

EN2017

PORTALS IN ACTION

Hope Kosier, EPA OEI
Sheryl Rosner, EPA Region 1
Hannah Humphrey, Missouri DNR
Chris Simmers, New Hampshire DOIT
Laura Letson, EPA OEI

2017 Exchange Network National Meeting

Innovation and Partnership

May 15-18, 2017
Sheraton Philadelphia Society Hill Hotel
Philadelphia, Pennsylvania
#EN2017
http://www.exchangenetwork.net/en2017

Abstract

First launched in 2015, the E-Enterprise Portal is being developed by EPA, State and Tribal Partners to provide users with a secure, central interface to conduct business with environmental agencies. With a wide range of target users, including regulated entities and the public, the Portal provides an easy-to-use, customized platform to allow electronic communications with co-regulators, while also providing useful environmental and public health information and resources. With continued investment and long term stewardship, the Portal aims to greatly expand its functionality, visibility and user-base to further enhance a customer-centric approach while ensuring data integrity and user confidentiality.

Topics

- State of E-Enterprise Portal
- Assistance Gateway
- Be Well Informed Implementation and Lessons Learned
- Portal of the Future and Partner Collaboration
 Opportunities

State of *E-Enterprise Portal*

Hope Kosier

Welcome to E-Enterprise gov! ePortal epa gov has now moved to E-Enterprise gov. Please update your bookmarks.



LOGIN

Browse as Guest New User?

Customize your information

The E-Enterprise Portal provides an important new means by which users can customize the types of information presented to them, find and select tools and other resources, and conduct transactions with EPA, Tribes, and States.

