

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

Daily Target Flow for 9/7/2021 to 9/13/2021 1416 cfs

## Observed Stage Data

Station	Variable	on	9/3/2021	Value	Unit
WCA-3A (Average for Site 63, 64 and 65)	Average Daily Stage			9.84	ft-NGVD29
NESRS2	Average Daily Stage			7.73	ft-NGVD29
Regulatory Stage WCA-3A	Average Daily Stage			10.12	ft-NGVD29

## Observed Flow Data

Station	Variable	From	8/28/2021	to	9/3/2021	Value	Unit
S-12A	7-day Average Daily Flow					0	cfs
S-12B	7-day Average Daily Flow					130	cfs
S-12C	7-day Average Daily Flow					248	cfs
S-12D	7-day Average Daily Flow					142	cfs
S-333	7-day Average Daily Flow					0	cfs
S-333N	7-day Average Daily Flow					847	cfs
S-334	7-day Average Daily Flow					0	cfs
S-12s Total	7-day Average Daily Flow					521	cfs
S333 + S333N - S334 <sup>1</sup>	7-day Average Daily Flow					847	cfs
Total Flow to ENP	7-day Average Daily Flow					1368	cfs

## Meteorological Data

Forecasted	From	9/4/2021	to	9/10/2021	Value	Unit
WCA3 7-day Quantitative Precipitation Forecast (QPF)					2.55	in
3AS3WX - 7-day Total Forecasted PET					0.98	in

Observed	From	8/28/2021	to	9/3/2021	Value	Unit
WCA-3 7-day Total Observed NEXRAD Rainfall					1.37	in
3AS3WX 7-day Total Observed PET					0.98	in

## TTFF Application

1	Previous week target flow (calculated with forecasted 7-day QPF and PET)	1385	cfs
2	Previous week target flow (recalculated with observed rainfall and PET)	1408	cfs
3	Adjustment for forecast (2-1)	23	cfs
4	This week calculated target flow	1393	cfs
5	This week target flow with adjustment (3 + 4)	1416	cfs

Average Daily Target Flow<sup>2</sup> 1416 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.

<sup>1</sup>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.

<sup>2</sup>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

