

# WAIVER JUSTIFICATION REPORT

January 16, 2017

Prepared for:

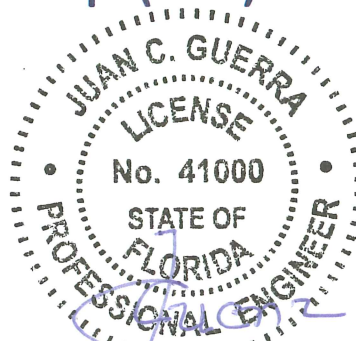
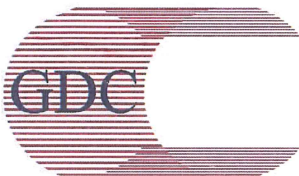
**Friends Recycling, L.L.C.**

2350 NW 27<sup>th</sup> Avenue  
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(352) 622-5800  
friends2350@gmail.com

Prepared by:

**Guerra Development Corp. (GDC)**

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Juan C. Guerra, P.E.  
FL Reg. No. 0041000

1/25/17

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## 1 PURPOSE AND OBJECTIVE

- 1.1 This Waiver Justification Report (WJR) is intended to support a Petition for Waiver (PFW) by Friends Recycling L.L.C. (Friends).
- 1.2 The PFW seeks to obtain a waiver from the requirements of Chapter 62-701.300(2)(b), more specifically described below.

Chapter 62-701 Solid Waste Management Facilities, Section 62-701.300 Prohibitions, Paragraph (2) Siting, Sub-paragraph (b). Shown underlined in bold red is the rule section for which this waiver is being applied.

“62-701.300 Prohibitions.

(1) General prohibition.

(a) No person shall store, process, or dispose of solid waste except as authorized at a permitted solid waste management facility or a facility exempt from permitting under this chapter.

(b) No person shall store, process, or dispose of solid waste in a manner or location that causes air quality standards to be violated or water quality standards or criteria of receiving waters to be violated.

(2) Siting. Unless authorized by a Department permit or site certification in effect on May 27, 2001, or unless specifically authorized by another Department rule or a Department license or site certification based upon site-specific geological, hydrogeological, design, or operational features, no person shall store or dispose of solid waste:

(a) In an area where geological formations or other subsurface features will not provide support for the solid waste;

**(b) Within 500 feet of an existing or approved potable water well unless storage or disposal takes place at a facility for which a complete permit application was filed or which was originally permitted before the potable water well was in existence. This prohibition shall not apply to any renewal of an existing permit that does not involve lateral expansion, nor to any vertical expansion at a permitted facility;**

- 1.3 Since approval by DEP of the Friends Recycling, L.L.C. - C&D Disposal and Recycling Facility permit modification, dated 10/28/14, recent changes to the facility and surrounding area support the PFW on the basis that the "underlying purpose of the rule" is being met, and that denial of the PFW results in a "substantial hardship" and a "violation of the principles of fairness" for Friends.
- 1.4 Approval of the PFW from the above-described rule allows Friends to utilize approved Cell 2B for the disposal of "normal" Construction & Demolition (C&D) debris. Currently, the majority of Cell 2B is restricted to the disposal of "Clean" C&D debris.







