

**APPENDIX A PART 2: 2018: L-29 CANAL AND G-3273 CONSTRAINT RELAXATION
INCLUDING THE NORTHERN DETENTION AREA (REVISED OPERATIONAL
STRATEGY INCREMENT 2)**

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TABLE 1 . COMPARISON TABLE: INCREMENT 1.1 AND 1.2 VERSUS INCREMENT 2

	Operational Component	Column 1: No WCA-3A Regulatory Releases to SDCS	Column 2: WCA-3A Releases to SDCS
No Substantial Change		<p>Operational criteria not specified in Table 1 will utilize 2012 WCP. If there is a conflict between the criteria in this table and the criteria described in text of the conditions then the criteria of the text in the conditions sections shall be control.</p> <p>The 2012 Water Control Plan, which includes the WCA-3A Regulation Schedule and the Rainfall Plan, will continue to govern water management operations during Increment 1.1, with the exception of operating criteria for S-12A, S-12B, S-328, S-151, S-331, S-333, S-334, S-335, S-337, S-338, S-343A, S-343B, S-344, S-355A, S-355B, S-356, S-357, S-357N, S-332B, S-332C, S-332D, S-194, S-196, S-176, S-177, and S-197 as contained in the below operational strategy for use during the field test</p> <p>The Flood Risk Management (FRM) and Environmental Restoration (ER) operational ranges prescribed below were developed from a combination of operational experience, modeling results, analysis of historical data, and the expected performance of existing and proposed features. These ranges are not the simple ON and OFF ranges used for pumps or the simple OPEN and CLOSE used for gates in C&SF modeling analyses. For example secondary routes are often represented in a model by setting a higher On/Off or Open/Close range for the structure conveying water to this route. Modeling of this nature establishes how often the use of the secondary route is required but not necessarily the optimum use of the conveyance. The operation plan should allow use of the secondary route with clear objectives (e.g. send water to maintain base flow or level or both) and constraints (e.g. maximum flow and stages).</p> <p>When stages are above the FRM&ER HIGH stage criteria, timely action (e.g. gate adjustment or pumping changes) will be made to lower the stage at a rate consistent with the existing conditions (e.g. height above the HIGH stage, rate of rise, recent basin rainfall, and expected inflows) and forecasted conditions.</p> <p>Within the range between the FRM&ER HIGH and FRM&ER LOW stage criteria, the operators have full discretion to adjust pumps or gates or a combination of both to achieve the stage deemed most appropriate for the current and expected conditions. Changes in pumps or pumping rate (number or RPM of pumps) can be implemented to rotate pumps or compensate for unavailable pumps. For basins with high rates of surface and groundwater interactions compliance with the operation range should be based on the daily average stage. For canal stages being maintained by pump stations compliance with the operation range should allow the use of daily averages (0000 to 2400) with the lowest operating stage maintained above the low limit for each pump.</p> <p>When the canal stage falls below the FRM&ER LOW stage criteria timely operational changes will be made to either raise the canal stage back to the operational range or transition into appropriate operational stages below the FRM&ER LOW stage (e.g. water conservation)</p> <p>Separate ranges (WS HIGH and WS LOW) are defined for when to initiate water supply (WS) and when to maximize water supply to the extent that water availability, conveyance, and other system constraints allow.</p>	
No Substantial Change	WCA-3A Interim Regulation Schedule	<p>WCA-3A Interim Regulation Schedule shown on Figure 7-5A, Figure 7-5B, and Figure 7-5C of the 2012 Water Control Plan. A revised Figure 7-5C is shown in Figure 2 for Increment 1.1/1.2 field test.</p> <p>When in Zone A S-12s, S-333, S-343A&B, and S-344 subject to conditions below, otherwise, S-12s open full, S-151 make discharges to the East Coast and ENP-SDCS as needed and make maximum allowable discharge when WCA-3B stage (Site 71) is below 8.5 feet, NGVD. S-343A&B and S-344, if non-</p>	<p>WCA-3A Interim Regulation Schedule shown on Figure 7-5A, Figure 7-5B, and Figure 7-5C of the 2012 Water Control Plan. A revised Figure 7-5C is shown in Figure 2 for Increment 1.1/1.2 field test.</p> <p>When in Zone A S-12s, S-333, S-343A&B, and S-344 subject to conditions in Table 7-1 of the 2012 Everglades Restoration Transition Plan Water Control Plan (2012 ERTWP WCP), otherwise, S-12s open full, S-151 make discharges to the East Coast and ENP-SDCS as needed and make maximum allowable discharge when WCA-3B stage (Site 71) is below 8.5 feet, NGVD. S-343A&B and S-344,</p>

	Operational Component	Column 1: No WCA-3A Regulatory Releases to SDCS	Column 2: WCA-3A Releases to SDCS
		<p>nesting season (15 July through 30 September), make maximum allowable discharge if downstream conditions permit.</p> <p>When in Zone D S-12s, S-333, S-343A&B, and S-344 subject to conditions below, otherwise, S-12s discharge Rainfall Plan target flow for S-12s. S-333 make water supply discharges to the East Coast and ENP-SDCS as needed, discharge Rainfall Plan target flow for S-333 when permitted by downstream conditions. S-151 makes water supply discharges to the East Coast and ENP-SDCS as needed. S-343A&B and S-344 normally closed in this Zone unless water is needed for environmental reasons. Operational intent is to maximize discharge capacity from S-333 prior to utilization of the S-12s, subject to conditions below.</p> <p>When in Zone E S-12s, S-333, S-151, S-343A&B, and S-344 subject to conditions below, otherwise, S-12s discharge Rainfall Plan target flow for S-12s. S-333 make water supply discharges to the East Coast and ENP-SDCS as needed, discharge Rainfall Plan target flow for S-333 when permitted by downstream conditions. S-151 makes water supply discharges to the East Coast and ENP-SDCS as needed. S-343A&B and S-344 normally closed in this Zone unless water is needed for environmental reasons. The L-67A Borrow Canal stage (S-333 headwater) should not be drawn down below 7.5 feet, NGVD unless water is supplied from another source. Operational intent is to maximize discharge capacity from S-333 prior to utilization of the S-12s, subject to conditions below.</p> <p>When in Zone E1, make up to maximum practicable releases at S-12C, S-12D, S-142, S-151, S-31, S-337, S-335, S-333, S-355 A/B, and S-334 when permitted by downstream conditions. S-12s, S-333, S-151, S-343A&B, and S-344 subject to conditions below, otherwise, S-12s discharge Rainfall Plan target flow for S-12s. Revert to Zone E rules if the FWS has determined that nesting for the CSSS-A has ended, or if the headwater at S-333 falls below 8.25 feet, NGVD. In Zone E1 the goal is to use the available capacity to gradually lower WCA-3A to the bottom of Zone E1 and then keep WCA-3A near the bottom of Zone E1 with a focus of keeping WCA-3A near 9.0 feet NGVD at the start of the wet season. The use of the capacity available in Zone E1 should consider the Snail Kite recession limits (about 0.33 feet per month).</p>	<p>if non-nesting season (15 July through 30 September), make maximum allowable discharge if downstream conditions permit.</p> <p>When in Zone D S-12s, S-333, S-343A&B, and S-344 subject to conditions below, otherwise, S-12s discharge Rainfall Plan target flow for S-12s. S-333 make water supply discharges to the East Coast and ENP-SDCS as needed, discharge Rainfall Plan target flow for S-333 when permitted by downstream conditions. S-151 makes water supply discharges to the East Coast and ENP-SDCS as needed and make up to maximum allowable discharge when WCA-3B stage (Site 71) is below 8.5 feet, NGVD. S-343A&B and S-344 normally closed in this Zone unless water is needed for environmental reasons. Operational intent is to maximize discharge capacity from S-333 prior to utilization of the S-12s, subject to conditions below.</p> <p>When in Zone E S-12s, S-333, S-151, S-343A&B, and S-344 subject to conditions below, otherwise, S-12s discharge Rainfall Plan target flow for S-12s. S-333 make water supply discharges to the East Coast and ENP-SDCS as needed, discharge Rainfall Plan target flow for S-333 when permitted by downstream conditions. S-151 makes water supply discharges to the East Coast and ENP-SDCS as needed. S-343A&B and S-344 normally closed in this Zone unless water is needed for environmental reasons. The L-67A Borrow Canal stage (S-333 headwater) should not be drawn down below 7.5 feet, NGVD unless water is supplied from another source. Operational intent is to maximize discharge capacity from S-333 prior to utilization of the S-12s, subject to conditions below.</p> <p>When in Zone E1, make up to maximum practicable releases at S-12C, S-12D, S-142, S-151, S-31, S-337, S-335, S-333, S-355 A/B, and S-334 when permitted by downstream conditions. S-12s, S-333, S-151, S-343A&B, and S-344 subject to conditions below, otherwise, S-12s discharge Rainfall Plan target flow for S-12s. Revert to Zone E rules if the FWS has determined that nesting for the CSSS-A has ended, or if the headwater at S-333 falls below 8.25 feet, NGVD. In Zone E1 the goal is to use the available capacity to gradually lower WCA-3A to the bottom of Zone E1 and then keep WCA-3A near the bottom of Zone E1 with a focus of keeping WCA-3A near 9.0 feet NGVD at the start of the wet season. The use of the capacity available in Zone E1 should consider the Snail Kite recession limits (about 0.33 feet per month).</p>

