The Importance of Designating Your System of Record

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More than ever before, today's vegetation managers need to construct data strategies that not only provide immediate organizational value but also establish the framework for future data access and long-term decision-making.

Consider a few of the objectives that are important in today's UVM environment:

- Improving the quality, consistency, and accessibility of data across the full chain of custody (e.g., work identification, planning, notification, permission, assignment, execution, audit)
- Capturing detailed, end-to-end, multiyear records of all actions taken on your system among multiple contractors
- Generating productivity and quality comparisons among contractors and managing to agreed-upon KPIs
- Meeting industry regulatory requirements including record keeping and reporting of environmental practices (e.g., herbicide spraying)
- Managing the growing liability and reputational risks including storm response and wildfire mitigation
- Leveraging incremental sources of data including GIS/geospatial data and remote sensing such as LiDAR and satellite analytics
- Managing via sophisticated, real-time dashboards and analytics
- Responding rapidly to customer trim requests and complaint tickets via call centers or online forms
- Streamlining business processes and reducing operating expenses

As data is increasingly becoming the backbone of every vegetation management operation, deploying the right system of record can mean the difference between simply meeting short-term goals and, importantly, managing to long-term outcomes across your system.

WHAT IS A SYSTEM OF RECORD?

A system of record (SoR) is a centralized data management system that serves as the authoritative source for critical business data within an organization. In the world of vegetation management, this may translate to accurate, up-to-date records such as asset locations, vegetation encroachment, danger trees, full chain of custody for field work, and more. When deployed successfully, an SoR enables data analysis, trending, dashboard reporting, and decision-making across a wide range of stakeholders. However, with many different systems in place, both internal and external, it can be difficult to determine which should be designated as your SoR.

EVALUATION CRITERIA

While evaluating systems to determine which should be designated as your SoR, it's crucial to consider several key factors which collectively play a vital role in ensuring the SoR supports your current needs and scales with your business as it grows.

Data Ownership

When working with external service providers (e.g., remote sensing), it's crucial to understand who owns the data and if access becomes restricted or limited when your relationship ends. Before signing on the dotted line even during a pilot stage, clarify whether (a) you'll be able to download or export your data and (b) there are any time limits or fees associated with this process. Understanding these terms ensures you maintain control over your data and can access it when needed, even if you're no longer using the service.

Data Access and Interoperability

Smooth access and interoperability mean that you can easily layer your vegetation management data to communicate effectively with all systems and applications within your utility, allowing for consistent data flow, minimal disruption, enhanced efficiency, and data availability for analytics. Key factors to consider include the availability of APIs or pre-built connectors, the ease of data synchronization, and how well the system aligns with your existing workflows. A system that integrates seamlessly should require minimal manual intervention, preserve data integrity, and support your team's productivity by ensuring that all platforms work together harmoniously.

Consider fire risk management. From a liability perspective, utilities today must not only identify high-risk areas but also tie together, using spatial data, the actions taken to mitigate the risks (e.g., detailed inspection and maintenance data). Beyond record keeping, this data becomes key when managing fire insurance policy renewals or seeking reduced premiums.

Consider customer communications. Can you generate reports tying your call center data to your vegetation management actions? If a customer calls about property damage or unauthorized spraying near their chicken coop, can the complaint be routed to the appropriate contractor? Importantly, can the call center view how, and how quickly, the complaint was resolved to close the case?

Vendor Independence and Compatibility

In today's competitive environment, shifting resources among contractors has become a necessity. However, this can become a challenge when one uses a proprietary system making it difficult for another contractor to pick up where they left off without licenses, access, or support from the original provider.

To ease the concern, it's crucial to negotiate clear terms from the outset that include access rights, data portability, and the possibility of

transitioning to a different contractor, if needed. This might involve securing data export capabilities that can be transferred to a new platform. If these provisions weren't in place initially, you may need to renegotiate with the original contractor to obtain the necessary access or transition tools, which could incur additional costs and time.

A thorough assessment of the proprietary system's dependencies and potential challenges of transitioning should be conducted before switching contractors, ensuring that your operations remain uninterrupted.

