Classification: Internal

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2026 ESI Pollution Prevention

Alphagary Polymer Solutions - Pineville, NC

Lessons Learned from Our Water Conservation and Pollution Prevention Journey

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Classification: Internal

Facility Overview

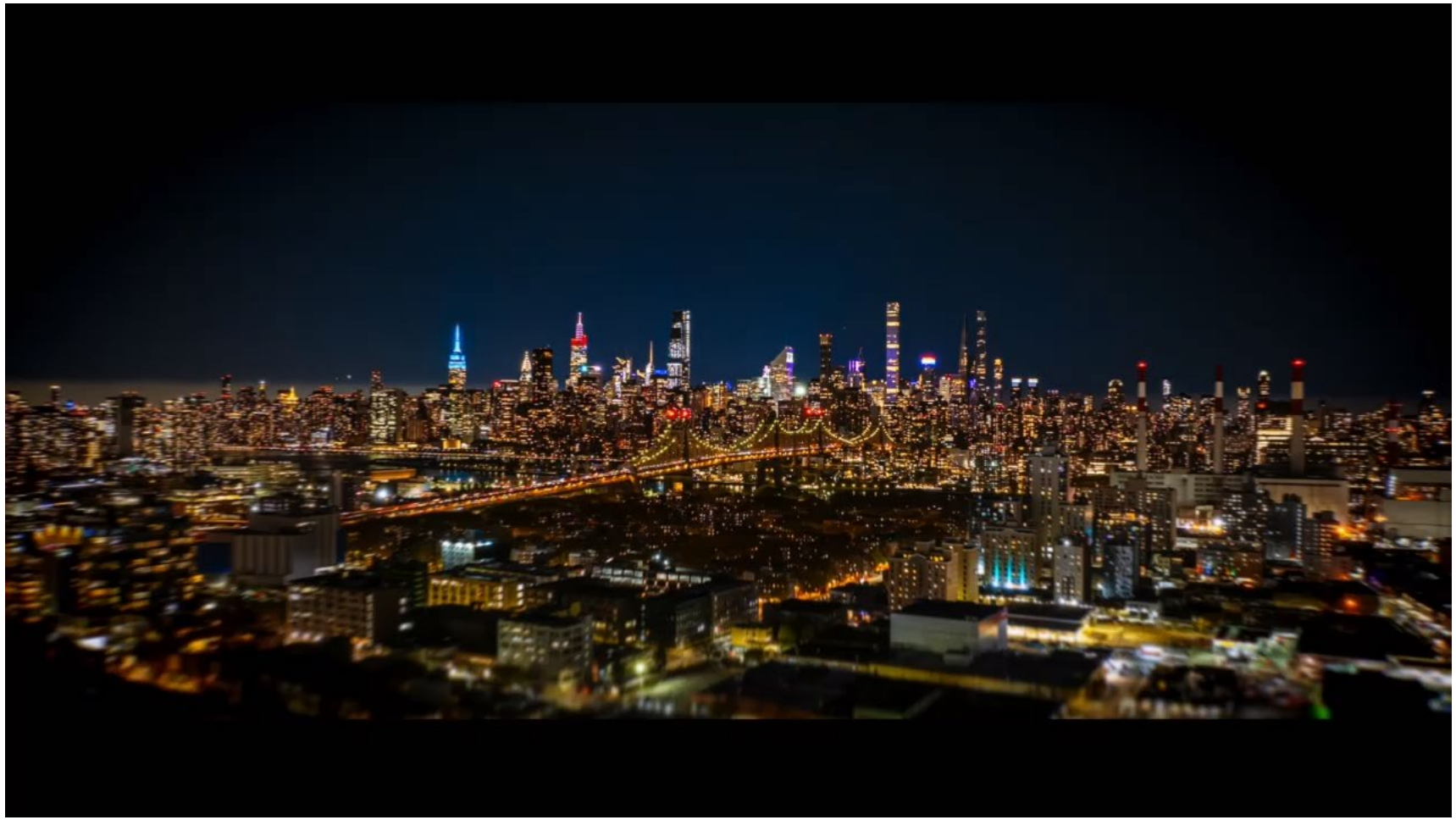
- 110 employees
- PVC plastic pellet manufacturing
- 75% production capacity increase from new line
- Commitment to environmental stewardship and operational excellence



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Who we are?