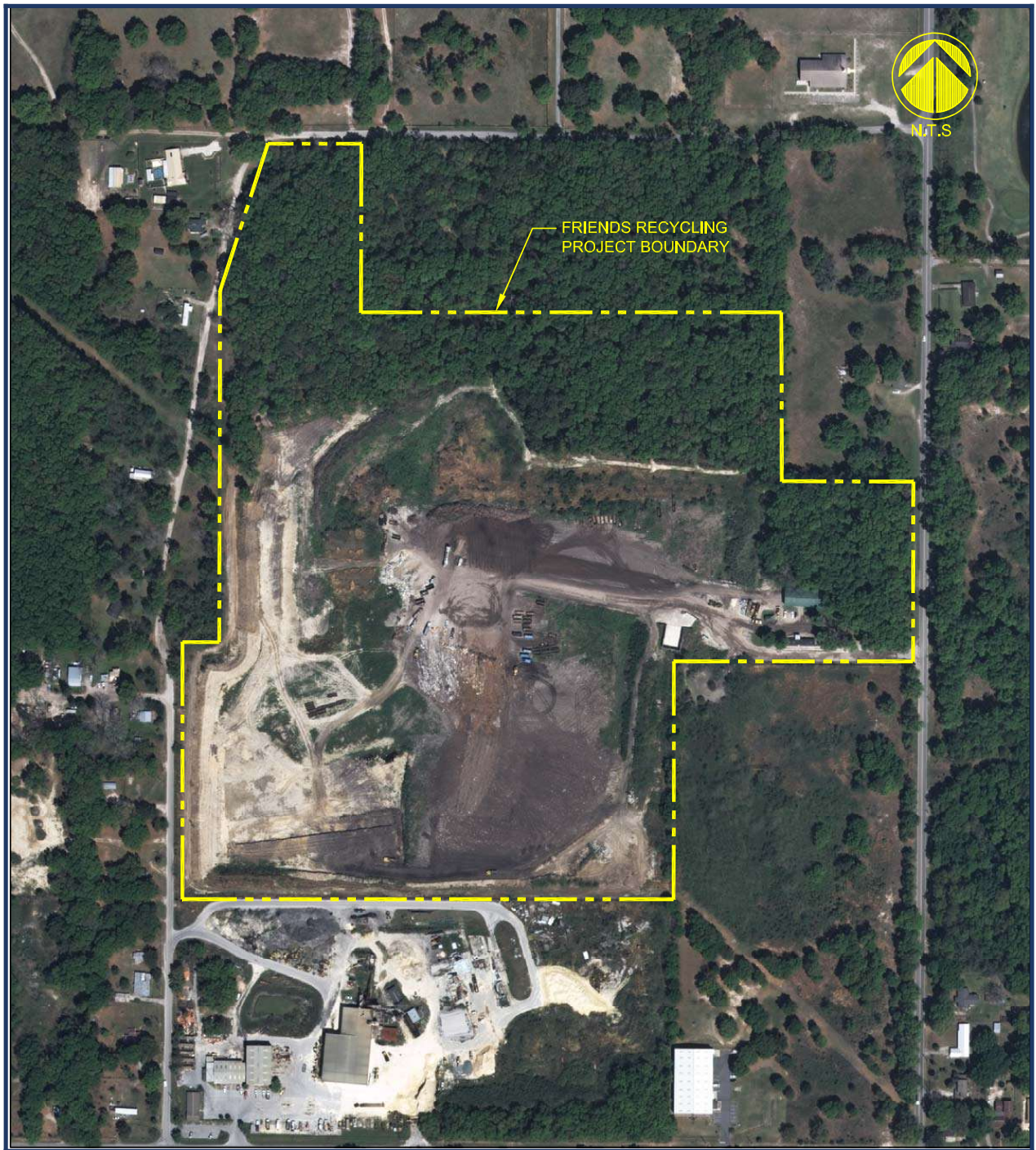


Figure 2 - Aerial Photo

## 2.4 STEPS TAKEN BY FRIENDS TO ADDRESS ISSUES CAUSING RESTRICTIONS TO CELL #2B

- 2.4.1 In order to address the issues which resulted in restrictions to Cell #2B, Friends undertook a multi-year project which included negotiations with pertinent property owners, City of Ocala staff and DEP-Orlando staff.
- 2.4.2 Friends requested and the City of Ocala subsequently installed a potable water main along NW 31st Avenue, located along the C&D facility's west boundary and in front of properties utilizing offsite private wells for their water supply. Installation of this water main makes it possible for property owners to hookup to the City of Ocala-owned central water system, thus eliminating the need for water wells.
- 2.4.3 The City of Ocala as well as Friends purchased some of the properties with offsite private water wells along NW 31st Avenue, thus eliminating the issues of the 500-foot setback for those properties.
- 2.4.4 Regarding the remaining properties with offsite private water wells within the 500-foot setback from Cell #2B, Friends contacted every property owner, offered to pay for their connection to the City of Ocala's central water system and pay for up to five (5) years of water usage fees if they connect.
- 2.4.5 After all steps taken by the City of Ocala and Friends over a period of several years, only three (3) offsite private water wells remain.
- 2.4.6 Figure 3 - Wells Map Current shows the current 500-foot well setback envelop for the remaining three (3) wells. It is this envelop (shaded area) which is the subject of this Petition for Waiver (PFW).
- 2.4.7 The only remaining wells are W7, W12 and W13. These are all located west of the Friends facility, upstream of the aquifer's subsurface flow as discussed later in this report.