Building and maintaining an SoR separate from a services or data provider is the best way to ensure procurement flexibility and reduce overhead associated with software transitions.

Geospatial Foundation

While enterprise resource planning systems (e.g., Maximo, SAP) often serve as an organization's SoR for vegetation management, they're not inherently spatial (i.e., asset-management versus land-based). An effective SoR for vegetation management operations should be GIS- or map-based to capture precise geospatial details such as pollinator habitats, spray restrictions, and circuit-specific work.

Multiyear Vantage Point

Ensuring you maintain a historical record of all actions taken on your system over time including property-specific details (e.g., irate customer, dangerous canine, endangered wildlife habitat) requires accurate record keeping and multiyear data availability/access when needed.

Consider near-term and long-standing customer commitments (e.g., approval from planner to tree contractor to remove tree if stump is ground, trees have conditional approval/do not trim before October 15, agreed to call 24 hours in advance of arrival, or agreed to place tarp over vehicle in driveway). Effective communication and adherence to plan can mitigate costly mistakes.

WHY NOW?

For vegetation managers, designating a system of record is fundamental to the integrity and efficiency of your operations today and tomorrow. They not only ensure the accuracy and security of essential data but also serve as the backbone for informed decision-making and strategic planning. As vegetation organizations continue to evolve in an increasingly digital landscape, the role of these systems becomes even more critical, enabling seamless operations, ensuring compliance, and fostering trust across all levels of the business. Investing in a robust and adaptable SoR is not just a technological imperative but a strategic necessity for sustainable growth and long-term success.

What data should you store?

- Planned pruning and removals
- Work in Fire Risk Areas (FRA)
- Herbicide applications
- Customer Trim Requests (CTR)
- Emergency work
- Tree-caused outage details
- Prework notification and signed permission
- Sensitive customer information
- Customer agreements
  - One-time (e.g., conditional approval or special crew instructions)
  - Ongoing (e.g., 24-hour notice for property access)
- Worker safety data
  - Contractor safety and compliance
  - Hazardous field conditions
- Environmental data and restrictions
  - Capture in your GIS or Vegetation Work Management System (VWMS)
- Wildfire risk data
- Everything!

The Future of Vegetation Management is Digital

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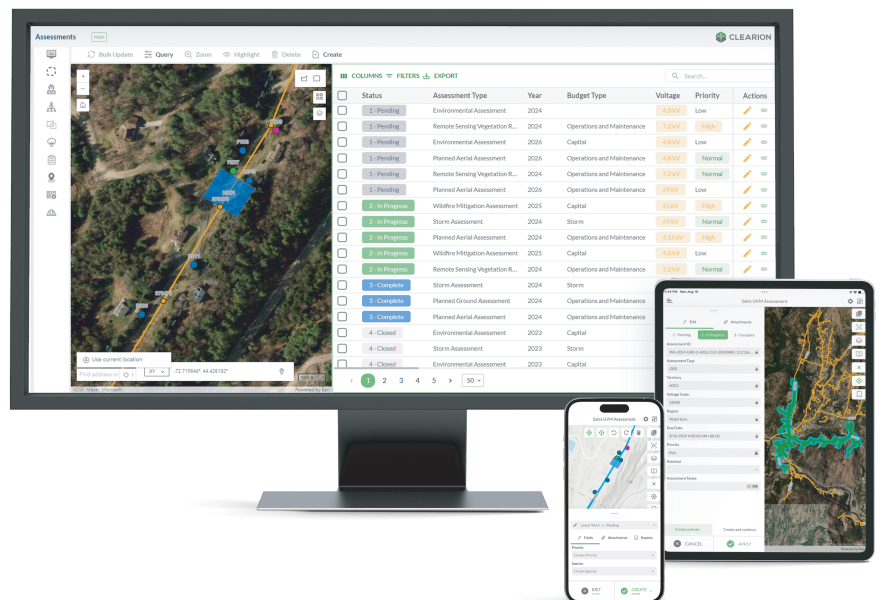## Future-Proof Your UVM Program

Intelligent Automation

Real-time Collaboration

Data-Driven Decision Making

Cross-Platform Integration

Connect Everyone from the Office to the Field

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