

Proposal Package

- **Vendor Name:** Automated Workforce Digital Solutions
- **Buyer:** Josh Hager
- **Solicitation Number:** CRFP 0313 DEP2600000003
- **Bid Opening Date:** 05/27/2026
- **Bid Opening Time:** 1:30 PM ET

RECEIVED

2026 JUN -9 AM 9: 05

VM PURCHASING
D. BERT



**Response for
WV Department of Environmental Protection CRQS DEP2600000017
Part -1 (Technical)
Due: June 10, 2026 by 3:00 PM MT**

Submitted By

VENDOR NAME: Automated Workforce Digital Solutions

BUYER: Josh Hager

SOLICITATION NO.: CRFP 0313 DEP2600000003

BID OPENING DATE: 5/27/2026

BID OPENING TIME: 1:30 PM ET

FAX NUMBER: 9738734477

Submitted: FAX

**Department of Administration,
Purchasing Division 2019 Washington
Street East Charleston, WV 25305-0130
Fax: 304-558-3970**

This proposal includes data that shall not be disclosed outside the Government and shall not be duplicated, used, or disclosed in whole or in part for any purpose other than to evaluate this proposal. If, however, a contract is awarded to this offeror as a result of or in connection with the submission of this data, the Government shall have the right to duplicate, use, or disclose the data to the extent provided in the resulting contract. This restriction does not limit the Government's right to use information contained in this data if it is obtained from another source without restriction. The data subject to this restriction are contained in all sheets of this proposal

Contents

1	PROJECT GOALS AND MANDATORY REQUIREMENTS.....	2
1.1	GOALS AND OBJECTIVES	2
1.1.1	<i>General Automation and Dashboard Integration</i>	<i>2</i>
1.1.2	<i>UIC Class I and Class VI Agentic AI Processing.....</i>	<i>5</i>
1.1.3	<i>Geospatial Analysis and Geographic Information System (GIS) Integration.....</i>	<i>9</i>
1.1.4	<i>Document Processing and AI Drafting</i>	<i>18</i>
1.1.5	<i>Workflow Integration</i>	<i>19</i>
1.1.6	<i>HITL Workflow Interface and Legacy System Independence.....</i>	<i>21</i>
2	MANDATORY PROJECT REQUIREMENTS	26
2.1	DATA INTEGRATION AND REGULATORY COMPLIANCE.....	26
2.1.1	<i>Security and Deployment.....</i>	<i>27</i>
2.1.2	<i>Support and Maintenance.....</i>	<i>29</i>
2.1.3	<i>Licensing</i>	<i>30</i>
2.1.4	<i>Regulatory Compliance.....</i>	<i>31</i>
2.1.5	<i>Data Ownership and Exit Strategy.....</i>	<i>32</i>
3	QUALIFICATIONS AND EXPERIENCE	33
3.1	QUALIFICATION AND EXPERIENCE INFORMATION	33
3.2	MANDATORY QUALIFICATION/EXPERIENCE REQUIREMENTS.....	35
4	IMPLEMENTATION TIMELINE.....	36
5	REQUIRED FORMS	39
5.1	RFP ACKNOWLEDGEMENT FORM	39
5.2	ADDENDUM ACKNOWLEDGEMENT FORM	40
5.3	DESIGNATED CONTACT.....	41

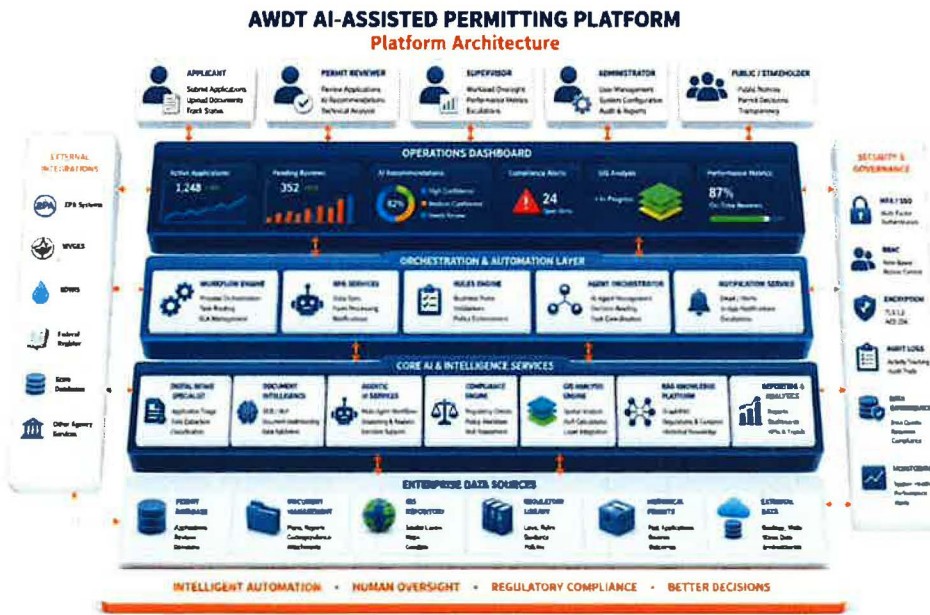
1 PROJECT GOALS AND MANDATORY REQUIREMENTS

1.1 GOALS AND OBJECTIVES

1.1.1 General Automation and Dashboard Integration

Automated Workforce Digital Transformation Solutions (AWDT Solutions) proposes a comprehensive Workflow-Based Agentic AI, Automation, and E-Permitting platform designed to modernize and accelerate the Underground Injection Control (UIC) Class I and Class VI permitting process for the West Virginia Department of Environmental Protection (WVDEP). Our solution combines Agentic Artificial Intelligence, Robotic Process Automation (RPA), Intelligent Document Processing, Geospatial Analytics, and Human-in-the-Loop (HITL) controls to create an intelligent permitting ecosystem that improves efficiency while maintaining regulatory oversight. The proposed solution is designed to support WVDEP's objective of reducing manual processing effort, improving consistency in permit reviews, and increasing transparency across the permitting lifecycle. Rather than relying on disconnected systems and manual reviews, the platform orchestrates multiple intelligent agents that work together to evaluate applications, identify deficiencies, retrieve regulatory guidance, analyze geospatial information, draft correspondence, and route applications through established approval workflows. Every activity is tracked through a centralized dashboard, providing WVDEP staff with real-time visibility into permit status, workload distribution, review bottlenecks, and system performance.

Our methodology follows a phased implementation approach beginning with requirements validation and process discovery, followed by solution configuration, integration development, testing, user acceptance validation, and production deployment. Throughout the implementation, AWDT Solutions will work collaboratively with WVDEP stakeholders to ensure the platform aligns with existing regulatory procedures while establishing a scalable foundation for future modernization initiatives.



AWDT Solutions understands that the success of this initiative extends beyond the deployment of a permitting application. WVDEP requires a trusted technology partner capable of modernizing a highly regulated permitting environment while preserving transparency, accountability, and regulatory integrity. Our proposed solution has been specifically designed to balance the efficiency gains of artificial intelligence with the governance controls required for environmental permitting programs.

The proposed architecture combines Agentic AI, workflow automation, geospatial intelligence, document processing, and human decision-making into a unified operational ecosystem. Rather than implementing isolated automation tools, AWDT delivers a comprehensive platform where intelligent agents collaborate across the entire permit lifecycle, from intake and validation through technical review, correspondence generation, and final approval.

The proposed solution leverages advanced Retrieval-Augmented Generation (RAG), knowledge-driven decision support, configurable workflow orchestration, and secure cloud technologies to create a permitting environment that is both intelligent and fully auditable. Every recommendation generated by the system is traceable to authoritative sources, every workflow action is logged, and every critical decision remains under the control of authorized WVDEP personnel.

Our approach minimizes administrative burden, accelerates permit processing, improves consistency across reviews, and establishes a scalable foundation capable of supporting future permitting modernization initiatives throughout the Department.

1.1.1.1 System Automation/Integration.

AWDT Solutions will implement a flexible automation architecture capable of integrating with existing WVDEP applications, databases, document repositories, GIS systems, and future technology investments. Our approach leverages modern APIs, intelligent automation technologies, and secure integration services to facilitate seamless data exchange without requiring major changes to existing business operations.

The proposed platform will serve as a centralized orchestration layer that coordinates information between systems, automates repetitive administrative activities, and eliminates manual data re-entry. Information submitted through permitting applications can be automatically validated, routed, synchronized, and tracked throughout the review process. This integration strategy not only improves efficiency but also enhances data quality by reducing human error and ensuring consistent information across all connected systems.

AWDT Solutions brings extensive experience integrating enterprise applications, document management systems, databases, web applications, and cloud services. This expertise allows us to rapidly connect disparate systems and create automated workflows that support WVDEP's long-term digital transformation goals.

System Automation and Integration Implementation Plan

Step 1: Discover and Connect: AWDT will assess existing WVDEP applications, repositories, databases, and geospatial platforms to establish secure connectivity through APIs and integration services.

Step 2: Orchestrate Information Flow: AWDT will configure a centralized orchestration layer that exchanges records across connected environments and removes duplicate processing activities.

Step 3: Streamline Permit Operations: AWDT will automate intake, verification, routing, notifications, and status management to accelerate application handling and improve consistency.

Step 4: Enable Real-Time Synchronization: AWDT will maintain accurate records by continuously updating application data, review activities, and supporting information across integrated environments.

Step 5: Measure and Enhance Performance: AWDT will deliver dashboards, analytics, and audit visibility that identify bottlenecks, support informed decision-making, and drive continuous improvement.

This approach shortens review cycles, improves information integrity, increases operational transparency, reduces administrative burden, and establishes a scalable foundation for future modernization initiative.

1.1.1.2 Dashboard Development

AWDT Solutions will develop a secure, web-based dashboard environment that serves as the operational command center for permit processing activities. The dashboard will provide authorized users with real-time visibility into workflow status, permit review progress, workload distribution, system activity logs, AI-generated recommendations, and key performance indicators.

The dashboard will be designed with role-based access controls to ensure that users only access information appropriate to their responsibilities. Supervisors will have access to executive-level reporting and operational analytics, while reviewers will receive task-specific views that prioritize pending actions and approvals. The interface will be intuitive, responsive, and seamlessly integrated within existing WVDEP web environments.

Beyond operational visibility, the dashboard will provide measurable business value by enabling management to identify bottlenecks, monitor service levels, evaluate processing trends, and make data-driven decisions regarding resource allocation and program performance.

Dashboard Development Plan

Step 1: Define Dashboard Requirements: AWDT Solutions will conduct stakeholder workshops to identify reporting requirements, user roles, workflow metrics, key performance indicators, and operational objectives. This effort will ensure the dashboard aligns with WVDEP's permitting processes and management priorities.

Step 2: Develop Secure Dashboard Framework: AWDT Solutions will design and deploy a web-based HTML dashboard with secure login capabilities, role-based access controls, password authentication, and administrative permissions to restrict access, editing, and updates to authorized personnel.

Step 3: Integrate Data Sources and Workflows: AWDT Solutions will connect permit processing workflows, AI services, GIS platforms, audit logs, reporting tools, and supporting data repositories to create a centralized operational view across the permitting lifecycle.

Step 4: Configure Operational Views and Controls: AWDT Solutions will develop role-specific dashboards that provide real-time visibility into permit status, workload distribution, pending approvals, workflow execution, performance metrics, alerts, and system logs.

Step 5: Deliver Analytics and Continuous Improvement: AWDT Solutions will implement executive reporting, trend analysis, and performance monitoring capabilities that enable WVDEP

leadership to identify bottlenecks, optimize resource allocation, improve service levels, and support data-driven decision-making.

This approach provides a secure operational command center that increases transparency, strengthens oversight, improves efficiency, and supports proactive management of permitting activities.

By consolidating permitting operations, workflow execution, geospatial review activities, and AI-generated recommendations into a single operational interface, WVDEP personnel gain a comprehensive view of permitting activities across the entire program lifecycle. This centralized visibility significantly reduces administrative overhead while strengthening accountability and regulatory oversight.

AGENTIC AI WORKFLOW

Intelligent, Agent-Driven UIC Permit Processing



1.1.2 UIC Class I and Class VI Agentic AI Processing

1.1.2.1 Digital Intake Specialist Functionality

1.1.2.2 RAG and Source Grounding

AWDT Solutions proposes an intelligent Digital Intake Specialist capability that automates the initial review and classification of permit submissions. Upon receipt of an application, the system automatically evaluates the submission, identifies whether the application pertains to a Class I or Class VI permit, and initiates the appropriate regulatory workflow. The platform then launches specialized AI agents responsible for evaluating specific portions of the application, including administrative completeness, Area of Review assessments, corrective action planning, financial responsibility verification, and engineering documentation review.