	Operational Component	Column 1: No WCA-3A Regulatory Releases to SDCS	Column 2: WCA-3A Releases to SDCS
No Substantial Change	Rainfall Plan	Rainfall Plan located in Table 7-1 of the 2012 Water Control Plan. Operational intent is to maximize discharge capacity from S-333 prior to utilization of the S-12s, subject to conditions below. Rainfall Plan target distribution through S-333 may exceed 55% of the Rainfall Plan target. When S-12s capacity is required the structure should be opened from east to west. S-12s/S-333 pre-emptive/proactive releases to better manage high stages in WCA-3A. S-12s and/or S-333 release up to projected WCA-3A inflow based upon system water management operations and/or rainfall to create storage in WCA-3A for expected inflow. Regulatory component of the Rainfall Plan determined by multiplying the distance (in feet) the WCA-3A water level is above Zone E/E1 by 2,500 cfs from 1 January through 30 June and by 5,000 cfs from 1 July through 31 December.	Calculate Modified Rainfall Plan to gather comparison and historical information.
No Change	Pre-Storm/Storm / and Storm Recovery Operations for the SDCS	Pre-Storm/Storm/and Storm Recovery Operations for the SDCS in Table 7-6 of the 2012 Water Control Plan.	
No Change	S-343A, S-343B, and S-344	Closed from 1 October through 14 July independent of WCA-3A levels.	
No Substantial Change	S-12 A/B/C/D	S-12A closed from 01 October through 14 July with the following limited conditional opening; S-12B closed from 01 October through 14 July with the following limited conditional opening; S-12A and/or S-12B will be conditionally opened during October under the following conditions. <ol style="list-style-type: none"> 1. WCA-3A stage on 30 Sep is greater than 10.5 ft, NGVD; or 2. WCA-3A stage is projected to rise above 10.75 ft, NGVD (IOP Zone A) during October, based on consideration of projected inflows and direct rainfall. 3. S-12A and/or S-12B will be conditionally closed when the WCA-3A stage falls below 10.25 feet NGVD, OR on 01 November, whichever comes first. S-12B will be conditionally opened during November under the following conditions. <ol style="list-style-type: none"> 1. WCA-3A stage on 31 Oct is greater than 11.0 ft, NGVD; or 2. WCA-3A stage is projected to rise above 11.25 ft, NGVD during November, based on consideration of projected inflows and direct rainfall. 3. S-12B will be closed when the WCA-3A stage falls below 10.75 feet NGVD, OR on 01 December, whichever comes first. S-12C no closure period. S-12D no closure period.	

	Operational Component	Column 1: No WCA-3A Regulatory Releases to SDCS	Column 2: WCA-3A Releases to SDCS
		<p>S-12A Year-round: To provide access to cultural areas, when Rainfall Plan results in S-12 target flows, S-12A up to 100 cfs release.</p> <p>S-12A Cultural Access Release: S-12A up to 100 cfs release available when Rainfall Plan results in S-12 target flows. From 01 October through 14 July, USACE must request informal consultation with FWS to avoid impacts on CSSS-A. During this time, the duration of this release will not exceed five consecutive days. S-12A up to 100 cfs release may only occur when WCA-3A 3-gage average (WCA-3AVG - Sites 63, 64, 65) is greater than 8.4 feet, NGVD. During S-12A up to 100 cfs release, data such as but not limited to NP-205 and area rainfall will be monitored with NP-205 increase or anticipated increase above 5.7 feet, NGVD resulting in closing of S-12A.</p> <p>S-12C/D Year-round: S-12C and/or S-12D release up to WCA-3A Regulation Schedule (Zone A maximum) or Rainfall Plan (target flow).</p> <p>S-12s Flow Distribution: S-12 opening sequence to meet Target Flows is from east (S-12D) to west (S-12A); S-12s flow distributions would not be limited to the historical percentage distribution of flow from the S-12s (10 percent at S-12A, 20 percent at S-12B, 30 percent at S-12C, 40 percent at S-12D).</p> <p>S-12A/B/C/D Headwater greater than 11.0 feet, NGVD: May be opened an amount only enough to stop overtopping of gates. The Corps will assess the feasibility of leaving the gates closed and allowing overtopping.</p> <p>DOI to install sandbags to prevent flow through culverts under ENP Tram Road by February 1 if necessary.</p>	
Increment 1.1/1.2	S-333	<p>Closed when L-29 Canal stage is above its maximum limits under Increment 1.1 and 1.2, respectively. Refer to L-29 Borrow Canal criteria below.</p> <p>Rainfall Plan target flow for S-333 (to NESRS). Rainfall Plan target distribution through S-333 may exceed 55% of the Rainfall Plan target.</p> <p>When WCA-3A is in Zone E1 or Zone A, up to maximum practicable through S-333 to NESRS.</p> <p>Water Supply and Supplemental Deliveries (up to 250 cfs) to Taylor Slough, Florida Bay, and Manatee Bay may be delivered through this route when it does not conflict with use of S-356. Water Supply and Supplemental Deliveries may be delivered through the S-151, S-337, S-335 route.</p>	<p>Rainfall Plan target flow for S-333 (to NESRS), plus as much of the remaining Rainfall Plan target flow that the S-12s cannot discharge to be passed through S-334 and subject to capacity constraints, which are 1,350 cfs at S-333, L-29 maximum stage limit, and canal stage limits downstream of S-334.</p> <p>When WCA-3A is in Zone E1 or Zone A, up to maximum practicable through S-333 to NESRS.</p> <p>S-334 flows will not be constrained by S-333 flows, and there is no constraint to require matching S-333 and S-334 flows.</p>
Increment 2	S-333	<p>Closed when L-29 Canal stage is above its maximum limits under Increment 2. Refer to L-29 Borrow Canal criteria below.</p> <p>Rainfall Plan target flow for S-333 (to NESRS). Rainfall Plan target distribution through S-333 will be up to maximum practicable of the Rainfall Plan target.</p> <p>When WCA-3A is in Zone E1 or Zone A, up to maximum practicable through S-333 to NESRS.</p>	<p>Rainfall Plan target flow for S-333 (to NESRS), plus as much of the remaining Rainfall Plan target flow that the S-12s cannot discharge to be passed through S-334 and subject to capacity constraints, which are 1,350 cfs at S-333, L-29 maximum stage limit, and canal stage limits downstream of S-334.</p> <p>When WCA-3A is in Zone E1 or Zone A, up to maximum practicable through S-333 to NESRS.</p>

