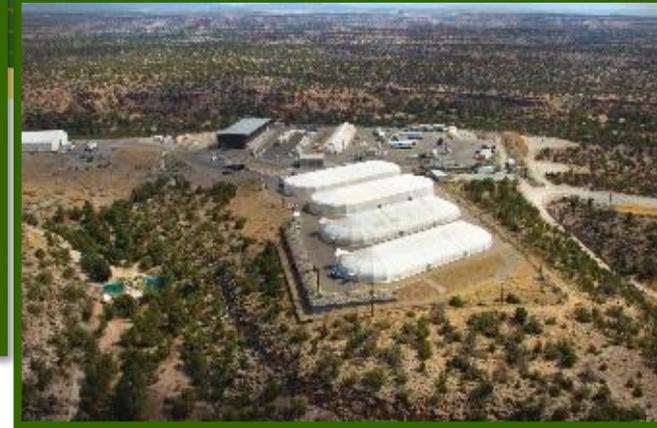




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MANAGEMENT**



Overview of Maintenance Connection Software

*Shannon Smith, Environmental Remediation
Water Programs Technical Lead*



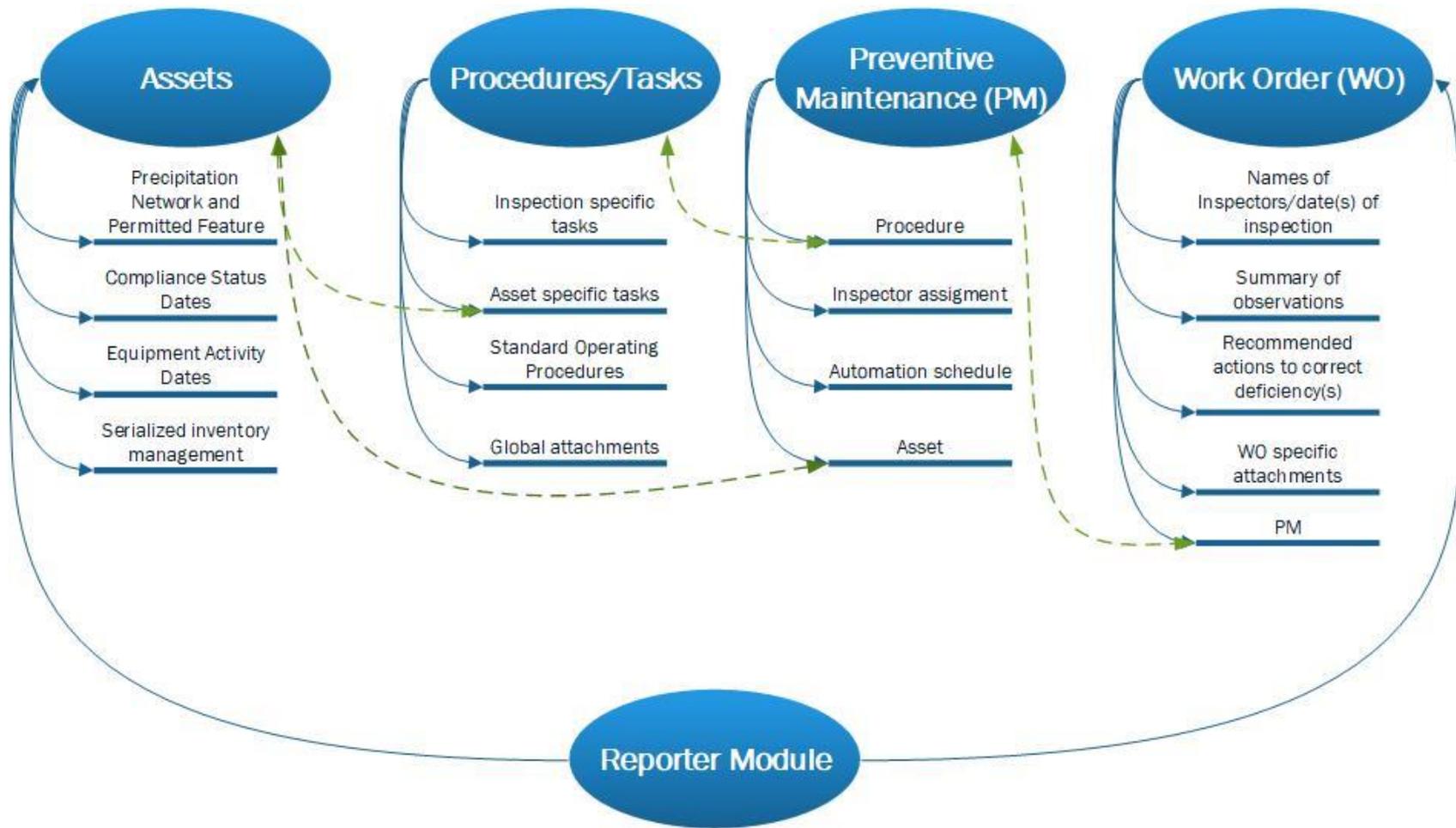
ENVIRONMENTAL MANAGEMENT
SAFETY ♦ PERFORMANCE ♦ CLEANUP ♦ CLOSURE





- Computerize maintenance management system the IP Pollution Prevention Team (PPT) has been using since 2009 to manage non-analytical inspection and maintenance data for the IP, including:
 - Workflow management- Inspection forms are generated on automated schedules for requirement drivers. Electronic data collection capability.
 - Asset history management – tracks all field activities at Site Monitoring Areas (SMAs):
 - Site inspection history
 - Best Management Practice (BMP) control measure changes
 - Monitoring inspection history
- Compliance Reports
 - Data exports presented in the IP Annual Status Report and the Update to the Site Discharge Pollution Prevention Plan
 - Data exports are combined with analytical monitoring data from Environmental Information Management (EIM) System in the Compliance Status Report







- Process Control Management
 - Permitted facility/site inspection tracking
 - Best Management Practice (BMP) installation, inspection, and maintenance
 - Sampling inspection tracking
 - Change control notification
 - Electronic data collection capability
- Compliance Data Management
 - Site and sampling locations are synchronized with EIM database for ease of inspection and analytical data reporting
 - Status tracking BMPs/sampling locations and other permit defined metrics
 - Corrective action maintenance and closeout tracking
- Inventory Management
 - Serialized equipment status tracking
 - Maintenance/repair history





- Preventive maintenance (PM) is used to automate work order (WO) generation for:
 - Site inspections required by Permit Parts I.G.1, I.G.2, and I.1:
 - Erosion inspection and re-evaluation
 - Post-storm inspection
 - Construction activity associated with site remediation
 - Significant events
 - Field activities associated with Permit Part I.D:
 - Sampling equipment installation, activation, deactivation, removal
 - Sampling inspection and sample retrieval
 - Precipitation network equipment activation, inspection, and deactivation
- WOs are generated on ad-hoc basis for:
 - Follow up activities for control measure maintenance/repair per Permit Part I.B.2
 - Change control notification (CCN) process updating compliance status and corrective action milestones between maintenance connection and EIM





Reporter Module

- Contains base reports and customizable report templates
- Enables user to query data from any module in
- Automated notifications



