

**From:**  
Sierra Ranches Families  
Davie FL 33324

**September 22<sup>nd</sup>, 2023**

**To:**  
The Board of Commissioners  
Central Broward Water Control District (CBWCD)

**Subject:** Withhold entire bond amount to redesign and redevelop the Sierra Ranches Conservation Area

Dear Commissioners:

***The residents (148 adults representing households with 90 children and over 85% of homes) OPPOSE the entire bond amount release for the Sierra Ranches Project till due diligence is done<sup>1</sup>, corrective action taken and maintenance expectations are clarified for the Sierra Ranches Conservation Area.***

The Preserve/Conservation area in Sierra Ranches does not meet the CBWCD's Stormwater Management Regulations, Standards, Procedures and Design Criteria dated August 2020. To meet these criteria and to ensure that the residents and their immediate children and future generations are not burdened long-term economically, or from a public safety and health perspective, while also protecting the environment, ***we are also demanding that the entire conservation area be redesigned using best engineering practices and standards.*** This will also reduce the amount of ongoing maintenance, which Sierra Ranches residents must bear in perpetuity. Any environmental mitigation deficits as a result of this redesign can be compensated at the offsite mitigation bank.

1. **Depth:** Minimum designed depth does not meet the minimum requirement of 10 feet below control water level. Refer to Section 2.04.3.10 (which is part of chapter 2.04.3)
2. **Nuisance plant species:** Section 2.04.1.3

Additionally, there is no record of the preserve being **maintained** by either the HOA or CBWCD/SFWMD/Broward County.

As documented by resident, Sunil Menon, after significant research and analysis, the Sierra Ranches preserve has design flaws<sup>2</sup>. Based on post construction defects and a long-elapsd time between construction and marsh planting, in addition to a lack of divider between the marsh and the water channels, there is a channel collapse and depth reduction based on observed data points. Additionally, lack of maintenance of the shoreline weeds and the open water drainage channel around residential lots has resulted in nuisance species proliferating and taking over the water channel. This will obstruct flows in the open water drainage channels along preserve facing residential lots if not immediately corrected and managed via maintenance activities. The long-term shallowing of the water channel resulting in

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<sup>1</sup> Both by CBWCD and independently by independent experts hired by Sierra Ranches residents

<sup>2</sup> Design flaws are established by comparing to CBWCD's design standards as the primary reference. Additional secondary reference includes South Broward Drainage District, an adjacent district which has well-established standards and drawings for water bodies adjacent to mitigation areas behind residential lots.

water stagnation coupled with unmanaged nuisance species will result in mosquito problems and consequential health hazards. After the marsh completely grows up and the water channels can no longer convey water as they are obstructed due to channel collapse and weed growth, the flood risk to properties will increase.

Based on examination of records, it appears that actual operating conditions and an iterative process illustrated in **Exhibit 2** was not considered and a rush to maximize onsite mitigation led to sub-optimal engineering choices. We believe it is one of the factors causing the disaster unfolding in the Sierra Ranches Preserve.

Please support the redesign and rework to ensure that the Sierra Ranches preserve is sound from a ***functional, environmental, health and safety perspective*** long term.

The agreement between the CBWCD and the developer allows the board to reevaluate designs, workmanship, construction, project management faults, ordinance changes etc. and demand corrections from the developer. Please refer to **Exhibit 1**

Despite the as-builts been approved in a previous meeting, more recent data points, including an actual survey on 9/22/23 that shows significant channel shallowing, and comparison to well established standards in an adjacent drainage district in Broward county crystallizes the reasons for the early onset of the problems we are seeing. We believe you have all the documentation Sunil Menon has created before and shared with the board, the counsel, district clerk and engineers from Craven Thompson and RJ Behar.

If the preserve ownership is transferred to Sierra Ranches without the complete redesign and corrections done by the developer, Sierra Ranches may incur significant expenses a few years from now when the early problems we are seeing become full-fledged disasters. This will also have a multi-generational multi-million dollar impact on the economic wellbeing, public health and safety of Sierra Ranches residents.

Thank you very much in advance for your kind support.

Best regards,  
Residents of Sierra Ranches

(Signature page attached)

**Exhibit 1:** District's authorities to completely redesign the Preserve/ Conservation area

NOW, THEREFORE, the condition of this obligation is such that if the Principal shall in all respects fully comply with, carry out, construct, erect and build the improvements referred to in Exhibit "A" hereof, in accordance with the aforesaid regulations of the District, the plans, specifications and schedules covering said work, and such improved additions, amendments or alterations as may be made in the plans, specifications and schedules for said work (it being understood that the Principal shall remain bound under this Agreement although not informed of any such additions, amendments or alterations); and shall complete all of said work on or before ~~December 2020~~, and shall pay all costs as incurred and billed by the District in connection with the investigation, approval, and inspection of the improvements referred to in Exhibit "A" hereof; then the Principal of this Agreement shall promptly repair or replace any of said improvements to the original condition required by said District or any ordinances and regulations thereof, as amended, should the same because of defective material, engineering and/or faulty workmanship, require such repair or replacement within twelve (12) months after final inspection and approval of said improvements by the District, then this obligation shall be void, otherwise remaining in full force and effect. ~~And the Principal on this Agreement, for value received, hereby stipulates and agrees that no changes, extensions of time, alterations or additions to the work or to the plans, specifications and schedules covering the same, or in the term or mode of payment for the same shall in any way affect the liability of payment under this Agreement, and it does hereby waive notice of any and all changes, extensions of time, alterations and additions to the work or to the plans, specifications and schedules covering said work.~~

