

**SOUTH BROWARD  
DRAINAGE DISTRICT  
GOVERNING BOARD MEETING MINUTES**

**NOVEMBER 19, 2015**

**Present:**

Scott Hodges, Chairperson  
James Ryan, Vice Chairperson  
Vicki Minnaugh, Treasurer  
Robert E. Goggin, IV, Secretary  
Alanna Mersinger, Commissioner  
Thomas Good, Commissioner  
Mercedes Santana-Woodall, Commissioner

Kevin M. Hart, District Director  
Douglas R. Bell, Legal Counsel  
Reina Muniz, Recording Secretary  
General Public: See Attached List

**Absent:**

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**01. CALL TO ORDER/ROLL CALL/PLEDGE OF ALLEGIANCE**

Chair Hodges called the SBDD Board Meeting to order at 8:07 A.M.; followed by the Pledge of Allegiance.

**02. PUBLIC COMMENT**

None.

**03. APPROVAL OF MINUTES**

Commissioner Goggin moved for approval of the minutes of the October 29<sup>th</sup>, 2015, South Broward Drainage District Board meeting. Motion was seconded by Commissioner Minnaugh and carried unanimously by those present.

**04. DIRECTOR'S REPORT**

**A. CONTRACT AWARDS:**

1. **SBDD ROOF REPLACEMENT PROJECT AT DISTRICT HEADQUARTERS -**  
District Director Hart stated that SBDD advertised for bids for the Roof Replacement Project at the SBDD Main Office Building. The District received a total of seven (7) bids, ranging in price from \$63,065.00 to \$112,000.00. Each bidder was required to attend a mandatory pre-bid meeting and a mandatory site visit as a prerequisite to submitting a bid. The project is located at the SBDD Main Office Building.

The lowest bid received was submitted by Munsie Enterprises Inc. in the amount of

\$63,065.00. SBDD has reviewed the bid submitted by Munsie Enterprises Inc. and has determined that the Contractor is qualified to perform the work and that the bid meets all requirements.

Funding for this project will come from the SBDD CIP Committed Account as part of the 2015/2016 CIP budget.

District Director Hart recommended that the District award the contract for the SBDD Roof Replacement Project to Munsie Enterprises Inc. as the lowest, responsive, responsible bidder in the amount of \$63,065.

Commissioner Minnaugh moved for approval to award the SBDD Roof Replacement Project at the SBDD Main Office Building to Munsie Enterprises Inc. as recommended by the District Director, in the total amount of \$63,065. Motion was seconded by Commissioner Goggin and it was carried unanimously.

2. **SBDD S1 & S7 REBUILDING & RECONDITIONING OF CATERPILLAR DIESEL ENGINE PROJECT IN MIRAMAR** - District Director Hart stated that SBDD advertised for bids for the S1 & S7 Rebuilding & Reconditioning of Caterpillar Diesel Engine Project in Miramar. The scope of the work will include a complete re-build of the 3306 CAT engines by an authorized Caterpillar (CAT) dealer who provides certified repair and maintenance services on CAT engines. The project is located at the SBDD S-1 and S7 Pump Stations in Miramar. The District received one bid in the amount of \$67,800.

The lowest and only bid received was submitted by Ring Power Corp. in the amount of \$67,800. SBDD has reviewed the bid submitted by Ring Power Corp and has determined that the Contractor is qualified to perform the work and that the bid meets all requirements. Ring Power Corp. has performed similar work for SBDD in the past and the District has been satisfied with their work.

Funding for this project will come from the SBDD CIP Committed Account as part of the 2015/2016 CIP budget.

District Director Hart added that there are only two authorized Caterpillar dealers in this area; one in Miami (Pantropic), which for the past two years has elected not to submit a bid for the District's engine rebuild projects; and Ring Power Corp. which has a bid on all of the District's engine rebuild work. The District has been very happy with the work done by Ring Power Corp. and feels that the price is competitive and comparable with prior work. District Director Hart recommended that the District award the contract for the SBDD S1 & S7 Rebuilding & Reconditioning of Caterpillar Diesel Engine Project in Miramar to Ring Power Corp. as the lowest, responsive, responsible bidder in the amount of \$67,800.

Commissioner Goggin moved for approval to award the SBDD S1 & S7 Rebuilding & Reconditioning of Caterpillar Diesel Engine Project in Miramar to Ring Power Corp. as recommended by the District Director, in the total amount of \$67,800. Motion was seconded by Commissioner Santana-Woodall.

Vice Chair Ryan asked District Director Hart when was the last time these Caterpillar diesel engines were rebuilt, if there is a warranty on these engines, and how often do these engines run. District Director Hart replied that these engines have never been rebuilt. He said that the District instituted a program approximately three years ago to begin rebuilding the District's engines to extend their service life; and it has been working very well for the District. He said that he believes the warranty is for three years or 1,000 hours of usage. As for how often they run the engines, that would depend on the weather pattern for any given season, but it's usually going to be less than 1,000 hours. It will usually be the time period that governs on the warranty. He said that with the sluice gates in place, the District will extend the life on these engines even further because they will be able to discharge a significant volume of water without having to run the engines as much.