Storm Rain Event Inspection History
Printed: 10/9/2020 12:37 PM

Permitted Feature	SMA	PM Name	Project #	Project Name	Work Order #	Inspection Date
R004						
R004 > R-SMA 2.05						
R004 > R-SMA 2.05 > >.25 Rain Event BMP Inspection						
	P-BMP-665			IP Rain Event on October 20, 2010 at RG-NCOM	BMP-10829	10/28/2010 3:33:00 PM
	P-BMP-1279			IP Rain Event on August 21, 2011 at RG-NCOM	BMP-17327	8/25/2011 1:14:00 PM
	P-BMP-2060			IP Rain Event on August 3, 2012 at RG-NCOM	BMP-26275	8/20/2012 12:31:00 PM
	P-BMP-2270			IP Rain Event on Oct 12, 2012 at RG-NCOM	BMP-28600	10/23/2012 1:30:00 PM
	P-BMP-2417			IP Rain Event on Jan 26, 2013 @ RG-NCOM wntr netwk	BMP-30481	2/5/2013 11:58:00 AM
	P-BMP-2565			IP Rain Event on June 14, 2013 at RG-NCOM	BMP-32770	6/20/2013 10:53:00 AM
	P-BMP-2570			IP Rain Event on June 30, 2013 at RG-NCOM	BMP-32984	7/16/2013 2:10:00 PM
	P-BMP-2781			IP Rain Event on August 20, 2013 at RG-NCOM	BMP-34968	8/27/2013 3:27:00 PM
	P-BMP-2851			IP Rain Event on September 12, 2013 at RG-NCOM	BMP-35486	9/24/2013 4:10:00 PM
	P-BMP-3113			IP Rain Event on May 23, 2014 at RG-NCOM	BMP-38659	6/3/2014 2:30:00 PM
	P-BMP-3222			IP Rain Event on July 7, 2014 at RG-NCOM	BMP-39753	7/17/2014 1:54:00 PM
	P-BMP-3320			IP Rain Event on July 26, 2014 at NCOM	BMP-41008	8/6/2014 4:22:00 PM
	P-BMP-3961			IP Rain Event on June 26, 2015 at RG-NCOM	BMP-46925	7/8/2015 5:26:00 PM
	P-BMP-4085			IP Rain Event on July 19, 2015 at RG-NCOM	BMP-48233	7/22/2015 12:49:00 PM
	P-BMP-4143			IP Rain Event on July 29, 2015 at RG-NCOM	BMP-48798	7/31/2015 1:56:00 PM
	P-BMP-4954			IP Rain Event on July 15, 2016 at RG-NCOM	BMP-56254	7/19/2016 10:00:00 AM
	P-BMP-5033			IP Rain Event on August 3, 2016 at RG-NCOM	BMP-57230	8/11/2016 8:15:00 AM
	P-BMP-5141			IP Rain Event on August 27, 2016 at RG-NCOM	BMP-58684	8/30/2016 9:30:00 AM
	P-BMP-5161			IP Rain Event on September 3, 2016 at RG-NCOM	BMP-58905	9/8/2016 9:15:00 AM
	P-BMP-5771			IP Rain Event on July 29, 2017 at RG-NCOM	BMP-64204	8/1/2017 9:15:00 AM
	P-BMP-5792			IP Rain Event on August 23, 2017	BMP-65081	8/31/2017 9:55:00 AM
	P-BMP-5843			IP Rain Event on May 21, 2018	BMP-67913	5/23/2018 1:30:00 PM
	P-BMP-5879			IP Rain Event on August 2, 2018	BMP-69442	8/6/2018 10:34:00 AM
	P-BMP-5886			IP Rain Event on August 9, 2018	BMP-69656	8/13/2018 9:51:00 AM
	P-BMP-5890			IP Rain Event on August 15, 2018	BMP-70209	8/28/2018 9:52:00 AM
	P-BMP-5924			IP Rain Event on March 12, 2019	BMP-72630	3/20/2019 2:28:00 PM
	P-BMP-5955			IP Rain Event on July 7, 2019	BMP-74588	7/9/2019 9:29:00 AM
	P-BMP-5960			IP Rain Event on July 25, 2019	BMP-75255	7/29/2019 9:15:00 AM
	P-BMP-5965			IP Rain Event on August 5, 2019	BMP-75893	8/8/2019 10:55:00 AM
	P-BMP-5975			IP Rain event on October 3, 2019	BMP-77205	10/7/2019 2:28:00 PM
	P-BMP-6022			IP Rain Event on July 5, 2020	BMP-80174	8/19/2020 9:52:00 AM

>.25 Rain Event BMP Inspection - 31 Total:





Asset Example

[New](#) [Open](#) [List](#) [Reports](#) [Dashboard](#) [Message Center \(0\)](#) [Home](#) [Global Search](#) [Log Off](#)

Assets
[Refresh](#) [Work Center Home](#) [Help](#)

Assets

Search

r-sma-2.05

- RG200.3
- RG203
- RG240
- RG245.5
- RG249.5
- RG253
- RG257
- RG262.4
- RG265
- RG267.4
- RG340
- RG-NCOM
- R001
- R002
- R004
- R-SMA-2
- R-SMA-2.05
- Established Vegetation (R00402040005)
- Juniper Bales (R00406030002)
- Juniper Bales (R00406030003)
- Mortar Impact Area (00-011(C))
- SS092702
- R-SMA-2.1
- RG-TA-06
- RG-TA-49
- RG-TA-53
- RG-TA-54
- MSGP TA 54
- Precipitation
- Regional Studies
- Sediment Sampling
- Special Environmental Projects
- Stock Rooms

R-SMA-2.05 (R-SMA-2.05)