See the video >>







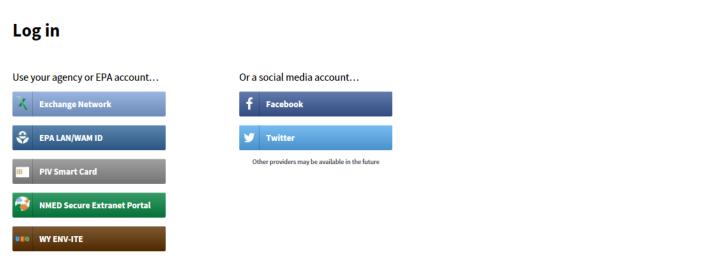




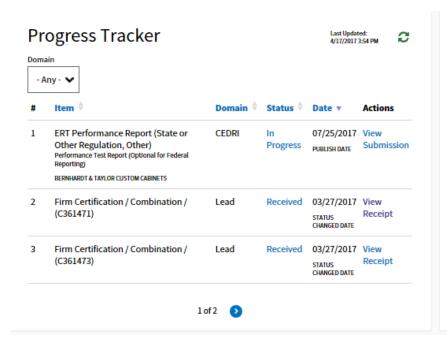
FAQs

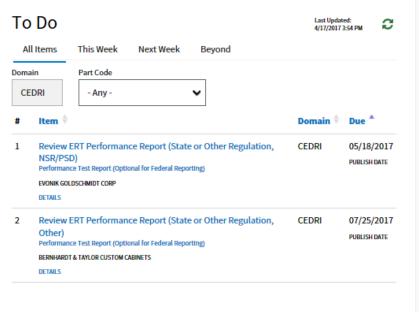
Single Sign-On



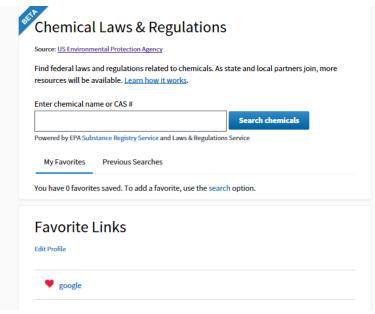


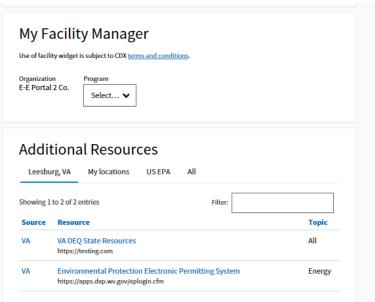
Conduct Business





Conduct Business

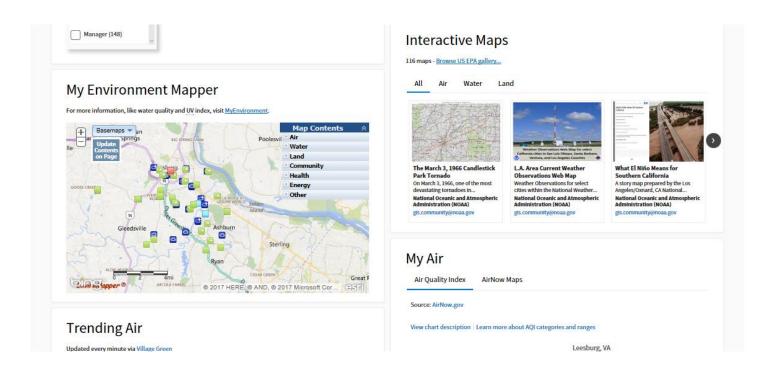




Provide Information

U.S. FPA 2017 Construction General Permit (CGP) Search Source: New Hampshire Department of Environmental Sciences Have a well and wonder what your water testing results mean? Source: US Environmental Protection Agency Find Notices of Intent (NOIs), Notices of Termination (NOTs), or Low Erosivity Waivers (LEWs) The Be Well Informed Guide lets you enter your test results and get feedback about health concerns and water treatment choices. submitted under the U.S. EPA 2017 Construction General Permit (CGP). At this time, search results will only include activity with the national NPDES eReporting Tool (NeT-CGP) for U.S. EPA Be Well Informed was created for New Hampshire residents, and has the most common lead and participating states and tribes. contaminants that affect wells there. It may not have all the contaminants present in your area -Enter one or more search criteria for those it does have, it can provide useful information. Site / Facility name NPDES ID A quick disclaimer before we start. Information provided on this website is for informational purposes only and should not be substituted for direct consultation with a qualified water treatment professional. Other conditions or factors related to your well or State/Territory Zip home not considered by this online guide may determine the most appropriate water treatment option. All ~ **Check your water** Status 0 Form Type ΑII All v Resources for Local Communities ▶ Advanced search criteria Manage My Profile Topics

Provide Information



Assistance Gateway (aka Local Government Portal)

Hannah Humphrey and Sheryl Rosner

The Assistance Gateway is a component of the E-Enterprise Portal

The Assistance Gateway addresses a need expressed by local governments and tribes to gain easy access to decision-making tools and resources to improve environmental infrastructure, compliance, critical assets, health, and sustainability.

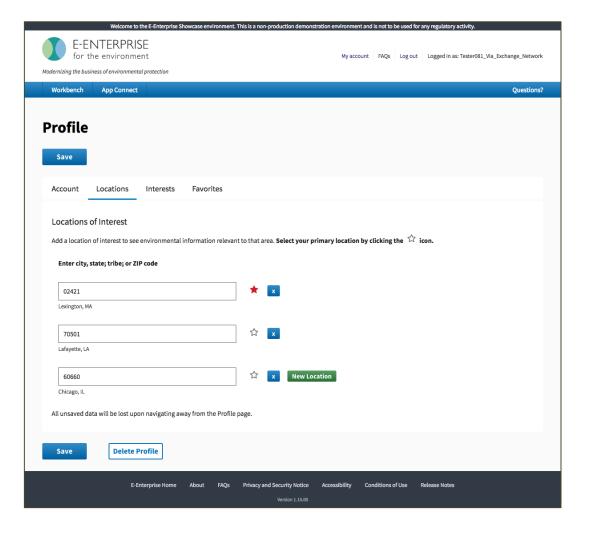


http://eportal.epa.gov

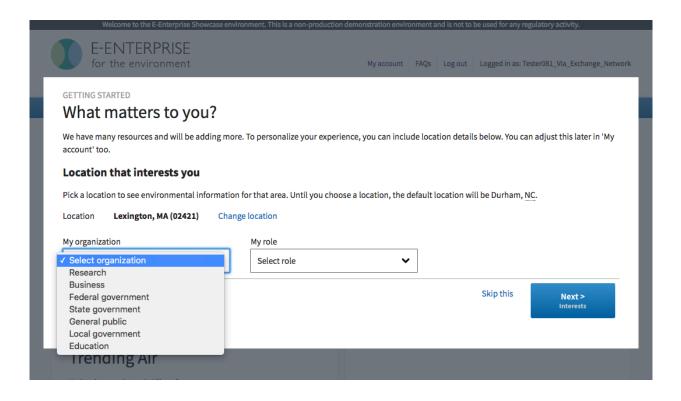
Develop your user-profile during the initial login after registering with:

- Locations of interest
- Interests
- Favorites

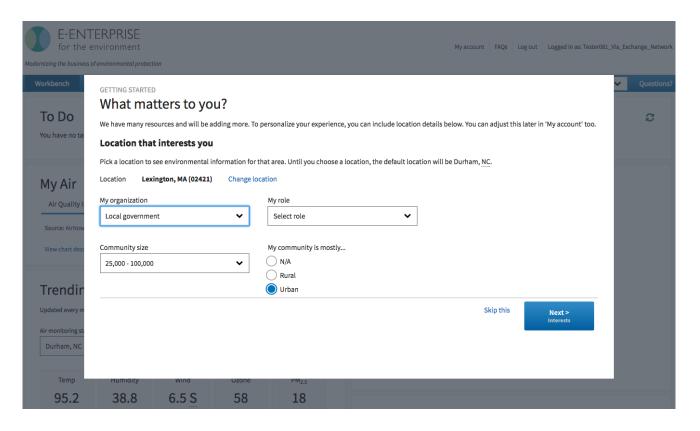
At any time, you may modify these selections and new information would be saved to the workbench.