This agentic architecture enables the system to function similarly to an experienced permit coordinator by directing applications through the appropriate review path while continuously monitoring completeness and compliance requirements. The platform is capable of identifying missing information, detecting inconsistencies, and generating draft Notices of Deficiency for reviewer consideration. By automating routine review activities, reducing manual review effort, and surfacing relevant regulatory information, WVDEP personnel can focus their attention on higher-value technical and regulatory decisions.

The platform references applicable regulations, guidance documents, historical permits, and agency policies to support reviewer decision-making and improve consistency.

1.1.2.3 Hallucination Mitigation

AWDT Solutions will implement a multi-layered hallucination mitigation framework designed to ensure that all AI-generated outputs are accurate, explainable, and grounded in authoritative regulatory information. Rather than allowing the Large Language Model (LLM) to generate responses solely from its training data, the proposed solution utilizes Retrieval-Augmented Generation (RAG) to retrieve information directly from approved sources such as WVDEP regulations, UIC program guidance, permit application materials, agency policies, technical references, and historical permit records. This approach ensures that responses are based on verifiable data and significantly reduces the risk of fabricated or unsupported content.

In addition, AI-generated outputs will be validated through configurable business rules and workflow controls that compare recommendations against established regulatory requirements and agency-defined criteria. The system will provide source attribution and confidence scoring, allowing reviewers to easily verify the information used to generate recommendations and identify areas requiring additional review.

To further minimize risk, all critical regulatory decisions, permit determinations, Notices of Deficiency, and applicant communications will remain subject to Human-in-the-Loop (HITL) review and approval. The AI functions as a decision-support tool that assists reviewers by analyzing information, identifying potential issues, and preparing draft content, while final regulatory authority remains with authorized WVDEP personnel.

Through the combined use of Retrieval-Augmented Generation, authoritative data sources, rule-based validation, source traceability, confidence scoring, and mandatory human review, AWDT Solutions provides robust guardrails that significantly reduce hallucinations and ensure reliable, transparent, and defensible AI-assisted permitting decisions.

UIC Class I and Class VI Agentic AI Processing Methodology

Step 1: Digital Intake and Classification: AWDT Solutions will ingest permit applications submitted through the WVDEP portal and automatically classify submissions as Class I or Class VI using AI-driven document analysis. The Digital Intake Specialist will validate forms, identify application type, verify required attachments, and initiate the appropriate review pathway.

Step 2: Agentic Workflow Orchestration: AWDT Solutions will deploy specialized AI agents that dynamically launch sub-workflows for Area of Review (AoR) analysis, financial responsibility verification, corrective action planning, well construction review, geologic characterization, and monitoring plan assessments based on application content.

Step 3: Administrative Completeness Validation: The platform will evaluate all required forms, plans, certifications, maps, engineering documents, and supporting materials. Computer Vision

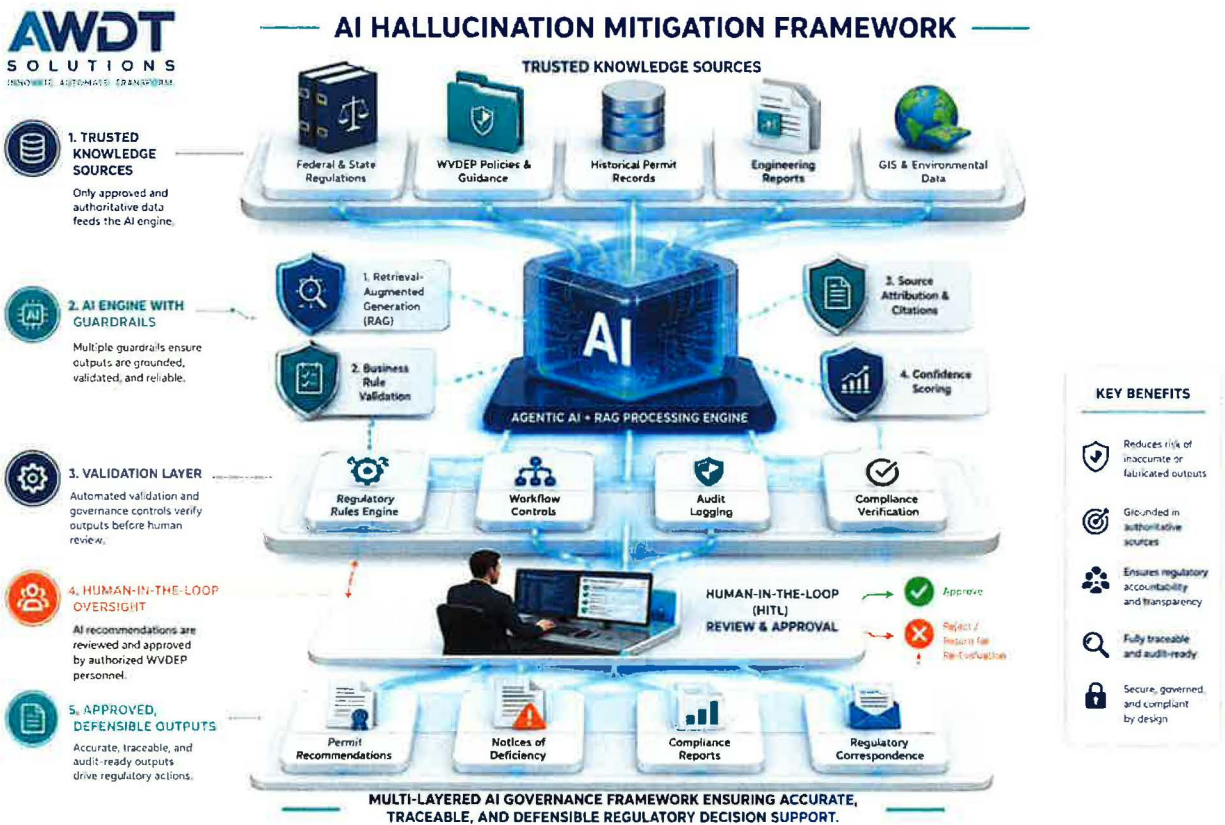
and NLP services will verify signatures, certification statements, and document completeness while identifying omissions or inconsistencies.

Step 4: Technical Compliance Evaluation: Specialized review agents will analyze geological data, injection zone characteristics, confining formations, USDW protection measures, well design specifications, and operational parameters against regulatory requirements.

Step 5: RAG-Enabled Regulatory Intelligence: AWDT Solutions will utilize GraphRAG and knowledge graph technologies to retrieve and correlate regulations, historical permits, agency guidance, geological records, and external data sources. This approach ensures recommendations are grounded in authoritative and current information while preventing reliance on irrelevant or outdated content.

Step 6: Human Review and Decision Support: The system will generate findings, risk assessments, compliance summaries, confidence scores, and draft recommendations for Human-in-the-Loop review, enabling WVDEP personnel to make informed, defensible regulatory decisions.

This methodology accelerates permit reviews, improves consistency, strengthens regulatory compliance, reduces administrative effort, and provides transparent, evidence-based decision support throughout the permitting lifecycle.



1.1.2.4 Automated and Continuous AI Validation

AWDT Solutions incorporates a comprehensive AI governance and validation framework designed to protect the integrity of the permit review process while ensuring reliable and

responsible use of artificial intelligence. The platform continuously evaluates system activity, workflow execution, and model behavior to identify anomalies, enforce operational policies, and maintain alignment with regulatory requirements.

Multiple layers of protection are embedded throughout the architecture to defend against malicious prompts, prompt injection attacks, unauthorized access attempts, data misuse, and other adversarial threats. Requests are inspected before processing, and responses are evaluated against established business rules, regulatory criteria, and agency-defined policies to ensure that recommendations remain appropriate within the permitting context.

To safeguard regulatory decision-making, automated agents function strictly as decision-support resources and cannot independently approve permits, issue regulatory determinations, or authorize compliance actions. Workflow controls route key milestones to designated WVDEP personnel, preserving accountability and ensuring that critical judgments remain with authorized reviewers. The environment continuously assesses confidence levels, data quality, and rule compliance throughout the review lifecycle. Any recommendation that falls outside acceptable thresholds, contains conflicting information, or exhibits unusual patterns is automatically escalated for further examination. Detailed activity records capture user interactions, workflow transitions, validation results, and security events, providing a complete audit trail for reporting, oversight, and future reference.

Through the integration of policy-driven controls, automated verification, access governance, anomaly detection, and auditable review processes, AWDT Solutions delivers a secure and resilient environment that minimizes risk, strengthens trust in AI-assisted workflows, and supports the Department's commitment to safe, transparent, and compliant permitting operations.

1.1.2.5 Citations and Explainability

AWDT Solutions is committed to delivering a transparent and explainable AI environment that enables reviewers to understand, verify, and trust system-generated recommendations. Every AI-assisted analysis, summary, finding, and recommendation will be accompanied by supporting references that identify the exact source documents, records, regulations, or guidance materials used during processing. Users will be able to access direct links to the relevant source content and navigate to the specific section, page, or document location from which the information was derived.

The platform utilizes Retrieval-Augmented Generation (RAG) and document-grounded reasoning techniques to ensure that recommendations are based on approved data sources rather than unsupported model assumptions. When presenting findings, the system provides traceable evidence that allows reviewers to independently validate conclusions and quickly access supporting documentation without conducting manual searches across multiple repositories.

To further enhance transparency, all automated evaluations include confidence scores that indicate the level of certainty associated with a recommendation, classification, extraction result, or compliance assessment. Confidence ratings help reviewers prioritize areas that may require additional scrutiny and support informed decision-making throughout the permitting process.

In addition to confidence indicators, the system generates a clear explanation of the factors, business rules, regulatory criteria, and source materials that contributed to each recommendation. This rationale is presented in a user-friendly format that allows WVDEP personnel to understand how conclusions were reached, what information was considered, and why specific actions were

suggested. By combining source traceability, direct document references, confidence scoring, and decision rationale, AWDT Solutions provides a highly transparent review environment that strengthens accountability, improves reviewer confidence, and supports defensible regulatory decision-making.

1.1.3 Geospatial Analysis and Geographic Information System (GIS) Integration

AWDT Solutions will deliver an advanced GIS-enabled analysis environment that supports both regulatory review and technical evaluation of UIC Class I and Class VI permit applications. The platform combines geospatial intelligence, automated validation, subsurface visualization, and data correlation capabilities to provide a comprehensive view of surface and subsurface conditions relevant to injection well permitting.

The system automatically ingests and normalizes industry-standard geospatial formats including Shapefiles, GeoJSON, KML, CAD, and DWG files. During data import, spatial layers are validated for completeness, geometry errors, projection inconsistencies, duplicate features, and topological conflicts. Coordinate systems are standardized through automated projection services, ensuring alignment with WVDEP and state mapping standards, including NAD83 and UTM-based reference systems. These automated validation procedures improve data quality and eliminate common errors that can affect spatial analysis and permit evaluations.

