

Mitigation Plan for Well interference at the Van Antwerp property
Indian River County Consumptive Use Permit Number: 10524-9 (item #1329361)
April 25, 2018

This document is the Mitigation Plan “Plan” for the Van Antwerp properties “Properties” located at 6555, 6525, 6325, 6355, 6285, and 6245 81st Street also identified by the following parcel ID numbers and as shown on Exhibit A:

Address	Parcel Number
6555 81 st Street	31393200000500000006.1
6525 81 st Street	31393200000500000006.0
6325 81 st Street	31393200000500000003.0
6355 81 st Street	31393200000500000004.0
6285 81 st Street	31393200000500000002.0
6245 81 st Street	31393200000500000001.0

This Plan has been developed by Indian River County Department of Utility Services (IRCDUS) staff with concurrence from the St. Johns River Water Management District (SJRWMD), Indian River County Board of County Commissioners (BCC), and the Van Antwerp family (collectively referred to as the “Parties”) and will be documented in Indian River County’s Consumptive Use Permit compliance file under Permit 10524-9 (Item # 1329361).

IRCDUS intends to continue to move towards completion of the following activities within approximately 6 months from approval by the Indian River County Board of County Commissioners (BCC) of the Plan and subsequent approval of the bid award and timely completion by the awarded contractor. The below items address the understanding and agreement between the Parties for the construction and maintenance activities and future mitigation plan for the Properties.

Construction Activities

1. Construct one (1) new 6” Upper Floridan Aquifer (UFA) well (Well No. 6) with submersible pump (estimated 200 gallons per minute as basis for design) at the 6325 81st St. parcel location selected during the October 25, 2017 meeting at the Properties between Van Antwerp and IRCDUS agents, and presented to attendees at the mandatory pre-bid meeting on February 14, 2018 (see Exhibit A). All costs to construct Well No. 6 will be IRCDUS’s responsibility. The Van Antwerp family and any future Property owner(s) (“Owner(s)”) will pay ongoing electric pump usage costs. Routine maintenance and inspections on Well No. 6 will be performed on an annual basis by a licensed well contractor hired by IRCDUS. The annual inspections are to begin at the end of the 1-year warranty of the new Well No. 6. In between annual inspections, Owner(s) will be responsible for regularly examining the area above the ground surface over Well No. 6. If any of the following issues are discovered, Owner shall contact IRCDUS to investigate:

1. **Casing** (pipe protruding from the ground)—Check the general condition and check if the casing extends at least 12 inches above ground.
2. **Well cap** (cap on top of casing)—Check the condition of the cap and any seals, make sure that it is securely attached.
3. **Electrical conduit** (if present)—Visually verify that all connections are secure.

The Owner(s), on a regular basis, are strongly encouraged to perform at a minimum the following routine maintenance for all wells fitted with a submersible well pump:

- ✓ Check for potential sources of contamination and physical dangers, and:
 - Remove chemicals such as paint, fertilizer, pesticides, or motor oil from around the well
 - ✓ Be sure the ground surrounding the wellhead is sloping away from well to divert surface runoff
 - ✓ Make sure the well cap is free of debris and able to keep insects and animals out
 - ✓ Any growth vegetation with root systems within 10 feet of the well should be physically removed
 - ✓ Exercise all valves associated with the well pump system periodically. Confirm well isolation valves are open and operating properly when operating well pump
 - ✓ Visually inspect above-ground well system wiring and parts such as pipes, connections, joint seals, gauges, pressure relief valves, and the water meter for:
 - Signs of corrosion or breakages
 - Any odor of burned connections or apparent damage to wiring
 - ✓ Visually inspect the electrical control box and connections
2. Retrofit Existing Well No. 1— IRCDUS to pay for replacement of existing centrifugal pump with a submersible pump set at approximately 60-foot depth in the existing 4" well (estimated 60 gallons per minute as basis for design). Owner(s) will pay ongoing electric pump usage costs. IRCDUS will hire a licensed well contractor to conduct annual inspection and maintenance service of the above-ground modifications to the well head and below ground submersible pump, beginning at the end of the 1-year warranty of the retrofitted Well No. 1. Owner(s) routine inspection and maintenance for all wells fitted with submersible well pumps shall be the same as detailed in item no. 1 above.

