

# **RECORDS 101**

Jackson Verley Division of Water Resource Management/South District Florida Department of Environmental Protection

Wastewater Operators Workshop | June 26, 2024



## FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION



#### **Presentation Agenda**

- Navigating the Standard Operating Procedures (SOPs).
- The Basics:
  - o Universal requirements.
  - o Notable excerpts.
- Quality Assurance (QA) Audits:
  - $\circ$  Why and what.
  - o DMR part A and B.
  - o Calibration verification.
  - $\circ$  Other documents.
- DMR part D.
  - $\circ$  Groundwater sampling log.



#### NAVIGATING THE SOPS FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

#### **DEP SOPs**

Home » Divisions » Division of Environmental Assessment and Restoration » Quality Assurance » DEP SOPs

#### Quality Assurance Quick Links

DEP QA Policy

QA Rule 62-160

DEP SOPs

#### 2017 DEP SOPs (Effective 4/16/2018)

The following are the individual 2017 DEP SOPs. NOTE: These are the official versions cited in the <u>DEP QA Rule, Chapter 62-160</u>, <u>F.A.C.</u> The revision date (January 2017) appears in the page footer in each SOP. All other versions of the DEP SOPs (those with any other date published in the footer) are not current and should be discarded (or retained in archives if needed for historical reference). *Draft* versions of DEP SOPs, such as those published with markup for public comment during rulemaking, are <u>nor</u> official documents.

SOP	Description
Field Title Page	Title Page, Field
FA 1000	Administrative
FC 1000	Field Decontamination
FD 1000	Documentation
<u>FM 1000</u>	Field Mobilization
FQ 1000	Quality Control
<u>FS 1000</u>	General Sampling
<u>FS 2000</u>	General Water Sampling
	Field Title Page           FA 1000           FC 1000           FD 1000           FD 1000           FM 1000           FQ 1000           FS 1000

The current iteration of the Florida Department of Environmental Protection's (DEP) SOPs are the 2017 SOPs, which were adopted April 16, 2018.

- To find the SOPs, go to <u>https://floridadep.gov/dear/quality-</u> <u>assurance/content/dep-sops</u>, or search for the SOPs on Floridadep.gov.
- Once there, many of the SOP titles are self-explanatory: FT 1100 – Field pH, FS 2400 – Wastewater sampling, FT 2000 – Field Residual Chlorine.
- FD 1000 clarifies many things about general record keeping and documentation
- The SOPs should always be followed unless developed internal SOPs are used in place of the DEP standards.



#### THE BASICS - UNIVERSAL SAMPLING DOCUMENTATION REQUIREMENTS (1) FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP-SOP-001/01 FD 1000 Documentation Procedures

#### FD 1000. DOCUMENTATION PROCEDURES

This SOP must be used in conjunction with all other DEP SOPs applicable to the field sampling event, project or program.

1. INTRODUCTION:

1.1. For the creation of clear, accurate and methodical records to document all field activities affecting sample data, implement the following standard operating procedures for sample collection, sample handling and field-testing activities.

2. SCOPE AND APPLICABILITY

2.1. This SOP provides a detailed listing of the information required for documentation of specific sampling and field testing procedures found in the DEP SOPs contained in the collection DEP-SOP-001. See the DEP SOPs in collection DEP-SOP-003/11 for additional documentation requirements.

2.2. Refer to the associated sampling or field testing SOP for any requirements for the chronological or sequential documentation of data.

3. QUALITY ASSURANCE

3.1. Implement review procedures to monitor and verify accurate manual and automated data entry and recordkeeping for all documentation tasks outlined in this SOP.

FD 1100 (under FD1000) is the SOP that directly addresses criteria for **all** documentation provided to DEP.

- Original records are any records produced by the originator or creator of the record.
  - Original copies or identical copies must be provided to the DEP upon request.
  - For all intents and purposes, electronic copies of records are acceptable and are treated equally to original or paper records UNLESS explicitly stated otherwise in a Chapter 62 rule.



#### THE BASICS - UNIVERSAL SAMPLING DOCUMENTATION REQUIREMENTS (2) FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

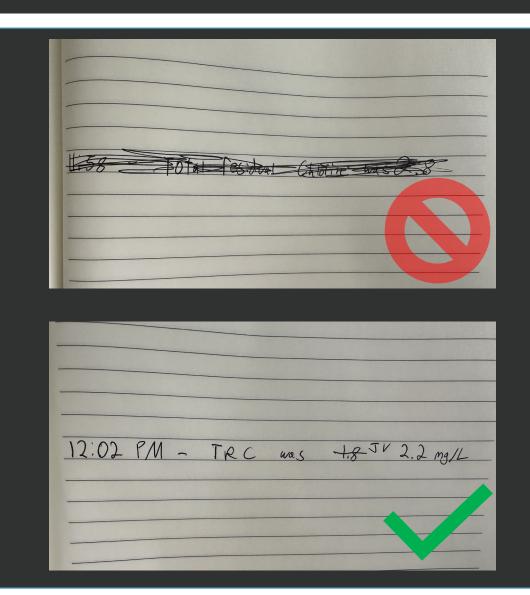
- 1.4. Electronic records are acceptable as documentation and are considered to be equivalent in status and function to original records, documents or papers, unless otherwise specified in a DEP contract, order, permit or a Chapter 62 rule.
  - ALL documentation requirements in the DEP SOPs apply equally to both paper and electronic records.
- There should be enough information in original records that there is no need for reviewers to reach out to the originator of the documentation to better understand the data.
  - "1.5. Record enough information so that clarifications, interpretations, or explanations of the data are not required from the originator of the documentation." (FD 1100).



### **"THE BASICS" – NOTABLE EXCERPTS** FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Notable excerpts from FD 1100:

- 2.2.1. Document the intent to use SOPs other than the DEP SOPs, or to use allowable modifications.... By recording the effective date of use for all such SOPs or modifications.
  - 2.2.2 Authorize all internal SOPs with the signature of the quality assurance officer(s) and manager(s) responsible for implementation of the SOPs.
- 2.6 Do not erase or obliterate entry errors on paper records. Make corrections by marking a line through the error so that it is still legible. Initial or sign the marked error and its correction.
- 3.1 per the DEP Quality Assessment (QA) Rule, 62-160.240 and .340, Florida Administrative Code, keep all documentation archives for a minimum of five years after the date of generation or completion of the records **unless otherwise specified** in a department contract, order, permit or Title 62 rules.