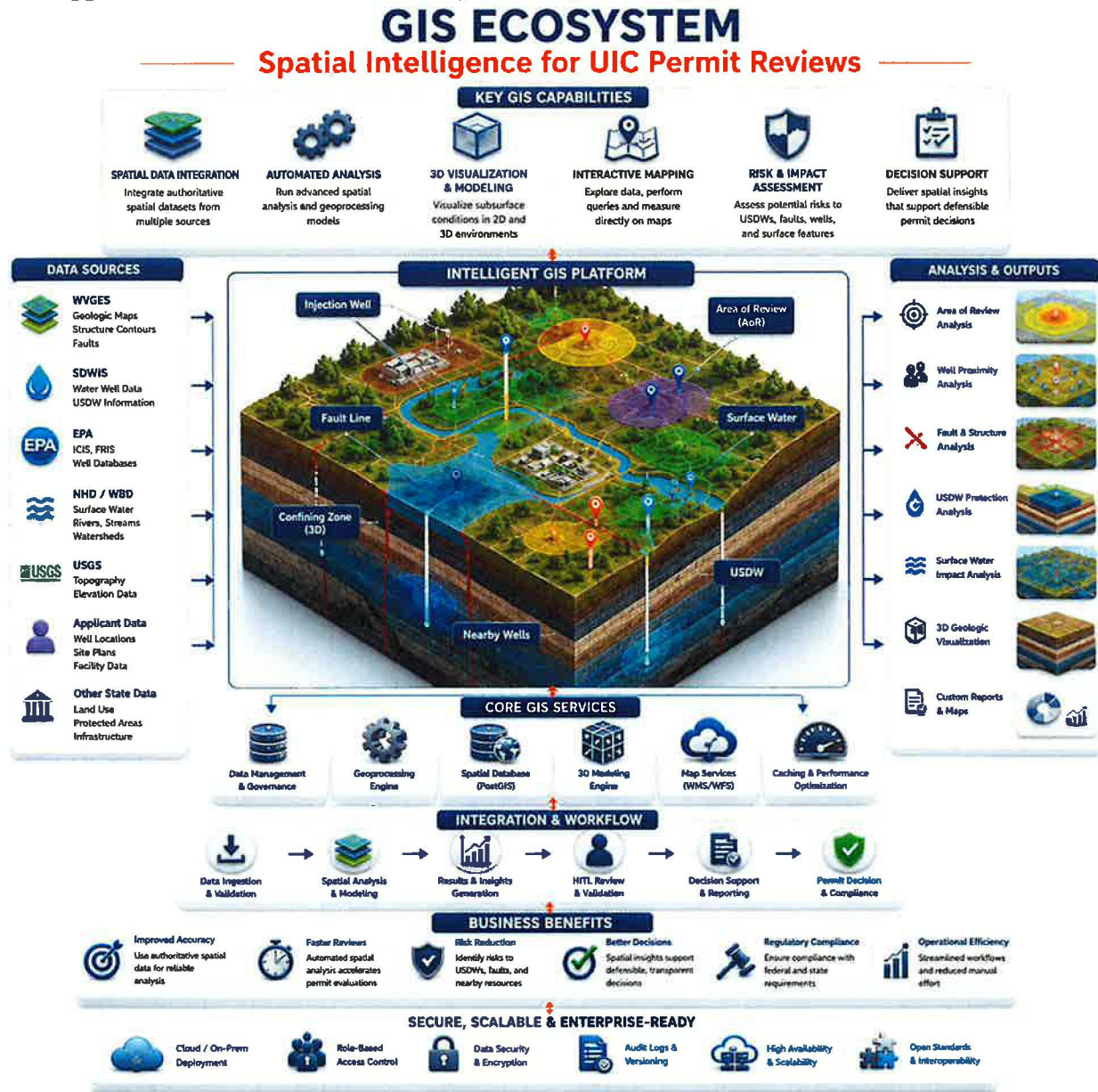
Interactive mapping capabilities provide both two-dimensional and three-dimensional visualization of project areas, allowing reviewers to examine injection zones, confining formations, subsurface stratigraphy, fault systems, monitoring locations, and surrounding environmental features. Three-dimensional views support a more comprehensive understanding of geological relationships and help reviewers evaluate potential migration pathways, containment boundaries, and long-term storage considerations associated with Class VI projects.

The platform incorporates automated Area of Review (AoR) analysis for both Class I and Class VI permitting activities. For Class I applications, fixed-radius calculations are performed in accordance with regulatory requirements, while Class VI evaluations support computational modeling approaches based on project-specific reservoir characteristics and injection scenarios. Spatial analysis routines automatically identify artificial penetrations, including wells, mines, boreholes, and other subsurface features that may influence containment or represent potential migration pathways. Additional assessments evaluate faults, fractures, underground sources of drinking water, sensitive receptors, and nearby surface water resources to support risk-informed regulatory review. For Class VI projects, the system can also evaluate modeling assumptions, input parameters, and boundary conditions used in AoR delineation to support technical validation and reviewer confidence.

As a centralized geospatial intelligence hub, the platform correlates applicant-submitted information with authoritative external datasets to improve review efficiency and data accuracy. Property boundaries, ownership tracts, and digital plat records can be overlaid to support evaluation of legal rights, site control, and pore space ownership. Scheduled synchronization and integration services enable access to relevant state and federal data sources, including geological records, drinking water inventories, well databases, environmental datasets, and agency-managed repositories. By consolidating these resources into a single review environment, staff can evaluate permit applications without manually searching multiple systems.

The solution also performs automated conflict detection to identify potential overlaps with existing injection permits, subsurface mineral interests, protected resources, or competing land-use activities. Potential conflicts are flagged for reviewer attention and displayed within the mapping environment, allowing technical staff to quickly assess impacts and determine whether additional investigation is required.

Through advanced visualization, automated geospatial validation, subsurface modeling support, external data integration, and intelligent risk analysis, AWDT Solutions provides WVDEP with a powerful GIS framework that enhances regulatory decision-making, improves technical accuracy, and supports efficient evaluation of complex UIC permitting applications.



1.1.3.1 Document Processing and AI Drafting

AWDT Solutions will provide an intelligent document processing framework that transforms permit applications, engineering reports, technical drawings, supporting studies, and public comments into structured, actionable information. The platform combines Optical Character Recognition (OCR), Natural Language Processing (NLP), Computer Vision, and Agentic AI capabilities to accelerate permit reviews while improving consistency, traceability, and regulatory compliance.

The document ingestion process supports both native digital files and scanned submissions. Advanced OCR services extract text, tables, forms, signatures, annotations, and metadata from PDF documents, including image-based files that are not machine-readable. Extracted content is automatically classified, indexed, and associated with the appropriate application record, enabling reviewers to quickly locate information and reducing the need for manual document review.

Beyond traditional OCR, the platform incorporates specialized Computer Vision agents capable of analyzing engineering drawings, well construction diagrams, CAD files, shapefiles, and technical schematics. These agents identify and extract critical engineering parameters such as casing depths, tubing and packer placement, cement intervals, injection zones, monitoring locations, and other design characteristics. Extracted values are cross-referenced against permit requirements, construction standards, and regulatory criteria to support technical validation and identify potential inconsistencies requiring reviewer attention.

The solution also includes an AI-powered drafting module that utilizes regulatory templates, permit conditions, and application-specific information to prepare permit documents in a standardized format. Draft permits can be generated for both Class I and Class VI applications and populated with project-specific requirements, operational limitations, monitoring obligations, reporting conditions, corrective action provisions, emergency response requirements, post-injection site care obligations, and other applicable permit conditions. This capability significantly reduces document preparation time while promoting consistency across permit decisions.

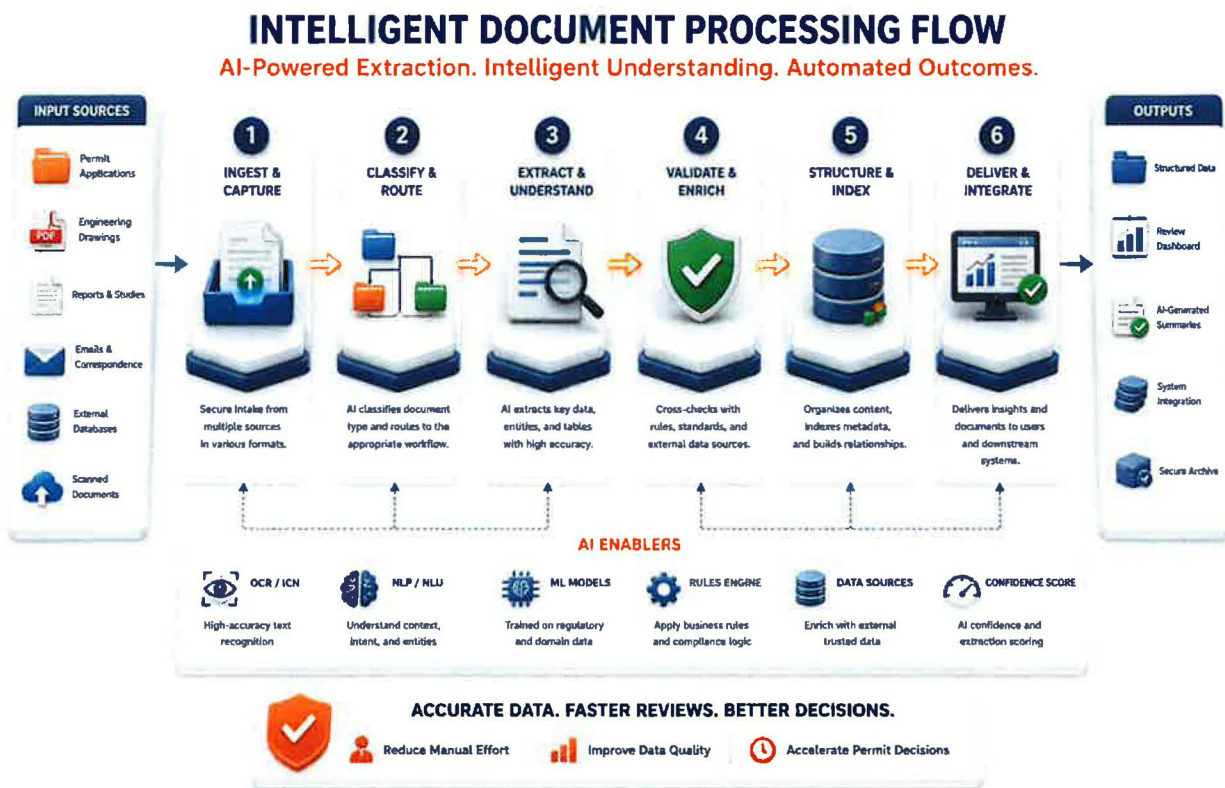
To support administrative review activities, the Agentic AI framework evaluates application packages against configurable completeness checklists and submission requirements. Information provided through electronic forms, uploaded attachments, engineering reports, and supporting documentation is compared against applicable Class I and Class VI criteria to identify missing information, incomplete sections, or insufficient supporting evidence. This capability contributes to improving application completeness at the earliest stages of review, reducing delays associated with incomplete or inconsistent submissions.

When deficiencies are identified, the platform automatically prepares draft Notices of Deficiency that reference specific missing items, incomplete submissions, or areas requiring clarification. Draft correspondence is generated using agency-approved language and routed to designated personnel for review, modification, and approval prior to release. This approach reduces administrative effort while maintaining agency control over external communications.

The platform further supports public participation requirements by generating public notice packages in accordance with applicable federal and state regulations. Using information contained within the permit record, the system can prepare fact sheets, notification materials, mailing lists, publication schedules, and comment period calculations. These materials are formatted for reviewer approval before publication, ensuring consistency and regulatory compliance throughout the public notice process.

For public comment management, submitted comments are automatically ingested, categorized, and organized according to topic, concern area, and technical relevance. The system leverages a regulatory response library to assist staff in preparing draft responses while identifying comments that require detailed technical analysis or subject matter expert review. Upon completion of the comment period, the platform can assemble a comprehensive Response to Comments document suitable for public release, creating a streamlined and transparent process for stakeholder engagement.

By combining intelligent document processing, engineering drawing analysis, automated drafting, completeness evaluation, deficiency management, public notice generation, and comment response support, AWDT Solutions delivers a comprehensive document-centric workflow that improves efficiency, reduces administrative burden, and strengthens the overall quality of the permitting process.



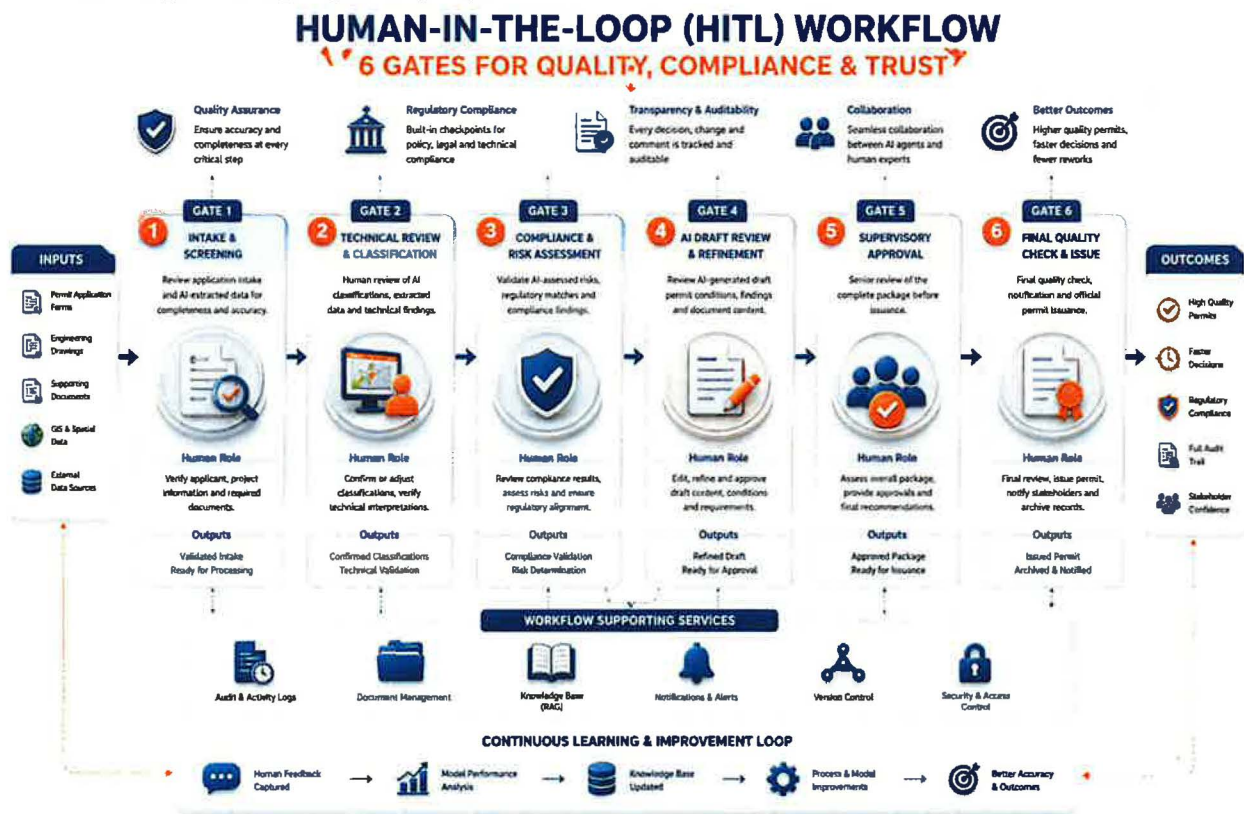
1.1.3.2 Workflow Integration

AWDT Solutions will implement a workflow orchestration framework that securely manages the entire lifecycle of UIC Class I and Class VI permit applications, from initial submission through final agency determination. Applications submitted through the web portal or approved agency gateway are automatically validated, assigned a unique tracking number, and stored within a centralized electronic case file. All supporting documentation, correspondence, GIS data, review activities, approvals, and system-generated artifacts are linked to the case record, providing a complete digital history of the permitting process.

