

# The Financial Factors of Environmental & Safety

By Ryan Janoch





# Ryan Janoch

Co-Founder of Mapistry

## Vision

Mapistry's vision is a world in which every **organization's environmental and safety program** are a source of **employee pride, customer trust, and investor confidence.**

## Mission

Fuel a **sustainable economy**  
by empowering organizations to make  
**intelligent environmental and safety**  
**decisions**



BUILDING MATERIALS COFFEE AND COMPLIANCE EHS LEADERSHIP ENVIRONMENTAL COMPLIANCE RISK ENVIRONMENTAL EXCELLENCE

## Why Environmental Management Matters for Industry: Kacy Vance, CalPortland

By Sarah White

Last week, we had the chance to sit down with Kacy Vance, the Environmental Manager at CalPortland. Kacy shared her career path in environmental management and consulting, and discussed the top environmental compliance challenges that pushed her team to pilot a digital initiative with Mapistry.

COFFEE AND COMPLIANCE EHS LEADERSHIP ENVIRONMENTAL COMPLIANCE RISK ENVIRONMENTAL EXCELLENCE

## An EHS Journey: moving from Paper to Digital with Kyle Beckman and Sonya Price, MMC Materials

By Sarah White

On this week's Coffee & Compliance, we had the opportunity to sit with both Kyle Beckman, Safety and Environmental Manager, and Sonya Price, Area Safety Manager, from MMC Materials. They discussed their journey away from a paper-based EHS program and shared the improvements they have seen in the last year after adopting digital tools.

For so long, paper documents presented many challenges for the MMC team, including issues of liability, time efficiency, and thoroughness. The goal of digitization was to provide better tools for all inspectors to be completed on time and create an increased visibility into what was happening on the ground level of each facility.

EHS LEADERSHIP ENVIRONMENTAL EXCELLENCE

## Lehigh Hanson Advances Environmental Mapping with Drone Imagery

By Lauren Alexander

Lehigh Hanson, one of the leading producers of cement and aggregates in North America, recently integrated the use of their drone imagery capabilities to take their environmental compliance processes to new heights. Now, their teams can remotely capture site conditions and collect field data for their compliance documents and maps from the office - all while limiting travel to remote quarry locations. They had been using their drone for operational data, such as stockpile volumes, and were able to leverage the same resource for their environmental teams too.

To stay compliant with permit requirements and growing environmental compliance demands, building materials companies, like most in industry, are required to keep an up-to-date and accurate record of their facility maps and operations data. Maintaining this can be both tedious and time-consuming, often requiring staff to travel to multiple facility locations and spend hours capturing current equipment locations, industrial activity boundaries, and site conditions.

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### ON-DEMAND WEBINAR

The New Age of EHS Technology: How U.S. Concrete is Advancing it's Environmental and Safety Operations

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BUILDING MATERIALS ENVIRONMENTAL EXCELLENCE STORMWATER COMPLIANCE

## Oldcastle Infrastructure Drives Innovation with its Environmental Compliance Program

By Lauren Alexander

As one of North America's largest building materials companies, Oldcastle Infrastructure is always looking for new and innovative solutions to solve operational and environmental challenges. In an increasingly complex world of environmental compliance, they partnered with Mapistry to embrace digital transformation as a way to make staff more efficient, lower risk and decrease operational costs.

BUILDING MATERIALS COFFEE AND COMPLIANCE EHS LEADERSHIP ENVIRONMENTAL COMPLIANCE RISK ENVIRONMENTAL EXCELLENCE

## Environmental Compliance Challenges in Concrete Manufacturing: Josh Neff, Folsom Ready Mix

By Sarah White

On our latest Coffee and Compliance, we had the chance to hear from Josh Neff, the VP of Operations at Folsom Ready Mix. As someone who built his career within the industry, Josh shared how his different experiences and roles exposed him to many types of business functions. Key lessons, like being prepared, staying on top of documentation, and being aware of changes to laws and regulations were learned as a result of Josh's experience. This perspective has provided Josh with a greater understanding of how things work operationally, and where adjustments can be made to improve processes.

# Trusted by

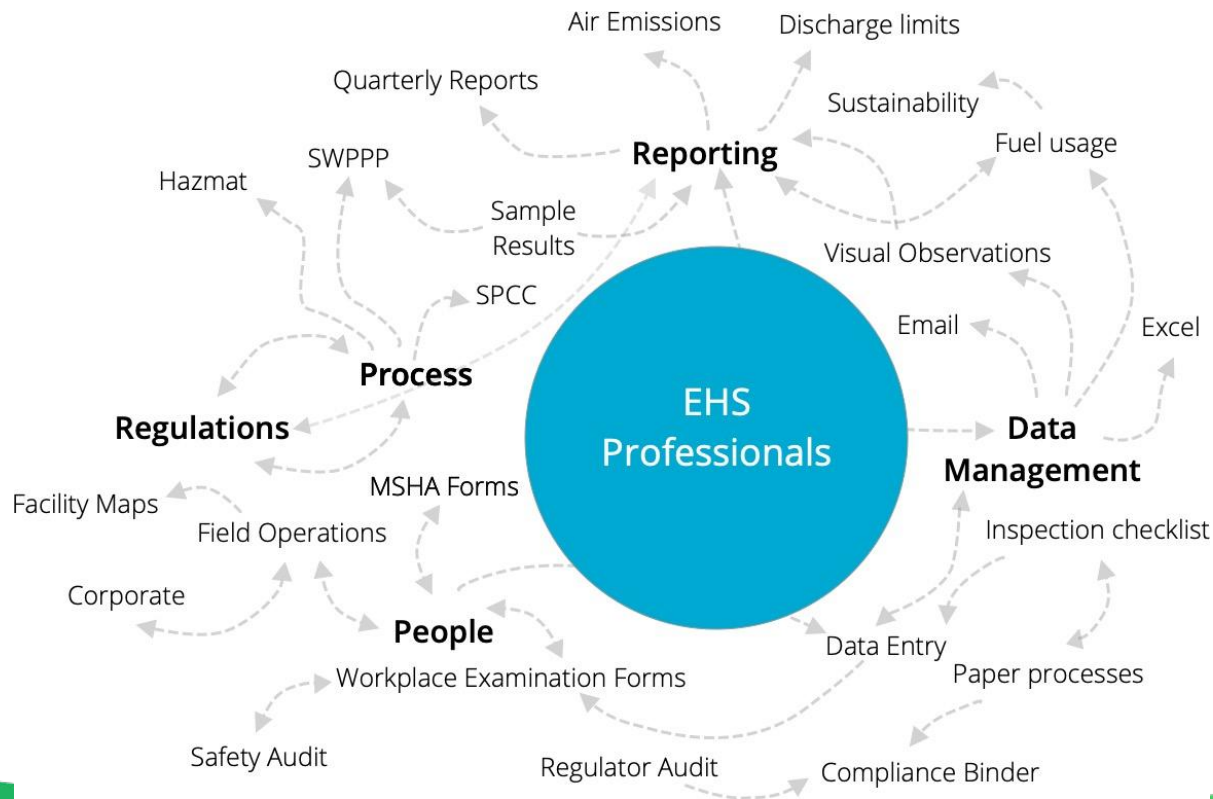


## Problem

The **speed, complexity and consequences** of environmental and safety requirements has **outpaced the bandwidth of staff**

Traditional manual EHS workflows are  
not sustainable

# Traditional manual EHS workflows are chaotic.



# Environmental & safety decisions are complicated!

*They are multi-dimensional with many soft costs and ambiguous risks*

# In the past....

Compliance programs required less resources and less specialized skills to manage effectively



## **Paper Worked**

Information could reside locally in files, it did not have to be used frequently



## **Simpler Rules**

Regulations were easy enough for non-experts to comprehend



## **Minimal Oversight**

Internal and external oversight and enforcement was limited



# Today...

The speed, complexity and consequences of compliance is outpacing the bandwidth of compliance staff



## More Connected

There's a need to connect to people, data and documents in real-time



## More Complexity

Regulations are evolving quickly and drastically expanding in breadth and depth



## Sharp Consequences

Non-compliance has serious legal and financial consequences



# 2021 Trends We Were Tracking

- COVID Impact
- Public Data Impact
- Enforcement Initiatives
- ESG via Investors & SEC



***"You showed up on a bad day, it's never like this"***

*"Do I delay equipment upgrades another year?"*

*"Let's risk operating without a permit modification"*

***"It's the way we have always done it"***

*"We got an NOV"*

*"Should we hire an EHS Supervisor?"*

*"Our SPCC Plan hasn't been updated since the 90's, what is another year?"*

*"I can have the batch plant operator do it"*

*"They are in the binder"*

***"We can automate this!"***

*"Just hire a consultant"*

*"Our insurance premiums are what?"*

*"Let's just estimate the water usage rate for our Sustainability Report based on last year's numbers"*

*"Isn't that your job?"*

All of those statements have a financial factor and  
a financial decision behind them!