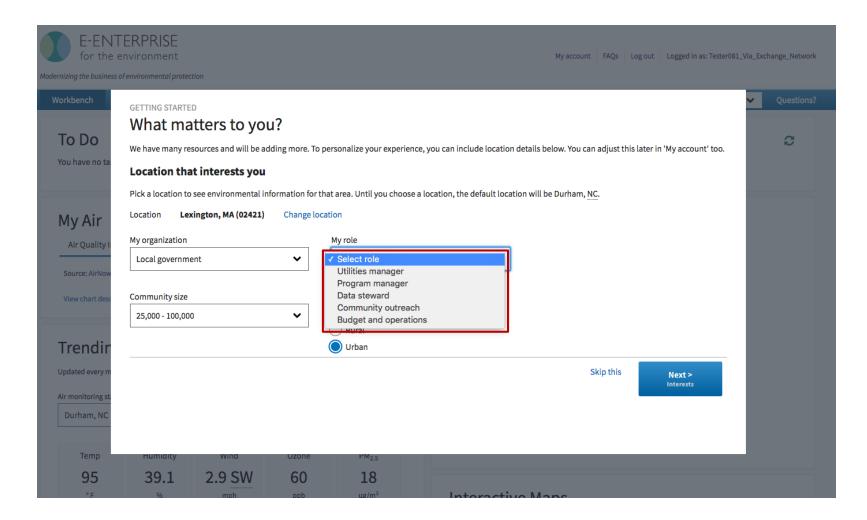


Specify your Organization and Role



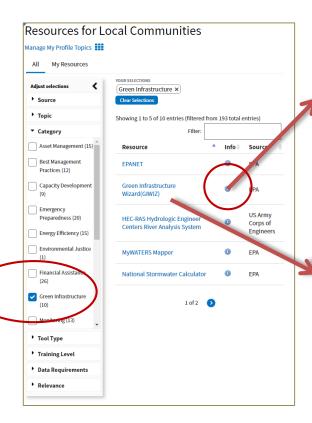
Target Audience: regulated tribes and communities responsible for environmental compliance





Resources for Local Communities
Brownfields and Redevelopment and Industrial Cleanup
Climate Change
Conservation and Alternative Energy
Drinking Water and Wastewater
Emerging Technologies, Issues and Topics
Finance and Grants
Indoor and Outdoor Air Quality
Municipal/Industrial Solid Waste Management
Natural Disaster and Emergency Management
Stormwater
Water Quality and Restoration

User selects topics of interest



Information prompt provides a description of the resource

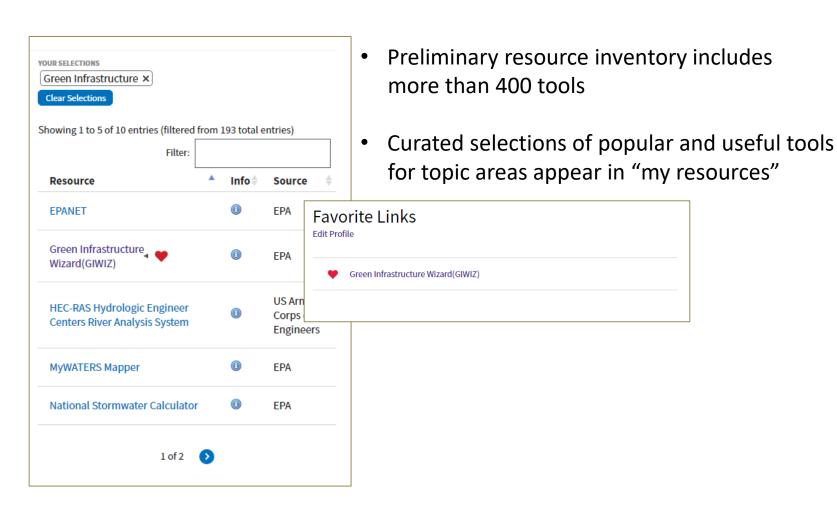


Example of

resources

offered





Assistance Gateway takes advantage of Reusable Component Services (RCS)

Reusable Component Services (RCS) provides a central point of access to a broad range of IT resources, components and services used in various EPA and partner systems. It enables reuse of these resources, which helps reduce cost, speed development, and produce higher quality systems and applications.

