

Environmental Stewardship

Utilizing Technology to Streamline Compliance



We're All Citizens.

SWPP:EC Background

- Inspection of erosion control and stormwater management / non-point source flows from construction sites
 - Primarily for the Dig Indy Project (CSO LTCP)
 - Currently covering 23 sites
- Complying with city-county and state erosion control and stormwater management regulations
- Inspections must occur the following business day after 0.5” of rain or weekly if the rainfall trigger is not met

SWPP: EC Challenges With the Old Way of Doing Things

- Coordinating multiple inspectors
- Managing paperwork (Inspection sheets)
- Photo Management
- Tracking open issues and resolution to ensure compliance

Date: _____ Project: _____ Inspected by: _____

Type of Inspection: D Scheduled Weekly - or - D Rain Event (record rain event amount ____

CONSTRUCTION SITE SELF-INSPECTION AND MAINTENANCE LOG

(To be Completed by A "Trained Individual")

I certify under penalty of law that this document was completed to the best of my knowledge and belief on the date listed below per my signature. I am aware that there are significant penalties for submitting false information, including the possibility of loss of TI Certification, fine and imprisonment for knowing violations.

Signature of Trained Individual: _____

Date: _____

All stormwater pollution prevention BMP's shall be inspected and maintained as needed to ensure continued performance of their intended function during construction and shall continue until the entire site has been stabilized and a Notice of Termination has been issued. An inspection of the project site must be completed by the end of the next business day following each measurable (½ inch or more) storm event. If there are no measurable storm events within a given week, the site should be inspected at least once in that week. Maintenance and repair shall be completed promptly in accordance with the accepted site plans. This log shall be kept as a permanent record and must be made available to the local municipality, in an organized fashion, within forty-eight (48) hours of a request.

ITEM	YES	NO	n/a
Procedural Items			
1. Is the Rule 5 NOI, contact information, and location of construction plans & SWPPP posted at the entrance?			
Tracking Controls			
2. Is a construction entrance installed per plan and functioning properly at all approved access points?			
3. Are construction staging & parking areas restricted to stabilized areas designated on the plans?			
4. Are public and private streets clean of sediment, debris and mud?			
Materials Management			
5. Is a designated concrete - mortar - paint washout area properly installed - clearly marked - stable access - being utilized and maintained? Is it located away from swales, inlets, or other stormwater conveyances?			
6. Are fuel tanks and other hazardous materials safely stored and protected? Are all such materials located on stable surface away from swales, inlets, or other stormwater conveyances?			
7. Are portable toilets placed behind the curb, anchored, and located away from swales, inlets, or other stormwater conveyances?			
8. Is spill response equipment on-site and easily accessible?			
9. Are all chemical storage areas and equipment being properly managed and free of leaks and or spills?			

Materials Management (cont.)		YES	NO	n/a
10.	Are temporary soil stockpiles in approved areas & properly protected?			
11.	Is solid waste properly contained & a stable access provided to the storage & pickup area?			
Perimeter Controls				
12.	Has all silt fence been installed properly and being maintained? (entrenched - upright - fabric not torn - terminated to higher ground - properly joined at ends)			
13.	Are other perimeter protections in place and functioning properly? (have capacity - are cleaned out)			
Flow Controls				
14.	Are practices installed and effective where storm water leaves the site?			
15.	Are all stormwater discharge points (outfalls) adequately stabilized, free of erosion and sediment transport?			
16.	Are check dams, sediment basins & traps installed according to plan and properly maintained?			
17.	Have swales and ditches been stabilized or protected?			
18.	Are diversion swales, berms and/or waterbars installed to plan & protected?			
Dewatering and Inlet Protection				
19.	Do dewatering operations have a protected intake and outlet and stabilized discharge point?			
20.	Are all dewatering practices functioning properly and discharging clear water? (dewatering bag - wellpoint - skimmer - scour pad)			
21.	Is inlet protection installed properly on all inlets & being maintained? (properly secured - overflow functional - clean)			
Site Stabilization				
22.	Has temporary stabilization of unworked/dormant ground been implemented? (15 day rule)			
23.	Is permanent stabilization implemented as final grading is completed?			
24.	Are permanent flow channels, swales, pond banks, and slopes greater than 3:1 erosion free and have seed and erosion blanket installed upon completion per plan?			
25.	Are dust control measures being implemented as needed?			
Post-Construction BMP / Water Quality unit, device or feature				
26.	Is the Post-Construction water quality device or feature adequately protected from construction phase contamination?			