#### **QA AUDITS** FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

#### Wastewater QA Checklist

Facility ID		Facility Name	
Inspection Type	INSP. TYPE - NON-NPDES - DW -	Inspector Name	Verley, J.
	CEI	-	
Date of		Total Time Spent	3.25 hours
Completion		on QA	

Checklist	Timeframe Reviewed	Monitoring Group	Checklist Completed	QA Auditor	Time Taken	Comments
	Reviewed		Completed	Auditor	(Hour)	
DMR Part A	November 2023	FROM DMR (R-001)	Yes	J. Verley	0.50 hour	Deficiencies found
DMR Part B	November 2023	FROM DMR (R-001)	Yes	J. Verley	0.25 hour	NA
Calibration Verification	January 2023	NA	Yes	J. Verley	0.75 hour	Deficiencies found
Field Sheet & COC	October 2023	FROM DMR A (R-001)	Yes	J. Verley	1.25 hour	Deficiencies found
Lab Report	October 2023	FROM DMR A (R-001)	Yes	J. Verley	0.50 hour	NA
		Groundy	vater			
DMR Part D	N/A	N/A	Yes	J. Verley	NA	NA
Calibration Verification	N/A	N/A	Yes	J. Verley	NA	NA
Field Sheet & COC	N/A	N/A	Yes	J. Verley	NA	NA
Lab Report	N/A	N/A	Yes	J. Verley	NA	NA



### **QA AUDITS – WHY AND WHAT** FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

		1001	DOL			
Analyses	Result	MDL	PQL	Qual U	nits DF	Date Analyzed
CARBONACEOUS BIOLOGICAL C	XYGEN DE	MAND		SM5	210	Analyst:
Carbonaceous BOD-5	519	2	2	mg/L	. 1	
TOTAL SUSPENDED SOLIDS				SM2	540	Analyst:
Residue, Suspended Solids	116	1.0	1.0	mg/L	. 1	
Lab ID:				Collection I		
Client Sample ID: EFF			DOL		trix: WASTE V	
Analyses	Result	MDL	PQL	Qual U	nits DF	Date Analyzed
NITROGEN, NITRATE + NITRITE				EPA 3	353.2	Analyst:
Nitrogen, Nitrate	0.59	0.01	0.04	mg/L	. 1	
NITROGEN, NITRITE				SM4500	NO2-B	Analyst:
Nitrogen, Nitrite	ND	0.0100	0.0400	U mg/L	. 1	02/22/2024 11:16
	XYGEN DE	MAND		SM5	210	Analyst:
CARBONACEOUS BIOLOGICAL C						Labcode

- A QA Audit is an in-depth analysis of documentation on part of the department. It serves as way for the DEP to double-check its work products.
- All inspections follow similar procedures for the inspection of documents, the only difference in a QA is that it gets written down.
- A QA will look at the following documents:
  - A random DMR part A.
  - A random DMR part B.
  - Calibration verification sheets.
  - Field Sheets and chain of custody forms.
    - MOST labs provide a chain of custody form that includes all the information necessary for field sheets.
  - Full Laboratory Reports.
  - \*DMR Part D.
  - \*Groundwater calibration and verification.
  - $\circ$  \*Groundwater field sheet and chain of custody.
  - \*Full groundwater laboratory report.



### **QA AUDIT DOCUMENTATION – DMR A AND B** FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

	pended
BOD, Residual (For Nitrate, Solids, Carbonaceousolic Carbonaceous 5 Disinfection) Colform, Total (as N) Total pH Fices 4.5 day, 20C Sun day, 20C Fecal Suspended (influent) (infl mg/L mg/L 4/100mL mg/L mg/L s.a. MGD mg/L m	pended luent} ug/L
Carbonazeous 5 Disinfection) Conform. Total (as N  Total pH Fizwa x 5 day, 20C Sang day, 20C Fecal Sangended (influent) (infl mg/L mg/L 4/100mL mg/L mg/L x.a. MGD mg/L m	pended luent} ug/L
day, 20C secal Supended (Influent) (influent	uent) ug/L
mg/L mg/L A/100mL mg/L mg/L s.u. MGD mg/L m	un't
Code #0082 50060 74055 620 530 400 50050 #0082 5	53D
Non.Ste DFA-1 DFA-1 DFA-1 DFA-1 DFA-1 FA-1 FW-1 NF-1 N	47-1
1 - 2.20 7.40 0.008 -	
2 0.005 -	
3 - 2.20 7.40 0.005 -	-
4 · · · · · · D000 ·	-
5 0.004 -	
6 - 2.20 7.36 0.003 -	-
7 0.005 -	-
II - 2.20 7.40 0.005 -	
9 0.004 -	-
10 0.008 -	-
11 - 2.20 7.30 0.003 -	
12 - 0.005	
13 - 2.20 7.00 0.005 -	-
14 0.004 -	-
15 - 0.004	
16 - 2.20 7.00 D.004 -	-
17 D004 - 18 - 2.20 7.00 D004 -	
19	-
20	
21 - 2.20 7.20 0.004 -	
22	
23 - 2.20 7.20 0.004 -	
24 7.0 · <2.00 0.14 2.20 · 0.004 259.00	200.00
25 - 2.20 7.20 0.004 -	
26	
27 - 2.20 7.20 0.004 -	-
28 0.004 -	
29 - 2.20 7.30 0.004 -	
30 0.004 -	
31 - 2.20 7.20 0.004 -	
Total 7.0 30.80 <2.00 0.14 2.20 101.26 0.134 259.00	200.00
7.0 2.20 <2.00 0.14 2.20 7.22 0.004 259.00	200.00

- Ensure all info matches between A and B.
- Calculation errors double check your formulas in excel or on paper if something feels off.
- Report on the most recent template (if there is an issue with EzDMR, please let us know).
- Report <MDL on both A and B:
  - If your Lab tells you a sample is below detection, report it as "<MDL" or the provided approximation.</li>
- Plant staffing should be fully recorded on the bottom of part B.
- Ensure proper use of codes:
  - NODI, MNR, etc. If MNR is used, write a note explaining why in part A.