To support transparency and quality assurance, the platform maintains dedicated audit repositories that capture all workflow events, user actions, AI recommendations, approval decisions, and system activities. Agency personnel have access to detailed logs and observability dashboards that provide insight into how information was processed, what actions occurred, and when key decisions were made. Audit records are retained in accordance with WVDEP retention requirements and, at a minimum, for five years.

The solution incorporates advanced AgentOps observability capabilities that provide visibility into the analytical process used by AI agents. Rather than recording only final outcomes, the system captures the sequence of evaluations performed, data sources consulted, regulatory references applied, validation checks executed, and decision factors considered. This level of explainability supports legal defensibility, regulatory accountability, and reviewer confidence by allowing agency personnel to understand how recommendations were developed and what information influenced each conclusion.

A core component of the workflow architecture is the enforcement of mandatory Human-in-the-Loop (HITL) decision gates. The platform automatically pauses processing at designated regulatory milestones and routes the application to authorized WVDEP personnel for review and approval before workflow execution can continue. Dashboard alerts, task assignments, and electronic sign-off mechanisms ensure that no critical regulatory action advances without agency authorization. These controls preserve human oversight while allowing automation to accelerate administrative and analytical activities, ultimately accelerating permit processing timelines without compromising regulatory rigor.



The workflow incorporates all required HITL checkpoints identified by WVDEP. During the Pre-Notice of Deficiency Review stage, agency personnel validate completeness findings and verify missing documentation before any deficiency notice is issued. Once ownership information, fee verification, and administrative requirements have been evaluated, the Administrative Compliance Approval stage requires supervisory review to determine whether the application can advance or whether additional information is required. Following geospatial analysis and risk evaluation, reviewers validate Area of Review delineations, fault assessments, and risk findings before determining the appropriate review pathway.

After completion of detailed technical evaluations, the Technical Analysis Approval stage enables senior reviewers to verify engineering conclusions, corrective action recommendations, and proposed permit conditions. Prior to public release, the Draft Permit Approval stage requires agency review of all permit language, operating conditions, monitoring requirements, and special provisions generated during the review process. Finally, following completion of the public comment period and preparation of response documentation, the Final Decision stage requires explicit authorization from designated agency personnel to issue or deny the permit. Under no circumstances can the AI system independently approve, deny, or issue a permit.

By combining secure submission management, centralized case administration, comprehensive auditability, advanced observability, and WVDEP-defined approval gates, AWDT Solutions provides a controlled and transparent workflow environment that supports regulatory compliance, operational efficiency, and defensible permitting decisions.

1.1.3.3 AI Token Usage and Cost Management

1.1.3.4 Token Cost Pricing Model

AWDT Solutions recognizes the importance of providing transparency and predictability regarding Large Language Model (LLM) consumption costs. Our pricing approach is designed to eliminate uncertainty by clearly identifying all AI-related operating expenses associated with document analysis, permit review support, content generation, regulatory research, and workflow automation activities.

The proposed solution offers a subscription-based pricing structure in which anticipated AI processing costs are incorporated into the annual platform licensing fee. This approach allows WVDEP to leverage AI-powered capabilities without needing to manage individual token purchases, monitor fluctuating market pricing, or track usage across multiple models and services. By consolidating these expenses into a predictable cost structure, the Agency can simplify budgeting and avoid unexpected charges resulting from normal permitting operations.

For transparency purposes, the platform maintains detailed usage analytics that track model utilization, document processing volumes, and AI-assisted activities. Administrative dashboards provide visibility into overall consumption trends and resource utilization, enabling WVDEP to understand how AI services are being used across the permitting program. These analytics support informed planning while maintaining a straightforward pricing model.

Should WVDEP require processing volumes that significantly exceed agreed operational thresholds, AWDT Solutions will provide clearly defined pricing schedules and advance notification procedures. Any potential cost impacts resulting from extraordinary usage, large-scale historical data processing, or future program expansion will be reviewed and approved by the Agency before additional charges are incurred.

This pricing model provides WVDEP with a predictable and manageable cost structure while ensuring continued access to AI-assisted permitting capabilities, advanced document processing, and intelligent workflow automation throughout the contract period.

1.1.3.5 Cost Predictability and Budget Controls

AWDT Solutions will provide multiple governance and cost-management mechanisms to ensure predictable operating expenses and effective budget control throughout the lifecycle of the platform. Recognizing that AI-driven permit reviews may involve significant document analysis, technical evaluations, and content generation, the solution is designed to provide visibility into consumption patterns while preventing unexpected cost escalation.

Administrative dashboards will provide real-time reporting on AI utilization, document processing volumes, workflow activity, and resource consumption across the permitting program. These insights enable WVDEP to monitor usage trends, forecast future demand, and make informed operational decisions. Configurable thresholds and notification alerts can be established to inform designated administrators when utilization approaches predefined limits or budget targets.

The platform supports consumption quotas, workload controls, and approval-based processing policies that allow the Agency to govern resource-intensive activities. For example, large-scale historical document processing, bulk data analysis, or special research initiatives can be routed through administrative approval workflows before execution. This ensures that significant processing activities remain visible and controlled.

To further enhance budget stability, AWDT Solutions will provide periodic utilization reviews and consumption reports that summarize processing volumes, AI-assisted activities, and projected resource requirements. These reports help identify trends, support annual budget planning, and provide advance visibility into potential growth requirements. In the event that usage approaches contracted thresholds, WVDEP will receive proactive notification and recommended options before any additional capacity is activated.

By combining usage visibility, configurable controls, threshold monitoring, administrative approvals, and proactive reporting, AWDT Solutions provides a predictable financial framework that enables WVDEP to confidently manage AI-related operating costs while continuing to benefit from advanced automation and intelligent permit review capabilities.

1.1.3.6 Token Optimization Strategies

AWDT Solutions employs a multi-layered optimization strategy designed to reduce Large Language Model (LLM) consumption while maintaining the accuracy, completeness, and quality required for regulatory permitting activities. Rather than sending entire application packages or large document collections to an AI model, the platform intelligently identifies, extracts, and processes only the information relevant to the task being performed.

The solution leverages Retrieval-Augmented Generation (RAG) and knowledge indexing capabilities to retrieve targeted sections of regulations, permit records, engineering reports, and supporting documentation. By providing only contextually relevant information to the model, the platform significantly reduces token usage while improving response precision and consistency.

Document processing workflows further optimize resource utilization by separating OCR, data extraction, classification, and validation activities from generative AI functions whenever possible. Structured information extracted from forms, reports, and engineering documents is

stored in a searchable repository and reused throughout the review lifecycle, eliminating the need to repeatedly analyze the same content.

The platform also utilizes workflow-aware processing techniques that match the complexity of the task to the appropriate AI model. Routine activities such as document classification, metadata extraction, and checklist validation can be performed using lightweight models or rule-based automation, reserving advanced language models for technical analysis, permit drafting, and complex regulatory evaluations. This approach reduces consumption without compromising performance.

Additional efficiencies are achieved through response caching, reusable prompt templates, document chunking, and session memory management. Frequently referenced regulations, standard permit conditions, agency templates, and common review scenarios are retained within the platform and reused across workflows, minimizing duplicate processing and unnecessary model interactions.

By combining intelligent retrieval, structured data reuse, task-specific model selection, automated workflow controls, and reusable knowledge assets, AWDT Solutions minimizes token consumption while maintaining the high level of accuracy, explainability, and regulatory rigor required for WVDEP's permitting operations.

1.1.3.7 Estimated Token Usage

AWDT Solutions has developed its token consumption estimates using the volumetric assumptions provided by WVDEP, including an anticipated workload of 2–20 permit applications annually, application packages ranging from 500–1,500 pages, and substantial technical, geospatial, and regulatory review activities. The estimates below represent expected average consumption for a typical permit application and may vary based on application complexity, supporting documentation volume, and public participation requirements.

Processing Activity	Estimated Tokens per Application
Document Ingestion & OCR	500,000
Administrative Completeness Review	1,000,000
Technical Compliance Analysis	3,000,000
Geologic & AoR Evaluation	2,500,000
Draft Permit Generation	1,500,000
Public Notice & Response to Comments	1,000,000
HITL Review Support & Explainability	500,000
Total per Application (Average)	10,000,000

Based on an estimated annual volume of 20 permit applications, the projected annual consumption is approximately 200 million tokens (200 MTOKs). This estimate aligns with the Agency's pricing model and provides sufficient capacity for document analysis, regulatory reviews, permit drafting, geospatial evaluations, public comment processing, and explainability functions.

The majority of consumption is expected to occur during technical compliance reviews, Area of Review evaluations, permit generation, and public comment processing. Actual utilization may vary depending on permit complexity, the volume of supporting engineering studies, Class I versus Class VI application requirements, and the extent of stakeholder participation during the public notice process.

AWDT Solutions continuously monitors utilization trends and applies optimization techniques such as Retrieval-Augmented Generation (RAG), document indexing, response caching, structured data extraction, and workflow-based model selection to maintain efficient resource utilization while preserving the quality, accuracy, and transparency of AI-assisted reviews.

1.1.3.8 Usage Transparency and Reporting

AWDT Solutions provides comprehensive token usage monitoring and reporting capabilities that give WVDEP complete visibility into AI resource consumption, operational trends, and associated costs. The platform includes a centralized administrative dashboard that presents real-time metrics related to model utilization, document processing activity, workflow execution, and AI-assisted review functions across the permitting environment.

Authorized users can view token consumption by application, workflow stage, permit type, user group, AI service, or reporting period. This level of visibility enables the Agency to understand where resources are being utilized, identify high-consumption activities, and evaluate operational efficiency across the permitting program. Consumption data can be analyzed at both summary and detailed levels, allowing administrators to investigate specific workflows or review broader utilization trends.

The reporting framework includes configurable dashboards, scheduled reports, and exportable analytics that support budget planning, operational oversight, and contract management. Reports can summarize monthly and annual consumption, identify peak utilization periods, compare actual usage against projected volumes, and highlight opportunities for further optimization. Threshold-based alerts can also be configured to notify designated personnel when utilization approaches predefined limits or budget targets.

To support governance and accountability, token consumption records are linked to associated applications, workflow actions, and processing activities. This traceability allows WVDEP to correlate resource usage with specific business functions such as document analysis, technical reviews, permit generation, public notice processing, and response-to-comment preparation. Historical reporting capabilities further support auditing, forecasting, and long-term capacity planning.

By providing real-time visibility, detailed analytics, configurable reporting, and complete traceability, AWDT Solutions enables WVDEP to effectively monitor AI utilization, maintain budget awareness, and make informed decisions regarding future operational and resource planning.

1.1.3.9 Model Flexibility and Future-Proofing

AWDT Solutions has designed its AI architecture to remain adaptable as artificial intelligence technologies, regulatory requirements, and cost models continue to evolve. Rather than being tied to a single Large Language Model (LLM) provider, the platform utilizes a model-agnostic framework that supports integration with multiple commercial, open-source, and government-approved AI models. This approach provides WVDEP with the flexibility to adopt new technologies as they emerge while avoiding vendor lock-in.

The platform intelligently routes tasks to the most appropriate model based on complexity, performance requirements, security considerations, and cost efficiency. As newer models become available, they can be evaluated, tested, and incorporated without requiring major system redesign

or disruption to ongoing operations. This ensures that WVDEP can benefit from advancements in accuracy, explainability, document understanding, and geospatial analysis capabilities over time. The architecture also supports evolving pricing structures by allowing model substitutions and optimization strategies that balance performance with operational costs. As AI providers introduce new pricing models, consumption tiers, or deployment options, the platform can adapt accordingly while maintaining service continuity and budget predictability.

