

OCTOBER 2025 BIG CYPRESS BASIN HYDROLOGIC REPORT



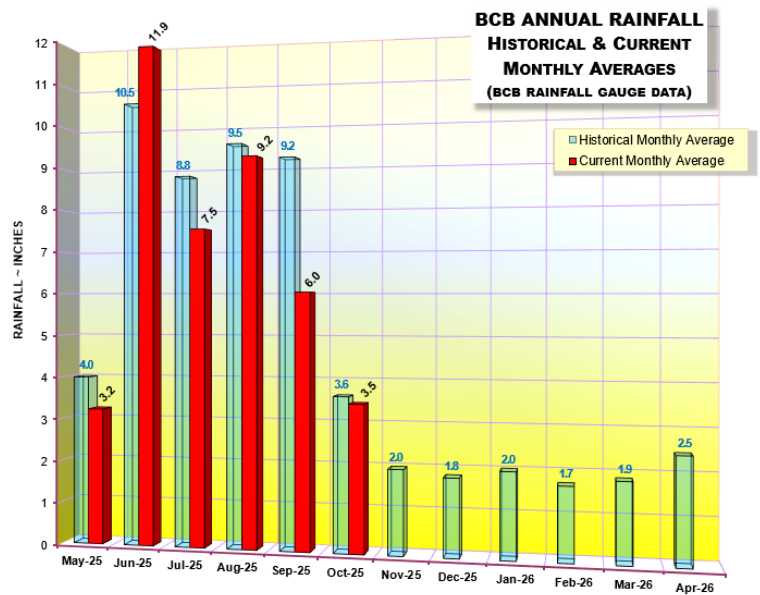
SUMMARY OF HYDROLOGIC CONDITIONS IN THE BIG CYPRESS BASIN

October 2025

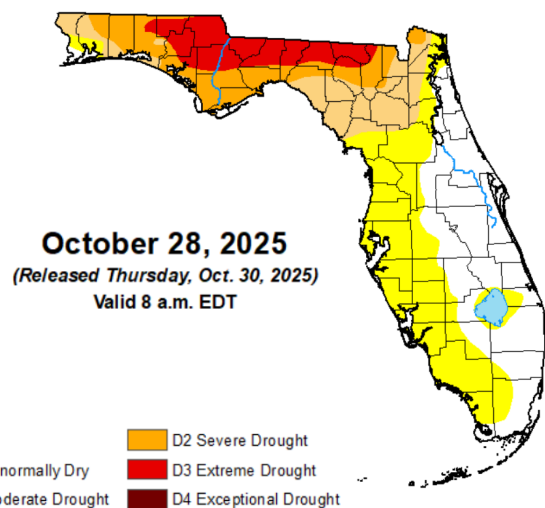
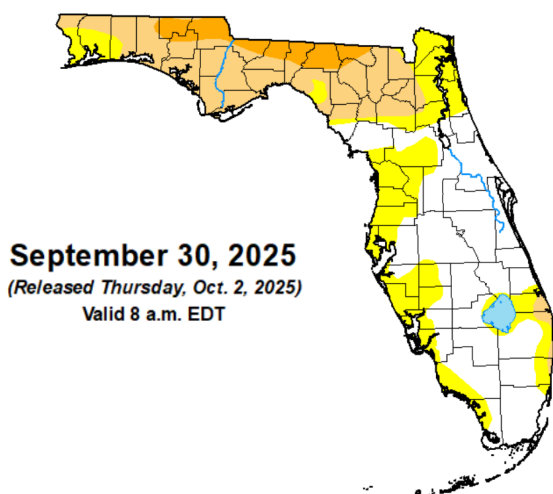
SUMMARY

The 2025 Wet Season officially came to an end on October 10th, having begun on May 22, 2025. The beginning and end dates of the 2025 Wet Season closely matched long-term averages (Oct. 12 and May 22, respectively). While the timing and length of the wet season were very typical, total wet season precipitation was below (90%) the historic long-term average, largely due to a notable rainfall deficit in September.

Based upon averaged rain gauge data, the Big Cypress Basin (BCB) received 3.45 inches of precipitation in October 2025. This monthly rainfall total was very close to (95% of) the BCB historic October average. Though October's rainfall was normal, it came on the heels of last winter's unusually dry "dry season" and a notably drier than normal September. To date in the current water year (May 2025 through April 2026), only the month of June exceeded its long-term monthly average.



Though the 2025 Wet Season precipitation was only 10% below normal, the longer-term rainfall deficit – combined with the low September rainfall – caused the BCB to end the wet season under drier conditions than experienced in the prior year. By the end of October this year, the U.S. Drought Monitor had expanded the area currently shown as "D0 Abnormally Dry" from coastal areas to all of Collier County.

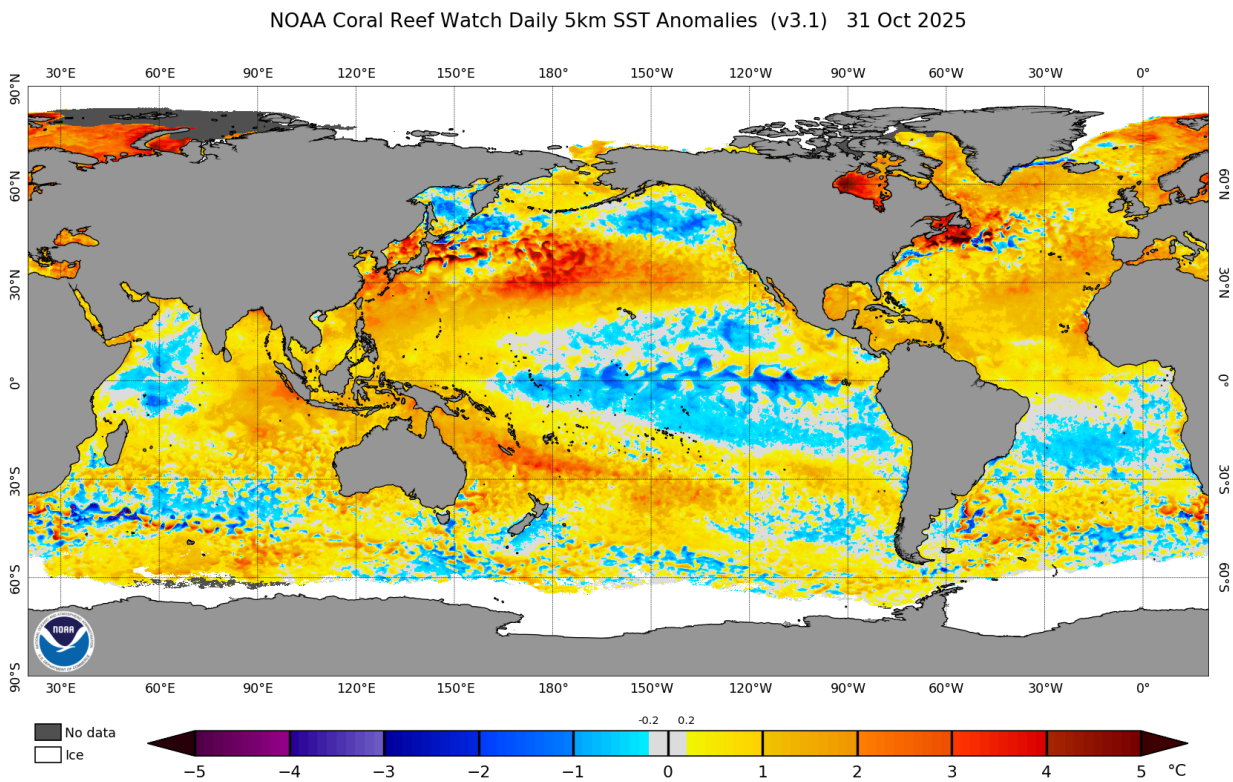


Intensity:

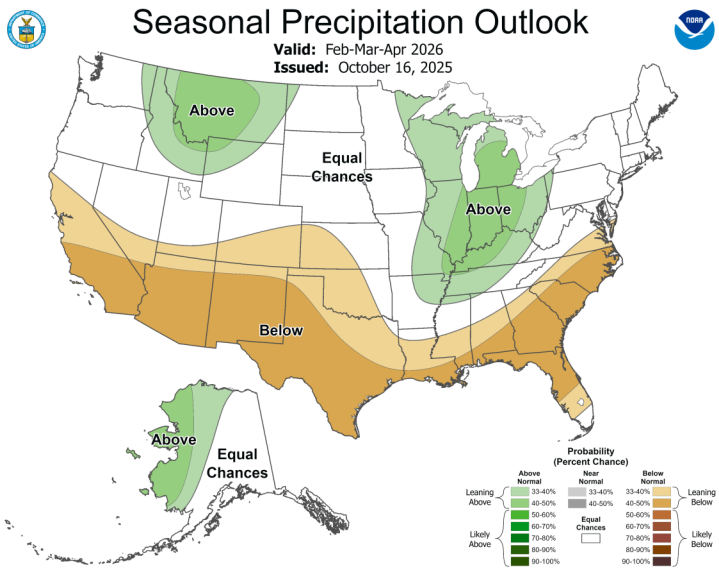
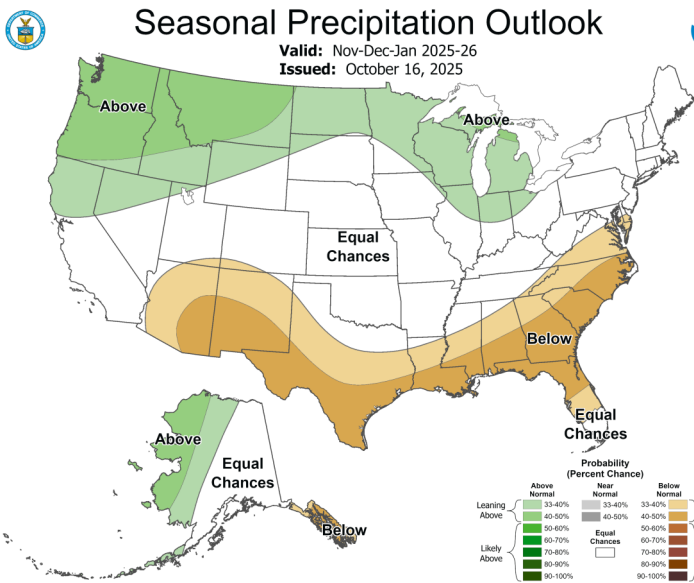
None	D2 Severe Drought
D0 Abnormally Dry	D3 Extreme Drought
D1 Moderate Drought	D4 Exceptional Drought

Despite the expansion of the area under abnormally dry conditions, the lack of significant rainfall and tropical threats in late September and early October presented an opportunity to commence transitioning to water conservation operations earlier than in 2024. This earlier transition to water conservation resulted in canal levels being generally at or above the 75th percentile by the end of October.

In mid October, The National Weather Service Climate Prediction Center (CPC) predicted a 71% chance that a weak La Niña condition would develop during October through December 2025. By the end of October, cooling in the equatorial Pacific continued to support this prediction.



The current prediction favors this year’s La Niña to be moderate in duration with a transition back to El Niño Southern Oscillation (ENSO) neutral conditions by late winter. Due to the prediction of a weak La Niña of moderate duration, its impact on the BCB’s precipitation is uncertain. As such, on October 16, 2025, the CPC anticipated equal chances for wetter or drier than normal conditions in the BCB area. This pattern is anticipated to continue into late winter and early spring, with perhaps a slightly increased probability of drier than normal conditions by mid spring.



With no tropical systems forecasted to impact Florida, the BCB system completed its transition to water conservation operations in early October, to capture as much rainfall as possible prior to the onset of the dry season. As the month progressed – and forecasts remained dry – structures continued to be operated in water conservation regimens to hold as much water as possible.

SEPTEMBER 2025 BCB RAINFALL

The Basin-wide averaged, gauge-measured, monthly rainfall was **3.45** inches in October. This measured rainfall was only slightly below (94% of) the historical October BCB average of 3.62 inches (**see Figures 1, 2, 3A and Table 1**). In October, the rain gauge with the highest measured precipitation was R-5 (Fakahatchee Strand HQ), which recorded 5.93 inches. R-8 (Faka Union #5) received the lowest rain gauge monthly total with only 1.41 inches.

