DEPARTMENT OF THE ARMY
US ARMY CORPS OF ENGINEERS
SOUTH ATLANTIC DIVISION
60 FORSYTH STREET SW, ROOM 10M15
ATLANTA, GA 30303-8801

REPLY TO
ATTENTION OF

CESAD-DE

11 July 2016

MEMORANDUM FOR COMMANDER, JACKSONVILLE

SUBJECT: Temporary Emergency Deviation Recovery Period Extension

1. Reference memorandum, CESAJ-OD-MW, 08 July 2016, Temporary Emergency Deviation Recovery Period Extension to be implemented until the approval of the Revised Increment 1 Operational Strategy.

2. The subject request for an extension of the 60-day recovery period from the approved February 2016 temporary emergency deviation to alleviate high water levels in Water Conservation Area 3A (WCA-3A) by lifting the L-29 borrow canal constraint between S-333 and S-334 has been reviewed. The request is supported by NEPA documentation that demonstrates there will be no significant environmental impact resulting from the extension of the recovery period temporary deviation. The request for the extension of the recovery period as described in the operational strategy of this request is approved through 15 December 2016 or until the approval of the Revised Increment 1 Operational Strategy (expected in October 2016), whichever occurs first. If no new operational strategy is approved by 15 December 2016, then the operations will revert back to the previously approved Increment 1 Operational Strategy.

3. If you have any questions regarding this action, please contact Mr. Trent Ferguson, CESAD-RBT, (404) 562-5128.

C. D7

C. DAVID TURNER
Brigadier General, U.S. Army
Commanding

DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT CORPS OF ENGINEERS
701 SAN MARCO BOULEVARD
JACKSONVILLE, FLORIDA 32232-0019

REPLY TO
ATTENTION OF

CESAJ-OD-MW

8 JUL 2016

MEMORANDUM FOR Commander, U.S. Army Corps of Engineers, South Atlantic Division (CESAD-RBT), 60 Forsyth Street, Room 10M15, Atlanta, GA 30303

SUBJECT: Temporary Emergency Deviation Recovery Period Extension to be implemented until the approval of the Revised Increment 1 Operational Strategy

1. Due to the very strong El Nino this past dry season and forecasted above average wet season conditions, Water Conservation Area 3A (WCA-3A) is expected to continue to experience high water levels. The Jacksonville District is now operating in accordance with the 60-day recovery period from the approved 90-day temporary emergency deviation. The goal of the temporary emergency deviation was to alleviate high water levels in Water Conservation Area 3A (WCA-3A) by increasing the L-29 Borrow Canal constraint between S-333 and S-334 to 8.5 feet, NGVD 1929 and making other necessary changes to the Central and Southern Florida Project operations that were required to support that change.

2. Although the temporary emergency deviation concluded on 15 May 2016, the 60-day recovery period will conclude on 10 July 2016. In absence of an extension of the 60-day recovery period beyond 10 July 2016, operations would revert back to G-3273 Constraint Relaxation/S-356 Field Test (Increment 1) operations. However, due to lessons learned from the temporary emergency operations, the Increment 1 Operational Strategy is being revised to incorporate necessary operational adjustments and is scheduled to be completed by October 2016.

3. Until the revised Increment 1 Operational Strategy is completed in October 2016, SAJ (in conjunction with the sponsor) explored options and determined that the ability to utilize the existing flexibilities within the 60-day recovery period would be adequate and necessary. SAJ Environmental Branch prepared a Memorandum for Record (MFR) to document National Environmental Policy Act compliance. (Enclosure 1). The Operational Strategy is included as an attachment to this document (Enclosure 2) and will be utilized for the duration of the temporary emergency deviation recovery period extension.

4. Therefore, the Jacksonville District requests approval to continue the temporary emergency deviation recovery period operations until the revised Increment 1 Operational Strategy is approved. The recovery period extension operations will continue to allow releases from WCA-3A through S-333 in accordance with the

CESAJ-OD-MW

SUBJECT: Temporary Emergency Deviation Recovery Period Extension to be implemented until the approval of the Revised Increment 1 Operational Strategy

Rainfall-Based Management Plan target while not exceeding the L-29 average stage constraint of 7.5 ft, NGVD. In addition, canal levels will remain lower to allow for better drainage along the 8.5 Square Mile Area (SMA) and South Dade Conveyance System (SDCS) will be kept as outlined in the Temporary Emergency Deviation.