Commissioner Goggin asked if the District does a test run on these engines and if so, for how long. District Director Hart replied yes; and they run it for 30 minutes, minimum.

The question was called and it was carried unanimously.

3. **SBDD CONVERSION OF ONE (1) STORMWATER PUMP FROM OIL LUBRICATION TO WATER LUBRICATION AT THE S-4/S-5 PUMP STATION IN MIRAMAR PROJECT** - District Director Hart stated that SBDD advertised for bids for the Conversion of one (1) Stormwater Pump from Oil Lubrication to Water Lubrication at the S-4/S-5 Pump Station in Miramar Project. The bid included the conversion of one pump at the S-4/S-5 Pump Station (S-5 #3 Pump); and the rebuilding of a second pump at the S-2 pump station (S-2 #2 Pump), which was added as an addendum to the bid. The District received a total of three (3) bids, ranging in price from \$46,700.00 to \$47,800.00.

The lowest base bid received for both pumps was submitted by Creel Pump, Inc. in the amount of \$46,700.00. SBDD has reviewed the bid submitted by Creel Pump, Inc. and has determined that the Contractor is qualified to perform the work and that the bid meets all requirements. Creel Pump, Inc. has performed similar work for SBDD in the past and the District has been satisfied with their work.

Funding for this project will come from the SBDD CIP Committed Account as part of the 2015/2016 CIP budget.

District Director Hart recommended that the District award the contract for the SBDD Conversion of one (1) Stormwater Pump from Oil Lubrication to Water Lubrication at the S-4/S-5 Pump Station in Miramar Project to Creel Pump, Inc. as the lowest, responsive, responsible bidder in the amount of \$46,700.00. In addition, he requested the award of Bid Alternates 1 and 2 in the combined, not-to-exceed amount of \$8,400.00 to Creel Pump, Inc. The total amount of the contract will be a not-to-exceed amount of \$55,100.00.

Commissioner Minnaugh moved for approval to award the SBDD Conversion of one (1) Stormwater Pump from Oil Lubrication to Water Lubrication at the S-4/S-5 Pump Station in Miramar Project to Creel Pump, Inc. for a total, not-to-exceed amount of \$55,100.00. Motion was seconded by Commissioner Goggin and it was carried unanimously.

**B. RESOLUTION NO. 2015-10 – MAINTENANCE AGREEMENT WITH FDOT FOR TWIN 96” SPIRAL ALUMINIZED STEEL CULVERTS AT SBDD C-4 CANAL**

District Director Hart presented SBDD Resolution No. 2015-10 which authorizes SBDD to enter into a Maintenance Agreement with the Florida Department of Transportation (FDOT) for the construction, inspection and maintenance of Twin-96” Spiral Rib Aluminized Steel Culverts within the SBDD Canal No. 4 across and under the I-75 right-of-way.

He stated that as part of the I-75 Express Lanes project, FDOT is proposing to replace the open water channel of the SBDD Canal No. 4 that transects the I-75 right-of-way with Twin-96” Spiral Rib Aluminized Steel Culverts. The drainage engineer for the project has provided hydraulic calculations and supporting documentation to verify that the twin 96 culverts meet SBDD criteria for the 100-year design flow and head losses across the culverts, and that the culvert material meets FDOT standards and approval as an “approved equal” material to reinforced concrete pipe (RCP). In addition, the drainage engineer has performed a stormwater modeling analysis of the SBDD S-3 Drainage Basin to verify that the proposed improvements will not have any adverse impacts to the upstream (or downstream) limits of the SBDD Canal No. 4 and surrounding properties. These calculations have been reviewed and approved by an independent third party professional engineer on behalf of FDOT.

SBDD has reviewed the design plans and drainage calculations for the proposed installation of Twin-96” Spiral Rib Aluminized Steel Culverts and has no objections to the proposed improvements.

Upon completion of construction, FDOT will be responsible for all required inspections and maintenance of the Twin-96” Spiral Rib Aluminized Steel Culverts in accordance with the attached Maintenance Agreement. SBDD shall have the right, but not the obligation, to perform any required inspections and maintenance of the culverts in the event that FDOT does not meet their obligations under the agreement; and SBDD shall be entitled to be reimbursed for its costs associated with any such inspections and maintenance. The inspection and maintenance obligations of FDOT are outlined in Exhibit “D” of the Agreement and include visual inspections and necessary repairs on an annual basis; a dive inspection every 3 three years; an engineer’s recertification of the culverts every 5 years; and additional responsibilities following a major storm event.

There are no financial impacts to this Agenda Item, other than SBDD administrative costs; all other costs will be incurred by FDOT, its contractor and engineer.

