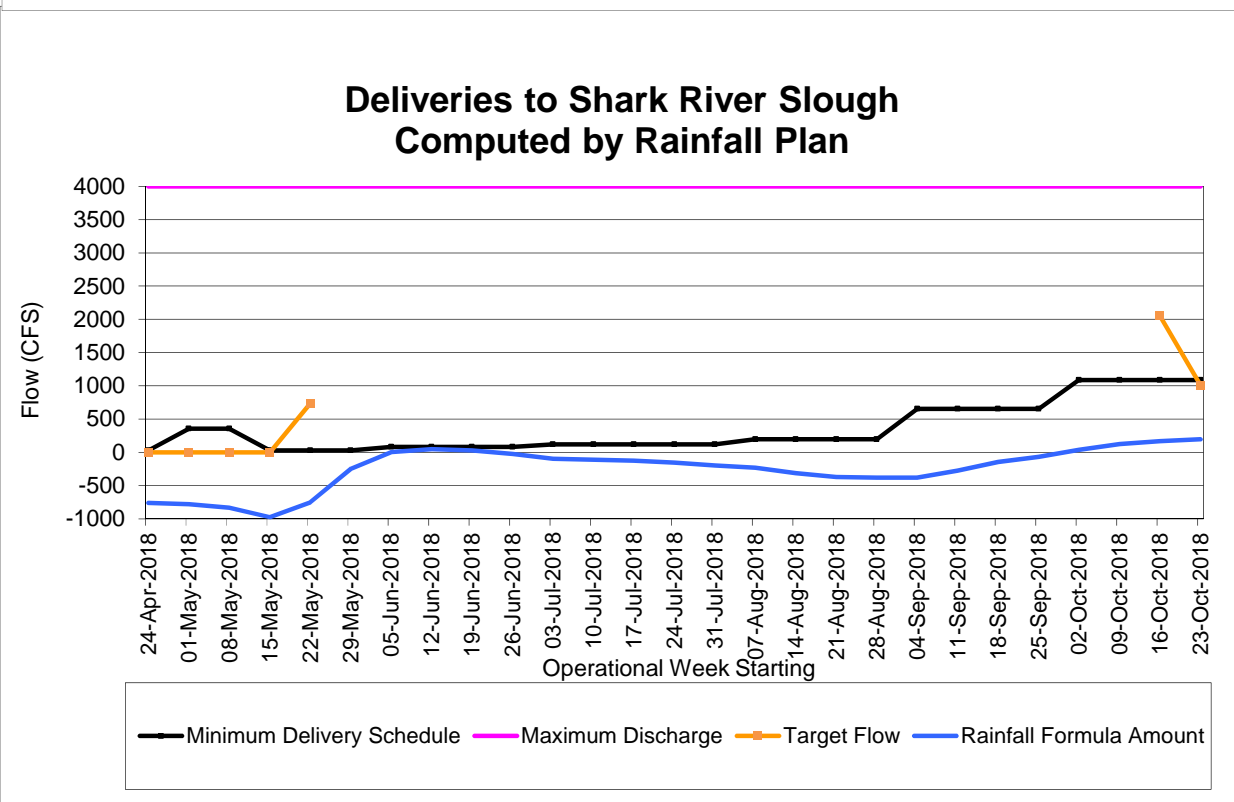
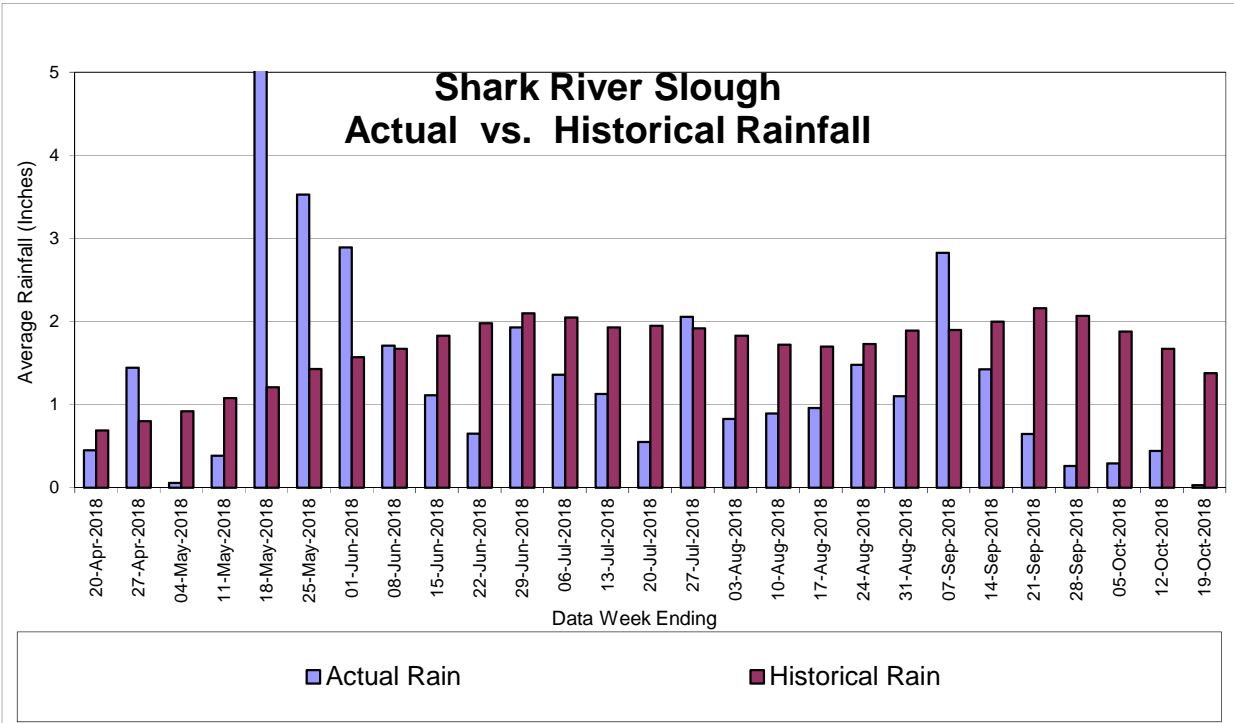
----Statistical Parameters ----

Rainfall Formula Amount	196 cfs
Last Week's Rainfall Formula	166 cfs
Pre-project Mean Discharge	1229 cfs

Rainfall Excess Terms	RL1 -3.05	RL2 -6.29	RL3 -1.90
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COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**



WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow October 30, 2018

to

November 5, 2018

127 cfs

The target flow is distributed from east to west (S-333, S-12D, S-12C, S-12B, and S-12A) to keep WCA 3A releases away from sub-population A of the Cape Sable seaside sparrow

----Data Summary ----	October 20, 2018	to	October 26, 2018
WCA-3A Stage (end of week)	9.94		ft-NGVD
Angel's	6.85		ft-NGVD
G-3273	7.43		ft-NGVD

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	0.07	1.51
S-140		1.37
ENP		M
This Week's Avg	0.07	1.44
Pre-Project Avg	1.19	1.06

----Transition Zone Information ----

WCA-3A is in Zone E	Discharge Coeff. (cfs/ft) =	2500
Regulatory discharge is		0 cfs
Distance to Bottom of Current Zone	N/A	feet
Distance to Top of Current Zone		0.02 feet

----Potential Supplemental Discharge Considering Upstream Water Levels----

	Stage (ft-NGVD)	Regulation Stage (ft-NGVD)	Excess Storage (ac-ft)	Depth (ft)
WCA-1	16.46	17.25		0
WCA-2A	13.05	12.58	54,100	
Others			0	
Total Storage Adjustment			54,100	0.11
WCA-3A	9.94			
Adjusted WCA-3A	10.05			

Adjusted WCA-3A is in Zone D	Discharge Coeff. (cfs/ft) =	5000
Potential regulatory discharge		419 cfs
Distance to Bottom of Current Zone		-0.08 feet
Distance to Top of Current Zone		0.42 feet