5. POC is Mr. Luis Alejandro, Chief, Water Management Section at (904) 232-3034.

Encls

JASON A. KIRK, P.E.
Colonel, EN
Commanding

DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT CORPS OF ENGINEERS
701 San Marco Boulevard
JACKSONVILLE, FLORIDA 32207-8175

REPLY TO
ATTENTION OF

CESAJ-PPD-ES (ER 200-2-2)

JUL 0 8 2016

MEMORANDUM FOR RECORD

SUBJECT: L-29 Canal and South Dade Conveyance System Extension of 60 Day Recovery Period

1.0 INTRODUCTION

The objectives of this document are to summarize the environmental compliance performed for the L-29 Canal and South Dade Conveyance System (SDCS) Temporary Emergency Deviation and to determine if completed National Environmental Policy Act (NEPA) documentation is considered to be adequate for the extension of the recovery period associated with the emergency deviation. Documents related to this Memorandum for Record (MFR) include the following:

- *Environmental Assessment; G-3273 Constraint Relaxation/S-356 Field Test and S-357N Operational Strategy,* U.S. Army Corps of Engineers, Jacksonville District, May 2015
- *Environmental Assessment; L-29 Canal and South Dade Conveyance System Temporary Emergency Deviation to Affect Relief of High Water Levels within Water Conservation Area 3A*, U.S. Army Corps of Engineers, Jacksonville District, February 2016
- *Supplemental Environmental Assessment and Finding of No Significant Impact; L-29 Canal and South Dade Conveyance System Temporary Emergency Deviation to Alleviate High Water Levels in Water Conservation Area 3A*, U.S. Army Corps of Engineers, Jacksonville District, May 2016

2.0 PROJECT AUTHORITY

The Central & Southern (C&SF) Florida Project was initially authorized by the Flood Control Act of 1948, Public Law 80-858, enacted 30 June 1948. The remaining works of the Comprehensive Plan were authorized by the Flood Control Act of 1954, Public Law 83-780, enacted 3 September 1954.

3.0 PROJECT LOCATION

The federal action affects an area within the C&SF Project located in south Florida and includes portions of Water Conservation Area 3 (WCA 3), Everglades National Park (ENP) and adjacent areas, including the Las Palmas Community adjacent to 8.5 Square Mile Area (SMA) and the SDCS. The 8.5 SMA is located approximately 20 miles southwest of Miami, approximately 10 miles north of Homestead, and 6.6 miles south of U.S. Highway 41 (Tamiami Trail). It is bounded on the west and north by a protective levee approximately seven miles in length, on the north by SW 104th Street, on the south by SW 168th Street (Richmond Drive), and separated from more intensively developed urban lands to the east by the L-31N flood protection levee and borrow canal.

4.0 PROJECT DESCRIPTION AND BACKGROUND

4.1 Increment 1 Field Test

The U.S. Army Corps of Engineers (Corps) initiated a field test under the authority of the Modified Water Deliveries (MWD) to ENP Project, to evaluate raising or removing the existing G-3273 stage constraint for inflow into Northeast Shark River Slough (NESRS) and operate the S-356 pump station for control of seepage into the L-31N Canal. The G-3273 constraint of 6.8 feet National Geodetic Vertical Datum 1929 (NGVD) was originally established as a flood protection measure. A stage of 6.8 feet NGVD at this gage has been used since 1985, prior to implementation of the field test, as a trigger to cease S-333 discharges from flowing south into NESRS as a protective measure for residential areas to the east, particularly the 8.5 SMA. The field test is the first increment in a series of three related, sequential efforts that will result in a comprehensive integrated water control plan, referred to as the Combined Operating Plan (COP), for the operation of the water management infrastructure associated with the MWD and Canal 111 (C-111) South Dade Projects. The first increment maintained L-29 canal maximum operating limit at 7.5 feet to improve flows to ENP from WCA 3A, while monitoring seepage into L-31 N Canal.