Figures 3B shows October's calculated average rainfall estimates for each of the Basin's watersheds, based on gauge adjusted radar (Raindar). The East Naples watershed saw the highest Raindar average of 5.68 inches and the Faka Union watershed saw the lowest Raindar average of 2.30 inches. The BCB's overall calculated areal weighted average Raindar rainfall (by watershed) was 3.37 inches for the month, slightly below the basin-wide rain gauge average of 3.45 inches. The Raindar totals and their locality distribution across the BCB/Lower West Coast are shown on **Figure 3C**.

BIG CYPRESS BASIN CANAL SYSTEMS

During October, BCB structures completed their transition to water conservation operations, where they remained for the duration of the month. By the end of October, most canals were operating above their historical averages due to the commencement of the transition to water conservation regimens in late September. BCB canal conditions as of October 31, 2025 are shown on **Figure 4**.

GOLDEN GATE SYSTEM

Control structures in the Golden Gate Main Canal (GG Main) system remained in water conservation regimens for the month of October. Discharges rose above 400 cubic feet per second (cfs) near mid month in response to rainfall, then declined to below 100 cfs by month's end. By October 31st the majority of the Golden Gate Main Canal was above the 90th percentile, while the middle region (GG2 to GG3) was above the 75th percentile. Only the segment immediately upstream of GG5 was at a lower percentile (50th to 75th) due to its water elevation control by fixed crest weir. (**see Figure 5**). The upper reaches of the system (upstream of GG6 and GG7) finished the month at the 90th and 75th percentile, respectively.

COCOHATCHEE SYSTEM

The Cocohatchee Canal was kept in water conservation operations in October. By the end of the month the majority of the system was at or above the 75th percentile, with the exception of the segment between COCO2 and COCO3 which was operating just under the 75th percentile. Upstream of COCO4, the Corkscrew Canal was operating above the 75th percentile, while the segment immediately upstream of CORK2 was operating above the 90th percentile. (**Figures 6A, 6B, & 6C**).

FAKA UNION SYSTEM

As with the other BCB canals, the Faka Union system operated in water conservation regimens in October. Due to below normal rainfall in the Faka Union watershed, FU4S gates remained closed in October, and did not release water southward toward Picayune Strand. By the end of October, the portion of the Faka Union Canal immediately upstream of FU4S was operating slightly below the 50th percentile, while upstream of FU5 the water level was just below the 75th percentile. Downstream levels (FU4 to S487)

remained at the 90th percentile. Due to lack of flow coming from north of FU4S, pumping at S487 was significantly less in 2025 than in the prior summer, and was accomplished primarily through low-flow electric pumps. Downstream of the Picayune Strand Restoration Project, water levels immediately upstream of FU1 (the fixed crest weir just north of U.S. Highway 41) continued to trend lower than historic values due to the completion of the Miller Canal plugging in June 2025. (**Figures 7A & 7B**).

HENDERSON CREEK SYSTEM

As with the other BCB canals, water control structures in the Henderson Creek system completed their transition to water conservation operations in the beginning of October, resulting in a gradual increase in canal stage by mid-month. Water levels began to recede thereafter, and discharges over the fixed weir at HC1 ceased by the end of October. Canal water levels in the Henderson Creek system remained between the 50th and 75th percentile by month's end. (**Figure 8A & 8B**).

BIG CYPRESS BASIN & LOWER WEST COAST GROUNDWATER LEVELS

For the Lower West Coast [LWC], the water levels in the groundwater monitoring stations continued their decline in October. Only C-1004R, a tidally influenced Lower Tamiami Aquifer well showed a modest increase in stage, while others showed varying levels of recession (**Table 2 and Figure 9**). By the end of October, C-462, north of Lake Trafford, was at the 75th percentile and slowly declining. C-1224, near Henderson Creek, leveled off from a steep September recession, and finished October between the 25th and 50th percentile. C-1004R, near the Cocohatchee Canal, was the only well to show a month to month increase, and finished the month between the 25th and 50th percentile.

L-738 a Tamiami Aquifer well in Bonita Springs finished the month below the 25th percentile, after a brief increase in stage in mid October. L-2194, a Sandstone Aquifer well in Bonita Springs, similarly declined in October and finished the month slightly above the 25th percentile. Finally, L-2195, a surficial aquifer well in Bonita Springs also declined in October, finishing the month at the 25th percentile.

CORKSCREW SWAMP

Figure 10 shows the historical trends for Corkscrew Swamp (CRKSWPS), Bird Rookery (BRDROOK), and the Cork 3 (CORK3) structure, and their 2025 corresponding levels. Water levels in CRKSWPS and BRDROOK began a slow decline in mid October, as is typical for the onset of the dry season. CRKSWPS held at the 75th percentile through the end of the month, while BRDROOK held just below the 50th percentile. CORK3 (a manually operated structure south of BRDROOK) showed a notable increase in stage when transition to water conservation operations was completed, and finished the month above the 90th percentile. **Figure 11** shows that Lake Trafford followed historical averages in October and finished the month at approximately the 50th percentile.

Figures 12 and Figure 13 show the locations for Southern Corkscrew (SOCREW) sites 1 through 6, all of which are combination surface and groundwater monitoring wells . Also shown are the historical trends for SOCREW1 and SOCREW2. Both SOCREW1 and SOCREW2 started October after a notable drop in stage in late September, then rose and fell thereafter in response to rainfall. By the end of the October, SOCREW1 was at the 25th percentile, while SOCREW2 between the 25th and 50th percentile. The SOCREW sites 3, 4, 5 and 6 are newer sites and only have a period of record for approximately 2.5 years, so there is not adequate data to complete a statistical analysis.

FIGURE 1

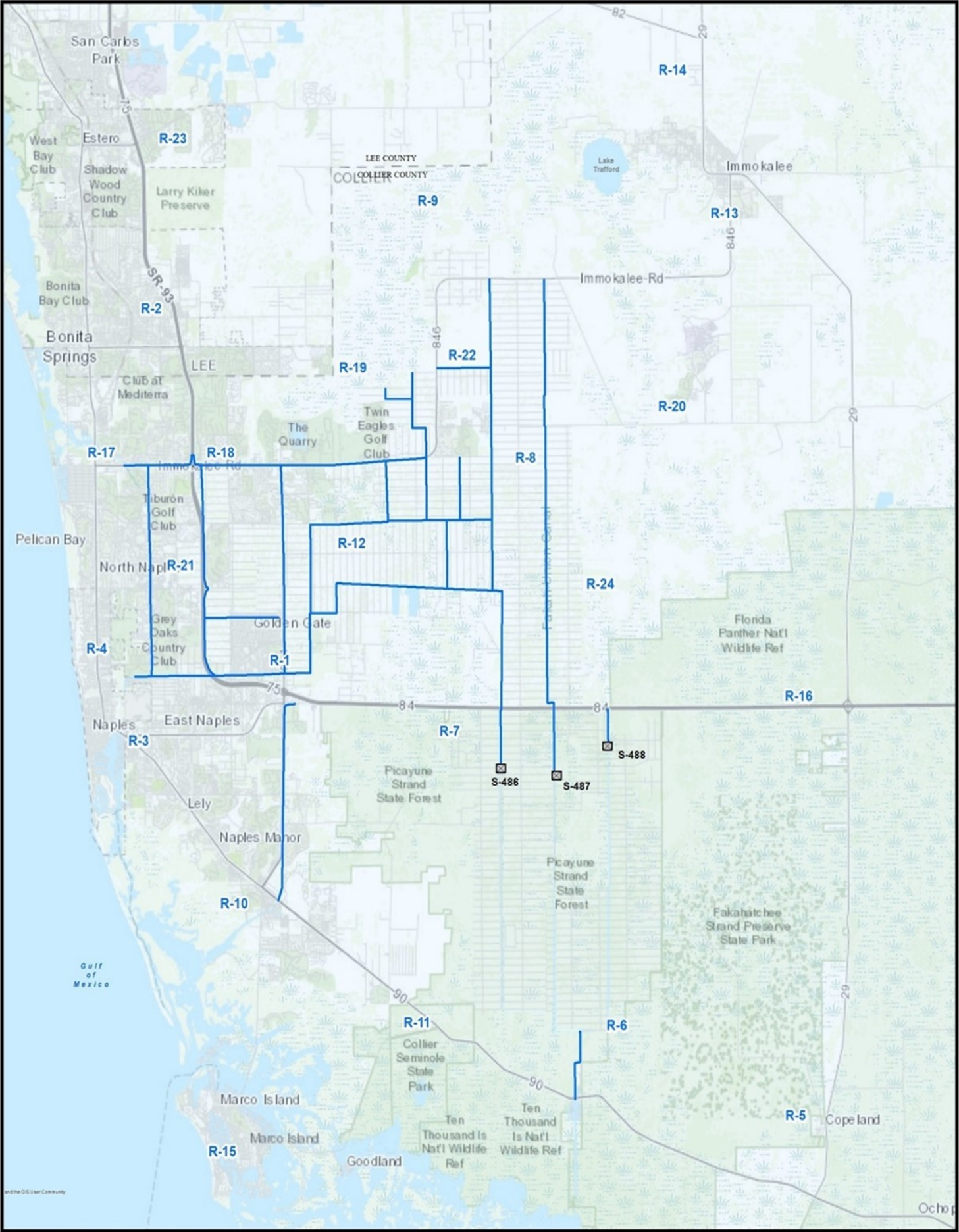
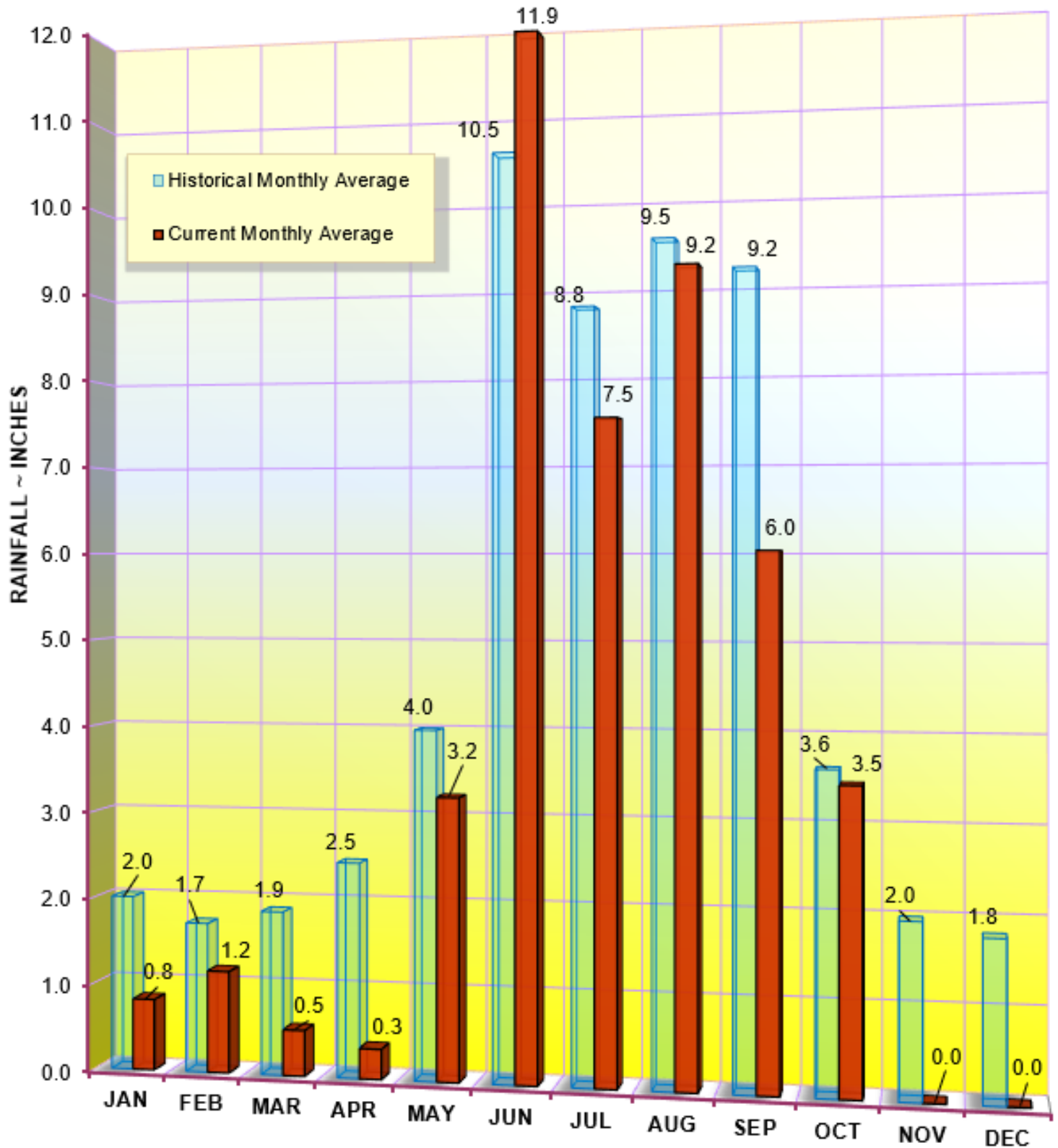