[Details](#) [Meter](#) [Related Info](#) [PMs / Tasks](#) [Attach](#) [History](#)

Asset Info [Change Icon...](#)

Parent: R004

R004

Class: SMA Type: L

SMA Location

Asset ID: R-SMA-2.05

Name: R-SMA-2.05

[Details](#) [Model](#) [Costs](#) [Insurance](#) [Manage](#) [Other](#)

Model:

Serial #:

Rotating Part:

Tracked Tool:

Account: N3B Op Control

Sub Canyon: CAB

Vicinity: 1, R004-13-0006-08-R2.1

Watershed: LOS ALAMOS/PUEBL

Maintained By

Repair Center:

Warranty Info

Vendor:

Manufacturer:

Warranty Ends:

In-Service Sub-Status:
 Available for Service Requests

Address Info

Address:
 City:
 State:
 Zip:

Photo [Attach...](#) [Remove](#)

[Page 1](#) [Page 2](#) [User-Defined](#)

[Delete](#) [Generate](#) [Clone](#) [History](#) [Report](#)





R-SMA-2.05 (R-SMA-2.05) ☆ ↻ Refresh 🏠 Work Center Home 🔔 Help

📁 Details 📊 Meter 🔗 Related Info 📅 PMs / Tasks 📎 Attach 📄 History

📅 Preventive Maintenance 🔍 Tracked Tasks

Preventive Maintenance Cycle Start

Based on: ▼
PM Settings

Preventive Maintenance Schedules Add... Set Next... Remove

<input checked="" type="checkbox"/>	ID / Name	Frequency	Next Scheduled	Next Procedure	Enabled?
<input type="checkbox"/>	Annual Erosion Evaluation Annual Erosion Evaluation Last Work Order: WO #COMP-54426 targeted for 12/31/2017 The PM Schedule is Disabled (for all Assets) PM will not generate for this Asset	June 30 of every 1 year(s)	6/30/2017	N3B-SOP-ER-5002 AEI Annual Erosion Evaluation Inspection	<input checked="" type="checkbox"/>
<input type="checkbox"/>	RAIN EVENT >.25 Rain Event BMP Inspection Last Work Order: WO #BMP-80174 targeted for 7/19/2020	Every 1 meter 1 units and 0 meter 2 units	42	N3B-SOP-5002 CMI Post Storm Control Measures Inspection Form	<input checked="" type="checkbox"/>





Work Order BMP-80174

Ind Permit BMP Insp & Maint
Printed 10/9/2020 - 11:54 AM

Maintenance Details

Requested: 7/8/2020 10:06:00 AM Target: 7/19/2020
Procedure: Post Storm Control Priority/Type: Normal / Inspection
Measure Inspection Form (NSB-SQP-5002 CMI)
Last PM: 10/7/2019
Project: IP Rain Event on July 5, 2020 (P-BMP-6022)
Reason: IP Rain Event on July 5, 2020
Special Instructions: Route 1, R004-13-0006-08-R2.05-R5.

Tasks

Table with columns: #, Description, Mess., No, Yes. Rows include CONTROL MEASURE REVIEW, MAP REVIEW, and SMA and SITE REVIEW.

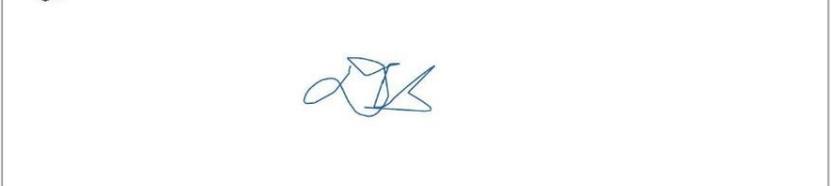
Labor

Table with columns: Labor, Work Date, Reg Hrs, OT Hrs, Other Hrs. Rows list staff: Cadillo-Briester, Danielle; Franco, Martha; Prince, Austin.

Labor Report

8/18/2020
Completed: 9:52:00 AM
Report: Unable to complete by target date due to COVID-19.

