



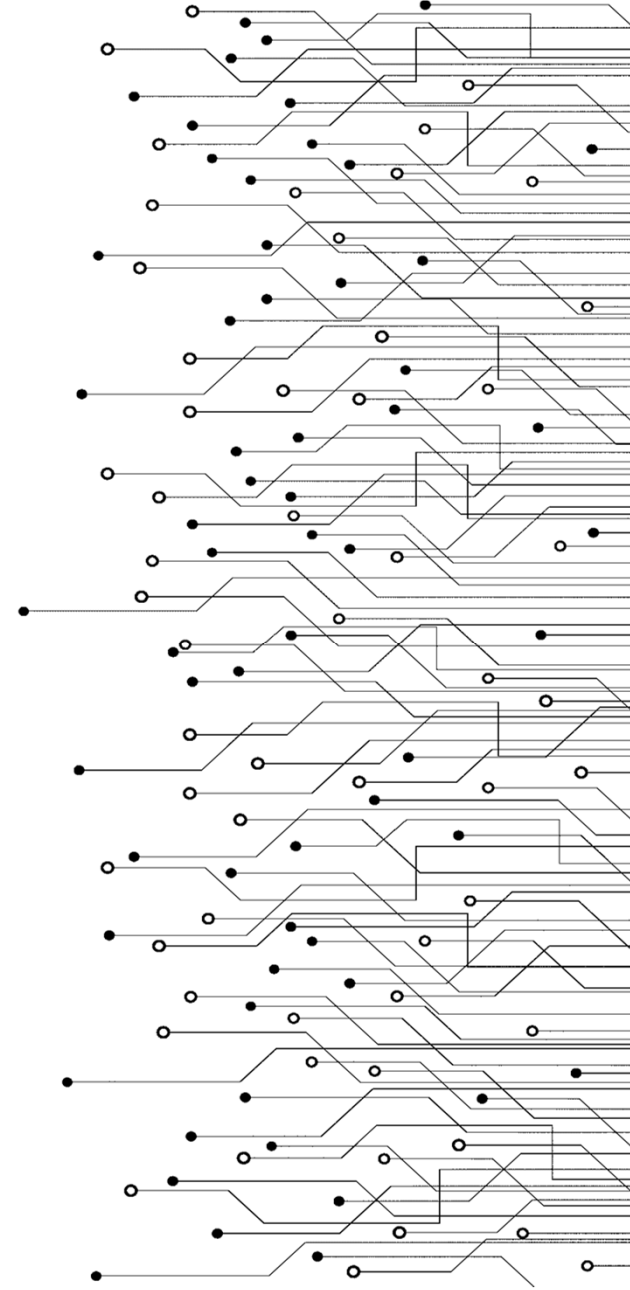
Permitting Enhancement and Evaluation Platform (PEEP) & AI - Permitting Review System (PRS)

Permitting Efficiency, Transparency and Accountability

Brenda Winn, VA DEQ
September 2026

PEEP Features

- Contains Critical Steps of Interest to the Public and Applicants
 - Agency Review
 - Coordination
 - Agency Decision
- Displays Target and Actual Timeframe for Each Step
- Identifies Responsible Party for Each Step
- Sends Internal & External Notifications
- Visible to Everyone
- Serves as a Workload and Performance Management Tool



PEEP

<https://portal.deq.virginia.gov/peep-search>

[Home](#) / Search

DEQ Permitting Enhancement and Evaluation Platform

Welcome to DEQ's Permitting Enhancement and Evaluation Platform (PEEP). This online resource conveys and tracks critical steps and target timeframes for permit applications and other requests for DEQ approval. The goal is to foster transparency, collaboration and efficiency in DEQ's evaluation processes.

Please visit [DEQ's PEEP Information Page](#) for a list of permits and approvals currently tracked in PEEP.

Use the search tool below to find out more information about pending DEQ approval actions.