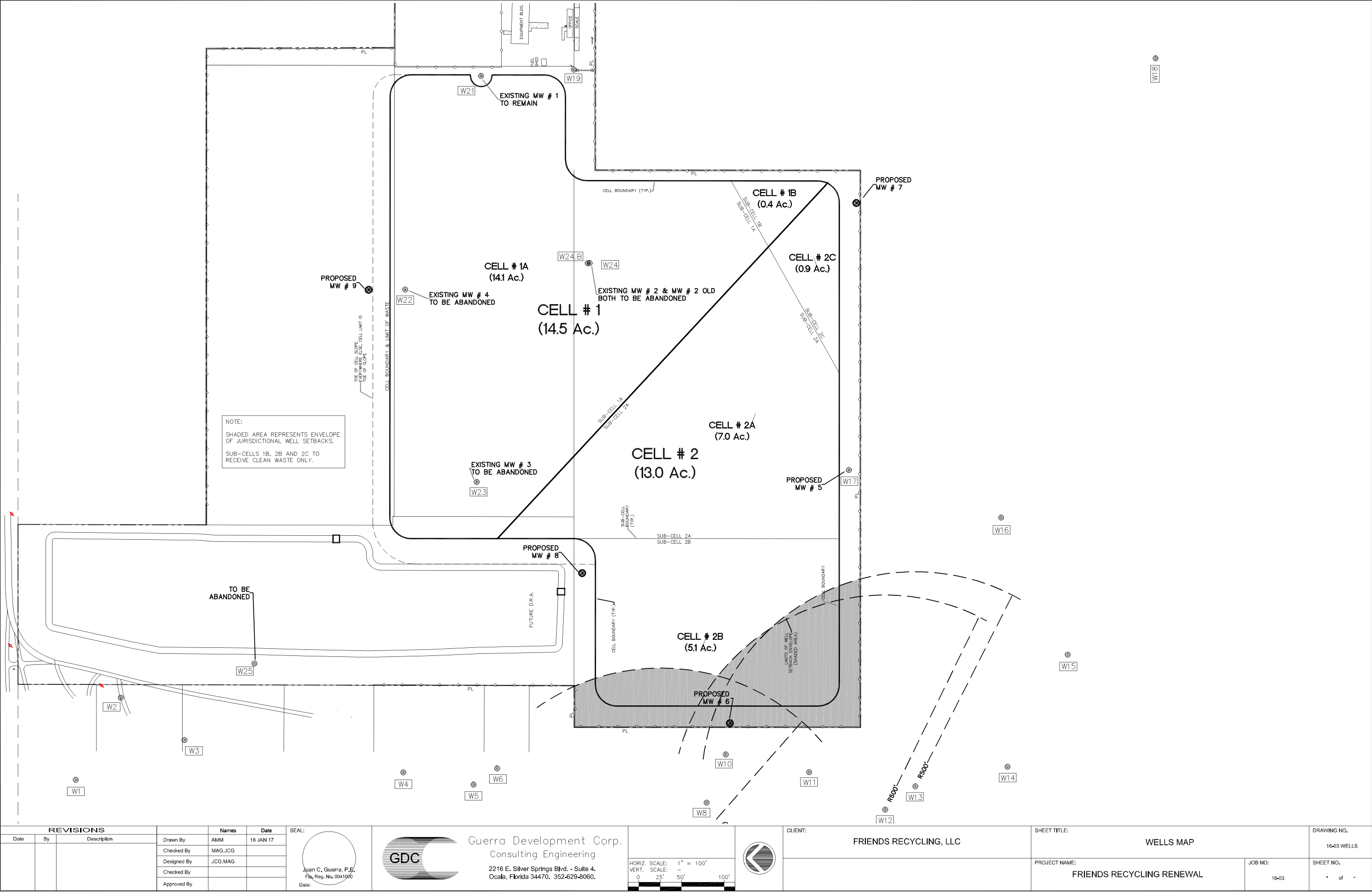


Figure 3 - Wells Map Current

### 3 WAIVER JUSTIFICATION

#### 3.1 GROUNDWATER FLOW

- 3.1.1 It is Friends Recycling, L.L.C. position, supported by recent and older sampling and investigations, that the Floridan Aquifer which is the source of the water drawn by the three (3) pertinent wells, has a consistent subsurface flow away from these three (3) wells, thus reducing, if not completely eliminating, the potential for water originating from the Friends Facility to reach those wells.
- 3.1.2 The oldest potentiometric surface map for the upper Floridan Aquifer in Friends possession is dated May 1968. This map shows a gradient which indicates an easterly flow, away from the offsite wells in question.
- 3.1.3 Potentiometric map for the upper Floridan Aquifer dated September 2000, shows the same gradient and implied flow in an easterly direction.
- 3.1.4 The Groundwater Trends Report prepared by Enviro-Tech, Inc., for Friends, dated April 7, 2014, excerpts shown in Attachment -A-, shows consistent easterly flow (away from the offsite wells) from 2009 through 2014.
- 3.1.5 As suggested by DEP staff for this Petition for Waiver (PFW), current sampling was conducted by Ideal Tech Services, Inc. for Friends, at a 30-days interval. Results dated 01/06/17 are shown in Attachment -B-. This report shows a gradient generally away from the offsite wells, and dropping in an easterly direction.

#### 3.2 MONITORING WELL MW #6 PASSING SAMPLING ANALYSIS

- 3.2.1 Sampling of the nearest active monitoring well (MW #6) to the remaining three (3) offsite wells ( W7, W12 and W13) shows chemical profile within DEP guidelines.
- 3.2.2 This is based on the report by Enviro\_tech, Inc, Robert M. Couch III, P.E., dated April 7, 2014. Additionally, MW #6 is part of an ongoing monitoring program as required by DEP.

#### 3.3 OFFSITE WELLS LITHOLOGY

- 3.3.1 DEP staff requested that Friends attempted to provide lithology for the offsite wells to support this PFW application. Unfortunately, those wells were constructed long ago when Marion County did not keep reliable records.





3.3.2 Mr. Nick Giumarelli contacted Mr. Henry Perez at the Marion County Health Department, office in charge of granting permit and holding records for private potable water wells. Mr. Giumarelli was informed that no records exist for the three (3) offsite wells pertinent to this PFW. Mr. Perez may be reached at (352) 622-7744.