**What are the financial factors  
in environmental & safety that  
are used to make a decision?**

# Financial Factors

- “Core” Compliance – Upfront & Ongoing
- Regulatory & Citizen Enforcement – Penalties/Fines
- Investor Impact – Access to Capital
- Brand Reputation – A Valuable Marketing Asset
- Workforce – Hiring & Retention
- Shareholder Value



# Value Assessment Model

*A few of the components....weighting factors, amortization, localized labor costs, age of workers, age of equipment, insurance rates, interest rates, payback periods, distance to protected habitats, outstanding debt, corporate structure, distance from residences, permit fees, union status, number of plants, etc.*

# Factor #1 “Core” Compliance

# Baseline Cost of Compliance

*What is my cost to operate?*

- Permits “Right to Operate” (upfront & modifications)
- Human Capital (ongoing)
- Control Measures (Capital, O&M, & Replacement)
- Consultants (ongoing)
- Software (ongoing)





# Market Trends: Resource Constraints

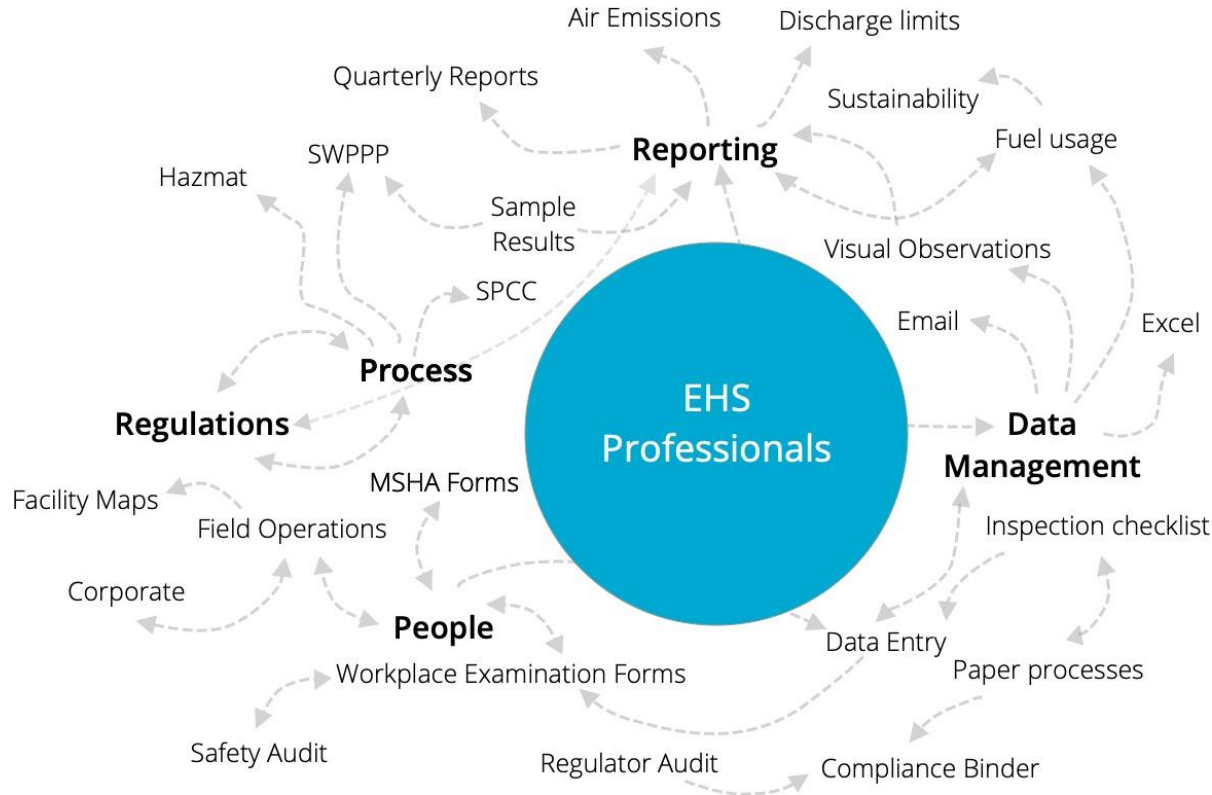
## Overcoming operations & environmental staff time demands

- **Staff Time Constraints**
  - Staff turnover and reduction
  - Rise of remote working conditions and “virtual” audits
- **Regulatory Complexity Accelerates**
  - Data reporting is a massive time investment, even when fully staffed
  - Lack technical expertise to interpret results and understand risk levels



An environmental manager fully loaded cost is  
\$172K to \$258K per year

# Traditional manual EHS workflows are chaotic.



# What is the cost to do an inspection?

- (Batch Plant Manager) Find the form
- (Batch Plant Manager) Walk the site & fill out the form
- (Batch Plant Manager) Scan the form
- (Batch Plant Manager) Send the email with the scanned form
- (Batch Plant Manager) Tell the shop assistant what needs to be fixed
- (Batch Plant Manager) Document the fix
- (EHS Manager) Calls about the form....she never got it
- (Batch Plant Manager) Resends the form
- (Inspector) Shows up, but the manager isn't there and no one about the "binder"
- (Assistant Operator) A new form is "pencil-whipped" showing they inspected yesterday
- (Inspector) is suspicious and wants to walk the site....the equipment is dusting
- (Inspector) Issues a NOV
- (Area Operations Manager, EHS Manager & Batch Plant Manager) PM has now turned into replacement

# Software vs Staff Time

- ✓ **Cut 1/3 of audit questions and up to 60 minutes per site audit**  
Lehigh Hanson - NAEM Conference & [Mapistry Summit conference presentation](#)
- ✓ **Up to 75% reduction in inspection time**  
No scanning forms, sending to corporate, driving back to the office, or emailing/calling about corrective actions
- ✓ **Saves 40 hours/site/year on air emissions reporting**  
Eliminated a week of manual data entry from paper logs into two spreadsheets for the annual report (Customer Confidential)
- ✓ **100% reduction in manual sample data entry**  
Import directly from the lab reports

# Factor #2 Regulatory & Citizen Enforcement

# Market Trends: Enforcement Readiness

## Stricter scrutiny of companies' compliance programs

- **Enforcement is on the Rise**
  - Biden Administration's focus on environmental justice
  - Enforcement Increase by EPA/DOJ
  - 2x OSHA Investigators
- **Growing need to be “Audit Ready”**
  - Prioritizing software to create visibility and accountability
  - Need to build and maintain an audit trail

[Home](#) » EPA Enforcement Policies Prioritize Environmental Justice And Embrace “NextGen” Compliance Tools

EPA Enforcement Policies Prioritize Environmental Justice and Embrace “NextGen” Compliance Tools



By Matthew Z. Leopold, Samuel L. Brown, P. Scott Burton, Todd S. Mikolop, Gregory R. Wall & Alexandra Hamilton on May 10, 2021

POSTED IN EPA



# Remote Enforcement

The world has gone digital, so will enforcement

## Expanded Use of Off-Site Compliance Monitoring by EPA and States

With the COVID-19 public health emergency, the EPA recognized that performing all the on-site inspections planned for FY 2020 would pose a number of challenges. To continue compliance assurance, EPA worked to increase the use of off-site compliance monitoring techniques and provided guidance on conducting and reporting these activities. In FY 2020, the EPA conducted and reported nearly 5,000 separate off-site compliance monitoring activities.

## Remote Video Partial Compliance Evaluations Workgroup

During the early months of the COVID-19 public health emergency, the EPA and most states were not able to safely conduct routine compliance inspections (i.e. on-site facility visits). In April 2020, the EPA established an EPA /State workgroup to explore ways to use remote video technology for our inspectors to conduct non-comprehensive reconnaissance observations to assess continuing compliance of regulated facility operations. These remote video partial compliance evaluations help the EPA or a state determine whether there are facilities whose conditions warrant a follow-up on-site inspection or an

health  
ates may  
overnment  
ncy is over.



Director's Office  
June 2020

## Overview of Ohio EPA Virtual Site Visits

Part of Ohio EPA's core mission is to ensure compliance with environmental laws and regulations. During the COVID-19 pandemic, we have been effectively working with virtual tools and technology.

As we optimize our use of various technology tools, the Agency is now exploring opportunities to use these tools in the field through virtual site visits (VSV). In the near term, our ability to expand our field presence with these tools will allow us to continue collecting important information from our regulated entities while also protecting against the potential spread of COVID-19. In the longer term, adding the use of virtual tools to the Agency's compliance toolkit, both from a compliance inspection and assistance standpoint, can help us reach even more facilities because of the efficiencies gained in reducing travel time, etc.

The Agency will pilot the use of VSVs for select categories of inspections (routine, single program, initial screening, non-enforcement related). We will be asking you to complete a survey after the VSV to help assess the effectiveness and improve the process.

This fact sheet provides guidance to help you learn which technology you will need and what you can expect during a VSV. The process itself will be very much like our normal inspection process.

### Opening Meeting

The first step in the process will be a pre-meeting conducted by Ohio EPA by phone/video conference. We will discuss all logistics to ensure a successful VSV. The actual inspection will be accomplished virtually, using a live streaming application in combination with photographs.

### Virtual Facility Walk-Through

During the VSV, you will walk the inspector through portions of the facility to identify all areas that would normally be evaluated on site. This type of evaluation will allow for a compliance/complaint evaluation inspection to occur without our inspectors entering your facility.