District Director Hart requested approval of SBDD Resolution No. 2015-10 – Maintenance Agreement with the Florida Department of Transportation (FDOT) for the construction, inspection and maintenance of Twin-96” Spiral Rib Aluminized Steel Culverts within the SBDD Canal No. 4 across and under the I-75 right-of-way.

District Director Hart said that he and Attorney Bell have been working with FDOT over the past several months on the Agreement, and this project involves the same team that was involved on the I-595 construction project; same FDOT Project Manager and Drainage Engineer. He said

that FDOT was very receptive to the requirements and obligations that the District required for the maintenance; the annual inspections, the dive inspections and the 5-year re-certifications.

Commissioner Minnaugh moved for approval of Resolution 2015-10; which authorizes SBDD to enter into a Maintenance Agreement with the Florida Department of Transportation (FDOT) for the construction, inspection and maintenance of “Twin 96” Spiral Rib Aluminized Steel Culverts within the SBDD C-4 Canal. Motion was seconded by Commissioner Goggin.

Discussion ensued.

Commissioner Mersinger stated that the District has authorization to go in, check and tell FDOT when something needs to be fixed and then bill them. District Director Hart agreed and said that in an emergency situation, the District will notify FDOT, and if they don’t respond then the District will act and bill them.

Vice Chair Ryan asked District Director Hart if this was the same team that did the overfly on I-75 at Pembroke Road. District Director Hart replied that the work on the I-75 bridges is being done by FDOT; and the approaches are being done by Broward County.

Commissioner Goggin asked District Director Hart if the District has pre-existing culverts running over the northbound and southbound lanes. District Director Hart stated that there are no culverts currently in place; it is an open channel that it is going to be replaced with culverts.

Mr. Paul Lampley, FDOT Project Manager, commented that FDOT thinks this is a prudent thing to do, and that it will speed up construction; it is a cost savings to the department, and there is a 200 year life span on these pipes. He said that they ran it through their drainage engineers, structural engineers, and their maintenance department; and that they also performed an independent analysis on this pipe. He said that FDOT is confident in this pipe.

Commissioner Good commented that upon reviewing the Maintenance Agreement, they spoke about emergency circumstances. He said that this is currently a canal that right now is moving water from one area to another, and now we are creating a circumstance that if there is a blockage, water will not be able to move and would create flooding, and then the District would act immediately. He said that he is not sure what that response would be, because the only logical way to move water mechanically is to pump it to the other side of the highway, which would create a traffic issue, and would be a bigger concern.

He said that he does not know what that action plan would be in the event of an emergency, in order to mitigate the flooding, although that is not his question. He said that he does not see on the Agreement where it says that SBDD has the right to do emergency operations and be reimbursed for that in this Agreement. He said the Agreement addresses breakdowns and the protocols, etc., but that he did not see anything in the Agreement where it actually states SBDD doing an emergency operation to mitigate flooding, and what the reimbursable would be back to SBDD. Commissioner Good said that there are many reimbursement issues stated, but he is not sure that it is about the actual operation in an emergency mode to mitigate flooding.

Commissioner Mersinger commented that as far as she understands, the District has the right to

go in and maintain it. She wanted to know what the difference is if the District is maintaining it in a normal situation or maintaining it in an emergency situation, because they are getting billed either way.

Commissioner Good said that in Section 20 of the Agreement, it speaks specifically as to what Commissioner Mersinger just commented on. He reiterated that the District has the right to go in and do something immediately, but it doesn't say anything about being reimbursed for that.

Attorney Bell, commented that in Section 19 of the Agreement, it provides, in the last sentence, "that all costs incurred by SBDD under this Agreement, except that which was caused by SBDD's negligence, shall be reimbursed by FDOT to SBDD". Commissioner Good wanted to make clear that this section also makes reference to SBDD having to notify FDOT, and give them the opportunity to cure the problem; but in an emergency operation, if there is a massive rain what time is there to cure.

Commissioner Good said that there is reference in the Agreement about FDOT being responsive to SBDD if some issues need to be changed, modified, etc. He said if the change is small, he is sure that FDOT will have no problem managing that, but he knows that FDOT has a budget cycle, like many government entities; and if the repair, or the request, or the requirement to make a change exceeds a certain threshold, that's above the standard maintenance operating costs for FDOT, does that mean that FDOT has to go back through the state budget process to get approval to make those changes, because there is a reference of 20 calendar days in the Agreement. He said that if it's one hundred thousand dollars, it may not be a big deal, but if it's a million, it may be a big deal, depending on what FDOT has in terms of budget. He asked if there was a potential for a situation where the District would make a requirement for a change or a fix that would exceed FDOT's current operating expenditures that would require them to go through the state budgeting process in order to make the repairs.

District Director Hart deferred to FDOT. He said that the District's expectation is that this culvert is going to be part of the FDOT statewide facility program for maintenance and the objectives should be the same as far as maintenance, but if there is a difference of opinion on repair work and how it relates to budget or budget cycle, he cannot speak to that, but he cannot imagine it would be significant for the state. Commissioner Good commented that what caused him to make that statement was that there was no maintenance bond required for this. He said that if there was an expenditure that was beyond a certain value that would require delay, that one can go after the maintenance bond.