#### 4 CONCLUSION IN SUPPORT OF THE PFW

4.1 Considering that Friends is running out of available disposal cells within their approved facility, the restrictions imposed on Cell #2B create a “substantial hardship” and a “violation of the principles of fairness” for Friends.

4.2 Friends has undertaken a significant and unusual effort to improve conditions in and around the facility to make City of Ocala central water available to offsite well users within the 500-foot setback from Cell #2B; Friends has purchased properties with wells within the setback to connect houses to city water. To the users of the remaining three (3) offsite wells, Friends has offered to pay for connection and 5 years of use of central water.

4.3 Friends has commissioned several studies which over a period of several years have consistently shown that Monitoring Well 6 (MW #6) tests within acceptable DEP parameters, and that subsurface water gradients for the Upper Floridan Aquifer which supplies the water for the offsite water wells, run in an easterly direction.

4.4 Friends Recycling, L.L.C., therefore respectfully requests a favorable consideration to this Petition for Waiver.

End of main Body of Report



ATTACHMENT - A -

GROUNDWATER TRENDS REPORT  
BY ENVIRO-TECH, INC.

This attachment shows excerpts from the aforementioned report;  
GDC does not suggest or imply ownership of said report.



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**GROUNDWATER TRENDS REPORT**  
**SECOND HALF OF 2009 THROUGH THE FIRST**  
**HALF OF 2014**

**FRIENDS RECYCLING**  
**(FKA Big D Roofing, Inc.)**  
**2350 NW 27<sup>th</sup> Avenue**  
**Ocala, Marion County, Florida**

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**PREPARED FOR:**

Friends Recycling  
2350 NW 27<sup>th</sup> Avenue  
Ocala, Florida

**PREPARED BY:**

Robert M. Couch III, P.E.  
ENVIRO-TECH, INC.  
15290 SE Hwy 42, PO Box 152  
Weirsdale, Florida 32195  
(352) 694-1799  
Registration No. 55311  
Certificate of Authorization No. 8692

April 7, 2014



April 7, 2014

Friends Recycling  
2350 NW 27<sup>th</sup> Avenue  
Ocala, FL 34475

Attention: Mr. Nick Giunarelli

RE: Groundwater Trends Report from the Second Half of 2009 to through the  
First Half of 2014  
Friends Recycling C&D Landfill  
Marion County, Florida

Dear Mr. Giunarelli:

Per your request, Enviro-Technologies, Inc. (ETI) has performed a groundwater directional trends analysis of the southwest portion of the Friends Recycling C&D Landfill from the second half of 2009 through the first half of 2014. Groundwater flow directions were based on groundwater elevations obtained from Monitoring Wells: MW-1, MW-5, MW-6, MW-7, MW-8, and MW-9S during the above listed sampling events.