Through a flexible, vendor-independent architecture and modular design, AWDT Solutions provides WVDEP with a future-ready platform capable of evolving alongside advances in AI technology, regulatory requirements, and operational needs.

1.1.3.10 Cost Guarantees and Contractual Protections

AWDT Solutions is committed to providing transparent and predictable AI operating costs throughout the contract term. Token pricing will be clearly defined within the pricing proposal, including the unit cost per million tokens (MTOK), estimated annual consumption, and any applicable usage thresholds. This approach enables WVDEP to accurately forecast expenditures and avoid unexpected cost fluctuations.

Throughout the contract period, AWDT Solutions will provide advance notice of any changes that may affect AI-related operating costs and will work collaboratively with WVDEP to evaluate available alternatives, optimization opportunities, or model selection strategies before additional costs are incurred. No changes to agreed pricing structures or consumption models will be implemented without Agency review and approval.

To further protect the Agency's interests, the platform includes monitoring, reporting, and budget management controls that provide continuous visibility into consumption patterns and projected usage. These safeguards allow WVDEP to proactively manage utilization and maintain alignment with budget objectives.

In the event that future advancements in AI technology result in lower processing costs or more efficient model alternatives, AWDT Solutions will evaluate opportunities to pass those efficiencies on to the Agency whenever commercially feasible. This commitment ensures that WVDEP benefits from both cost transparency and the long-term advantages of an evolving AI marketplace. Through clearly defined pricing, proactive communication, consumption oversight, and collaborative cost management, AWDT Solutions provides contractual protections that support financial predictability and responsible stewardship of public resources throughout the life of the agreement.

1.1.4 Document Processing and AI Drafting

AWDT Solutions will provide an intelligent document processing and AI-assisted drafting framework designed to accelerate permit reviews, improve consistency, and reduce administrative effort throughout the UIC permitting lifecycle. The platform combines advanced OCR, Natural Language Processing (NLP), Computer Vision, and Agentic AI technologies to transform large volumes of permit documentation into structured, actionable information.

The solution supports ingestion of both native digital documents and scanned PDF files. Advanced OCR capabilities accurately extract text, tables, form fields, signatures, annotations, and metadata from permit applications, engineering reports, maps, and supporting documentation. Extracted

information is automatically classified, indexed, and associated with the appropriate application record, enabling rapid search, retrieval, and analysis.

Beyond traditional OCR, the platform incorporates specialized Computer Vision agents capable of analyzing engineering schematics, well construction diagrams, CAD drawings, shapefiles, and other technical visual assets. These agents identify and extract critical engineering details such as casing depths, cement intervals, tubing and packer placement, injection zones, monitoring locations, and construction specifications. Extracted information is compared against applicable design requirements, permit conditions, and regulatory standards to support technical validation and compliance reviews.

The AI drafting module leverages NLP and regulatory business rules to generate draft permit documents using WVDEP-approved templates and formatting standards. Draft permits can automatically incorporate facility information, well construction requirements, operating limitations, monitoring and reporting obligations, plugging and abandonment provisions, and general permit conditions. For Class VI applications, the system can additionally generate permit sections related to Area of Review reevaluation schedules, corrective action requirements, CO₂ stream specifications, testing and monitoring plans, emergency response obligations, and post-injection site care requirements.

To support administrative review activities, the platform evaluates application packages against configurable completeness checklists and regulatory submission requirements. Information submitted through electronic forms and supporting attachments is automatically reviewed to determine whether required Class I or Class VI application components have been provided. Missing information, incomplete sections, and insufficient supporting documentation are identified and presented to reviewers through a structured assessment interface.

When deficiencies are identified, the system prepares draft Notices of Deficiency that clearly identify missing items, incomplete submissions, and areas requiring clarification. Draft correspondence is routed to authorized agency personnel for review and approval prior to issuance, ensuring that all communications remain under WVDEP control.

The platform also supports public participation requirements by generating public notice documents, fact sheets, recipient lists, and comment period schedules in accordance with applicable federal and state regulations. During the public comment process, submitted comments are automatically categorized and organized by topic, significance, and technical relevance. Using a configurable regulatory response library, the system assists reviewers in preparing draft responses while flagging complex technical comments that require additional subject matter expert review. Upon completion of the review process, a consolidated Response to Comments document can be generated for agency review and public release.

By combining intelligent document extraction, engineering drawing analysis, automated drafting, completeness verification, deficiency management, public notice preparation, and comment response support, AWDT Solutions delivers a comprehensive document-centric workflow that improves review efficiency, enhances consistency, and strengthens regulatory decision-making.

1.1.5 Workflow Integration

Secure Submission Handling

AWDT Solutions will provide a secure digital intake framework that accepts permit applications through a web portal or Agency-controlled gateway. Upon submission, the platform automatically

validates the package, assigns a unique application tracking number, and creates a centralized electronic case file. All forms, supporting documents, GIS data, correspondence, and workflow activities are associated with the application record, ensuring complete traceability throughout the review lifecycle. Encryption, authentication controls, and role-based permissions protect information during transmission and storage while enabling authorized users to monitor application status through configurable workflow dashboards.

Agency Logs & Deep Observability

The platform maintains comprehensive audit records that capture workflow events, user actions, system activities, AI recommendations, approvals, and document changes. Dedicated agency-accessible log repositories provide WVDEP personnel with visibility into processing activities and quality control reviews. All records are searchable, timestamped, and retained in accordance with WVDEP retention requirements or for a minimum of five years if no formal retention policy is defined. These capabilities support operational oversight, compliance monitoring, auditing, and legal defensibility.

AgentOps Observability

AWDT Solutions incorporates advanced AgentOps observability capabilities that provide transparency into how intelligent agents analyze information and generate recommendations. The system records the sequence of evaluation steps, data sources consulted, validation checks performed, and regulatory references applied during processing. This allows reviewers to understand the rationale behind findings, verify supporting evidence, and examine the factors that influenced a recommendation. By providing visibility into the decision-making process, the platform strengthens accountability, reviewer confidence, and regulatory defensibility.

Mandatory Human-in-the-Loop (HITL) Decision Gates

AWDT Solutions embeds mandatory Human-in-the-Loop controls throughout the permitting lifecycle to ensure that regulatory authority remains with WVDEP personnel. Workflow execution automatically pauses at designated milestones and routes tasks to authorized reviewers for approval before processing can continue. Required approval points include Administrative Completeness Review, Administrative Compliance Approval, AoR and Risk Validation, Technical Analysis Approval, Draft Permit Approval, and Final Decision Authorization. Dashboard notifications, electronic sign-offs, reviewer comments, and approval records are maintained within the case file to ensure transparency and accountability. Under no circumstances can the AI system independently issue, deny, or approve a permit.

AI Token Usage and Cost Management

AWDT Solutions provides a transparent framework for managing AI-related operating costs while maintaining the performance required for complex permit reviews. The platform continuously monitors AI utilization, document processing volumes, and workflow activity to provide visibility into resource consumption. Built-in governance controls, optimization strategies, and reporting capabilities help WVDEP manage usage efficiently while maintaining predictable operating costs and avoiding unnecessary expenditures.

Token Cost Pricing Model

AI processing costs are structured using a clearly defined pricing model based on token consumption and anticipated workload volumes. Pricing assumptions, estimated annual usage, and applicable thresholds are documented within the cost proposal to provide complete transparency.

This approach allows WVDEP to accurately forecast expenses and understand how AI-related costs are incorporated into the overall solution pricing structure.

Cost Predictability and Budget Controls

The platform includes configurable consumption thresholds, utilization alerts, and administrative reporting tools that support proactive budget management. Designated administrators can monitor usage trends, establish spending limits, and receive notifications when predefined thresholds are approached. Regular consumption reporting and utilization forecasting provide visibility into future resource requirements and support long-term budget planning.

Token Optimization Strategies

AWDT Solutions minimizes token consumption through Retrieval-Augmented Generation (RAG), intelligent document indexing, structured data extraction, response caching, and reusable prompt frameworks. Rather than repeatedly processing entire document sets, the platform retrieves only relevant information needed for a specific task. This approach reduces resource consumption while improving response quality, accuracy, and consistency.

Estimated Token Usage

Based on the projected permit volumes and document processing requirements identified by WVDEP, annual token consumption is expected to remain within the estimated ranges provided in Attachment B. Actual usage will vary depending on application complexity, document volume, technical analysis requirements, and public participation activities. Detailed consumption estimates and assumptions are included within the pricing proposal to support budget planning and cost transparency.

Usage Transparency and Reporting

Comprehensive dashboards provide real-time visibility into AI utilization, processing activity, workflow execution, and consumption trends. Authorized users can review usage by application, permit type, workflow stage, reporting period, or processing category. Scheduled reports, historical analytics, and threshold notifications enable informed decision-making and support effective oversight of AI-related operating costs.

Model Flexibility and Future-Proofing

The solution utilizes a model-agnostic architecture that supports integration with multiple commercial, open-source, and government-approved AI models. This flexibility allows WVDEP to adopt emerging technologies, benefit from future improvements in performance and accuracy, and avoid dependence on a single model provider. New capabilities can be incorporated without significant system redesign, ensuring long-term adaptability as AI technologies evolve.

Cost Guarantees and Contractual Protections

AWDT Solutions is committed to transparent pricing and responsible cost management throughout the contract term. AI-related costs, consumption assumptions, and applicable thresholds will be clearly documented within the pricing proposal. Any potential changes affecting operating costs will be communicated in advance and reviewed with WVDEP before implementation. Ongoing monitoring, reporting, and optimization activities provide additional safeguards that support financial predictability and effective stewardship of Agency resources.

1.1.6 HITL Workflow Interface and Legacy System Independence

AWDT Solutions will provide a standalone Human-in-the-Loop (HITL) Workflow Interface that operates independently of WVDEP's existing permit management and legacy systems. This

approach enables the Agency to leverage advanced AI-assisted permit review capabilities without requiring direct modification, replacement, or intrusive integration with current applications. By maintaining clear separation between the AI platform and legacy environments, WVDEP can preserve the stability, security, and operational integrity of existing systems while benefiting from modern automation and decision-support capabilities.

The HITL Workflow Interface will serve as the primary workspace for permit reviewers, supervisors, technical specialists, and administrators. Within this environment, users can review AI-generated findings, validate recommendations, examine supporting evidence, approve workflow actions, provide comments, and complete required regulatory reviews. All Human-in-the-Loop activities are managed within the interface, ensuring that critical decisions remain under Agency control and are fully documented throughout the permitting process.

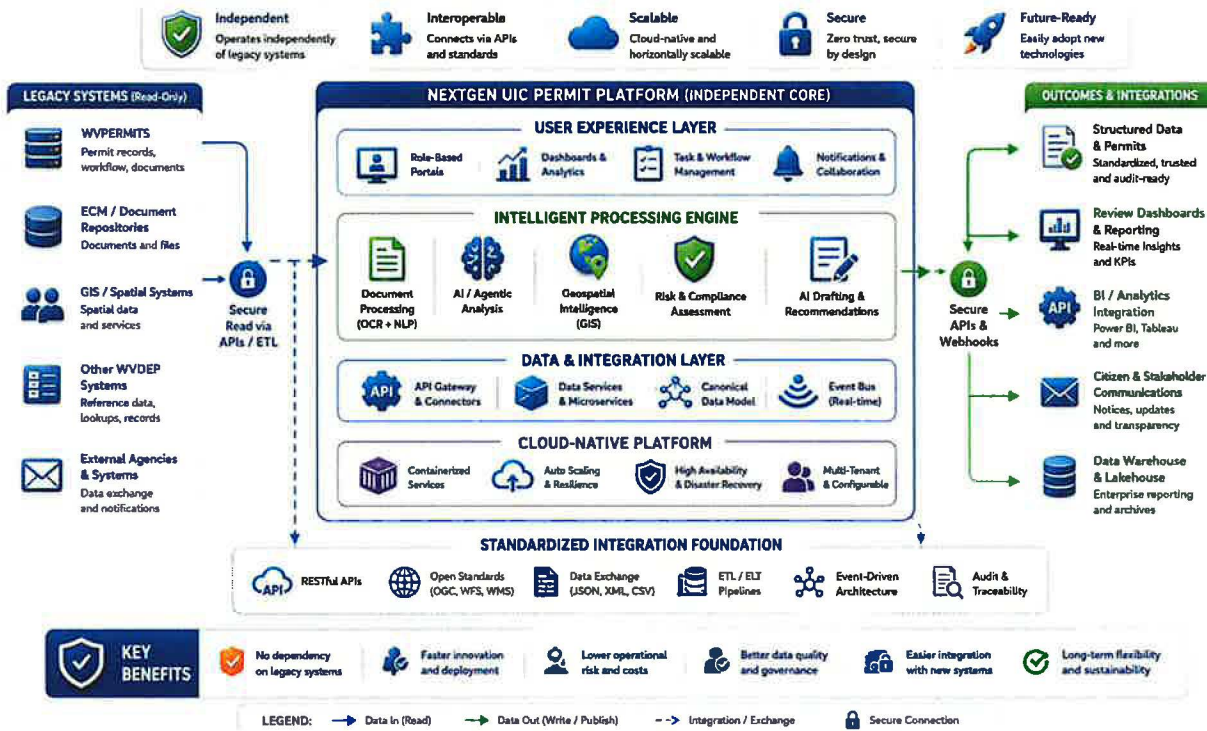
Rather than allowing AI agents to directly interact with or alter legacy permitting systems, the platform utilizes controlled data exchange mechanisms and configurable integration services where appropriate. Information can be imported, synchronized, or referenced as needed while maintaining clear system boundaries and preventing unauthorized changes to existing applications. This architecture minimizes implementation risk, reduces disruption to ongoing operations, and allows future modernization initiatives to occur at WVDEP's preferred pace.