TABLE 1
RAINFALL REPORT - OCTOBER, 2025
DISTRICT/BASIN RAINFALL STATIONS
 (ALL NUMBERS ARE IN INCHES)

STATION INDEX NO.	STATION NAME	Oct-25	LONG TERM MONTHLY AVERAGE	MONTHLY DIFFERENCE	CALENDAR YEAR 2025 CUMULATIVE TOTAL	AVERAGE CALENDAR YEAR TO DATE	YEAR TO DATE DIFFERENCE
R-1	GG#3	3.96	4.14	-0.18	37.45	62.09	-24.64
R-2	BONITA SPRINGS WATER PLANT	2.65	3.50	-0.85	35.73	49.16	-13.43
R-3	COLLIER COUNTY COURTHOUSE	5.24	3.63	1.61	37.52	49.98	-12.46
R-4	FREEDOM PARK	3.40	4.64	-1.24	36.18	54.55	-18.37
R-5	FAKAHATCHEE STRAND HQ	5.93	3.38	2.55	44.67	55.84	-11.17
R-6	DAN HOUSE PRAIRIE	3.54	3.42	0.12	34.03	49.51	-15.48
R-7	SGGE WEATHER STATION	3.36	3.42	-0.06	50.55	58.55	-8.00
R-8	FAKA UNION #5	1.41	3.52	-2.11	41.75	58.10	-16.35
R-9	CORKSCREW SWAMP NORTH END	3.26	3.27	-0.01	38.90	49.32	-10.42
R-10	ROOKERY BAY HQ	3.39	4.07	-0.68	43.72	53.24	-9.52
R-11	COLLIER SEMI-NOLE STATE PARK	2.45	3.66	-1.21	42.34	53.57	-11.23
R-12	G.G. FIRE STATION	3.54	3.68	-0.14	45.56	56.07	-10.51
R-13	IMMOKALEE LANDFILL	4.88	3.46	1.42	38.56	48.82	-10.26
R-14	IFAS	1.85	3.02	-1.17	43.91	47.08	-3.17
R-15	MARCO R.O. PLANT	4.55	3.73	0.82	46.07	49.55	-3.48
R-16	FAKAHATCHEE STRAND NORTH END	3.72	3.50	0.22	37.52	56.47	-18.95
R-17	COCO#1	3.81	3.78	0.03	35.65	46.55	-10.90
R-18	COCO#3	3.58	3.81	-0.23	37.73	53.45	-15.72
R-19	BIRD ROOKERY	3.00	4.24	-1.24	45.99	59.28	-13.29
R-20	AVE MARIA	1.46	3.39	-1.93	34.15	50.04	-15.89
R-21	I75W2	2.81	4.36	-1.55	37.30	58.42	-21.12
R-22	GG#7	3.32	3.88	-0.56	43.94	55.13	-11.19
R-23	FPWX	4.99	3.02	1.97	36.85	50.93	-14.08
R-24	DSOTO10	2.79	2.48	0.31	40.88	62.17	-21.29
AVERAGES		3.45	3.62	-0.17	40.29	53.66	-13.37

FIGURE 2
BCB GAUGE RAINFALL MONTHLY AVERAGES

BCB ANNUAL RAINFALL
MONTHLY AVERAGE & HISTORICAL AVERAGE TRENDS
(FROM BCB RAINFALL GAUGE DATA)



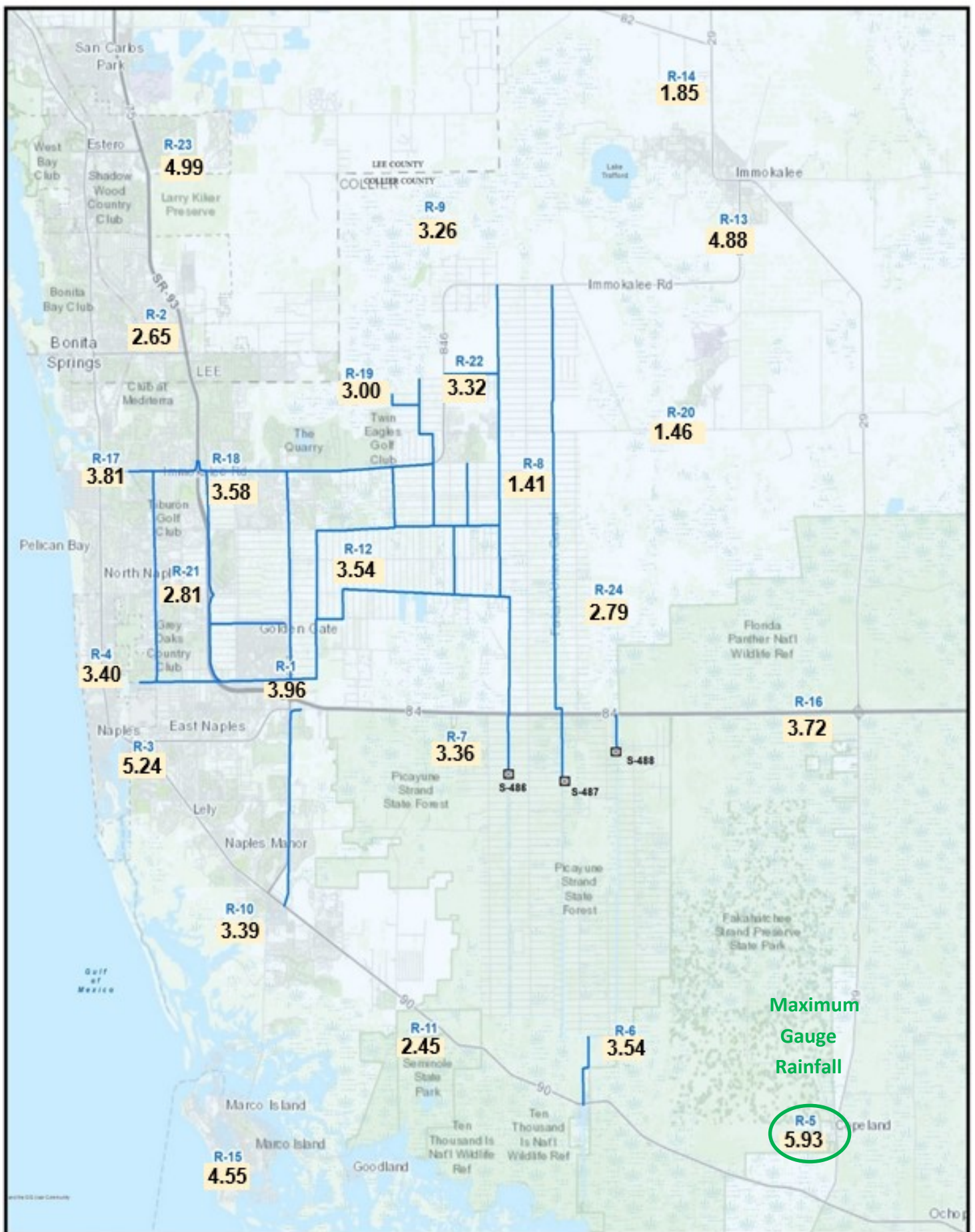
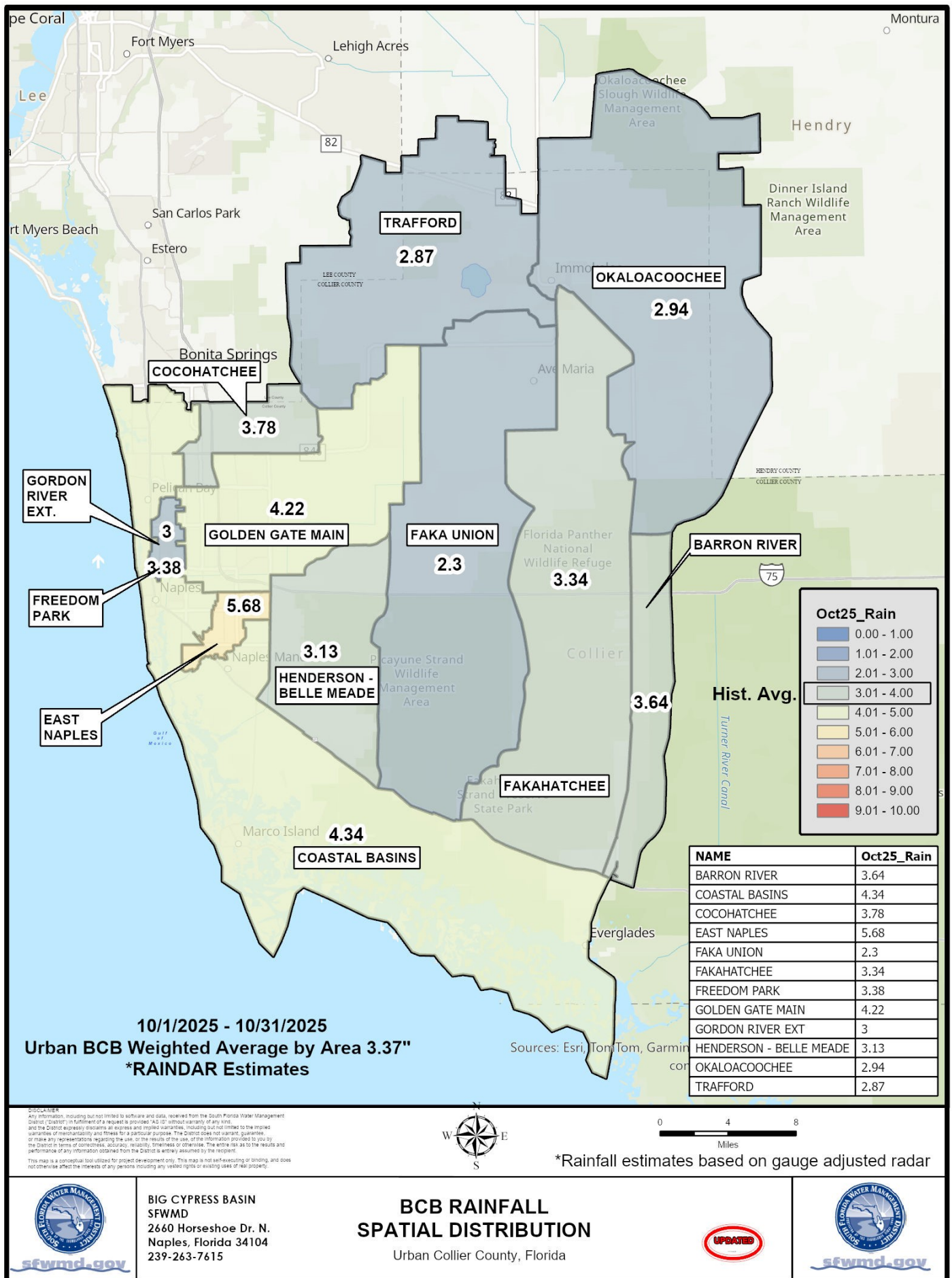
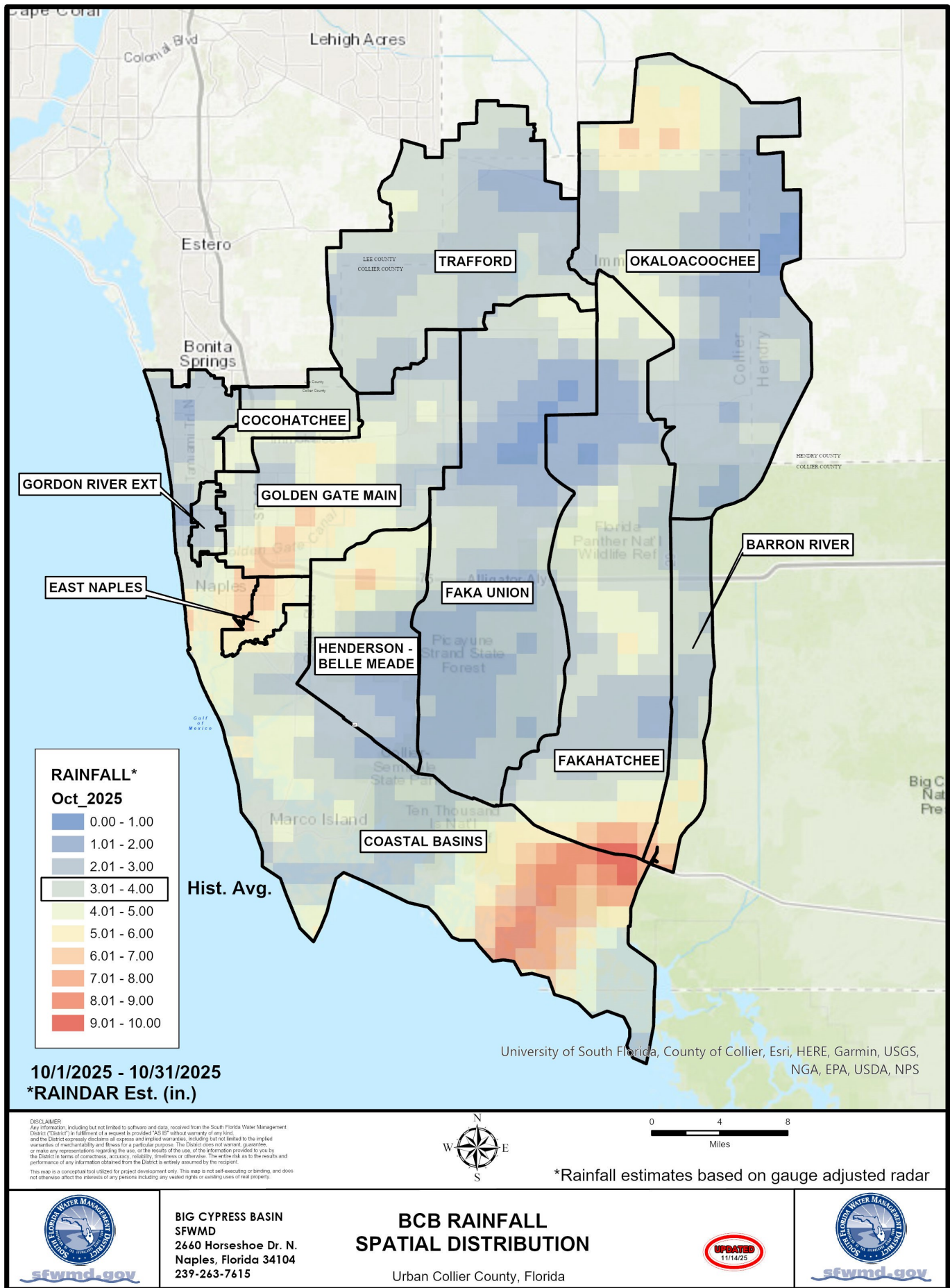