If you answered "no" to any of the above questions, utilize the attached Corrective Action Log to describe appropriate corrective action(s) which must be taken to remedy the problem and log when the corrective action(s) are completed.

Overall Site Evaluation

27. | Has sediment left the site? (If YES, ensure that the appropriate section above is properly marked and Corrective Actions are identified and completed)

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Corrective Action Log

Item# from pgs 1-2	Location	Correction Needed	Date Completed	Initials	Notes

Utilize additional pages as needed.

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Name	Date modified	Type	Size
IMG_20210422_113225	4/22/2021 11:32 AM	JPG File	3,108 Ki
IMG_20210422_113233	4/22/2021 11:32 AM	JPG File	6,847 Ki
IMG_20210422_113308	4/22/2021 11:33 AM	JPG File	2,806 Ki
IMG_20210422_113450	4/22/2021 11:34 AM	JPG File	4,651 Ki
IMG_20210422_113459	4/22/2021 11:34 AM	JPG File	4,070 Ki
IMG_20210422_113516	4/22/2021 11:35 AM	JPG File	3,905 Ki
IMG_20210422_113611	4/22/2021 11:36 AM	JPG File	3,678 Ki
IMG_20210422_113612	4/22/2021 11:36 AM	JPG File	4,611 Ki
IMG_20210422_113652	4/22/2021 11:36 AM	JPG File	5,961 Ki
IMG_20210422_113739	4/22/2021 11:37 AM	JPG File	3,036 Ki
IMG_20210422_113752	4/22/2021 11:37 AM	JPG File	6,131 Ki
IMG_20210422_113855	4/22/2021 11:38 AM	JPG File	3,738 Ki
IMG_20210422_113943	4/22/2021 11:39 AM	JPG File	4,340 Ki
IMG_20210422_113956	4/22/2021 11:39 AM	JPG File	3,775 Ki
IMG_20210422_114046	4/22/2021 11:40 AM	JPG File	2,986 Ki
IMG_20210422_114052	4/22/2021 11:40 AM	JPG File	2,361 Ki
IMG_20210422_114059	4/22/2021 11:40 AM	JPG File	2,717 Ki
IMG_20210422_114138	4/22/2021 11:41 AM	JPG File	6,597 Ki
IMG_20210422_114150	4/22/2021 11:41 AM	JPG File	5,031 Ki
IMG_20210422_114216	4/22/2021 11:42 AM	JPG File	6,587 Ki
IMG_20210422_135721	4/22/2021 1:57 PM	JPG File	8,693 Ki
IMG_20210422_135849	4/22/2021 1:58 PM	JPG File	9,736 Ki
IMG_20210422_135857	4/22/2021 1:58 PM	JPG File	8,864 Ki
IMG_20210422_135859	4/22/2021 1:58 PM	JPG File	8,842 Ki
IMG_20210422_135904	4/22/2021 1:59 PM	JPG File	8,979 Ki
IMG_20210422_135918	4/22/2021 1:59 PM	JPG File	7,772 Ki
IMG_20210422_135925	4/22/2021 1:59 PM	JPG File	7,708 Ki
IMG_20210422_135951	4/22/2021 1:59 PM	JPG File	6,628 Ki

Slide 7

MA3 I added just a little levity in your comments about looking at pictures that were 6 months old...hike, run, whatever you want to make it clear that you can get distracted, too...