#### **QA AUDIT DOCUMENTATION – CALIBRATION VERIFICATION** FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Continuing Calib	vation Verification	Date: Time:	Analyst	000 Unit 5 (Sarial #121102001126)	
	2' Gel Standard Information	Standard Value	DR/899 Reading	Allowabia Range	Rouk Survey
		8.00		Zero	Pass / Fail
	Lot A2963	0.17		+(0.89 (0.08 - 0.26 mg/L)	Pasa / Fail
5	Exp. Jan - 25	0.05		+(-0.10 (0.76 - 0.96 mg/L)	Pasa / Fail
		1.40		++0.14 (1.34 - 1.62 mg/L)	Pasa / Fail

- Ensure there is listed acceptance criteria:
  - Standard acceptance criteria outlined in SOP.
- Clearly mark indication of pass/fail.
- Quantitative bracketing your calibration.
- Chronological bracket verification.
- Record a unique identifier for each instrument.
- List the last maintenance/cleaning of instrument
  - Certain probes are cost-prohibitive to conduct maintenance on and are alright to use until failure.
- Provide initial of who last calibrated meter.



### **QA AUDIT DOCUMENTATION – OTHER DOCUMENTS** FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

For a full list of what is expected to be included in any variety of report, please either refer to the SOPs or contact your county's Wastewater Inspector for additional assistance.

#### Field Sheets and Chain of Custody:

- Separate Field Sheet (if info not on chain of custody).
- List Facility ID, Permit ID and/or Identification.
- Sample kit ID listed.
- Preservative(s) lot and expiration.
- Listed container types.

#### Full Laboratory Reports:

- Name/location of overflow test lab.
- Full description/explanation of any test failures.
- Inclusion of **LABORATORY** opinion or interpretation when appropriate.
- Explanations for when quality system requirements are not met.

#### Miscellaneous/General:

- Penmanship (legibility).
- Traceability.
  - Everything in logbook?
- Clarity of information.
- Deviation from SOPs/O&M.
- Improper electronic record keeping.