The following is a summary of the site location, the methodology used to determine groundwater contours, and the resulting groundwater flow direction observations based on those contours derived from the semi-annual groundwater elevation data from the above listed wells as required by the Florida Department of Environmental Protection (FDEP) for the Friends Recycling C&D Landfill. Special attention was given to the groundwater flow directions near the southwest portion of the site and the sampling results of MW-6 as there is interest in expanding the C&D landfill in this area.

#### **SITE LOCATION**

The Friends Recycling C&D Landfill is located at 2350 NW 27<sup>th</sup> Avenue in Ocala, Marion County, Florida, as shown on the Site Location Map in the Appendix.



## GROUNDWATER FLOW DIRECTION DETERMINATION METHODOLOGY

Groundwater elevation data from Semi-Annual Groundwater Monitoring reports beginning with the 2<sup>nd</sup> Half of 2009 and ending with the 1<sup>st</sup> half of 2014 ground water sampling periods were collected for MW-1, MW-5, MW-6, MW-7, MW-8, and MW-9S.

This elevation data was organized into a Triangular Interpolation Network (TIN) surface that was then used to produce groundwater elevation contours in an AutoCAD program based on linear interpolation of the distance between the monitoring wells and their respective groundwater elevations. After being generated, the groundwater contours were overlaid on the Topographic Survey of the Friends Recycling C&D landfill site provided by Robert L. Rogers Engineering Co., Inc. for each respective sampling period listed above.

Each groundwater contour overlay map was then analyzed and marked to determine generalized groundwater flow directions in the southwestern portion of the Friends Recycling C&D landfill property. A copy of these groundwater contours and their generalized flow directions for each sampling period is included in the Appendix of this report.

## GROUNDWATER FLOW DIRECTION RESULTS

Groundwater flow directions in the southwest portion of the Friends Recycling C&D landfill were found to be primarily from west to east. A summary of the actual directions for groundwater flow for each respective groundwater contour overlay map are provided in the following table:

**Groundwater Contour Overlay  
Map Flow Direction Results For Southwest Portion of Site**

<b>SAMPLING PERIOD</b>	<b>PRIMARY GROUNDWATER FLOW DIRECTION RESULTS</b>
2 <sup>ND</sup> HALF 2009	NORTHWEST TO SOUTHEAST
1 <sup>ST</sup> HALF 2010	WEST-NORTHWEST TO EAST-SOUTHEAST
2 <sup>ND</sup> HALF 2010	SOUTHWEST TO NORTHEAST
1 <sup>ST</sup> HALF 2011	SOUTHWEST TO NORTHEAST
2 <sup>ND</sup> HALF 2011	NORTHWEST TO SOUTHEAST
1 <sup>ST</sup> HALF 2012	NORTHWEST TO SOUTHEAST
2 <sup>ND</sup> HALF 2012	WEST-SOUTHWEST TO EAST-NORTHEAST
1 <sup>ST</sup> HALF 2013	WEST-SOUTHWEST TO EAST-NORTHEAST
2 <sup>ND</sup> HALF 2013	WEST-NORTHWEST TO EAST-NORTHEAST
1 <sup>ST</sup> HALF 2014	WEST TO EAST





## MW-6 SAMPLING RESULTS - 2<sup>ND</sup> HALF 2009 THROUGH 1<sup>ST</sup> HALF 2014

Groundwater monitoring well sampling results for MW-6 in the southwest portion of the Friends Recycling C&D landfill were found to be primarily below the FDEP groundwater criteria. A summary of the sampling results for MW-6 that were equal to, or above the FDEP groundwater criteria for each respective sampling period are provided in the following table:

**Groundwater Monitor Well Sampling Results For  
MW-6 Located in the Southwest Portion of Site**

<b>SAMPLING PERIOD</b>	<b>MW-6 SAMPLING RESULTS EQUAL OR GREATER THAN THE FDEP GROUNDWATER CRITERIA</b>	<b>GROUND WATER CRITERIA</b>	<b>METHOD</b>
2 <sup>ND</sup> HALF 2009	Total Dissolved Solids - 500 mg/L	500 mg/L	SM18 2540C
1 <sup>ST</sup> HALF 2010	All Analyte Results Below FDEP Groundwater Criteria	N/A	N/A
2 <sup>ND</sup> HALF 2010	Total Aluminum - 220 mg/L	200 mg/L	EPA 6020
1 <sup>ST</sup> HALF 2011	All Analyte Results Below FDEP Groundwater Criteria	N/A	N/A
2 <sup>ND</sup> HALF 2011	All Analyte Results Below FDEP Groundwater Criteria	N/A	N/A
1 <sup>ST</sup> HALF 2012	All Analyte Results Below FDEP Groundwater Criteria	N/A	N/A
2 <sup>ND</sup> HALF 2012	All Analyte Results Below FDEP Groundwater Criteria	N/A	N/A
1 <sup>ST</sup> HALF 2013	All Analyte Results Below FDEP Groundwater Criteria	N/A	N/A
2 <sup>ND</sup> HALF 2013	All Analyte Results Below FDEP Groundwater Criteria	N/A	N/A
1 <sup>ST</sup> HALF 2014	All Analyte Results Below FDEP Groundwater Criteria	N/A	N/A



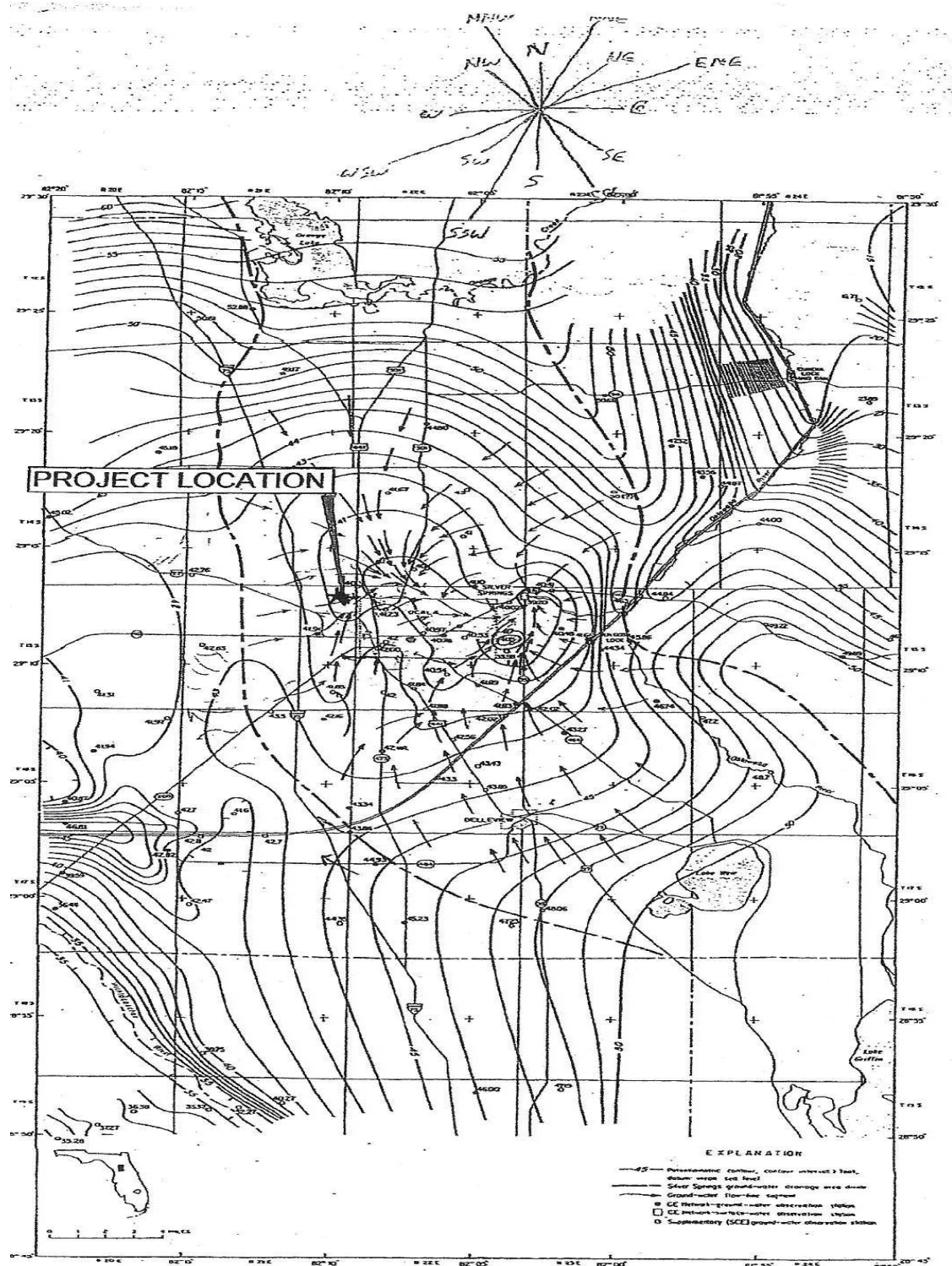


Figure 25. Potentiometric surface of upper part of Floridan Aquifer in May 1968 (low-water period), Ocala vicinity.