RCS allows users to:

- Catalog reusable information assets for EPA and its partners
- Load metadata about assets
- Harvest metadata from other Agency registries and repositories
- Relate services, data assets, and the systems and applications they are used in
- Access a single interface through which users can search for all resources regardless of their type and location

Assistance Gateway houses its resources in RCS and can be edited by persons who have access to RCS and are stewards of the resources.

Assistance Gateway-Missouri



Profile

User Profile

Resources of Interest

What topics or categories of resources are you interested in? Set your preferences here and we when you search for resources, we will automatically filter them based on your interests.

Profile Details 3		Preferences		
First Name	Middle Name	Topic		
Hannah Email hannah.humphrey@dnr.mo.gov Office Phone Cell	Username hannah.humphrey@dnr.mo.gov Phone Fax	☐ Air Quality ❸ ☐ Drinking Water ❸ ☐ Natural Disaster and Emergency Management ❸ ☐ Stormwater ❸	Asbestos	Brownfields Redevelopment & Industrial Cleanup Historic Preservation Solid Waste Management & Recycling Wastewater Wastewater
Email me when there is a new announcement ✓		☐ Roads, Buildings & Facilities ❸	☐ Water Quality Planning & Restoration ❸	
Employed by or Represent 😉		Category		
☑ City, village or town ☐ Federal governmnent ☐ Public Safety ☐ Water or sewer district	☐ County Government ☐ Non-profits ☑ State government ☐ Other	✓ Asset Management 🛈 ☐ Cleanup 🐧 ✓ Financial Planning 🔁 ☐ Nonpoint Source Water Pollution 🔁 ☐ Recycling ① ☐ Watershed Plan ② ✓ Emergency Preparedness ③	☑ Governance ❸ ☑ Compliance Assistance ④ ☑ Infrastructure Planning ❸ ☑ Operation & Maintenance ❸ ☐ Waste Management ❸ ☐ Watershed Restoration ❸ ☐ Emergency Response ❸	✓ Sampling & Monitoring ③ ✓ Financial Assistance ④ ✓ Infrastructure Repair and Upgrade ④ □ Operator Certification ⑥ □ Source Water Protection ⑥ □ Soil Conservation ⑥ ✓ Energy Efficiency ⑥
What is the population size of your community? Less than 500	▽	☐ Permits and Regulatory Reporting ❸	☐ Landfills 3	☐ Environmental Information ⑤
Role €	□Alderman	□ Advocacy ① Save Back		
☐ Board or council member ☐ Drinking Water Operator	☐ Chairman or Trustee ☐ Mayor	☐ Non-profit or community group repres	entative	
□ private citizen □ Wastewater Operator	Public Works Superintendent or Director			

View Resources

Resources of Interest

Filter by Topic

Mark your favorites by clicking the star

View/Manage						
	Advanced	Search My	Favorites			
	Air Quality Asbestos	os e		Clear		
	Brownfields Redevelopment & Industrial Cleanup Drinking Water Hazardous Wastes, Substances and Chemicals Historic Preservation Natural Disaster and Emergency Management Parks, Trails & Playgrounds Roads, Buildings & Facilities Solid Waste Management & Recycling			Description 1†	Торіс	
			cy Management	nent nity	Simple guidance for managing a small community utility's financial Functions, overs the basics of financial management, financial planning, annual operating budgets, oversight and monitoring and maintaining sustainable utility services for your customers.	Drinking Water, Wastewater
1	Stormwater Tires Wastewater	Stormwater Tires		er	This bulletin is intended to aid water system officials in assuring proper inspection of their storage facilities and to secure some uniformity in the reports submitted to officials by inspecting firms.	Drinking Water
	*	View Details	Details Asset Management for Local Officials		This U.S. Environmental Protection Agency fact sheet is designed to help local officials understand the basics of asset management and their role in its implementation.	Drinking Water, Wastewater
	View Details Planning a Wastewate System Project		water	This fact sheet provides wastewater system owners an overview of the steps generally involved in a wastewater infrastructure project. The first step is to hire a Missouri registered professional engineer.	Wastewater	
	Value	Communicating Value of Drinking Water Services	the	This guide summarizes public relations campaigns undertaken by water utilities to raise public awareness that drinking water systems provide to their customers. Contains examples of communication materials and successful approaches,	Drinking Water, Wastewater	
	Asset Management Tool View Details No-Discharge Wastewater Treatment View Details One-on-One Help from a DNR Community		JPSS)	CUPSS is a free, easy-to-use, asset management tool for small drinking water and wastewater utilities. CUPSS leads users through a series of modules to collect information on a utility's assets, operation and maintenance activities, and financial status to produce a prioritized asset inventory, a set of financial reports and an asset management plan.	Drinking Water, Wastewater	
			ment	The department's No-Discharge Wastewater Treatment webpage provides an overview of no-discharge wastewater systems and serves a resource for those considering installing or currently operating a no discharge system.	Wastewater	
			,	DNR Community Assistance staff offer support and coaching to local governments responsible for drinking water, wastewater treatment, stormwater management, solid waste management and other environmental issues. Coordinators may help by	Air Quality, Asbestos, Brownfields Redevelopment & Industrial Cleanup, Drinking Water, Hazardous Wastes, Substances and Chemicals, Parks, Trails &	