### **DMR PART D – GROUNDWATER SAMPLING LOG** FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

DAME TER (Inches):         DEPTH:         Text 10         To WATER (Inches):         O BALLER:           CHIL YOULME PRORE:         YELL YOULME PRORE: </th <th>SITE</th> <th></th> <th></th> <th></th> <th></th> <th>SIT</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>	SITE					SIT								
PURGING DATA         PURGE // Link         PURGE //					CAMPLE		CATION:			DATE.				
VIELL DUMETER (inche):         DUMETER (inche):         VIEL LOCACEEN INTERVAL DUMETER (inche):         STATC DEPTH DUMATER (isc):         DUMATER (isc): <thdumater (isc):<="" th="">         DUMATER (isc):</thdumater>	WELL NO.				SAMPLE			TA		DATE.				
DUMETER (Index): DPPTH: fee to feet if To WATER (Index): DPPTH: feet to feet if To WATER (Index): OR BALLER: OR BALER: OR BALLER: OR BALLER: OR BALLER: OR BALLER: OR BALLER: OR	WELL		TURING	5	JAF				EDTU		LIRGE	DUMD T	VDE	
Unit         End-         Notice         Set-         Notice         Set-	DIAMETER		DIAMET	ER (inches):	DEF	TH: fee	t to fe	et TO WATE	R (feet):	c				
Bet         feet         feet         galons           Converted TV clume PURCET 1 GOLPMENT VOL.         PURCING CAPACITY X         TUBINE LONDON' FLOWCELL VOLUME           Converted TV clume         PURCING CAPACITY X         TUBINE LONDON' FLOWCELL VOLUME         PURCING           DEPTH N WELL (see):         DEPTH N WELL (see):         PURCING         PURCING         PURCING           TIME         PURCING         CUMULE         PURCING         PURCING         PURCING           QUILUME         CULUME         PURCING         PURCING         PURCING         PURCING           (galons)         Culume         PURCING         PURCING         PURCING         PURCING           (galons)         (galons)         Galora         PURCING         PURCING         PURCING         PURCING           (galons)         (galons)         (galons)         (galons)         PURCING         PURCING         PURCING         PURCING         PURCING           (galons)         (galons)         (galons)         PURCING         PURCING <t< td=""><td>(only fill out</td><td>UME PURGE:</td><td>1 WELL VOL</td><td>UME = (TOTA</td><td>AL WELL DEP</td><td>TH – STAT</td><td>IC DEPTH T</td><td>O WATER) X</td><td>WELL CAPACIT</td><td>ΤY</td><td></td><td></td><td></td></t<>	(only fill out	UME PURGE:	1 WELL VOL	UME = (TOTA	AL WELL DEP	TH – STAT	IC DEPTH T	O WATER) X	WELL CAPACIT	ΤY				
(any Bill # applicable)         =         galons + (         galons / Duration / Section / Secti	2 2				= DUMD VOL			feet) X		gallons/	foot =		gallons	
INTULE PUMP OR TUBING DEPTH IN WELL (feet):         IPURGING DEPTH IN WELL (feet):         IPURGING INITATED AT:         IPURGING DEPTE IN WELL (feet):         IPURGING DEPTH IN WELL (feet):         IPURGING DEPTH IN WELL (feet):         IPURGING INITATED AT:         IPURGING DESOLVED WIGTED (gallons):         IPURGING DEPTH IN WELL (feet):         OODR         IPURGING INITATED AT:         IPURGING DESOLVED WIGTED (gallons):         IPURGING DEPTH IN WELL (feet):         DEPTH IN WELL (feet):         DEPTH IN WELL (feet):         OODR           TIME         VOLRED (gallons)         PURGED (gallons)         PURGING (gallons)         PURGING (gallons)         PURGING (gallons)         PURGING (gallons)         OODR         OODR           INTERLEXTRANSITION         INTERLEXTRANSITION         PURGING (gallons)         PURGING (gallons)         PURGING (gallons)         PURGING (gallons)         PURGING (gallons)         PURGING (gallons)         OODR         OODR           WELL CAPACITY (Gallons Per Food):         0.73" = 0.02;         1"= 0.04;         1.25" = 0.06;         2"= 0.16;         3"= 0.03;         4"= 0.06;         12" = 0.06;         12" = 0.06;         12" = 0.06;         12" = 0.06;         12" = 0.06;         12" = 0.06;         12" = 0.06;         12" = 0.06;         12" = 0.06;         12" = 0.06;         12" = 0.06;         12" = 0.06;         12" = 0.06;         12" = 0.06;         12" = 0.06;         12" = 0.06;	(only fill out	t if applicable)	JRGE. TEQU	FINENT VOL.							JELL V		w wellows	
DEPTH IN WELL (refe);         DEPTH NVELL (refe);         INITATED AT:         ENDED AT:         PURCED (gallons);           TIME         VOLUME (gallons)         VOLUME VOLUME (gallons)         PURCE (gallons)         PTM (refe)         pH (refe)         TEMP, units)         TEMP, (refe)         COND, (refe)         SSOUVED (refe)         TURBIDITY (NTUS)         COLOR (describe)         OOOR           Image: State of the state of	INITIAL PU	MP OR TUBIN	G	FINAL PUM						+	Тт			
TIME         VOLUME (galons)         COUNTE (galons)         Durate (galons)         PURCE (galons)         Durate (galons)         PURCE (galons)         Contention (galons)	DEPTH IN	WELL (feet):	-	DEPTH IN V	WELL (feet):		INITIATE	DAT:	ENDED AT:		PL	JRGED (g	gallons):	
TUBING INSIDE DIA: CARACITY (Gal./FL): 1/8" = 0.0006; 3/16" = 0.001; 9/8" = 0.006; 1/2" = 0.010; 9/8" = 0.016           B = Baider Pump: EP = Electric Submensible Pump; PP = Peristalic Pump; O = Other (Specify)           SAMPLING COLES:         B = Baider Pump; EP = Electric Submensible Pump; PP = Peristalic Pump; O = Other (Specify)           SAMPLING DATA           SAMPLEO BY (PRINT) / AFFILIATION:         SAMPLENG SIGNATURE(S):         SAMPLING INITIATED AT:         ESP = Electric Submensible Pump; PP = Peristalic Pump; O = Other (Specify)           DIPM PO TUBING         TUBING TUBING TUBING         SAMPLE (S) SIGNATURE(S):         SAMPLING EQUIPMENT TOP:         N FILTER SIZE:pm           DEPTH IN WELL (rely:         TUBING Y N (replaced)         DUPLICATE: Y N           SAMPLE CONTAMER SPECIFICATION         SAMPLE PRESERVATION (including wat ice)         NITENDED         SAMPLE VOLUME           SAMPLE CONTAINER SPECIFICATION         SAMPLE PRESERVATION (including wat ice)         NITENDED         SAMPLE VOLUME         SAMPLE ON TOTAL VOL         FIRE ACCODE:         SAMPLE ON TALL VOL         SAMPLE ON TALL VOL         COLE         COLE         COLE         COLE	TIME	PURGED	VOLUME PURGED	RATE	TO WATER	(standard	TEMP. ( <sup>0</sup> C)	(circle units) µmhos/cm	OXYGEN (circle units) mg/L or	TURBII (NTU	DITY s)	COLO (describ	R ODOR (describe)	