FIGURE 3A
BCB RAINFALL DISTRIBUTION



OCTOBER 2025—FIGURE 3B



OCTOBER 2025—FIGURE 3C

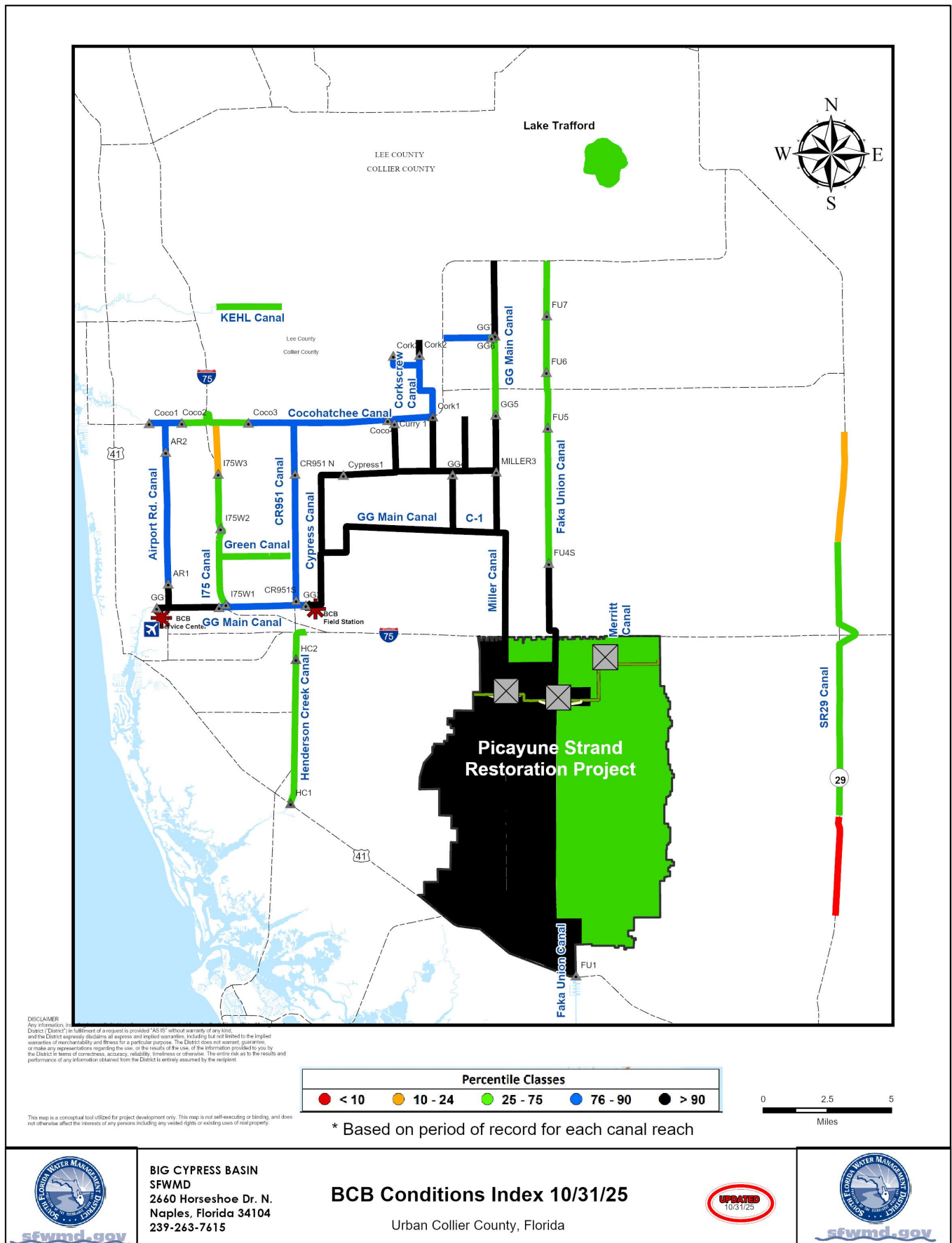


FIGURE 4

Figure 5 Golden Gate Canal Historic Average Daily Headwater Percentiles

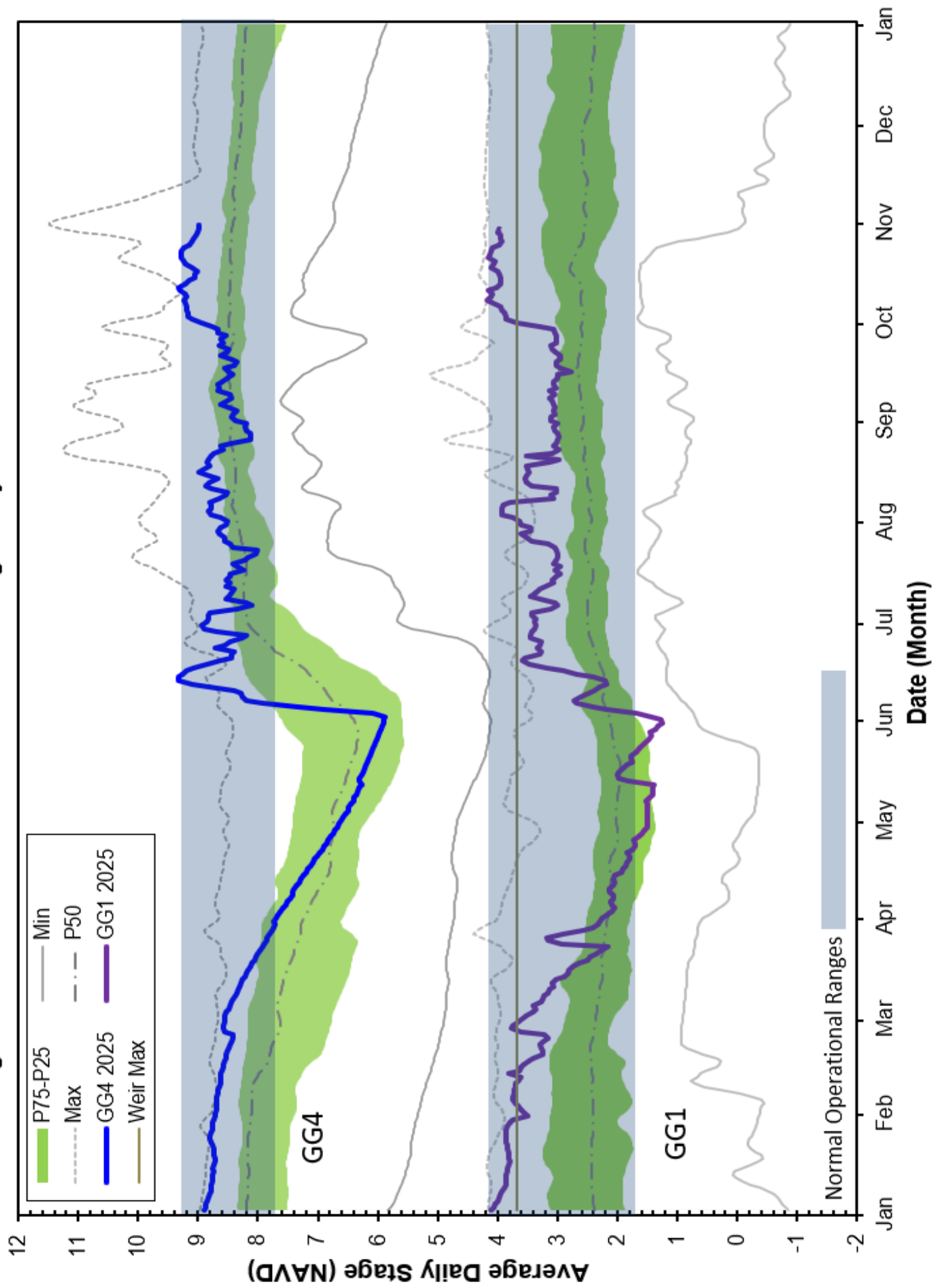


Figure 6A Cocohatchee Canal Historic Average Daily Headwater Percentiles

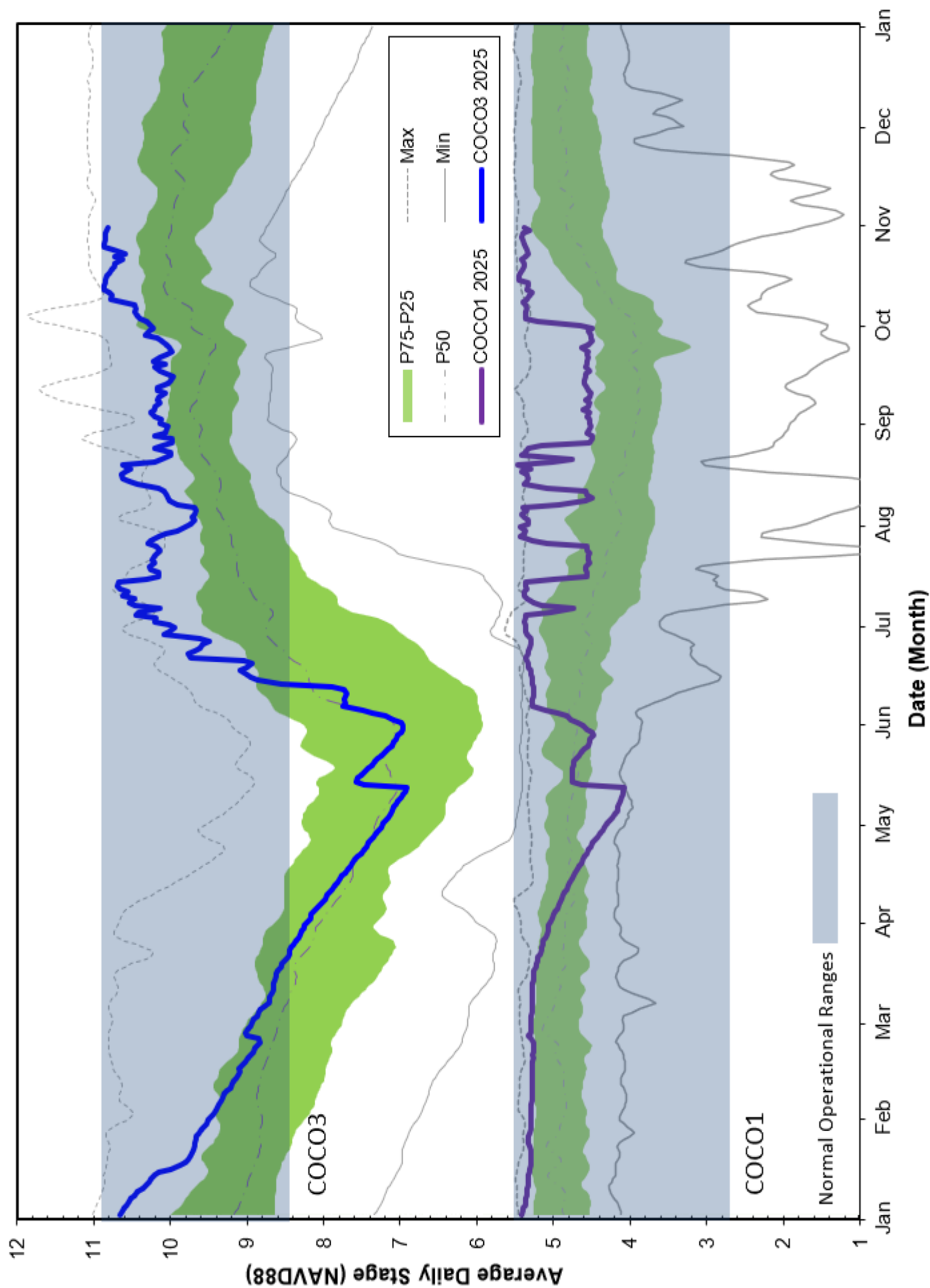


Figure 6B CORK1 Historic Average Daily Headwater Percentiles (1989-2024)

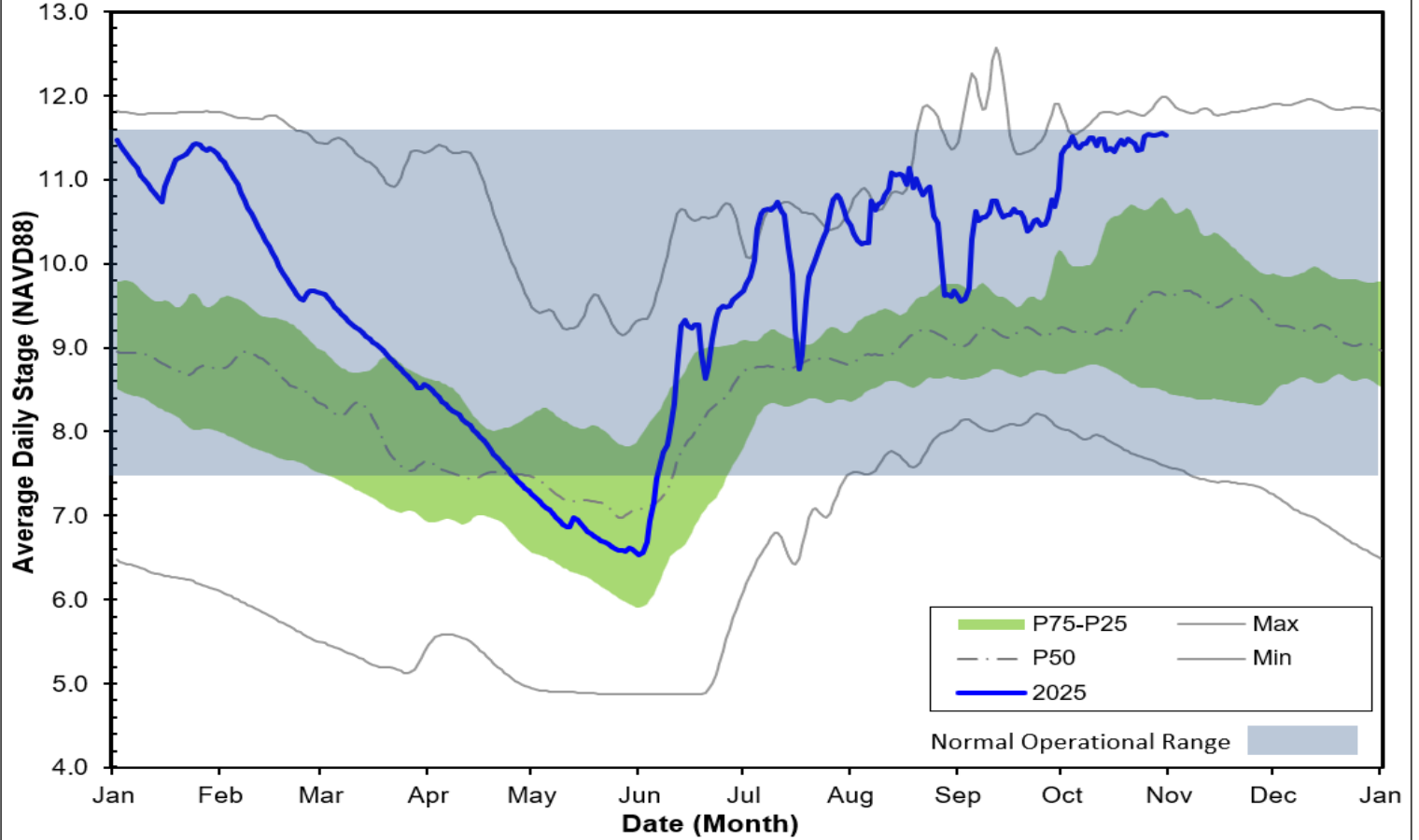


Figure 6C - CORK3 Historic Average Daily Headwater Percentiles (2004- 2024)

