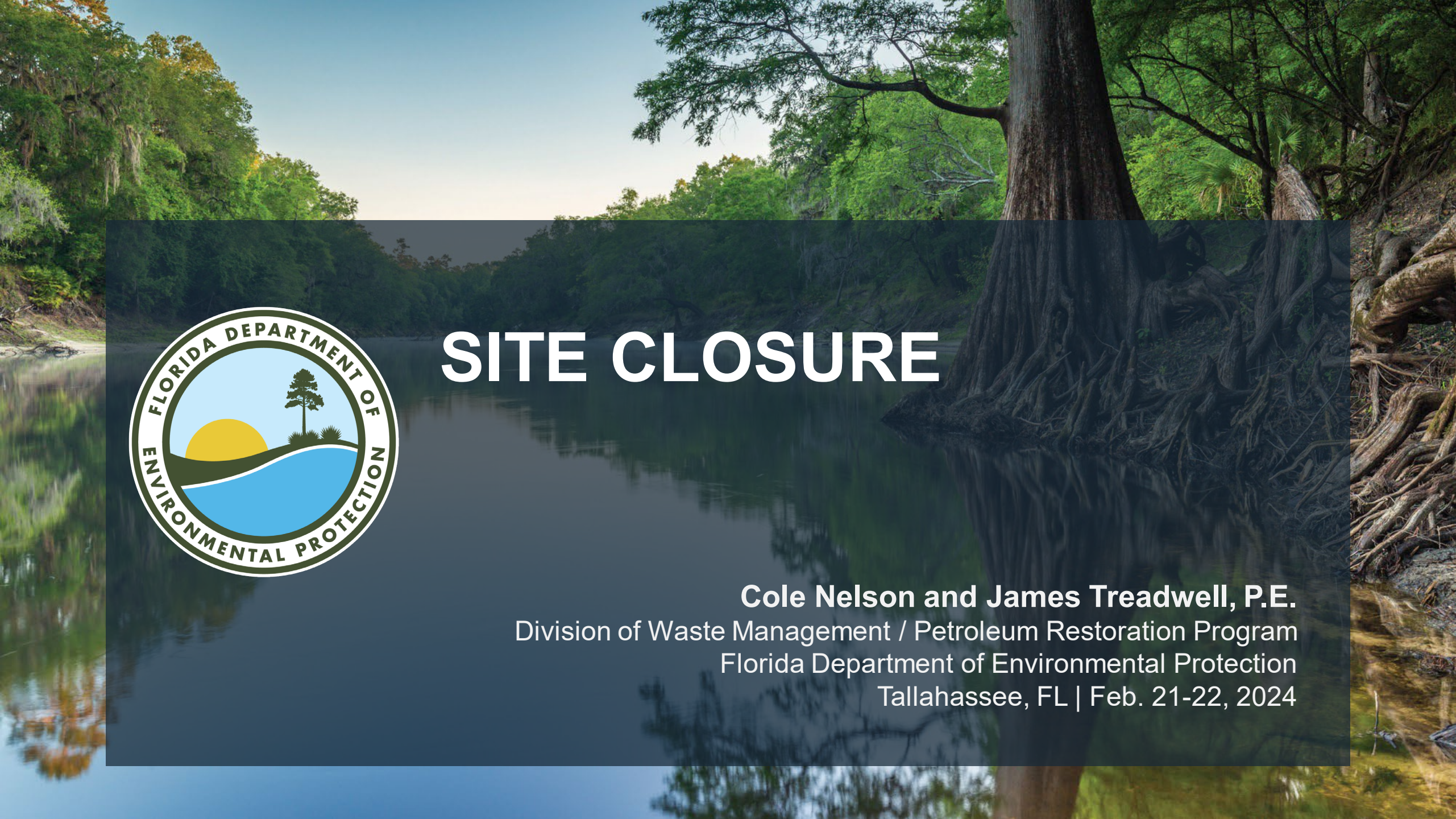


SITE CLOSURE

Cole Nelson and James Treadwell, P.E.
Division of Waste Management / Petroleum Restoration Program
Florida Department of Environmental Protection
Tallahassee, FL | Feb. 21-22, 2024

POST-ACTIVE REMEDIATION MONITORING (PARM)

Site Closure

POST-ACTIVE REMEDIATION MONITORING

Review historical data:

- Before beginning PARM, review data for soil contamination that needs to be resolved, and for monitor wells and parameters that need to be resampled.
- Be sure to look at historical records for exceedances that may not be in recent tables, especially for contaminants like lead, Ethylene dibromide (EDB), etc.
- Do not wait until the end of PARM or well abandonment to do data review.

POST ACTIVE REMEDIATION MONITORING

Confirmation sampling:

- Historical soil contamination must be resolved and documented.
- Contaminated soil may have been excavated.
- Replacement soil borings may be required. Soil sampling may include Synthetic Precipitation Leaching Procedure (SPLP) and/or Total Recoverable Petroleum Hydrocarbon (TRPH) fractionation. Florida Administrative Code (F.A.C.) Chapter 62-780.690(1)(b)., Chapter 62-780.600(5)(c)4. (SPLP). F.A.C. and Chapter 62-780.600(5)(c)3. (TRPH - fractionation).

POST ACTIVE REMEDIATION MONITORING

Confirmation sampling:

- Replacement soil borings must take into account the location and depth of previous contamination and consider Organic Vapor Analysis (OVA) readings as applicable.
- Replacement borings are usually taken at the same location and depth as the previous samples.
- Other locations may be necessary on a site-specific basis.

POST ACTIVE REMEDIATION MONITORING

Confirmation sampling:

- Some professional judgement or lines of evidence may be required, especially if previous locations are inaccessible.
- Communicate with Florida Department of Environmental Protections (DEP) to assure agreement with the judgement or lines of evidence. Provide specifics of why the line of evidence or judgment makes sense.
- If contamination cannot be resolved, conditional closure may be the only option. If the site is scored $\leq$ 29 a Low-Scored Site Initiative No Further Action (LSSI-NFA) may be a good closure option.

POST ACTIVE REMEDIATION MONITORING

Groundwater sampling:

- Chapter 62-780, F.A.C. generally requires a minimum of four quarters of PARM groundwater sampling, with the last two quarters meeting NFA criteria in **representative** locations, including following excavations.

- For **interim** source removals, at least two sampling events meeting NFA criteria are required.

- If groundwater contamination did not exist prior to remediation, a minimum of one groundwater sampling event is required. Chapter 62-780.750(4)(f) F.A.C.

POST ACTIVE REMEDIATION MONITORING

Underground Injection Control (UIC) – tips:

- Before beginning PARM, ensure that active remediation is no longer occurring.
- While this is simple for a mechanical system, chemical injections are not as straightforward.
- After injections are completed, the injected material may be active for some time.
- Do baseline sampling before injections and monitor UIC parameters for return to Clean up Target Levels (CTLs) or baseline levels.

NO FURTHER ACTION PROPOSAL (NFAP)

Site Closure

NO FURTHER ACTION PROPOSAL

Requirements:

- A recommendation for NFA must include how NFA criteria are met for all media, including groundwater and soil leachability and direct exposure, with all applicable tables and maps.

- The NFA or No Further Action with Controls (NFAC) proposal must be sealed by a Florida registered professional. Chapter 62-780.400(1) F.A.C.

NO FURTHER ACTION PROPOSAL

Requirements:

- For conditional closure, the NFA package must include soil and groundwater plume maps. Chapter 62-780.600(8)(a)28., F.A.C.
- The groundwater plume must be demonstrated to be stable or shrinking with at least one year of monitoring. Chapter 62-780.680(2)(c)4, F.A.C. and Chapter 62-780.680(3)(c)2, F.A.C.
- Soil contamination may require an Engineering Control (EC), such as 2 ft. of clean soil or an impervious surface to prevent rainwater infiltration.
- Chapter 62-780.680(2)(b)1.b. F.A.C., 62-780.680(3)(b)2.c. F.A.C. and 62-780.680(2)(c)2. F.A.C. – Rule for what an EC is.
- Site maps should show contaminant plumes in relation to the restricted areas and groundwater plumes typically require an exclusion buffer.

NO FURTHER ACTION PROPOSAL

Unsaturated zone:

- “When making a recommendation of Site Rehabilitation Completion (SRC) on the basis of achieving both soil and groundwater CTLs, it is recommended that the depth of the groundwater table at the time of the last groundwater monitoring event (of either NAM or PARM), which will be the basis for a recommendation for SRC for groundwater, should define the depth to which soil CTLs (SCTL) apply.” - Thomas Conrardy, P.E. February 1, 2011“Soil Cleanup Target Levels Application to Site Rehabilitation Decisions.”

- Soil above the water table at this time must meet SCTLs unless closing with restrictions.

- Neither smear zone nor capillary fringe appear in Chapter 62-780, F.A.C., so exercise caution when discussing these in closure decisions.

LOW-SCORED SITE INITIATIVE (LSSI)

Site Closure

LOW-SCORED SITE INITIATIVE (LSSI)

LSSI eligibility:

- LSSI offers an alternative closure option for petroleum discharges based in Florida Statute (F.S.) section 376.3071(12)(b). It is not a Chapter 62-780, F.A.C. closure.
- A site with a priority score of 29 or less “may voluntarily participate in the” LSSI.
- It is available “regardless of whether the site is eligible for state restoration funding.”
- If a discharge meets the conditions, the property owner can request a LSSI NFA, regardless of whether the discharge started out in the LSSI process.

Sourced from: Procedural and Technical Guidance for the Low-Scored Site Initiative (floridadep.gov)

LOW-SCORED SITE INITIATIVE

LSSI on funded sites:

- For **state-funded** discharges who choose to participate in the LSSI process, up to $35,000 is allowed for assessment and an additional $35,000 is allowed for limited remediation.
- “State-funded assessment and limited remediation activities shall be completed” within 15 months after work order issuance.
- Assessment and limited remediation “may be followed by up to 12 months of groundwater monitoring,” when needed to obtain closure.