Classification: Internal

Classification: Internal

The Challenge

How could we significantly reduce environmental impact while supporting increased production demand?

Key concerns:

- Water consumption
- Utility costs
- Resource efficiency
- Sustainable growth



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The Project

Water Reduction Through Leak Identification, Repair, and Operational Discipline



Actions Taken

- Identified water losses throughout site
- Repaired leaking pipes and utility systems
- Corrected boiler-related losses
- Increased monitoring and accountability
- Focused on continuous improvement rather than major capital spending

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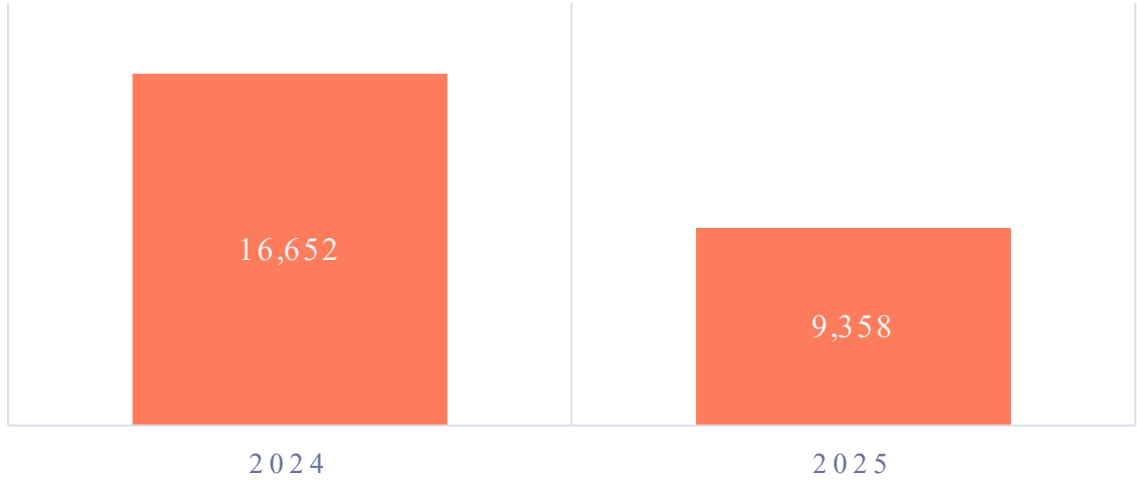
Results

Water Usage Reduction

2024: 16,652 CCF

2025: 9,358 CCF

44% Reduction



Achieved while increasing production capability by approximately 75%



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Additional Environmental Benefits

- Zero Waste to Landfill maintained
- Waste sent to energy recovery
- Electrical consumption reduced
- Natural gas consumption reduced
- NOx emissions reduced from 1.7 to 0.9 metric tons