3. Under a services agreement paid for by IRCDUS, system redundancy will be provided in case of pump / motor failure at either of the pump systems described in items 1 and 2. This may include spares for both pumps / motors above. If spares are used, new spares will be furnished by the service and maintenance company contracted and paid for by IRCDUS as approved by the BCC.
4. Owner(s) shall provide the IRCDUS and/or IRCDUS's Representatives and Contractor access to Well No. 1 and the proposed new Well No. 6 for modifying the existing well and installing the new well.

Future Mitigation Plan

- A. The above construction and maintenance items 1-4 will be required, regardless of Owner(s), for as long as the Owner(s) has/have authorization from SJRWMD, by individual permit or general permit by rule, to use groundwater for any agricultural type consumptive use on the Properties. Note the above construction or maintenance items listed in items 1-4 will not be required for Well No. 1 if the Owner(s) of all parcels using Well No. 1 are no longer authorized to use groundwater for any agricultural type consumptive use on those parcels. Similarly, the above construction or maintenance items listed in items 1-4 will not be required for Well No. 6 if the Owner(s) of all parcels using Well No. 6 are no longer authorized to use groundwater for any agricultural type consumptive use on those parcels.
- B. Potable water uses at the three existing homes and packing house will continue at no charge to the Van Antwerp family (Frederick W. Van Antwerp, Florence B. Van Antwerp, or their daughters Paige M. Van Antwerp and Sheri Van Antwerp Griffin) for as long as they live there. No impact fee assessment shall be made now or in the future of the Van Antwerp family. Future potable water consumption is to be based on historical monthly average household and packing house consumption only for the uses described at the locations below.

IRCDUS Customer Account Number	Description	Location	Average Consumption, Gallons per Month
1009667-121626	Daughters Home	6245 81st Street	4,620
1009667-121628	Van Antwerp Home	6285 81st Street	4,620
1009667-121630	Mothers Home	6325 81st Street	4,620
1009667-121632	Packing House	6325 81st Street	17,000

Consumption beyond the average monthly amounts listed above shall be charged at current County rates. IRCDUS bills on a month basis. Any such charges will only be for the volumetric consumption in excess of the amounts listed above.

- C. Provided that all federal, state and local regulations are met County potable water shall be made available for domestic use to any other future Owner(s) at normal County billing rates which shall include impact fees and other connection costs.
- D. This Plan fully addresses the potential interference with the Van Antwerp's use of water from existing wells No. 1 through No. 5.
- E. This is the Mitigation Plan for the Properties, regardless of any future subdivision of the Properties, even if used for agricultural type use.
- F. The IRCDUS has submitted Technical Memorandum dated July 20, 2017 by JLA Geosciences, Inc., and the SJRWMD acknowledges that IRCDUS is not the only Existing Legal User (ELU) causing interference to the Van Antwerp withdrawals.
- G. This Plan has taken into account future potential expansion at the IRCDUS North Wellfield.
- H. Owner(s) shall provide the IRCDUS and/or IRCDUS's Representative access to Well No. 1 and Well No. 6 for routine inspection/maintenance.
- I. The IRCDUS is not responsible for the ambient water quality of the newly constructed Well No. 6 if degradation due to other users occurs. The IRCDUS cannot be held responsible for changes in water quality or quantity that may occur in wells within the Properties as a result of the Owner(s) use of the wells.
- J. Interferences to other ELU's of ground water caused by Well No. 6 will not be the responsibility of IRCDUS.
- K. IRCDUS shall no longer be responsible for this Plan in the event IRCDUS ceases to utilize water from the Hobart wellfield. If a portion of the North (Hobart) wellfield is utilized and IRCDUS demonstrates to SJRWMD that its withdrawals no longer interfere with the Van Antwerp wells through data or other modeling documentation as approved by SJRWMD, this plan shall become null and void. If the plan is deemed to be null and void, IRCDUS shall continue to provide potable water to the owner(s) at the normal County billing rates provided that all federal, state and local regulations are met.
- L. The BCC or IRCDUS is not responsible for potential damage to the equipment resulting from the misuse or neglect by the Owner(s). If any such misuse is detected by IRCDUS or IRCDUS's well contractor, the owner may elect to hire their own independent outside expert for an opinion.
- M. Upon completion of the construction activities listed in items 1-4, the IRCDUS will resume normal operations at the North (Hobart) wellfield.