Sourced from: Procedural and Technical Guidance for the Low-Scored Site Initiative (floridadep.gov)

LOW-SCORED SITE INITIATIVE

LSSI-NFA criteria:

- “Soil saturated with petroleum or petroleum products” does not exist on site **or**
- “Soil that causes a total corrected hydrocarbon measurement of 500 parts per million(ppm) or higher for the Gasoline Analytical Group or 50 ppm or higher for the Kerosene Analytical Group ... Does not exist onsite as a result of a release of petroleum products.”

Sourced from: Procedural and Technical Guidance for the Low-Scored Site Initiative (floridadep.gov)

LOW-SCORED SITE INITIATIVE

LSSI-NFA criteria:

- “A minimum of 12 months of groundwater monitoring indicates that the plume is shrinking or stable.”
- Adjacent surface waters are not adversely affected.

Sourced from: Procedural and Technical Guidance for the Low-Scored Site Initiative (floridadep.gov)

LOW-SCORED SITE INITIATIVE

LSSI-NFA criteria:

- Contamination is limited to the source property **or**
- Has migrated onto a “transportation facility” where there is agreement between the transportation facility owner and the department on Institutional Controls (ICs).

Sourced from: Procedural and Technical Guidance for the Low-Scored Site Initiative (floridadep.gov)

LOW-SCORED SITE INITIATIVE

LSSI-NFA criteria:

- Groundwater contamination “is not a threat to any permitted potable water supply well.”

Sourced from: Procedural and Technical Guidance for the Low-Scored Site Initiative (floridadep.gov)

LOW-SCORED SITE INITIATIVE

LSSI-NFA criteria:

- Soils in the top two ft. below land surface meet the soil cleanup target levels, or institutional or engineering controls are implemented.

- Controls will, however, require a Declaration of Restrictive Covenant (DRC), effectively making it a Remediation Management Option (RMO) - (RMO II) or (RMO III) closure.

Sourced from: Procedural and Technical Guidance for the Low-Scored Site Initiative (floridadep.gov)

LOW-SCORED SITE INITIATIVE

LSSI-NFA criteria:

- Does not require a deed restriction or DRC.
- Site managers must put it in the closure order and complete documentation to list the site in the Institutional Control Registry (ICR).

Sourced from: Procedural and Technical Guidance for the Low-Scored Site Initiative (floridadep.gov)

SRCO TIPS AND TRICKS

Site Closure

WHAT DOCUMENTS DO I NEED TO SEND?

For RMO I:

- Property appraiser page for parcel(s) involved with discharge.
- Recommendation memo (and signature report, if needed).
- Order letter – Word doc. format.
- Figures and Tables (can be in separate PDFs).
- Any other necessary documents you think should be submitted with the closure order.

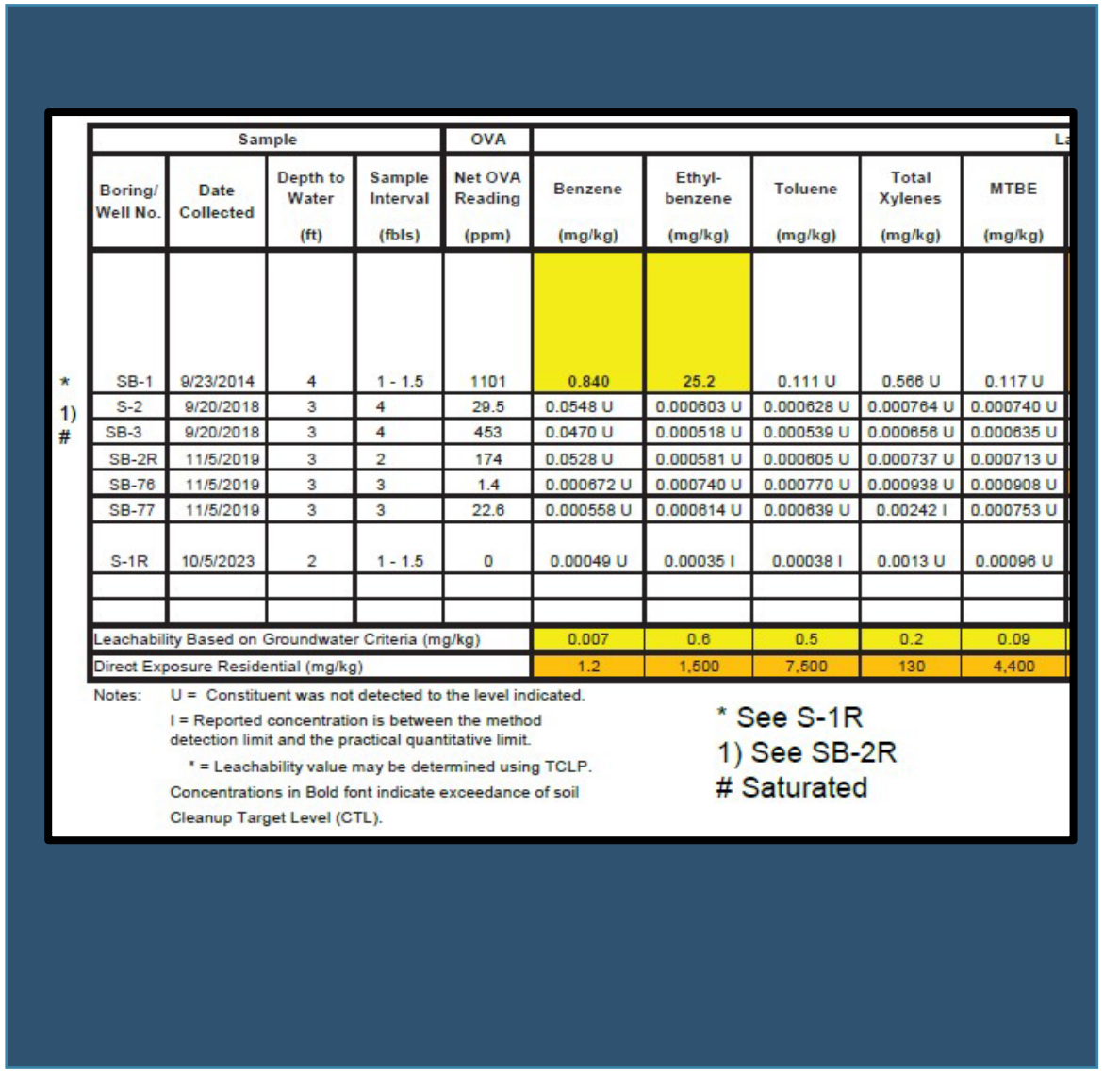
I read all the emails that are sent with orders – let me know if you have any questions or need to expedite the review and submission process.

ORDER LETTER TIPS AND TRICKS (ALL ORDERS)

- Language in the order letter(s) cannot be changed.
- The non-program template can be used for program discharges that do not have a well abandonment report, have run out of funding or the Responsible Person (RP) has signed a monitoring well transfer agreement.
- Please include well abandonment language in closure orders.
- If possible, include the responsible parties email address.
- Make sure to include the applicable correspondents in the Electronic Contact (EC) section. Please include at least one person from the local program/team.

MAKING NOTES

- All monitoring wells or soil samples that have replacements need a specific note stating the representative sample.
- The denote can be anything, numbers, percent or number sign/asterisk.



	Sample				OVA					La
	Boring/ Well No.	Date Collected	Depth to Water (ft)	Sample Interval (fbls)	Net OVA Reading (ppm)	Benzene (mg/kg)	Ethyl-benzene (mg/kg)	Toluene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
*	SB-1	9/23/2014	4	1 - 1.5	1101	0.840	25.2	0.111 U	0.566 U	0.117 U
1)	S-2	9/20/2018	3	4	29.5	0.0548 U	0.000603 U	0.000628 U	0.000764 U	0.000740 U
#	SB-3	9/20/2018	3	4	453	0.0470 U	0.000518 U	0.000539 U	0.000656 U	0.000635 U
	SB-2R	11/5/2019	3	2	174	0.0528 U	0.000581 U	0.000605 U	0.000737 U	0.000713 U
	SB-76	11/5/2019	3	3	1.4	0.000672 U	0.000740 U	0.000770 U	0.000938 U	0.000908 U
	SB-77	11/5/2019	3	3	22.6	0.000558 U	0.000614 U	0.000639 U	0.00242 I	0.000753 U
	S-1R	10/5/2023	2	1 - 1.5	0	0.00049 U	0.00035 I	0.00038 I	0.0013 U	0.00096 U
	Leachability Based on Groundwater Criteria (mg/kg)					0.007	0.6	0.5	0.2	0.09
	Direct Exposure Residential (mg/kg)					1.2	1,500	7,500	130	4,400

Notes: U = Constituent was not detected to the level indicated.
I = Reported concentration is between the method detection limit and the practical quantitative limit.
* = Leachability value may be determined using TCLP.
Concentrations in Bold font indicate exceedance of soil Cleanup Target Level (CTL).

* See S-1R
1) See SB-2R
Saturated

MAKING NOTES

- All monitoring wells or soil samples that have replacements need a specific note stating the representative sample.