NEPA documentation for the Increment 1 field test was completed on 27 May 2015 with signing of a Finding of No Significant Impact (FONSI) incorporating an Environmental Assessment (EA). Field test duration was planned for approximately two years, with a minimum duration of one year. Implementation of the field test occurred from 15 October 2015 to 14 February 2016, after which the Corps proceeded with temporary emergency operations to alleviate high water levels within WCA 3.

4.2 Temporary Emergency Deviation to Alleviate High Water Levels in Water Conservation Area 3A (L-29 Canal)

In correspondence dated 11 February 2016, the Governor of Florida requested that the Corps take immediate action to relieve flooding of the Everglades WCAs by raising the level of the L-29 Canal to 8.5 feet NGVD so that substantial volumes of water could be moved from WCA 3A to ENP through Shark River Slough. The Corps initiated a temporary emergency deviation to the operating limit constraint of 7.5 feet NGVD in the L-29 Canal on 15 February 2016, at the request of the Governor, for purposes of providing high water relief in WCA 3A. Due to the very strong El Nino this past dry season, WCA 3A has experienced unseasonable high water levels. The first half of the dry season (November 2015 - January 2016) was the wettest for this period since record keeping began in 1932. The temporary emergency deviation mediated high water levels within WCA 3A by allowing for the full discharge capacity through S-333 into the L-29 Canal in addition to the use of additional WCA 3A outlets such as S-152 into WCA 3B. The temporary emergency deviation also included other operational changes needed to mediate any concern with increased seepage from ENP into the SDCS.

NEPA documentation to support the temporary emergency deviation was completed on 12 February 2016 with signing of a FONSI, incorporating an EA. A Supplemental EA and FONSI were completed on 10 May 2016 to provide further documentation of the potential environmental effects resulting from the alternatives considered and the action taken. The temporary emergency deviation included the relaxation of the L-29 Canal stage constraint of 7.5 feet NGVD up to 8.5 feet NGVD for a period of 90 days from the date of implementation (15 February 2016). A 60 day recovery period was initiated on 15 May 2016 once the L-29 Canal constraint was returned to 7.5 feet NGVD. As part of the 60 day recovery period, the lowered operational ranges within the SDCS would remain until the recovery period was completed. During this time water levels were expected to recede to stages typical of recent hydrological conditions. In the absence of an extension, the 60 day recovery period will conclude on 10 July 2016.

5.0 PROJECT NEED

Residents within the 8.5 SMA expressed concern during implementation of the temporary emergency deviation due to observed increases in ground and surface water. In response to these concerns, the South Florida Water Management District (SFWMD), in conjunction with the federal action, constructed temporary measures including the use of temporary pumps and an open channel connection between the C-358 Canal and the C-357 Canal prior to construction of S-357N; a gated control structure that will connect the C-358 seepage collection canal to the existing C-357 Canal, upstream of S-357 within 8.5 SMA. The SFWMD also constructed temporary plugs in the drainage swales located north and south of Richmond Drive, and a berm around the western end of the C-358 Canal consistent with design refinements associated with the C-111 South Dade Project. Design refinements associated with the C-111 South Dade Project include the extension of the L-357W Levee from the 8.5 SMA Detention Cell to the southern limits of Richmond Drive and the completion of the remaining levee segment to cross Richmond Drive, including construction of a ramp over the new levee segment to maintain western access to ENP, as currently anticipated under Contract 8 of the C-111 South Dade Project. The temporary plugs were constructed to help decrease potential increases in groundwater stages in the absence of the completion of the L-357W extension. The SFWMD also installed temporary culverts in the southern levee of the 8.5 SMA Detention Cell in an area where the planned degrading of the S-360W weir will take place, as currently anticipated under Contract 8A of the C-111 South Dade Project. This effort was undertaken by the SFWMD in order to limit the increase in water depth in the 8.5 SMA Detention Cell associated with the construction of an open channel connection mentioned above between the C-358 Canal to the C-357 Canal.