	Operational Component	Column 1: No WCA-3A Regulatory Releases to SDCS	Column 2: WCA-3A Releases to SDCS
		Water Supply and Supplemental Deliveries (up to 250 cfs) to Florida Bay via Taylor Slough may be delivered through this route when it does not conflict with use of S-356. However, more than 250 cfs may be conveyed to meet other purposes. Water Supply and Supplemental Deliveries may be delivered through the S-151, S-337, S-335 route.	S-334 flows will not be constrained by S-333 flows, and there is no constraint to require matching S-333 and S-334 flows. S-333/S-334 are operated in accordance with Condition 3. Refer to Section 5.3 in the operational strategy. When daily combined pumping at S-332B, S-332C, and S-332D is less than 1,125 cfs, S-334 may be utilized up to a maximum flow rate of 250 cfs. When daily combined pumping at S-332B, S-332C, and S-332D is less than 1,000 cfs (increased storage capacity may be available within the SDCS), S-334 may be utilized up to 400 cfs.
Increment 1.1/1.2	L-29 Borrow Canal	L-29 Maximum Canal Stage is limited to 7.5 ft, NGVD. Maximum operating limit may be raised from 7.5 to 7.8 ft, NGVD contingent upon the following. A. The required real estate interest and any associated improvements for the private ownership along Tamiami Trail B. Functional completion of the C-358 Canal and installation of S-357N C. Completion of sufficient portions of Contract 8, which are the construction of the C-111 NDA L-315 western levee and the L-357W Extension Levee between Richmond Drive and completion of the Contract 8A modifications within the 8.5 SMA Detention Cell.	
Increment 2	L-29 Borrow Canal	<p>The L-29 Canal will be operated to ensure the stability and safety of the Tamiami Trail (U.S. 41) Highway between S-333 and S-334, in accordance with the approved LRR, the September 25, 2008 TTM FDOT Relocation Agreement and the 2017 coordination with FDOT.</p> <p>Once the stage in the L-29 Canal reaches a stage of 8.5 feet, NGVD, input from all structures that discharge into the canal (S-333, S-355A/B, and S-356) shall be stopped until the level in the L 29 Canal recedes beneath 8.5 feet, NGVD. If unexpected high rainfall beyond what was forecasted causes the L-29 Canal to exceed 8.5 feet, NGVD, inflow structures will be operated with the intention of limiting event durations with L-29 Canal stages above 8.5 feet NGVD to a target maximum duration of 72 hours. For each water year (May through April), the L-29 Canal inflow structures will be managed to limit the duration of L-29 Canal stages near 8.5 feet, NGVD 90 cumulative days* or to a maximum of 90 consecutive days*, and the conditions of the Tamiami Trail roadway sub-base and roadway will be continuously monitored as detailed in the Increment 2 Monitoring Plan. Monitoring protocols and deployment shall be developed within 45 days of Increment 2 implementation. Continued L-29 structure inflows which result in either cumulative or consecutive durations with L-29 Canal stages at 8.5 feet, NGVD for longer than 90 days will require written approval from the FDOT, given evaluation of the monitoring data by the USACE and FDOT. L-29 canal elevation with regard to this criteria will be measured at the higher of the S-333 Tailwater (S-333 TW) or the S-334 Headwater (S-334 HW).</p> <p>L-29 Event Driven Criteria**: For example, the below Quantitative Precipitation Forecasts (QPF) ranges may be used to maintain L-29 below 8.5 feet, NGVD.</p> <ul style="list-style-type: none"> 8.4 If the 5-day QPF is for 2 to 3 inches L-29 structural inflows shall be reduced until the stage is below 8.4 feet, NGVD 8.3 If the 5-day QPF is for 3 to 4 inches L-29 structural inflows shall be reduced until the stage is below 8.3 feet, NGVD 8.2 If the 5-day QPF is for 4 to 5 inches L-29 structural inflows shall be reduced until the stage is below 8.2 feet, NGVD 8.1 If the 5-day QPF is for 5 to 6 inches L-29 structural inflows shall be reduced until the stage is below 8.1 feet, NGVD <p>* The number of either cumulative or consecutive days in each period will be measured when L-29 stages exceed 8.3 feet, NGVD. This does not exclude short-term operations to address the L-29 Event Driven Criteria. There will be one period per water year (May through April), subject to revision via FDOT approval. ** Stopping flows shall occur in the order prescribed by S-356 and S-333 criteria specified in Conditions 1, 2, 3, and 4 with the intent to achieve the required stage reduction within 72 hours.</p>	

	Operational Component	Column 1: No WCA-3A Regulatory Releases to SDCS	Column 2: WCA-3A Releases to SDCS
No Substantial Change	S-355A & S-355B	Follow the same constraints as S-333. Open whenever hydraulic gradient allows flow from WCA-3B to L-29 with low risk of backflow from L-29 to WCA-3B. A. Constraints on the Operation of S-355A and S-355B. The S-355A and S-355B water control structures will be operated to comply with the following constraints: i. The S-355A or S-355B or both shall be opened only when there is sufficient stage difference between the water levels in Water Conservation Area (WCA)-3B at S-355A/S-355B and the L-29 Borrow Canal and whenever the gradient allows for southerly flow from WCA-3B at S-355A/S-355B to L-29 Borrow Canal; ii. Discharges from S-355A or S-355B or a combination of both shall be limited as required to prevent the L-29 Canal stage from exceeding the L-29 Borrow Canal stage constraint as determined by the water control plan; iii. Discharges from S-355A or S-355B or a combination of both shall be limited as required to prevent impacts to the existing project purposes of the Central & Southern Florida (C&SF) Project including but not limited to flood damage reduction and water supply; and iv. Operations are consistent with, and follow, the existing regulation schedule and water control plan for WCA 3A/3B. B. The S-355A and S-355B water control structures shall be closed if any of the four conditions above are not met, and when there is a potential for reverse flow (from L-29 Borrow Canal to WCA-3B) through the structures. The actual open and close levels of the structures will depend on the water conditions, forecasts, and other system constraints.	
Increment 1.1/1.2	S-334	Water Supply and Supplemental Deliveries up to 250 cfs as measured at S-334 or S-337 to Taylor Slough, Florida Bay, and Manatee Bay.	Pass all or partial S-333 flows subject to downstream constraints. S-334 flows will not be constrained by S-333 flows, and there is no constraint to require matching S-333 and S-334 flows. Operated in accordance with Condition 3. Refer to Section 4.4 in the Operational Strategy. Water Supply Supplemental Water Deliveries up to 250 cfs as measured at S-334 or S-337 to Taylor Slough, Florida Bay, and Manatee Bay.