The interface also provides centralized access to application records, technical analyses, geospatial reviews, permit drafts, public comments, workflow tasks, and approval requests through a unified dashboard. Reviewers are presented with all relevant information required to evaluate AI-assisted recommendations without navigating multiple systems. Complete audit trails, reviewer actions, approval histories, and supporting documentation are maintained within the platform to ensure transparency, accountability, and regulatory defensibility.

By providing an independent reviewer workspace with robust Human-in-the-Loop controls, AWDT Solutions enables WVDEP to modernize permit review operations while preserving existing technology investments and maintaining full control over regulatory decision-making.

LEGACY SYSTEM INDEPENDENCE ARCHITECTURE

Modern, Modular, Open – Built for Independence, Integration & Future Growth



1.1.6.1 Standalone HITL Workflow Interface:

AWDT Solutions will provide a secure, browser-based Human-in-the-Loop (HITL) Workflow Interface that serves as the primary workspace for all interactions between AI services and WVDEP personnel. The interface is intentionally designed to operate independently from existing legacy permitting systems, ensuring that AI processing activities remain fully separated from systems of record while preserving current operational processes and technology investments. Within the HITL environment, reviewers, supervisors, technical specialists, and administrators receive AI-generated requests, recommendations, technical findings, compliance assessments, and approval actions through a centralized dashboard. Users can review source documents, geospatial analyses, regulatory citations, confidence scores, workflow history, and supporting evidence from a single workspace without navigating multiple applications. The platform presents information in a clear and actionable format, enabling staff to efficiently evaluate recommendations, provide feedback, approve actions, request additional analysis, or return items for further review. All AI-to-human and human-to-AI interactions occur exclusively within the HITL interface. Intelligent agents generate tasks, findings, and recommendations, while WVDEP personnel retain authority over approvals, determinations, and regulatory decisions. Every action, comment, approval, modification, and workflow transition is automatically recorded, creating a complete audit trail that supports transparency, accountability, legal defensibility, and regulatory compliance.

Role-based access controls, secure authentication, and configurable permissions ensure users only access information appropriate to their responsibilities. Real-time notifications, workload management tools, task prioritization, and operational dashboards help staff manage reviews efficiently while maintaining visibility into permit status and processing activities.

By establishing a dedicated workspace that separates AI operations from legacy systems, AWDT Solutions minimizes implementation risk, protects existing investments, simplifies adoption, and provides WVDEP with a secure and scalable platform for AI-assisted permit reviews while maintaining full human oversight and decision-making authority.

1.1.6.2 AI-Generated Request Workflow

AWDT Solutions will implement an AI-generated request workflow that operates entirely within the standalone HITL Workflow Interface, eliminating the need for direct interaction with WVDEP's legacy permitting systems. Intelligent agents analyze application materials, supporting documents, technical reports, geospatial data, and workflow activities within the AI platform and generate review tasks, recommendations, requests for clarification, approval actions, or technical assessments as needed.

Once a review action is identified, the platform creates a structured work item and routes it to the appropriate reviewer based on role, expertise, workload, and workflow stage. Reviewers receive notifications through the dashboard and can access all supporting information, source documents, AI-generated findings, confidence scores, and decision rationale from a single workspace. This approach enables staff to evaluate recommendations and take appropriate action without navigating multiple systems or requiring AI access to legacy applications.

All reviewer responses, comments, approvals, and requested modifications are captured within the workflow environment and become part of the application's permanent audit record. The platform tracks task status, routing history, review timelines, and decision outcomes, providing complete visibility into the review process.

By separating AI processing activities from legacy system operations, the solution minimizes implementation risk, protects existing technology investments, and preserves the integrity of current permitting applications. At the same time, reviewers benefit from a streamlined workflow environment that supports efficient collaboration, transparent decision-making, and comprehensive regulatory oversight.

1.1.6.3 Human-Mediated Legacy System Updates

AWDT Solutions will maintain synchronization between the AI-assisted permitting platform and WVDEP's existing legacy systems through a human-mediated update process rather than direct AI integration. This approach preserves the integrity, security, and operational stability of legacy applications while ensuring that all official system updates remain under Agency control.

When a permit review activity reaches a point where information must be entered into an existing legacy system, the HITL Workflow Interface generates a structured task for the assigned reviewer. The task includes the recommended action, supporting documentation, AI-generated findings, and any relevant regulatory references. Agency personnel review the information, validate its accuracy, and manually update the appropriate legacy system using established business procedures and authorization protocols.

Once the update has been completed, the reviewer records the action within the HITL Workflow Interface, creating a documented linkage between the AI-assisted review process and the official system of record. The platform captures the completion status, reviewer comments, timestamps, and associated supporting materials, ensuring a complete audit trail for future reference.

This human-mediated synchronization model eliminates the risks associated with direct AI modification of legacy applications while preserving data accuracy, accountability, and regulatory oversight. By keeping personnel in control of all official updates, WVDEP retains full authority over system-of-record data while still benefiting from the efficiency and analytical capabilities of AI-assisted permit review workflows.

AI-Generated Request Workflow Methodology

Step 1: Analyze Submitted Information: AWDT Solutions will utilize intelligent agents to evaluate permit applications, supporting documents, technical reports, geospatial information, and workflow status within the AI platform. The agents identify required actions, review requirements, potential deficiencies, approvals, and technical assessments.

Step 2: Generate Structured Review Requests: Based on the analysis, the platform automatically creates structured work items containing task descriptions, supporting evidence, confidence scores, regulatory references, recommended actions, and required review outcomes.

Step 3: Determine Reviewer Assignment: AWDT Solutions will apply configurable routing rules that evaluate reviewer roles, subject matter expertise, workload capacity, permit type, and workflow stage to identify the most appropriate reviewer or approval group.

Step 4: Route Tasks Through the HITL Interface: The platform delivers requests directly to the standalone Human-in-the-Loop (HITL) workspace and generates dashboard notifications, alerts, and task assignments without accessing or modifying legacy permitting systems.

Step 5: Enable Reviewer Evaluation: Reviewers access a centralized workspace containing source documents, AI findings, supporting rationale, geospatial analyses, citations, and recommended actions needed to complete the review.

Step 6: Capture Decisions and Feedback: Reviewer comments, approvals, rejections, requests for clarification, and modifications are recorded within the workflow environment and linked to the application record.

Step 7: Maintain Auditability and Oversight: AWDT Solutions will preserve routing history, reviewer actions, timestamps, decision outcomes, and workflow status updates to provide complete traceability, transparency, and regulatory accountability.

This approach accelerates reviews, ensures appropriate task assignment, improves consistency, strengthens oversight, and preserves legacy system integrity by maintaining complete separation between AI processing activities and systems of record.

1.1.6.4 Data Flow Architecture

AWDT Solutions employs a controlled data flow architecture that maintains a clear separation between the AI-assisted permitting platform and WVDEP's existing legacy systems. This design allows the Agency to leverage advanced automation and decision-support capabilities without requiring direct AI access to systems of record, thereby reducing operational risk and preserving the integrity of existing applications.

For inbound data flow, applicants submit permit applications, supporting documentation, engineering reports, GIS data, and related materials through a secure web-based application portal.

Upon submission, the AI platform ingests the information through standardized electronic forms and document intake processes. The system then performs automated activities such as document classification, completeness validation, technical analysis, geospatial evaluation, and workflow routing. As processing milestones are reached, the platform generates Human-in-the-Loop (HITL) tasks, review requests, approval actions, or requests for additional information and routes them to the appropriate Agency personnel through the standalone reviewer interface.



For outbound data flow, reviewers complete assigned tasks, evaluate recommendations, and provide approvals or comments within the HITL Workflow Interface. Following completion of a review activity, the platform generates an export package containing status updates, review summaries, supporting documentation, draft correspondence, and other relevant artifacts. Authorized personnel then manually update the appropriate legacy permitting systems and official records using established Agency procedures. This approach ensures that all system-of-record updates remain under human control while maintaining synchronization between permitting activities and existing applications.

By separating AI processing from legacy system operations and utilizing human-mediated updates, AWDT Solutions provides a secure, transparent, and auditable framework that supports modernization objectives while protecting existing technology investments and regulatory processes.

2 MANDATORY PROJECT REQUIREMENTS

2.1 DATA INTEGRATION AND REGULATORY COMPLIANCE

AWDT Solutions will provide a robust data integration and compliance management framework that supports the diverse information sources required for UIC Class I and Class VI permitting activities. The platform is designed to ingest, normalize, validate, and process structured and unstructured data from multiple sources while ensuring alignment with applicable federal and state regulatory requirements.

The solution supports a broad range of data formats, including XML, CSV, PDF, GIS layers (Shapefile, GeoJSON, KML), CAD and DWG drawings, well logs, engineering reports, permit application forms, and supporting technical documentation. During ingestion, information is automatically validated, standardized, indexed, and associated with the appropriate application record, enabling consistent analysis and efficient retrieval throughout the review process. Geospatial datasets are normalized to approved coordinate systems and validated for completeness and spatial integrity before use in technical evaluations.

To support regulatory compliance, AWDT Solutions will implement a configurable Compliance Engine that encodes applicable UIC Class I and Class VI requirements, review criteria, business

rules, and permitting workflows. The engine continuously evaluates application data, technical submissions, permit conditions, monitoring requirements, financial responsibility documentation, and operational plans against established regulatory standards. Automated compliance checks help identify omissions, inconsistencies, and potential non-conformances early in the review process, improving consistency and reducing manual effort.

The platform also includes a Regulatory Monitoring Watchdog Agent that continuously monitors designated regulatory information sources, including federal publications, EPA guidance updates, legislative changes, and state regulatory announcements. When relevant changes are detected, the system generates alerts for agency personnel and identifies potential impacts to existing review criteria, workflows, permit templates, or compliance rules. This capability helps WVDEP remain informed of evolving regulatory requirements and supports timely updates to permitting processes. To enhance review accuracy and data validation, the solution supports integration with external agency systems, regulatory databases, geological repositories, environmental data sources, and other authoritative information providers. These integrations enable automated cross-referencing of applicant-submitted information against trusted external sources, helping reviewers verify data accuracy, evaluate completeness, identify discrepancies, and support informed decision-making. By combining flexible data integration, automated compliance validation, regulatory monitoring, and external data verification capabilities, AWDT Solutions delivers a comprehensive framework that strengthens regulatory oversight, improves operational efficiency, and supports defensible permitting decisions.

2.1.1 Security and Deployment

AWDT Solutions employs a security-first architecture designed to protect sensitive regulatory, environmental, and operational data while supporting the reliability, availability, and compliance requirements of WVDEP. Security controls are integrated throughout the platform lifecycle, from application intake and data processing to storage, reporting, and long-term record retention.

All information processed by the platform is protected using industry-standard encryption technologies. Data transmitted between users, applications, APIs, and external services is secured using Transport Layer Security (TLS) 1.3, ensuring protection against interception and unauthorized access during transmission. Data stored within databases, document repositories, backups, and archival systems is encrypted using AES-256 encryption, safeguarding information at rest and protecting sensitive records throughout their lifecycle.

Access to the platform is governed through a comprehensive Role-Based Access Control (RBAC) framework aligned with WVDEP's organizational structure and operational responsibilities. User permissions are assigned based on job function, allowing reviewers, supervisors, administrators, technical specialists, and external stakeholders to access only the information and functionality necessary to perform their duties. Multi-Factor Authentication (MFA) is enforced for all user accounts to provide an additional layer of protection against unauthorized access. Administrative functions, approval workflows, and privileged operations are further protected through enhanced authorization controls and detailed audit logging.