Efforts to move water out of the WCAs combined with a decrease in the volume of water entering the system, have allowed for improved stages within the WCAs. Current conditions as of mid-June anticipate the likelihood of above average conditions/flows through most of the wet season (reference attached operational strategy). Therefore, the Corps is proposing to extend the 60 day recovery period for purposes of maintaining lower canal levels along the L-31N and C-111 Canals, as well as to maintain flexibility to address potential 8.5 SMA flood mitigation issues identified during the temporary emergency deviation. Consistent with the ongoing 60 day recovery period, releases from WCA 3A via S-333 will continue to be made in accordance with the rainfall based management plan target while not exceeding the L-29 Canal average stage constraint of 7.5 feet NGVD. The 60 day recovery period will be extended until the approval of a revised Increment 1 operational strategy currently anticipated in October 2016.

The operational strategy for the extension of the 60 day recovery period also takes into account the need to complete the C-358 Canal (Richmond Drive Seepage Collection Canal) and installation of S-357N (C-358 control structure), and completion of Contracts 8 (construction of the C-111 South Dade Northern Detention Area to fill the existing 2 mile gap in the hydraulic ridge system and provide a future hydraulic connection between the 8.5 SMA Detention Cell and the C-111 South Dade Northern Detention Area).

6.0 ENVIRONMENTAL COMPLIANCE

Operational guidance for the extension of the recovery period is described in the attached. Environmental effects of those operations are discussed within the temporary emergency deviation EA and FONSI dated 12 February 2016 and the Supplemental EA and FONSI dated 10 May 2016. Operational criteria as defined in the attached guidance with respect to the recovery period are within the latitude of what was previously specified for the high water deviation. Compliance and coordination, as required by NEPA and other environmental laws and policies as documented remains valid. No additional impacts from the federal action are expected that are not addressed in the prior NEPA documentation.

The L-29 Canal temporary emergency deviation would not adversely affect protected species. The U.S. Fish and Wildlife Service (USFWS) was contacted 11 February 2016 for notification of the proposed temporary emergency deviation prior to completion of the 12 February 2016 EA and FONSI. The USFWS indicated support for the effort, noting that staff would support consultation and conclusion of Section 7 responsibilities under the Endangered Species Act. Informal consultation for the L-29 Canal temporary emergency deviation was initiated with the USFWS on March 1, 2016 during preparation of the Supplemental EA and FONSI dated 10 May 2016. Consultation under the ESA has not been completed; however the USFWS indicated support for the temporary emergency deviation as a means to reduce the impacts of high water to listed and non-listed species within the project area.

The L-29 Canal temporary emergency deviation is not anticipated to adversely affect water quality and the requirement to obtain state water quality certification has been previously waived by the FDEP. In addition, an order (Emergency Measures-High Water Scenarios OGC No. 16-0286) was signed on 11 May 2016 by the FDEP to continue to operate structures specifically referenced in the Department's emergency final order (Emergency Authorization for Temporary Operational Changes to Address High Water Conditions in the South Florida Region, OGC case Nos: 00-0889) dated 11 February 2016, through 30 November 2016. The Corps has previously determined that the temporary emergency deviation is consistent to the maximum extent practicable with the enforceable policies of the Florida's approved Coastal Zone Management Program. FDEP previously concurred on 12 February 2016 and on 4 April 4 2016.

The L-29 Canal temporary emergency deviation has been coordinated with the Florida State Historic Preservation Officer and the appropriate federally recognized Tribes in accordance with the National Historic Preservation Act and consideration given under the NEPA. The Corps has determined that the temporary emergency deviation has no adverse effect on historic properties eligible or potentially eligible for the National Register of Historic Places.

The federal action will maintain the authorized purposes of the C&SF Project, which include flood control, navigation, preservation of fish and wildlife, drainage, salinity control and water supply. Implementation of an extended recovery period takes into account the need to maintain the authorized level of flood mitigation for 8.5 SMA and flood damage reduction along the L-31N and C-111 Canals, given current system conditions.