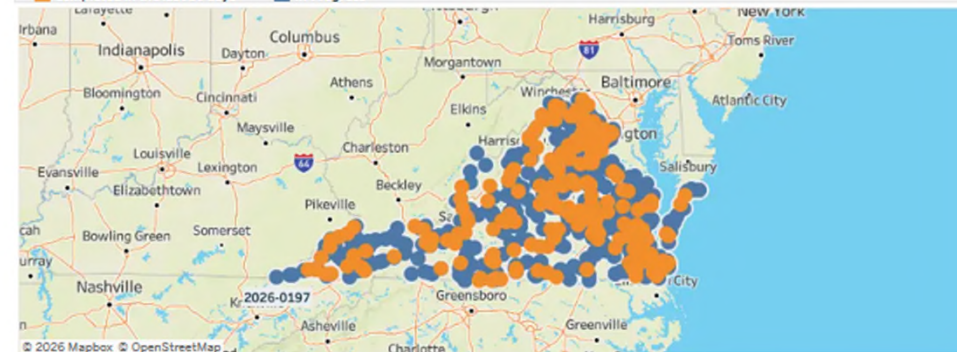
Request Search (i)

Updated: 9/1/2026 4:35:57 AM

Filters & Legends

Media (All)	Program Type (All)	Request Type (All)
Facility Name (All)	Locality (All)	Requestor (All)
Request Status (All)	Request Number (All)	Agent (All)