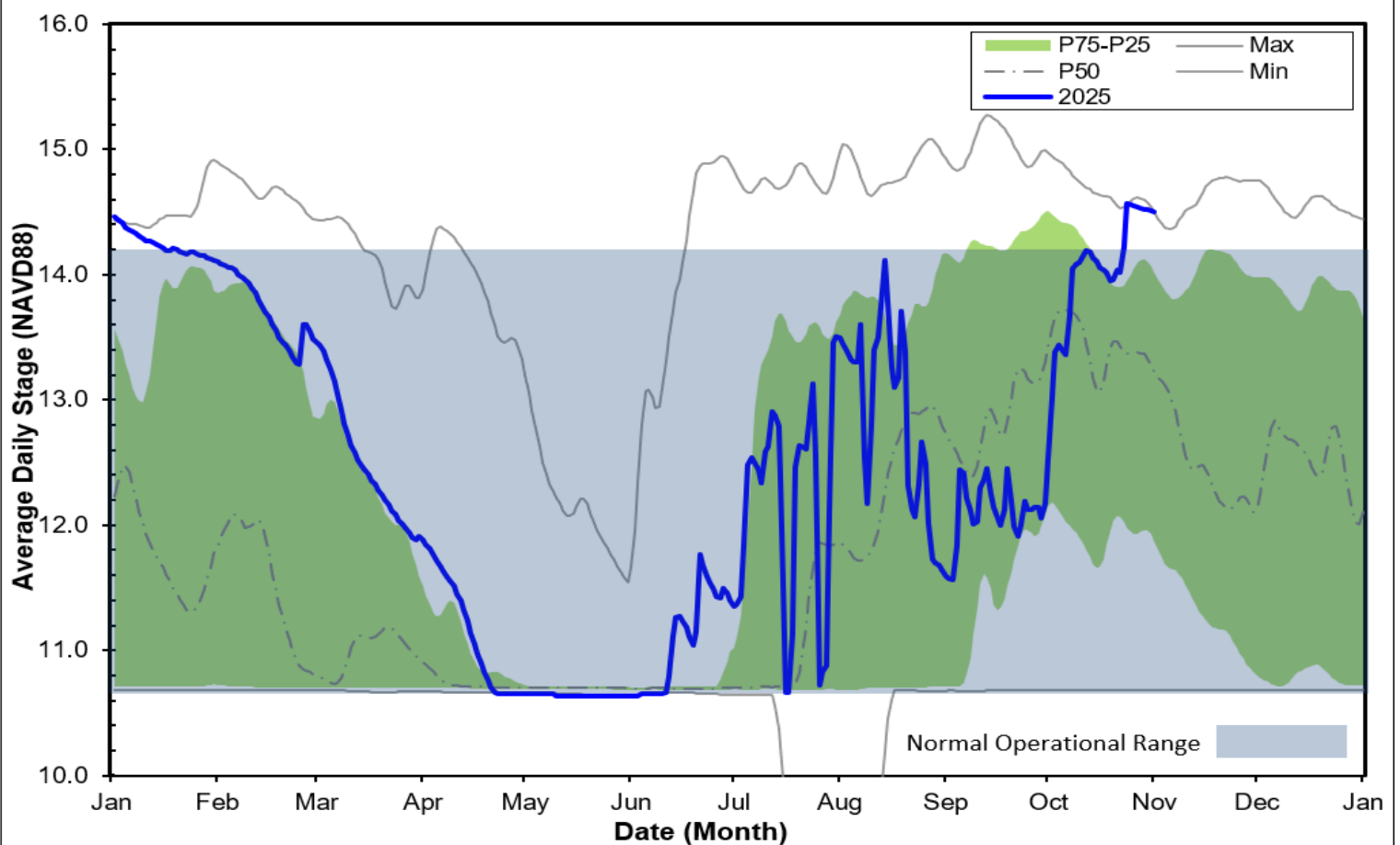


Figure 7A Faka Union Canal Historic Average Daily Headwater Percentiles

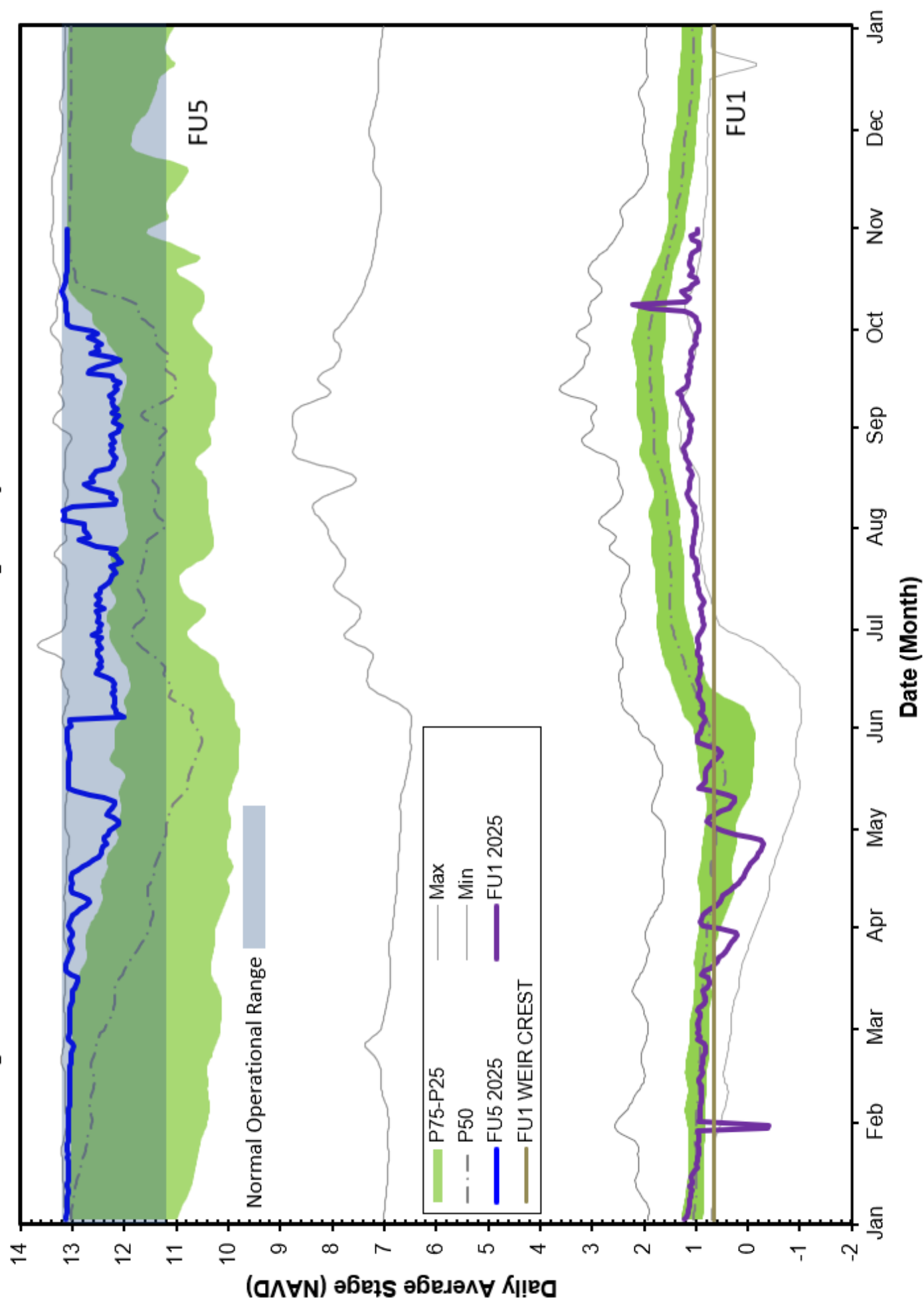


Figure 7B FU4S Historic Average Daily Water Percentiles