6.0 DETERMINATION AND CERTIFICATION

It is the position of the Jacksonville District that, in light of the impacts associated with this project, and demonstrated compliance with environmental regulations, the proposed action continues to meet NEPA requirements and preparation of additional NEPA documentation is not required. Compliance and coordination, as required by NEPA and other environmental laws and policies as documented within the EA and FONSI dated 12 February 2016 and the Supplemental EA and FONSI dated 10 May 2016, remains valid. The project is in compliance with the NEPA and Corps regulation ER 200-2-2 for implementing NEPA on Civil Works actions.

Gina Paduano Ralph, Ph.D.
Chief, Environmental Branch

"Recovery Period Extension Operational Plan to be implemented until the approval of the Revised Increment 1 Operational Strategy."

The goal of this Recovery Period Extension Operational Plan is to continue the Temporary Emergency Deviation 60-day recovery period operations until the Revised Increment 1 Operational Strategy is approved (presently anticipated in October 2016). The Temporary Emergency Deviation for the L-29 Canal stages above 7.5 ft, NGVD was concluded on 15 May after 90 days, and the 60-day recovery period for the 8.5 SMA and South Dade Conveyance System (SDCS) is currently in affect. In absence of an extension, the 60-day recovery period would conclude on 10-July. Consistent with the ongoing 60-day recovery period allowed under the Temporary Emergency Deviation, releases from WCA-3A via S-333 will continue to be made in accordance with Rainfall-based Management Plan target while not exceeding the L-29 average stage constraint of 7.5 ft, NGVD. In addition, low canal levels to allow for better drainage along the 8.5 Square Mile Area (SMA) and South Dade Conveyance System (SDCS) will be kept as outlined in the Temporary Emergency Deviation. The below operational criteria will be followed from July 10, 2016 until the Revised Increment 1 Operational Strategy is developed and implemented.

Operational Criteria

These criteria are formulated to deal with the likely above average flows and to adjust/compensate for the potential for an early end to the wet season. The following bullets describe the current conditions as of mid-June and indicate the need for an extended recovery period.

- With G3273 at 6.93 ft, NGVD NESRS can be characterized as being at the upper quartile (P75) for the historical period of record from 1990 to 2014. The stage of 6.55 at ANGEL indicates conditions that are between the median (P50) of 5.84 and the upper quartile (P75) 6.62 ft, NGVD for the period of record of 1984 through 2015.
- The current stage of WCA-3A, as measured by the three gage average, is near the top of Zone D which is relatively high for this time of the year. Specifically, the three gage average stage of 9.66 ft, NGVD put WCA-3A well above the median (P50) value of 9.34 and just below the upper quartile (P75) value of 9.81 ft, NGVD for the 1962 through 2014 Period of Record.
- For the northern portion of WCA-3A Site 62 (GA3A2 or the Deer Gage) is used to characterize the stage. Site 62 is currently 11.87 ft, NGVD which puts it between the P95 of 11.57 and the historical maximum of 12.06. On Wednesday June 22, 2016 the stage at Site 62 was high enough to trigger opening of S-340 and the expected flows of the next fourteen days are high enough to trigger the opening of S-339.
- With about 38,000 acre-ft of volume in the A1-FEB continued outflow on the order of 1,000 cfs with no inflow (which is unlikely in the wet season) is expected to persist for at least 19 days.
- With Lake Okeechobee at 14.92 ft, NGVD which is 1.66 ft above the historical average and 2.82 ft above the modeled average for the current regulation schedule, it is expected that if/when dry conditions occur in WCA-3A that treated water may be sent to the Water Conservation Areas (WCAs).

All of these stages are well above the median values indicating that it is likely that we will have above average conditions/flows through most of wet season. With WCA-3A flora and fauna still recovering from a high water event it is important to prevent, to the extent practical, another high water event. These criteria also take into account the need to A) complete the C-358 Canal (Richmond Drive Seepage Collection Canal) and installation of S-357N (C-358 control structure), B) completion of Contracts 8 and

8A (construction of the C-111 South Dade Northern Detention Area to fill the existing 2 mile gap in the hydraulic ridge system and provide a hydraulic connection between the 8.5 SMA Detention Cell and the C-111 South Dade Northern Detention Area), C) maintain the authorized level of flood mitigation for the 8.5 SMA, D) conservatively maintain flood damage reduction along the L-31N and C-111 Canals, and E) provide supplemental flows to Taylor Slough to facilitate the recovery of Florida Bay from the 2015 extreme Hyper-Salinity and to compensate for potential reductions in delivery of water to Taylor Slough through the Rocky Glades from achieving the previous goals.