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Lessons Learned # 1

Small Problems Become Big Opportunities

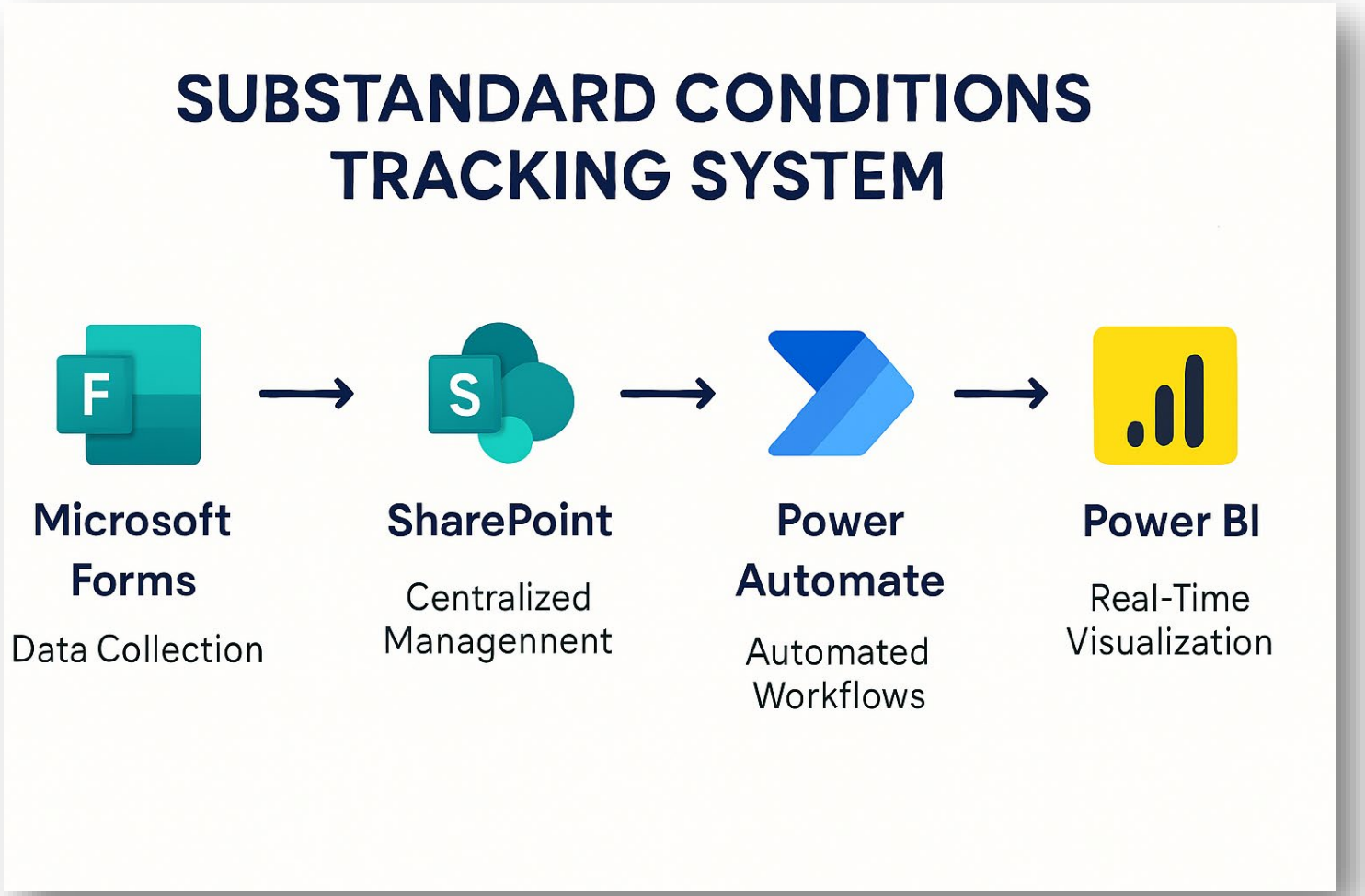
- Many of our savings came from finding and fixing routine leaks.
- Environmental improvements do not always require expensive projects.



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How it works ?



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1. Data Collection

Tool Used: Microsoft Forms (**Substandard Report Pineville**)

Captured Events:

- Substandard Conditions
- Substandard Acts
- Accidents
- Near Misses
- Chemical Spills