Mr. Lampley replied that putting this in perspective, obviously this project is part of I-75 which is a major arterial serving the whole state, so if something happens to these culverts it will be FDOT's number one priority to get this fixed because they are running 200,000 vehicles over these culverts a day. He said that they do have fast response contracts that are \$125,000 that FDOT can execute just based on going out and getting two or three quotes; they can call contractors and get them out there immediately. If it is bigger than that, they may have to find the money in their work program, and then actually go out and bid the job, but if it's below \$125,000 they can do a fast response contract and have it in place very quickly.

Commissioner Good said that was his point; he knows they can do that; but what if it's beyond

that \$125,000 threshold; what if it's a million dollar fix; what is the process that FDOT will have to go through in order to mitigate whatever the problem may be. Mr. Lampley replied that they are limited to a certain amount because that is the way the statutes is written; but a million dollars to FDOT is not a lot of money. Commissioner Good said that was the point he was trying to make; and that he did not see anything in the Agreement that captured that potential. That it would require a state budget process action. Mr. Lampley said it would not require a state legislative budget request, and it would not need to be put in their work program; it would be under maintenance, and they would just move the money out of the work program over to maintenance, and proceed with preparing a design, whatever the design was, and perform the work. District Director Hart added that the Agreement does require FDOT to be responsible to maintain the design flow at all times, and if they needed more time for a repair, they would have the ability to install whatever mechanism is needed to maintain the flow.

Commissioner Good commented that when you have an open channel, there is a hydraulic value associated with that open channel, but that you can exceed that hydraulic value and continue to get an effect out of it. In this situation, you are constraining a hydraulic value to a fixed amount, so if something unusual happens, and you realize that two 96" pipes are not enough, and that you probably should have placed a third one, now you have a problem. He commented that this is not a cheap fix; that it requires some planning. He says there is a process that needs to play out.

Commissioner Goggin asked District Director Hart, what is the next thoroughfare on drainage that the District has in place; either to the west side of I-75 or to the east side, that would be a north-south conveyance in addition to these culverts, which right now is a waterway. District Director Hart replied that the District has on the east side of I-75, a north-south conveyance that was part of the District's Basin 3 drainage improvements. The District installed a basin interconnect that has been completed, and conveys water from the east side of I-75 to south of this culvert connection (south of I-75). He said the District does have secondary capacity. To the west, there are no other north/south tributaries. Everything flows to the east. He said that there are quite a few retention basins, but no north/south channels, until you get into the District's S-4 Basin.

Commissioner Minnaugh commented that on paragraph 23, the word that jumped out to her was the word "IF". "If FDOT maintains liability and property insurance, etc. . . ., but if they don't, then the District has the right to go after FDOT . . .", which means that the District would have to file suit and hire an attorney and spend District money to go after them. She wanted to know, if FDOT requires insurance, will they provide copies to the District and name SBDD as additionally insured. She has concerns with the word "if" because that means they do not have to have it. Attorney Bell said that they are not required to have insurance, but if they do have it, then they have to provide it to SBDD. Commissioner Minnaugh said that if they don't reimburse the District, or there is damage or liability problems, then the District would have to hire an attorney to go after FDOT. Attorney Bell replied yes, if they refuse to pay; but that could happen under any scenario, but so far, he does not see that happening.

Commissioner Minnaugh asked Ms. Laurice Mayes, FDOT attorney, if they maintain insurance at all. Ms. Mayes replied that FDOT has self-insurance in the amount of \$200,000 for individual liability and \$300,000 for combined liability, and they require any contractor to maintain liability insurance. Commissioner Minnaugh asked Ms. Mayes if they can re-word this in the Agreement,

and to be able to name SBDD as additionally insured, and provide copies to the District. She said she understands the concept of self-insured, but that it almost makes her think that FDOT is not going to include the District. Ms. Mayes said that they had discussed this previously; the responsibility of the department and what they agreed to do; and who was to be ultimately responsible. Either the department through its self-insurance; and they would not be able to add SBDD as additionally insured on to the self-insurance because that comes from the Department of Financial Services; however FDOT's contractors, either the contractor constructing the project, or afterwards in performing the maintenance activities, will have insurance, and will be able to add SBDD as an additionally insured. She said you are probably talking about a variety of contractors that may be involved. Commissioner Minnaugh asked Attorney Bell his opinion on this comment. Attorney Bell said that he thinks with FDOT and the state, they have an obligation which they have agreed to live up to, and FDOT's contractors would have insurance, and FDOT could have SBDD named under the Contractor's insurance.