TUBING INSIDE DIA, CAPACITY (Gal, PL); 187 = 0.006;         1172 = 0.006;         1172 = 0.016           PURGING EQUIPMENT CODES:         B = Balader; 187 = 0.006;         1172 = 0.016         1172 = 0.016         548 = 0.016           SAMPLE COUPS:         B = Balader; Punp:         C = Other (Specify)           SAMPLE DBY (PRINT) / AFFILIATION:         SAMPLE RESERVATIOR DATA           SAMPLE DBY (PRINT) / AFFILIATION:         SAMPLE RESERVATION:         SAMPLE DY N         FIELD FIELOFLY N         FIELO FIELOFLY N         N           SAMPLE ORTAINER SPECIFICATION         SAMPLE POINT FIELD (m)         DIVECTOR         SAMPLE ORTAINERS SPECIFICATION           SAMPLE ORTAINERS SPECIFICATION         SAMPLE POINT FIELD (m)         PRESERVATIVE TOTAL VOL         PRESERVATIVE TOTAL VOL TOTAL VOL         PRESERVATIVE TOTAL VOL         PRESERVATIVE TOTAL VOL														
TUBING COLOR:         8 = 80.00         316" = 0.001;         38" = 0.006;         116" = 0.001;         38" = 0.006;         116" = 0.001;         38" = 0.006;         107" = 0.010;         38" = 0.006;         107" = 0.010;         38" = 0.006;         107" = 0.010;         38" = 0.006;         38" = 0.006;         107" = 0.010;         38" = 0.006; <th co<="" td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th>	<td></td>													
SAMPLING DATA         SAMPLED BY (PRINT) / AFFILIATION:       SAMPLE(S) SIGNATURE(S):       SAMPLING       SAMPLIC CODE:       FIELD-FITCRED: Y       N       FIELD DECONTAMINATION:       PUMP Y       N       TUBING       TUBING       TUBING       SAMPLE ODE:       FIELD FITCRED: Y       N       FIELD DECONTAMINERS SPECIFICATION         SAMPLE CONTAINERS       CONTAINERS       MATERIAL CODE:       FIELD MITCRED FILM       SAMPLE PUMP         AMPLE down and material colspan="2">AMPLE PESERVATION (including wet ice)       TITENDED       SAMPLE CONTAINERS       SAMPLE CONTAINERS       MATERIAL CODE:       FIRELD MITCRED FILM ANALYSIS AND/OR       CODE       CODE       CODE       CODE       CODE       CODE       CODE       CODE <th c<="" th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></th>	<th></th>													
SAMPLED BY (PRINT) / AFFILIATION:       SAMPLER(S) SIGNATURE(S):       SAMPLING MITATED AT: INTIATED AT: INTIATE	TUBING IN	ISIDE DIA. CAR	PACITY (Gal./F	t.): 1/8" = 0.0	0006; 3/16"	= 0.0014;	1/4" = 0.002	6; 5/16" = 0.0	004; 3/8" = 0.	006; 1	/2" = 0	.010;	5/8" = 0.016	
PUMP OR TUBING       TUBING MATERIAL CODE:       FILLO-FILTERED: Y N       FILLERSIZE:m         DEPTH IN WELL (teet):       PUMP Y       TUBING Y       N (replaced)       DUPLICATE:       Y       N         SAMPLE CONTAMINATION:       PUMP Y       N       TUBING Y       N (replaced)       DUPLICATE:       Y       N         SAMPLE CONTAMINATION:       PUMP Y       N       TUBING Y       N (replaced)       DUPLICATE:       Y       N         SAMPLE CONTAMINATION:       PUMP Y       RESERVATION (including wai tee)       FINAL       MALTSIS AND/CR       SAMPLE VIEW         SAMPLE CONTAINER SPECIFICATION       SAMPLE PRESERVATIVE ADTOTAL VOL       FINAL       MALTSIS AND/CR       SAMPLE VIEW         ID CODE       CONTAINERS       MATERIAL       VolUME       USED       ADDO N FIELD (mL)       FINAL         ID CODE       CONTAINERS       MATERIAL       USED       ADDO N FIELD (mL)       FINAL       MALTSIS AND/CR       SAMPLE VIEW         ID CODE       CONTAINERS       MATERIAL       USED       ADDO       FILD FILD (mL)       MALTSIS AND/CR       SAMPLE VIEW         ID CODE       CONTAINERS       MATERIAL       VOLUME       ID ED M FIELD (mL)       MALTSIS AND/CR       SAMPLE PUMP (mL)       ED ME       ED ME	TUBING IN	ISIDE DIA. CAR	PACITY (Gal./F	t.): 1/8" = 0.0	0006; 3/16"	= 0.0014; Pump; ES	1/4" = 0.002 P = Electric	6; 5/16" = 0.0 Submersible Pur	004; 3/8" = 0.	006; 1	/2" = 0	.010;	5/8" = 0.016	
DEPTH NVELL (feet):     MATERIAL CODE:     Fitzebo Equipment Type:       FIELD DECONTAMINATION:     PUMP     Y     N     TUBING     Y     N (replaced)     DUPLICATE:     Y     N       SAMPLE CONTAMINATION:     PUMP     Y     N     TUBING     Y     N (replaced)     DUPLICATE:     Y     N       SAMPLE CONTAINER SPECIFICATION     SAMPLE PRESERVATIVE     TOTAL VOL     FINAL     ANALYSIS AND/OR     SAMPLE PUMP       SAMPLE     CONTAINERS     MATERIAL     VOLUME     PRESERVATIVE     TOTAL VOL     FINAL     ANALYSIS AND/OR     CODE     CODE       CONTAINERS     MATERIAL     VOLUME     PRESERVATIVE     TOTAL VOL     FINAL     MATERIAL     CODE	TUBING IN PURGING	EQUIPMENT C	PACITY (Gal./F CODES: B	t.): 1/8" = 0.0 = Bailer; E	0006; 3/16" BP = Bladder F	= 0.0014; Pump; ES SAMPL	1/4" = 0.002 P = Electric ING DA	6; 5/16" = 0.0 Submersible Pur	004; 3/8" = 0. np; PP = Pe SAMPLING	006; 1 ristaltic Pu	/2" = 0 Jmp;	0 = 0 SAMPLIN	5/8" = 0.016 ther (Specify)	
FIELD DECONTAMINATION:     PUMP     Y     N     TUBING     Y     N (replaced)     DUPLICATE:     Y     N       SAMPLE CONTAINERS SPECIFICATION     SAMPLE PRESERVATION (including wetice)     INTENDED     SAMPLE ON RATE     SAMPLE ON RATE     ANALYSIS AND/OR     SAMPLE ON RATE       ID CODE     CONTAINERS     MATERIAL CODE     MALTASIS AND/OR     MALTASIS AND/OR     SAMPLE ON RATE       ID CODE     CONTAINERS     MALTASIS AND/OR     MALTASIS AND/OR     SAMPLE ON RATE       ID CODE     CONTAINERS     MALTASIS AND/OR     CODE     MALTASIS AND/OR     CODE       ID CODE     CONTAINERS     MALTASIS AND/OR     MALTASIS AND/OR     CODE     CODE     CODE       ID CODE     ID     ID     ID     ID     ID     ID     ID     ID       ID CODE     CONTAINERS     ID     ID     ID     ID     ID     ID     ID     ID       ID CODE     AND CODE     ID     ID     ID     ID     ID     ID     ID     ID     ID       ID CODE     ID     ID     ID     ID     ID     ID     ID     ID     ID       ID CODE     ID     ID     ID     ID     ID     ID     ID       ID CODE     ID     ID </td <td>TUBING IN PURGING SAMPLED</td> <td>ISIDE DIA. CAR EQUIPMENT C BY (PRINT) / A</td> <td>PACITY (Gal./F CODES: B</td> <td>t.): 1/8" = 0.0 = Bailer; E</td> <td>0006; 3/16" 3P = Bladder F SAMPLER(S)</td> <td>= 0.0014; Pump; ES SAMPL</td> <td>1/4" = 0.002 P = Electric ING DA</td> <td>8; 5/16" = 0.1 Submersible Pur ATA</td> <td>004; 3/8" = 0. np; <b>PP =</b> Pe SAMPLING INITIATED AT</td> <td>006; 1 ristaltic Pu</td> <td><u>/2" = 0</u> .mp;</td> <td>0 = 0 SAMPLIN ENDED #</td> <td>5/8" = 0.016 ther (Specify)</td>	TUBING IN PURGING SAMPLED	ISIDE DIA. CAR EQUIPMENT C BY (PRINT) / A	PACITY (Gal./F CODES: B	t.): 1/8" = 0.0 = Bailer; E	0006; 3/16" 3P = Bladder F SAMPLER(S)	= 0.0014; Pump; ES SAMPL	1/4" = 0.002 P = Electric ING DA	8; 5/16" = 0.1 Submersible Pur ATA	004; 3/8" = 0. np; <b>PP =</b> Pe SAMPLING INITIATED AT	006; 1 ristaltic Pu	<u>/2" = 0</u> .mp;	0 = 0 SAMPLIN ENDED #	5/8" = 0.016 ther (Specify)	