The use of virtual tools is not a substitute for the important in-person interactions needed during inspections and other field work and for effective engagement and outreach. However, the Agency is optimistic about the potential for expanding the use of these tools where they can be effective.

### More Information

If you have questions about Ohio EPA inspections, contact your local Ohio EPA district office or the Office of Compliance Assistance and Pollution Prevention (OCAPP) at (614) 644-3469 or (800) 329-7518 for free help. OCAPP is a non-regulatory office of Ohio EPA with a goal of helping businesses understand and comply with the environmental requirements. [Click here](#) for a map of Ohio EPA's district offices.



### Virtual Site Visit Tips

- Familiarize yourself with the media platform (ability to connect and stream video/photos) being used. You will need to download Teams or ensure that you are using Google Chrome or Microsoft Edge.
- What equipment do you need for the meeting (camera, phone, headset, earbuds, etc.)?
- Consider using a headset with a microphone if your facility is noisy.
- Speak clearly, mute your microphone and turn off your camera when it is not needed.
- Use the web camera in landscape mode versus portrait for most situations.
- When including multiple participants from different locations (supervisors, consultants, legal team, etc.), be aware of bandwidth issues that may affect video and audio quality.
- Update the facility diagram to help designate targeted focal points during the virtual inspection. Provide a copy to your inspector when scheduling the VSV.



## Baykeeper Patrols Take to the Sky

For 29 years, Baykeeper has used on-the-water boat patrols to monitor San Francisco Bay and look for pollution threats. This year, we're expanding our patrols to the sky, to find and stop more Bay pollution.

Baykeeper is partnering with volunteer pilots to patrol in small planes and with volunteer drone operators to patrol with drones. We're already finding new sources of contamination and collecting evidence to get more pollution stopped.

**With patrols by air, Baykeeper is finding new sources of contamination and collecting evidence to stop more Bay pollution.**

Almost immediately after launching our aerial

These tankers will leave a heavy oil that is almost spilled.

Using drone footage, tankers' path to accurate wildlife and sensitive areas. And with volunteer Conservation Flying, during the annual high

Baykeeper documents that are flooded during predict where Bay Area by sea level rise.

Your gifts are helping the water patrols with boosting our ability to go to San Francisco Bay.

April 23, 2019 INSIGHTS

# The Use of Drones in Environmental Compliance

Kelly Daly and Patrick Paul

Share this:



UCLA

Institute of the Environment & Sustainability

← BACK

As use cases for unmanned aircraft systems (UAS) whose connections to this headline on a routine basis of an emerging player in the ground, air, and waterway local and regional mapping resources and environment



## Drones change the way advocates protect the environment

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Choptank Riverkeeper Matt Pluta often uses his Mavic Pro to illustrate land and water issues for Shore Rivers. Bay Journal photo by Dave Harp

### UAV-Based Gas Sensor Systems Help Control Air Pollution From Ocean-Going Vessels

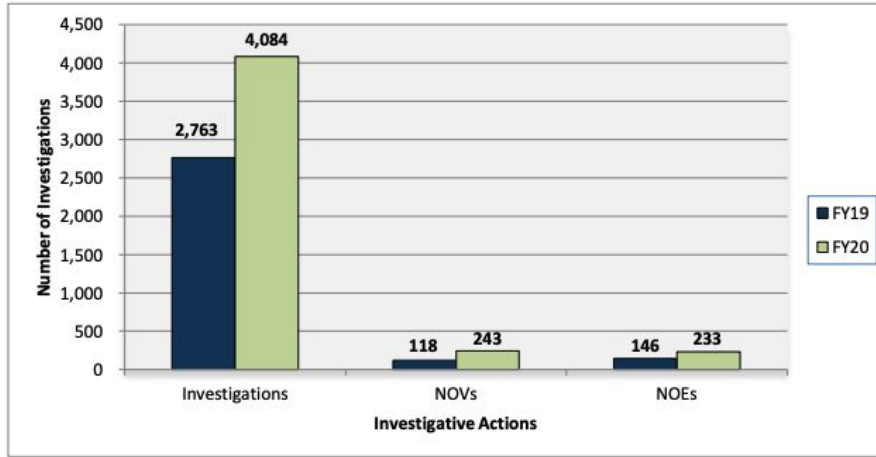
air quality, technology



[https://www.americanbar.org/groups/environment\\_energy\\_resources/publications/natural\\_resources\\_environment/2018-19/spring/the-use-drones-environmental-compliance/](https://www.americanbar.org/groups/environment_energy_resources/publications/natural_resources_environment/2018-19/spring/the-use-drones-environmental-compliance/)  
[https://baykeeper.org/sites/default/files/image\\_upload/images/SFBaykeeper\\_Newsletter\\_18\\_Spring.pdf](https://baykeeper.org/sites/default/files/image_upload/images/SFBaykeeper_Newsletter_18_Spring.pdf)  
<https://marylandreporter.com/2019/03/18/drones-change-the-way-advocates-protect-the-environment/>  
<https://www.iges.ucla.edu/project/using-drones-to-monitor-sulphur-emissions-by-ships/>

# TCEQ DATA

Figure 5-5: Incident Investigations



Note: An NOV or NOE may include multiple violations.

“This increase was in part to **staff continuing to conduct in-house investigations during the COVID-19** since they could be accomplished with social distancing precautions in place.”

“**Earthjustice is pleased** to see that President-elect Biden plans to name **Merrick Garland as the nation’s next Attorney General.**”

“Because ENRD is the only organization in this country that **files more environmental lawsuits** than Earthjustice.”



News Releases from Region 09

## U.S. EPA settles with three companies over violations of California's trucking pollution regulations

*The companies will pay over \$400,000 in penalties*

10/16/2020

THE ECONOMY > ENVIRONMENT

## Wal-Mart Fined \$110 Million Over Hazardous Waste

The world's largest retailer pleads guilty to dumping hazardous chemicals in city trash bins and sewer systems.

Agence France-Presse  
MAY 28, 2013

## Formosa Plastics set to pay \$50 million in pellet pollution lawsuit

*It's the largest settlement for a Clean Water Act lawsuit filed by private citizens in the history of the United States.*

Clare Goldsberry | Nov 26, 2019

Texas



XAVIER BECERRA  
Attorney General

**Attorney General Becerra  
Announces \$11 Million Settlement  
against AutoZone for Illegal Disposal  
of Hazardous Waste Statewide**

# Companies face fines & penalties

Government Business Safety

Eric Miller | Senior Reporter

March 9, 2020 10:45 AM, EDT

## EPA Proposes Tougher Rules to Monitor Runoff at Transportation Facilities

News Releases from Region 09

**U.S. EPA fines three Southern California-based companies \$170,000 for hazardous waste violations**

12/16/2019

## Construction Company Sentenced to Pay \$5 Million for Clean Water Act Violation

*Employees Illegally Discharged Pollutants Into the San Joaquin River Over the Course of Several Years*

U.S. Attorney's Office  
September 01, 2011

JUSTICE NEWS

Department of Justice  
Office of Public Affairs

FOR IMMEDIATE RELEASE

Tuesday, November 29, 2011

**North America Inc. Agrees to Pay \$740,000 Penalty to Resolve Clean Water Act Violations in Five States**

**Ready-Mix Concrete Producer Agrees to Invest an Estimated \$8 Million to Improve Environmental Compliance at 189 Similar Facilities in the U.S.**

# Aggressive Enforcement

1. National Compliance Initiatives (NCI) back to National Enforcement Initiatives (NEI)
2. Focus on “Next Generation Compliance & Enforcement”
3. Wider recognition noncompliance is common

***“Next Generation compliance and enforcement was a creation of the Obama EPA and was an attempt to use technology and other approaches to leverage EPA’s diminishing resources.”***

- Carrick Brooke-Davidson of Williams Mullen

## Part 2: Noncompliance with Environmental Rules Is Worse Than You Think 3

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<https://oebiden.com/environmental-justice-plan/>

<https://www.williamsmullen.com/news-events/advisors/articles/could-quickly-adapt-many-environmental-enforcement-practices-changes>

Recognition noncompliance is common place - <http://eelp.law.harvard.edu/wp-content/uploads/Cynthia-Giles-Part-2-FINAL.pdf>

# Next, Next Generation Technology For Enforcement

## Innovations for environmental compliance: emerging evidence and opportunities

| Feb 2020 Policy Brief

By Elinor Benami, Daniel E. Ho and Anne McDonough

### RELATED LINKS

[Daniel Ho](#)

### KEY TAKEAWAYS

- Environmental practices have improved significantly over the last half century, but noncompliance with environmental law remains stubborn.
- New data sources and machine learning are powerful tools to assess risks, enhance enforcement and improve compliance.
- Learning how to best combine machine learning with compliance interventions will require collaborative partnerships to rigorously pilot and evaluate impacts.

Environmental law aims to protect the air, water, and land that our communities are built around. Despite significant improvements in environmental practices over the last half century, noncompliance with U.S. environmental regulations remains pervasive. Tens of millions of Americans remain exposed to unsafe drinking water and pollution hotspots where exposure to toxic emissions increase health risks (Allaire et al. 2018; Gallay 2019).