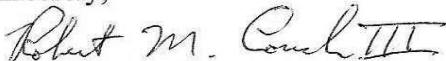
## CONCLUSION AND OPINION

Groundwater flow in the southwestern portion of the above mentioned property has remained consistent regardless of rainfall for the past five years. In addition, for the past four years groundwater sampling results from MW-6 indicate that all analyte levels have been below FDEP groundwater criteria. As the groundwater flow directions in the southwest portion of the Friends Recycling C&D Landfill have consistently flowed from a westerly to easterly direction and the sampling results of MW-6 have been below FDEP groundwater criteria levels, the effects of activities related to the Friends Recycling C&D Landfill are not expected to have an adverse effect on any properties adjoining the western boundary of the Friends Recycling C&D landfill.

It should be noted that, according to the groundwater sampling logs, the samples were taken in accordance DEP-SOP-001/01 FS 2200.

Thank you for the opportunity to provide consulting services to the Friends Recycling C&D Landfill. If you have any questions or comments about this report, please feel free to contact me at (352) 694-1799.

Sincerely,



Robert M. Couch III, P.E.  
President  
ENVIRO-TECH, Inc.





## ATTACHMENT - B-

### GROUNDWATER ELEVATIONS BY IDEAL TECH SERVICES, INC.

This attachment shows excerpts from the aforementioned report;  
GDC does not suggest or imply ownership of said report.





Nick Giumarelli  
Friends Recycling  
2350 NW 27<sup>th</sup> Ave  
Ocala, FL 34475

Date: 01/06/17

Subject: Friends Recycling Groundwater Elevations

Mr. Giumarelli,

Ideal Tech Services, Inc. (ITS) is pleased to provide you with this letter of finding for the groundwater elevations recorded at the Friends Recycling site. This letter is being provided by ITS for Friends Recycling in response to a request from the Florida Department of Environmental Protection (FDEP) for additional information included in a variance guidance letter. Per the guidance document, the water levels were recorded a minimum of 30 days apart.

The task included recording depth to water measurements at four existing groundwater wells. One well is onsite and is named MW-6. The other three wells have a nomenclature which refers to their distance from MW-6. They are 99 feet, 140 feet, and 263 feet. The elevations of all four wells were provided by others.

12/06/16 – Chris Monaco of ITS recorded water levels and performed elevation calculations at all four select wells. The results are presented in Table 1, attached.

01/06/17 – Chris Monaco returned to the site of Friends Recycling and recorded water levels and performed elevation calculations at all four select wells. The results are presented in Table 2, attached.

Please do let us know if we can further assist.

Respectfully Submitted,

A handwritten signature in blue ink, appearing to read "Chris Monaco", is written over a horizontal line.

Chris Monaco  
Ideal Tech Services, Inc.

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P.O. BOX 772016  
Ocala, Florida 34477  
Telephone: (352) 502-3407  
Facsimile: (352) 732-5572  
Email: [Idealtechservices@earthlink.net](mailto:Idealtechservices@earthlink.net)





Table 1					
Summary of Water Level Data, 12-06 2016 Friends Landfill					
Monitor Well ID	Total Depth	Date of Measurement	Measuring Point Elevation (feet NGVD)	Static Depth To Water (feet Below Measuring Point)	Groundwater Level Elevation (feet NGVD)
99 ft	25.6	12/6/2016	77.05	5.74	71.31
140 ft	41.6	12/6/2016	81.54	28.37	53.17
263 ft	70.4	12/6/2016	77.98	36.59	41.39
MW-6	53.1	12/6/2016	78.05	36.67	41.38