SAMPLE       4       MMTERIAL       VOLUME       PRESERVATIVE       TOTAL VOL       FINAL       AVALYSIS ANDOR       EDUIMMENT       FLOW RATE         DOODE       CONTAINERS       CODE       VOLUME       PRESERVATIVE       TOTAL VOL       FINAL       AMDED       METHOD       EDUIMMENT       FLOW RATE         CODE       COME       VOLUME       PRESERVATIVE       TOTAL VOL       FINAL       METHOD       EDUIMMENT       FLOW RATE         CODE       CODE       ADDED IN FIELD (mL)       PH       PH       METHOD       CODE       CODE       (mL perminute)         REMARKS:       Image: Contraining the state of th	TUBING IN PURGING SAMPLED PUMP OR	ISIDE DIA. CAR EQUIPMENT C BY (PRINT) / A TUBING	PACITY (Gal./F CODES: B	t.): 1/8" = 0.0 = Bailer; E	0006; 3/16" BP = Bladder F SAMPLER(S) TUBING	= 0.0014; Pump; ES SAMPL SIGNATURE	1/4" = 0.002 P = Electric ING DA	6; 5/16" = 0.1 Submersible Pur	004; 3/8" = 0. np; PP = Pe SAMPLING INITIATED AT FILTERED: Y	006; 1 nistaltic Pu	<u>/2" = 0</u> .mp;	0 = 0 SAMPLIN ENDED #	5/8" = 0.016 ther (Specify)	
MATERIAL CODES:         AG = Amber Glass;         CG = Clear Glass;         HDPE = High Density Polyethylene;         LDPE = Low Density Polyethylene;         PP = Polypropylene;           SAMPLING EQUIPMENT CODES:         APP = AAter (Through) Periatalitic Pump;         B = Baler;         BP = Bladder Pump;         ESP = Electric Submersible Pump;           SAMPLING EQUIPMENT CODES:         APP = Ater (Through) Periatalitic Pump;         B = Baler;         BP = Bladder Pump;         ESP = Electric Submersible Pump;           OTES:         1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.         0 = Other (Specify)           OTES:         1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.         2. StratuR A core Rankee Or VARATOR ON CLAST THREE CONSECUTIVE FRADMOS (SEE F5 2212, SECTION 3)	PURGING SAMPLED PUMP OR DEPTH IN	ISIDE DIA. CAF EQUIPMENT C BY (PRINT) / A TUBING WELL (feet):	PACITY (Gal./F	t.): 1/8" = 0.0	0006; 3/16" BP = Bladder F SAMPLER(S) TUBING	= 0.0014; Pump; ES SAMPL SIGNATURE DDE:	1/4" = 0.002 P = Electric LING DA (S):	6; 5/16" = 0.1 Submersible Pur ATA FIELD- Filtratic	004; 3/8" = 0. np; PP = Pe SAMPLING INITIATED AT FILTERED: Y n Equipment Typ	006; 1 ristaltic Pu : N pe:	/2" = 0 imp; i	0 = 0 SAMPLIN ENDED A FILTER S	5/8" = 0.016 ther (Specify)	
MATERIAL CODES:         AG = Amber Glass;         CG = Clear Glass;         HDPE = High Density Polyethylene;         LDPE = Low Density Polyethylene;         PP = Polypropylene;           SAMFLING EQUIPMENT CODES:         APP = AAer (Trough) Peristatic Pump;         B = Bailer;         BP = Bladder Pump;         ESP = Electric Submersible Pump;           SAMFLING EQUIPMENT CODES:         APP = AAer (Trough) Peristatic Pump;         B = Bailer;         BP = Bladder Pump;         ESP = Electric Submersible Pump;           OTES:         1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.         0 = Other (Specify)           2. Straulization Charteria F or RANGE OF VARIATION OF UAST THREE CONSECUTIVE FLADINGS (SEE F 52/21, SECTION 3)         1	TUBING IN PURGING SAMPLED PUMP OR DEPTH IN FIELD DEC SAMPLE	ISIDE DIA. CAP EQUIPMENT C BY (PRINT) / A TUBING WELL (feet): CONTAMINATIC PLE CONTAINE #	PACITY (Gal./F CODES: B FFILIATION: DN: PUMI ER SPECIFICA MATERIAL	t.): 1/8" = 0.0 = Bailer; E	0006; 3/16" BP = Bladder F SAMPLER(S) TUBING MATERIAL CI SAMPLE PRESERVAT	= 0.0014; Pump: ES SAMPL SIGNATURE DDE: TUBING PRESERVA' IVE TI	1/4" = 0.002 P = Electric : ING DA (S): Y N (re TON (includie DTAL VOL	6; 5/16" = 0.1 Submersible Pur TA FiltELD- Filtratic placed) ng wet ice) FINAL	004; 3/8" = 0. np; PP = Pe SAMPLING INITIATED AT FILTERED: Y n Equipment Typ DUPLICATE: INTENDE ANALYSIS AN	006; 1 ristaltic Pu : : : : : : : : : : : : : : : : : : :	/2" = 0 imp; F SAM EQUII	NOTO; O = O SAMPLIN ENDED A FILTER S N PLING PMENT	5/8" = 0.016 ther (Specify) IG IZE: µm SAMPLE PUMP FLOW RATE	
MATERIAL CODES:         AG = Amber Glass;         CG = Clear Glass;         HDPE = High Density Polyethylene;         LDPE = Low Density Polyethylene;         PP = Polypropylene;           SAMPLING EQUIPMENT CODES:         APP = AAter (Through) Periatalitic Pump;         B = Baler;         BP = Bladder Pump;         ESP = Electric Submersible Pump;           SAMPLING EQUIPMENT CODES:         APP = Ater (Through) Periatalitic Pump;         B = Baler;         BP = Bladder Pump;         ESP = Electric Submersible Pump;           OTES:         1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.         0 = Other (Specify)           OTES:         1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.         2. StratuR A core Rankee Or VARATOR ON CLAST THREE CONSECUTIVE FRADMOS (SEE F5 2212, SECTION 3)	TUBING IN PURGING SAMPLED PUMP OR DEPTH IN FIELD DEC SAMPLE	ISIDE DIA. CAP EQUIPMENT C BY (PRINT) / A TUBING WELL (feet): CONTAMINATIC PLE CONTAINE #	PACITY (Gal./F CODES: B FFILIATION: DN: PUMI ER SPECIFICA MATERIAL	t.): 1/8" = 0.0 = Bailer; E	0006; 3/16" BP = Bladder F SAMPLER(S) TUBING MATERIAL CI SAMPLE PRESERVAT	= 0.0014; Pump: ES SAMPL SIGNATURE DDE: TUBING PRESERVA' IVE TI	1/4" = 0.002 P = Electric : ING DA (S): Y N (re TON (includie DTAL VOL	6; 5/16" = 0.1 Submersible Pur TA FiltELD- Filtratic placed) ng wet ice) FINAL	004; 3/8" = 0. np; PP = Pe SAMPLING INITIATED AT FILTERED: Y n Equipment Typ DUPLICATE: INTENDE ANALYSIS AN	006; 1 ristaltic Pu : : : : : : : : : : : : : : : : : : :	/2" = 0 imp; F SAM EQUII	NOTO; O = O SAMPLIN ENDED A FILTER S N PLING PMENT	5/8" = 0.016 ther (Specify) IG IZE: µm SAMPLE PUMP FLOW RATE	