Some of the best evidence on the extent of noncompliance comes from a series of large-scale, randomly-sampled evaluations conducted by the U.S. Environmental Protection Agency in the early 2000s. The results showed that, for example, 61 percent of municipalities with combined storm and wastewater systems failed to maintain adequate minimum controls for managing overflows. Overflows in these systems can include releases of untreated stormwater, human and industrial wastes, toxic materials, and debris. Separately, over the last eight years, 60 to 75 percent of the nearly 7,000 major facilities with Clean Water Act permits — including the largest and highest impact power plants and wastewater treatment facilities — have reported they are not in compliance with federal law.

# Mitigation of Potential Penalty Costs...

**\$76,764**  
Per Day

**Haz Waste  
(RCRA)**

**\$37,500**  
Per Day

**SPCC**

**\$56,460**  
Per Day

**Water  
(CWA)**

**\$102,638**  
Per Day

**Air  
(CAA)**

**\$59,017**  
Per Day

**Tier II  
(EPCRA)**

*Internal costs on consultants & attorneys are typically 2X the external cost*



# Continued Citizen Suits

## **Retired Texas shrimper wins record-breaking \$50 million settlement from plastics manufacturing giant**

U.S. District Judge Kenneth M. Hoyt approved the settlement agreement between a scrappy environmental coalition and plastics giant Formosa. The settlement is the largest in U.S. history resulting from a citizen environmental suit.

BY KIAH COLLIER   DEC. 3, 2019   UPDATED: 4 PM

<https://www.texastribune.org/2019/12/03/texas-judge-approves-settlement-agreement-water-pollution-formosa/>



# Factor #3 Access to Capital

September 7, 2021  
4:28 PM PDT  
Last Updated 24 days ago

## Sustainable Business

# Investors call for private firms to disclose more environmental data

2 minute read

By Simon Jessop



## BRIEF

# BlackRock losing 'patience' on pace of corporate ESG disclosure

Published Sept. 16, 2021

By [Jim Tyson](#)  
Senior Reporter



# What the growing federal focus on ESG means for private markets

Anthony Cimino @cartainc / 10:19 AM PDT • July 14, 2021



## ESG

# BlackRock Voted Against 255 Directors for Climate Issues (2)

July 20, 2021, 12:28 PM



- The firm supported a higher number of diversity proposals
- And it also backed resolutions for greater board independence

BlackRock Inc. rejected almost five times more board directors at [companies](#), including [Berkshire Hathaway Inc.](#) and [Exxon Mobil Corp.](#), during the recent proxy season because they failed to act on climate issues.

The New York-based asset manager voted against 255 directors in the period ended June 30, up from 55 a year earlier, according to a stewardship report released Tuesday. It also failed to support the management of 319 companies for climate-



**Saijel Kishan**  
Bloomberg News



## Companies

[BlackRock Inc](#)  
[Berkshire Hathaway Inc](#)  
[Exxon Mobil Corp](#)

What will be the downstream impact on  
non-public companies in 2022?

# Factor #4 Brand Reputation

## EPA Guidance Documents

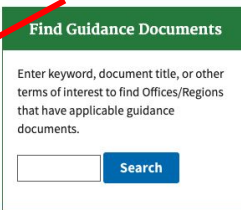
On October 9, 2019, President Trump signed [Executive Order 13891](#), "[Promoting the Rule of Law Through Improved Agency Guidance Documents](#)." Among other things, the Executive Order directs federal agencies to make active guidance documents available via an online guidance document portal.

On October 31, 2019, the [Office of Management and Budget \(OMB\)](#) issued [implementing guidance M-20-02 \(PDF\)](#), which set deadlines and related information for establishing the searchable, indexed online database for all active guidance documents.

On October 19, 2020, EPA published its final rulemaking [EPA Guidance: Administrative Procedures for Issuance and Public Petitions](#), providing further detail about the agency's development and issuance of guidance documents. Additionally, the rule provides the public the means to petition the agency with requests to modify or withdraw an active guidance document.

This portal contains only documents that meet the definition of "guidance" and does not contain documents that are excluded from that definition. For example, guidance directed to the issuing agency or other agencies that is not in the form of a memorandum, letter, or other internal executive branch legal advice or legal opinions are not "guidance documents" under the Executive Order, their omission is required under Section 3(b) of the Executive Order.

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**Find Guidance Documents**

Enter keyword, document title, or other terms of interest to find Offices/Regions that have applicable guidance documents.

**Search**

### The EPA Launched Improved Enforcement and Compliance Activity Dashboards

The EPA launched new versions of the [Enforcement and Compliance History Online \(ECHO\)](#) [Air Stationary Source Dashboard](#) and [Hazardous Waste Dashboard](#). These updates provide regulatory agencies, tribes, and the public a more user-friendly experience and the ability to see trends in agency compliance program implementation at a glance.

The public dashboards offer summary trends of EPA, state, and local compliance and enforcement activity, such as the number of violations found, or enforcement actions taken, by year. EPA worked with representatives of state and local government agencies, to improve the dashboards. In the coming months, the EPA will update the ECHO Clean Water and Drinking Water dashboards to this new format.

### Smart Mobile Tools for Field Inspectors


Smart Mobile Tools for Field Inspectors (Smart Tools) redesigns the field inspection business process, moving away from paper-based documentation to an electronic suite of tools expected to improve the quality, consistency and timeliness of environmental field inspections. Smart Tools allows EPA and state inspectors to more easily collect and organize information needed to complete high-quality field inspection reports in timely manner. Regional and state inspectors have been involved at every step of system design. Smart Tools is truly "designed by inspectors, for inspectors."

# PUBLIC DATA AS A PRIORITY

# Public Datasets

NCI Highlights from FY 2020 include:

- Reducing the National Pollutant Discharge Elimination System (NPDES) Significant Non-Compliance one-quarter rate from a FY 2018 baseline of 20.3% to 16.4%, continuing progress toward achieving the goal of cutting the Significant Non-Compliance rate in half by FY 2022.

**EPA COMPLIANCE ADVISORY**OFFICE OF ENFORCEMENT AND COMPLIANCE ASSURANCE

National Compliance Initiative: Reducing Significant Non-Compliance with National Pollutant Discharge Elimination System Permits

EPA Document # 305F20002September 2020

**Clean Water Agencies Increasing Attention to Significant Non-Compliance Dischargers**

- To improve surface water quality and reduce potential impacts on drinking water, EPA and states are focusing increased attention on all individually permitted Clean Water Act National Pollutant Discharge Elimination System (NPDES) permit holders in significant non-compliance (SNC).
- EPA and state regulators are undertaking this National Compliance Initiative (NCI) to focus increased compliance and enforcement attention on NPDES-regulated facilities in significant non-compliance, regardless of facility size.
- This advisory is designed to help NPDES permittees achieve or maintain compliance and avoid potential enforcement and penalties.

## How Can I Prepare for the NCI?

NPDES permittees are encouraged to assess their compliance status in one or both of the following ways:

- Review your discharge monitoring reports (DMRs).
- Use EPA's Enforcement & Compliance History Online (ECHO) tool to look up your facility (see "About ECHO" box).

If your facility has NPDES violations, EPA recommends that you take immediate action to correct them. Smaller facilities have not often been compliance and enforcement priorities for EPA or the NPDES authorized states. However, under this NCI, more attention will be given to facilities approaching or already in significant non-compliance—no matter their size.

EPA and its state and tribal partners will respond to SNC violations in a timely and appropriate manner. These violations are typically resolved either by prompt return to compliance or return to compliance following an enforcement action. Remember, violations are subject to enforcement by either the state or EPA, with potential federal penalties of up to \$54,883 per day per violation. A prompt return to compliance is critical to reduce the potential for an enforcement action.

## Ensuring Timely and Accurate Compliance Data

Under the CWA, NPDES permittees are required to report their own compliance data. States and EPA rely on timely, accurate, and complete self-reporting by permittees (through DMRs and other reports) to evaluate compliance. Failure to report compliance data in a timely and accurate way is a violation of the permit and the CWA. EPA screens self-reported compliance data for signs of misreporting. It may refer facilities for inspection to verify that the reported information is correct, and for criminal or civil enforcement where fraud or violations are identified.

## Reducing Penalties Through Voluntary Disclosure

Regulated entities who voluntarily discover, promptly disclose, expeditiously correct, and take steps to prevent recurrence of potential violations may be eligible for a reduction or elimination of any civil penalties that otherwise might apply. Most violations can be disclosed and processed via EPA's automated online "eDisclosure" system (see <https://www.epa.gov/compliance/epas-edisclosure>). To learn more about EPA's violation disclosure policies, including conditions for eligibility, please review EPA's Audit Policy website at <https://www.epa.gov/compliance/epas-audit-policy>. Many states also offer incentives for self-policing; please check with the appropriate state agency for more information.

## More Information

The resources below can help you correct violations and achieve compliance.

Be sure to check your permit or contact your NPDES permitting authority (state or EPA) for compliance assistance information. For information on your state agency, use: <https://www.epa.gov/npdes/contact-us-general-information-about-mpdes>

## Overview of This NCI

- <https://www.epa.gov/enforcement/national-compliance-initiative-reducing-significant-non-compliance-national-pollutant>

## About ECHO

Enforcement & Compliance History Online (<https://echo.epa.gov/>) allows permittees to check their compliance status. A Detailed Facility Report in ECHO indicates whether a permittee has violations and is in significant non-compliance.