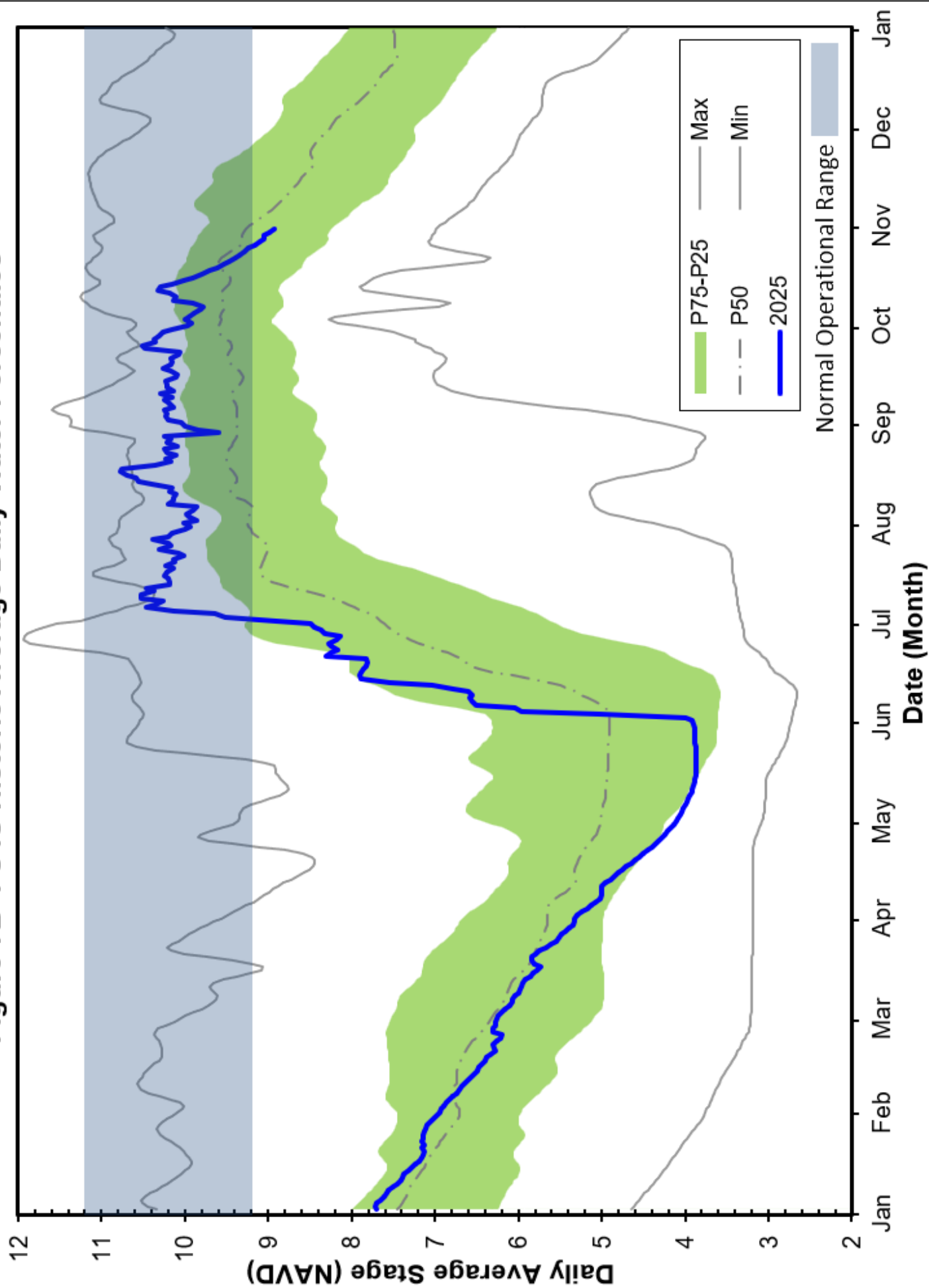


Figure 8A - HC1 Historic Average Daily Headwater Percentiles

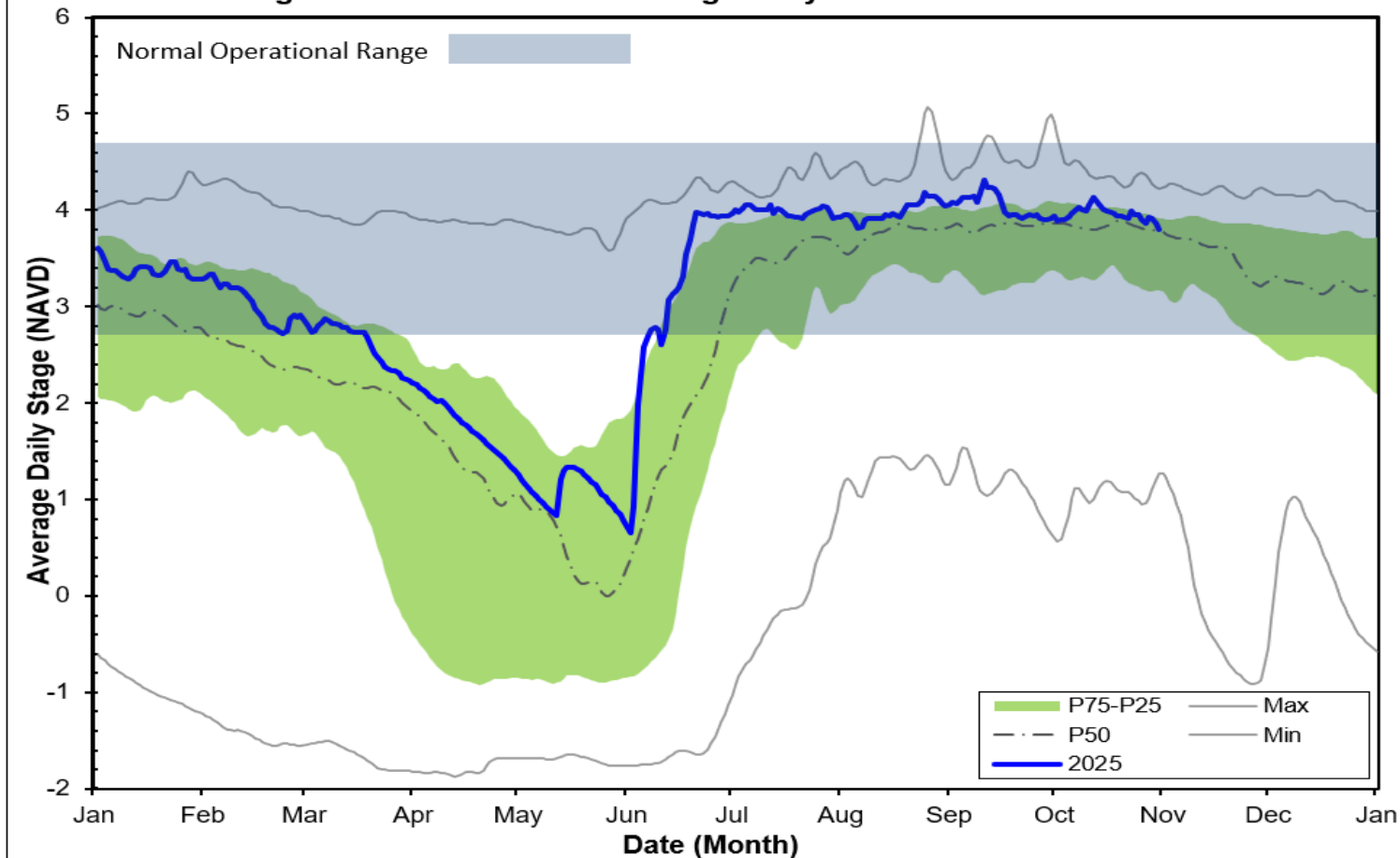
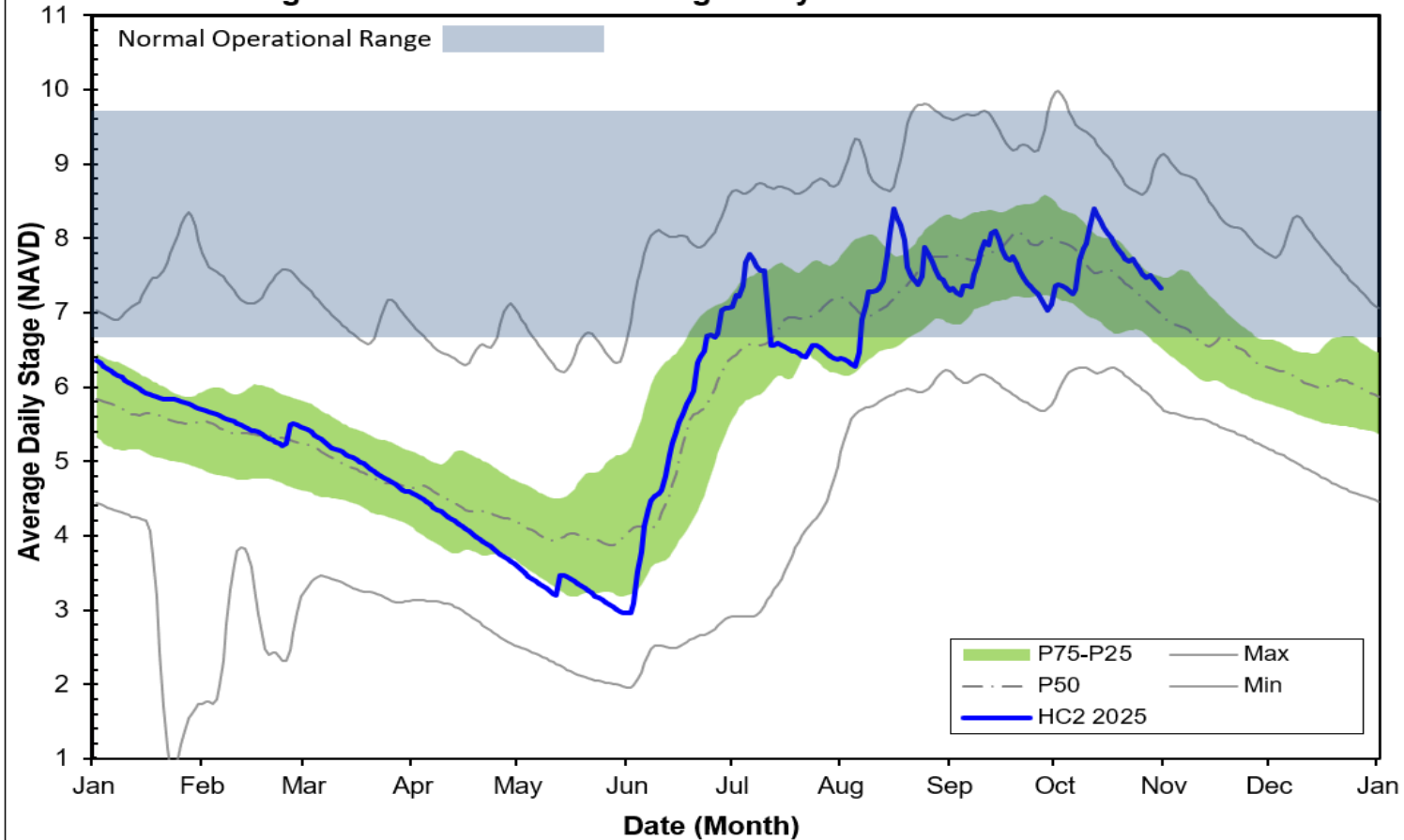