Mclver, Ann, 9/9/2021

How Can Tech Help?

What Is This Tech We're Using?

- Utilizing an application called Wildnote
- Application consists of a web interface designed to be used in conjunction with a limited mobile version while in the field
- The mobile app can be used on a phone or tablet (iPhone or Android)

About Wildnote

- Wildnote is a digital platform to seamlessly collect and report environmental data, eliminating the need for time-consuming traditional paperwork.
- Wildnote development team selected to participate in the inaugural Heritage Group TechStars incubator in 2019
- The TechStar program goal: incubate disruptive technologies and connect entrepreneurs with researchers and industry leaders
- Renee Punzi, Strategy and Operations
 - renee@wildnoteapp.com
 - 805-441-6549
- Jeff Erramouspe, Chief Revenue Officer
 - jeff@wildnoteapp.com

What Regulatory Programs Are We Using Wildnote to Support?

- Storm Water Pollution Prevention: Erosion Control (SWPP:EC)
- Industrial Pretreatment Program (IPP) facility compliance inspections
- IC Engine Records and Inspections for Subpart ZZZZ

Eliminate Paperwork

- No more loose sheets that can be lost; redundancy in record retention
- Reduced issues of illegibility due to handwriting, mud, water
- Inspectors will always have most up to date versions of forms
- Fast turn around time, no need to ask inspector for sheets 1-3 months after the fact
- Easy(ier) to search for sites, issues, resolutions
- Reports automatically spit out in choice of file formats (word, excel, PDF, other)
- Allows decentralization, aids in remote work

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Erosion Control: WR-Merged

SWPPP Inspection Report - Citizens Energy v1.4

Project	Erosion Control: WR-Merged
ID	173632
Survey Date	09/06/2021
User	Nathan Wright
Site Name	FC-01
Address/Intersection	10th/11th and Indiana
Inspector Name	NW
Inspection Time:	11:36 AM
Reason(s) for inspection:	Weekly Inspection
Are there any SWPPP concerns identified during this inspection?	No
Are there are changes to the site that require a change to the inspection protocol?	No
Inspector's Signature	

Survey Form SWPPP Inspection Report - Citizens Energy v1.4

Survey Date 09/07/2021

Survey Status i
Please select a status...

Site Name Select an Option

Address/Intersection FC-01

Inspector Name WR-01

Inspection Time: WR-02

Reason(s) for Inspection: WR-03

SWPPP concerns identified during this inspection? WR-04

Are there are changes to the site that require a change to the inspection protocol? WR-05

Inspector's Signature No
 Yes

Inspector's Signature No file chosen

- WR-Launch
- WR-Retrieval
- WR-Vent

Support Coordination Among Inspectors

- Currently have 23 sites being inspected
- Some sites inspected at least weekly; others done biweekly
- Split between 2 inspectors (plus a third for coverage)
- Complete list of sites in your fingertips -- reduced chance to miss one.
- Can't have the wrong form for the wrong site with you
- Always have copies of the most recent inspection reports with you
- Can see what sites have been inspected already and by whom

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Project Location	Site Name ^	Address/Intersectio	Inspector Name	Inspection Time:	Reason(s) f Inspection:
WR-02	WR-02	252 University Blvd.	NW	10:53 PM	Weekly Inspector
WR-02	WR-02	252 University Blvd.	NW	11:29 AM	Weekly Inspector
WR-02	WR-02	252 University Blvd.	NW	11:27 AM	Weekly Inspector
WR-02	WR-02	252 University Blvd.	Parsons	09:29 AM	Weekly Inspector
WR-02	WR-02	252 University Blvd.	Nathaniel Berg	01:29 PM	Measurat Storm Eve
WR-02	WR-02	252 University Blvd.	Nathaniel Berg	11:29 AM	Weekly Inspector
WR-03	WR-03	305 N Harding St.	NW	01:09 PM	Weekly Inspector