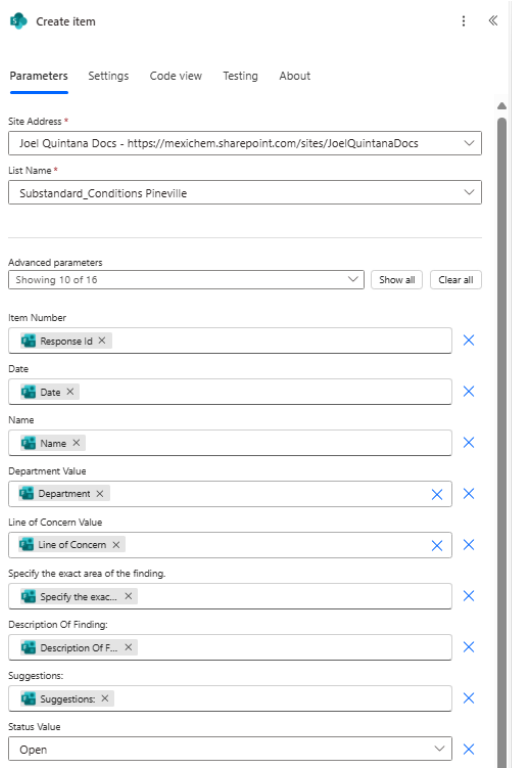


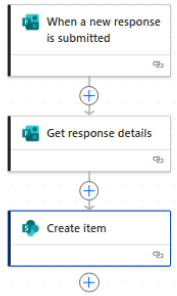
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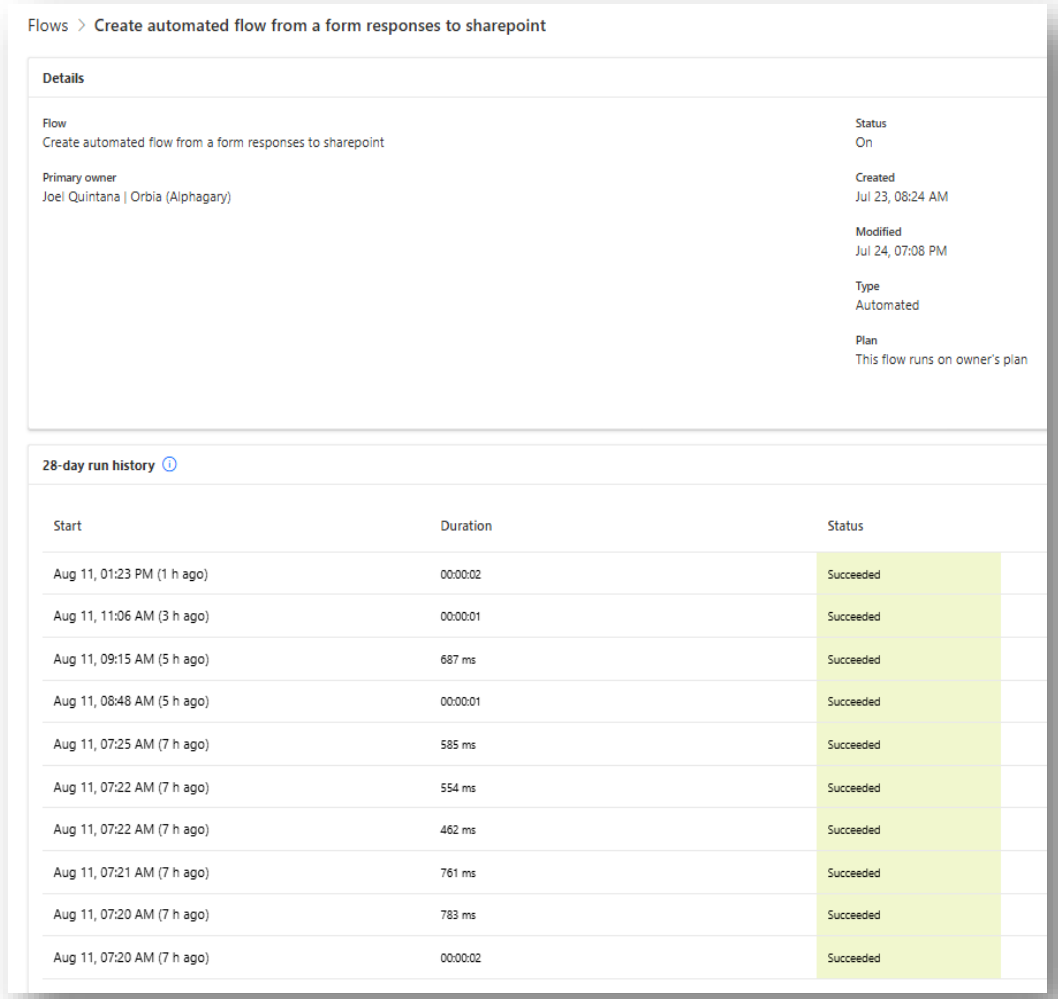
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2. Automated Workflows (Power Automate)

- Department Notification:
- Closure Notification:
- Status Tracking & Escalations:







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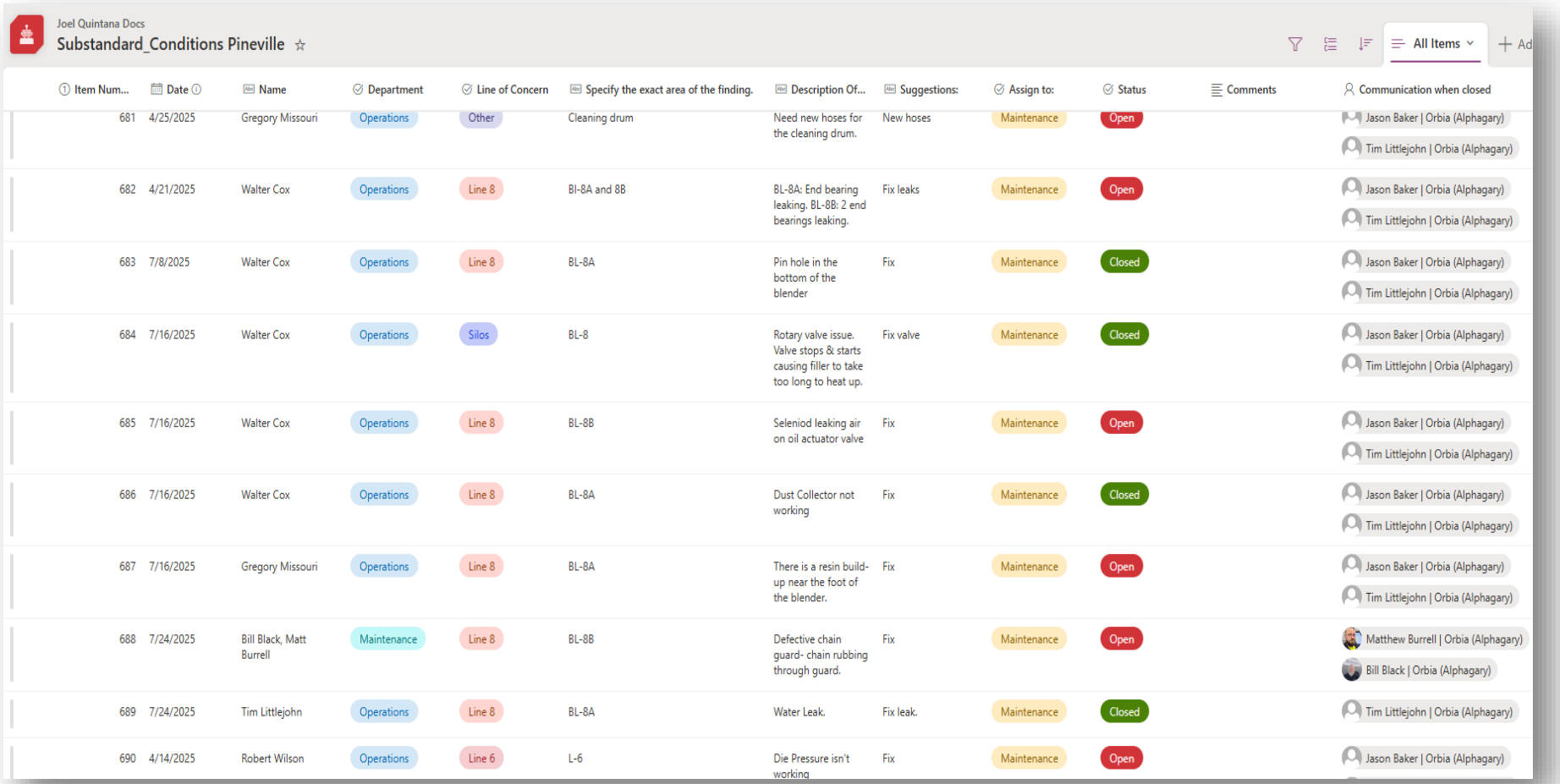
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3. Centralized Management

Platform: **SharePoint List**

Purpose:

- Organize and store all safety related findings
- Enable filtering by type, department, line, status, assign to, and location
- Support real-time updates and collaboration