	Operational Component	Column 1: No WCA-3A Regulatory Releases to SDCS	Column 2: WCA-3A Releases to SDCS
Increment 2	S-334	<p>Water Supply and Supplemental Deliveries up to 250 cfs as measured at S-334 or S-337 to Florida Bay via Taylor Slough. However, more than 250 cfs may be conveyed to meet other purposes.</p> <p>Under Conditions 1 through 4, S-334 may be used to maintain the L-29 Canal stage at or below the adjusted constraint of 8.5 feet, NGVD to ensure the stability and safety of the Tamiami Trail (U.S. 41) Highway between S-333 and S-334, in accordance with the 2017 coordination with FDOT. If S-334 is operated in accordance with this condition, S-334 is closed as soon as 8.3 ft, NGVD in L-29 is reached following the post-event recession.</p>	<p>Pass all or partial S-333 flows subject to downstream constraints. S-334 flows will not be constrained by S-333 flows, and there is no constraint to require matching S-333 and S-334 flows.</p> <p>Under Conditions 1 through 4, S-334 may be used to maintain the L-29 Canal stage at or below the adjusted constraint of 8.5 feet, NGVD to ensure the stability and safety of the Tamiami Trail (U.S. 41) Highway between S-333 and S-334, in accordance with the 2017 coordination with FDOT. If S-334 is operated in accordance with this condition, S-334 is closed as soon as 8.3 ft, NGVD in L-29 is reached following the post-event recession.</p> <p>Operated in accordance with Condition 3. Refer to Section 5.3 in the operational strategy. The L-29 Canal must be below 7.8 feet, NGVD. When the daily average stage in L-31N using the HW of S-332B, S-332C, and S-332D can be maintained below 4.4 feet, NGVD then there is no limit on the S-334 discharge as long as the other L-31N canal reaches are maintained within their respective ranges. When daily combined pumping at S-332B, S-332C, and S-332D is less than 1,125 cfs, S-334 may be utilized up to a maximum flow rate of 250 cfs. When daily combined pumping at S-332B, S-332C, and S-332D is less than 1,000 cfs (increased storage capacity may be available within the SDCS), S-334 may be utilized up to 400 cfs.</p> <p>Water Supply</p> <p>Supplemental Water Deliveries up to 250 cfs as measured at S-334 or S-337 to Florida Bay via Taylor Slough. However, more than 250 cfs may be conveyed to meet other purposes.</p>
Increment 1.1/1.2	S-356	<p>Operating Range from 5.5 to 5.8 NGVD</p> <p>Operated in accordance with Condition 1 and Condition 2. Refer to the conditions language in the Operational Strategy.</p> <p>Under normal conditions, the intent will be to use S-356 to maximize flow to NESRS and thereby reduce the use of S-338/G-211 with the exception of water supply and supplemental water deliveries.</p> <p>S-336 will be closed when S-356 is operated.</p> <p>When supplemental water deliveries are being delivered through S-334 and they by themselves or in combination with local rainfall result in S-356</p>	<p style="text-align: center;">Not Operated</p>

	Operational Component	Column 1: No WCA-3A Regulatory Releases to SDCS	Column 2: WCA-3A Releases to SDCS
		<p>pumping to maintain the canal range below the top of the range, the supplement delivery will be stopped by closing S-334 by the next business day or sooner. Supplemental water can be delivered to Taylor Slough through S-151, S337, S-335 while S-356 is operating.</p> <p>S-356 may be used to divert excess flow from L-30 through S-335 if desired by the agencies (ENP, SFWMD, and USACE). S-335 releases are still dependent on having available downstream capacity.</p>	
Increment 2	S-356	<p>Operating Range from 5.5 to 5.8 feet NGVD</p> <p>Operated in accordance with Condition 1 and Condition 2. Refer to the conditions language in the operational strategy.</p> <p>Under normal conditions, the intent will be to use S-356 to maximize flow to NESRS and thereby reduce the use of S-338/G-211 with the exception of water supply and supplemental water deliveries.</p> <p>S-336 will be closed when S-356 is operated.</p> <p>When supplemental water deliveries are being delivered through S-334 and they by themselves or in combination with local rainfall result in S-356 pumping to maintain the canal range below the top of the range, the supplement delivery will be stopped by closing S-334 by the next business day or sooner. Supplemental water can be delivered to Taylor Slough through S-151, S337, S-335 while S-356 is operating.</p> <p>S-356 may be used to divert excess flow from L-30 through S-335 if desired by the agencies (ENP, SFWMD, and USACE). S-335 releases are still dependent on having available downstream capacity.</p> <p>S-356 may be used to send water from WCA-3A to the NESRS by way of the S-151, S-337 and S-335 structures subject to L-29 Canal constraints if agreed upon by the SFWMD, ENP and the USACE. These deliveries are in addition to the Rainfall Plan target deliveries to NESRS.</p> <p>Compliance with the range limits is based on the daily average stage at S 356/S 336 headwaters.</p>	Not Operated

	Operational Component	Column 1: No WCA-3A Regulatory Releases to SDCS	Column 2: WCA-3A Releases to SDCS
Increment 1.1/1.2	S-151	Water Supply Supplemental Deliveries up to 250 cfs as measured at S-334 or S-337 to Taylor Slough, Florida Bay, and Manatee Bay.	Regulatory releases pursuant to WCA-3A Regulation Schedule during Conditions 3. Refer to the conditions language in the Operational Strategy. Water Supply Supplemental Deliveries (up to 250 cfs) to Taylor Slough, Florida Bay, and Manatee Bay.
Increment 2	S-151	Water Supply Supplemental Deliveries up to 250 cfs as measured at S-334 or S-337 to Florida Bay via Taylor Slough. The available capacity of the S-152 structure will be considered any time S-151 is used to deliver water to WCA-3B.	Regulatory releases pursuant to WCA-3A Regulation Schedule during Conditions 3. Refer to the conditions language in the operational strategy. Water Supply Supplemental Deliveries (up to 250 cfs) to Florida Bay via Florida Bay.
Increment 1.1/1.2	S-337	Water Supply Supplemental Deliveries up to 250 cfs as measured at S-334 or S-337 to Taylor Slough, Florida Bay, and Manatee Bay.	Regulatory releases pursuant to WCA-3A Regulation Schedule during Conditions 3. Refer to the conditions language in the Operational Strategy. Supplemental Water Deliveries up to 250 cfs as measured at S-334 or S-337 to Taylor Slough, Florida Bay, and Manatee Bay.
Increment 2	S-337	Water Supply Supplemental Deliveries up to 250 cfs as measured at S-334 or S-337 to, Florida Bay via Taylor Slough. However, more than 250 cfs may be conveyed to meet other purposes.	Regulatory releases pursuant to WCA-3A Regulation Schedule during Conditions 3. Refer to the conditions language in the operational strategy. Supplemental Water Deliveries up to 250 cfs as measured at S-334 or S-337 to, Florida Bay via Taylor Slough. However, more than 250 cfs may be conveyed to meet other purposes.
Increment 1.1/1.2	S-335	Condition 1 and Condition 2 Operating Range from 6.5 to 7.0 NGVD Condition 3 and Condition 4 Operating Range from 7.0 to 7.5 feet NGVD Water Supply Supplemental Deliveries up to 250 cfs as measured at S-334 or S-337 to Taylor Slough, Florida Bay, and Manatee Bay.	
Increment 2	S-335	Condition 1 and Condition 2 Operating Range from 6.5 to 7.0 feet, NGVD Condition 3 and Condition 4 Operating Range from 7.0 to 7.5 feet, NGVD Water Supply Supplemental Deliveries up to 250 cfs as measured at S-334 or S-337 to Florida Bay via Taylor Slough. However, more than 250 cfs may be be conveyed to meet other purposes.	