Completed in the last 30 days In-Progress

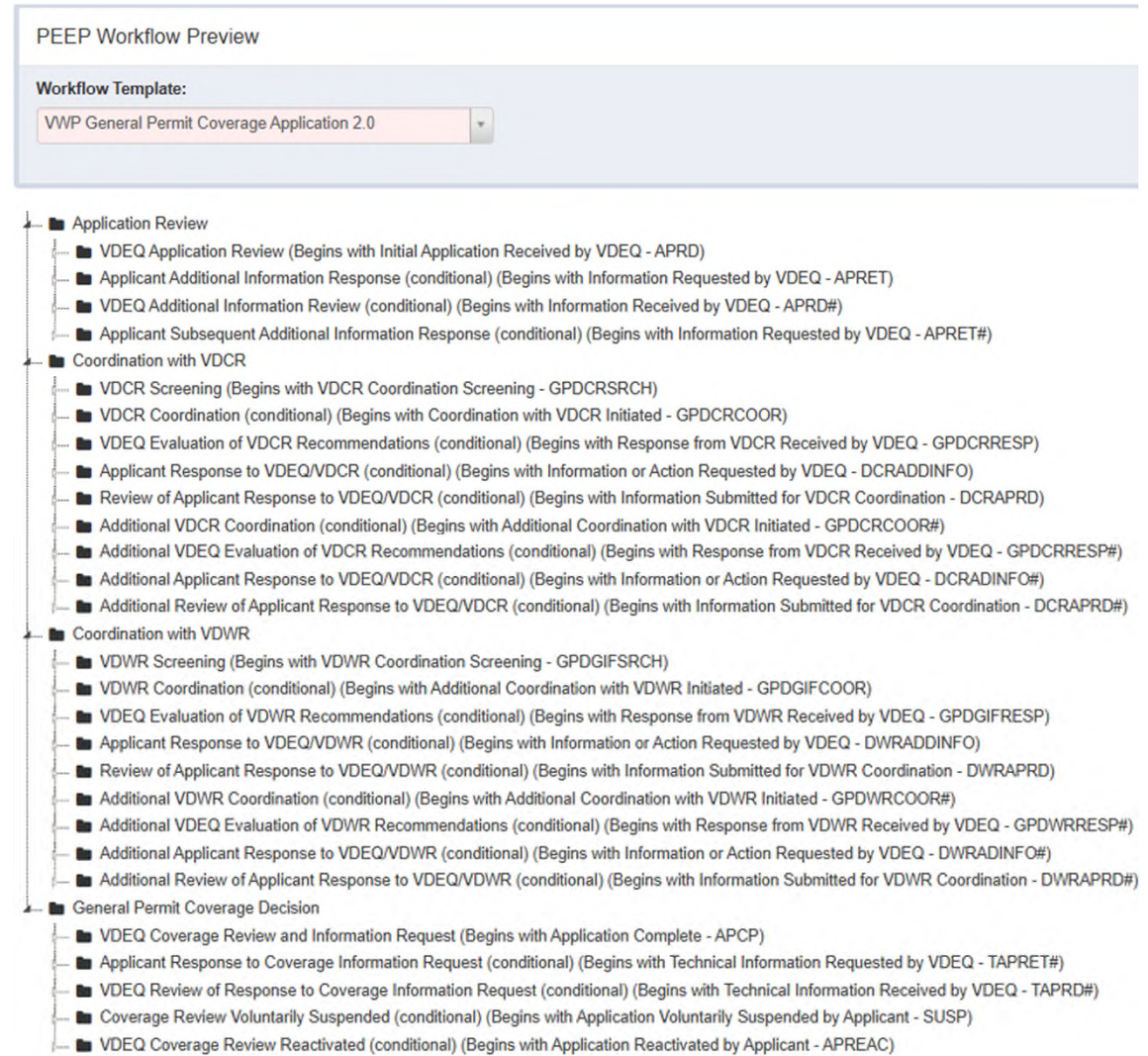


Search Results

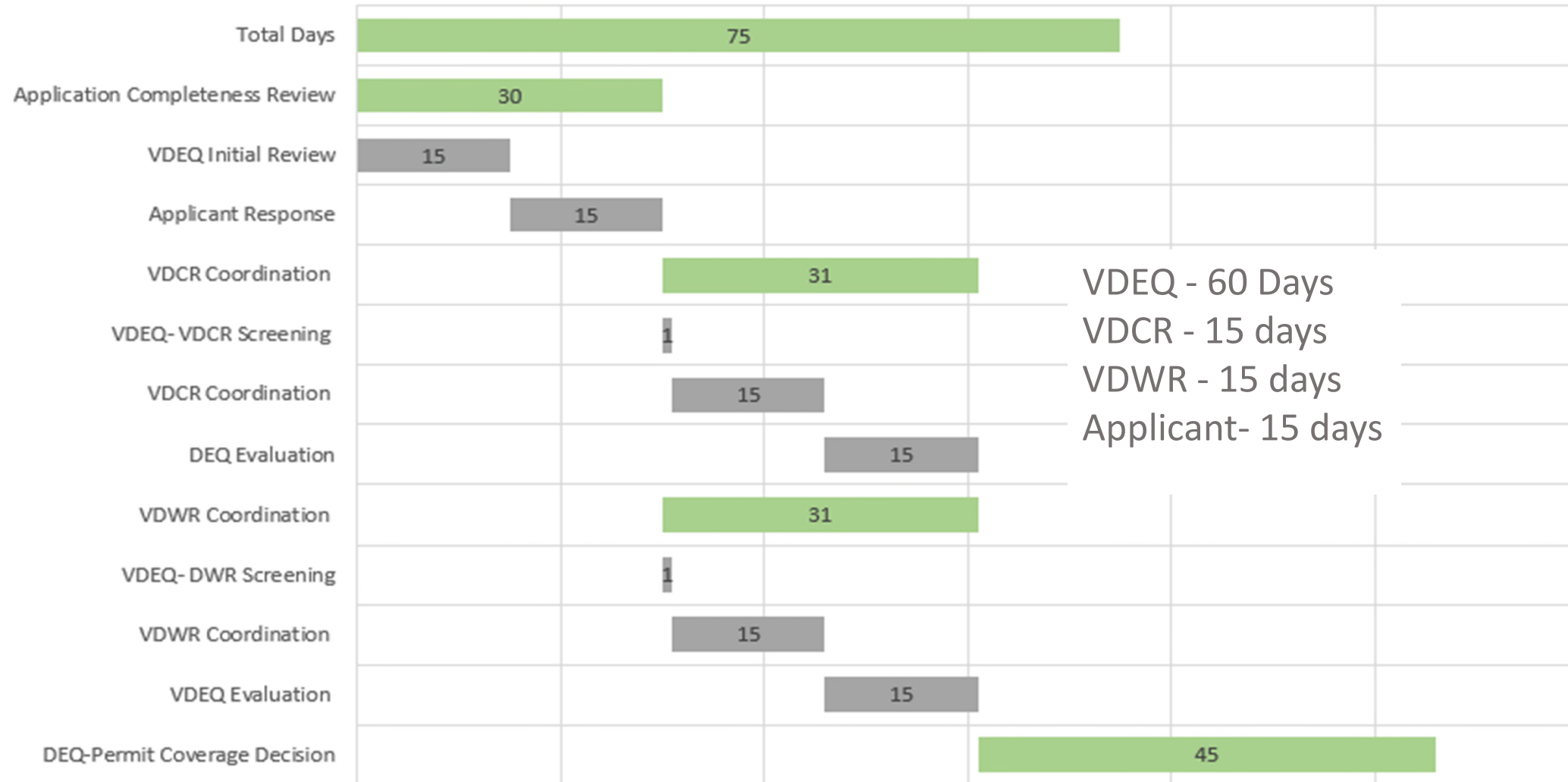
Locality	Facility Name	Requestor	Agent	Request Number	Request Type	
Accomack County	Brittany Farm	Kevin Vu	N/A	GW1000635	Groundwater Withdrawal Major Modification	View Details