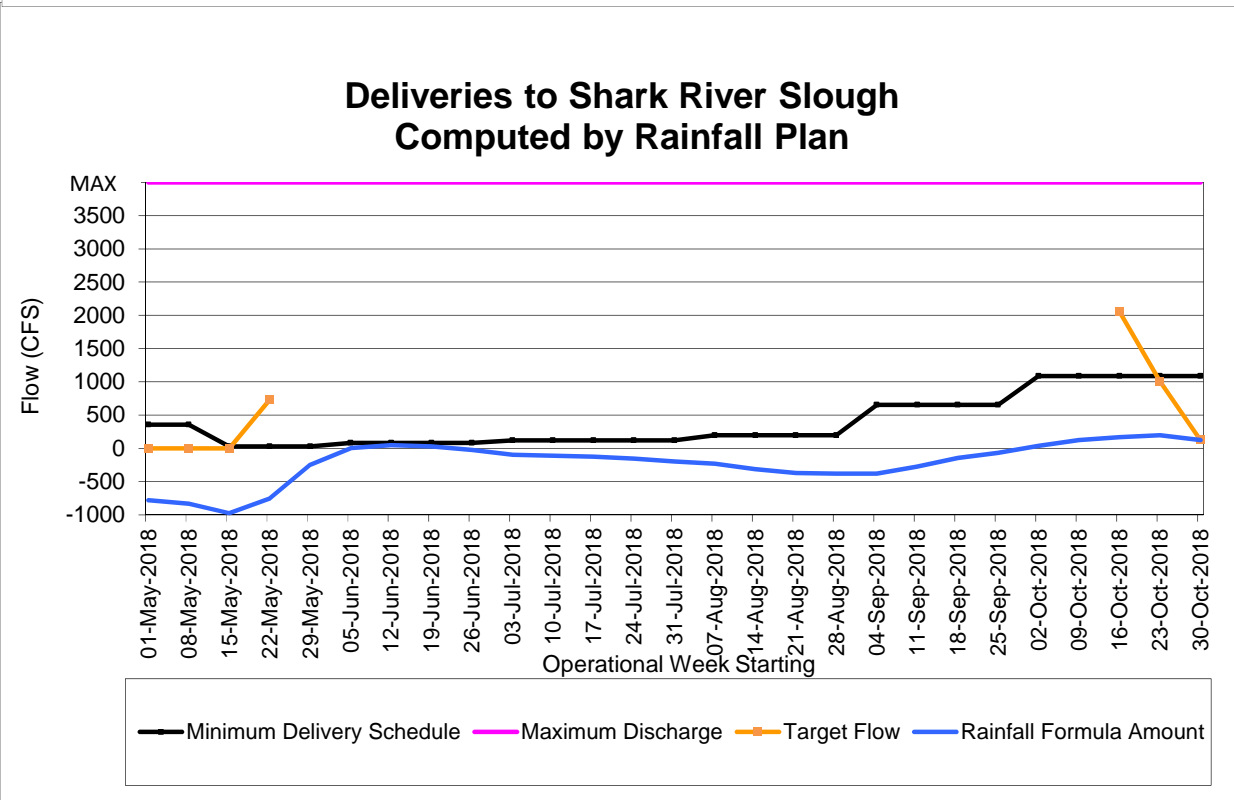
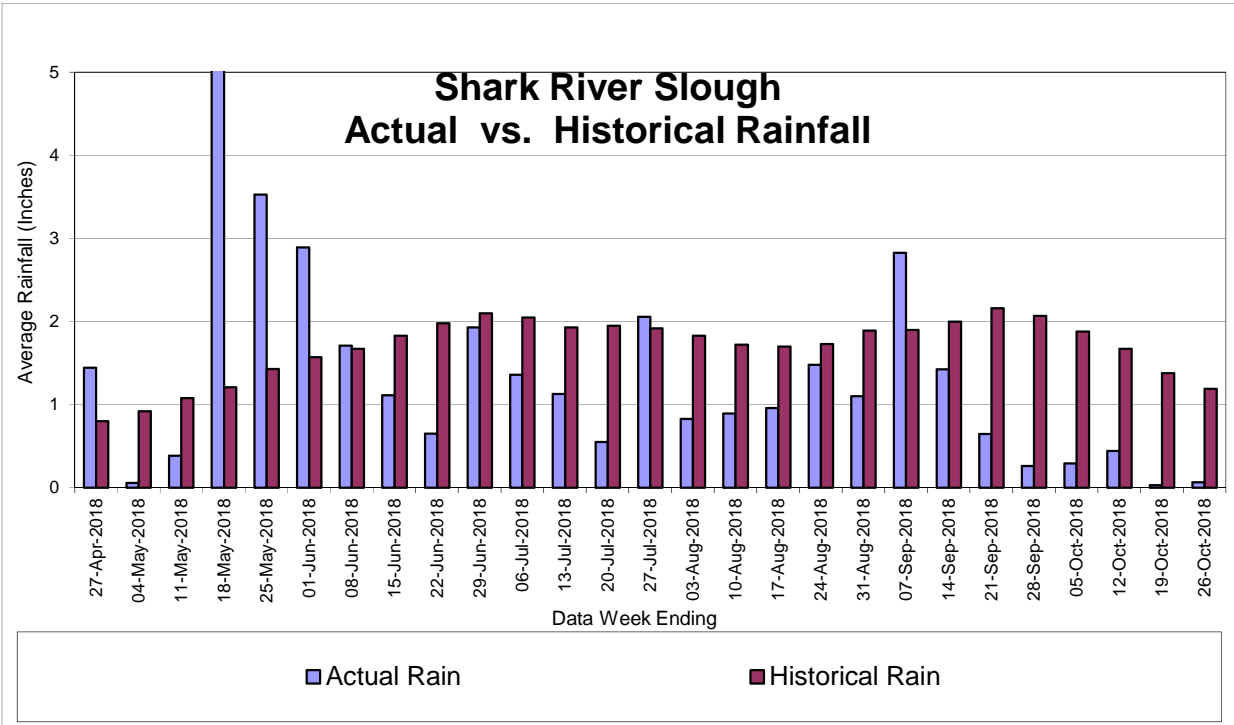
----Statistical Parameters ----

Rainfall Formula Amount	127 cfs
Last Week's Rainfall Formula	196 cfs
Pre-project Mean Discharge	1220 cfs

Rainfall Excess Terms	RL1 -3.00	RL2 -6.94	RL3	-1.62
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COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

*NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.



WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow November 6, 2018

to November 12, 2018

0 cfs

The target flow is distributed from east to west (S-333, S-12D, S-12C, S-12B, and S-12A) to keep WCA 3A releases away from sub-population A of the Cape Sable seaside sparrow

----Data Summary ----	October 27, 2018	to	November 2, 2018
WCA-3A Stage (end of week)	9.86		ft-NGVD
Angel's	6.67		ft-NGVD
G-3273	7.35		ft-NGVD

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	0.38	1.40
S-140		1.29
ENP		M
This Week's Avg	0.38	1.35
Pre-Project Avg	0.92	1.02

----Transition Zone Information ----

WCA-3A is in Zone E	Discharge Coeff. (cfs/ft) =	2500
Regulatory discharge is		0 cfs
Distance to Bottom of Current Zone	N/A	feet
Distance to Top of Current Zone		0.15 feet

----Potential Supplemental Discharge Considering Upstream Water Levels----

	Stage (ft-NGVD)	Regulation Stage (ft-NGVD)	Excess Storage (ac-ft)	Depth (ft)
WCA-1	16.39	17.25	0	
WCA-2A	12.95	12.46	53,250	
Others			0	
Total Storage Adjustment			53,250	0.10
WCA-3A	9.86			
Adjusted WCA-3A	9.96			

Adjusted WCA-3A is in Zone E	Discharge Coeff. (cfs/ft) =	2500
Potential regulatory discharge		0 cfs
Distance to Bottom of Current Zone		-0.08 feet
Distance to Top of Current Zone		0.04 feet

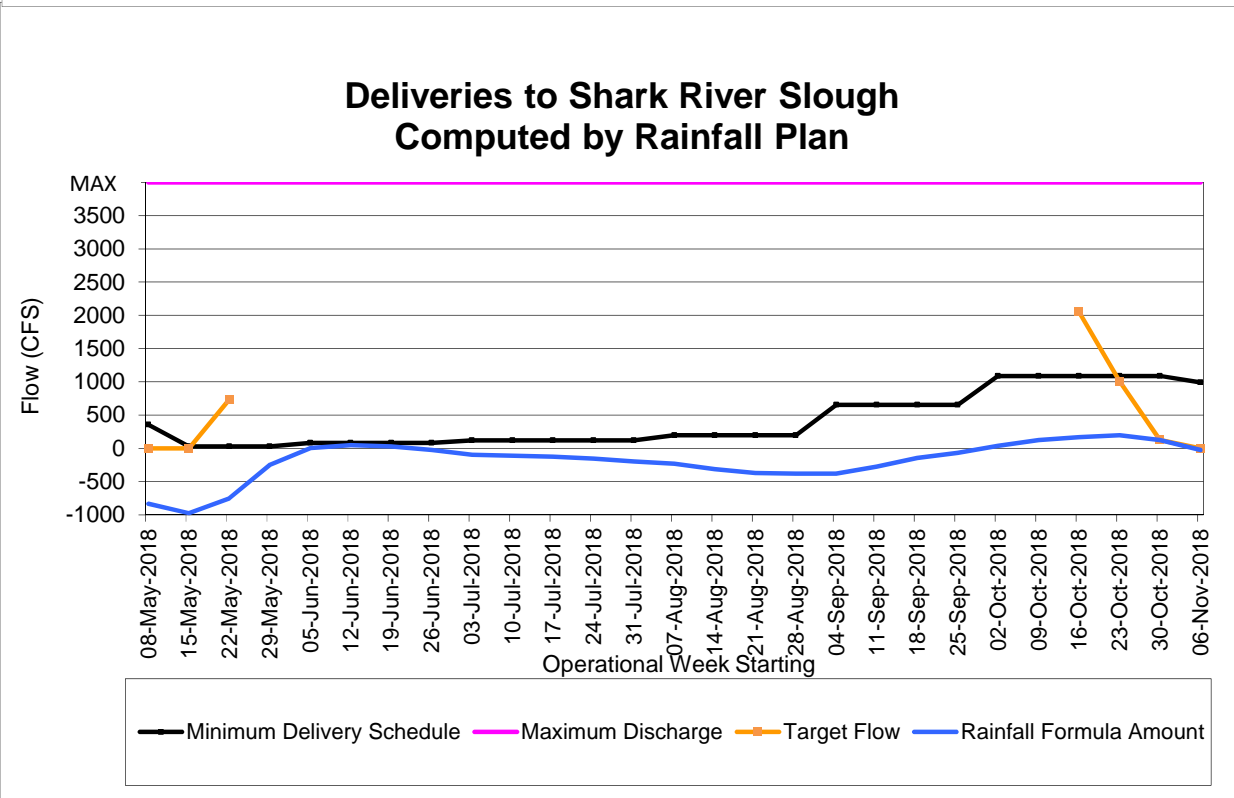
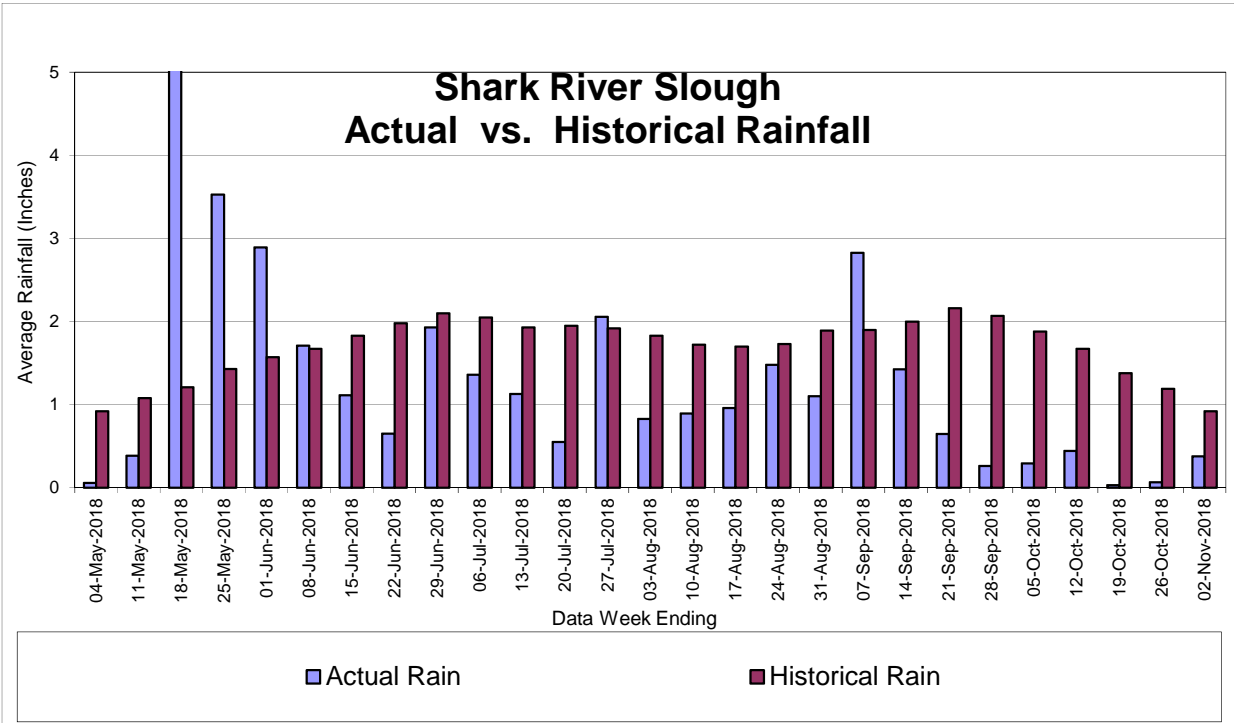
----Statistical Parameters ----