During the extended recovery period, operational criteria within the SDCS will be managed in accordance with the Increment 1 Operational Strategy except where specified below (items A through E). The following Increment 1 criteria will be replaced, modified, or clarified:

A. L-29 Constraint and Rainfall Plan. The stage in the L-29 Canal will be limited to a maximum daily average of 7.5 ft, NGVD for the entire extended recovery period, consistent with the criteria identified for the Temporary Emergency Deviation during the 60-day recovery period. Consistent with the 2012 Water Control Plan, the normal latitude to adjust WCA-3A discharges based on expected inflows will be used in Zones A, D, and E1 (There is no Zone B & C). Additional flow above the rate prescribed by the Rainfall Plan will be allowed in Zone E when excess Lake Okeechobee water is being sent to WCA-3A. The additional volume discharged from WCA-3A will not exceeded the excess volume delivered to WCA-3A on a weekly basis. Discharge to WCA-3B (S-151-S-31 or S-151) or to tide (S-31) will be included in this calculation. As long as the WCA-3A three gage average is above 8.0 ft, NGVD (0.5 ft above the floor of 7.5 ft, NGVD) the SFWMD will deliver up to 250 cfs of additional water to supply water to Taylor Slough using S-332D, to maintain the hydraulic ridge within the C-111 South Dade Southern Detention Area using S-332B/S-332C, or a combination of both.

B. G-3273 Constraint. The G-3273 constraint will remain relaxed, however, flow into NESRS will be adjusted to moderate the rise in the stage at G-3273 as it rises from 6.8 to 7.2 ft, NGVD. If conditions (antecedent stage and rainfall) result in the stage exceeding 7.2 ft, NGVD then the net flow into NESRS will be zero until G-3273 recovers to below 6.8 ft, NGVD. Maintaining G-3273 stage near 6.8 ft, NGVD will result in stages higher than median.

C. S-357 and S-331. The operation of S-357 and S-331 will be used to facilitate the construction described above while maintaining 8.5 SMA authorized flood mitigation. Since the 8.5 SMA Detention Area abuts the Contract 8 construction area minimizing the use of S-357 and maximizing the use of S-331 will facilitate construction. The following operational criteria, guidance, and ranges will be used:

- The general operational range for C-357 will be from 5.0 to 5.5 with the latitude to allow a range of 5.5 to 6.0 if drier conditions allow reduced operation of S-357 (the operational range prescribed by the 2012 WCP and the Increment 1 Operational Strategy is 5.7 to 6.2). The previously used DELTA requirement will be suspended. If conditions allow and capacity is available at S-331, pumping at S-357 will be reduced to one pump or less to facilitate ongoing levee construction within the Northern Detention Area. Pumping with more than two units will be avoided if practicable by making the full use of S-331 and monitoring for recession rates and stages within the 8.5 SMA appropriate for the conditions.
- S-331 HW operational range will lower as the stage at LPG2 rises using the following ranges as long as there is downstream capacity. Providing capacity for the operational ranges prescribed

below will be a higher priority than regulatory releases from WCA-3A to S-331. These ranges may be lowered by as much as 0.5 feet if S-357 HW is above 5.5 feet NGVD and a lack of sufficient recession or water levels within the 8.5 SMA appropriate for the conditions (time of the year and rainfall) indicates the need.

  - When 6.0 < LPG2 < 6.5 then S-331 HW will be maintained between 4.0 and 4.5
  - When 5.5 < LPG2 < 6.0 then S-331 HW will be maintained between 4.5 and 5.0 (Operation is unchanged from the 2012 WCP and Increment 1).
  - When LPG2 HW < 5.5 then S-331 HW will be maintained between 5.0 and 6.0.