Figure 8B HC2 Historic Average Daily Headwater Percentiles



Last Reading Date :		October 31, 2025					
Previous Period Reading Date:		September 30, 2025					
STATION INDEX NO.	WELL LOCATION	WELL / AQUIFER - TYPE	CHANGE (from previous date)	PREVIOUS LEVEL	CURRENT LEVEL (ft)	DIRECTION OF CHANGE	CONCERN INDICATOR
ALL INDICATOR LEVELS SHOWN IN FT-NGVD							
C-462	Immokalee	Lower Tamiami Aquifer	-0.42	33.21	32.79	↓	GREEN
C-1004R	Naples	Lower Tamiami Aquifer	6.36	1.40	7.76	↑	GREEN
C-1224	Marco Lakes	Lower Tamiami Aquifer	-0.13	2.65	2.52	↓	GREEN
C-948R	Golden Gate	Mid Hawthorn Aquifer	-2.22	29.65	27.43	↓	
C-951R	Golden Gate	Lower Tamiami Aquifer	-0.98	3.60	2.62	↓	
L-2194	Bonita Springs	Sandstone Aquifer	-1.20	5.45	4.25	↓	GREEN
L-2195	Bonita Springs	Surficial Aquifer System	-0.94	10.14	9.20	↓	GREEN
L-738	Bonita Springs	Lower Tamiami Aquifer	-0.52	0.08	-0.44	↓	GREEN

TABLE 2
BCB WATER CONDITIONS SUMMARY
OCTOBER 2025

BIG CYPRESS BASIN

OCTOBER 31, 2025

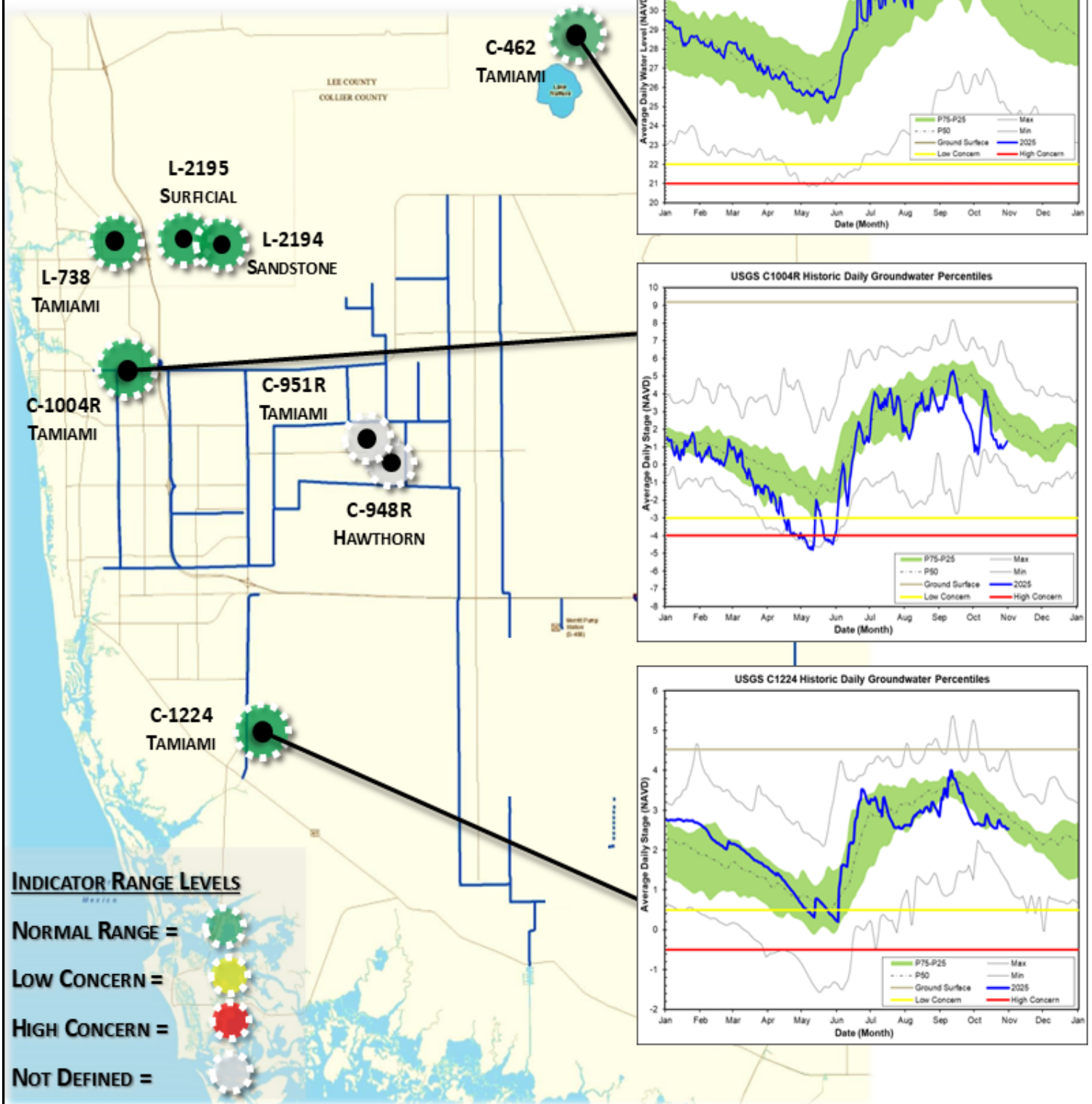
GROUNDWATER LEVEL DAILY TRENDS
COMPARED TO HISTORICAL AVERAGE

FIGURE 9

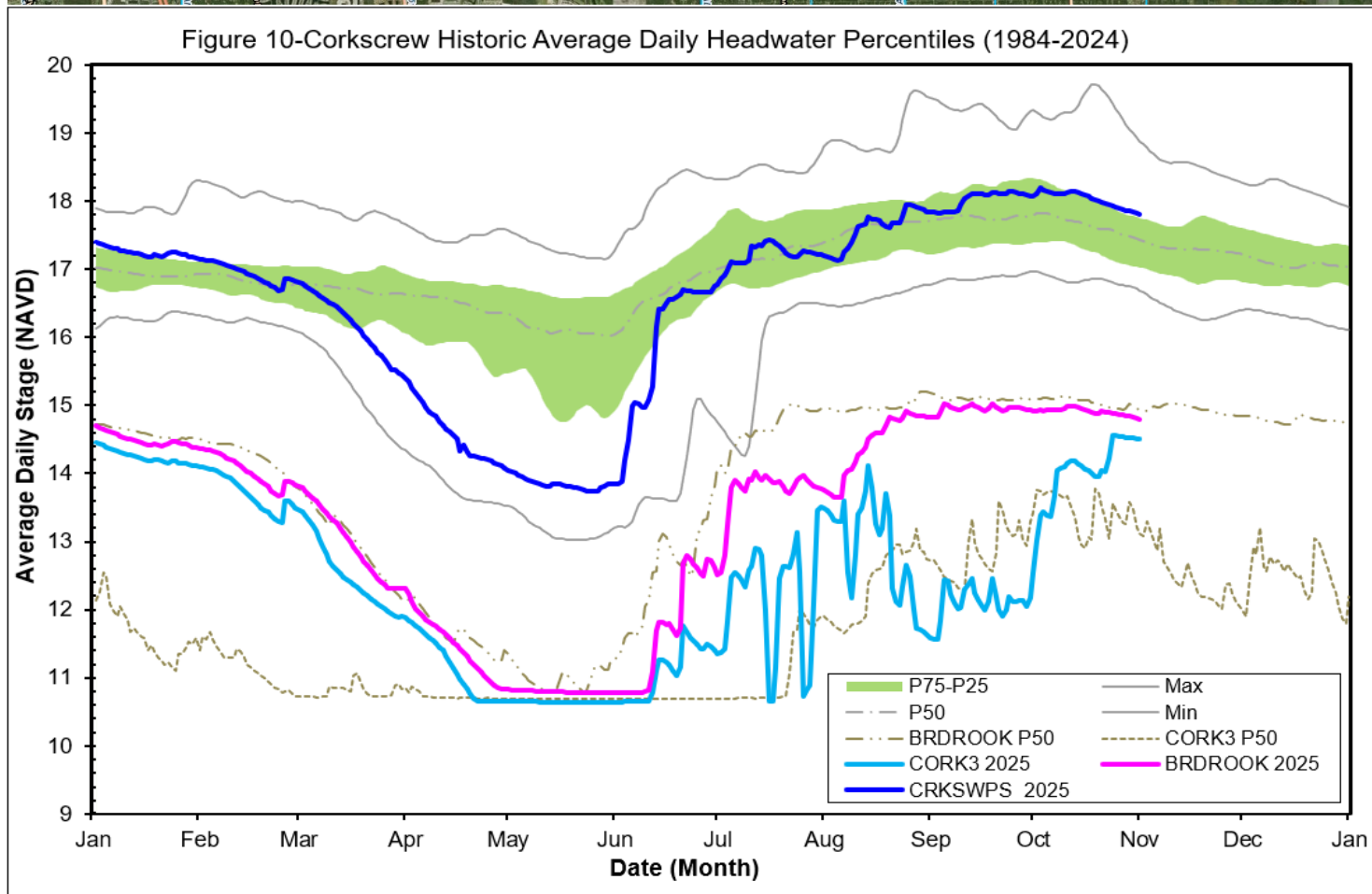
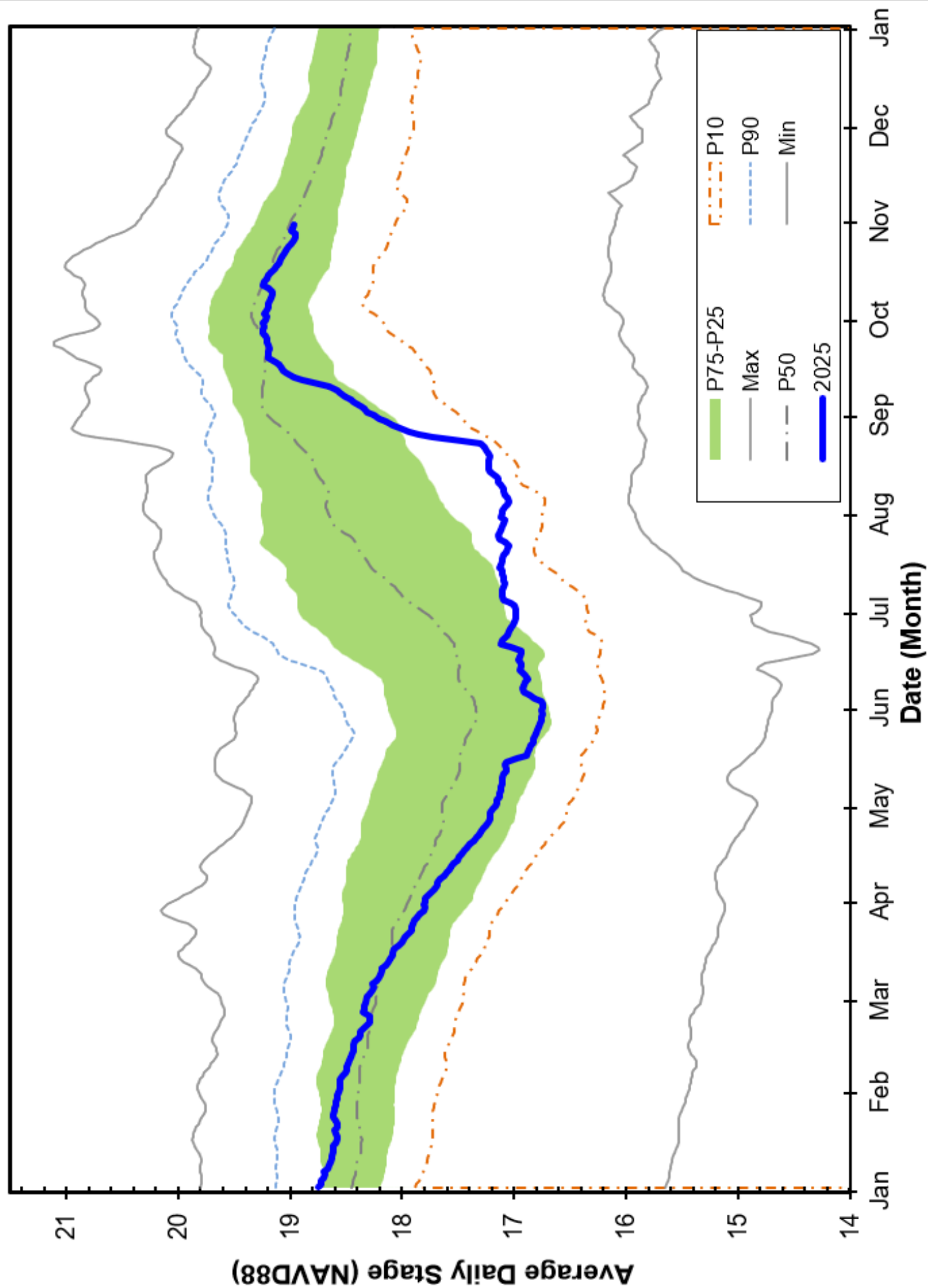