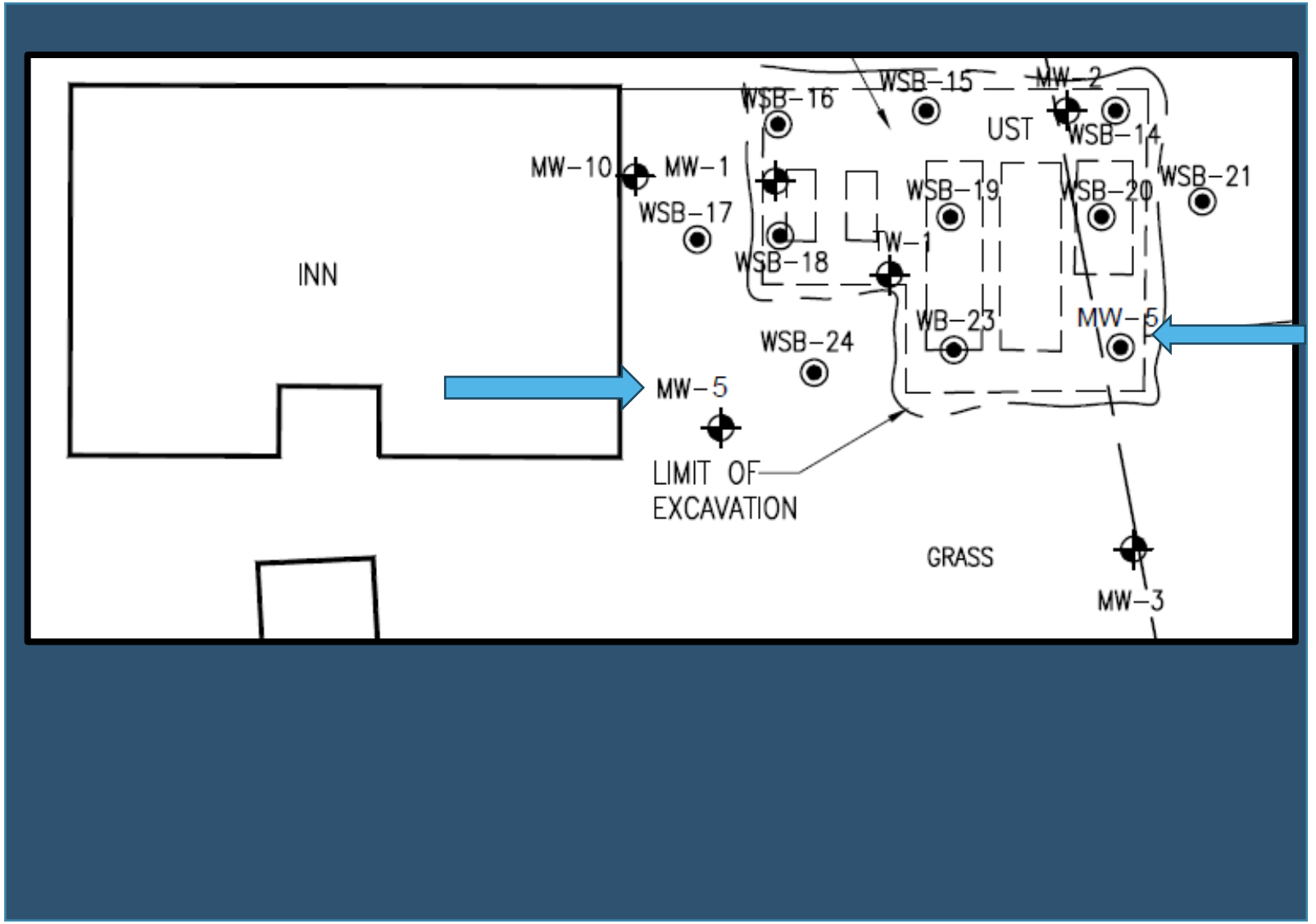
- The denote can be anything, numbers, percent or number sign/asterisk.

Sample		Benzene	Toluene	Ethyl-benzene	Total-Xylenes	MTBE
Location	Date					
FDEP's GCTLs (µg/L)		1**	40**	30**	20**	20
FDEP's NADCs (µg/L)		100	400	300	200	200
TMW-1	10/29/1996	5	42	1.0 U	600	600
TMW-2	10/29/1996	155	1.0 U	1.0 U	1.0 U	2.0 U
MW-1	09/18/2014	0.10 U	0.50 U	0.50 U	0.50 U	0.50 U
	10/30/2014	0.10 U	0.50 U	0.50 U	0.50 U	0.50 U
	04/12/2016	0.23 I	0.21 IV	0.33 I	0.45 U	0.24 U
MW-2	09/18/2014	0.34 I	0.50 U	0.50 U	0.53 I	0.50 U
	04/12/2016	0.21 U	0.19 U	0.21 U	0.45 U	0.24 U
MW-3	09/18/2014	0.10 U	0.50 U	0.50 U	0.50 U	0.50 U
	04/12/2016	0.21 U	0.19 U	0.21 U	0.45 U	0.24 U
MW-4	09/18/2014	0.10 U	0.50 U	0.50 U	0.50 U	0.50 U
	04/12/2016	0.21 U	0.19 U	0.21 U	0.45 U	0.24 U
MW-5	09/18/2014	0.10 U	0.50 U	0.50 U	0.50 U	0.50 U
	04/12/2016	0.21 U	0.19 U	0.21 U	0.45 U	0.24 U
MW-6	09/18/2014	0.10 U	0.50 U	0.50 U	0.50 U	0.50 U
	04/12/2016	0.21 U	0.19 U	0.21 U	0.45 U	0.24 U
MW-7	09/18/2014	0.10 U	0.50 U	0.50 U	0.50 U	0.50 U
	04/12/2016	0.21 U	0.19 U	0.21 U	0.45 U	0.24 U
MW-8	09/18/2014	0.10 U	0.50 U	0.50 U	0.50 U	0.50 U
	10/30/2014	0.10 U	0.50 U	0.50 U	0.77 I	0.50 U
	04/12/2016	0.21 U	0.19 U	0.41 I	0.56 I	0.24 U
MW-9	08/25/2016	0.21 U	0.19 U	0.21 U	0.45 U	0.24 U
	01/31/2017	0.21 U	0.30 I	0.21 U	0.45 U	0.24 U
MW-10	08/25/2016	0.21 U	0.19 U	0.21 U	0.72 I	0.24 U
	01/31/2017	0.21 U	0.19 U	0.21 U	0.45 U	0.24 U

Indication that TMW-1 is being replaced by MW-1.

MULTIPLE MONITORING WELL LOCATIONS WITH SAME THE NAME

- Multiple Monitoring Wells (MW)-Five's – make sure to indicate on the tables which one is which.



SOIL SAMPLES – BENZENE DETECTION LIMIT

	Sample				OVA	Laboratory					
	Boring/ Well No.	Date Collected	Depth to Water (ft)	Sample Interval (fbls)	Net OVA Reading (ppm)	Benzene (mg/kg)	Ethyl-benzene (mg/kg)	Toluene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	TRPHs (mg/kg)
See S-1R	SB-1	9/23/2014	4	1 - 1.5	1101	0.840	25.2	0.111 U	0.566 U	0.117 U	351 *
Saturated	S-2	9/20/2018	3	4	29.5	0.0548 U	0.000603 U	0.000628 U	0.000764 U	0.000740 U	8.06 I*
Saturated	SB-3	9/20/2018	3	4	453	0.0470 U	0.000518 U	0.000539 U	0.000656 U	0.000635 U	149 *
See S-1R	SB-65	11/5/2019	3	2	174	0.0528 U	0.000581 U	0.000605 U	0.000737 U	0.000713 U	14.0 *
	SB-76	11/5/2019	3	3	1.4	0.000672 U	0.000740 U	0.000770 U	0.000938 U	0.000908 U	2370
	SB-77	11/5/2019	3	3	22.6	0.000558 U	0.000614 U	0.000639 U	0.00242 I	0.000753 U	92.2
	S-1R	10/5/2023	2	1 - 1.5	0	0.00049 U	0.00035 I	0.00038 I	0.0013 U	0.00096 U	
	Leachability Based on Groundwater Criteria (mg/kg)					0.007	0.6	0.5	0.2	0.09	340
	Direct Exposure Residential (mg/kg)					1.2	1,500	7,500	130	4,400	460

- Elevated Method Detection Limit (MDL) causes the detection limit of Benzene to rise.
- Sample is invalid and needs to be replaced.

The detection limit is too high for Benzene and the sample is invalid – this likely needs to be replaced.

CONFIRMATION SOIL SAMPLES – SAME DEPTH

- Check sample interval to make sure the replacement was taken at a similar depth – elevated water table can cause sample to be taken at a different interval.

Sample				OVA
Boring/ Well No.	Date Collected	Depth to Water (ft)	Sample Interval (fbls)	Net OVA Reading (ppm)
CF-20	3/21/2019	6	1-2	--
CF-20R	4/26/2019	6	3-4	--
CF-22	3/21/2019	6	1-2	--
CF-23	3/21/2019	6	1-2	--
CF-24	3/21/2019	6	1-2	--

- Sampling interval can change for limited things like depth to water (see below).

Sample				O
Boring/ Well No.	Date Collected	Depth to Water (ft)	Sample Interval (fbls)	Net Rea (pp
SB-1	6/18/2018	6	3	
SB-2	6/18/2018	6	5	
SB-3	6/18/2018	6	5	
SB-3R	2/21/2021	4	2.5-3.5	
SB-5	6/18/2018	6	2	

FOUR CONTAMINANTS WITH ALTERNATIVE CLEANUP TARGET LEVELS

Parameters	Results	Qual	Units	DF	Adjusted PQL
Benzo[a]anthracene	**0.042**	**U**	**ug/L**	**1**	0.20
Benzo[a]pyrene	**0.096**	**I**	**ug/L**	**1**	0.20
Benzo[b]fluoranthene	**0.12**		**ug/L**	**1**	0.10

Contaminant	GCTL (µg/L)	Target PQL (µg/L)	EPA Method
Benzo(a)anthracene	0.05	0.2	8310
Benzo(b)fluoranthene	0.05	0.1	8310
Dibenz(a,h)anthracene	0.005	0.2	8310
Indeno(1,2,3-cd)pyrene	0.05	0.2	8310

Note: Although the guidance document references EPA Method 8310 (Liquid Chromatography), it should be possible to achieve those Target PQLs using EPA Method 8270 (Gas Chromatography/Mass Spectrometry).

Does Benzo(b)fluoranthene meet the Alternative Cleanup Target Level (ACTL)?

Only for U and I qualifier.
Can not round.

Source: Guillermo J. Wibmer, Ph.D. (2007) Quality Assurance and Related Issues.