Rainfall Formula Amount	-23 cfs
Last Week's Rainfall Formula	127 cfs
Pre-project Mean Discharge	1084 cfs

Rainfall Excess Terms	RL1 -2.23	RL2 -6.85	RL3	-2.69
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COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**



WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow November 13, 2018 **to** **November 19, 2018** **0 cfs**

The target flow is distributed from east to west (S-333, S-12D, S-12C, S-12B, and S-12A) to keep WCA 3A releases away from sub-population A of the Cape Sable seaside sparrow

Rainfall Formula Amount 0 cfs
Regulatory Discharge 0 cfs
Potential Regulatory Discharge 0 cfs

-----Data Summary -----

	November 3, 2018	to	November 9, 2018
WCA-3A Stage (end of week)	9.83		ft-NGVD
Angel's	6.58		ft-NGVD
G-3273	7.21		ft-NGVD

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	0.05	1.19
S-140		1.19
ENP		M
This Week's Avg	0.05	1.19
Pre-Project Avg	0.56	0.97

----- Regulatory Discharge Calculation -----

WCA-3A is in Zone E	Discharge Coeff. (cfs/ft) =	2500
Regulatory discharge is		0 cfs
Distance to Bottom of Current Zone	N/A	feet
Distance to Top of Current Zone		0.22 feet

-----Potential Regulatory Discharge Considering Upstream Water Levels-----

	Stage (ft-NGVD)	Regulation Stage (ft-NGVD)	Excess Storage (ac-ft)	Depth (ft)
WCA-1	16.41	17.25	0	
WCA-2A	12.96	12.35	62,750	
Others			0	
Total Storage Adjustment			62,750	0.12
WCA-3A	9.83			
Adjusted WCA-3A	9.95			

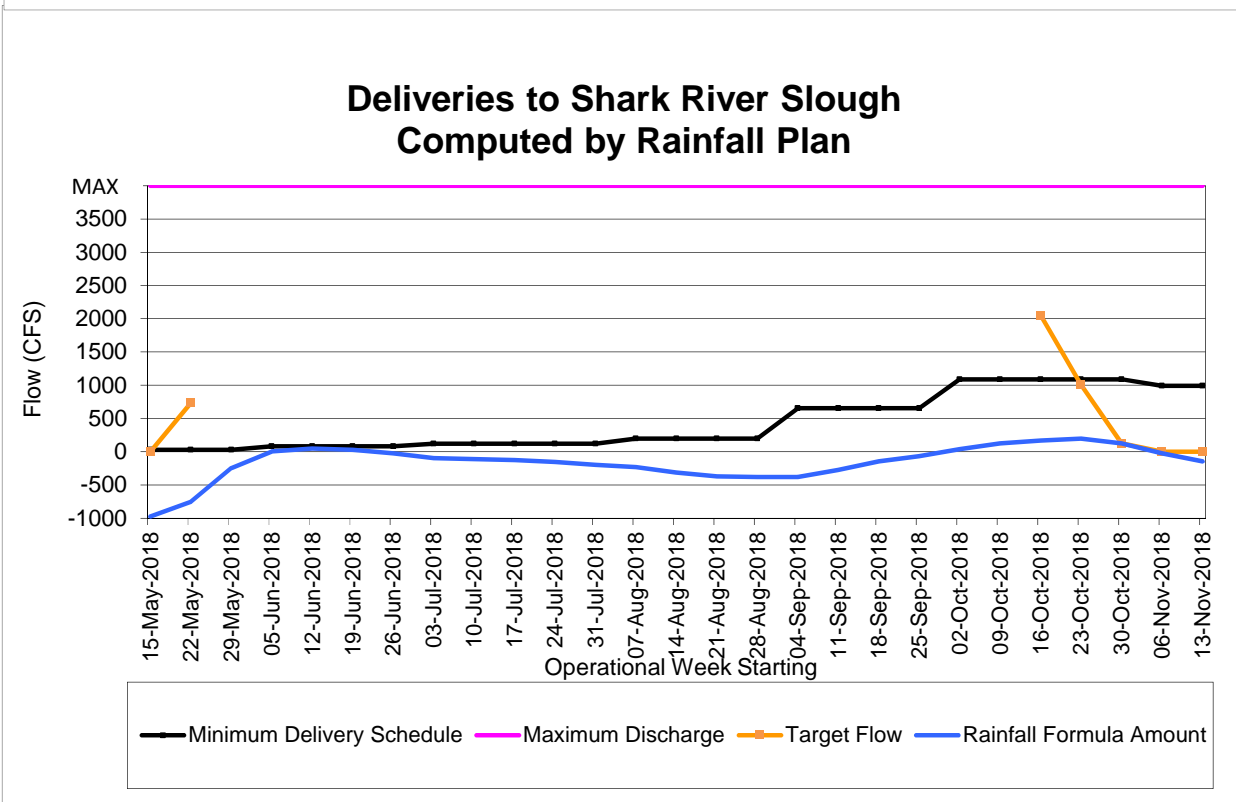
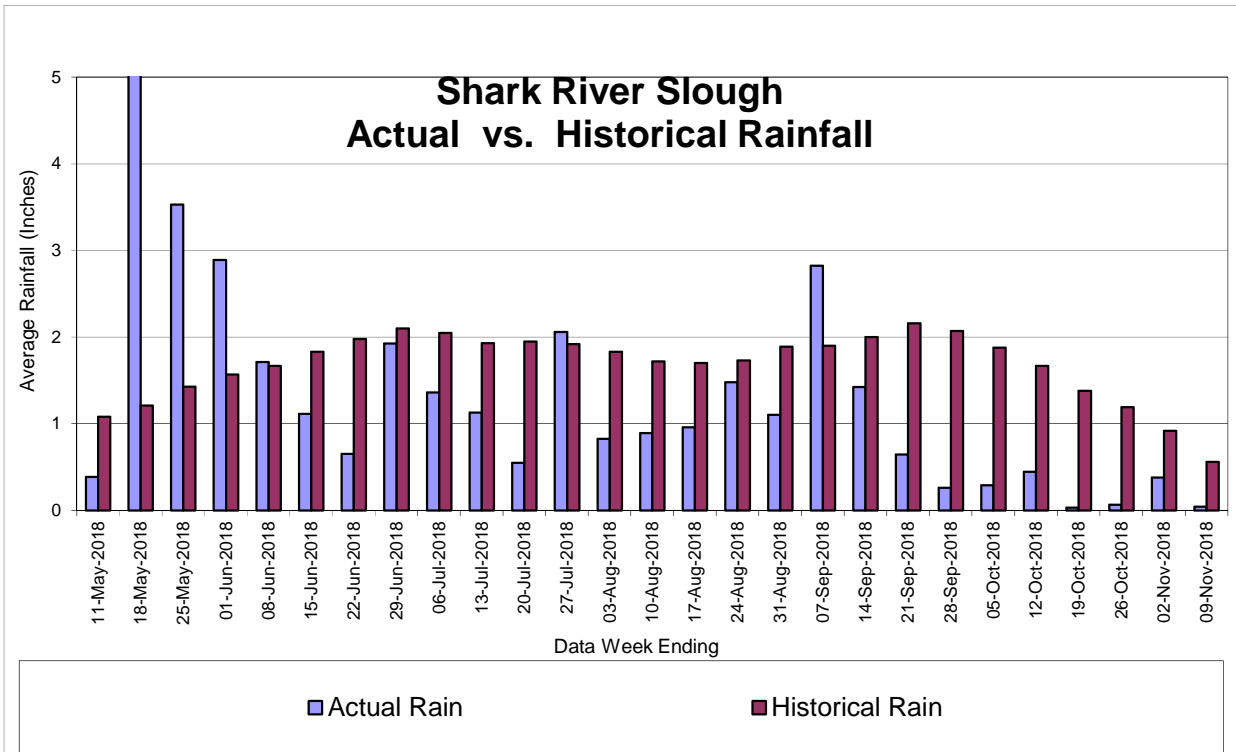
Adjusted WCA-3A is in Zone E	Discharge Coeff. (cfs/ft) =	2500
Potential regulatory discharge		0 cfs
Distance to Bottom of Current Zone		-0.08 feet
Distance to Top of Current Zone		0.10 feet