Figure 11 Lake Trafford Historic Average Daily Headwater Percentiles (1941-2024)



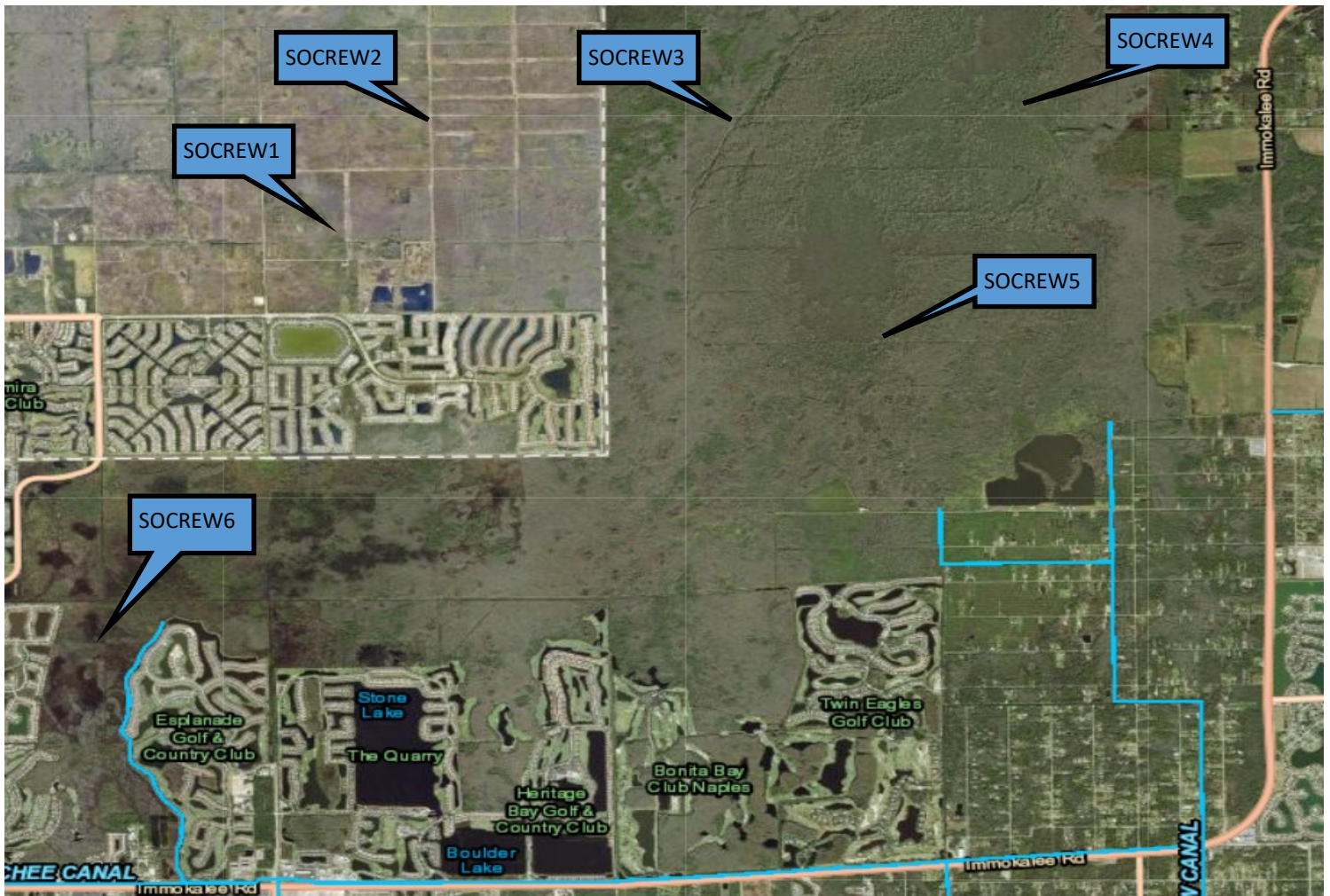
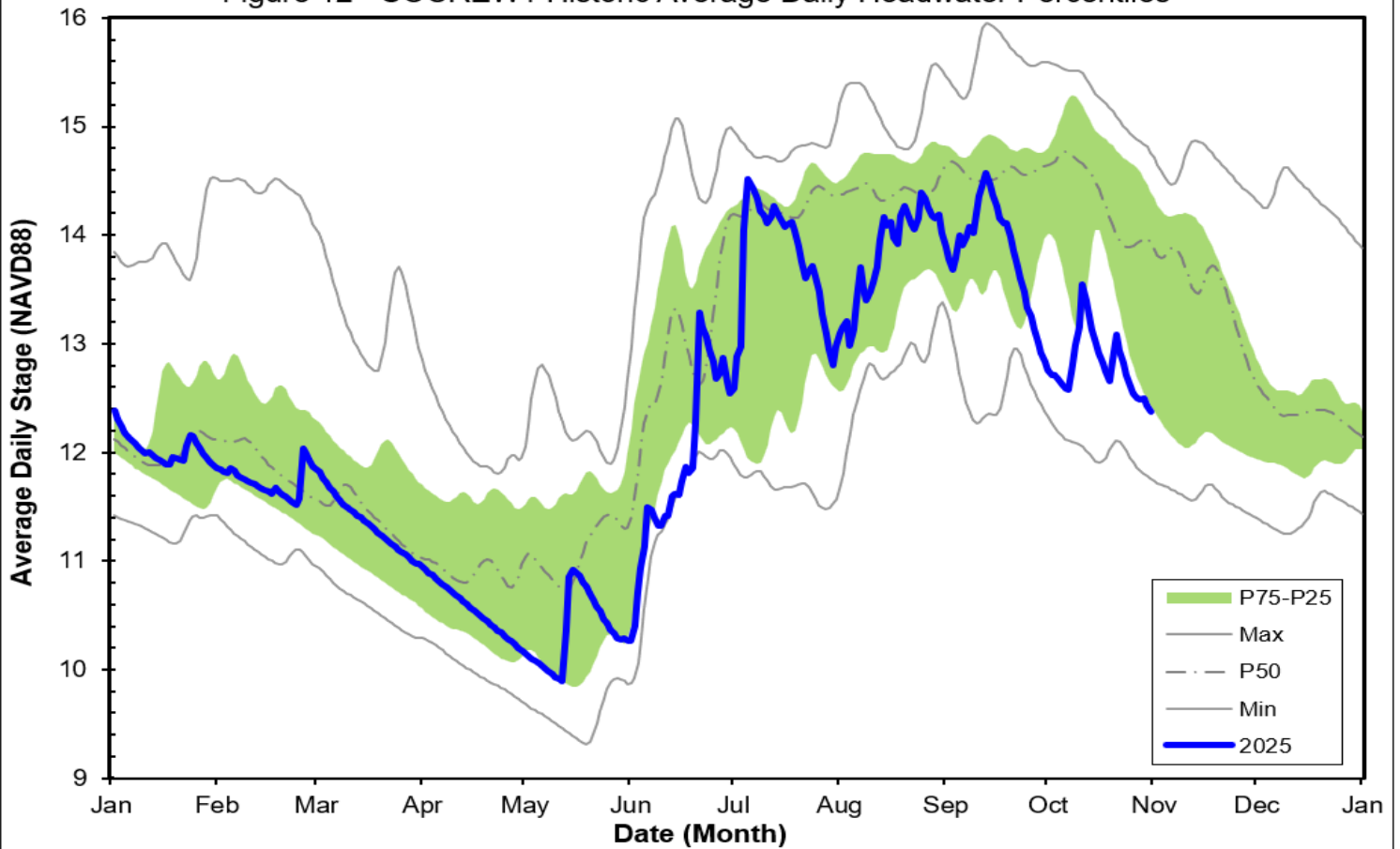


Figure 12 - SOCREW1 Historic Average Daily Headwater Percentiles



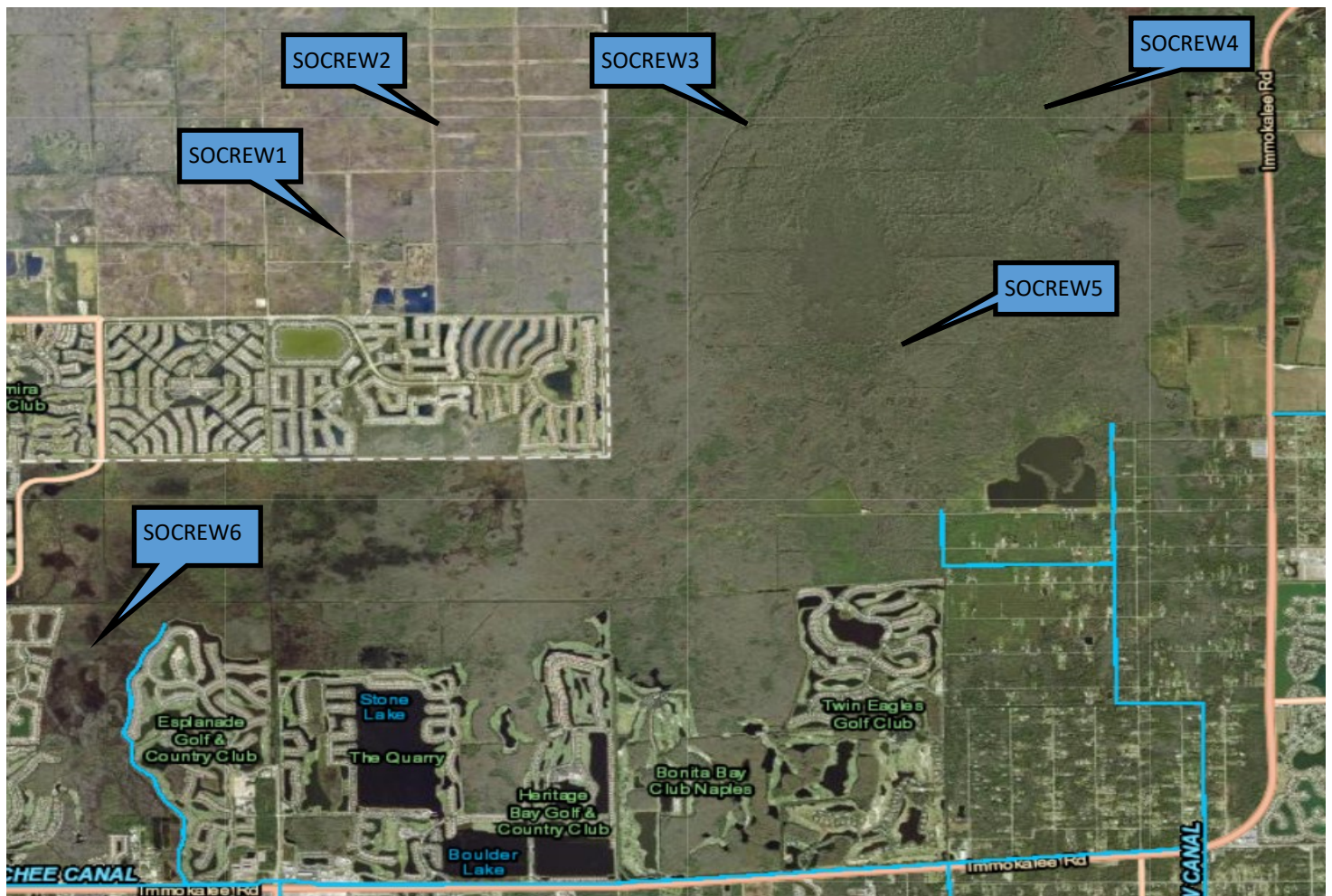


Figure 13 - SOCREW2 Historic Average Daily Headwater Percentiles