NGVD = National Geodetic Vertical Datum of 1929

B.L.S. = Below Land Surface

Measuring point is Top Of Well Casing

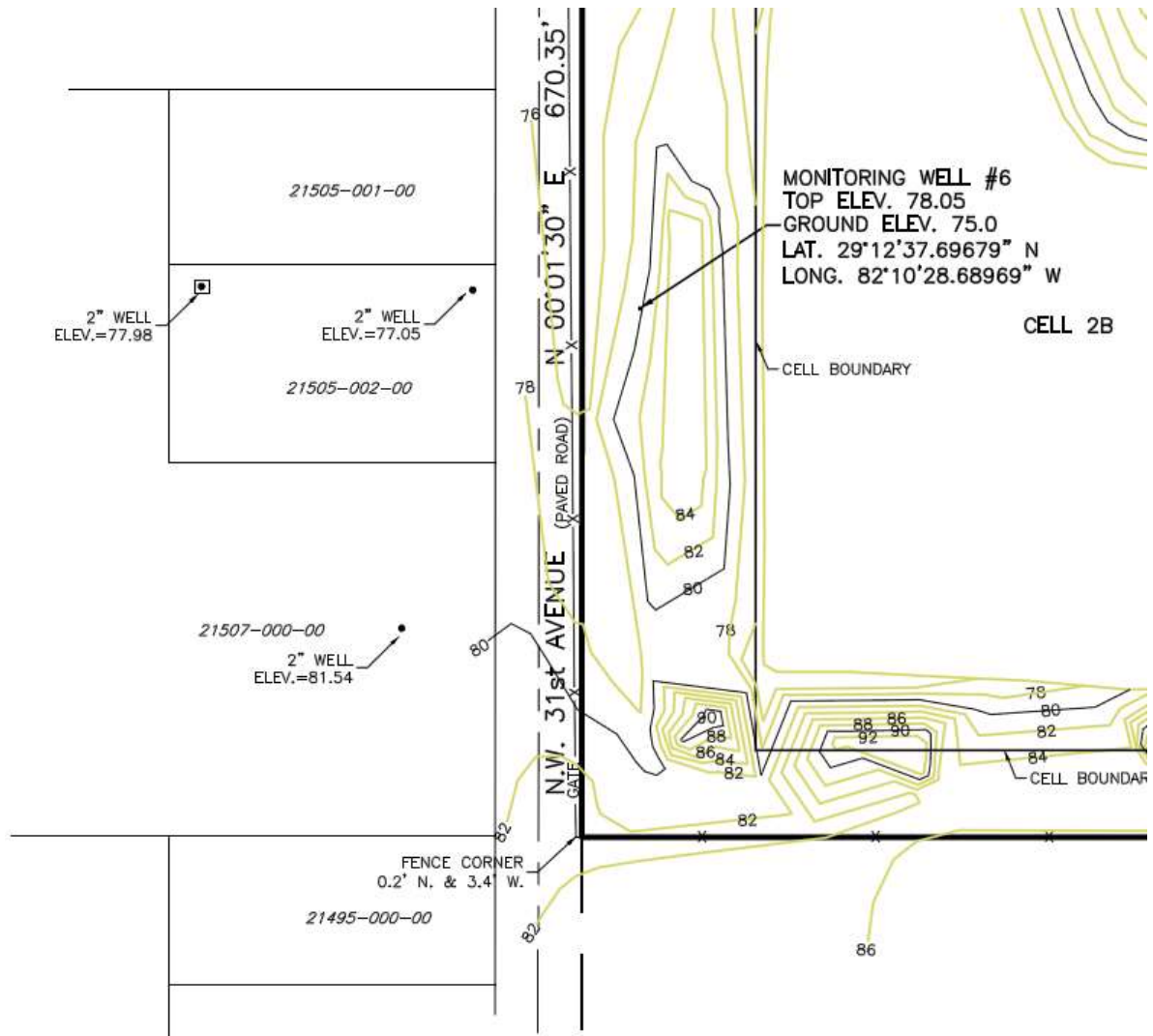
Table 2					
Summary of Water Level Data, 01-06 2017 Friends Landfill					
Monitor Well ID	Total Depth	Date of Measurement	Measuring Point Elevation (feet NGVD)	Static Depth To Water (feet Below Measuring Point)	Groundwater Level Elevation (feet NGVD)
99 ft	25.6	1/6/2017	77.05	5.91	71.14
140 ft	41.6	1/6/2017	81.54	29.48	52.06
263 ft	70.4	1/6/2017	77.98	37.00	40.98
MW-6	53.1	1/6/2017	78.05	37.08	40.97

NGVD = National Geodetic Vertical Datum of 1929

B.L.S. = Below Land Surface

Measuring point is Top Of Well Casing





Driller's Name (print or type): John Hardison