-----Statistical Parameters -----

Rainfall Formula Amount		-146 cfs
Last Week's Rainfall Formula		-23 cfs
Pre-project Mean Discharge		937 cfs
Rainfall Excess Terms	RL1 -1.50	RL2 -6.33
		RL3 -3.55

COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**



WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow November 20, 2018 to **November 26, 2018** **0 cfs**

The target flow is distributed from east to west (S-333, S-12D, S-12C, S-12B, and S-12A) to keep WCA 3A releases away from sub-population A of the Cape Sable seaside sparrow

Rainfall Formula Amount 0 cfs
Regulatory Discharge 0 cfs
Potential Regulatory Discharge 0 cfs

-----Data Summary -----

	November 10, 2018	to	November 16, 2018
WCA-3A Stage (end of week)	9.76		ft-NGVD
Angel's	6.42		ft-NGVD
G-3273	7.03		ft-NGVD

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	0.42	1.26
S-140		1.14
ENP		M
This Week's Avg	0.42	1.20
Pre-Project Avg	0.40	0.91

----- Regulatory Discharge Calculation -----

WCA-3A is in Zone E	Discharge Coeff. (cfs/ft) =	2500
Regulatory discharge is		0 cfs
Distance to Bottom of Current Zone	N/A	feet
Distance to Top of Current Zone		0.34 feet

-----Potential Regulatory Discharge Considering Upstream Water Levels-----

	Stage (ft-NGVD)	Regulation Stage (ft-NGVD)	Excess Storage (ac-ft)	Depth (ft)
WCA-1	16.42	17.25	0	
WCA-2A	12.90	12.24	71,100	
Others			0	
Total Storage Adjustment			71,100	0.16
WCA-3A	9.76			
Adjusted WCA-3A	9.92			

Adjusted WCA-3A is in Zone E	Discharge Coeff. (cfs/ft) =	2500
Potential regulatory discharge		0 cfs
Distance to Bottom of Current Zone		-0.08 feet
Distance to Top of Current Zone		0.18 feet

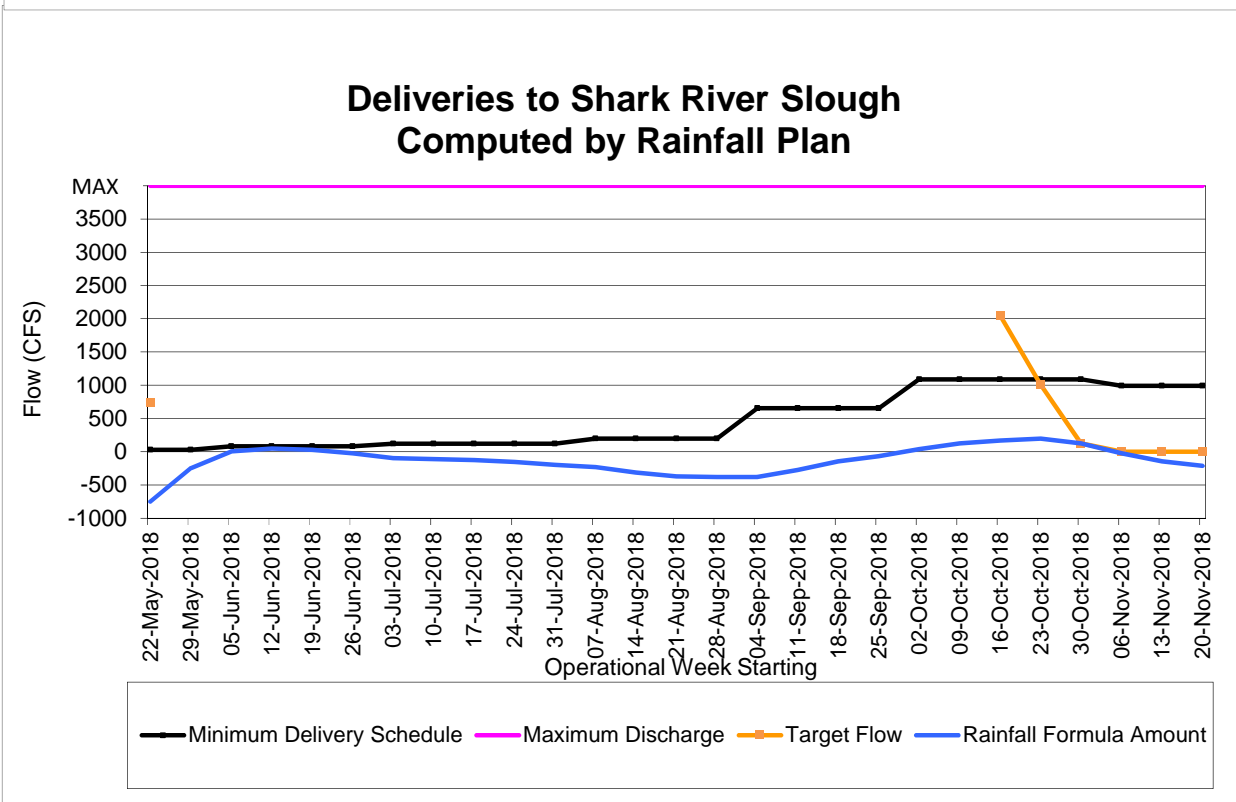
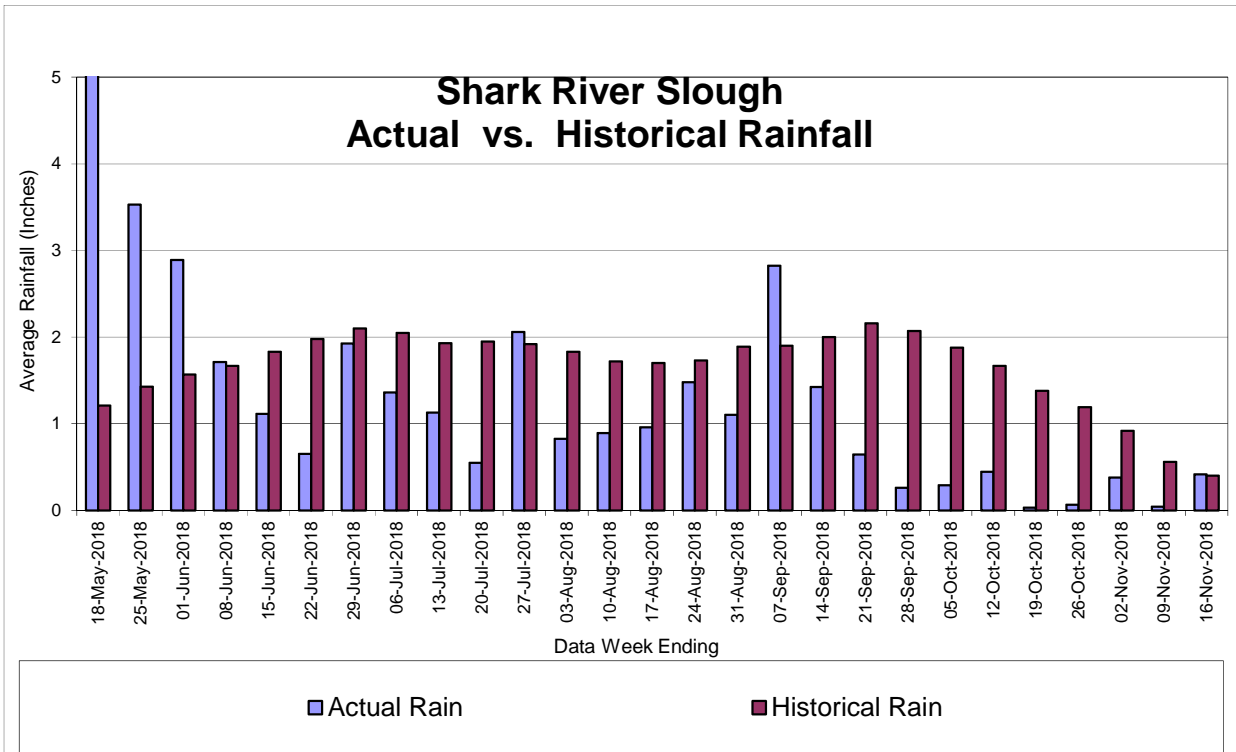
-----Statistical Parameters -----

Rainfall Formula Amount	-210 cfs
Last Week's Rainfall Formula	-146 cfs
Pre-project Mean Discharge	820 cfs

Rainfall Excess Terms	RL1 -0.91	RL2 -5.28	RL3	-6.29
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COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**



WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow November 27, 2018 **to** **December 3, 2018** **0 cfs**

The target flow is distributed from east to west (S-333, S-12D, S-12C, S-12B, and S-12A) to keep WCA 3A releases away from sub-population A of the Cape Sable seaside sparrow

Rainfall Formula Amount 0 cfs
Regulatory Discharge 0 cfs
Potential Regulatory Discharge 0 cfs

-----Data Summary -----

	November 17, 2018	to	November 23, 2018
WCA-3A Stage (end of week)	9.73		ft-NGVD
Angel's	6.07		ft-NGVD
G-3273	6.85		ft-NGVD

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	0.33	1.26
S-140		0.97
ENP		M
This Week's Avg	0.33	1.12
Pre-Project Avg	0.32	0.87

----- Regulatory Discharge Calculation -----

WCA-3A is in Zone E	Discharge Coeff. (cfs/ft) =	2500
Regulatory discharge is		0 cfs
Distance to Bottom of Current Zone	N/A	feet
Distance to Top of Current Zone		0.41 feet

-----Potential Regulatory Discharge Considering Upstream Water Levels-----

	Stage (ft-NGVD)	Regulation Stage (ft-NGVD)	Excess Storage (ac-ft)	Depth (ft)
WCA-1	16.38	17.25	0	
WCA-2A	12.75	12.12	58,000	
Others			0	
Total Storage Adjustment			58,000	0.13
WCA-3A	9.73			
Adjusted WCA-3A	9.86			