Assistance Wizard

	Wizard Type	Wizard Name ‡↑	Wizard Description 11
Take Wizard	Public drinking water system	Drinking Water Compliance and Infrastructure Planning	This recommendations report was created using a drinking water assi Department of Natural Resources to assist local governments planning and accessing resources.
Take Wizard	Domestic wastewater treatment system	Wastewater Compliance & Infrastructure Planning for POTWs	This recommendations report was created using a wastewater assista of Natural Resources to assist local governments planning for current accessing resources.
Take Wizard	Air and Land	Small Community Guidance for Protecting Air, Land and Stormwater	Receive recommendations to ensure your community is protecting air



Wastewater Compliance & Infrastructure Planning for POTWs

1. If your wastewater system is a discharging system, are any upgrades to the facility needed to meet new federal or state discharge limits that the existing system is not designed to meet?



O No

My facility is a no discharge system.

When a new permit contains effluent limits that the existing system is not designed to meet, the first step is usually to secure funding to hire an engineer to evaluate the existing facility, treatment ontions and estimate costs.

One-on-One Help from a DNR Community Assistance Coordinator

Planning a Wastewater System Project

Small Community Engineering Assistance Grants

1 of 4

enhance the operation of drinking water and wastewater systems, serve the overall sustainability of the community, and are activities the system operator can undertake at no additional cost to the community. Some recommended activities are needed to ensure regulatory compliance and to protect public health and the environment. Please contact your local Community Services Coordinator for one-on-one assistance. Find the coordinator serving your area by visiting www.dnr.mo.gov/assistance. Please note: This document does not address every federal, state, and local environmental requirement.

Responses to wizard questions will indicate areas that a change in operation, planning, training or assistance may improve the overall operation of the systems. Communities are encouraged to establish short-term and long-term goals based on local priorities. Many of the recommended activities will

Date: 04/25/2017

Assessment Name: Wastewater Compliance & Infrastructure Planning for

Service Owner: DNR staff service

Service:

Description: This is a test

1. If your wastewater system is a discharging system, are any upgrades to the facility needed to meet new federal or state discharge limits that the existing system is not designed to

☑Yes

☐My facility is a no discharge system

When a new permit contains effluent limits that the existing system is not designed to meet, the first step is usually to secure funding to hire an engineer to evaluate the existing facility, treatment options and estimate costs.

Expanded Response

When a new permit contains effluent limits that the existing system is not designed to meet, the facility owner will need to determine what type of facility changes are necessary to meet the new limits. For mechanical plants, oxidation ditches and sand filters, operations changes are sometimes sufficient, but a facility upgrade may be necessary. For lagoon systems, a facility upgrade or replacement is likely to be necessary. A facility upgrade or replacement is a major project that will require engineering as well as thorough managerial, operational, and financial planning. Your permit will contain a Schedule of Compliance, often a period of several years, to allow time to plan the project and secure funding. The first step is usually to secure funding to hire an engineer to evaluate the existing facility, treatment options and estimate costs. The fact sheet "Planning a Wastewater System Project," linked in Recommended Resources below, provides an overview of the steps generally involved in a wastewater infrastructure project.

If you are interested in help reviewing your options, and finding resources, please feel free to contact the department's Community Assistance Coordinator.

