ESA

TECHNOLOGY SERVICES

TerraTrak™ Software Platform

Operationalize Management and Stewardship for Green Spaces

TerraTrak is a customizable web-based platform for managing and tracking green infrastructure assets, such as parks, open spaces, trails, urban forests, constructed wetlands, stormwater BMP structures, wildlife corridors, and other natural habitats. Local and regional government agencies rely on TerraTrack as a single system of record for every activity related to green space management, from surveys and acquisitions to restoration projects and ongoing site administration. TerraTrak allows users to specify the data and documents to collect for planning, budgeting, reporting, and contract management.

Built for green space management, TerraTrak is designed to support a range of user-defined workflows for administrative needs such as project budgeting, task tracking, materials purchasing and distribution, and real estate acquisitions. By streamlining and automating these common tasks, TerraTrak improves operational efficiencies. It provides a shared, centralized source of data and documentation so that all users – from program managers to engineers, ecologists, lawyers, accountants, and vendors – can more effectively collaborate to implement strategic initiatives for stewardship of natural areas.

Benefits

1. **Manage Operations**
   Increase efficiency with specialized workflows for common administrative tasks

2. **Improve Stewardship**
   Monitor ecosystem health and track project results to best align resources with overall performance goals

3. **Guide Planning and Investment**
   Make informed decisions with a single system of record for data, documents, and financial history

"With the workflow improvements that you have helped us identify, our people can stay focused on their core mission of protecting and enhancing lands for the public to enjoy."

Katy Weil | Oregon Metro

Manage Natural Areas

Administration and Project Management Designed for Green Assets

Unlike software designed for built environment properties, TerraTrak is uniquely suited to handle workflows and record keeping for green space management:

Data and Analysis to Support Decision Making — **Planning**

Acquisitions — Surveys, Negotiations, Legal Review, Due Diligence Processes

Plans, Photos, Contracts and Legal, GIS Mapping — **Record Keeping**

LAND ASSET

Management — Assessments, Asset Inventories, Budgeting

Regulatory Reports, Public-Facing Materials — **Reporting**

Stewardship — Planning and Tracking for Conservation and Restoration Projects

Key Clients

Metro

Oregon Metro tracks over 650 acquisitions, 200 sites, 1,160 projects, and 7000+ project tasks using TerraTrak.

CleanWater Services

Clean Water Services uses TerraTrak to support their award-winning riparian planting program.
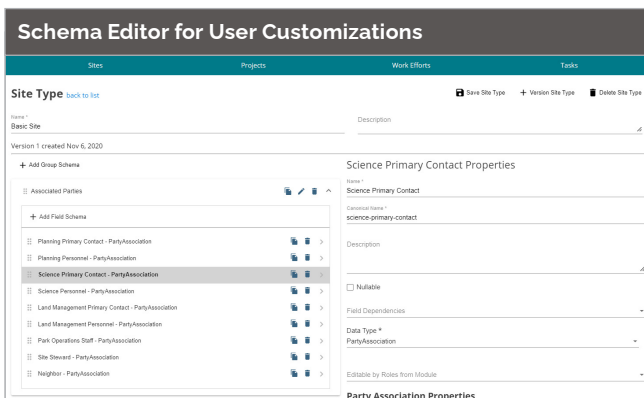
BALTIMORE CITY RECREATION & PARKS
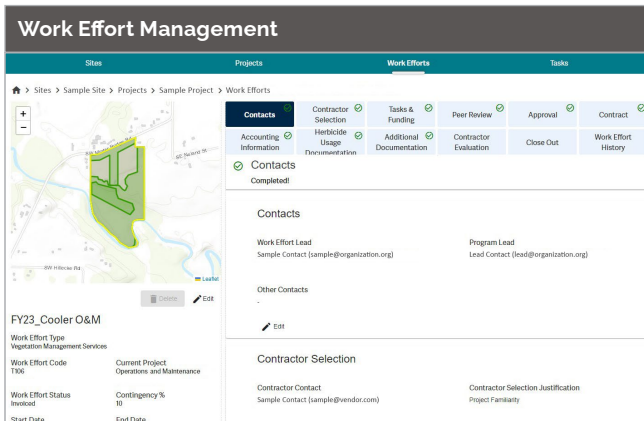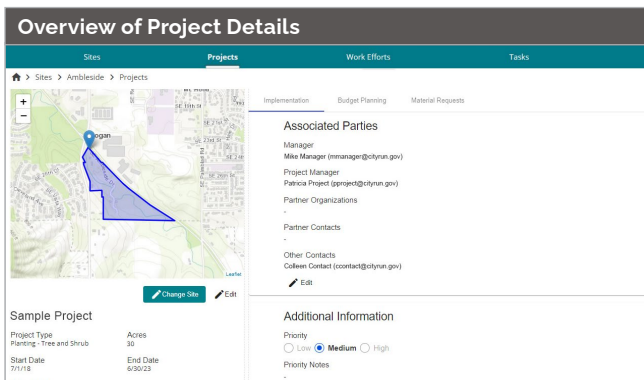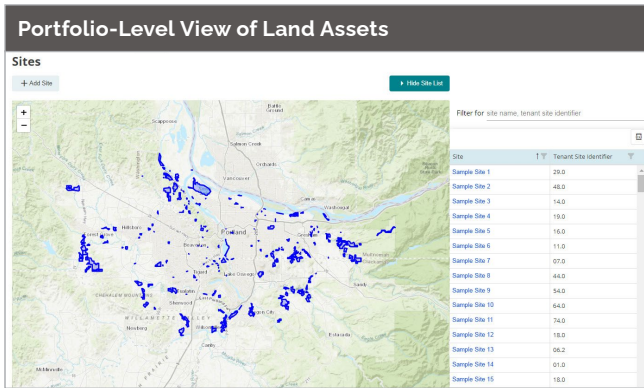
Baltimore City Recreation & Parks began working with TerraTrak in 2023