Workload Management

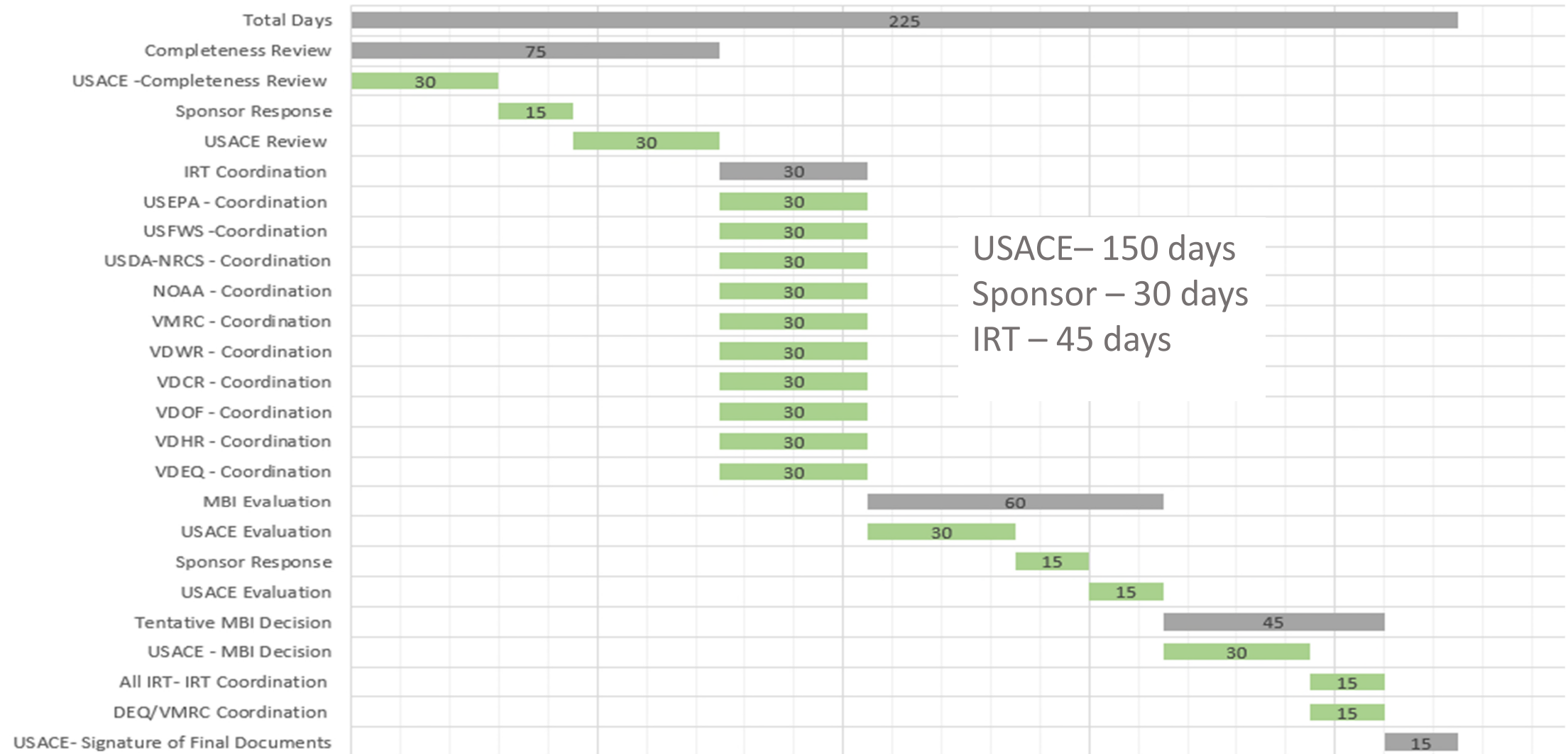
- PEEP-derived workload management from database workflows
- Task management for agency staff and external task assignees
- Pending tasks with target completion dates