Ms. Mayes said that she was not exactly clear where SBDD's concern was. Commissioner Minnaugh restated her concern and said she could imagine that even when the project has begun, that there will be no insurance. Ms. Mayes said that when FDOT starts the project there will definitely be insurance, and that there will be insurance whenever there is a contractor involved, and this is required for all of their contractors; and that the back-up there is the department's ultimate responsibility under its self-insurance with the state. Commissioner Minnaugh stated that SBDD can request copies of the applicable policies; and that SBDD will be named as additionally insured and shall be notified in writing if there are any changes. Ms. Mayes replied absolutely; and she can provide a written confirmation from the Department of Financial Services to Attorney Bell regarding the department's coverage.

Commissioner Good asked regarding the new construction for I-75, if there is any additional discharge going into this system from the right-of-way. District Director Hart replied no, that it is actually less.

The question was called and it was carried unanimously

### C. OTHER

- *Holiday Luncheon* – SBDD Holiday Luncheon will take place at the SBDD conference room on Friday, December 18<sup>th</sup>, 2015 at 1:00 p.m.
- *Workshop to Discuss Water Quality Issues* - District Director Hart asked the Chair if they wanted to schedule a future date to discuss water quality issues. Chair Hodges replied that it would be scheduled after January.

### 05. ATTORNEY'S REPORT:

Attorney Bell said that on legislation proposed for next year, there are a number of bills regarding water; and the one bill introduced by Senator Ring is still active and is being actively opposed by the Association of Special Districts.

He said that a couple of glitch bills which were brought up last year are being brought up again. The one for lobbyist registration seems to be coming back around and may have some legs, and will apply to cities, counties and special districts.



**07. APPROVAL OF LEGAL FEES**

Commissioner Goggin moved for approval of the legal bills. Motion was seconded by Commissioner Santana-Woodall and it was carried unanimously.

**08. BOARD MEMBER'S QUESTIONS/COMMENTS**

None.

**09. MEETING DATE(S)**

**A. Next Board Meeting** will be held on **Thursday, December 17<sup>th</sup> at 8:00 a.m.**

Adjournment at 8:50 A.M.

Respectfully submitted,

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Robert E. Goggin IV, Secretary  
South Broward Drainage District

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\*\*\*MEMORANDUM\*\*\*

DATE: December 10, 2015  
TO: South Broward Drainage District Commissioners  
FROM: Kevin M. Hart, P.E.  
District Director  
Subject: SBDD Resolution No. 2015-11 – Approval and Adoption of SBDD Policies and Guidelines for Erosion Protection and Lake Bank Stabilization and Rehabilitation

Comments:

Attached for the Board's review and approval is SBDD Resolution No. 2015-11 which will adopt proposed SBDD Policies and Guidelines for Erosion Protection and Lake Bank Stabilization and Rehabilitation. The proposed Policies and Guidelines are consistent with SBDD's current and past practices for dealing with erosion protection and lake bank stabilization/rehabilitation issues.

Financial impacts to this Agenda Item: None; approval of Resolution No. 2015-11 will establish SBDD Policies and Guidelines for Erosion Protection and Lake Bank Stabilization and Rehabilitation.

This to request approval of SBDD Resolution 2015-11 – Approval and Adoption of SBDD Policies and Guidelines for Erosion Protection and Lake Bank Stabilization and Rehabilitation.

**KH**  
**Attachments**

**SOUTH BROWARD DRAINAGE DISTRICT  
RESOLUTION No. 2015-11**

**RESOLUTION OF THE SOUTH BROWARD DRAINAGE DISTRICT  
APPROVING AND ADOPTING THE SOUTH BROWARD DRAINAGE  
DISTRICT POLICIES AND GUIDELINES FOR EROSION PROTECTION  
AND LAKE BANK STABILIZATION AND REHABILITATION;  
PROVIDING FOR SEVERABILITY AND PROVIDING AN EFFECTIVE  
DATE.**

WHEREAS, the South Broward Drainage District, a political subdivision of the State of Florida, and an independent water management district hereinafter referred to as "District", is charged with the responsibility of effecting drainage and water management within its geographical boundaries; and

WHEREAS, the District Board of Commissioners has determined that the District should approve and adopt Policies and Guidelines for Erosion Protection and Lake Bank Stabilization and Rehabilitation; and

WHEREAS, the District's Director has submitted to the District Board of Commissioners proposed Policies and Guidelines for Erosion Protection and Lake Bank Stabilization and Rehabilitation; and

WHEREAS, the proposed Policies and Guidelines for Erosion Protection and Lake Bank Stabilization and Rehabilitation are shown in the attached Exhibit "A"; and

WHEREAS, the District Policies and Guidelines for Erosion Protection and Lake Bank Stabilization and Rehabilitation shall be approved and adopted as presented by the District Director and as reflected in the attached Exhibit "A"; and

WHEREAS, the District Policies and Guidelines for Erosion Protection and Lake Bank Stabilization and Rehabilitation shall be incorporated into the day-to-day operations of the District; and

WHEREAS, a public hearing was held at the offices of the South Broward Drainage District located at 6591 S.W. 160th Avenue, Southwest Ranches, Florida 33331 at 8:00 A.M. on Thursday, the 17<sup>th</sup> day of December, 2015 for the purpose of approving and adopting the District Policies and Guidelines for Erosion Protection and Lake Bank Stabilization and Rehabilitation ;

NOW, THEREFORE, be it resolved by the Board of Commissioners of the South Broward Drainage District in meeting assembled that:

1. The foregoing statements are true and correct and are incorporated herein by reference as if fully stated herein.

2. The South Broward Drainage District Policies and Guidelines for Erosion Protection and Lake Bank Stabilization and Rehabilitation as stated above and reflected in the attached Exhibit "A" are approved and adopted.