Key Platform Functionality

PLAN	INVEST	MANAGE	RESTORE	CONSERVE

➔ Design customized workflows, project formats, and data collection requirements

➔ Categorize projects, work efforts, tasks, properties, etc. by type to support differentiated data standards and workflows

➔ Monitor and manage land use agreements such as conservation easements, water rights, horticulture contracts, and vendor agreements

➔ Document habitat units and other assessments of ecosystem health

➔ Record Desired Future Condition (DFC) assessments of habitat units at the site level

➔ Leverage fully integrated GIS mapping to better understand relationships among ecosystems, infrastructure, and property boundaries

➔ View calendar of scheduled tasks

➔ Order materials and track inventory

➔ Set up approval workflows to support proper sequence and accountability

➔ Track funding sources along with annual planned, approved and remaining funds

➔ Estimate project budgets, review budget proposals, and allocate funds

➔ Standardize vendor agreements to specify billable rates for defined types of work

➔ Track completion of due diligence steps for property acquisitions

➔ Leverage secure, searchable storage for maps, site element inventories, contracts, and other key documents

➔ Export data in a variety of formats, or integrate TerraTrak with enterprise software platforms such as Power BI

➔ Create your own customized user roles and permissions

Environmental Science Associates
esassoc.com

Workflow Features in TerraTrak

Portfolio-Level View of Land Assets

Overview of Project Details

Work Effort Management

Schema Editor for User Customizations

Conservation and Restoration Projects

Key Benefits

- Set goals and tasks, monitor progress, then quantify and track results

- Get a complete toolkit for project management from specialists in natural resource stewardship

Features

- Design customized workflows for proposing, reviewing, approving, and updating projects

- Assign project activities and track progress through project workflow checklists

- Manage tasks, deadlines, and deliveries with interactive calendar tools

- Assign vendor agreements to projects to enforce contract rates for specified jobs

- Track invoicing for completed work

- Automatically roll up data by project category, location, partner, etc

- Curate project data for reporting needs, then generate and distribute reports using tools in the platform, or export data in standard formats

Materials Management

Key Benefits

- Customize and standardize processes for ordering, allocating and distributing material resources

- Curate relevant data and documentation in a single system of record

Features

- Design custom process and documentation for assessments, inventories, etc.

- Calculate weighted average cost for materials, on demand and at Fiscal Year End

- Manage material allocations and distribution of inventory to project sites

- Generate and distribute reports using tools in the platform, or export materials data in standard formats

Workflow Features in TerraTrak

Budget Tracker and Ledger

Implementation   Budget Planning   Material Requests

Total Project Costs

Total Forecasted	Total Planned	Total Spent
$113,500.00	$113,500.00	$73,994.89

Current Fiscal Year Project Costs

Approved: $17,500.00
Encumbered: $5,500.00   Remaining: $12,500.00

Y		FY Forecast	Total Planned	Approved	Spent	Encumbered	Remaining
Y19		$45,000.00	$45,000.00	$40,000.00	$35,898.89	$0.00	$4,101.11

FY19 Forecast
$45,000.00

Project Stage Name		Trade Services	Professional Services	Materials and Supplies	Total
Inter-planting and maintenance					$0.00
Maintenance		$5,000.00			$5,000.00
Monitor					$0.00
Site prep and planting		$28,000.00		$12,000.00	$40,000.00
		$33,000.00	$0.00	$12,000.00	$45,000.00

Materials Request Orders and Funding Approval

Materials & Funding

Materials Grid

Edit Request Items

Material Type		Unit	Class	Requested	Allocated	Picked Up	Remaining	Total Cost
Misc Herbaceous Spp - ecoregion 3		Each	VEC - Sod ...	20	20	0	20	$2,160.00
Totals for 1 Rows:				20	20	0	20 Actual Cost:	$2,160.00 $0.00

Encumbered Funding Allocation

Update Encumbered Allocation

Funding Source Type	Funding Source Name	Funding Source Code	Amount Allocated
Capital	Sample Name	Sample Code	$2,200.00

Material Request Budget Approval History

Approved By	Date Approved	Amount Approved
Sample User	1/30/2023	$2,200.00

Materials Delivery Calendar

Material Calendar

My Dashboard   Incomplete Items   Material Calendar

Show Legend   Show My Pick-Ups   + Hide Event List

June 2022   Day Week Month

Agreement Task Type Contract Rates

Funding Sources   Rate Types   Project Approvals

Agreements > Arborist - Sample Service Provider > Rate Periods > 10/8/20 - 10/31/25