WHAT IS NEEDED FOR A CONDITIONAL CLOSURE SITE REHABILITATION COMPLETION ORDER (CSRCO)

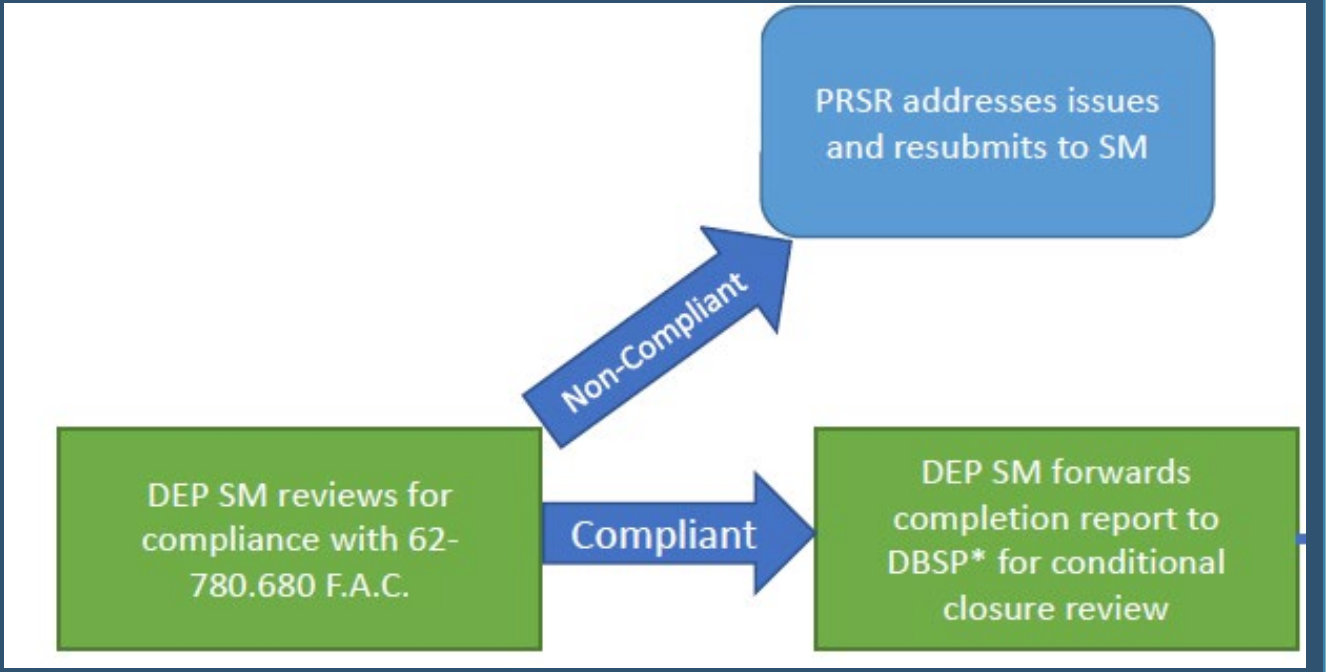
Site Closure

REVIEW PROPOSED NFA AND OTHER DOCS

Does the NFA Proposal meet RMOII or RMOIII compliance?

- In the case it doesn't, work with the person responsible for site rehabilitation to further meet compliance.
- If so, move on to the next step – DEP technical review. Listed as District and Business Support Program (DBSP)/Senior Petroleum Restoration Program Reviewer (Sr PRP Rev– DSP) is not currently reviewing PRPs conditional NFA.

Retrieved from - https://floridadep.gov/waste/waste/content/institutional-controls-procedures-guidance



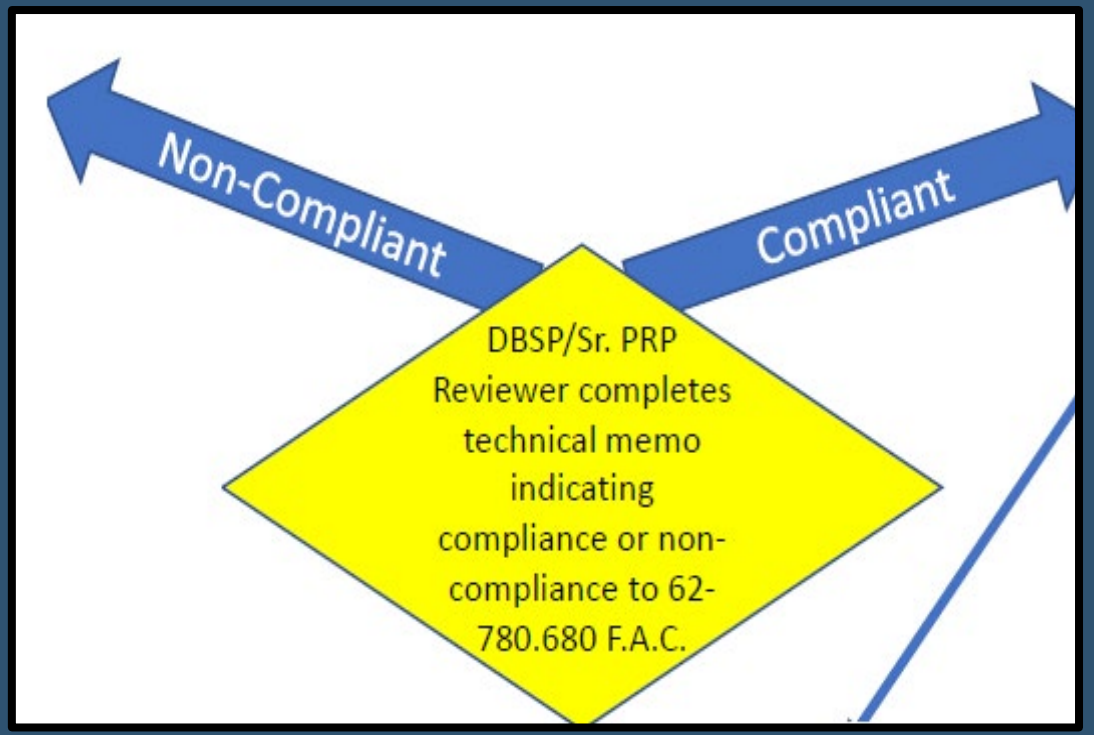
Please reach out to James Treadwell or Cole Nelson with any direct question about specific complicated issues or questions. We will be happy to help but can only advise based off the provided information. Historical details and other necessary information may be needed to make direct decisions regarding NFA status.

DEP TECHNICAL REVIEW PROCESS – BEFORE SUBMISSION TO OGC

Please see the Institutional Control Procedures Guidance (ICPG) page for the most current documents, checklists and forms. It is irregularly updated, so please check before continuing.

Items needed for DEP review:

- Attachment six from ICPG.
- Most updated tables with explanations for any replacements or corrections to data.
- Figures – general site map, sample location map (both groundwater and soil), plume map(s) (both groundwater and soil, if both) and EC map (if needed).