Survey Date v	User	Site (if applicable)	Created	Updated
08/31/2021	Nathaniel R Berg	WR-Launch	08/31/2021 04:21 PM PDT	09/02/202 12:22 PM PDT
08/31/2021	Nathaniel R Berg	WR-04	08/31/2021 04:21 PM PDT	09/02/202 12:22 PM PDT
08/31/2021	Nathaniel R Berg	WR-03	08/31/2021 04:21 PM PDT	09/02/202 12:22 PM PDT
08/31/2021	Nathaniel R Berg	WR-02	08/31/2021 04:21 PM PDT	09/02/202 12:22 PM PDT
08/31/2021	Catherine Parsons	WR-Retrieval	08/31/2021 09:58 AM PDT	09/02/202 12:22 PM PDT
08/26/2021	Nathaniel R Berg	WR-01	08/31/2021 09:30 AM PDT	09/02/202 01:02 PM PDT

Easy Photo Management

- Generating ~200-300 pictures per inspection instance
- No longer need to transfer photos from camera/phone/tablet to pc via cable
- Photos automatically organized by project, site, date. Searchable by the same.
- Captions can be added, and then searched by.
- No longer need rename photos on your pc.
- Biggest win is that photos are embedded within your survey/form/log entry. No more scratching head wondering where photo xyz is or what the context is 6 months later

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Issue Number

Date Identified: 06/14/2021

Describe Concern: -Silt fence down by site entrance

Suggested Corrective Action(s): due to the presence of silt fence outside the perimeter fence, this silt fence section can be safely removed.

Photo(s) of issue:



1624043553163.jpg | download file

Photo description

Photo geolocation data
Coordinates: 39.797165, -86.1712
Speed: 0.0 m/s
Heading: 205.360001 degrees
Altitude: 267.4 m
Accuracy: 1.5 m

Photo sort order
1

Add the unique number assigned to this concern in the photo caption.


Has this issue been resolved? No

DOCUMENTS VIDEOS

5 Next > Last >

RENAME ALL PHOTOS DOWNLOAD ALL PHOTOS

Search By: Caption Site



Report - Citizens Energy
1/31/21
0229437.jpg

SWPPP Inspection Report - Citizens Energy
08/26/21
1630427400250.jpg

SWPPP Inspection Report - Citizens Energy
08/26/21
1630427388482.jpg

Improve Tracking, Open and Resolved Issues

- Able to sort through all your reports to see what issues are open and what has been resolved
- Survey responses can be flagged based on chosen criteria and further tracked
- Auto generation a location on a preset map via GPS picture data

Industrial Pretreatment Inspections

- Wildnote fixes several issues
 - If issues are observed on site, photos can be taken and added directly to the inspection form.
 - Wildnote will flag and can send email reminders of any non-compliance observed while on site.
 - Cleaner documentation and forms are immediately uploaded to the server.
- Easier documentation
 - Past inspections were done on pen and paper, then scanned, and saved as a pdf to our shared drive
- More fluidity
 - Any inspector can easily pull up the past inspection form and know exactly what issues were observed during previous inspection.

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IPP Inspection Report- Citizens Energy Group 1

Project	IPP Inspection Summary
ID	176033
Survey Date	08/18/2021
User	Beth Noel
Name of Industry?	2719 N Emerson Ave, Indianapolis, IN 46218, United States
Inspection Type/Purpose	<input type="checkbox"/> Complaint <input type="checkbox"/> Enforcement <input type="checkbox"/> Follow-Up <input type="checkbox"/> New Company <input type="checkbox"/> Permit Renewal <input checked="" type="checkbox"/> Scheduled <input type="checkbox"/> Spill/Slug <input type="checkbox"/> Survey <input type="checkbox"/> Unscheduled
Name of Inspector(s)	Beth Noel
Last Inspection Date	08/18/2021
Last Inspection performed by whom?	Beth Noel
Did the previous inspection identify any deficiencies that the industrial user was required to correct?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
List all observed noncompliance issues and any corrective action that has been taken or is planned.	None
Industrial Representative	Eli Russell