Joel Quintana Docs

Substandard_Conditions Pineville ☆

All Items

Item Num...	Date	Name	Department	Line of Concern	Specify the exact area of the finding.	Description Of...	Suggestions:	Assign to:	Status	Comments	Communication when closed
681	4/25/2025	Gregory Missouri	Operations	Other	Cleaning drum	Need new hoses for the cleaning drum.	New hoses	Maintenance	Open		Jason Baker | Orbia (Alphagary); Tim Littlejohn | Orbia (Alphagary)
682	4/21/2025	Walter Cox	Operations	Line 8	BI-8A and 8B	BL-8A: End bearing leaking. BL-8B: 2 end bearings leaking.	Fix leaks	Maintenance	Open		Jason Baker | Orbia (Alphagary); Tim Littlejohn | Orbia (Alphagary)
683	7/8/2025	Walter Cox	Operations	Line 8	BL-8A	Pin hole in the bottom of the blender	Fix	Maintenance	Closed		Jason Baker | Orbia (Alphagary); Tim Littlejohn | Orbia (Alphagary)
684	7/16/2025	Walter Cox	Operations	Silos	BL-8	Rotary valve issue. Valve stops & starts causing filler to take too long to heat up.	Fix valve	Maintenance	Closed		Jason Baker | Orbia (Alphagary); Tim Littlejohn | Orbia (Alphagary)
685	7/16/2025	Walter Cox	Operations	Line 8	BL-8B	Seleniod leaking air on oil actuator valve	Fix	Maintenance	Open		Jason Baker | Orbia (Alphagary); Tim Littlejohn | Orbia (Alphagary)
686	7/16/2025	Walter Cox	Operations	Line 8	BL-8A	Dust Collector not working	Fix	Maintenance	Closed		Jason Baker | Orbia (Alphagary); Tim Littlejohn | Orbia (Alphagary)
687	7/16/2025	Gregory Missouri	Operations	Line 8	BL-8A	There is a resin build-up near the foot of the blender.	Fix	Maintenance	Open		Jason Baker | Orbia (Alphagary); Tim Littlejohn | Orbia (Alphagary)
688	7/24/2025	Bill Black, Matt Burrell	Maintenance	Line 8	BL-8B	Defective chain guard- chain rubbing through guard.	Fix	Maintenance	Open		Matthew Burrell | Orbia (Alphagary); Bill Black | Orbia (Alphagary)
689	7/24/2025	Tim Littlejohn	Operations	Line 8	BL-8A	Water Leak.	Fix leak.	Maintenance	Closed		Tim Littlejohn | Orbia (Alphagary)
690	4/14/2025	Robert Wilson	Operations	Line 6	L-6	Die Pressure isn't working	Fix	Maintenance	Open		Jason Baker | Orbia (Alphagary)

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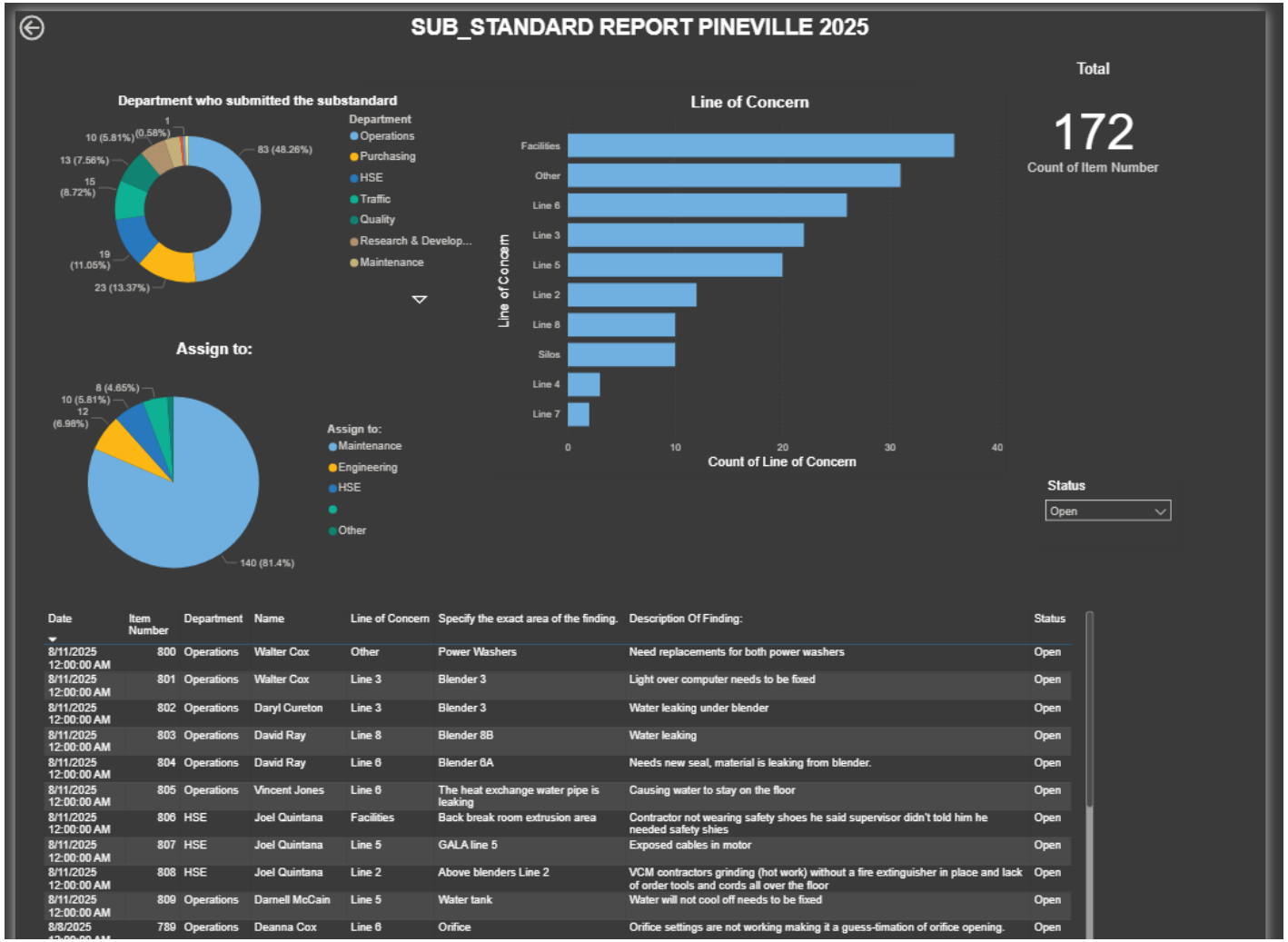
4. Real-Time Visualization