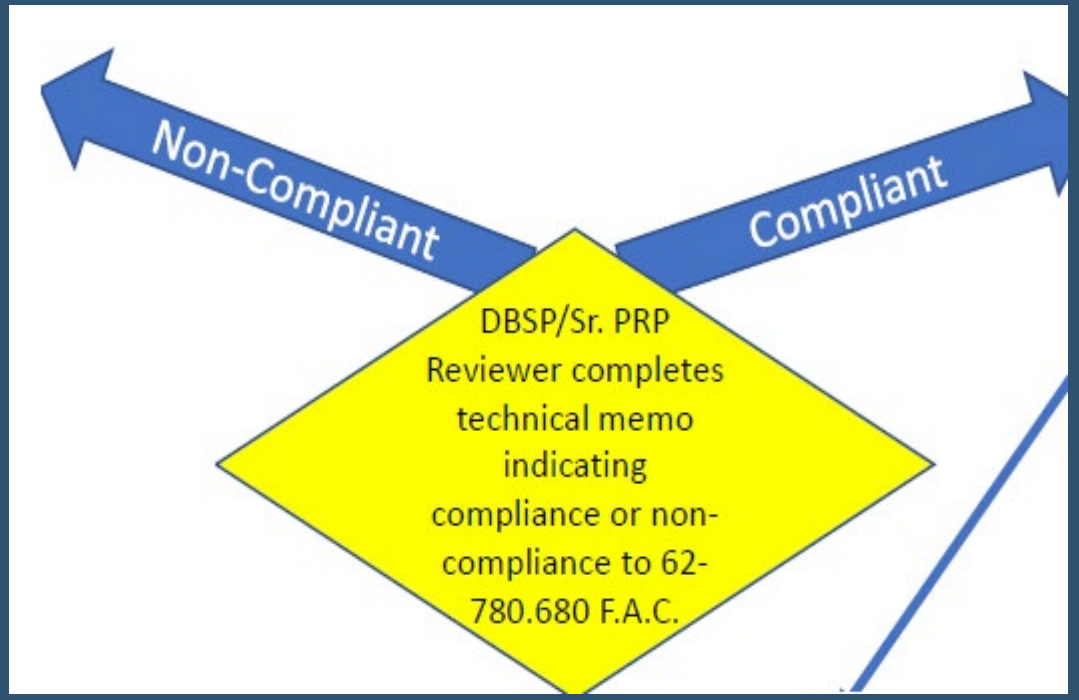


DEP TECHNICAL REVIEW PROCESS – BEFORE SUBMISSION TO OGC

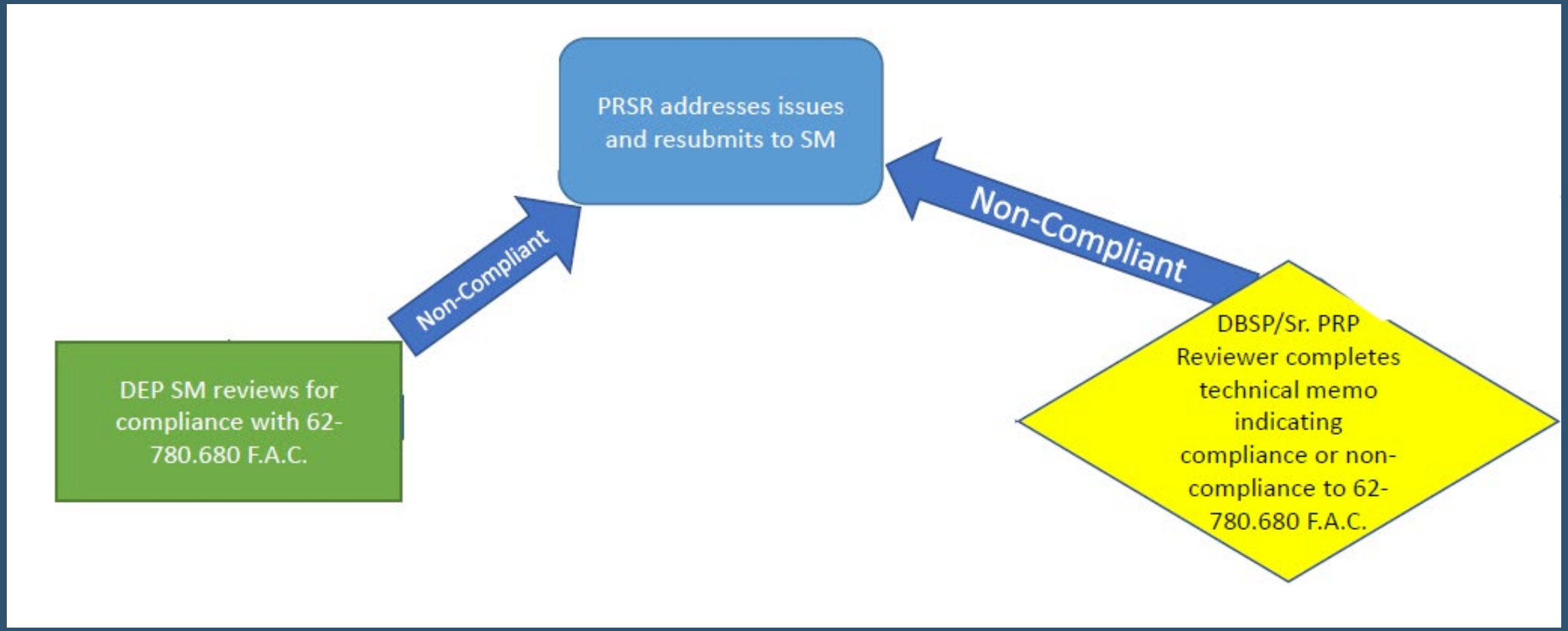
Specific cases:

- DRC – most update template.
- Engineering control maintenance plan and figure.
- Memorandum of Understanding forms (attachment 33).

Retrieved from - https://floridadep.gov/waste/waste/content/institutional-controls-procedures-guidance.



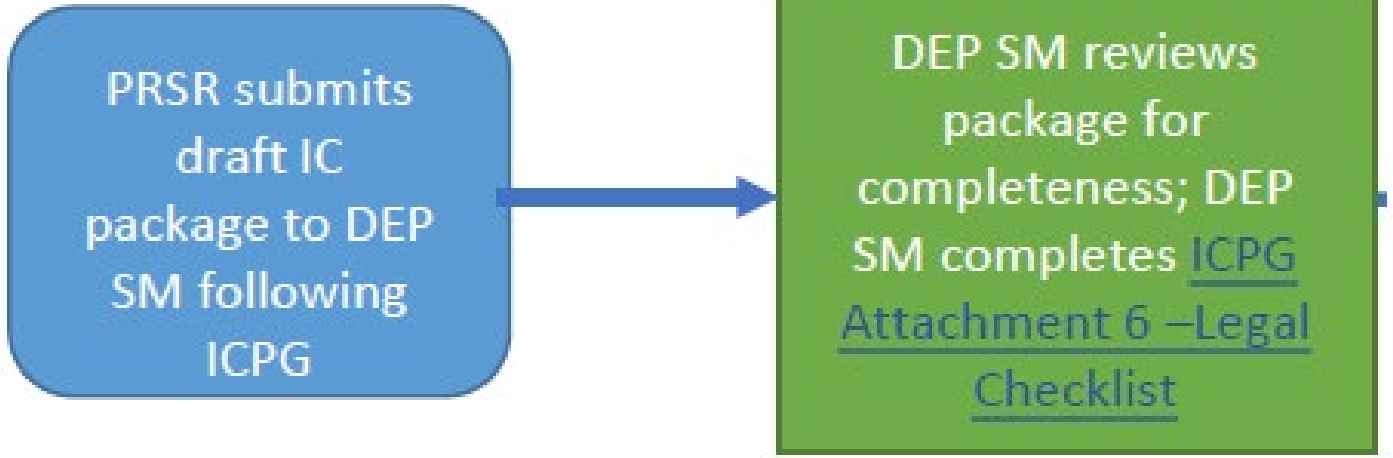
COMPLIANT OR NON-COMPLIANT? TECHNICAL REVIEW



All roads lead back to the PRSR, if non-compliant.

Retrieved from - https://floridadep.gov/waste/waste/content/institutional-controls-procedures-guidance

WHAT IS NEEDED TO SUBMIT TO OGC? WHAT TO DO AFTER PRP APPROVAL?



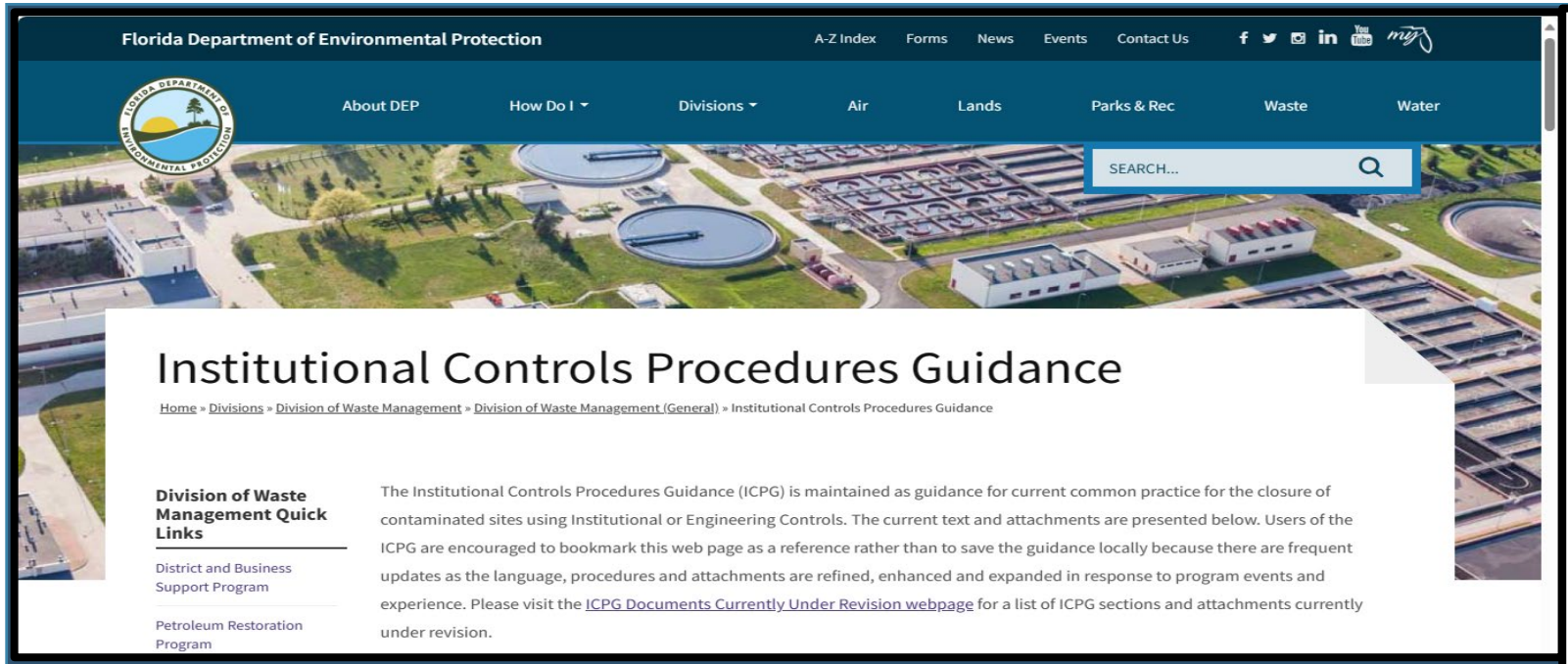
What is the IC package?

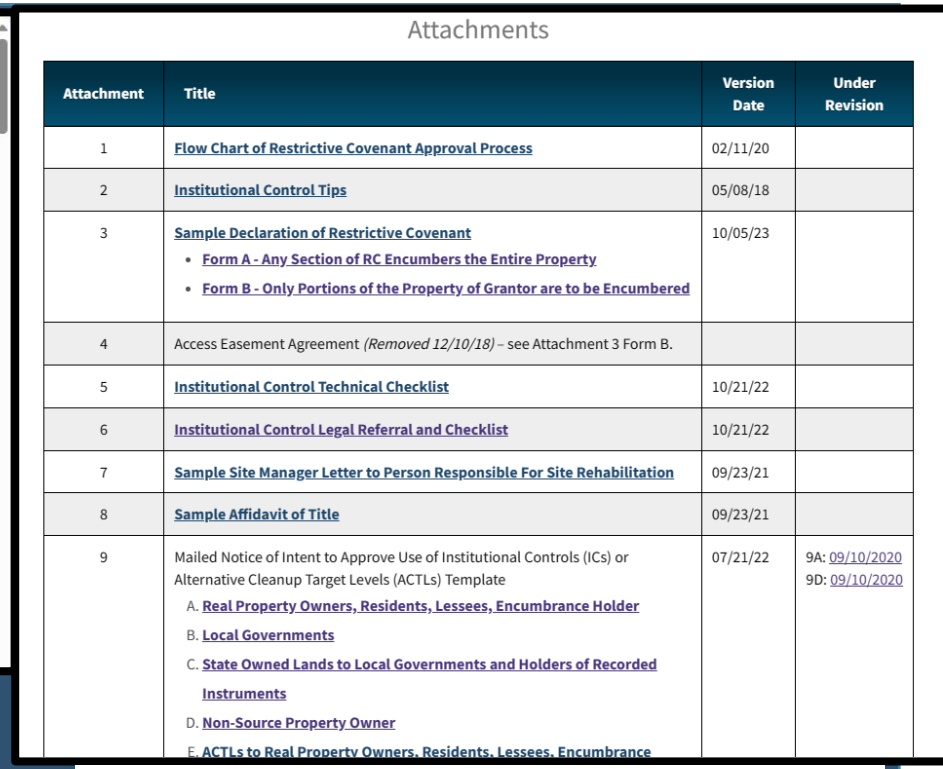
Where do I find it?