Protection of Personally Identifiable Information (PII) and Confidential Business Information (CBI) is a core component of the proposed solution. The platform incorporates data classification, access restrictions, encryption, and monitoring controls to identify and safeguard sensitive information. Documents and records containing PII or CBI can be automatically tagged and

classified during ingestion, enabling the application of specialized handling procedures and access policies. Sensitive data is only accessible to authorized personnel and is protected through encryption, activity monitoring, and audit trail capabilities. The platform also supports configurable retention policies, secure archival processes, and controlled disposition procedures to ensure information is managed in accordance with applicable regulatory and agency requirements.

Security, compliance, and operational resilience are foundational design principles of the AWDT platform. Recognizing the sensitivity of environmental permitting information and the importance of maintaining public trust, AWDT proposes a cloud-based architecture aligned with FedRAMP Moderate security requirements and industry-recognized cybersecurity best practices.

The solution will leverage secure cloud infrastructure incorporating encryption of data both in transit and at rest, role-based access controls, multifactor authentication, continuous monitoring, centralized audit logging, vulnerability management, and incident response procedures. Security controls will align with applicable NIST frameworks and federal security standards to ensure protection of agency information throughout its lifecycle.

Every user action, workflow execution, system event, and AI-generated recommendation will be captured within a comprehensive audit framework. This approach ensures transparency, supports regulatory defensibility, and provides the traceability necessary to satisfy future compliance reviews and operational audits.

AWDT's security-first architecture enables WVDEP to confidently adopt advanced AI capabilities while maintaining governance, accountability, and protection of critical environmental permitting data.

To streamline user access and improve identity management, the platform supports Single Sign-On (SSO) integration using industry-standard protocols including SAML 2.0 and OpenID Connect. This capability allows users to authenticate using existing WVDEP identity management systems, reducing credential management complexity while strengthening security and user experience. Integration with enterprise directory services enables centralized user provisioning, role management, and access governance.

AWDT Solutions maintains a proactive security management program that includes annual third-party penetration testing, routine vulnerability assessments, configuration reviews, and continuous security monitoring. Results of independent penetration testing can be shared with WVDEP to support transparency and security assurance activities. Automated vulnerability scanning is performed on a recurring basis, and critical vulnerabilities are remediated within 30 days or sooner based on severity and operational risk. Security events, system activities, and access records are continuously monitored and logged to support incident response, compliance reporting, and forensic investigations when required.

Through a combination of strong encryption, identity and access management, PII and CBI protections, secure government cloud hosting, SSO integration, continuous monitoring, and independent security assessments, AWDT Solutions delivers a secure, resilient, and compliant platform capable of supporting WVDEP's current and future permitting operations

SECURITY ARCHITECTURE

Secure by Design. Zero Trust. Always Protected.



2.1.2 Support and Maintenance

AWDT Solutions is committed to providing comprehensive post implementation support that ensures the long-term reliability, performance, and adoption of the WVDEP AI-Assisted Permitting Platform. The Support and Maintenance period will formally begin upon written System Acceptance by WVDEP following successful validation of all functional, technical, security, integration, and training requirements. Acceptance will include confirmation that users can effectively navigate the platform and perform their assigned responsibilities within the operational environment.

Following acceptance, WVDEP will receive access to dedicated technical support during standard business hours, supported by established service management processes and defined escalation procedures. AWDT Solutions will provide assistance with platform configuration, workflow optimization, cloud environment tuning, performance improvements, cost management strategies, troubleshooting, and secure remote support to ensure continuous system availability and operational efficiency.

To promote proactive engagement and continuous improvement, AWDT Solutions will assign a dedicated Technical Account Manager who will serve as WVDEP's primary point of contact for support coordination, issue resolution, enhancement planning, and service oversight. Monthly service review meetings will provide visibility into system performance, support metrics, operational trends, and improvement opportunities, while quarterly business reviews will evaluate strategic objectives, adoption progress, roadmap priorities, and emerging business needs.

Recognizing the importance of user adoption, AWDT Solutions will provide ongoing AI platform training and knowledge transfer services to reinforce user proficiency, support onboarding activities, and ensure personnel can fully leverage the platform's capabilities as business processes evolve.

In addition, AWDT Solutions will provide a stabilization warranty that begins immediately upon System Acceptance. During this period, our team will remediate automation disruptions, workflow failures, integration issues, and platform defects resulting from minor software updates, infrastructure modifications, configuration changes, or environmental adjustments at no additional cost to WVDEP. This warranty provides added assurance that the platform remains stable, secure, and fully operational during the critical transition from implementation to steady state operations. Through dedicated support resources, proactive service management, continuous training, and warranty-backed stabilization services, AWDT Solutions delivers a sustainable support model that protects WVDEP's investment, minimizes operational risk, and promotes long-term program success.

2.1.3 Licensing

AWDT Solutions will provide all software licenses required to operate, administer, monitor, and maintain the proposed AI-Assisted Permitting Platform throughout the contract period. Our licensing approach is designed to ensure that WVDEP personnel have the appropriate level of access necessary to perform their responsibilities while maintaining security, governance, and operational control.

The proposed licensing model includes full administrative access for four (4) designated staff members to utilize the monitoring, reporting, analytics, and system management dashboard. These users will have visibility into workflow performance, operational metrics, audit logs, AI activity, system health, and program reporting functions. In addition, four (4) authorized staff members will receive configuration privileges that enable them to create, modify, manage, and monitor automated workflows, business rules, notifications, and operational processes through a secure web-based administration interface.

AWDT Solutions will also provide the necessary user access for permit applicants, technical reviewers, supervisors, managers, and other authorized stakeholders participating in Human-in-the-Loop (HITL) workflows. Role-based permissions will ensure that each user can securely

access only the information, tasks, approvals, and functions required for their specific responsibilities.

Our licensing structure supports future growth and scalability, allowing WVDEP to expand user participation, introduce additional workflows, and accommodate evolving program requirements without requiring significant platform redesign or operational disruption. This approach ensures predictable licensing management, streamlined administration, and broad accessibility across the permitting lifecycle.

2.1.4 Regulatory Compliance

AWDT Solutions recognizes that regulatory compliance, security, transparency, and governance are foundational requirements for any AI-enabled government platform. Our proposed solution is designed to align with federal and state security standards while providing the controls, auditability, and oversight necessary to support WVDEP's permitting operations and regulatory responsibilities.

The platform will be deployed within a FedRAMP Moderate Authorized cloud environment, such as AWS GovCloud or Azure Government, ensuring that the hosting infrastructure meets rigorous government security requirements. The solution architecture incorporates layered security controls, continuous monitoring, encryption, access management, and incident response capabilities consistent with state and federal compliance expectations. In addition, the platform is designed to support compliance with NIST 800-53 security controls, providing a structured framework for risk management, access control, audit logging, configuration management, vulnerability management, system monitoring, and data protection.

To support transparency and accountability, all AI and automation activities are fully auditable. The platform records user actions, workflow events, AI-generated recommendations, approval decisions, routing activities, system changes, and security events through comprehensive audit trails. These records are retained in accordance with WVDEP retention requirements or for a minimum of five years when no formal retention schedule is defined. Detailed logging and reporting capabilities ensure that all actions can be traced, reviewed, and validated during audits, investigations, or compliance reviews.

AWDT Solutions is committed to delivering an inclusive user experience and will ensure that all user-facing components conform to Section 508 accessibility requirements. Dashboard interfaces, workflow screens, forms, reports, notifications, and supporting documentation will be designed to support accessibility standards, enabling equitable access for all users.

Our AI Governance framework provides robust oversight and control of AI-enabled processes. The platform maintains documentation of model training methodologies, approved knowledge sources, retrieval mechanisms, validation procedures, and governance controls. Continuous model performance monitoring evaluates accuracy, reliability, and consistency while automated drift detection capabilities identify performance degradation and generate alerts for review. Bias testing and mitigation procedures are incorporated into the governance process, and annual reporting can be provided to document testing results, monitoring activities, and corrective actions. Most importantly, the platform enforces human oversight throughout the permitting lifecycle, ensuring that authorized personnel retain the ability to review, override, modify, or reject AI-generated recommendations at all decision points.

To further strengthen security assurance, AWDT Solutions supports annual independent SOC 2 Type II audits and will provide audit reports to WVDEP upon request. The solution also supports a right-to-audit provision, allowing WVDEP or its designated third-party representatives to conduct security assessments, compliance reviews, and validation activities in accordance with mutually agreed procedures. Through this comprehensive compliance framework, AWDT Solutions delivers a secure, transparent, auditable, and governance-driven platform that enables WVDEP to confidently leverage AI technologies while maintaining regulatory control and public trust.

2.1.5 Data Ownership and Exit Strategy

AWDT Solutions recognizes that all data generated, processed, stored, or maintained within the proposed platform is the exclusive property of the State of West Virginia. WVDEP will retain full ownership and control of all application submissions, permit records, geospatial information, supporting documentation, correspondence, audit logs, reports, AI-generated outputs, workflow artifacts, and system-generated content throughout the contract term and thereafter. AWDT Solutions will use WVDEP data solely for the purpose of delivering contracted services and will not access, share, disclose, monetize, or repurpose agency information without explicit written authorization.

Data privacy and sovereignty are foundational elements of our solution. All WVDEP information will remain within the United States and will be hosted in approved government-compliant cloud environments. AWDT Solutions will not use WVDEP data, documents, workflows, permit records, or AI-generated content to train, improve, or develop models for other customers. Any use of agency data beyond contract performance would require prior written consent from WVDEP. Our AI governance framework further ensures compliance with applicable federal, state, and agency policies regarding approved technologies, data handling, and responsible AI practices. To protect WVDEP's long-term interests and avoid vendor lock-in, AWDT Solutions provides a comprehensive exit strategy that ensures complete data portability. Upon contract termination or expiration, all agency data will be made available within thirty (30) days in open, non-proprietary formats including PDF, CSV, JSON, XML, and standard document formats. Exported data packages will include associated metadata, audit histories, workflow records, supporting documents, and system-generated content necessary to support continued operations in a successor environment.

AWDT Solutions will provide transition assistance for up to ninety (90) days following contract termination to facilitate knowledge transfer, data migration, technical coordination, and operational continuity. During this period, our team will work collaboratively with WVDEP and any designated replacement provider to ensure a secure and orderly transition with minimal disruption to permitting activities.

Following successful transfer and written confirmation from WVDEP that all required information has been received, AWDT Solutions will securely remove agency data from vendor-controlled systems, backups, and storage repositories within sixty (60) days. Written certification of destruction will be provided to document completion of the data removal process. Through this approach, AWDT Solutions ensures full data ownership, secure information management, transparent transition support, and long-term protection of WVDEP's operational and regulatory assets.

3 QUALIFICATIONS AND EXPERIENCE

3.1 QUALIFICATION AND EXPERIENCE INFORMATION

Company Background and Years of Experience

Automated Workforce Digital Transformation Solutions (AWDT Solutions) is a technology consulting and digital transformation firm specializing in intelligent automation, artificial intelligence, workflow modernization, document processing, system integration, and enterprise software solutions. The company provides services to public and private sector organizations seeking to improve operational efficiency, reduce manual processing, enhance compliance, and accelerate business outcomes through the strategic application of emerging technologies.

AWDT Solutions has extensive experience designing and implementing enterprise automation platforms that integrate Robotic Process Automation (RPA), Intelligent Document Processing (IDP), workflow orchestration, AI-assisted decision support, analytics, and cloud-based solutions. The firm's expertise includes automating complex business processes, integrating disparate systems, processing large volumes of structured and unstructured data, and developing secure, scalable platforms that support regulatory and operational requirements.

The proposed solution leverages AWDT Solutions' experience in workflow automation, AI-enabled document processing, system integration, and compliance-driven business processes to deliver a modern permitting platform capable of supporting WVDEP's UIC Class I and Class VI regulatory programs.

Relevant Experience with Agentic AI and Autonomous Systems

AWDT Solutions has experience designing intelligent automation solutions that combine AI technologies, workflow orchestration, robotic process automation, and decision-support capabilities to improve business operations and regulatory compliance. These solutions utilize intelligent agents to analyze documents, extract information, validate data, generate recommendations, automate workflows, and support human decision-making through structured review processes.

Relevant experience includes developing automated document processing solutions, AI-assisted review workflows, intelligent case management systems, compliance monitoring processes, workflow optimization platforms, and enterprise automation environments that require transparency, auditability, and human oversight. These implementations have demonstrated the ability to improve processing efficiency, reduce manual effort, enhance data quality, and support complex operational requirements while maintaining governance and accountability.