- Tool Used: **Power BI Dashboard**

Features:

- Interactive and filterable views of all findings
- Accessible via phone, tablet, laptop, or display screens
- Supports trend analysis, departmental performance, and closure rates

Power BI



Date	Item Number	Department	Name	Line of Concern	Specify the exact area of the finding.	Description Of Finding:	Status
8/11/2025 12:00:00 AM	800	Operations	Walter Cox	Other	Power Washers	Need replacements for both power washers	Open
8/11/2025 12:00:00 AM	801	Operations	Walter Cox	Line 3	Blender 3	Light over computer needs to be fixed	Open
8/11/2025 12:00:00 AM	802	Operations	Daryl Cureton	Line 3	Blender 3	Water leaking under blender	Open
8/11/2025 12:00:00 AM	803	Operations	David Ray	Line 8	Blender 8B	Water leaking	Open
8/11/2025 12:00:00 AM	804	Operations	David Ray	Line 6	Blender 6A	Needs new seal, material is leaking from blender.	Open
8/11/2025 12:00:00 AM	805	Operations	Vincent Jones	Line 6	The heat exchange water pipe is leaking	Causing water to stay on the floor	Open
8/11/2025 12:00:00 AM	806	HSE	Joel Quintana	Facilities	Back break room extrusion area	Contractor not wearing safety shoes he said supervisor didn't told him he needed safety shies	Open
8/11/2025 12:00:00 AM	807	HSE	Joel Quintana	Line 5	GALA line 5	Exposed cables in motor	Open
8/11/2025 12:00:00 AM	808	HSE	Joel Quintana	Line 2	Above blenders Line 2	VCM contractors grinding (hot work) without a fire extinguisher in place and lack of order tools and cords all over the floor	Open
8/11/2025 12:00:00 AM	809	Operations	Darnell McCain	Line 5	Water tank	Water will not cool off needs to be fixed	Open
8/8/2025	789	Operations	Deanna Cox	Line 6	Orifice	Orifice settings are not working making it a guess-timation of orifice opening.	Open

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Lessons Learned # 2

Measure What Matters

- Reliable data allowed us to identify losses, prioritize actions, and demonstrate results.
- Future plans include additional flow meters at production lines and boilers.