Resources

04/25/2017 Page 1 of 3





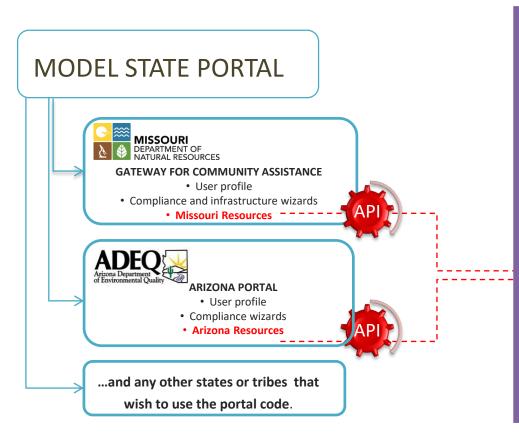


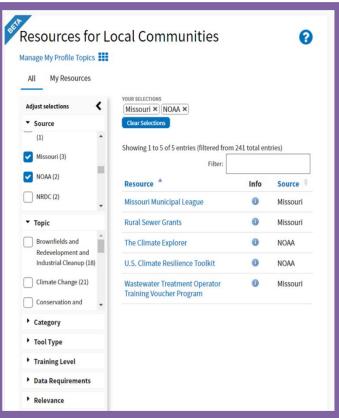


Administrative Functions

Resource Topics Administrative interface used by state agency staff allows Search / Add portal to be highly configurable **Topic Name Custom Text** Search / Add Water Quality Planning & Water Quality Planning & Restoration is planning for restoration and maintenance of the chemical, hannah.humphrey@dnr.mo.gov 1/23/2017 physical, and biological integrity of the region's waters **Custom Text Value** ID Control Natural Disaster and Planning for and responding to hazardous substance releases, natural or man-made disasters, or hannah.humphrey@dnr.mo.gov 1/23/2017 Emergency Management security threats that impact public safety and the environment. Floods, tornadoes, cleanup, repair, v Brownfields Redevelopment | Industrial or brownfield property assessment, redevelopment of blighted properties, risk hannah.humphrev@dnr.mo.gov 1/23/2017 **Bulk Export** & Industrial Cleanum assessment management and cleanup Q-08-0Q DM Hazardous Wastes. Hazardous waste, hazardous substance, tanks, environmental emergency, contaimination, hannah.humphrey@dnr.mo.gov 1/23/2017 Substances and Chemicals Roads, Buildings & Facilities Demolition and renovation of derelict buildings, building waste management, gravel road dust hannah.humphrev@dnr.mo.gov 1/20/2017 suppression, community facilities Value II Updated By I ID If Code If Wastewater treatment facility, sewage and sewers, lagoon, treatment plant, oxidation ditch, sand hannah.humphrey@dnr.mo.gov 1/20/2017 filter, sewwer pipes, sewer overflow, basement backup 5:27:09 PM LGP Home Index Assessments PanelHeader Assessments nikki.veit@oa.m View Edit Delete Tires Scrap tire cleanup and recycling hannah.humphrev@dnr.mo.gov 1/20/2017 5:25:21 PM LGP_Home_Index_Assessments_ColumnName_Assessment Quiz lucas.knipp@oa View Edit Delete Stormwater Stormwater, surface runoff, drainage, Municipal Seperate Storm Sewer program hannah.humphrey@dnr.mo.gov 1/20/2017 LGP_Assessments_Index_PanelHeader Available Assessments 5-23-19 PM **Agency Staff** 2017 LGP_Claim_Redeem_PageHeader Code1 50 PM Edit 2017 LGP_ServiceOwner_IndexClaims_ColumnName_ClaimCode Code First Name Last Name **Email** LGP_ServiceOwner_IndexClaims_PanelHeader Open Codes danielle.west@dnr.mo.gov LGP_ServiceOwner_SendClaim_Button_SendClaim Send Code Roles ✓ Agency Admin ✓ Announcement Admin ✓ App Setting Admin LGP_ServiceOwner_SendClaim_PanelHeader Send Service Owner Staff Code Assessment Testing Admin ✓ Custom Text Admin Employer Type Admin ✓ Model Assessment Admin ▼ Occupation Admin ✓ Report Admin LGP_ServiceOwner_ManageServices_ServiceOwner_Button_RedeemClaim Redeem Code ✓ Resource Admin Resource Availability Admin ✓ Resource Category Admin Pacource Tool Type Admir LGP_Claim_SendClaim_Controller_ClaimSentFallure Code failed to send. Resource Program Area Admin ✓ Resource Relevance Admin ✓ Resource Topic Admin ✓ Service Owner Admin ☐ Tooltip Admin Send Agency Staff Claim 4 5 6 7 8 9 10 ... »

National and **State** Resources Appear Together





Estimated investment for states and tribes to implement their own Assistance Gateway

Access source code and documentation from U.S. EPA Central Data Exchange 8-16 Hours &
≤ 1 GB Server
Storage
IT Professional
installs code
either on
premise or in
the cloud

40 - 80 Hours
Agency staff
configure
customizable
labels and add
content

Portal is available to your users on the web

Next Steps

- State and tribal engagement to add resources
 - Add state and tribal integration
- Improve overall "look and feel" of platform
 - Icons and visuals
- Add additional resources
- Keep platform up-to-date and continually improve services
- Longer term develop crowdsourcing capability and greater interoperability

Be Well Informed Implementation and Lessons Learned

Chris Simmers

Selected for Portal

- Discussed at E-Enterprise Leadership Council (EELC)
 Meeting
- Noted that application:
 - offered both environmental and public health benefits
 - improved NHDES business process
- Determined the portal could be a vehicle for sharing the application with other E-Enterprise partners
- IOT kicked off and oversaw the project

Portal Considerations

- Could Be Well Informed be reverse engineered and reconstructed as a service that could be consumed by the E-Enterprise Portal?
- How could that engineering be done in a way that the functionality could be extended in the future to other E-Enterprise partners?