The IC package is made up of several different documents that are site specific. Most of the documents can be found in the attachments section of the ICPG.

Attachment six – the legal referral and checklist helps the site manager determine the documents needed for further execution of the order and/or the DRC.

ICPG



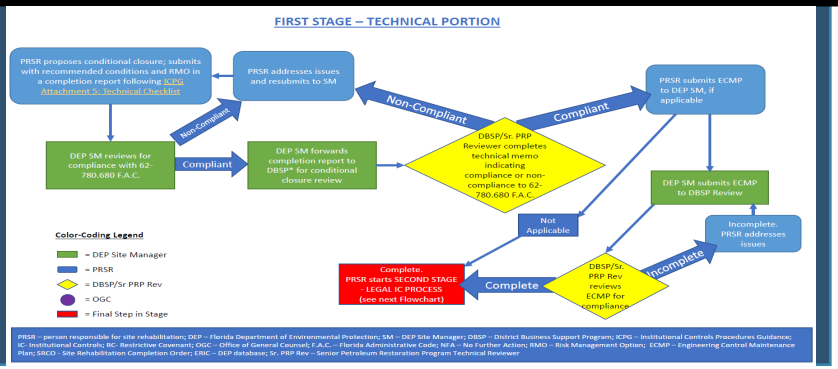


Attachments

Attachment	Title	Version Date	Under Revision
1	Flow Chart of Restrictive Covenant Approval Process	02/11/20	
2	Institutional Control Tips	05/08/18	
3	Sample Declaration of Restrictive Covenant • Form A - Any Section of RC Encumbers the Entire Property • Form B - Only Portions of the Property of Grantor are to be Encumbered	10/05/23	
4	Access Easement Agreement *(Removed 12/10/18)* – see Attachment 3 Form B.		
5	Institutional Control Technical Checklist	10/21/22	
6	Institutional Control Legal Referral and Checklist	10/21/22	
7	Sample Site Manager Letter to Person Responsible For Site Rehabilitation	09/23/21	
8	Sample Affidavit of Title	09/23/21	
9	Mailed Notice of Intent to Approve Use of Institutional Controls (ICs) or Alternative Cleanup Target Levels (ACTLs) Template A. Real Property Owners, Residents, Lessees, Encumbrance Holder B. Local Governments C. State Owned Lands to Local Governments and Holders of Recorded Instruments D. Non-Source Property Owner E. ACTLs to Real Property Owners, Residents, Lessees, Encumbrance	07/21/22	9A: 09/10/2020 9D: 09/10/2020

All the needed attachments are included in the “Attachments” section of the ICPG. Scroll down till you see the attachments section.

Flow chart created for all Waste Programs, for our purposes, “DEP site manager” refers to the PRP site manager or local program professional working on the site and “PRSR” is usually the Petroleum Restoration Program Agency Term Contractor (PRP ATC).



Retrieved from - https://floridadep.gov/waste/waste/content/institutional-controls-procedures-guidance

ICPG ATTACHMENT(S) LEGAL CHECKLIST ITEMS

What attachments are needed?

- Attachment 3: DRCs (if site closure requires DRC).
- Attachment 5: ICPG checklist– helpful document for PRP approval.
- Attachment 6: ICPG legal referral and checklist – required for tech review.
- Attachment 7: Sample site manager letter to RP – part of noticing packet.
- Attachment 8: Title Report – required for OGC submission **expires after six months**.
- Attachment 9: Noticing – check out what noticing is needed; all sites are different.
- Attachment 33: Procedure for use of DEP and Florida Department of Transportation MOU.
- Attachment 34: Sample MOU documents.
- Attachment 35: Recorded Reference (Deed Notice) for Florida FDOT MOU IC's.
- Attachment 39: DEP and CSX memo of understanding amended and restated.
- Attachment 40: CSX MOUs review and closure procedure.

Attachments

Attachment	Title	Version Date	Under Revision
1	Flow Chart of Restrictive Covenant Approval Process	02/11/20	
2	Institutional Control Tips	05/08/18	
3	Sample Declaration of Restrictive Covenant • Form A - Any Section of RC Encumbers the Entire Property • Form B - Only Portions of the Property of Grantor are to be Encumbered	10/05/23	
4	Access Easement Agreement *(Removed 12/10/18)* – see Attachment 3 Form B.		
5	Institutional Control Technical Checklist	10/21/22	
6	Institutional Control Legal Referral and Checklist	10/21/22	
7	Sample Site Manager Letter to Person Responsible For Site Rehabilitation	09/23/21	
8	Sample Affidavit of Title	09/23/21	
9	Mailed Notice of Intent to Approve Use of Institutional Controls (ICs) or Alternative Cleanup Target Levels (ACTLs) Template A. Real Property Owners, Residents, Lessees, Encumbrance Holder B. Local Governments C. State Owned Lands to Local Governments and Holders of Recorded Instruments D. Non-Source Property Owner E. ACTLs to Real Property Owners, Residents, Lessees, Encumbrance Holders F. ACTLs to Local Governments	07/21/22	9A: 09/10/2020 9D: 09/10/2020
10	Sample Subordination of Mortgage to Declaration of Restrictive Covenant	09/23/21	
11	Sample Joinder and Consent of Tenants and Lessees	03/23/20	
12	Sample Subordination of Encumbrance to Declaration of Restrictive Covenant	09/23/21	
13	Sample Joinder and Consent of Encumbrance Holder	09/23/21	
14	Example of Encumbrance Map & List of Easements Affecting Restricted Area	03/01/17	
15	Division of State Lands/Board of Trustees Property Summary of DSL IC Development Procedure	05/08/18	
16	Sample Division of State Lands Packet	03/01/17	
17	Division of Waste Management Memorandum to Division of State Lands	05/01/18	
18	Non-Conservation Land Use Plan Submission	05/08/18	

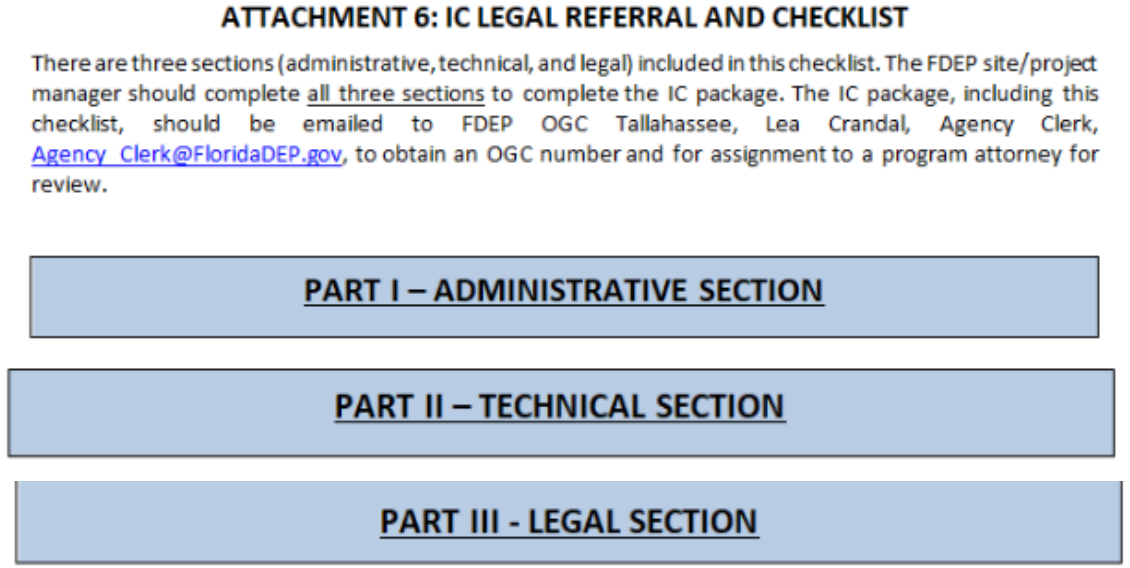
Retrieved from - https://floridadep.gov/waste/waste/content/institutional-controls-procedures-guidance

ATTACHMENT SIX: WHAT IS THIS?

Part One – Administrative section.
- Specific site information- discharge date, F.A.C. ID#, county, site manager name and email, etc..

Part Two – Technical section.
- Link to Oculus – folder that is going to be submitted containing all necessary documents.
- Type of remaining contamination.
- Type of restrictions.
- Remaining contamination.
- Property use.
- Existing features.

Part Three – Legal Section.
- Applicable institutional controls.
- IC package checklist for the above-mentioned Oculus folder.
- DRC section.
- Non-DRC section – (mention MOU).



ATTACHMENT 6: IC LEGAL REFERRAL AND CHECKLIST

There are three sections (administrative, technical, and legal) included in this checklist. The FDEP site/project manager should complete all three sections to complete the IC package. The IC package, including this checklist, should be emailed to FDEP OGC Tallahassee, Lea Crandal, Agency Clerk, Agency_Clerk@FloridaDEP.gov, to obtain an OGC number and for assignment to a program attorney for review.

PART I – ADMINISTRATIVE SECTION

PART II – TECHNICAL SECTION

PART III - LEGAL SECTION

OGC will not assign an IC packet for legal review unless this attachment is completed correctly and submitted with all necessary documents. Please take your time in completing this attachment (or in reviewing and correcting if someone outside DEP submits the attachment).

ATTACHMENT SIX: WHAT IS THIS?

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- Specific site information- discharge date, F.A.C. ID#, county, site manager name and email, etc..