ECHO provides a quarterly breakdown of compliance history that describes instances of significant non-compliance. These can include an enforcement action or permit compliance schedule violation, violations of effluent permit limits, or a failure to submit timely Discharge Monitoring Reports. (Note: In some cases, significant non-compliance may be incorrectly designated due to data entry errors or data transfer problems.)

To view a Detailed Facility Report in ECHO, select the "Facility Name/ID" tab in the "Quick Search" box and search for the facility with facility-specific information. Click the icon "C" under the "Reports" column. Scroll down to the table titled "Compliance Summary Data" and check for a "Yes" or "No" in the "Current SNC/HPV" column. If it is marked "Yes", review the "Three-Year Compliance History by Quarter" table for additional information.

News Releases from Region 09

## U.S. EPA settles with three companies over violations of California's trucking pollution regulations

*The companies will pay over \$400,000 in penalties*

10/16/2020

THE ECONOMY > ENVIRONMENT

## Wal-Mart Fined \$110 Million Over Hazardous Waste

The world's largest retailer pleads guilty to dumping hazardous chemicals in city trash bins and sewer systems.

Agence France-Presse  
MAY 28, 2013

## Formosa Plastics set to pay \$50 million in pellet pollution lawsuit

*It's the largest settlement for a Clean Water Act lawsuit filed by private citizens in the history of the United States.*

Clare Goldsberry | Nov 26, 2019

Texas



XAVIER BECERRA  
Attorney General

**Attorney General Becerra  
Announces \$11 Million Settlement  
against AutoZone for Illegal Disposal  
of Hazardous Waste Statewide**

# Companies face reputation risk

Government Business Safety

Eric Miller | Senior Reporter

March 9, 2020 10:45 AM, EDT

## EPA Proposes Tougher Rules to Monitor Runoff at Transportation Facilities

News Releases from Region 09

**U.S. EPA fines three Southern California-based companies \$170,000 for hazardous waste violations**

12/16/2019

## Construction Company Sentenced to Pay \$5 Million for Clean Water Act Violation

*Employees Illegally Discharged Pollutants Into the San Joaquin River Over the Course of Several Years*

U.S. Attorney's Office  
September 01, 2011

JUSTICE NEWS

Department of Justice  
Office of Public Affairs

FOR IMMEDIATE RELEASE

Tuesday, November 29, 2011

**North America Inc. Agrees to Pay \$740,000 Penalty to Resolve Clean Water Act Violations in Five States**

**Ready-Mix Concrete Producer Agrees to Invest an Estimated \$8 Million to Improve Environmental Compliance at 189 Similar Facilities in the U.S.**

# Factor #5 Workforce



## 2021 was the year of the quit: For 7 months, millions of workers have been leaving

Juliana Kaplan and Andy Kiersz Dec 8, 2021, 10:03 AM

TALENT ACQUISITION

### Record 4.5 Million Workers Quit in November

ADP reports soaring job growth in December



By Roy Maurer  
January 4, 2022

**38M workers quit jobs in 2021**  
**4.5M in November**  
SHRM 01.04.2022

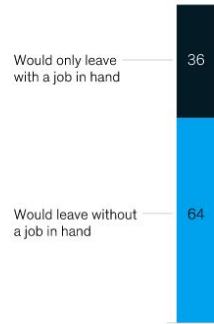
Attrition may accelerate, as people are willing to quit without another job lined up.

Share of respondents, %

Employees who have recently quit (n = 845)



Employees who are at least 'somewhat likely' to quit in next 3-6 months (n = 1,960)



McKinsey  
& Company

36% who quit **did so without another job**

**40% of employees likely to leave** in next 3-6 months

McKinsey 09.2021

# Benefits of Sustainability: Improved Employee Attraction, Engagement and Retention

By Grace Olupinyo | June 23, 2020 | Blog, Employees, Executive, Green C



INSIDE HR | STORIES & INSIGHTS

## ESG as a workforce strategy: post-COVID attraction and retention



TARA MILBURN  
Founder and CEO, Ethical S

In March, the headlines got it right. Crooning 'Where are the workers?', the Wall Street Journal, NPR, Chicago Tribune, and AP News all picked up on the paradox plaguing post-pandemic hiring. Millions of people are out of a job – why can't employers find candidates?

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Food Energy Transportatic +



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<https://routledge.pub/ClimatePositive>



## Going Green to Recruit and Retain Employees

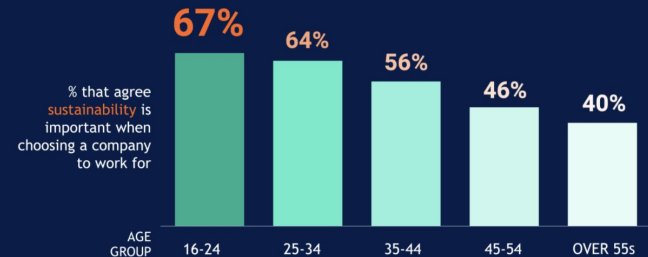
By David Wigder

November 9, 2007



Anthesis

New research on the **importance of sustainability credentials** when attracting and retaining talent



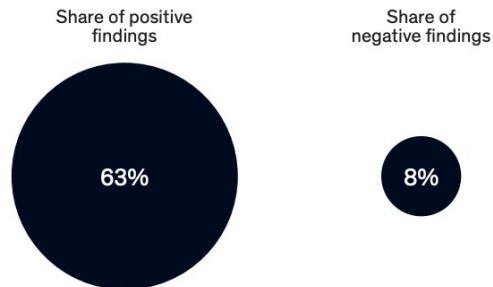
# Factor #6 Shareholder Value

# Are returns impacted?

Exhibit 1

**Paying attention to environmental, social, and governance (ESG) concerns does not compromise returns—rather, the opposite.**

Results of >2,000 studies on the impact of ESG propositions on equity returns



Source: Gunnar Friede et al., "ESG and financial performance: Aggregated evidence from more than 2000 empirical studies," *Journal of Sustainable Finance & Investment*, October 2015, Volume 5, Number 4, pp. 210–33; Deutsche Asset & Wealth Management Investment; McKinsey analysis

# INVESTORS, SEC FOCUS ON ESG

## Improved Disclosure for Shareholders

We believe that all investors, along with regulators, insurers, and the public, need a clearer picture of how companies are managing sustainability-related questions. This data should extend beyond climate to questions around how each company serves its full set of stakeholders, such as the diversity of its workforce, the sustainability of its supply chain, or how well it protects its customers' data. Each company's prospects for growth are inextricable from its ability to operate sustainably and serve its full set of stakeholders.

<p><b>Item 103</b></p>	<p>Requires disclosure of any material pending legal proceedings including the name of the court or agency in which the proceedings are pending, the date instituted, the principal parties thereto, a description of the factual basis alleged to underlie the proceeding and the relief sought. Similar information is to be included for any such proceedings known to be contemplated by governmental authorities.</p> <p>Contains a threshold for disclosure based on a specified dollar amount (\$100,000) for proceedings relating to local environmental</p>	<p>Revises Item 103 to:</p> <ul style="list-style-type: none"> <li>• Expressly state that the required information may be provided by hyperlink or cross-reference to legal proceeding disclosure located elsewhere in the document to avoid duplicative disclosure and</li> <li>• Implements a modified disclosure threshold that increases the existing quantitative threshold for disclosure of environmental proceedings to which government is a party from \$100,000</li> </ul>
------------------------	--	---

***The SEC should require that material ESG risks be disclosed in a manner consistent with the presentation of other financial disclosures***

Currently, disclosures that are made appear in a variety of types of documents and do not always clearly align with other issuer metrics. Material ESG risks should be presented in a manner consistent with the presentation of other financial disclosures, including temporally aligning data with financial metrics, integrating ESG disclosure into required SEC filings and reports, and making the presentation machine-readable in a standard format and

***The SEC should require that material ESG risks be disclosed in a manner consistent with the presentation of other financial disclosures***

Currently, disclosures that are made appear in a variety of types of documents and do not always clearly align with other issuer metrics. Material ESG risks should be presented in a manner consistent with the presentation of other financial disclosures, including temporally aligning data with financial metrics, integrating ESG disclosure into required SEC filings and reports, and making the presentation machine-readable in a standard format and taxonomy.