3. If any one or more of the covenants, agreements or provisions of this Resolution or Exhibit "A" shall be held contrary to any express provision of law or contrary to the policy of express law, though not expressly prohibited, or against public policy, or shall for any reason whatsoever be held invalid, then such covenants, agreements or provisions shall be null and void and shall be separate from the remaining covenants, agreements or provisions and shall in no way affect the validity of all other provisions of this Resolution or Exhibit "A"

4. The South Broward Drainage District Policies and Guidelines for Erosion Protection and Lake Bank Stabilization and Rehabilitation shall take effect as of the 17<sup>th</sup> day of December, 2015 and shall be effective until revised or changed by the District Board of Commissioners by subsequent resolution.

5. This Resolution shall take effect on the 17<sup>th</sup> day of December, 2015.

IN WITNESS WHEREOF, the Chairperson of the Board of Commissioners of the SOUTH BROWARD DRAINAGE DISTRICT has hereunto set his hand and the Secretary of the Board of Commissioners of the SOUTH BROWARD DRAINAGE DISTRICT has caused to be set its seal.

ADOPTED AND DATED the \_\_\_\_\_ day of \_\_\_\_\_, 2015.  
SOUTH BROWARD DRAINAGE DISTRICT

(SEAL)

By: \_\_\_\_\_  
Scott Hodges, Chairperson

Attest:

\_\_\_\_\_  
Robert E. Goggin, IV, Secretary

STATE OF FLORIDA        )  
                                      )§  
COUNTY OF BROWARD    )

The foregoing Resolution No. 2015-11 was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 2015 by SCOTT HODGES and ROBERT E. GOGGIN, IV, as Chairperson and Secretary, respectively of the SOUTH BROWARD DRAINAGE DISTRICT, a political subdivision of the State of Florida, on behalf of SOUTH BROWARD DRAINAGE DISTRICT. They are personally known to me.

WITNESS my hand and official seal in the county and state last aforesaid this \_\_\_\_ day of December, 2015.

(NOTARY SEAL OR STAMP)

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\_\_\_\_\_  
Notary Public - State of Florida at Large

EXHIBIT "A"

**SOUTH BROWARD DRAINAGE DISTRICT**  
**EROSION PROTECTION AND LAKE BANK STABILIZATION AND**  
**REHABILITATION**  
**POLICIES AND GUIDELINES**

**December 2015**

**Background**

South Broward Drainage District (SBDD) is an independent, special district in the State of Florida whose primary purpose is to provide stormwater management and flood control. The District was created in 1927, and manages approximately 46,600 acres (72.8 square miles) in southwest Broward County, Florida and serves a population of approximately 255,000 residents. SBDD exists and operates pursuant to the provisions of Chapter 98-524, Laws of Florida, as amended.

SBDD is classified as a local drainage district that serves the residents and businesses within its jurisdictional boundaries. The South Florida Water Management District (SFWMD) is the state water management agency that also regulates drainage and storm water management activities within the District's boundaries.

The SBDD jurisdictional boundaries encompass portions of five (5) different municipalities (Davie, Hollywood, Miramar, Pembroke Pines, and Southwest Ranches) and a portion of unincorporated Broward County, who provide varying levels of drainage and stormwater management services. The District is governed by a seven-member Board of Commissioners who are elected into office by the qualified electors of the District on a nonpartisan basis. All District business is conducted in accordance with Florida's open government laws (Sunshine laws).

SBDD manages and operates seven (7) primary pump stations, two (2) secondary pump stations, approximately 44 miles of freshwater canals, 7,700 acres of lakes, and numerous culverts and control structures. The District's responsibility for maintaining these facilities is to ensure stormwater conveyance and flood protection, as well as water quality and recharge. Integrated systems of mechanical, chemical and biological methods are utilized to control and manage the aquatic vegetation in the District's waterways.

The District's facilities are designed to provide the following water management functions:

- Conveyance of stormwater runoff
- Storage and attenuation of stormwaters
- Provide water quality in accordance with SFWMD Criteria
- Control discharge to SFWMD receiving waters in accordance with SFWMD Criteria and existing SFWMD permits
- Pretreatment of stormwater runoff prior to discharge

- Provide flood protection for homes and properties throughout the District
- Water conservation during the dry season

The District has adopted the following Levels of Service under its Facilities Report and Water Control Plan:

- Minimum road crowns elevations be set at or above the peak stages for a 10-year, 3-day storm event
- Minimum building finished floor elevations be set at or above the peak stages for a 100-year, 3-day storm event.