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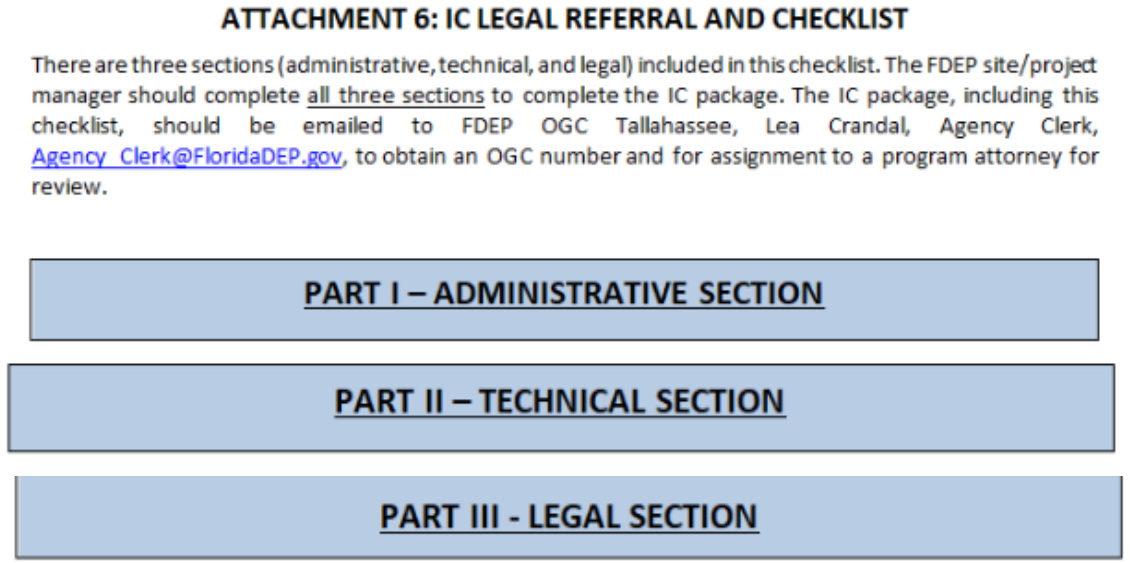

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PART I – ADMINISTRATIVE SECTION

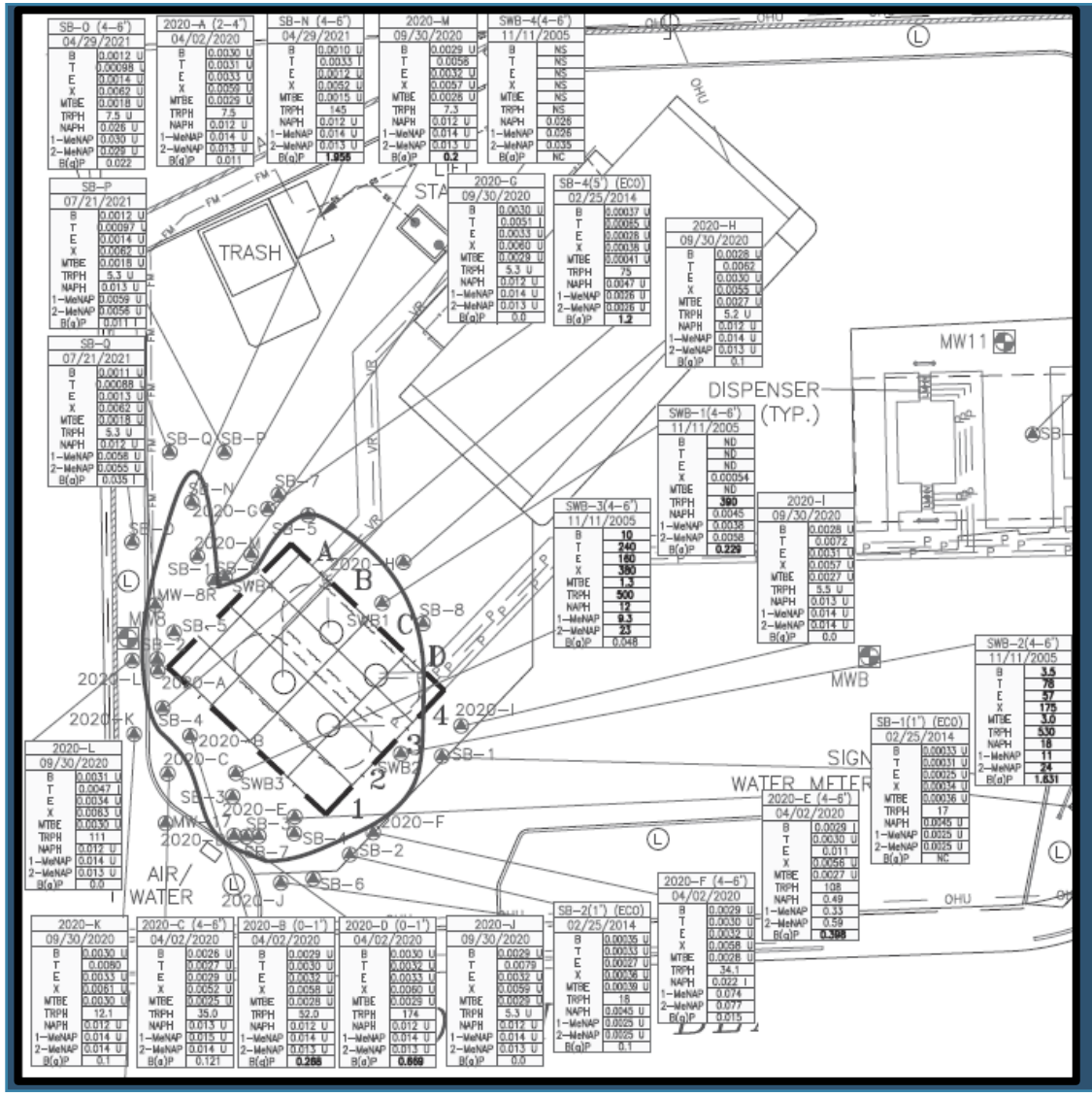
PART II – TECHNICAL SECTION

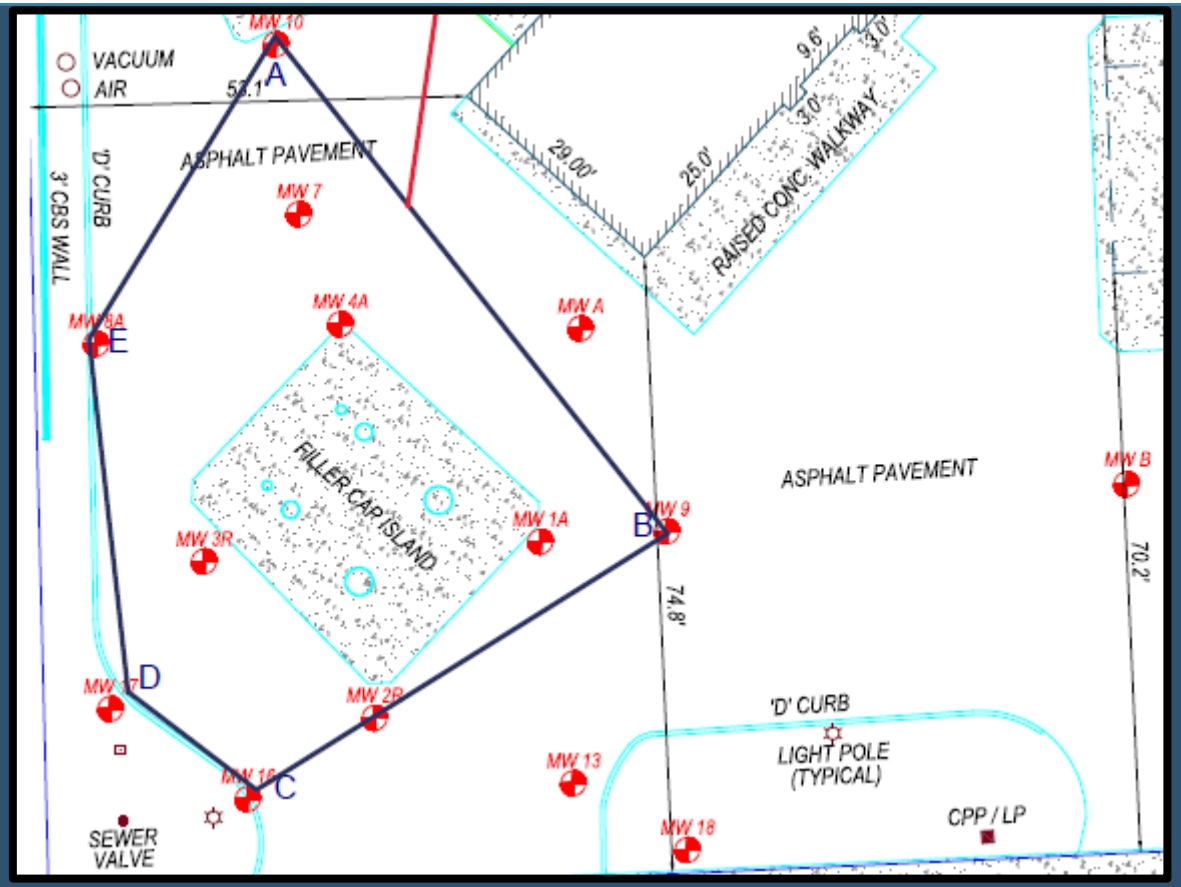
PART III - LEGAL SECTION

This document is the primary means of OGC determining what IC's are necessary, what the restrictions need to be, and what the conditional SRCO should say.