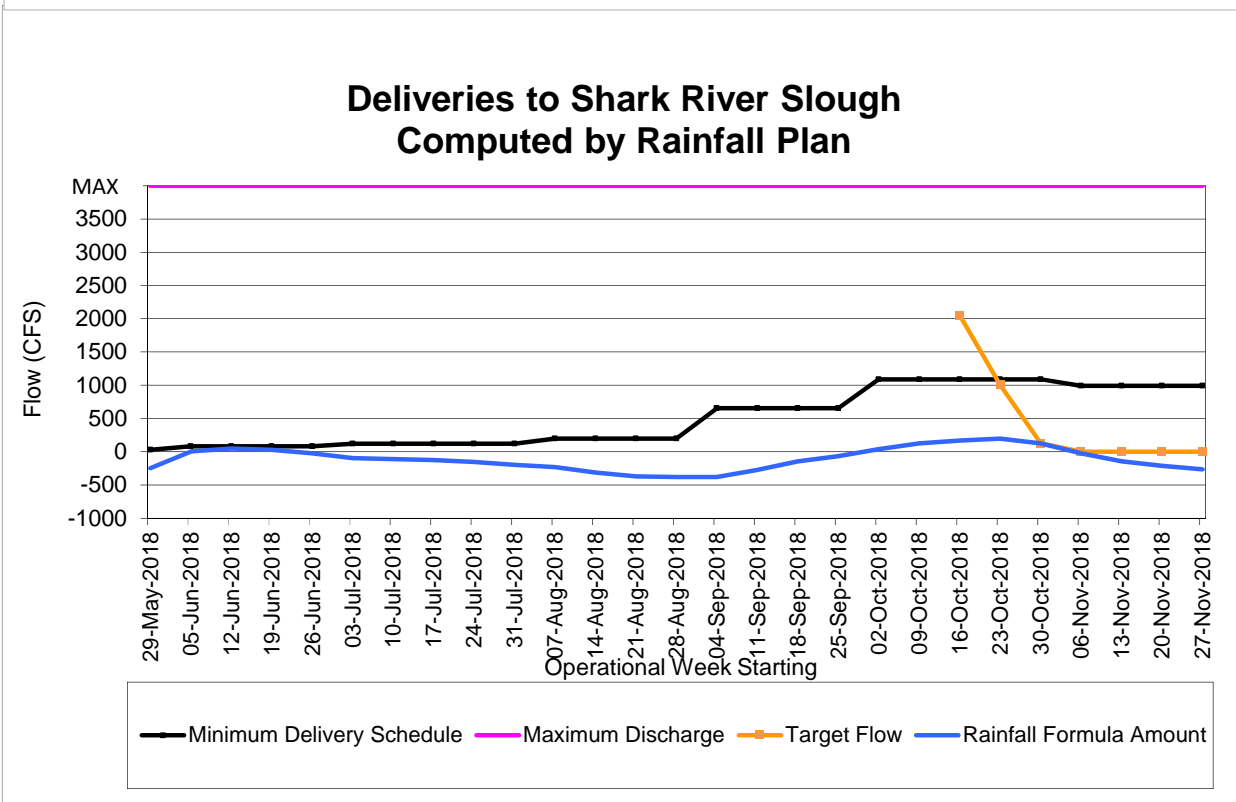
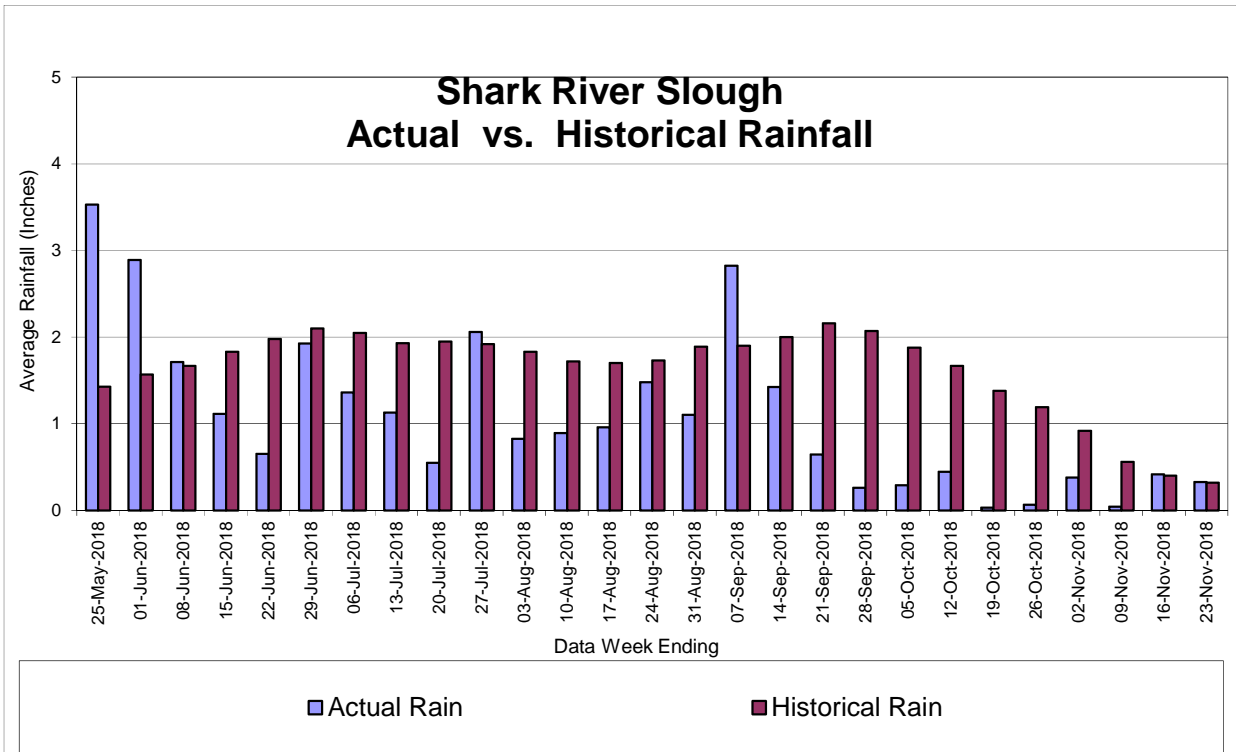
Adjusted WCA-3A is in Zone E	Discharge Coeff. (cfs/ft) =	2500
Potential regulatory discharge		0 cfs
Distance to Bottom of Current Zone		-0.08 feet
Distance to Top of Current Zone		0.28 feet

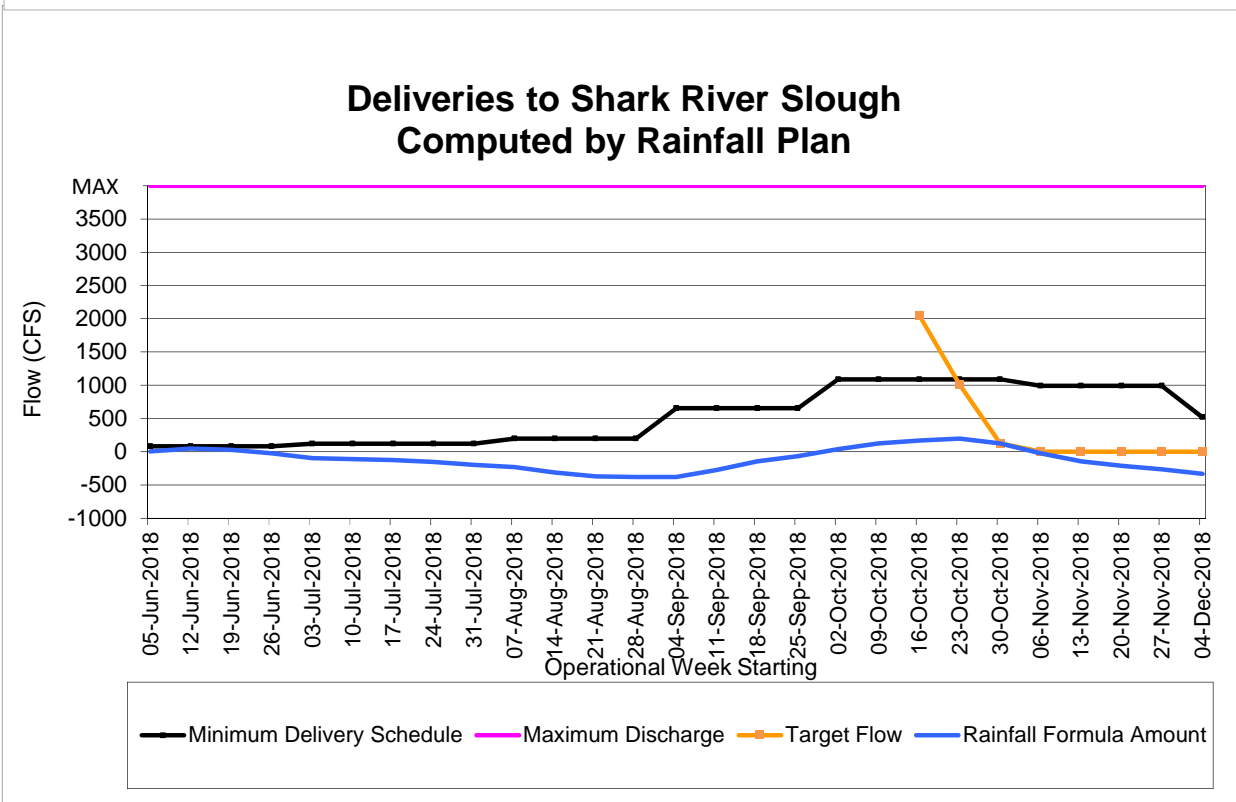
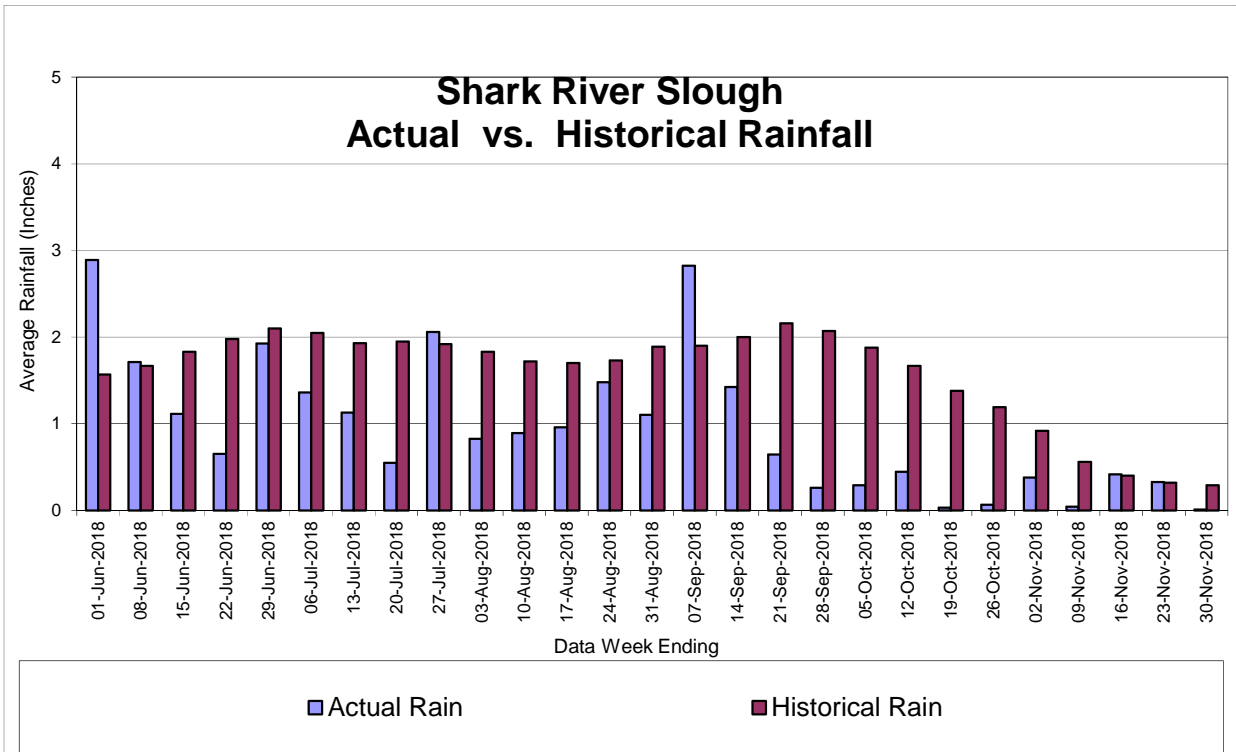
-----Statistical Parameters -----