Based on the District’s most recent Facilities Report Update, all properties within SBDD’s jurisdictional boundaries meet or exceed the District’s adopted Level of Service. SBDD coordinates closely with SFWMD, Broward County and other local municipalities during extreme weather events to ensure that a high level of flood protection is achieved before, during and after these storm events.

SBDD has an annual operating budget of approximately \$3.3 million which funds the day-to-day operations and maintenance of the District. In addition, SBDD has a 5-year Capital Improvement Plan (CIP) which addresses significant facilities, infrastructure and operational upgrades.

### **Definitions**

For purposes of these policies and guidelines “drainage and water management purposes” shall refer to the *storage, flowage, conveyance, movement, and treatment of storm waters for flood protection, water quality, and conservation purposes. Drainage and water management facilities may include lakes, canals, ditches, swales, channels, retention areas, detention areas, wetland areas, catch basins, drainage inlets, storm manholes, culverts, pipes, exfiltration trenches, control structures, headwalls, endwalls, pollution retardant basins, baffles, weirs, gates, fish guards, and stormwater pump stations.*

### **Erosion Protection and Lake Bank Stabilization and Rehabilitation**

#### **General**

As stated above, SBDD contains approximately 7,700 acres of lakes and water bodies. The ownership of these bodies vary and are generally divided among the following categories:

- Privately owned water bodies – water bodies owned by adjacent property owners, Homeowner Associations, and Property Owner Associations.
- South Broward Drainage District owned water bodies – the majority of water bodies owned by SBDD were dedicated by plat or conveyed by title under a separate instrument.
- South Florida Water Management District (SFWMD) owned water bodies – SFWMD owns the C-11 and C-9 Canals and other lands and water bodies within the District.

- Florida Department of Transportation (FDOT) owned water bodies – FDOT is listed as the owner of several canals which are adjacent to FDOT owned roadways.
- Broward County owned water bodies – Broward County is listed as the owner of several canals which are adjacent to Broward County owned roadways.
- Local Municipality owned water bodies - Several municipalities within the District are listed as the owner of water bodies within the District including the City of Miramar, the City of Pembroke Pines, and the Town of Southwest Ranches.

SBDD has prepared a comprehensive catalog and map series, which depicts the ownership of all water bodies within the District. The ownership information contained within this catalog is based on the ownership information provided by the Broward County Property Appraisers (BCPA) Office and depicted on the BCPA web page.

With few exceptions, SBDD has easement rights over and across all privately owned water bodies. In addition, water bodies owned by other governmental agencies are typically designated as public rights-of ways, which provides SBDD the authority to perform drainage-related works for proper purposes.

Chapter 10 of the SBDD Criteria Manual regulates any work within a water body located within SBDD’s jurisdictional boundaries.

The primary role of the district for all water bodies is to ensure and protect the flowage and conveyance of storm waters through and across the water body. Maintenance work and improvements may include the following:

- Maintenance and control of aquatic plants that have the potential to migrate downstream or otherwise cause blockages in flowage channels or drainage culverts.
- Removal and trimming of trees and other vegetation along canals and lake banks that have the potential to fall into the adjacent water body during high wind events and cause blockages in flowage channels or drainage culverts.
- Culvert cleaning, culvert replacements and culvert repairs.
- Swale improvements.
- Maintenance dredging of SBDD’s primary and secondary canals to improve the hydraulic capacity of the canal.
- Maintenance, repairs and upgrades to the district’s stormwater pump stations and flood control gates.
- Erosion protection improvements as noted below.
- Other improvements which are deemed advisable to improve drainage and to provide drainage and water management services for the lands within the district.

**Erosion**

Erosion is a naturally occurring process where sediments, soils, rocks, etc. are weathered and transported from their current location to another location. In South Florida, erosion normally occurs along lake and canal banks due to transport by wind and water (stormwater runoff and wave actions). Over extended periods of time, it is not unusual for



the land areas along lakes and canals to begin showing signs of erosion. The rate and severity of erosion varies from location to location and is dependent on a wide variety of factors, including:

- Type of ground cover – a reinforced or hardened ground is less prone to erosion than barren soil.
- The slope of the ground – a steeper slope promotes a higher velocity of stormwater runoff which increases the rate and severity of erosion.
- Types and depths of underlying soils – certain types of soil, such as sands and silts, are more susceptible to erosion; likewise, areas with highly fractured or weathered rock are also more susceptible to erosion; porosity and permeability of the soils are also factors in erosion, as the more water gets absorbed into the ground, the less runoff that is generated.
- The amount and intensity of rainfall - higher intensity rainfalls tend to create higher rates of erosion.
- Wind speed and storm frequency.
- Burrowing animals can also cause or exacerbate erosion.