PEEP Target Schedule – VWP General Permits



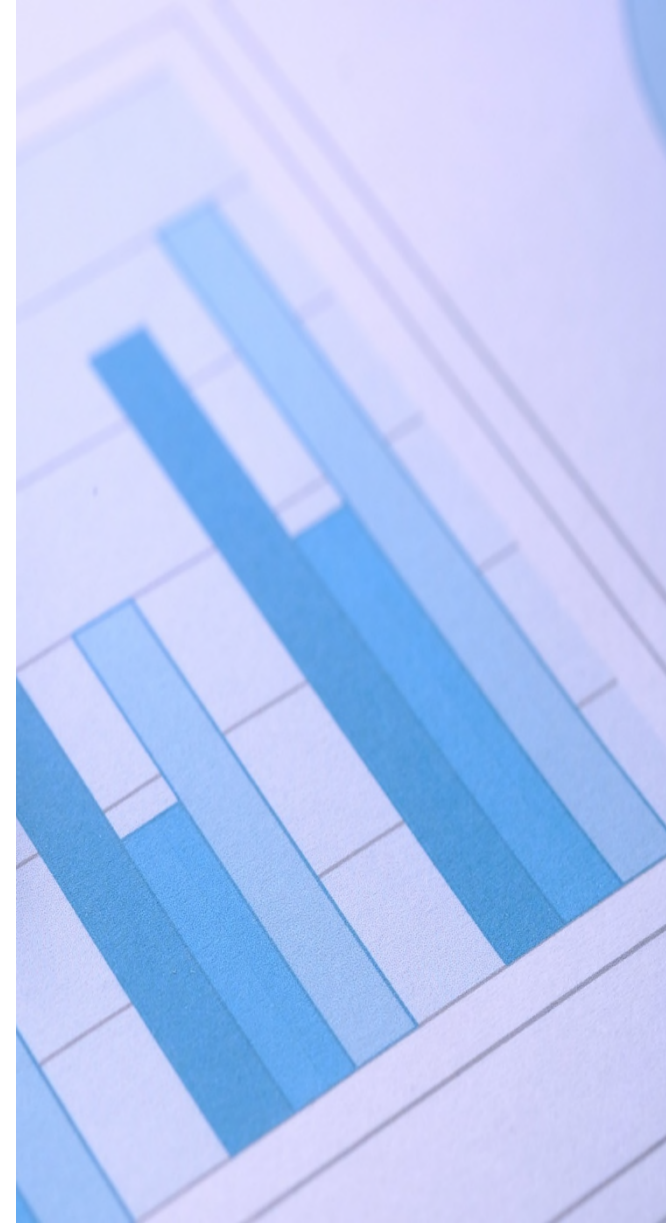
PEEP Target Schedule - Mitigation Banking Instruments



Performance Management

Data-driven synthesis of agency efficiency

- How long a permit type takes to process?
- What is the time allocation of various involved parties?
- Are we meeting targets?
[Yes! DEQ reduced agency-wide processing times by 70%]



Virginia Permit Transparency tracking system (VPT)

<https://permits.virginia.gov/>

- Groundbreaking centralized permitting dashboard
 - In 2019, was only example in U.S.
- Allows users to track daily status/timeline of applications & critical steps
- Has expanded to 11 Virginia agencies & counting
- Over 200 distinct approval types; 100K+ applications/year

What's Next...DEQ's Permitting Review System



Accelerating Permit Review with Artificial Intelligence

DEQ is excited to announce the new Permit Review System (PRS), an artificial intelligence tool to check administrative and technical completeness to accelerate permit application review. PRS is live as of Aug. 31.

DEQ staff uses the PRS to review applications to ensure completeness and technical sufficiency, but its use is two-fold — PRS is also publicly available for applicant use when preparing submissions.

Improved applications mean quicker permit decisions by DEQ staff — meeting a major agency goal of further reducing permit application processing times. The use of PRS is free to applicants from now until Oct. 31. After the trial period, there will be a cost to use the system on a per-review basis. Use of the system by applicants is optional, however the cost will be well-worth the reduced processing times. Details concerning PRS pricing will be provided in a future DEQ News article.



The first permit program available in the PRS is the Virginia Water Protection Permit Program which regulates impacts to state surface waters and wetlands. DEQ is working to add additional programs with completeness reviews for Construction Stormwater Plans and Air New Source Review permits for data centers. Stay tuned for additional programs in the PRS.

You can check out a [video sneak peek of PRS](#) now. For more information, visit [DEQ's PRS webpage](#).