Rainfall Formula Amount		-266 cfs	
Last Week's Rainfall Formula		-210 cfs	
Pre-project Mean Discharge		689 cfs	
Rainfall Excess Terms	RL1 -0.41	RL2 -4.50	RL3 -6.94

COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**





WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow December 11, 2018 to **December 17, 2018** **0 cfs**

The target flow is distributed from east to west (S-333, S-12D, S-12C, S-12B, and S-12A) to keep WCA 3A releases away from sub-population A of the Cape Sable seaside sparrow

Rainfall Formula Amount 0 cfs
Regulatory Discharge 0 cfs
Potential Regulatory Discharge 0 cfs

-----Data Summary -----

	December 1, 2018	to	December 7, 2018
WCA-3A Stage (end of week)	9.58		ft-NGVD
Angel's	5.64		ft-NGVD
G-3273	6.48		ft-NGVD

Station	Rainfall (in)	Pan Evaporation (in)
NEXRAD Rain for WCA-3A and S7 evaporation	0.16	1.12
S-140		0.86
ENP		M
This Week's Avg	0.16	0.99
Pre-Project Avg	0.27	0.80

----- Regulatory Discharge Calculation -----

WCA-3A is in Zone E	Discharge Coeff. (cfs/ft) =	2500
Regulatory discharge is		0 cfs
Distance to Bottom of Current Zone	N/A	feet
Distance to Top of Current Zone		0.65 feet

-----Potential Regulatory Discharge Considering Upstream Water Levels-----

	Stage (ft-NGVD)	Regulation Stage (ft-NGVD)	Excess Storage (ac-ft)	Depth (ft)
WCA-1	16.28	17.21	0	
WCA-2A	12.49	11.89	52,450	
Others			0	
Total Storage Adjustment			52,450	0.12
WCA-3A	9.58			
Adjusted WCA-3A	9.70			

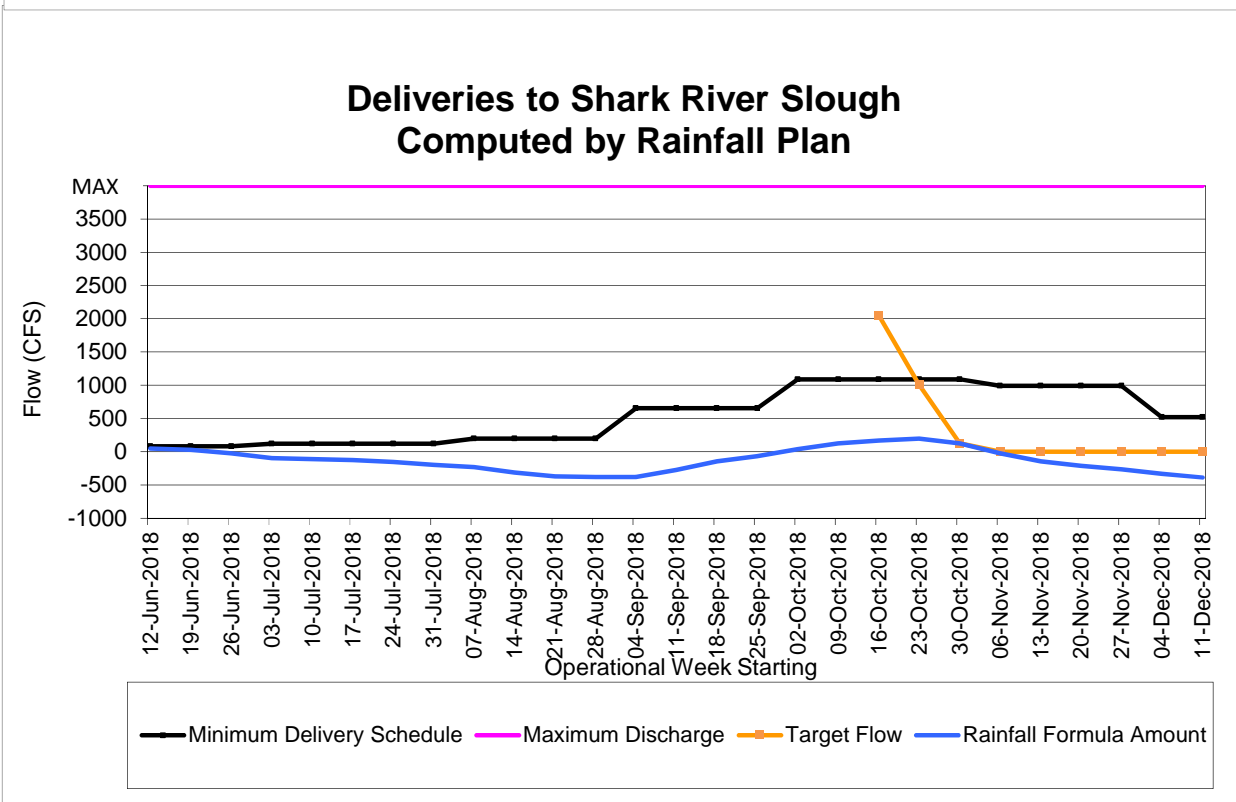
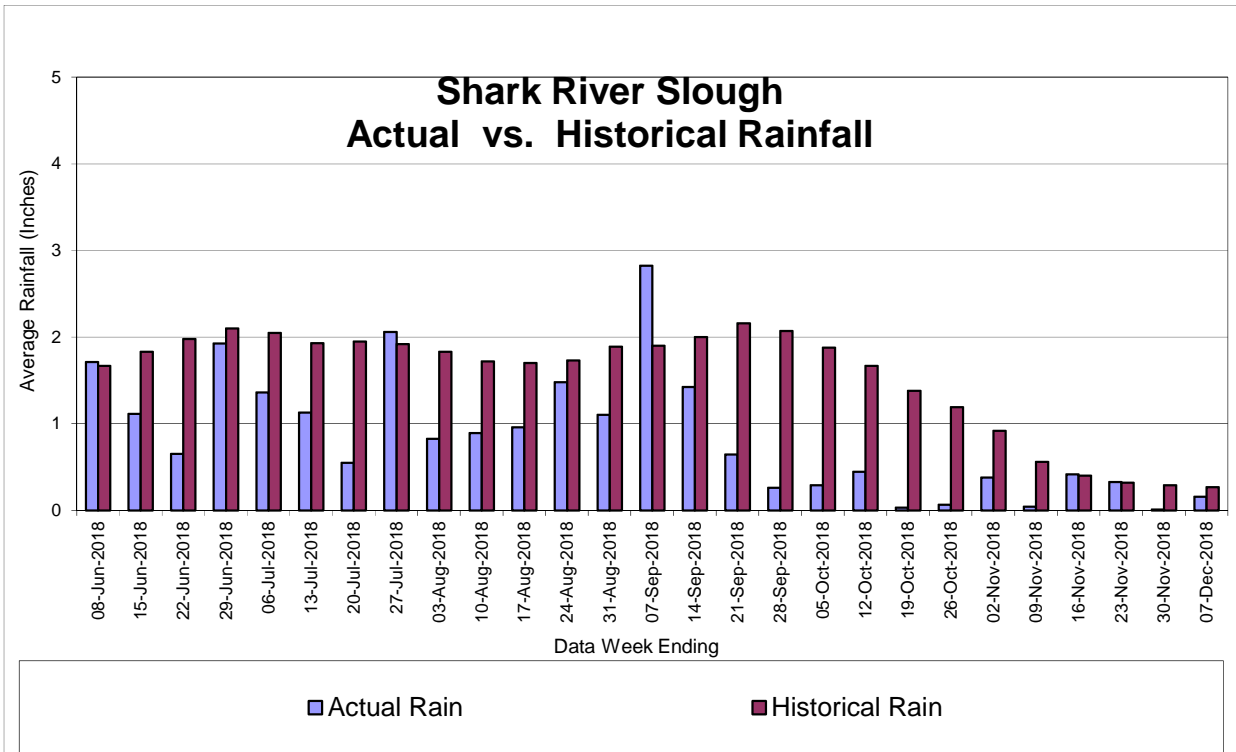
Adjusted WCA-3A is in Zone E	Discharge Coeff. (cfs/ft) =	2500
Potential regulatory discharge		0 cfs
Distance to Bottom of Current Zone		-0.08 feet
Distance to Top of Current Zone		0.53 feet