<https://www.blackrock.com/corporate/investor-relations/larry-fink-ceo-letter>

<https://www.sec.gov/rules/final/2020/33-10825.pdf>

<https://www.sec.gov/files/potential-recommendations-of-the-esg-subcommittee-12012020.pdf>

<https://www.complianceweek.com/regulatory-policy/bidens-sec-set-to-require-disclosure-of-esg-climate-change-risk/29788.article>



## Markets

# SEC Chairman Gensler Orders Review of Funds' ESG Disclosures

By [Steven Arons](#)

September 2, 2021, 12:43 AM PDT

- ▶ SEC scrutiny follows probes into Deutsche Bank unit over ESG
- ▶ Stricter ESG rules have investment firms struggling to adapt

## BRIEFING ROOM

## Executive Order on Climate-Related Financial Risk

MAY 20, 2021 • PRESIDENTIAL ACTIONS



MARKETS

BUSINESS

INVESTING

TECH

POLITICS

CNBC TV

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PRO

## TRADER TALK

# SEC Chair Gensler is taking a deeper look at ESG investing issues

PUBLISHED WED, JUN 23 2021-10:53 AM EDT | UPDATED WED, JUN 23 2021-11:40 AM EDT

**Bob Pisani**  
@BOBPISANISHARE [f](#) [t](#) [in](#) [✉](#)

## REGULATORY POLICY

## Biden's SEC set to require ESG, climate change risk disclosures

By [Aaron Nicodemus](#) | Thu, Dec 3, 2020 1:12 PM

The Securities and Exchange Commission (SEC) under President-elect Joe Biden will push ESG and climate change-related risk alerts, guidance, and rulemaking that will likely require companies to disclose how these risks affect their bottom line.

# September 2021 Letters from SEC





ARTICLE

 Share  Follow  Question  Events  Print  Translate

## United States: SEC Demanding Expanded Climate And ESG Disclosures

29 September 2021

by [Jonathan D. Brightbill](#) and [Jennifer P. Porter](#)

Winston & Strawn LLP



The Securities and Exchange Commission (SEC) acknowledged last week that it has stepped up review and investigation of public company climate-related financial and environmental, social, and governance (ESG) disclosures. While the SEC generally keeps matters under investigation confidential, on Wednesday, September 22, the SEC explained on its website that staff are sending letters to public companies. These seek more information about how climate change might affect their financial earnings or business operations.<sup>1</sup> The SEC sent these letters to dozens of companies, including in the agriculture, oil and gas, banking, real estate, and transportation industries.<sup>2</sup>

September 2021

Name  
ABC Corporation  
Address

Dear Issuer:

We have reviewed your filing and have the following comments regarding compliance with the topics addressed in the Commission's 2010 Guidance Regarding Disclosure Related to Climate Change, Release No. 33-9106 (Feb. 2, 2010). In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. Please respond to these comments by providing the requested information and/or revising or updating your disclosure as applicable. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

General

1. We note that you provided more expansive disclosure in your corporate social responsibility report (CSR report) than you provided in your SEC filings. Please advise us what consideration you gave to providing the same type of climate-related disclosure in your SEC filings as you provided in your CSR report.

Risk Factors

2. Disclose the material effects of transition risks related to climate change that may affect your business, financial condition, and results of operations, such as policy and regulatory changes that could impose operational and compliance burdens, market trends that may alter business opportunities, credit risks, or technological changes.
3. Disclose any material litigation risks related to climate change and explain the potential impact to the company.



# Summary

## **Known Direct & (Mostly) Known Indirect Cost/Risk**

- 1 - Core compliance can be more (human & financial) capital efficient
- 2 - Regulatory Enforcement is increasing, but is avoidable

## **Emerging Cost/Risk, Unknown Direct & Indirect Cost/Risk**

Workforce, Capital Markets, Brand, and Shareholders are factors today

*Proactive companies making informed, intelligent environmental & safety decisions can win*

# FINANCIAL FACTORS FOR PAYBACK PERIOD

## □ Risks - Soft Cost/Bottom Line

- Access to Capital
- Workforce Loss
- Insurance - Premiums & Claims
- Fines & Lawsuits
- Shutdowns
- Brand Reputation/PR

## □ Efficiency - Hard Cost/Bottom Line

- Executive Time - Decision Making
- EHS Leadership Time - Decision Making & Reporting
- Operations Time - EHS Tasks
- Sustainability Time - Reporting
- EHS Time - Tasks & Reporting

Ex. Data entry = 40 hours/month x \$100/hr (fully loaded) = \$4,000/month

## □ Expenditures - Hard Cost/Bottom Line

- Staff (fully loaded)
- Consultants
- Equipment (hard to allocate cost)
- Legal

## □ Revenue - Soft Cost/Top Line

- Access to Capital
- Marketing
- Recruiting
- Workforce Retention
- Brand Reputation/PR

Ex. Real-Time Monthly Sustainability Metrics → 5 minutes to download visualization for Bid Package → Winning a Job

- Production Decisions

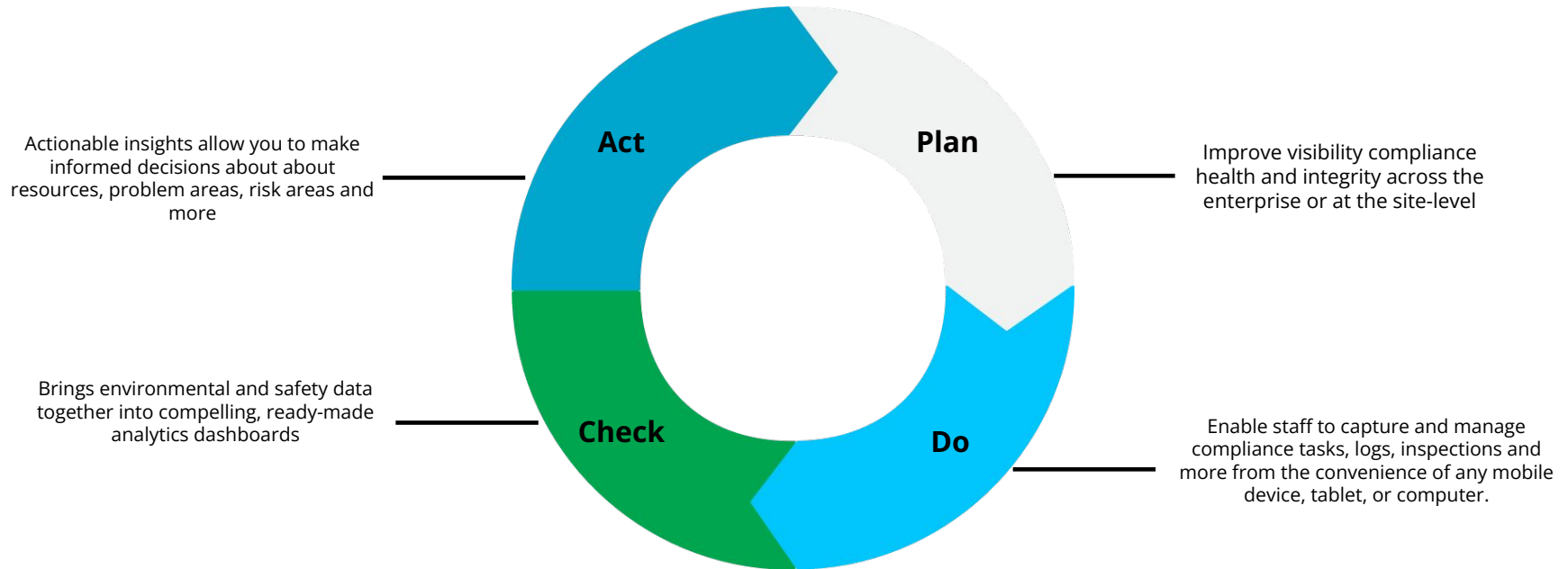
Ex. Real-Time Air Emissions Calcs → Production planning for new, large print job to stay under monthly rolling air limit