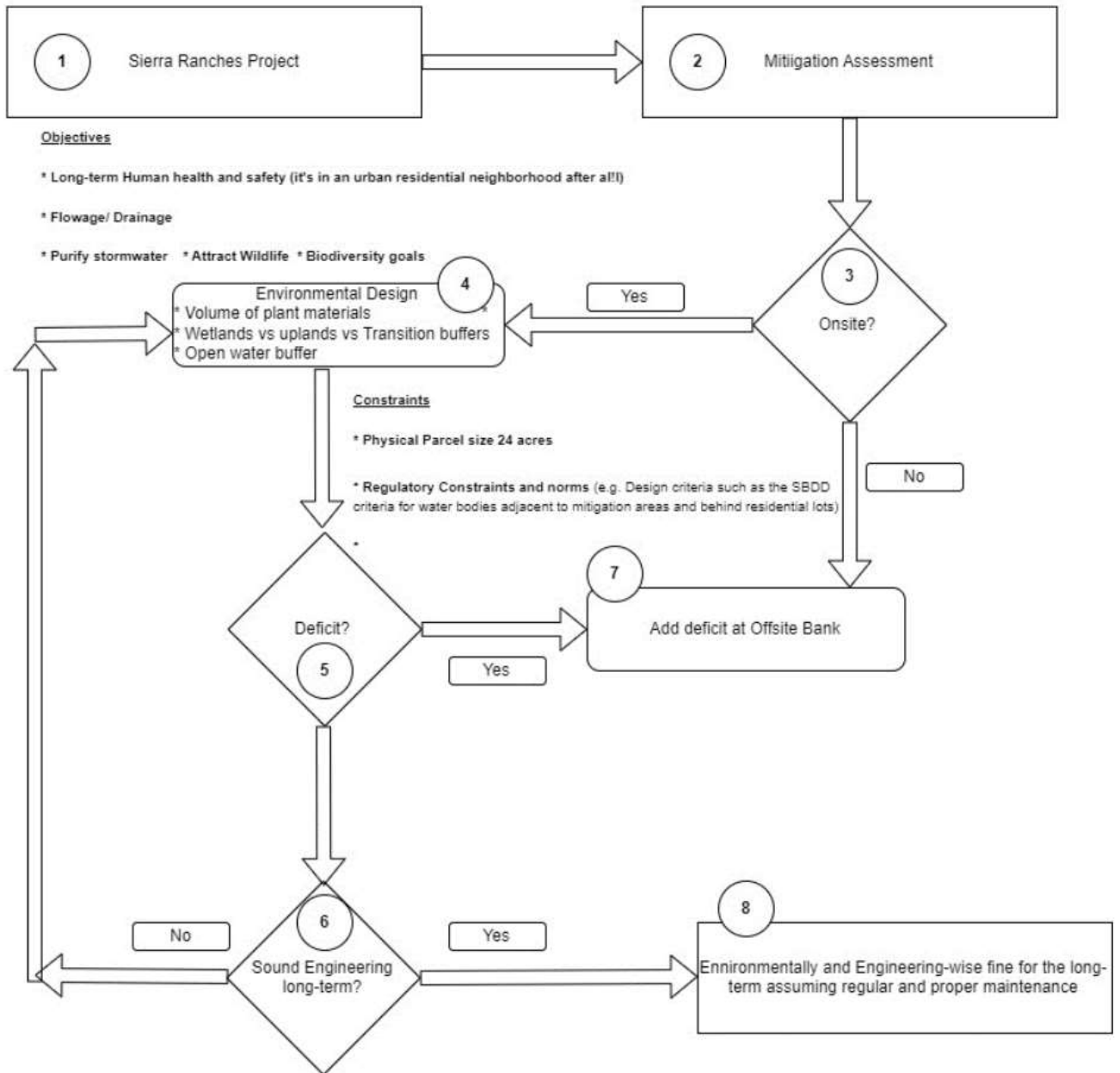
This Agreement shall be for the use and benefit of the District if it shall elect to proceed with said work upon the failure or refusal of the Principal to do so by the date hereinabove specified, or any subsequent extension date agreed to by the Principal and the District, or in the event the Principal for any reason fails to complete the improvements described in Exhibit "A" to this Agreement and may be enforced by the District in the manner authorized by law.

The Bank further agrees to notify the District a minimum of thirty (30) days prior to cancellation or termination of the Letter of Credit. The Principal further agrees to notify the District of any change in ownership of all or part of the property described in Exhibit "B" to this Agreement.

That the District will have the right and authority to enter upon and cross over the property described in Exhibit "B" hereto for the purpose of inspecting these improvements, and in the event that the District determines that the improvements are not being timely completed by the Principal, notice will be given by the District to the Principal and the Principal will be given a period of fifteen (15) days from and after the mailing of such notice within which to commence construction of the improvements or obtain from the District, in writing, an extension, for good cause shown, of the time within which the improvements will be completed, failing which the District may at its option complete the improvements described in Exhibit "A" for and on behalf of the Principal.

**Exhibit 2:** Best practice Iterative and Intuitive design process to meet long-term Engineering, Flowage, Public Health & Safety and Conservation goals

# Intuitive Design Process



**Source:** Illustrated by Sunil Menon based on his system and product design experience in multiple industries