<https://www.youtube.com/watch?v=oAdYtr6dQeM>

<https://www.deq.virginia.gov/business-construction/artificial-intelligence>

<https://content.govdelivery.com/accounts/VADEQ/bulletins/423ea1e>

Phase I: Proof-of-Concept (POC) for Internal Users

Can artificial intelligence review permits?



LEADING PRACTICES

ENSURE INFRASTRUCTURE READINESS

- Confirm the IT team has the infrastructure ready for AI, including processing capacity for large files
- Identify owner from the business side as well as a designated owner from IT

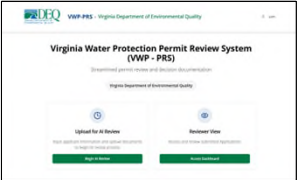
INVEST IN TESTING AND REVIEWER TRAINING EARLY

For initial pilots, build in sufficient testing and reviewer training to drive adoption and maximize impact of the solution

FINALIZE FUNCTIONALITY REQUIREMENTS EARLY

Define and lock in functionality requirements at the start of the project to avoid scope creep and rework

AI PERMIT REVIEW: PROOF OF CONCEPT OVERVIEW

Proof of concept timeline	16 weeks (first pilot; included heavy testing phase that would be expedited for future pilots)
Delivery	12/2025
Agency cost	\$135,000*
Processing Cost Per Permit (estimate)	\$150-200
Pilot file size capacity	300 mb (Application is not limited to a single file; up to 20 files can be processed together as part of a single submission)
Permit Sample Size	14
Projected review times	~2.5 hours
Interface Previews	 

**Additional investments into development offset this total cost to agency but we anticipate similar or lower costs as we scale*

Phase II: Productionize

REAL-WORLD DEPLOYMENT

- Finalize UI and core functionality
- Enable review and interaction with AI-generated findings
- Add export capabilities for findings and reports
- Build robust impact and compensation analysis
- Automate permit type determination
- Streamline permit processing documentation
- Deploy on secure, agency-approved environments
- Ability of the reviewer to interact

AI PERMIT REVIEW: PRODUCT OVERVIEW

Timeline	20 Weeks (based on agency IT Infrastructure)
Delivery	June 2026
Agency cost	\$150,000*
Processing Cost Per Permit (estimate)	\$150-200

LESSONS LEARNED

This effort represents one of the first AI integrations in the state environment (early adopter)

- AI infrastructure requirements are subject to IT agency review and approval
- Obtaining exceptions is challenging given the emerging and evolving nature of the technology
- Approval and exception timelines should be factored into the project schedule to mitigate delivery risk

**Additional investments into development offset this total cost to agency but we anticipate similar or lower costs as we scale*

Phase III: Externalize [Launched Aug 31st]

APPLICANT ACCESS

- Registered applicants access the AI review tool before submitting permits
- Improve application completeness before it reaches the reviewer
- AI serves as a safeguard against manipulation or misuse of the system
- Reduce back-and-forth, accelerating time to permit decision

SELF-SUSTAINING FUNDING MODEL

- Per-use fee charged to applicants at time of review
- Offsets compute and operational costs to the agency
- Reinvests in ongoing AI development and expanded capabilities

AI PERMIT REVIEW: EXTERNAL OVERVIEW

Timeline	Targeting 8 Weeks
Delivery	Summer/Fall 2026
Agency cost	TBD
Processing Cost Per Application (estimate)	Based on Permit Type

National Opportunities: AI & Permitting

Nationwide permitting reform and AI investment are accelerating. EPA's draft National Strategic Plan (FY 2026–2030) outlines clear priorities for permitting modernization. States have both a role to play in achieving these goals and an opportunity to shape how they get implemented. The following are recommendations on where States can start:

USACE Nationwide Permit (NWP) and Individual Permit (IP) review

(Could be expanded into Regional Permits (RP) and State Program General Permits with more effort)

- AI can rapidly determine which permits apply to a given project
- Reduces reviewer burden on high-volume, AI is scalable across state and federal permitting programs
- *Opportunity: Virginia's model offers a replicable starting point*

NPDES permitting modernization

- EPA has named NPDES automation as an active FY27 research priority, launching a 12-month study
- *Opportunity: EPA needs an advisory panel of states already adopting AI and credible vendors who can speak to what is possible today*

Contact for More Information about PEEP and PRS

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