Approach

- Decouple the application's business logic from UI components and provide as services
- Define necessary services to support functionality including service request parameters and response formats
- De-couple UI logic from results analysis and re-implement as web services
- Collaboratively design the E-Enterprise Portal UI
- Build UI in the E-Enterprise Portal and consume new web services to perform validation, analysis, and display results

Extension to Partner States and Tribes

- The heart of New Hampshire Be Well Informed is a configurable XML document (flowcharts.xml) that:
 - Contains evaluation conditions
 - Maps conditions to messages to display to the well owner
 - Maps conditions to treatment options
 - Maps conditions to health impact information to the well owner
- Underlying services can made to be location aware so that a partner could modify the NH flowcharts.xml template with specific conditions, messages, and treatment options providing codeless customization for partner adoption.

```
<?xml version="1.0" encoding="utf-8"?>
<FlowCharts>
        <Contaminant Value="As" Text="Arsenic" MCL="0.01 mg/L" NotEntered="Test your</pre>
water. Studies show that 1 in 5 private wells in New Hampshire have high arsenic.">
            <Condition CheckOperator=">=" CheckValue="0.01">
                    <Condition CheckOperator=">=" CheckValue="0.005">
                            <Outcome IM="As1" HM="As1" TM="As1" GuidelineIcon="W"</pre>
GuidelineText="The value entered is close to exceeding the drinking water standard"/>
                        <False>
                            <Outcome IM="As2" HM="As2" TM="As2" GuidelineIcon="M"</pre>
GuidelineText="The value entered meets the drinking water standard"/>
                        </False>
                    </Condition>
                </False>
                    <Condition CheckElement="Fe" CheckOperator=">=" CheckValue="0.1">
                             <Condition CheckElement="Mn" CheckOperator=">=" CheckValue
="0.1">
                                     <Outcome IM="As3" HM="As3" TM="As3a"</pre>
TreatmentOrder="1a,1b,5a,5b" GuidelineIcon="E" GuidelineText="The value entered
exceeds the drinking water standard"/>
                                 <False>
                                     <Outcome IM="As3" HM="As3" TM="As3b"
TreatmentOrder="1a.1b.5a.5b" GuidelineIcon="E" GuidelineText="The value entered
exceeds the drinking water standard"/>
                                 </False>
                                     <Outcome IM="As3" HM="As3" TM="As3c"
TreatmentOrder="1a,1b,5a,5b" GuidelineIcon="E" GuidelineText="The value entered
exceeds the drinking water standard"/>
                                 </Missing>
                            </Condition>
                        </True>
                        <False>
                             <Condition CheckOperator=">=" CheckValue="0.250">
                                     <Condition CheckElement="Mn" CheckOperator="&lt;"</pre>
CheckValue="0.1"
                                             <Outcome IM="As3" HM="As3" TM="As3e"
```

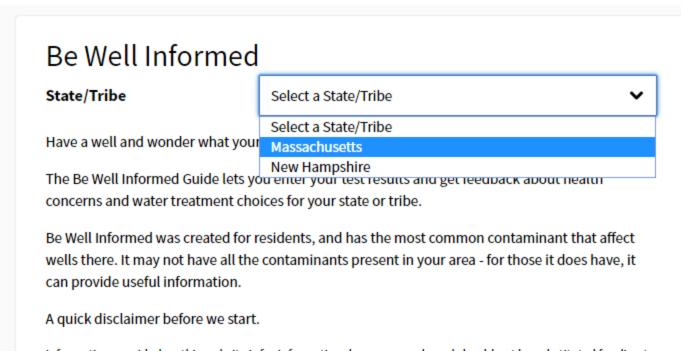
Collaboration/Co-Development

- Possible inclusion in the E-Enterprise Platform should be factored into partner development activities up-front where possible
- If all partners build with flexibility and configurability (such as NH's flowchart.xml application component) as a principle, it is possible to share and benefit from each other's efforts
- Standards and processes for co-development, both for self-contained widgets and shared services should continue to be pursued by E-Enterprise governance

DEMONSTRATION



Modernizing the business of environmental protection



Turns Out It's A Very Useful Pilot

- Application has environmental/public health benefits for the public
- Example of applying technology to improve a business process (DES gets 300+ calls/year about test results, treatment options)
- Using the E-Enterprise Portal as the vehicle for sharing the application with other States/Tribes (shared service)
- Joint development (OEI, CGI, DES/DoIT)
- Testing Joint Governance at the operational level, identifying important policy issues
- Fun

And Now a Word From Our Sponsors

- Application developed for NH Department of Environmental Services
 Drinking Water Program by a contractor, Voyager Systems
- NH Department of Information Technology provided technical oversight
- Funding for project is from the Centers for Disease Control and Prevention, Environmental Health Program
- Working with EPA's Portal development team in the Office of Environmental Information, in collaboration with the E-Enterprise Program
- Contractual support from CGI