-----Statistical Parameters -----

Rainfall Formula Amount		-387 cfs
Last Week's Rainfall Formula		-331 cfs
Pre-project Mean Discharge		462 cfs
Rainfall Excess Terms		
RL1 -0.67	RL2 -1.90	RL3 -6.33

COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**



WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow December 18, 2018 to **December 24, 2018** **0 cfs**

The target flow is distributed from east to west (S-333, S-12D, S-12C, S-12B, and S-12A) to keep WCA 3A releases away from sub-population A of the Cape Sable seaside sparrow

Rainfall Formula Amount 0 cfs
Regulatory Discharge 0 cfs
Potential Regulatory Discharge 0 cfs

-----Data Summary -----

	December 8, 2018	to	December 14, 2018
WCA-3A Stage (end of week)	9.51		ft-NGVD
Angel's	5.42		ft-NGVD
G-3273	6.27		ft-NGVD

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	0.04	0.85
S-140		0.85
ENP		M
This Week's Avg	0.04	0.85
Pre-Project Avg	0.24	0.78

----- Regulatory Discharge Calculation -----

WCA-3A is in Zone E	Discharge Coeff. (cfs/ft) =	2500
Regulatory discharge is		0 cfs
Distance to Bottom of Current Zone	N/A	feet
Distance to Top of Current Zone		0.74 feet

-----Potential Regulatory Discharge Considering Upstream Water Levels-----

	Stage (ft-NGVD)	Regulation Stage (ft-NGVD)	Excess Storage (ac-ft)	Depth (ft)
WCA-1	16.23	17.18	0	
WCA-2A	12.31	11.78	46,000	
Others			0	
Total Storage Adjustment			46,000	0.11
WCA-3A	9.51			
Adjusted WCA-3A	9.62			

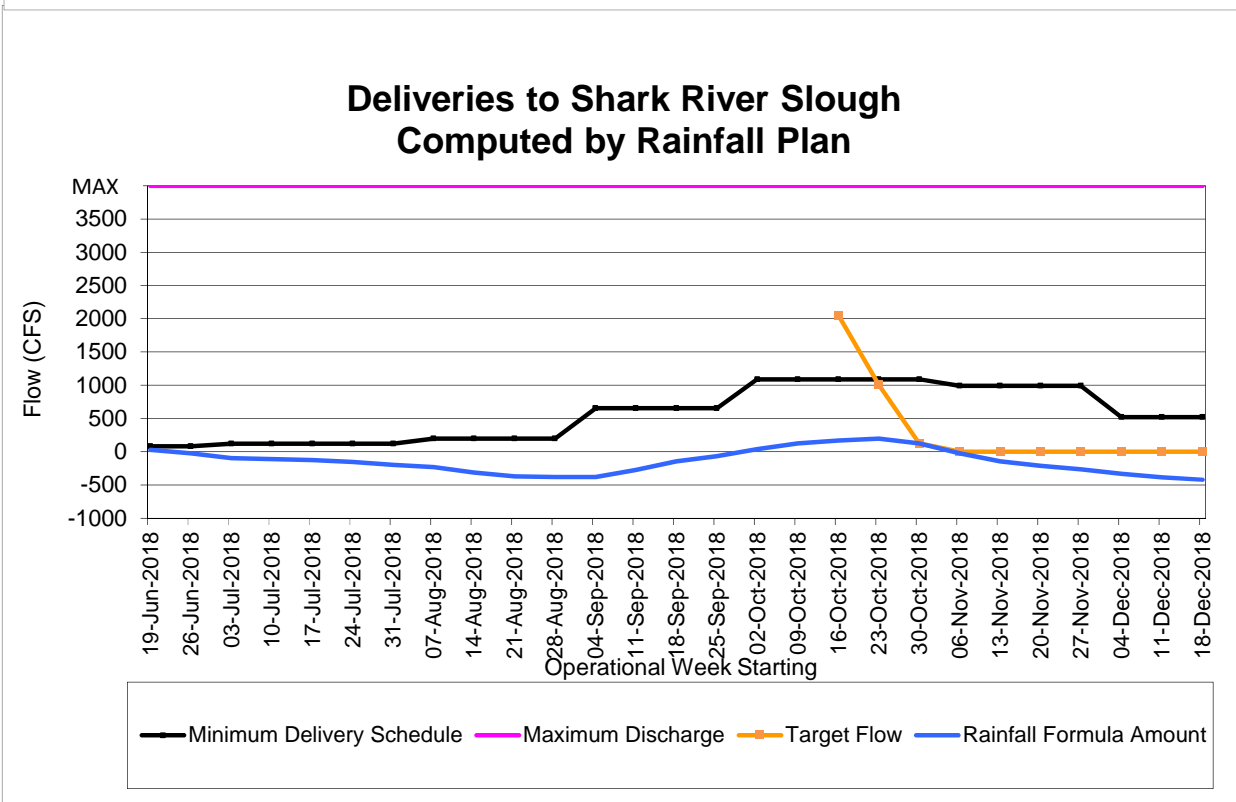
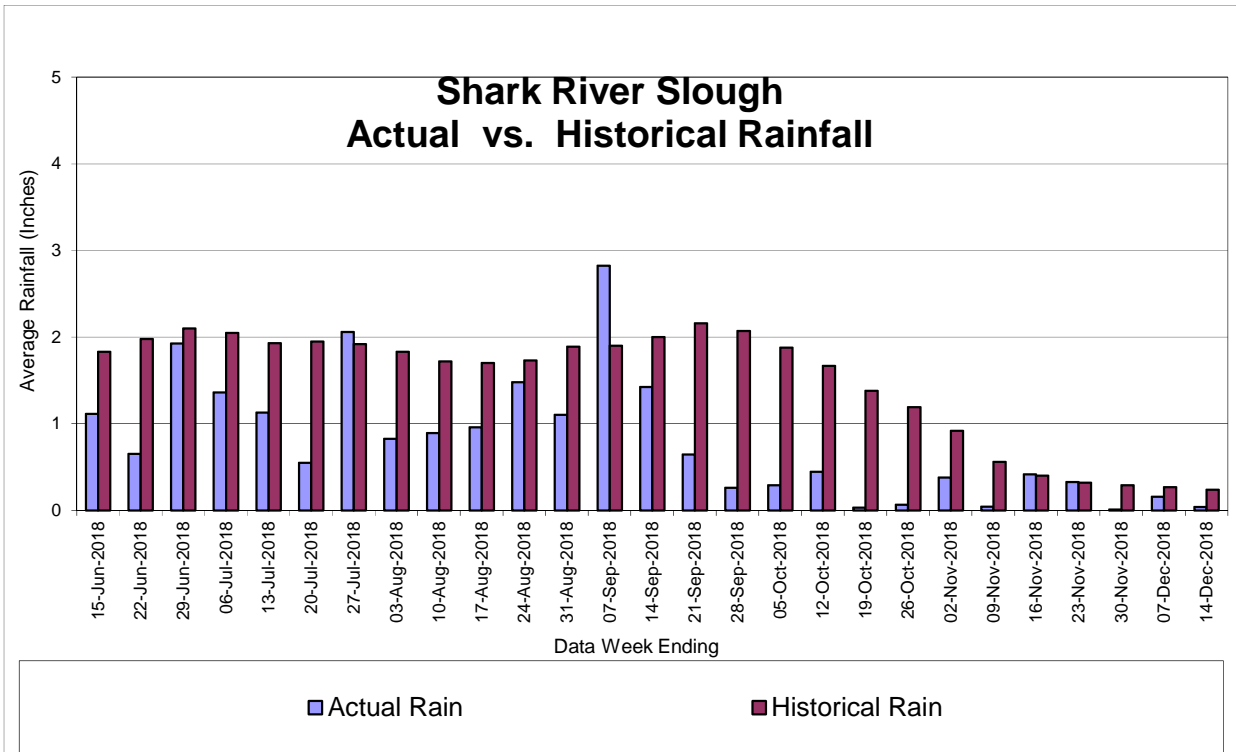
Adjusted WCA-3A is in Zone E	Discharge Coeff. (cfs/ft) =	2500
Potential regulatory discharge		0 cfs
Distance to Bottom of Current Zone		-0.08 feet
Distance to Top of Current Zone		0.63 feet

-----Statistical Parameters -----

Rainfall Formula Amount		-421 cfs
Last Week's Rainfall Formula		-387 cfs
Pre-project Mean Discharge		376 cfs
Rainfall Excess Terms		
RL1 -0.52	RL2 -1.51	RL3 -5.28

COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**



WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow December 25, 2018 to December 31, 2018 **0 cfs**

The target flow is distributed from east to west (S-333, S-12D, S-12C, S-12B, and S-12A) to keep WCA 3A releases away from sub-population A of the Cape Sable seaside sparrow

Rainfall Formula Amount 0 cfs
Regulatory Discharge 0 cfs
Potential Regulatory Discharge 0 cfs

-----Data Summary -----

	December 15, 2018	to	December 21, 2018
WCA-3A Stage (end of week)	9.54		ft-NGVD
Angel's	5.90		ft-NGVD
G-3273	6.44		ft-NGVD