How often is the production area cleaned?	Daily/weekly as needed rinse into pits
What chemicals are used in the cleaning of the production area?	No chemicals, just water rinse and sweep
Is the wastewater generated from cleaning the production area discharged to the POTW?	<input type="checkbox"/> N/A <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes
Attach a schematic description of the production process(es) at the facility.	None
Water Source(s):	municipal
Water Usage:	165000
Is water consumption balanced with wastewater production?	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes
Explain:	
Wastestream flow(s) discharged to the POTW	165,000 gpm
Production process(es)	165,000
Contact Cooling Water	
Boiler blowdown/makeup	Goes to waste treatment
Evaporation (loss)	
Non-contact cooling water	
Lawn maintenance/Irrigation (loss)	
Are there any diversion meters in use?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
Sanitary	200
Wastewater hauled offsite	US Ecology/Covanta
Other	Covanta
Sanitary	200
Process:	165000

Considerable Flexibility

- Wildnote has a standard survey form library
- Survey forms can be designed, customized, and iterated on to make it simple to make process improvements
- Documentation is comprehensive and readily available

Admin / Survey Forms / Edit Survey Form Layout - SWPPP Inspection Report - Citizens Energy v1.5 [Test]

SURVEY FORM LAYOUT | SURVEY FORM DETAILS

EXPAND QUESTIONS

Label	Question Type	Sort Order	ID#	Parent ID#	Rules
Survey Date	Date				Survey Date is automatically added and cannot be moved
Site Name	Location single select with search	1	#938678		Repeaters: Rules show if Address/Intersection... (#938679) is equal to
Address/Intersection	Text, single line	2	#938679		
Rain Gauges	Text, single line	3	#938700		default to RG-To infinity and beyond if Site Name (#938678) is equal to Evl Latr
Inspector Name	Text, single line	4	#938680		
Inspection Time	Time	5	#938681		
Reason(s) for Inspection	Single select with search	6	#938682		

Edit Survey

You can add questions, re-order them and place questions inside sections and repeaters.

- ✓ Repeaters and Sections. All questions that belong to a repeater or section have a parent relationship with the repeater or section. To add a question to a repeater drag the boxes to the repeater or section.
- ✓ Hide and Show Rules. If you would like to dynamically display a question based on answers to another question you can test this out via the Hide and Show Rules. You must create the question, save it and edit it to access the Hide and Show Rules. You setup the Hide and Show Rules on the question you want to hide or show.

Question Type Glossary

Basic

- Check box Single check box for true or false.
- Counter Incremental counter with button click. Great for inventories.
- Date Input our date.
- Number Input numbers, integers or decimals.
- Text, multi-line Multi-line text box. Good for very long descriptions.
- Text, single line Single line text box.
- Time Input time.

Design

Multi-line text box. Great for long descriptions.

Question Text

Describe Concern:

Question Helper Text

API Column Name

describe_concern

Required

Default Answer

Flagged Answers

Default Answer Rules + ADD RULE

Hide and Show Rules + ADD RULE

Future Opportunities

- Expanding our usage to SPCC and other general inspections/compliance
- Developing form to support calibration records for plant Lab equipment
- Exploring CROMERR-compliant solutions for electronic report submittals from IPP permit holders with Wildnote development team

SWPP: EC Challenges

- Difficulty managing paperwork (Inspection sheets)
- Difficulty coordinating multiple inspectors
- Difficulty managing photos from inspections
- Difficulty tracking open issues and resolutions

Limitations

- Wildnote is a relatively new application, with a smaller staff. We've had some bugs come up at an increased rate in the past month. Wildnote has been working with us and has displayed solid communication in getting them resolved.

Environmental Stewardship

Utilizing Technology to Streamline Compliance

Thank you for your time genteel-beings!

QUESTIONS OR CONCERNS?

You can reach us at:

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