	Operational Component	Column 1: No WCA-3A Regulatory Releases to SDCS	Column 2: WCA-3A Releases to SDCS
No Change	S-338	Operating Range from 5.5 to 5.8 feet NGVD	
Increment 1.1/1.2	G-211	<p>Operating Range from 5.5 to 6.0 feet NGVD</p> <p>Note: If S-331 pumping is limited and the G-211 tailwater rises above 5.3 feet, NGVD then close G-211.</p> <p>Supplemental Deliveries up to 250 cfs as measured at S-334 or S-337 to Taylor Slough, Florida Bay, and Manatee Bay. It is the expectation that supplemental deliveries will not cause prolonged pumping with two or more units at S-331.</p>	<p>Operating Range from 5.3 to 5.7 feet NGVD</p> <p>Note: If S-331 pumping is limited and the G-211 tailwater rises above 5.3 feet, NGVD then close G-211.</p> <p>Supplemental Deliveries up to 250 cfs as measured at S-334 or S-337 to Taylor Slough, Florida Bay, and Manatee Bay. It is the expectation that supplemental deliveries will not cause prolonged pumping with two or more units at S-331.</p>
Increment 2	G-211	<p>Operating Range from 5.5 to 6.0 feet, NGVD</p> <p>Note: If S-331 pumping is limited and the G-211 tailwater rises above 5.3 feet, NGVD then close G-211.</p> <p>Supplemental Deliveries up to 250 cfs as measured at S-334 or S-337 to Florida Bay via Taylor Slough. However, more than 250 cfs may be conveyed to meet other purposes. It is the expectation that supplemental deliveries will not cause prolonged pumping with two or more units at S-331.</p>	<p>Operating Range from 5.3 to 5.7 feet, NGVD</p> <p>Note: If S-331 pumping is limited and the G-211 tailwater rises above 5.3 feet, NGVD then close G-211.</p> <p>Supplemental Deliveries up to 250 cfs as measured at S-334 or S-337 to Florida Bay via Taylor Slough. However, more than 250 cfs may be conveyed to meet other purposes. It is the expectation that supplemental deliveries will not cause prolonged pumping with two or more units at S-331.</p>
Increment 1.1/1.2	S-357	<p>S-357 will be operated to maintain an average-daily water level in C-357 at LPC1 or S-357 headwater between 5.0 to 5.5 feet, NGVD. When drier conditions allow reduced pumping at S-357, canal range of 5.5 to 6.0 feet, NGVD may be utilized.</p> <p>S-357 operations will be constrained to two pump units for most conditions and S-331 will be used more to provide flood mitigation for the Las Palmas Community (8.5 SMA) and to help facilitate the S-357N, Contract 8, and Contract 8A construction.</p> <p>If the stage at LPG2 rises above 6.6 feet NGVD then a canal range of 3.5-4.0 may be used at S-331 until the stage at LPG2 falls below 6.5 feet NGVD. If capacity is not available at S-331 to maintain this lower range or S-357 stage exceeds 6.2 ft, NGVD, then pumping at S-357 may be increased to more than two units until the stage at LPG2 falls below 6.5 feet NGVD.</p> <p>Pump sequence: Step 1. Use S-331 pump and follow its criteria; if desired recession rates not achieved at LPG2, then go to step 2. Step 2. Turn on one electric or one diesel unit; if more pumping capacity is needed then go to step 3. Step 3. Turn on two units; if more pumping capacity is still needed and capacity is not available at S-331 to maintain the lower range of 3.5-4.0, then go to step 4. Step 4. Turn on three units with the goal of holding S-357 HW at 3.0 ft, NGVD and not to exceed 10.0 ft, NGVD at LPDC1 gage.</p> <p>When S-357 pump station is restricted due to the construction of the flow way berms inside the 8.5 SMA detention cell and subsequent operational testing, the following constraints will be used to maintain the flood mitigation for 8.5 SMA..</p>	

	Operational Component	Column 1: No WCA-3A Regulatory Releases to SDCS	Column 2: WCA-3A Releases to SDCS
		1. If no units are available, a G-3273 constraint of 6.8 ft, NGVD will be used for S-333 and S-356. 2. If one electric or one diesel is available, a G-3273 constraint of 6.9 ft, NGVD will be used for S-333 and S-356. 3. If two units are available, a G-3273 constraint of 7.0 ft, NGVD will be used for S-333 and S-356. Following completion of C-111 South Dade NDA, there will be no restrictions of the number of pump units at S-357.	
Increment 2	S-357	S-357 will be the primary water control structure for flood mitigation in the 8.5 SMA. S-357 will be operated according to the below criteria. 1a. Angels < 6.0 feet, NGVD, C-357 will be maintained between 5.5 to 6.0 feet, NGVD. 1b. $6.0 \leq \text{Angels} < 6.4$ feet, NGVD, C-357 will be maintained between 5.0 and 6.0 feet, NGVD 1c. Angels ≥ 6.4 feet, NGVD, C-357 will be maintained between 4.5 and 5.5 feet, NGVD 1d. Angels ≥ 6.7 feet, NGVD and LPG2 ≥ 6.6 feet, NGVD, C-357 will be maintained between 4.0 and 5.0 feet, NGVD until LPG2 < 6.4 feet, NGVD 1e. Angels ≥ 7.2 feet, NGVD, and LPG2 ≥ 6.6 feet, NGVD for 7 days or more, C-357 will be maintained between 3.5 and 4.5 feet, NGVD until LPG2 < 6.4 feet, NGVD 2. LPG2 ≥ 7.0 feet, NGVD for more than 24 hours, C-357 will be maintained between 3.5 and 4.5 feet, NGVD until LPG2 < 6.4 feet, NGVD The stage and recession rate of 8.5 SMA gages will be reviewed based on conditions and if necessary the range may be lowered by 0.5 feet increments if the flood mitigation criteria is not being met. This flexibility will be used until LPG2 < 6.6 feet, NGVD. When all available pumps at S-357 and S-331 are operating below 4.0 feet, NGVD for over two weeks and the 8.5 SMA flood mitigation criteria is not being met at LPG2 or LPG1, WCA-3A discharges through S-333 structure to NESRS will be incrementally reduced until the mitigation targets (reference mitigation targets appendices) at either LPG2 or LPG1 are met. Additional Operating Information: When operating near range limits operations may be adjusted to the nearest range without reaching the range. This allows a transition to the next projected range or to avoid rapid changes in operating ranges. When transitioning between the operational ranges, the intent is to transition within a 24 hour period. The North Detention Area will have an initial normal maximum water stage limit of 8.5 feet, NGVD at the NDA1W gauge. However, if the USACE determines that a flood emergency exists the depth of water would be increased to 3.5 feet*, if possible. *The depth limit is derived based on the estimated average across the entire detention area, although operations are limited by the availability of real-time stage monitoring gages.	

	Operational Component	Column 1: No WCA-3A Regulatory Releases to SDCS	Column 2: WCA-3A Releases to SDCS
Increment 2 Only	S-357N	The testing protocol for S-357N during the Increment 2 field test is designed to establish the operating criteria for S-357N. The Corps and SFWMD will use the S-357N_H gage to develop the testing protocols of S-357N during the Increment 2 field test. The testing protocol for S-357N will be an iterative approach consisting of 4 to 5 weeks of gate changes during the wet season. The S-357N gate changes will be meant to test the hydrologic response of the system to minor adjustments in operations at S-357N in accordance with the S-357N testing protocol. NOTE: <ul style="list-style-type: none"> • S-357N consists of 3 box type gated concrete control structures. Each structure will be equipped with a manually operated double leaf slide gate system. The double leaf slide gate system was designed to accommodate variable flow regimes: (1) weir flows to by lowering the top gate; (2) orifice flows by raising the lower gate; or (3) submerged or un-submerged, uncontrolled flows by raising both the top and bottom gates above the top (crown) of the culvert. • A newly installed water level monitoring gage (S-357N_H) upstream of S-357N will be observed during S-357 pumping (refer to Figure 4). 	
Increment 1.1/1.2	S-331	S-331 HW operational range will lower as the stage at LPG2 rises 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. <ol style="list-style-type: none"> 1. When $LPG2 > 6.6$ then S331 HW will be maintained between 3.5 and 4.0 until the stage at LPG2 falls below 6.5 feet NGVD. 2. When $6.0 < LPG2 < 6.6$ then S331 HW will be maintained between 4.5 and 4.0. 3. When $5.5 < LPG2 < 6.0$ then S331 HW will be maintained between 5.0 and 4.5. When $LPG2 < 5.5$ then water manager may use any operation range as long as the bottom of the range is at or above 5.0 ft, NGVD (e.g. 5.5 to 6.0). If the stage at LPG2 rises above or expected to rise and remain above 6.6 feet NGVD for over 24 hours then a range of 3.5-4.0 may be used at S-331 until the stage at LPG2 falls below 6.5 feet NGVD. If capacity is not available at S-331 to maintain this lower range or S-357 stage exceeds 6.2 ft, NGVD, then pumping at S-357 may be increased to more than two units until the stage at LPG2 falls below 6.5 feet NGVD. Supplemental Deliveries up to 250 cfs as measured at S-334 or S-337 to Taylor Slough, Florida Bay, and Manatee Bay. It is the expectation that supplemental deliveries will not cause prolonged pumping with two or more units at S-331. When $LPG2 < 5.5$ then water manager may use any operation range as long as the bottom of the range is at or above 5.0 ft, NGVD (e.g. 5.5 to 6.0) when pumping at S-331 and above 4.8 when siphoning at S-331. There is no stage requirement when water supply deliveries are being made through G-211.	
Increment 2	S-331	Initial operations of S-331 will be based on S-331 HW. If necessary, adjustments to the operational range of S-331 will be made after selecting a trigger location and criteria for providing flood mitigation along L-31N. Operational Range 5.0 to 5.5 feet, NGVD with the ability to adjust up to 0.5 feet with the development of a trigger stage. <ol style="list-style-type: none"> 1. When $LPG2 \geq 7.0$ then S331 HW may be maintained between 4.5 to 5.0 until the stage at LPG2 falls below 6.5 feet, NGVD. The stage and recession rate of 8.5 SMA gages, especially LPG-2 will be reviewed based on conditions and if necessary the range may be lowered incrementally by 0.5 feet if the flood mitigation criteria is not being met. Conversely, if the operation ranges consistently provide drainage that exceeds the authorized flood mitigation the ranges will be incrementally raised by 0.5 feet or narrowed to the upper 0.5 feet of the range. However, S-331 will not be operated below 3.0 feet, NGVD. If the required capacity at S-357 is unavailable the operational range of S-331 may be lowered using the following criteria:	