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	1.04	0.91
S-140		0.83
ENP		M
This Week's Avg	1.04	0.87
Pre-Project Avg	0.24	0.76

----- Regulatory Discharge Calculation -----

WCA-3A is in Zone E	Discharge Coeff. (cfs/ft) =	2500
Regulatory discharge is		0 cfs
Distance to Bottom of Current Zone	N/A	feet
Distance to Top of Current Zone		0.71 feet

-----Potential Regulatory Discharge Considering Upstream Water Levels-----

	Stage (ft-NGVD)	Regulation Stage (ft-NGVD)	Excess Storage (ac-ft)	Depth (ft)
WCA-1	16.27	17.14	0	
WCA-2A	12.18	11.67	39,190	
Others			0	
Total Storage Adjustment			39,190	0.10
WCA-3A	9.54			
Adjusted WCA-3A	9.64			

Adjusted WCA-3A is in Zone E	Discharge Coeff. (cfs/ft) =	2500
Potential regulatory discharge		0 cfs
Distance to Bottom of Current Zone		-0.08 feet
Distance to Top of Current Zone		0.61 feet

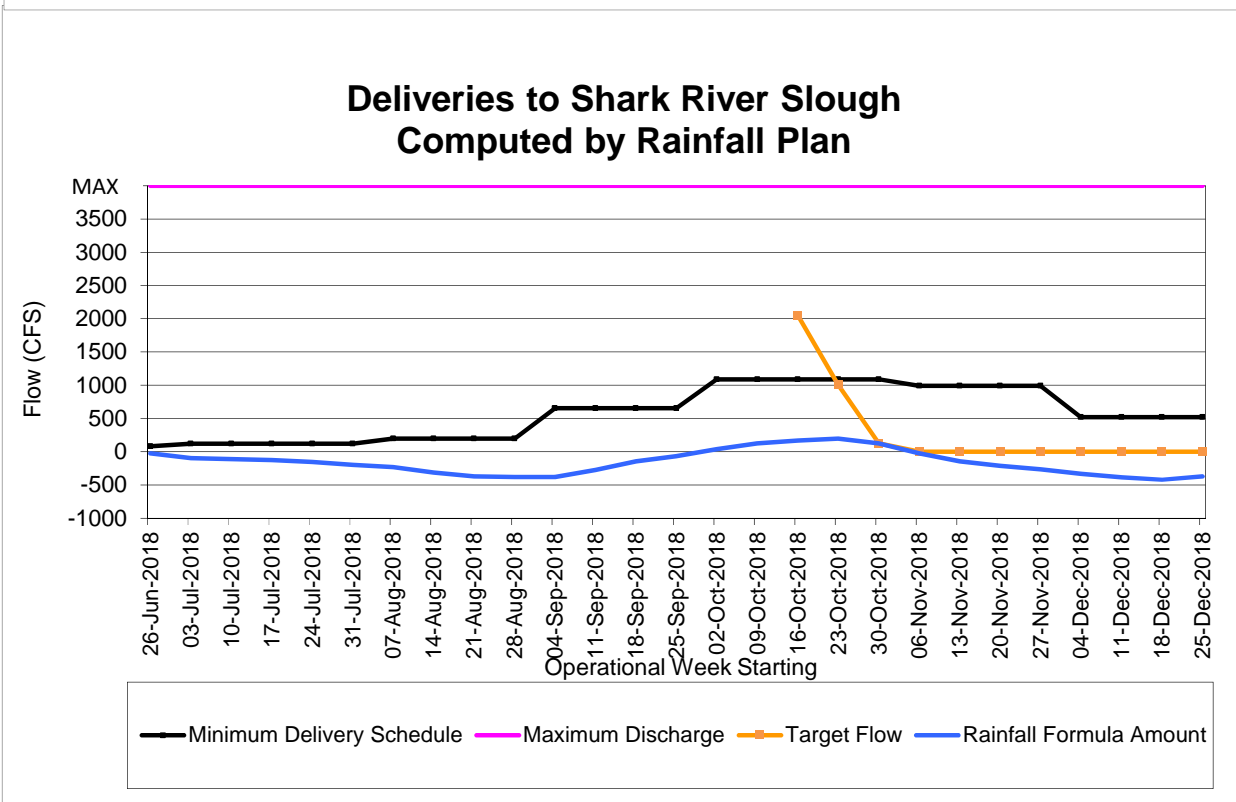
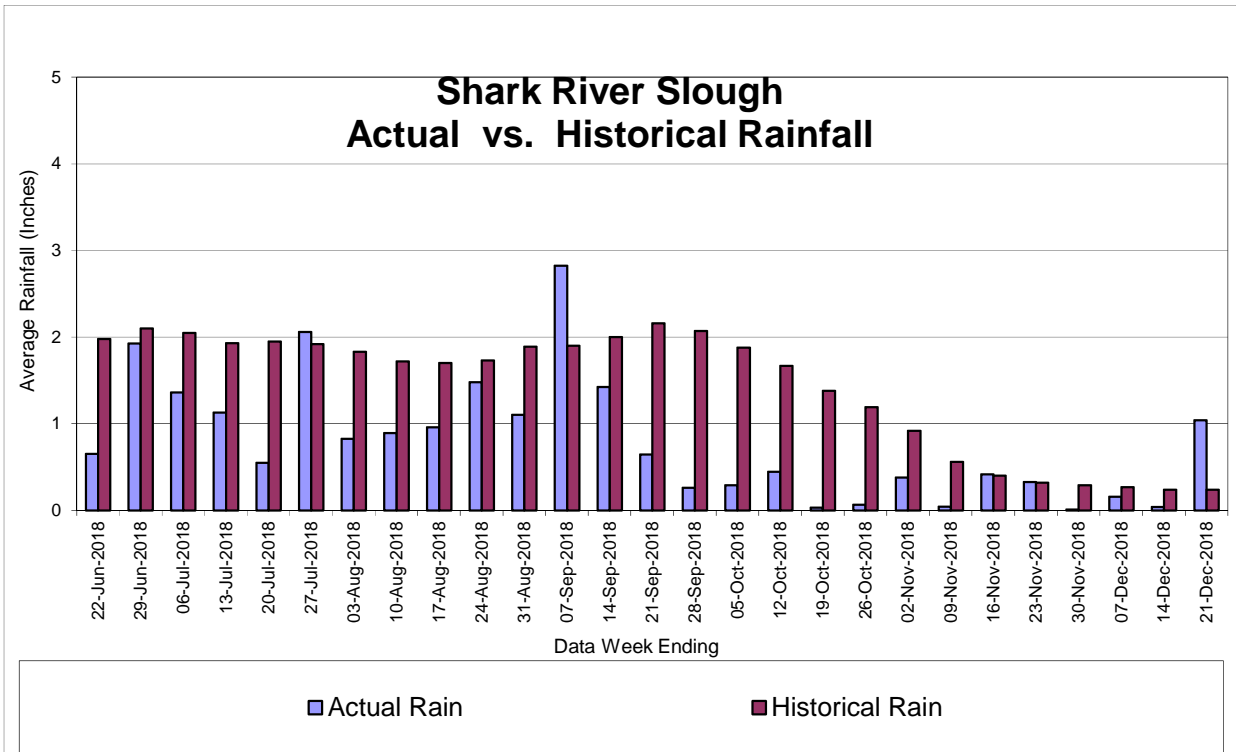
-----Statistical Parameters -----

Rainfall Formula Amount	-370 cfs
Last Week's Rainfall Formula	-421 cfs
Pre-project Mean Discharge	321 cfs

Rainfall Excess Terms	RL1 0.46	RL2 -1.08	RL3	-4.50
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COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**



WCA-3A RAINFALL-BASED MANAGEMENT PLAN

Target Flow January 1, 2019 to January 7, 2019 **0 cfs**

The target flow is distributed from east to west (S-333, S-12D, S-12C, S-12B, and S-12A) to keep WCA 3A releases away from sub-population A of the Cape Sable seaside sparrow

Rainfall Formula Amount 0 cfs
Regulatory Discharge 0 cfs
Potential Regulatory Discharge 0 cfs

-----Data Summary -----

	December 22, 2018	to	December 28, 2018
WCA-3A Stage (end of week)	9.47		ft-NGVD
Angel's	5.44		ft-NGVD
G-3273	6.24		ft-NGVD

<u>Station</u>	<u>Rainfall (in)</u>	<u>Pan Evaporation (in)</u>
NEXRAD Rain for WCA-3A and S7 evaporation	0.00	0.84
S-140		0.90
ENP		M
This Week's Avg	0.00	0.87
Pre-Project Avg	0.24	0.75

----- Regulatory Discharge Calculation -----

WCA-3A is in Zone E	Discharge Coeff. (cfs/ft) =	2500
Regulatory discharge is		0 cfs
Distance to Bottom of Current Zone	N/A	feet
Distance to Top of Current Zone		0.78 feet

-----Potential Regulatory Discharge Considering Upstream Water Levels-----

	Stage (ft-NGVD)	Regulation Stage (ft-NGVD)	Excess Storage (ac-ft)	Depth (ft)
WCA-1	16.23	17.10	0	
WCA-2A	12.04	11.55	32,780	
Others			0	
Total Storage Adjustment			32,780	0.08
WCA-3A	9.47			
Adjusted WCA-3A	9.55			

Adjusted WCA-3A is in Zone E	Discharge Coeff. (cfs/ft) =	2500
Potential regulatory discharge		0 cfs
Distance to Bottom of Current Zone		-0.08 feet
Distance to Top of Current Zone		0.70 feet

-----Statistical Parameters -----

Rainfall Formula Amount		-318 cfs	
Last Week's Rainfall Formula		-370 cfs	
Pre-project Mean Discharge		281 cfs	
Rainfall Excess Terms	RL1 0.38	RL2 -1.12	RL3 -3.14

COMMENT: S7 estimated evap data and S140 estimated evap data were used. ENP evap data were missing

***NOTE: Actual discharges may vary from target discharges because of changing hydrologic conditions.**