Images



Certification Statement of Authorization

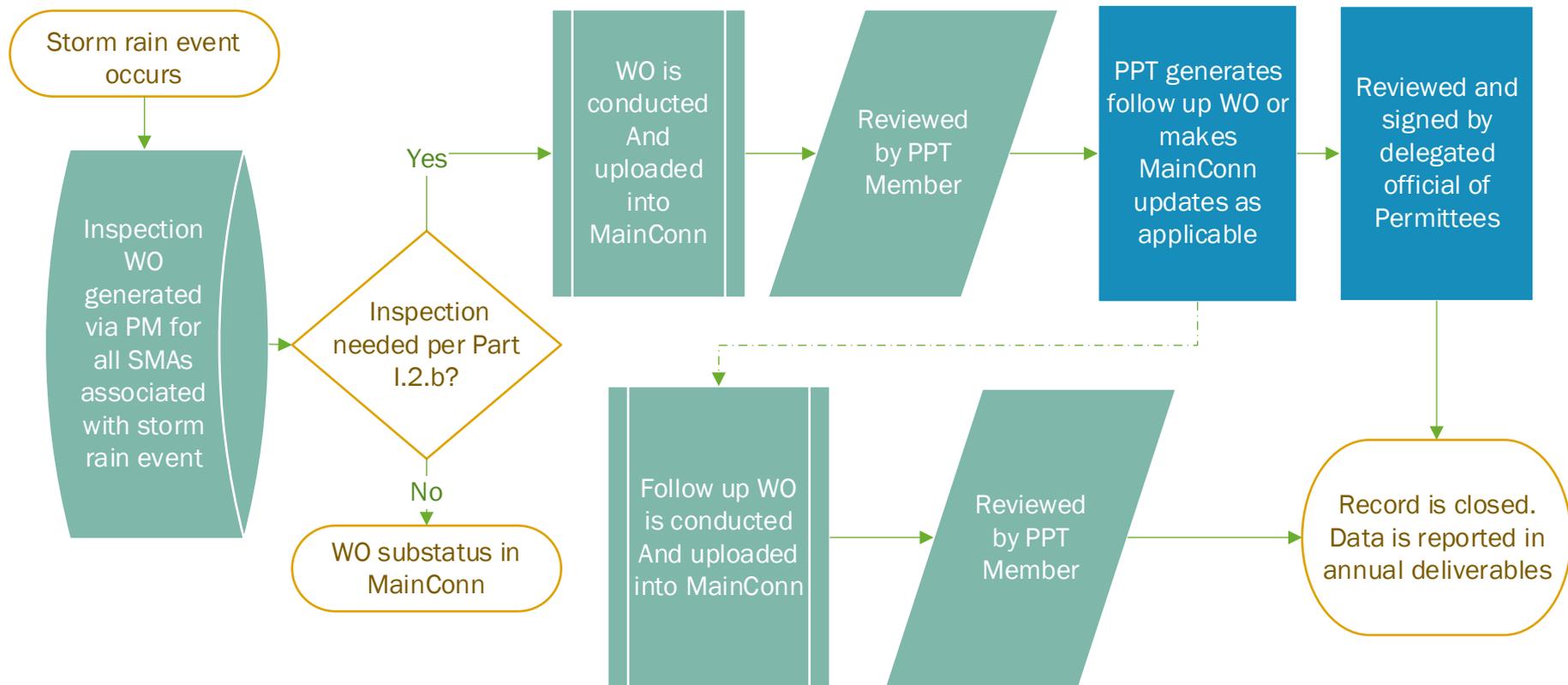
"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who managed the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment for knowing violations."

Name of Delegated Official of Permittees: Steve Veenis Z#: 109949
Date: Date on file. Delegated Official Signature: Signature on File