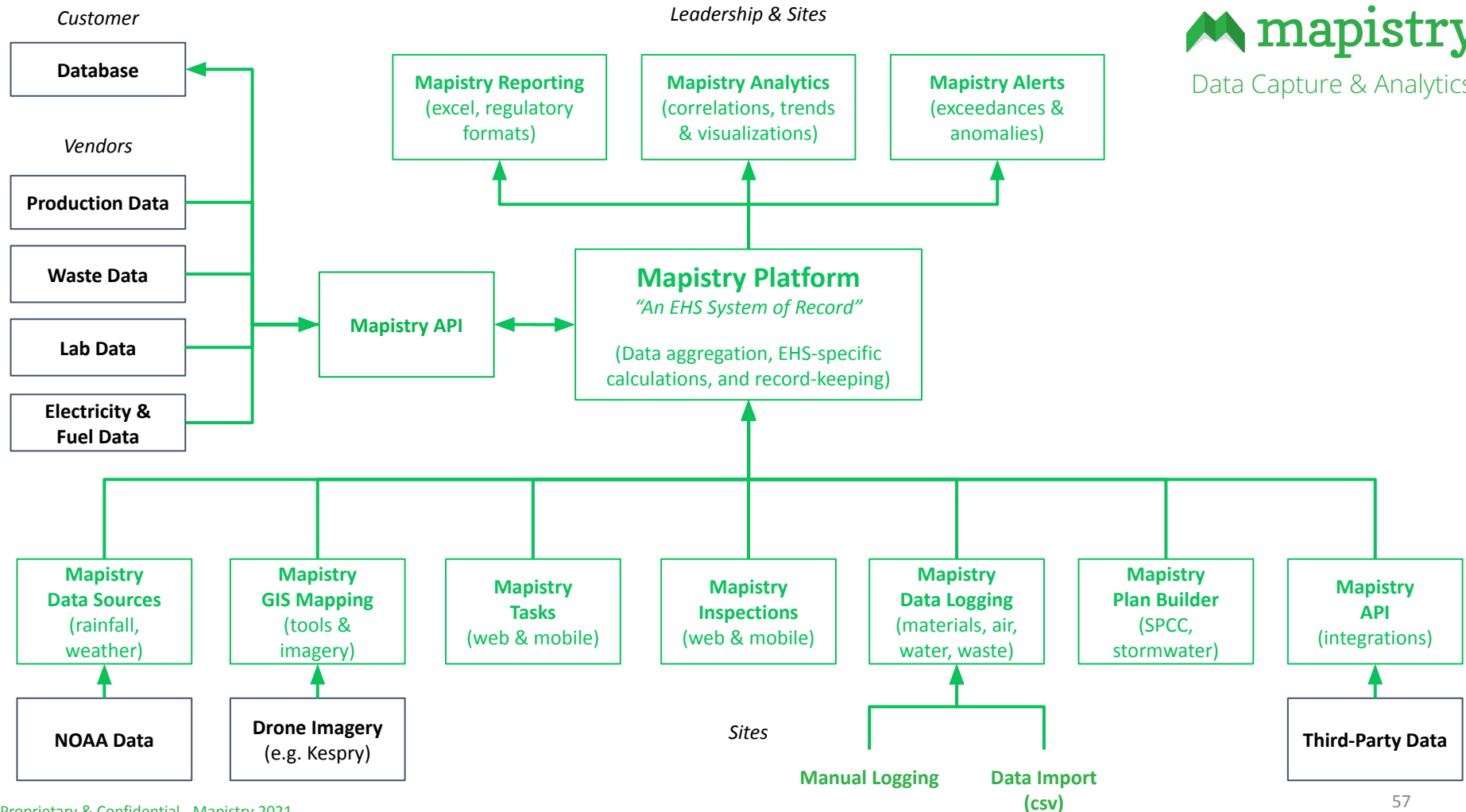
# Solution Overview

Proven EHS solutions

# Transforming to Continuous EHS Improvement

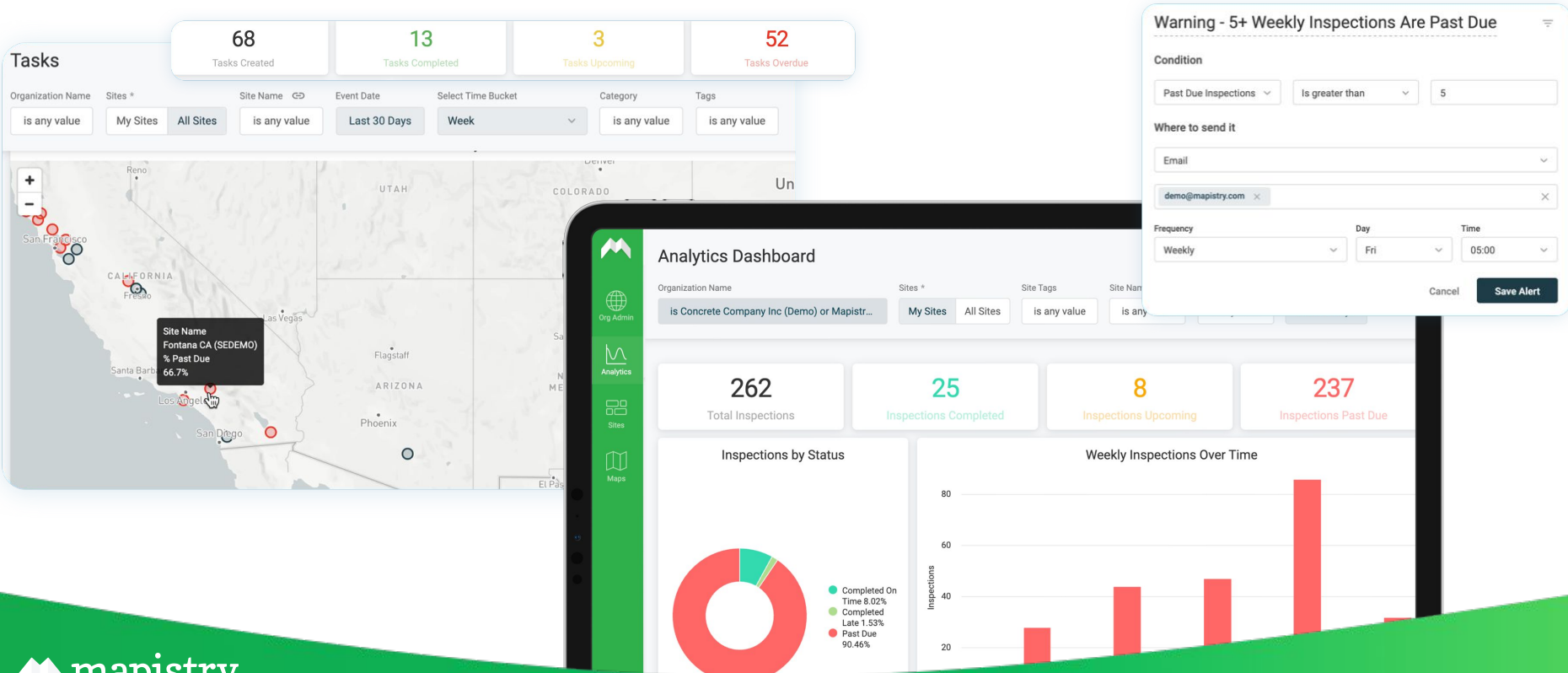
Embedding automation and control in day-to-day activities





# EHS Analytics

Turn environmental and safety data into actionable insights



# Reporting

Easily export in regulatory formats and Excel spreadsheets

The collage displays several key features of the Mapistry reporting system:

- Sampling Results:** A form for recording sampling data, including a date selector (2021-03-17) and a 'Download Parameters' button.
- Air Emissions Tracking:** A dashboard with a sidebar for 'Org Admin', 'Analytics BETA', and 'Sites'. The main area shows a table of emissions data for 2020 and 2021.
- Download this event:** A button to export specific data events.
- HazMat Chemicals:** A table listing hazardous materials with columns for Location, Chemical Name, Common Name, CAS Number, Physical State, Units, and Maximum Daily Amount.
- Paint Waste (Monthly):** A calendar view showing monthly status (e.g., 'All items not logged' for January, February, and March).
- Requested Inspection Download:** An email interface showing a request for inspection data, including a greeting from 'Hello Ryan Janoch!' and a signature from 'The Mapistry Team'.

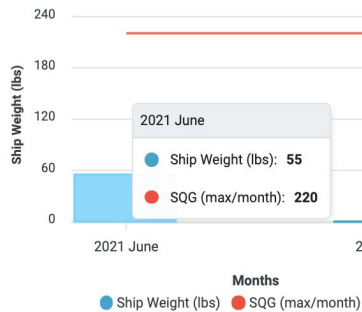
Date / Time	Blue Paint (gallons)	Coating (daily) (gallons)	Paint Waste (Monthly) (gallons)	Total Coating VOC Emissions (1)	Total Coatings VOC Emissions	Coating - Fluid Resistant Topcoat	Total Coatings VOC Emissions (lbs)
2020	252	447	225	160	-	234.5	2,607.1
2021	146,528	43	25	210	-	147	346.7

Location	Chemical Name	Common Name	CAS Number	Physical State	Units	Maximum Daily Amount
Liquid Waste Storage	Waste Oil	Waste Oil	N/A	liquid	gallon (gal)	770
Paint Booth	Paint	Paint	N/A	liquid	gallon (gal)	1680
Paint Booth	Waste Paint	Waste Paint	N/A	liquid	gallon (gal)	585
Propane Tank Storage	Propane	Propane	74-98-6	gas	gallon (gal)	468

# Alerts

Know about exceedances and compliance gaps instantly

Accumulation Amount



Current Stormwater Status

- ✓ Baseline Oil and Grease
- ✓ Baseline pH
- ✓ Baseline Iron, Total
- ✓ Baseline Total Suspended Solids (TSS)

Stormwater Exceedances

- ! pH: **Instantaneous Exceedance**
- ✗ Total Suspended Solids (TSS): **Average Trending Over Benchmark Limit**

Production limit monitoring



Environmental Compliance

Reminders

Upcoming

- HazMat: Regular Hazardous Accumulation Storage Inspections (Due Jun 6)
- HazMat: Regular Tank Inspections (Due Jun 13)
- General Site Inspections (Due Jun 13)

Hello Ryan Janoch!

A CA Industrial Monthly Observation was completed for CA - Terminal. As a result of the inspection, corrective actions were identified.

The following corrective actions were assigned to you:

Trash & Debris Pickup:

Task 1 Clean by compactor:

Deficiency: null

Task description: Pickup all trash around the compactor and sweep

Due date: April 9, 2021

After completing a corrective action, please click on the corresponding link above. You will be directed to the corresponding inspection form where you will add the date that the corrective action was completed and any notes pertaining to the completion of the corrective action.