Overview   Edit   Task Type Rates

Start Date 10/8/20   End Date 10/31/25

Amendment Number

Description

Rate Periods for Arborist - Sample Service Provider (2020-2025) (10/8/20 - 10/31/25)

10/8/20 - 10/31/25

Task Type	Category	Rate Type	Billing Method Type	Equipment	Unit Cost	Can Edit U
Basic Tree Assessment and Evaluation	Arborist: Assessment, Evalu...	Default Rate Type	Per Hour		$135.00	
Basic Tree Assessment and Evaluation	Arborist: Assessment, Evalu...	Default Rate Type	Per Unit		$540.00	
Bucking	Arborist: Field Work	Default Rate Type	Per Hour		$95.00	
Bucking	Arborist: Field Work	Default Rate Type	Per Hour (Special Con...		$115.00	
Burlapping/Protecting Trees - 12-16in Root (L...	Arborist: Field Work	Default Rate Type	Per Unit		$200.00	
Burlapping/Protecting Trees - 12-16in Root B...	Arborist: Field Work	Default Rate Type	Per Unit		$175.00	
Burlapping/Protecting Trees - 12-16in Root R...	Arborist: Field Work	Default Rate Type	Per Unit		$150.00	
Burlapping/Protecting Trees - 16-20in Root ...	Arborist: Field Work	Default Rate Type	Per Unit		$225.00	
Burlapping/Protecting Trees - 16-20in Root ...	Arborist: Field Work	Default Rate Type	Per Unit		$200.00	
Burlapping/Protecting Trees - 16-20in Root ...	Arborist: Field Work	Default Rate Type	Per Unit		$175.00	
Burlapping/Protecting Trees - 20-24in Root ...	Arborist: Field Work	Default Rate Type	Per Unit		$250.00	
Burlapping/Protecting Trees - 20-24in Root ...	Arborist: Field Work	Default Rate Type	Per Unit		$225.00	
Burlapping/Protecting Trees - 20-24in Root ...	Arborist: Field Work	Default Rate Type	Per Unit		$175.00	
Consultation Services	Arborist: Assessment, Evalu...	Default Rate Type	Per Unit		$165.00	
Consultation Services	Arborist: Assessment, Evalu...	Default Rate Type	Per Unit		$660.00	
Directional Tree Falling	Arborist: Field Work	Default Rate Type	Per Hour		$115.00	

Planning and Land Acquisition

Key Benefits

- Standardize and codify acquisitions processes

- Make informed acquisition decisions based on metrics such as cost to maintain similar properties, or performance of similar restoration projects

Features

- Design customized workflow checklists for your acquisitions process

- Track records for negotiations including offers, counteroffers, approvals, legal correspondence, etc.

- Create a secure centralized storehouse for acquisition documents including surveys, assessments, maps, photos, contracts, and financial records

- Manage plans for the rehabilitation of properties and create projects to carry out the plan

Cost Tracking and Budgeting

Key Benefits

- Track spending and project costs

- Evaluate effectiveness of project spending

- Improve accuracy with data-driven estimations for future project budgets and operational costs

Features

- Track costs with itemized spending records

- Associate funding sources with various projects for accounting and reporting purposes

- Assign budget approval authority to specific users

- Monitor actual spending against estimates

- Monitor spending against total allocated budget

- Associate project spending with quantified project outcomes

A Specialized Solution for Green Assets

TerraTrak software is quick to deploy, inexpensive to maintain, and easy to learn and use. TerraTrak may be easily integrated with other systems, such as a public facing website or enterprise software platforms. Based on our decades of experience with local, state, and federal government agencies along with conservation organizations, we designed TerraTrak to be highly intuitive and "right-sized" for public sector and non-profit clients. Based on cloud infrastructure, TerraTrak can scale to trillions of files and enormous computing power as your storage and processing needs grow.
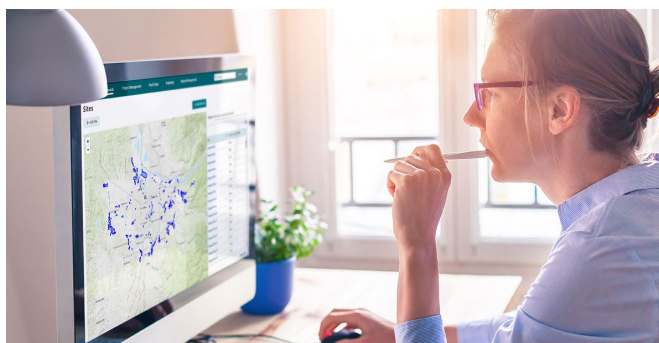
Learn More

See Case Study of TerraTrak Deployment

- Oregon Metro:
  esassoc.com/projects/green-space-management-for-oregon-metro/

Schedule a Demo

techservicesmarketing@esassoc.com

Connect with us:

techservicesmarketing@esassoc.com

esassoc.com/services/technology