	Operational Component	Column 1: No WCA-3A Regulatory Releases to SDCS	Column 2: WCA-3A Releases to SDCS
		When LPG2 > 7.0 then S331 HW will be maintained between 3.5 and 4.0 until the stage at LPG2 falls below 6.5 feet NGVD.	
Increment 1.1/1.2	Northern Detention Area (NDA)	<p>The final configuration of the NDA is being constructed (exterior berms and interior berms). The future NDA will connect the 8.5 Square Mile Area (SMA) Detention Cell and contain what is now the S-332B North Detention Area (also referred to as the S-332B North Seepage Reservoir within Table 1).</p> <p>This seepage reservoir will have a normal maximum water depth limit of 2.5 feet*. However, if the USACE determines that a flood emergency exists the depth of water would be increased to 3.5 feet*, when possible.</p> <p>*The depth limit is based on the estimated averaged across the entire detention area.</p>	
Increment 2	Northern Detention Area (NDA)	<p>The NDA connects the 8.5 Square Mile Area (SMA) Detention Cell and encompasses the S-332B North Detention Area.</p> <p>The NDA has a normal maximum water depth limit of 8.5 feet, NGVD at the NDA1W gauge. However, if the USACE determines that a flood emergency exists the depth of water would be increased to 3.5 feet*, if possible.</p> <p>*The depth limit is based on the estimated averaged across the entire detention area.</p>	
Increment 1.1/1.2	Southern Detention Area (SDA)	<p>The final configuration of the Southern Detention Area (SDA) is being constructed (interior berms).</p> <p>The Southern Detention Area (SDA) encompasses what was previously the S-332B West Seepage Reservoir, the S-332C Seepage Reservoir, and the S-332B/C Connector and raising the western levee of the previous reservoirs. It is very unlikely that there will be overflow from the SDA.</p> <p>The SDA will have a normal maximum water depth limit of 2.5 feet*. However, if USACE determines that a flood emergency exists similar to an event like the "No Name" storm, the depth of water would be increased to 3.5 feet*, when possible.</p> <p>* The depth limit is based on the estimated average across the entire detention area.</p>	
Increment 2	Southern Detention Area (SDA) INC 2	<p>The Southern Detention Area (SDA) encompasses what was previously the S-332B West Seepage Reservoir, the S-332C Seepage Reservoir, and the S-332B/C Connector and raised the western levee of the previous reservoirs.</p> <p>The SDA has a normal maximum water depth limit of 8.5 feet, NGVD at the SDA1 and SDA2 gauges. However, if USACE determines that a flood emergency exists the depth of water would be increased to 3.5 feet*, if possible.</p> <p>* The depth limit is based on the estimated average across the entire detention area.</p>	
Increment 2 Deleted	S-332B North Seepage Reservoir INC 2 deleted	<p>The north reservoir is a 240-acre reservoir located to the north of the pump station.</p> <p>This seepage reservoir will have a normal maximum water depth limit of 2.5 feet (due to its small area). This 2.5 feet depth corresponds to 9.3 feet, NGVD at the S-332B (North) tailwater. However, if USACE determines that a flood emergency exists, the depth of water would be increased to 3.5 feet, when possible. If needed to facilitate construction of the NDA, flow to S-332B North will be minimized.</p>	

	Operational Component	Column 1: No WCA-3A Regulatory Releases to SDCS	Column 2: WCA-3A Releases to SDCS
Increment 1.1/1.2		The operational components [S-338, S-332B, S-332C, S-332D, S-194, S-196, S-176, S-177, S-18C, S-197 and S-199/S-200 (SFWMD owned and operated)] of the following four sections interact differently based on the time of year, local conditions, and regional conditions. Specifically, during the time period from February through July the operation of many of the L-31N and C-111 structures will need to be adjusted to improve the likelihood of achieving stages that will facilitate (or at least reduce the conflict with) Cape Sable Seaside Sparrow (CSSS) nesting and habitat maintenance. Depending on the local and regional conditions operations are expected to vary from conserving water to maintain hydroperiod during drier times to sending considerable flows to tide to moderate stages during periods of high rainfall. With some of these routes subject to downstream conditions the available capacity and routes are expected to change as conditions change; therefore, no fixed hierarchy for the order and location of discharge can be set. <p><u>Example of Water Distribution During Wet Periods.</u> Adjust the use of S-332B, S-332C, and S-332D in preparation for and during the nesting season by 1) discharging water to tide through S-338 to the extent downstream conditions allow and the desired flow to Taylor Slough is achieved to reduce the use of S-331, 2A) use of S-194 and S-196 to send water to tide through the C-102 and C-103 canal to the extent that downstream conditions allow, and 3) release water through S-176 (SFWMD S-199/S-200 pump stations may use this water in accordance with the permitted operating plan), S-177, S-18C, and S-197 subject to the S-197 flow restriction. The objective of facilitating C-111 South Dade construction by moderating the use of S-357 and S-332B West and minimizing the use and S-332B North remain.</p> <p><u>Example of Water Distribution During Dry Periods.</u> Use S-332B, S-332C, and S-332D to achieve the stages in southeastern ENP and use of S-332D to achieve target flows to Taylor Slough (up to 250 cfs as measured at S-334 or S-337).</p>	
Increment 2		The operational components [S-338, S-332B, S-332C, S-332D, S-194, S-196, S-176, S-177, S-18C, S-197 and S-199/S-200 (SFWMD owned and operated)] of the following four sections interact differently based on the time of year, local conditions, and regional conditions. Specifically, during the time period from February through July the operation of many of the L-31N and C-111 structures will need to be adjusted to improve the likelihood of achieving stages that will facilitate (or at least reduce the conflict with) Cape Sable Seaside Sparrow (CSSS) nesting and habitat maintenance. Depending on the local and regional conditions, operations are expected to vary from conserving water to maintaining hydroperiod during drier times, to sending considerable flows to tide to moderate stages during periods of high rainfall. With some of these routes subject to downstream conditions the available capacity and routes are expected to change as conditions change; therefore, no fixed hierarchy for the order and location of discharge can be set. <p><u>Example of Water Distribution During Wet Periods.</u> Adjust the use of S-332B, S-332C, and S-332D in preparation for and during the nesting season by 1) discharging water to tide through S-338 to the extent downstream conditions allow and the desired flow to Taylor Slough is achieved to reduce the use of S-331, 2A) use of S-194 and S-196 to send water to tide through the C-102 and C-103 canal to the extent that downstream conditions allow, and 3) release water through S-176 (SFWMD S-199/S-200 pump stations may use this water in accordance with the permitted operating plan) S-177, S-18C, and S-197 subject to the S-197 flow restriction.</p> <p><u>Example of Water Distribution During Dry Periods.</u> Use S-332B, S-332C, and S-332D to achieve target stages in southeastern ENP and use of S-332D to achieve target flows to Taylor Slough (up to 250 cfs as measured at S-334 or S-337).</p>	
Increment 1.1/1.2	<u>S-332B and S-332C, and S-332D</u>	S-332B, S-332C, and S-332D operations are independent of whether other SDCS operations are under Column 1 or Column 2 mode of operations. <p>S-332D Detention Area (S-332D minus S-332DX1) has the following calendar based flow limits</p> <ul style="list-style-type: none"> • 07/15 through 11/30 No Constraint – May use all pumps (design capacity of 575 cfs) • 12/01 through 01/31 Limit of 3 diesel pumps (design capacity of 325 cfs) • 02/01 through 07/14 Limit of 2 diesel pumps (design capacity of 250 cfs) If SFWMD proposed connection from S-200 to Taylor Slough is completed, flows through this connection will be incorporated as part of the above operational constraints. <p><u>02/15 through 07/31 (CSSS nesting window)</u> Operating Range from 4.2 to 4.8 feet, NGVD</p>	

