# Tamiami Trail Flow Formula (TTFF) - Target Flow from WCA-3A to ENP
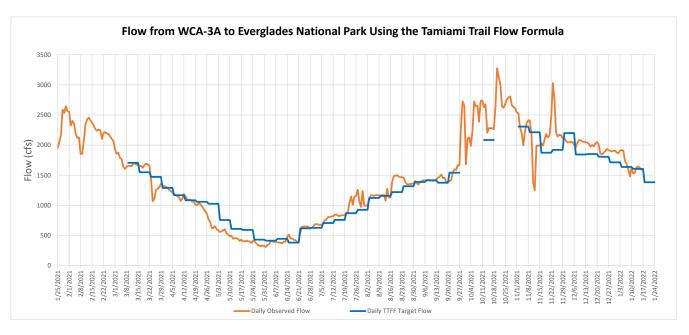
| Daily Target Flow for | | 1/18/2022 | to | 1/24/2022 | **1383** | cfs |
|---|---|---|---|---|---|---|

## Observed Stage Data

| Station | Variable | | on | 1/14/2022 | Value | Unit |
|---|---|---|---|---|---|---|
| WCA-3A (Average for Site 63, 64 and 65) | Average Daily Stage | | | | 9.77 | ft-NGVD29 |
| NESRS2 | Average Daily Stage | | | | 8.05 | ft-NGVD29 |
| Regulatory Stage WCA-3A | Average Daily Stage | | | | 10.41 | ft-NGVD29 |

## Observed Flow Data

| Station | Variable | From | 1/8/2022 | to | 1/14/2022 | 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 | | | | | 382 | cfs |
| S-333 | 7-day Average Daily Flow | | | | | 583 | cfs |
| S-333N | 7-day Average Daily Flow | | | | | 611 | cfs |
| S-334 | 7-day Average Daily Flow | | | | | 0 | cfs |
| S-12s Total | 7-day Average Daily Flow | | | | | 382 | cfs |
| S333 + S333N - S334[1] | 7-day Average Daily Flow | | | | | 1195 | cfs |
| Total Flow to ENP | 7-day Average Daily Flow | | | | | 1577 | cfs |

## Meteorological Data

| Forecasted | | From | 1/14/2022 | to | 1/20/2022 | Value | Unit |
|---|---|---|---|---|---|---|---|
| WCA3 7-day Quantitative Precipitation Forecast (QPF) | | | | | | 0.20 | in |
| 3AS3WX - 7-day Total Forecasted PET | | | | | | 0.74 | in |

| Observed | | From | 1/8/2022 | to | 1/14/2022 | Value | Unit |
|---|---|---|---|---|---|---|---|
| WCA-3  7-day Total Observed NEXRAD Rainfall | | | | | | 0.16 | in |
| 3AS3WX  7-day Total Observed PET | | | | | | 0.74 | in |

## TTFF Application

| | | | Value | Unit |
|---|---|---|---|---|
| 1 | Previous week target flow (calculated with forecasted 7-day QPF and PET) | | 1599 | cfs |
| 2 | Previous week target flow (recalculated with observed rainfall and PET) | | 1589 | cfs |
| 3 | Adjustment for forecast (2-1) | | -10 | cfs |
| 4 | This week calculated target flow | | 1393 | cfs |
| 5 | This week target flow with adjustment (3 + 4) | | 1383 | cfs |
| **Average Daily Target Flow[2]** | | | **1383** | **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