- If a rainfall event results in stages at G-3273, LPG2, and ANGEL above 7.0 ft, NGVD then a range of 3.5 to 4.0 may be used at S-331 HW until the stage at any one of these gages falls below 6.8 ft, NGVD. If capacity is not available at S-331 then S-357 pumping may be increased up to maximum until capacity at S-331 is available at S-331 or any of these gages falls below 6.8 ft, NGVD.

D. L-31N from S-331 to S-176. The C-111 South Dade pump stations S-332B, S-332C, and S-332D along L-31N are operated to provide flood protection to the South Dade basin, consistent with the objectives of the C-111 South Dade project. To facilitate the construction described above while providing operational flexibility to A) receive additional flow from S-331 due to increased pumping at S-331 for the 8.5 SMA as prescribed by the previous section, B) receive additional water from WCA-3A, and C) deliver additional water to Taylor Slough. The stage in the L-31N as measured by the HW of S-332B, S-332C, and S-332D will be maintained between 4.1 and 4.6 (off criteria are 0.4 feet lower than the Column 2 ranges of 4.5 to 4.8 feet NGVD) by generally adhering to the following sequence of priority: (1) using S-332B, S-332C, and S-332D first; (2) then using S-176 if there is available capacity at S-199/S-200 (to maximize flow to Taylor Slough) ; (3) then using S-194 and S-196 (discharge to Biscayne Bay through the C-102 and C-103 Canals) ; (4) and finally using S-176 , S-177, S-18C, to S-197 if capacity is available at S-197. With S-194 and S-196 are manually operated there will be some lag time in operational changes at these structures when it may be necessary to reduce pumping to maintain within range until the S-194/S-196 discharges can be adjusted. At times use of S-332BN will be reduced to facilitate Contract 8 construction and may be limited to one unit or not pumping at all while S-194 or S-196 or both are open.

E. C-111 from S-176 to S-197. S-197 will continue to be available for maximum discharges of up to 400 cfs when S-18C HW is above 2.3 ft, NGVD and the available capacity at S-199 and S-200 is insufficient. S-200 and S-199 will be used to maintain the C-111 reach from S-176 to S-177 within the calendar ranges listed below (from the C-111 Spreader Canal Western Project Preliminary Project Operating Manual dated May 2016)

- 4.0 to 3.0 January 1st through February 14th.
- 4.0 to 3.3 February 15th through July 31st.
- 3.4 to 3.0 August 1st through December 31st.

S-177 may be opened and used to lower the S-177 HW down to 3.6 ft NGVD if the available capacity provided by S-200 and S-199 is insufficient. The C-111 Spreader Canal Preliminary Project (C-111 SC Project) Operating Manual off criteria for S-199 and S-200 (3.6 feet, NGVD), is the same as the Column 1 and Column 2 gate closure criteria for S-177. S-199 and S-200 subject to their CSSS Nesting Constraints will be used to provide enhanced flows to Taylor Slough and Florida Bay while facilitating CSSS nesting. The C-111 SC Project is a SFWMD project and S-199 and S-200 are state owned and operated structures.

No specific exit strategy is provided for transition to drier conditions due to the complexities of meeting these somewhat conflicting objectives. However, the stage at the Taylor Slough Bridge (TSB) relative to the historical stages should be considered along with the expected availability of excess/supplemental water. The default operation for S-18C will be for S-18C to be operated consistent with the Column 1 (Open 2.6 Close 2.3) if no excess water from WCA-3A is being sent to the SDCS. If more than 100 cfs of excess water from WCA-3A is being sent to the SDCS then S-18C will be operated in Column 2 (Open 2.25 Close 2.00).

Compliance with all operational ranges will be assessed based on the daily average stage. Instantaneous stages are expected to go 0.2 to 0.3 outside of these ranges when pumps are cycling.

Operational Flexibility Allowed:

To address uncertainties, present or future system conditions, the following actions may be taken for any duration throughout the effect of the temporary deviation:

1. Adjust stages within the applicable canal system +/- 0.5 feet to maximize and/or optimize conditions consistent with the purpose.
2. Adjust gate openings, pump rates and/or flows as needed to maximize and/or optimize conditions consistent with the purpose.