E-Enterprise PortalFuture State and Collaboration Opportunities

Laura Letson

Future Portal

A single interface for conducting electronic business with U.S. environmental agencies

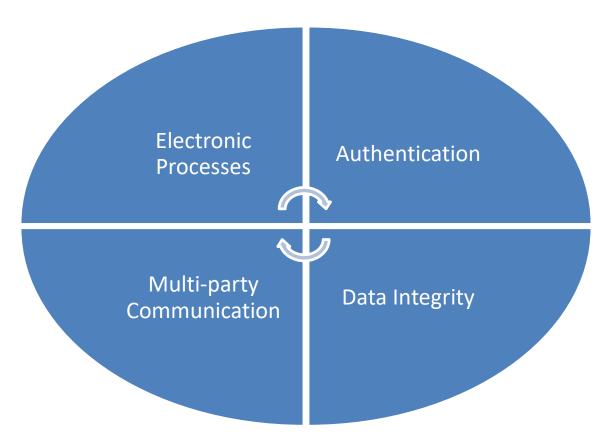
Disclose, Request, Engage, Analyze, Monitor, Access, Participate, Report, ...

User-centric, Multi-agency, Efficient, Current, Relevant

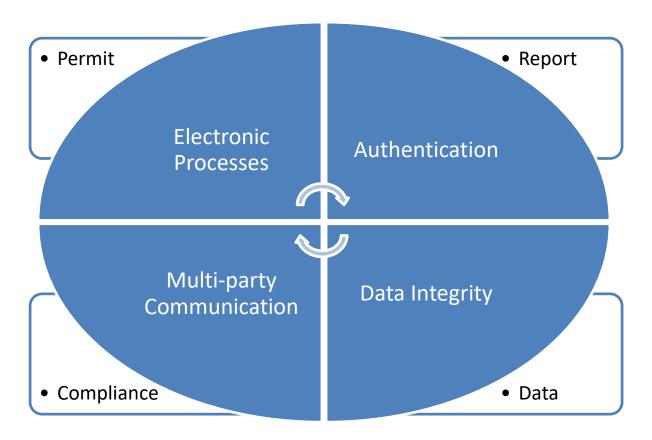
Anticipated Benefits

- Improve quality, integration and timeliness of information
- Reduce time and costs
- Access "smart" online tools to understand & comply with regulatory requirements
- Streamline permitting processes with progress tracking
- Integrate streamlined compliance with federal and state reporting requirements
- Customize access to environmental information & assistance tools
- Improve transparency for environmental decisions and conditions

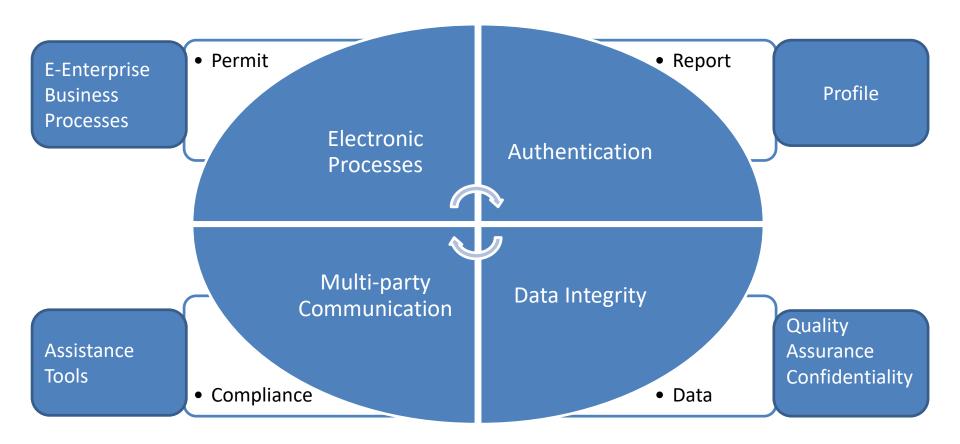
Services & Functions



Services & Functions



Services & Functions



Critical Dependencies

- Shared IT and data services
- Robust metadata program
- Strong and collaborative governance



Portal Collaboration Opportunitie\$ for E-Enterprise Partners

- Add State/Tribal authentication rights in Enterprise Identity Management
- Build and adopt Portal applications to support Portal Interoperability
- Participate in Laws and Regulations Registry Pilot
- Expand Resources in Assistance Gateway

2018 Exchange Network Grants Solicitation Notice

Apply at www.epa.gov/exchangenetwork

Bigger Considerations

- Portal scope & content
- Operations & maintenance
- Design consistency



Feedback

What would help you to do your business better?