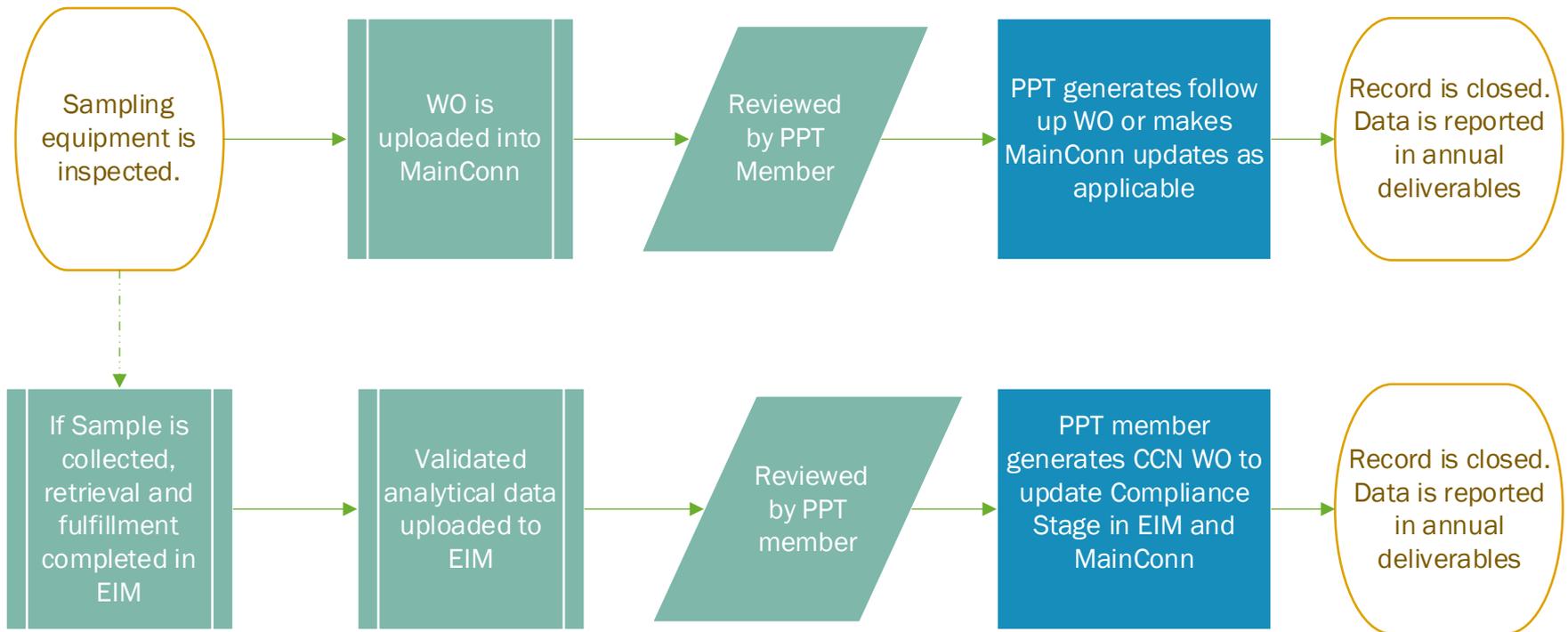




- Post-storm rain event inspection:



- Monitoring equipment is inspected when triggering storm events occur or at a minimum of every 30 days





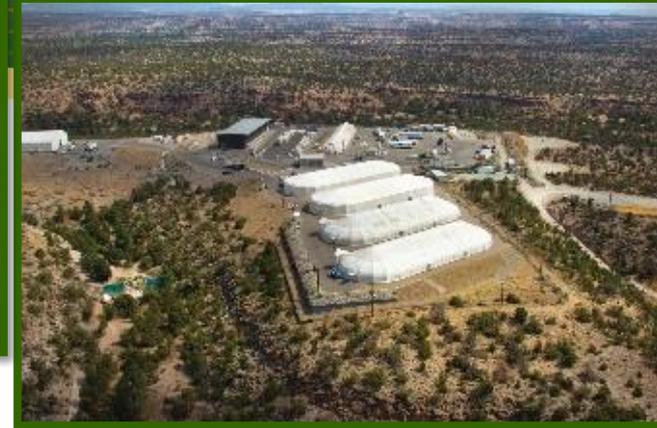
- Metrics to date:
 - >12,000 permit-defined inspections of sites and control measures
 - >13,000 monitoring equipment inspections
 - > 10 years of monitoring equipment deployment, operation, and maintenance history
 - > 2,000 change control notifications tracking:
 - Routine control measure changes (e.g. retirement, replacement, install)
 - Enhanced control measure installation and certification
 - Changes in corrective action status in Maintenance Connection and EIM
 - Changes in SMA (e.g. site boundary changes, monitoring location moves, SMA drainage area changes, land ownership changes, structural changes)
 - Installation, certification, maintenance, and retirement history of ~4,000 control measures
 - Ongoing process improvements with electronic data collection application





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Questions



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Produced by Los Alamos Legacy Cleanup Contractor, N3B Los Alamos
on behalf of DOE's Environmental Management Los Alamos Field Office

