Tamiami Trail Flow Formula (TTFF) - Target Flow from WCA-3A to ENP

Daily Target Flow for		8/10/2021	**to**	8/16/2021	**1158**	**cfs**

Observed Stage Data

Station	Variable		on	8/6/2021	Value	Unit
WCA-3A (Average for Site 63, 64 and 65)	Average Daily Stage				9.58	ft-NGVD29
NESRS2	Average Daily Stage				7.66	ft-NGVD29
Regulatory Stage WCA-3A	Average Daily Stage				9.94	ft-NGVD29

Observed Flow Data

Station	Variable	From	7/31/2021	to	8/6/2021	Value	Unit
S-12A	7-day Average Daily Flow					0	cfs
S-12B	7-day Average Daily Flow					0	cfs
S-12C	7-day Average Daily Flow					0	cfs
S-12D	7-day Average Daily Flow					248	cfs
S-333	7-day Average Daily Flow					1	cfs
S-333N	7-day Average Daily Flow					834	cfs
S-334	7-day Average Daily Flow					0	cfs
S-12s Total	7-day Average Daily Flow					248	cfs
S333 + S333N - S334[1]	7-day Average Daily Flow					835	cfs
Total Flow to ENP	7-day Average Daily Flow					1083	cfs

Meteorological Data

Forecasted		From	8/7/2021	to	8/13/2021	Value	Unit
WCA3 7-day Quantitative Precipitation Forecast (QPF)						1.44	in
3AS3WX - 7-day Total Forecasted PET						0.97	in

Observed		From	7/31/2021	to	8/6/2021	Value	Unit
WCA-3 7-day Total Observed NEXRAD Rainfall						2.33	in
3AS3WX 7-day Total Observed PET						0.97	in

TTFF Application

		Value	
1	Previous week target flow (calculated with forecasted 7-day QPF and PET)	1129	cfs
2	Previous week target flow (recalculated with observed rainfall and PET)	1144	cfs
3	Adjustment for forecast (2-1)	15	cfs
4	This week calculated target flow	1143	cfs
5	This week target flow with adjustment (3 + 4)	1158	cfs
Average Daily Target Flow[2]		**1158**	**cfs**

TTFF formula coefficients					
WCA-3A Average Stage (β1)	NESRS2 Stage (β2)	Previous 7-day Average Flow (β3)	Forecast Precipitation (β4)	Forecast PET (β5)	Regulation Schedule Stage (β6)
318.42	-44.62	0.644	24.32	-96.31	-221.79

Target flow is distributed from east to west (S-333, S-12D, S-12C, S-12B, and S-12A) to prioritize water deliveries to NESRS first and WSRS second, subject to downstream constraints.

[1]S-333 + S-333N - S-334 becomes zero if the sum of S-333 and S-333N is less than S-334 flow. Calculation is done daily.

[2]Actual discharges may vary from target discharges because of changing hydrologic conditions.

Flow from WCA-3A to Everglades National Park Using the Tamiami Trail Flow Formula