Over time, many waterfront properties within SBDD experience some form of erosion along lake and canal banks, and in most cases the property owners look to SBDD for guidance and assistance. The type of guidance and assistance that property owners may request include:

- Information on corrective measures to prevent future erosion.
- Rules and guidance on the rehabilitation of the lake bank, including the restoration of lost property (land).
- Contractor and engineer recommendations.
- Permitting information and guidance.
- Financial assistance.

### **SBDD Policy on Erosion Protection and Lake Bank Stabilization and Rehabilitation**

The South Broward Drainage District (SBDD) Board of Commissioners has established the following policy in regards to the District's responsibilities for erosion protection and lake bank stabilization and rehabilitation.

As a general rule and practice, SBDD does not perform work or provide funding for erosion protection or lake bank stabilization or rehabilitation along private single family homes, or along other private properties (commercial/industrial properties).

Under Section 13 of the SBDD Charter, the District's powers include the construction, operation and maintenance of drainage facilities which, in the judgment of the board, are deemed advisable to drain and provide drainage and water management services for the lands within the district. In most cases, erosion of lake banks along private properties

does not hinder or otherwise impact the drainage and water management of the district's lands. In cases of erosion, the impacts are normally limited to the properties immediately adjacent to the water body where the erosion is taking place.

Improvements and funding by SBDD for erosion protection and lake bank stabilization and rehabilitation shall be limited to the following circumstances:

- Improvements along and adjacent to SBDD owned canals and waterways where SBDD has title or easement rights and where the SBDD board has determined that the improvements will provide a benefit to the lands within the district and overall drainage basin for drainage and water management purposes. Examples include work along SBDD primary or secondary canals where erosion protection measures will help protect and ensure the conveyance and flowage of waters; improve the hydraulic capacity of the channel; help prevent blockages or restrictions within the flowage channel; or a combination of the above benefits.
- Improvements along and adjacent to privately owned waterways where SBDD has easement rights, and where the SBDD board has determined that the improvements will provide a benefit to the lands within the district and overall drainage basin for drainage and water management purposes. Examples may include lake bank stabilization around headwalls for basin inter-connecting culverts, lake inter-connecting culverts or other primary drainage culvert facilities that are deemed critical to maintaining flowage and drainage for properties and communities within the district; or along flowage channels that serve as conveyance channels for multiple properties and where erosion protection measures will help protect and ensure the conveyance and flowage of waters; improve the hydraulic capacity of the channel; help prevent blockages or restrictions within the flowage channel; or a combination of the above benefits.
- Improvements along private properties where SBDD has easement rights and where the improvements are part of a special assessment approved by the SBDD board. An example of this type of improvement is the extensive lake bank rehabilitation and stabilization work that was performed within lake maintenance easements dedicated to SBDD over numerous private properties following Hurricane Wilma and where SBDD was reimbursed for its costs through either a special assessment or Federal Emergency Management Agency (FEMA) emergency funding.
- Improvements along any property within the district where SBDD has title or easement rights and where the SBDD board has determined that the improvements are necessary for emergency purposes or to protect the health and safety of the district's residents and property.

Where SBDD has determined that improvements for erosion protection or lake stabilization/rehabilitation work will only benefit individual property owners, as opposed to a larger community or drainage basin, the SBDD cannot perform this work with funding from SBDD's General Operating account or Capital Improvement Committed account. In these cases, the cost of the improvements would be the responsibility of the adjacent property owner. SBDD's ability to perform any improvements in these cases would be through a special assessment on the property or properties receiving the benefit(s) of the

improvements. In evaluating the benefits of any erosion protection measure or lake stabilization/rehabilitation measure, SBDD makes no distinction between adjacent water bodies that are privately owned, owned by SBDD, or owned by another entity.

Any special assessment by SBDD for erosion protection or lake/canal stabilization/rehabilitation work will need to follow the provisions of Section 44 of the SBDD Charter.

SBDD's Director and staff are available upon reasonable notice to assist private property owners in the areas of erosion protection and lake bank stabilization and rehabilitation as follows:

- Provide information and educational materials on the causes of erosion and different options for corrective measures.
- Site visits by SBDD staff to assist property owners on assessing the impacts of erosion on individual properties.
- Guidance and suggestions on how to proceed with corrective action to prevent future erosion and to minimize the impacts of erosion along private and public properties.
- A list of Contractors and engineers who have bid on work or who have performed work for SBDD related to erosion protection and lake/canal bank stabilization and rehabilitation. SBDD is not able to recommend any Contractor or engineer for this work.
- Guidance and assistance on the permitting process through SBDD for any work or improvements related to erosion protection or lake bank stabilization and rehabilitation.
- Inspections of any work under a SBDD permit for erosion protection or lake bank stabilization and rehabilitation to verify that the work is being performed in substantial compliance with the SBDD permit.

These Policies and Guidelines were approved and adopted by the South Broward Drainage District Board of Commissioners by SBDD Resolution No. \_\_\_\_\_ on \_\_\_\_\_.