

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

Daily Target Flow for

1/19/2021

to

1/25/2021

MAX cfs

Observed Stage Data

| Station | Variable | on | 1/15/2021 | Unit |
|---|---------------------|----|-----------|-----------|
| WCA-3A (Average for Site 63, 64 and 65) | Average Daily Stage | | 11.09 | ft-NGVD29 |
| NESRS2 | Average Daily Stage | | 7.99 | ft-NGVD29 |
| Regulatory Stage WCA-3A | Stage | | 10.40 | ft-NGVD29 |

Observed Flow Data

| Station | Variable | From | 1/9/2021 | to | 1/15/2021 | Value | Unit |
|----------------------------------|--------------------------|------|----------|----|-----------|-------|------|
| S-12A | 7-day Average Daily Flow | | | | | 537 | cfs |
| S-12B | 7-day Average Daily Flow | | | | | 519 | cfs |
| S-12C | 7-day Average Daily Flow | | | | | 889 | cfs |
| S-12D | 7-day Average Daily Flow | | | | | 1121 | cfs |
| S-333 | 7-day Average Daily Flow | | | | | 1467 | cfs |
| S-333N | 7-day Average Daily Flow | | | | | 0 | cfs |
| S-334 | 7-day Average Daily Flow | | | | | 270 | cfs |
| S-12s Total | 7-day Average Daily Flow | | | | | 3067 | cfs |
| S333 + S333N - S334 ¹ | 7-day Average Daily Flow | | | | | 1197 | cfs |
| Total Flow to ENP | 7-day Average Daily Flow | | | | | 4264 | cfs |

Meteorological Data

| Forecasted | From | 1/16/2021 | to | 1/22/2021 | Value | Unit |
|--|------|-----------|----|-----------|-------|------|
| WCA3 7-day Quantitative Precipitation Forecast (QPF) | | | | | 0.01 | in |
| 3AS3WX - 7-day Total Forecasted PET | | | | | 0.62 | in |

| Observed | From | 1/9/2021 | to | 1/15/2021 | Value | Unit |
|--|------|----------|----|-----------|-------|------|
| WCA-3 7-day Total Observed NEXRAD Rainfall | | | | | 0.26 | in |
| 3AS3WX 7-day Total Observed PET | | | | | 0.62 | in |

TTFF Application

| | | | |
|---|--|-----|-----|
| 1 | Previous week target flow (calculated with forecasted 7-day QPF and PET) | MAX | cfs |
| 2 | Previous week target flow (recalculated with observed rainfall and PET) | MAX | cfs |
| 3 | Adjustment for forecast (2-1) | 0 | cfs |
| 4 | This week calculated target flow | MAX | cfs |
| 5 | This week target flow with adjustment (3 + 4) | MAX | cfs |

Average Daily Target Flow²

MAX 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.

¹S-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.

²Actual 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