Retrieved from - https://floridadep.gov/waste/waste/content/institutional-controls-procedures-guidance

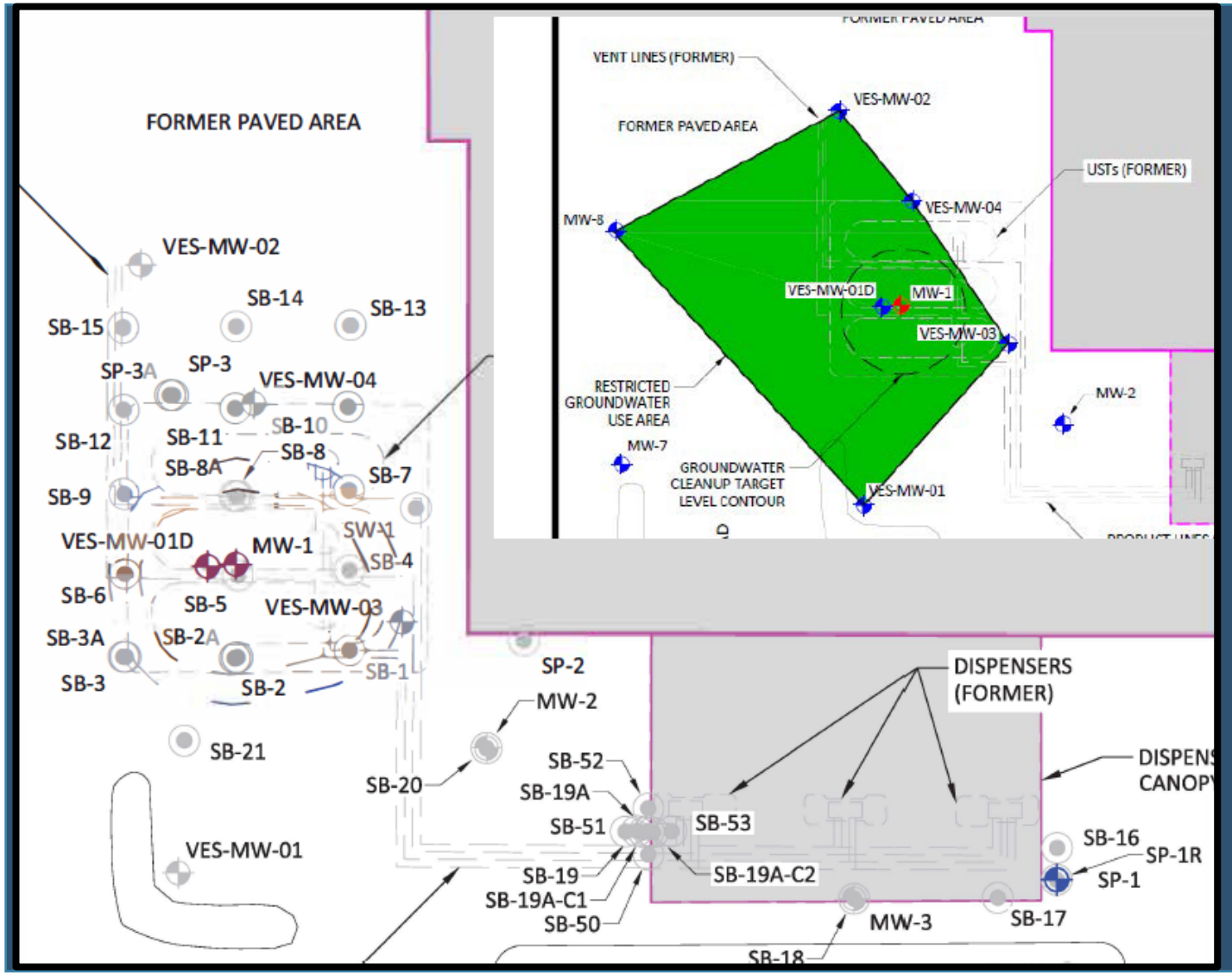
MOST COMMON ISSUES WE SEE
EC– SOIL

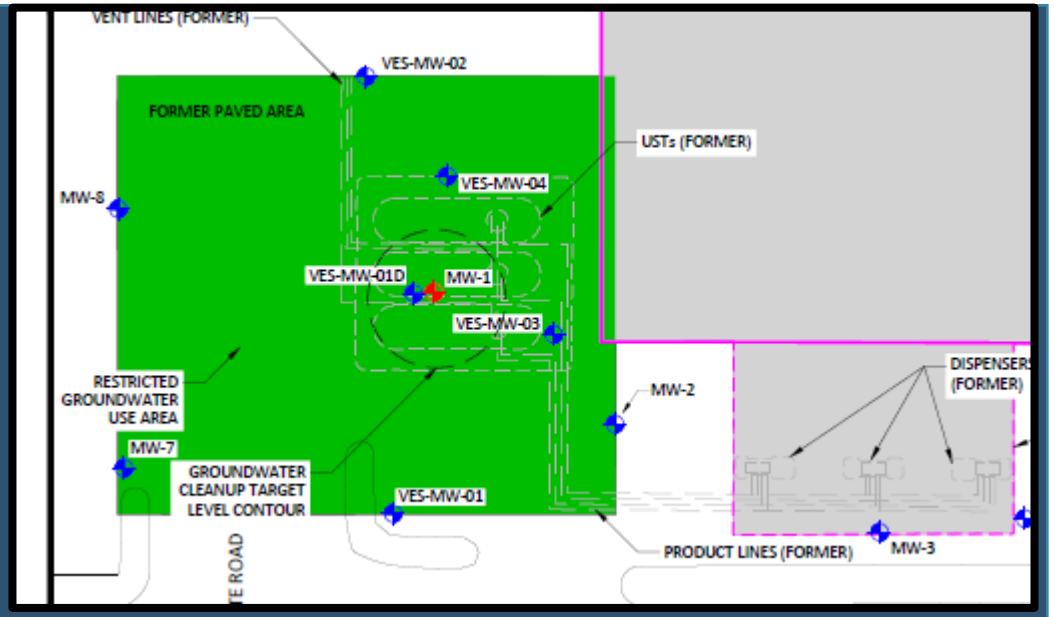




Is the **entire** soil plume within the engineering control?

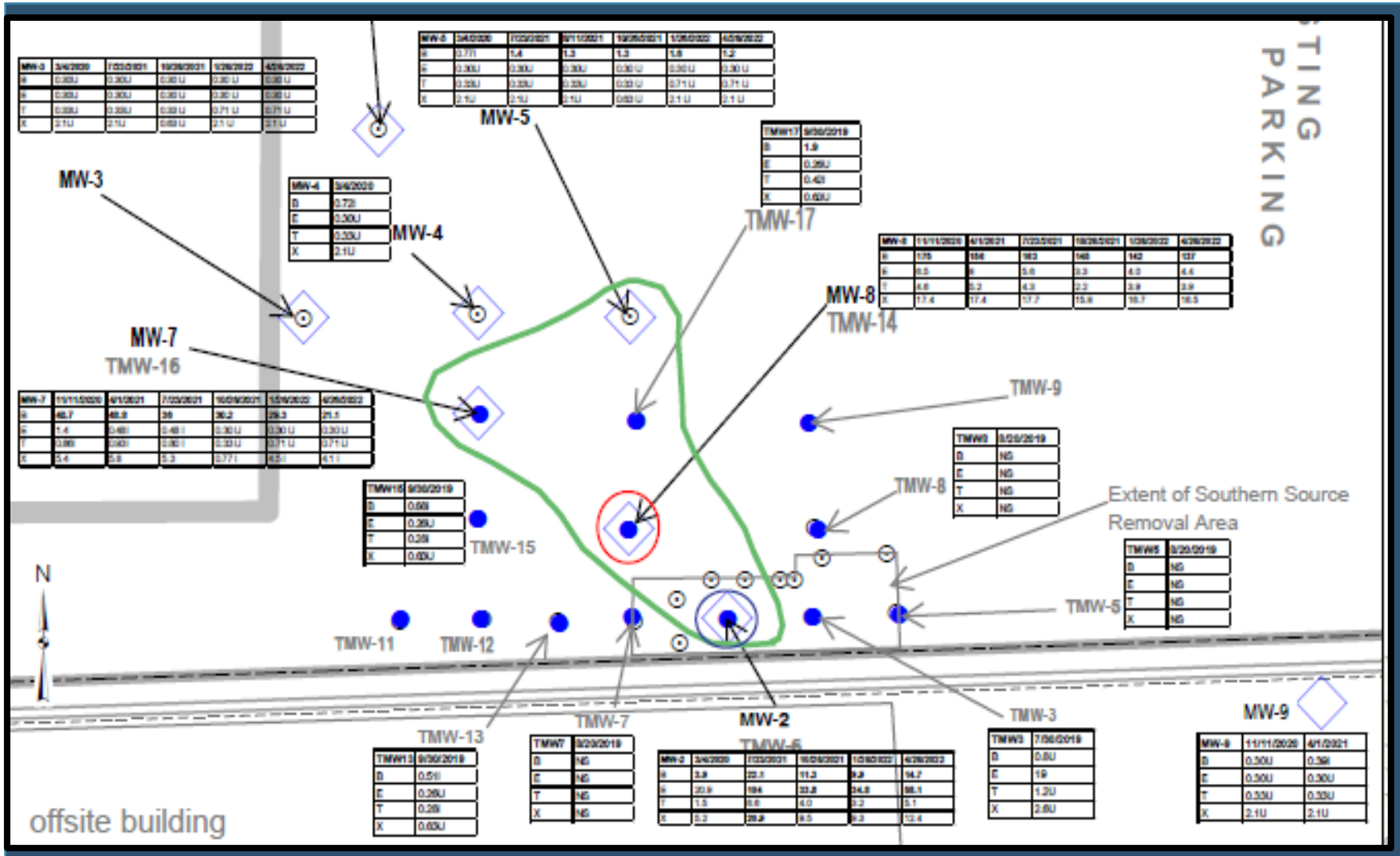
MOST COMMON ISSUES WE SEE
RESTRICTED AREA – GROUND WATER





Does the new restricted area above cover the entire plume?

MOST COMMON ISSUES WE SEE GROUNDWATER BOUNDARY SAMPLING



An EC that prevents migration of the plume is implemented, and it has been demonstrated to the department by a minimum of one year of groundwater monitoring data that groundwater contaminant concentrations at the property boundaries do not, and will not, exceed the appropriate groundwater CTLs specified in subparagraph Chapter 62-780.680(1)(c)1., F.A.C., and that the plume has not affected, and will not affect, a freshwater or marine surface water body pursuant to subparagraph Chapter 62-780.680(1)(c)2., F.A.C.

Does this plume have a boundary sample or buffer?

THANK YOU

Cole Nelson and James Treadwell P.E.
Division of Wate Management / Petroleum Restoration Program
Florida Department of Environmental Protection

Contact Information:
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Cole.M.Nelson@FloridaDEP.gov
James.Treadwell@FloridaDEP.gov