S = Silicone; T = Teflon; O = Other (Specify)     SAMPLING EQUIPMENT CODES: APP = Ader (Through) Peristalic Pump;     RPP = Reverse Flow Peristalic Pump;     M = Straw Method (Tubing Gravity Drain); O = Other (Specify)     OTES: 1. The above do not constitute all of the information required by Chapter 52-160, F.A.C.     StratulIZATION CRITERAL FOR RANGE OF VARIATION OF LAST THREE CONDESCUTURE READINGS (SEE FS 2212, SECTION 3)	TUBING IN PURGING SAMPLED PUMP OR DEPTH IN FIELD DEC SAMPLE ID CODE	ISIDE DIÀ. CARA	PACITY (Gal./F CODES: B FFILIATION: DN: PUMI ER SPECIFICA MATERIAL	t.): 1/8" = 0.0 = Bailer; E	0006; 3/16" BP = Bladder F SAMPLER(S) TUBING MATERIAL CI SAMPLE PRESERVAT	= 0.0014; Pump: ES SAMPL SIGNATURE DDE: TUBING PRESERVA' IVE TI	1/4" = 0.002 P = Electric : ING DA (S): Y N (re TON (includie DTAL VOL	6; 5/16" = 0.1 Submersible Pur TA FiltELD- Filtratic placed) ng wet ice) FINAL	004; 3/8" = 0. np; PP = Pe SAMPLING INITIATED AT FILTERED: Y n Equipment Typ DUPLICATE: INTENDE ANALYSIS AN	006; 1 ristaltic Pu : : : : : : : : : : : : : : : : : : :	/2" = 0 imp; F SAM EQUII	NOTO; O = O SAMPLIN ENDED A FILTER S N PLING PMENT	5/8" = 0.016 ther (Specify) IG IZE: µm SAMPLE PUMP FLOW RATE	
RFPP = Reverse Flow Peristatic Pump;         SM = Straw Method (Tubing Gravity Drain);         O = Other (Specify)           OTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.         2. Strabilization Criteria, For Ravise of VaRIATION of LAST THREE CONSECUTIVE Rections (SEE FS 2212, SECTION 3)	TUBING IN PURGING SAMPLED PUMP OR DEPTH IN FIELD DEC SAMPLE ID CODE	ISIDE DIÀ. CARA	ACITY (Gal.F. (ODES: B FFILIATION: DN: PUMI ER SPECIFICA CODE	t): 118" = 0.C. = Bailer; E = Bailer; E = Dailer; E	0006: 3/16" SP = Bladder F SAMPLER(S) TUBING MATERIAL CI SAMPLE PRESERVAT USED	= 0.0014; Pump: Es SAMPD: SIGNATURE DDE: TUBING :PRESERVA' NVE TADDEC	1/4* = 0.002 P = Electric . ING DA S): Y N (re ION (includii DTAL VOL IN FIELD (r	8:         9/6* = 0.1           Submersible Pur         FIELD.           FIELD.         FIRAL           ng wet ice)         FINAL           Image: FINAL         FINAL           Image: FINAL         FINAL           Image: FINAL         FINAL	04: 34% = 0. SAMPLING INITIATED AT INITIATED AT FILTERED: Y INITIATED AT AVAILABLE AVAILYSIS AT METHOD	006; 1 ristatic Pu S Note: Y ED ND/OR D	/2" = 0 imp; f SAM EQUII CC	0 = 0 SAMPLIN ENDED # FILTER S N PLING PMENT DDE	Sitt = 0.016 ther (Specify) IG IT: IZE:im SAMPLE PUMP FLOW RATE (mL per minute)	
OTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C. 2. <u>STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)</u>	TUBING IN PURGING SAMPLED PUMP OR DEPTH IN FIELD DEC SAMPLE ID CODE REMARKS	EQUIPMENT C EQUIPMENT C BY (PRINT) /A TUBING WELL (feel) WELL (feel) CONTAINERS CONTAINERS	ACITY (GaLF. SOBES B SFELIATION: SER SPECIFICA CODE AG = Amber C S = Silecone;	b): 118" = 0.C. = Bailer; E = Bailer; E	0006: 3/16" BP = Bladder F SAMPLER(S) TUBING MATERIAL CI SAMPLE PRESERVAT USED Clear Glass; O = Other (5	= 0.0014; Pump: E8 SAMPU SIGNATURE DDE: TUBING PRESERVA' NVE TI ADDEE HDPE = H B;pecify)	1/4* = 0.002 P = Electric : IING DA (S): Y N (re (ION (includid) TAL VOL IN FIELD (r gh Density P	Si gradie 20. defension of the second s	04: 378° = 0. mp: PP = Pe SAMPLING INITIATED AT FILTERED: Y REQUIPMENT JP PUPLICATE INTENDE ANALYSIS A METHOL LDPE = Low Del	006; 1 ristaltic Pu N D ND/OR D ND/OR D	2" = 0 Imp; SAM EQUID CC	e; PP	siter = 0.016 ther (Specify) IG TT IZE:µm SAMPLE PUMP FLOW FATE (mL per minute) = Polypropylene;	
	TUBING IN PURGING SAMPLED PUMP OR DEPTH IN FIELD DEC SAMPLE ID CODE REMARKS	EQUIPMENT C EQUIPMENT C BY (PRINT) /A TUBING WELL (feel) WELL (feel) CONTAINERS CONTAINERS	ACITY (GaLF. SOBE: B SFELIATION: SON: PUMIT CODE AG = Amber C S = Silicon: A	b): 118" = 0.C. = Bailer; E = Bailer; E = Bailer; E = D Y N TION VOLUME = VOLUME = = = = = = = = = = = = =	0006; 3/16" BP = Bladder F SAMPLER(S) TUBING MATERIAL CI SAMPLE PRESERVAT USED Clear Glass; O = Other (5 rough) Pentia	= 0.0014; Pump; Es SAMPU SIGNATURE DDE: TUBING PRESERVA NVE TI ADDEE HDPE = H specify)	14* = 0.002 P = Electric . ING DA (S): Y N (ref (INN (includit) TAL VOL N FIELD (r B = Bailer;	§:         916* = 0.1           Submersible Pur         ITA           ITA         File(LD- Filtratic           placed)         rg wet (re)           rg wet (re)         Filtratic           pH         -           otherwise         -           pH         -	04: 392° = 0. np: PP = Pe SAMPLING INITIATE DA INITIATE DA Equipment Type ANALYSIS A METHOL LDPE = Low Deter Purp: ES	1006; 1 riristaltic Pi N D T T T T T T T T T T T T T T T T T T	/2" = 0 Imp; SAM EQUIII CC	e; PP	siter = 0.016 ther (Specify) IG TT IZE:µm SAMPLE PUMP FLOW FATE (mL per minute) = Polypropylene;	
	TUBING IN PURGING SAMPLED PUMP OR DEPTH IN FIELD DEC SAMPLE ID CODE REMARKS MATERIAL SAMPLINC OTES: 1.	BY (PRINT) JA BY (PRINT) JA TUBING WELL (Gel) CONTAMINATIC CONTAMINATIC CONTAMINATIC CONTAMINATIC CONTAMINERS	ACITY (Gal.F. SODES: B SFELLATION: CODE: CODE: AG = Amber C S = Silcone: CODE: AG = Amber C S = Silcone: CODE: AG = Amber C S = Silcone: CODE: AG = Amber C	b): 1/8" = 0.C. = Bailer; E = Bailer; E = D = Y N TION VOLUME = T = Teiton; PP = After (The PP = Reversa T = Teiton; PP = After (The PP = Reversa T = Teiton;	2006; 3/16" 3P = Bladder F SAMPLER(S) TUBING MATERIAL CI SAMPLE SAMPLE SAMPLE PRESERVAT USED Clear Glass; 0 = Other (S rough) Perista e lion Yerista he informati	= 0.0014;     Pump; E8     SAMPU SIGNATURE  DDE:  TUBING PRESERVA  NVE T ADDEE  HDPE = H ipecify) Hite Pump; tic Pump; on requires	144" = 0.002 P = Electric : IING DA (S): Y N (re TION (includii DTAL VOL IN FIELD (r B = Bailer; SM = Straw B = Straw	§:         916* = 0.1           Submersible Pur         FIELD-           FIELD-         Filtratic           placed)         rg wet ice)           gr wet ice)         FINAtic           placed)         rg wet ice)           gr wet ice)         FINAtic           icity         FINAtic <td>04: 34% = 0. np: PP = Pe SAMPLING INITIATED AT INITIATED AT DUPLICATE: INITENDE ANALYSIS A METHOD LDPE = Low Del er Pump: ES Gravity Drainj; C.</td> <td>N N D O O O O O O O O O O O O O O O O O</td> <td>/2" = 0 Imp; F SAM EQUII CC CC</td> <td>e; PP</td> <td>siter = 0.016 ther (Specify) IG TT IZE:µm SAMPLE PUMP FLOW FATE (mL per minute) = Polypropylene;</td>	04: 34% = 0. np: PP = Pe SAMPLING INITIATED AT INITIATED AT DUPLICATE: INITENDE ANALYSIS A METHOD LDPE = Low Del er Pump: ES Gravity Drainj; C.	N N D O O O O O O O O O O O O O O O O O	/2" = 0 Imp; F SAM EQUII CC CC	e; PP	siter = 0.016 ther (Specify) IG TT IZE:µm SAMPLE PUMP FLOW FATE (mL per minute) = Polypropylene;	