	Operational Component	Column 1: No WCA-3A Regulatory Releases to SDCS	Column 2: WCA-3A Releases to SDCS
		<p>Use of C-102, C-103, S-199, S-200, S197 as stages rise above 4.2 feet, NGVD to achieve the desired stage and recession rates for CSSS Sub Populations F, C & D. Since the nesting window extends into the wet season it is expected that meaningful flow will need to be sent to tide to moderate the stage rise along the eastern boundary of ENP. When excess water is being discharged to tide an effort will be made to direct a large portion of the excess water to Biscayne Bay through the C-102/C-103 canal to the extent downstream capacity allows.</p> <p><u>08/01 through 02/14</u> Operating Range from 4.0 to 4.6 feet, NGVD</p> <p>Operational Range of 4.0 to 4.6 until construction of the NDA and 8.5 SMA are functionally complete. Once the NDA and 8.5 SMA features are functionally complete, such that construction conflicts with water management of canal levels are resolved, the operational range will be raised 0.2 feet to 4.2/4.8 feet, NGVD.</p> <p>During this period the normal management of water will be to fully maintain the hydraulic ridge and deliver water to eastern ENP using the full available capacity of S-332B, S-332C, and S-332D. If the capacity available at S-332B, S-332C, and S-332D is unable to maintain the operational range then use S-194/S-196/S-197 (Low flow discharges through S-197 available for conditions 2, 3, and 4)</p> <p>To facilitate management of hydroperiods along the eastern boundary of ENP to better meet habitat and nesting targets (2016 B.O.), up to one pump may be run at S-332BN, S-332B, and S-332C and up to two pumps at S-332D may be run within an operating range from 3.8 to 4.2 feet NGVD (highest stage at which water supply is usually initiated).</p>	
Increment 2	<u>S-332B and S-332C, and S-332D</u>	<p>S-332B, S-332C, and S-332D operations are independent of whether other SDCS operations are under Column 1 or Column 2 mode of operations.</p> <p>S-332D Detention Area (S-332D minus S-332DX1) has the following calendar based flow limits</p> <ul style="list-style-type: none"> • 07/15 through 11/30 No Constraint – May use all pumps (design capacity of 575 cfs) • 12/01 through 01/31 Limit of 3 diesel pumps (design capacity of 325 cfs) • 02/01 through 07/14 Limit of 2 diesel pumps (design capacity of 250 cfs) <p>Operating Range from 4.2 to 4.8 feet, NGVD</p> <p>The NDA and SDA have a normal maximum water depth limit of 8.5 feet, NGVD at the NDA1W and at the SDA1 and SDA2 gauges respectively . However, if the USACE determines that a flood emergency exists the depth of water would be increased to 3.5 feet*, when possible.</p> <p>Use of C-102, C-103, S-199, S-200, S-197 as stages rise above 4.2 feet, NGVD to achieve the desired stage and recession rates for CSSS Sub Populations F, C & D. Since the nesting window extends into the wet season it is expected that meaningful flow will need to be sent to tide to moderate the stage rise along the eastern boundary of ENP. When excess water is being discharged to tide an effort will be made to direct a large portion of the excess water to Biscayne Bay through the C-102/C-103 canal to the extent downstream capacity allows.</p> <p>During the period from 08/01 through 02/14 (outside of the CSSS nesting window), the normal management of water will be to fully maintain the hydraulic ridge and deliver water to eastern ENP using the full available capacity of S-332B, S-332C, and S-332D. If the capacity available at S-332B, S-332C, and S-332D is unable to maintain the operational range then use S-194/S-196/S-197 (Low flow discharges through S-197 available for conditions 1, 2, 3, and 4).</p>	

	Operational Component	Column 1: No WCA-3A Regulatory Releases to SDCS	Column 2: WCA-3A Releases to SDCS
		To facilitate management of hydroperiods along the eastern boundary of ENP to better meet habitat and nesting targets (2016 B.O.), S-332BN, S-332B, S-332C and S-332D may be operated within an operating range from 3.8 to 4.2 feet, NGVD (highest stage at which water supply is usually initiated). The available capacity with consideration for the CSSS habitat at these pump stations is used before releases through S-177.	
Increment 1.1/1.2	S-332DX1	With the lowering of an approximately 250 feet long section of S-332D High Head Cell weir to ground surface, the concern of over using S-332DX1 is lessened; as there is less available head to move water into the SDA. During Increment 1.1 and 1.2 there is full flexibility in the use of S-332DX1. S-332DX1 may be used to divert a portion of S-332D discharge when the CSSS calendar based flow restrictions limit the flow into the S-332D detention area. Use of S-332DX1 may be minimized to construct the SDA interior berms.	
Increment 2	S-332DX1	With the 2016 lowering of an approximately 250 feet long section of S-332D High Head Cell weir to ground surface, the concern of over-using S-332DX1 is lessened; as there is less available head to move water into the SDA. During Increment 2 there is full flexibility in the use of S-332DX1. S-332DX1 may be used to divert a portion of S-332D discharge when the CSSS calendar based flow restrictions limit the flow into the S-332D detention area. Use of S-332DX1 may be minimized to facilitate construction of the SDA L-321S interior berm.	
Increment 1.1/1.2	S-328	The S-328 may be used to increase deliveries to Taylor Slough up to 250 cfs as measured at S-332D and provided that an average water depth of at least six inches is maintained in Cell 1; the six inch depth criteria was developed based upon a modeled operational range of 5.8 to 5.7 feet. Prior to initial operation of S-328, construction of the three L-31W Canal plugs proposed between S-328 and the L-31W gap must be completed and the monitoring regime approved by the Corps must be implemented. The L-31W Canal plugs were identified in the 2016 C-111 South Dade Contract 9 EA; these features may be constructed by SFWMD as components of the SFWMD proposal to move more water to Taylor Slough and Florida Bay.	
Increment 2	S-328	The S-328 may be used to increase deliveries to Taylor Slough and provided that an average water depth of at least six inches is maintained in Cell 1 or in accordance with the correlation between S-332D TW/S-332DX1 HW and S-328 HW to be determined once data becomes available.	