Sincerely,

The Mapistry Team





# Inspections

Ensure compliance with inspections built for operational efficiencies via the mobile and web app

# Intelligent Mapping

Quickly and accurately generate facility site maps for all your compliance needs

Edit Feature

[Click here if you are looking to edit layer details or styles.](#)

Symbol/Label Rotation (↑ 0 Degrees) ▼

Name	Value	Format
		Save ▼

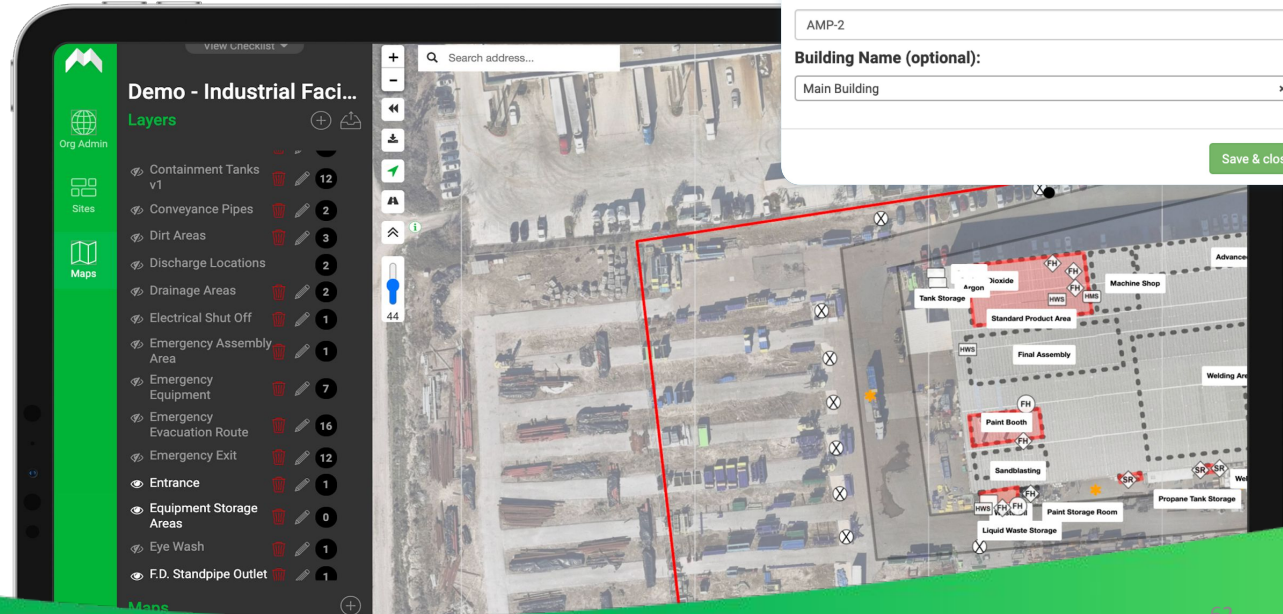
Add

Edit Attributes

Feature Label	Diesel AST #2 (1000 gal)
Building Name	
Latitude	33.6761868162608°
Longitude	-117.874594330788°
SDS	1000015849-15-LPI
Type	
Date of Install	2014
Volume (gal)	1000
Tank Integrity Testing	
Elevation	49 ft

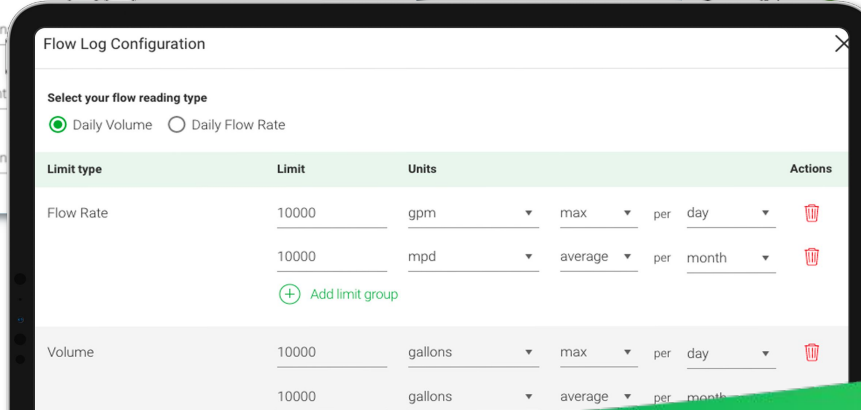
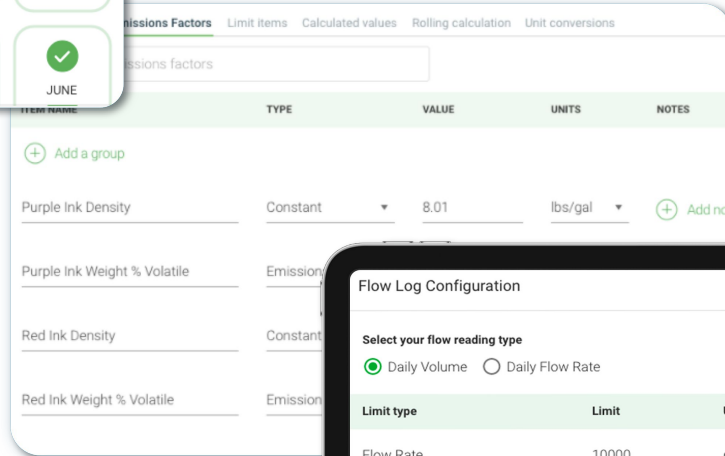
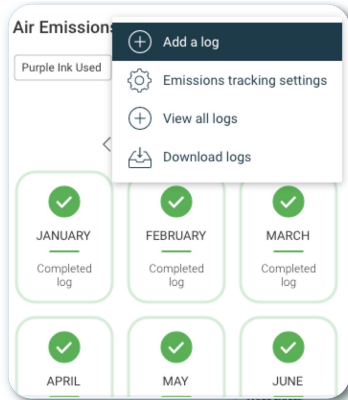
Photos

Add Photo



# Data Capture

Powerful data capture, automated calculations, monitoring and reporting, and analysis in one place





Company Name <<



SITE

Sacramento Sand and Gra... ▾



LOCATION

1200 First St, Sacramento, CA ✎



SITE TAGS

15,000sf Flagship Site

MY TASKS

Task description goes here ...

Corrective Action High Priority

2 days overdue

Task description of a recurring task ...

Corrective Action High Priority ↺

Due Today

Task description goes here ...

Corrective Action High Priority

February 24

← Back to dashboard

## Upload Stormwater Data

✓ Upload your spreadsheet > Match columns > Repair problems > Complete

A	Date	Log date	▼
2	3/26/2021		
3	3/26/2021		
4	3/26/2021		

✓ Matched to the **Log Date** field.  
86% of your row have a value for this column  
14.3% of rows fail validation (repair on next step)

Confirm mapping Ignore this column

B	Time	Log Time	▼
2	10:02 AM		
3	10:02 AM		
4	10:02 AM		

✓ Matched to the **Log Time** field.  
100% of your row have a value for this column

Confirm mapping Ignore this column

C	Sample location	Sample location	▼
2	SW-1	SW-1	▼
3	SW-2	SW-2	▼
4	SW-3	SW-3	▼

✓ Matched to the **Sample location** field.  
100% of your row have a value for this column

Confirm mapping Ignore this column

# Tasks

Ensure routine tasks and corrective actions are done on time and verify the results

### Site Summary

#### Action Items

- ☐ Safety: Fire Extinguisher Inspections 4 days overdue
- ☐ Stormwater Routine Observations 4 days overdue

#### FUTURE ACTION ITEMS

- ☐ Safety: Electrical Tool Inspections (Due Aug 31st) ...
- ☐ Safety: Emergency Eyewash Inspections (Due Aug 31st) ...
- ☐ (Due Aug 31st) ...

### Air: Method 22 Inspection

Daily  
(Six times per day)

< JULY >

M	T	W	T	F	S	S
		1	2	3	4	5
		••••	••••	••••	••••	••••
6	7	8	9	10	11	12
••••	••••	••••	••••	••••	••••	••••
13	14	15	16	17	18	19
••••	••••	••••	••••	••••	••••	••••

VZW Wi-Fi 12:50 PM 76%

← All Sites

CA - Salinas

🔍 Search dashboard

### Tasks

#### Due Today (0)

There are no tasks that are currently due today

#### Future Tasks (7)

- ☐ Air Baghouse (Due Feb 28th) >
- ☐ Frequent SPCC Inspections (Due Feb 28th)
- ☐ Regular Hazardous Accumulation Storage Inspections (Due Feb 28th) >

📊

# Questions?

## Want to build a value assessment?

[ryan@mapistry.com](mailto:ryan@mapistry.com)

# Thank You!

# Sources

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- <https://www.mckinsey.com/business-functions/people-and-organizational-performance/our-insights/great-attrition-or-great-attraction-the-choice-is-yours>
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- 2019 EPA Annual Compliance Report (Story Map) - <https://epa.maps.arcgis.com/apps/Cascade/index.html?appid=c85b89aecc7140f99ca95bc96c664091>
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- <https://riabiz.com/a/2021/7/28/suddenly-vanguard-blackrock-state-street-not-only-have-the-assets-but-the-power-of-esg-mandates-which-make-them-a-growing-threat-to-shareholder-democracy-critics-say>
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- Reuters - Investors asking for more ESG disclosures - <https://www.reuters.com/business/sustainable-business/investors-ask-us-sec-more-esg-disclosures-companies-resist-2021-06-16/>
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