- All DMR part Ds should be completed alongside the DEP Form FD 9000-24: Groundwater Sampling Log.
- "Static Depth to Water" is not the same as water level relative to National Geodetic Vertical Datum (reported on DMR part D.)
  - Static depth to water is simply the height of the water relative to the top of the well casing.
  - National Geodetic Vertical Datum should be found in the original well drilling reports.
- Well information needs to be included:
  - Well purge information or
  - Equipment purge information.
- Equipment information also needs to be included:
  - Tubing capacity and lengths.
  - $\circ~$  Flow cell volume.



### **CLOSING REMARKS AND QUESTIONS** FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION





### HOW WE CAN ASSIST FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

#### How Can Dep Help You?

**Compliance assistance:** The department helps residents and businesses comply with environmental regulations through site visits and technical support. DEP's six regulatory district offices review permit applications, inspect permitted facilities, respond to reports of environmental damage, and conduct compliance assistance and enforcement.

**Education and information:** Sign up for a variety of digital newsletters, updates and announcements about the department's programs, activities and events.

**Recognizing environmental stewardship:** DEP encourages sound environmental practices through its sustainable initiative programs, including Clean Marinas, Green Lodging and Recycling Recognition.

FloridaDEP.gov 850-245-2118



# THANK YOU

Jackson Verley Division of Water Resource Management South District Florida Department of Environmental Protection

> Contact Information: 239-334-5668 Jackson.Verley@FloridaDEP.Gov