	Operational Component	Column 1: No WCA-3A Regulatory Releases to SDCS	Column 2: WCA-3A Releases to SDCS
Increment 1.1/1.2	S-194 and S-196	Since S-194 and S-196 are manually operated structures (no remote control) and require downstream operational changes to effectively move water, these routes will be used to steadily move moderate (e.g. total of 100 to 200 cfs) flows to tide to allow the reduced use of S-332B, S-332C, and S-332D secondarily when this is likely to help achieve better CSSS habitat or nesting conditions. The object will be to develop sustainable openings which move enough water to help achieve the desired stage or rate of rise in eastern ENP with relatively infrequent gate changes. S-194/S-196 will also be used minimize the use of S-332B North during construction of the NDA. 15 February through 31 July (early CSSS nesting window) Operating Range from 4.2 to 4.8 feet, NGVD 01 August through 14 February Operating Range from 4.0 to 4.6 feet, NGVD Operational Range of 4.6 to 4.0 until construction of the NDA and 8.5 SMA are functionally complete. Once the NDA and 8.5 SMA features are functionally complete such that construction conflicts with water management of canal levels are resolved, the operational range will be raised 0.2 feet to 4.8/4.2 feet, NGVD.	
Increment 2	S-194 and S-196	Since S-194 and S-196 are currently manually operated structures (no remote control) and require downstream operational changes to effectively move water, these routes will be used to steadily move moderate (e.g. total of 100 to 200 cfs) flows to tide to allow the reduced use of S-332B, S-332C, and S-332D secondarily when this is likely to help achieve better CSSS habitat or nesting conditions. The objective will be to develop sustainable openings which move enough water to help achieve the desired stage or rate of rise in eastern ENP with relatively infrequent gate changes. Operating Range from 4.2 to 4.8 feet, NGVD S-194 will be replace due to Krome Avenue road widening within the next 1-2 years. The replacement structure will have remote telemetry and control.	
Increment 1.1/1.2	S-176	Operating Range from 4.75 to 5.0 feet, NGVD Operational Range of 4.0 to 4.9 feet, NGVD until construction of the NDA and 8.5 SMA are functionally complete. Once the NDA and 8.5 SMA features are functionally complete, such that construction conflicts with water management of canal levels are resolved, the operational range will return to 4.75 to 5.0 feet, NGVD. 01 August through 14 February, S-176 may release up to an additional 200 cfs discharge to Manatee Bay while maintaining C-111 Canal stages at S-176 HW above 4.5 ft, NGVD.	
Increment 2	S-176	Operating Range from 4.75 to 5.0 feet, NGVD When flows at S-332B/C/D are reduced to achieve the CSSS habitat or nesting conditions, up to 200 cfs may be released through S-176 when S-176 HW is below its operational range. It is not the intent of these operations to trigger a S-197 release greater than 400 cfs.	

	Operational Component	Column 1: No WCA-3A Regulatory Releases to SDCS	Column 2: WCA-3A Releases to SDCS																																																																																																																		
Increment 1.1/1.2	S-177	Operating Range from 3.6 to 4.2 feet, NGVD S-177 may be used to lower S-177 HW down to 3.6 ft, NGVD. If the rainfall over the last 14 days exceeds 5.5 inches, then S-177 may be opened to lower S-177 HW down to 3.3 feet-NGVD. During the period from 01 August through 14 February, S-177 may release up to an additional 200 cfs water supply delivery to Manatee Bay while maintaining C-111 Canal stages at S-177 HW above 3.2 ft, NGVD																																																																																																																			
Increment 2	S-177	Operating Range from 3.6 to 4.2 feet, NGVD If the rainfall over the last 14 days exceeds 5.5 inches, then S-177 may be opened to lower S-177 HW down to 3.3 feet-NGVD. When flows at S-332B/C/D are reduced to achieve the CSSS habitat or nesting conditions, up to 200 cfs may be through S-177 when S-177 HW is below its operational range. It is not the intent of these operations to trigger a S-197 release greater than 400 cfs.																																																																																																																			
No Change	S-18C	Operating Range from 2.3 to 2.6 feet, NGVD	Operating Range from 2.0 to 2.25 feet, NGVD																																																																																																																		
Increment 1.1/1.2	S-197	<p>S-197 will be operated consistent with the 2012 Water Control Plan reflecting the replaced S-197 structure (2012). Conditions cited below are referred below in Section 10.0 of the G-3273 Constraint Relaxation/S-356 Field Test and S-357N Revised Operational Strategy (Increment 1.1 and Increment 1.2).</p> <table border="0" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; vertical-align: top;">1.</td> <td style="width: 15%; vertical-align: top;">Condition 1</td> <td style="width: 10%;"></td> <td style="width: 15%;"></td> <td style="width: 10%;"></td> <td style="width: 40%;"></td> </tr> <tr> <td></td> <td style="text-align: center;">S-18C HW</td> <td style="text-align: center;">or</td> <td style="text-align: center;"><u>S-177 HW (feet, NGVD)</u></td> <td style="text-align: center;"><u>S-197 Target Flow (cfs) (daily time-weighted average)</u></td> <td></td> </tr> <tr> <td></td> <td style="text-align: center;">>3.5</td> <td></td> <td style="text-align: center;">>4.3</td> <td style="text-align: center;">2,400</td> <td></td> </tr> <tr> <td></td> <td style="text-align: center;">>3.1</td> <td></td> <td style="text-align: center;">>4.2</td> <td style="text-align: center;">1,600</td> <td></td> </tr> <tr> <td></td> <td style="text-align: center;">>2.8</td> <td></td> <td style="text-align: center;">>4.1</td> <td style="text-align: center;">800</td> <td></td> </tr> <tr> <td></td> <td style="vertical-align: top;">2.</td> <td style="vertical-align: top;">Condition 2</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td style="text-align: center;">S-18C HW</td> <td style="text-align: center;">or</td> <td style="text-align: center;"><u>S-177 HW (feet, NGVD)</u></td> <td style="text-align: center;"><u>S-197 Target Flow (cfs) (daily time-weighted average)</u></td> <td></td> </tr> <tr> <td></td> <td style="text-align: center;">>3.5</td> <td></td> <td style="text-align: center;">>4.3</td> <td style="text-align: center;">2,400 (full)</td> <td></td> </tr> <tr> <td></td> <td style="text-align: center;">>3.1</td> <td></td> <td style="text-align: center;">>4.2</td> <td style="text-align: center;">1,600 (two-thirds)</td> <td></td> </tr> <tr> <td></td> <td style="text-align: center;">>2.8</td> <td></td> <td style="text-align: center;">>4.1</td> <td style="text-align: center;">500</td> <td></td> </tr> <tr> <td></td> <td style="text-align: center;">>Table 2B</td> <td></td> <td style="text-align: center;">NA</td> <td style="text-align: center;">minimum (S-176+100, S-177+100, 300)</td> <td></td> </tr> <tr> <td></td> <td style="text-align: center;"><Table 2B</td> <td></td> <td style="text-align: center;">NA</td> <td style="text-align: center;">minimum (S-176+50, S-177+50, 250)</td> <td></td> </tr> <tr> <td></td> <td style="vertical-align: top;">3.</td> <td style="vertical-align: top;">Conditions 3 and 4</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td style="text-align: center;">S-18C HW</td> <td style="text-align: center;">or</td> <td style="text-align: center;"><u>S-177 HW (feet, NGVD)</u></td> <td style="text-align: center;"><u>S-197 Target Flow (cfs) (daily time-weighted average)</u></td> <td></td> </tr> <tr> <td></td> <td style="text-align: center;">>3.5</td> <td></td> <td style="text-align: center;">>4.3</td> <td style="text-align: center;">2,400 (full)</td> <td></td> </tr> <tr> <td></td> <td style="text-align: center;">>3.1</td> <td></td> <td style="text-align: center;">>4.2</td> <td style="text-align: center;">1,600 (two-thirds)</td> <td></td> </tr> <tr> <td></td> <td style="text-align: center;">>2.8</td> <td></td> <td style="text-align: center;">>4.1</td> <td style="text-align: center;">500 (one-third)</td> <td></td> </tr> <tr> <td></td> <td style="text-align: center;">> Table 3B</td> <td></td> <td style="text-align: center;">NA</td> <td style="text-align: center;">minimum (S-176+200, S-177+200, 400)</td> <td></td> </tr> <tr> <td></td> <td style="text-align: center;">< Table 3B</td> <td></td> <td style="text-align: center;">NA</td> <td style="text-align: center;">minimum (S-176+100, S-177+100, 300)</td> <td></td> </tr> </table> <p>Criteria for S-177 only applies when gate is fully open for 24 hours.</p>		1.	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