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Lessons Learned # 3





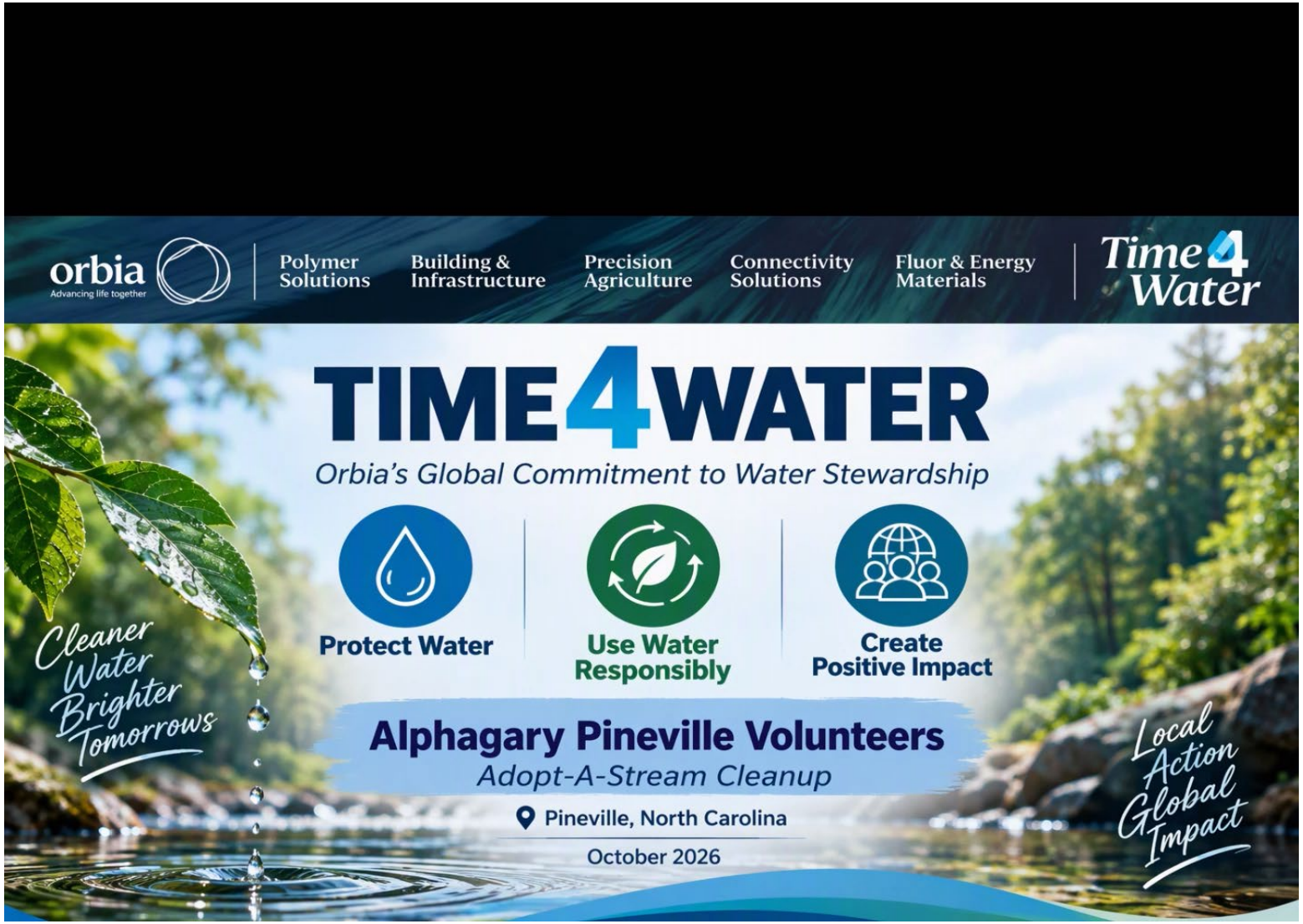


People Drive Sustainability

Success depended on operators, maintenance, engineering, and leadership working together toward a shared environmental goal.

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Who we are?


orbia
Advancing life together
Polymer Solutions
Building & Infrastructure
Precision Agriculture
Connectivity Solutions
Fluor & Energy Materials
Time 4 Water
TIME4WATER
Orbia's Global Commitment to Water Stewardship
Protect Water
Use Water Responsibly
Create Positive Impact
Cleaner Water Brighter Tomorrows
Alphagary Pineville Volunteers
Adopt-A-Stream Cleanup
Pineville, North Carolina
October 2026
Local Action Global Impact



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What's Next?

- Install flow meters across production lines
- Improve monitoring of utility consumption
- Continue Zero Waste to Landfill efforts
- Expand pollution prevention initiatives
- Integrate sustainability into future growth projects

Add the adopt a stream slides or video)



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Thanks!!!

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Alphagary is an Orbia business and
part of the Polymer Solutions group.

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