Reference 1	Client	Date
	FEMA	2025 – Present
Scope	<p>AWDT Solutions provides intelligent automation and workflow modernization services supporting FEMA's operational and financial management functions. The engagement focuses on automating complex invoice review and validation activities, reducing manual processing effort, and improving the accuracy of financial transactions through advanced Robotic Process Automation (RPA) technologies.</p> <p>The solution utilizes UiPath and Microsoft Power Automate to automate invoice reconciliation, validate transportation and facility-related</p>	

	<p>expenses, and perform rule-based verification against approved contract terms and funding requirements. AWDT developed automated workflows that aggregate data from multiple enterprise systems, perform cross-system validation, identify discrepancies, and route exceptions for human review.</p> <p>In addition to automation services, AWDT supports enterprise integration initiatives connecting automated workflows with legacy applications and operational databases. The platform provides centralized monitoring, exception management, audit logging, dashboard reporting, and workflow analytics to improve visibility and operational oversight.</p>	
Reference 2	Client	Date
	DHS ICE	2022 – 2026
Scope	<p>AWDT Solutions supports DHS ICE through enterprise automation, systems modernization, and operational technology services designed to improve mission execution, increase workforce efficiency, and strengthen data-driven decision making. The engagement encompasses automation strategy, application support, workflow optimization, and operational analytics across multiple business functions.</p> <p>AWDT implemented automated processing capabilities that streamline high-volume financial and operational workflows, significantly reducing manual intervention while improving data consistency and processing throughput. Automated solutions integrate with core agency platforms, including legacy systems and mission-support applications, enabling secure information exchange and enhanced operational visibility.</p> <p>As part of this effort, AWDT provides maintenance, enhancement, and operational support services for ICE information technology environments. The team develops and maintains automation components, monitors system performance, manages workflow execution, and supports continuous improvement initiatives. Advanced analytics and forecasting capabilities were introduced to help leadership anticipate operational requirements, optimize resource allocation, and improve service delivery. The engagement requires strict adherence to DHS cybersecurity requirements, privacy mandates, secure access controls, continuous monitoring procedures, and operation within highly regulated federal cloud environments.</p>	
Reference 3	Client	Date
	SLK Software	2019-2021
Scope	<p>AWDT Solutions personnel supported enterprise automation initiatives focused on identifying, designing, developing, and deploying Robotic Process Automation (RPA) solutions using Automation Anywhere. The project objective was to streamline business operations, eliminate repetitive manual tasks, improve data accuracy, and increase organizational productivity through intelligent process automation.</p>	

	<p>The team collaborated with business stakeholders to analyze existing workflows, identify automation opportunities, and develop implementation roadmaps for high-value business processes. Automated bots were designed and deployed to execute routine transactions, process large data volumes, integrate disparate systems, and improve operational consistency across departments.</p> <p>Responsibilities included workflow design, bot development, system integration, testing, deployment, performance monitoring, and ongoing optimization. Automation solutions were integrated with enterprise applications, databases, and third-party platforms to support seamless information exchange and end-to-end process execution. The team also conducted user training, provided technical support, and implemented governance controls to ensure secure and reliable operations.</p> <p>The engagement emphasized process standardization, quality assurance, risk management, and continuous improvement, resulting in increased operational efficiency, reduced processing times, and improved business outcomes.</p>
--	---

Relevant Key Personnel and Roles

AWDT Solutions will assign a multidisciplinary team with expertise in automation, artificial intelligence, enterprise architecture, workflow management, data integration, cloud technologies, and project delivery.

1. Wilhelm H. Lutterodt – Solution Architect / Technical Lead

Wilhelm Lutterodt will serve as the Solution Architect and Technical Lead for the project. He is a UiPath Certified Advanced RPA Developer and experienced automation architect with extensive expertise in intelligent automation, enterprise workflow design, system integration, AI-enabled business processes, document processing, and solution delivery. He will be responsible for overall technical architecture, AI strategy, workflow design, integration oversight, and solution governance.

3.2 MANDATORY QUALIFICATION/EXPERIENCE REQUIREMENTS

AWDT Solutions understands the critical importance of security, privacy, governance, and regulatory compliance when delivering AI-enabled solutions for government agencies. Our organization incorporates industry-recognized security practices, established governance frameworks, and rigorous operational controls to ensure the protection of sensitive information throughout the system lifecycle.

AWDT Solutions will comply with all applicable data privacy, cybersecurity, information security, and AI governance requirements associated with the proposed solution. Our implementation approach incorporates secure development practices, role-based access controls, encryption, audit logging, continuous monitoring, vulnerability management, AI oversight mechanisms, and Human-in-the-Loop governance controls designed to support regulatory compliance and responsible use of artificial intelligence technologies. The proposed platform includes documented procedures for data protection, model governance, performance monitoring, bias mitigation, change management, and security incident response to ensure ongoing operational integrity.

AWDT Solutions acknowledges and accepts the requirement to execute a confidentiality agreement upon contract award. All personnel assigned to the project will adhere to established confidentiality, privacy, and information protection requirements governing access to WVDEP data, systems, documents, and operational information.

To further demonstrate our commitment to security and compliance, AWDT Solutions supports deployment within FedRAMP-authorized environments and utilizes industry-standard controls aligned with government security requirements. Where required by the engagement, AWDT Solutions will provide evidence of applicable security certifications, attestations, or compliance documentation, including support for environments operating under FedRAMP, StateRAMP, or SOC 2 Type II security frameworks. These controls ensure that WVDEP receives a secure, compliant, and well-governed solution capable of supporting mission-critical permitting operations while maintaining the highest standards of data protection and operational accountability.

By combining secure architecture, responsible AI governance, regulatory compliance, confidentiality protections, and industry-aligned security controls, AWDT Solutions exceeds the mandatory requirements while delivering a trusted foundation for WVDEP's AI-assisted permitting modernization initiative.

4 IMPLEMENTATION TIMELINE

AWDT Solutions will utilize a phased implementation methodology designed to reduce project risk, ensure stakeholder engagement, and enable successful deployment of the AI-Assisted UIC Permitting Platform. The implementation approach emphasizes requirements validation, iterative development, user acceptance testing, knowledge transfer, and production readiness activities to ensure the solution aligns with WVDEP operational, regulatory, and technical requirements.

Following contract award, the project will begin with project initiation and detailed requirements validation workshops involving WVDEP stakeholders, technical personnel, and program subject matter experts. These sessions will confirm business processes, regulatory workflows, integration requirements, security controls, data sources, reporting needs, and user experience expectations. Information gathered during this phase will be used to finalize the solution architecture and implementation roadmap.

The subsequent development phase will focus on configuration of the Agentic AI platform, workflow orchestration services, document processing capabilities, GIS integration components, compliance monitoring functions, dashboards, and Human-in-the-Loop review interfaces. During this period, integrations with external data sources and supporting systems will be configured, tested, and validated.

AWDT recognizes that successful implementation requires proactive management of technical, operational, and organizational risks. Our project delivery methodology incorporates continuous risk identification, mitigation planning, quality assurance validation, and stakeholder engagement throughout the implementation lifecycle.

Project governance activities will include recurring status reviews, milestone assessments, issue tracking, change management controls, and executive reporting to ensure alignment with project objectives. Data migration activities will undergo validation and reconciliation procedures to verify completeness and accuracy prior to production deployment. All integrations, workflow automations, AI services, and dashboard capabilities will be subjected to comprehensive testing,

including functional testing, security testing, user acceptance testing, and operational readiness assessments.

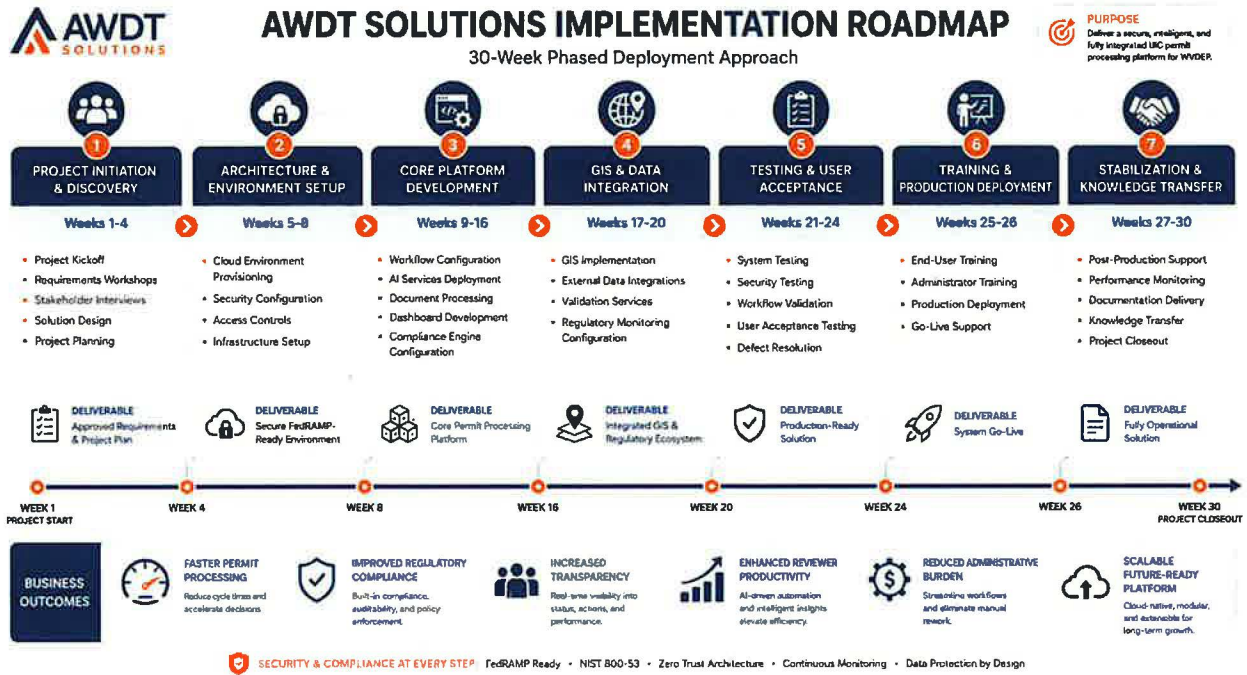
To further reduce implementation risk, AWDT will employ a phased deployment strategy that allows stakeholders to validate functionality, provide feedback, and confirm business process alignment before transitioning to full production operations. This structured approach minimizes disruption, promotes user adoption, and establishes a stable foundation for long-term success.

Following development, AWDT Solutions will conduct comprehensive system testing, including functional testing, security validation, performance testing, workflow verification, and user acceptance testing. WVDEP personnel will participate in testing activities to validate business requirements, review workflows, and confirm operational readiness prior to production deployment.

The final implementation phase will include end-user training, knowledge transfer, production deployment, post-implementation support, and transition to ongoing operations. Throughout the project, progress reviews and milestone assessments will be conducted to ensure alignment with project objectives, schedule expectations, and quality standards.

Phase	Key Activities	Duration
Phase 1 Project Initiation & Discovery	Project kickoff, requirements workshops, stakeholder interviews, solution design, project planning	Weeks 1-4
Phase 2 Architecture & Environment Setup	Cloud environment provisioning, security configuration, access controls, infrastructure setup	Weeks 5-8
Phase 3 Core Platform Development	Workflow configuration, AI services, document processing, dashboard development, compliance engine configuration	Weeks 9-16
Phase GIS & Data Integration	GIS implementation, external data integrations, validation services, regulatory monitoring configuration	Weeks 17-20
Phase 5 Testing & User Acceptance	System testing, security testing, workflow validation, user acceptance testing, defect resolution	Weeks 21-24
Phase 6 Training & Production Deployment	End-user training, administrator training, production deployment, go-live support	Weeks 25-26
Phase 7 Stabilization & Knowledge Transfer	Post-production support, performance monitoring, documentation delivery, project closeout	Weeks 27-30

AWDT Solutions anticipates completing implementation and achieving full production deployment within approximately seven months of contract award. The timeline may be refined during project initiation based on WVDEP priorities, resource availability, data readiness, and final scope confirmation.



5.2 ADDENDUM ACKNOWLEDGEMENT FORM

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.: CRFP DEP26*03

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received:

(Check the box next to each addendum received)

- | | |
|--|--|
| <input checked="" type="checkbox"/> Addendum No. 1 | <input type="checkbox"/> Addendum No. 6 |
| <input type="checkbox"/> Addendum No. 2 | <input type="checkbox"/> Addendum No. 7 |
| <input type="checkbox"/> Addendum No. 3 | <input type="checkbox"/> Addendum No. 8 |
| <input type="checkbox"/> Addendum No. 4 | <input type="checkbox"/> Addendum No. 9 |
| <input type="checkbox"/> Addendum No. 5 | <input type="checkbox"/> Addendum No. 10 |

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

Automated Workforce Digital Solutions

Company


Authorized Signature
06/06/2026

Date

NOTE: This addendum acknowledgment should be submitted with the bid to expedite document processing.

Revised 6/8/2012

5.3 DESIGNATED CONTACT

DESIGNATED CONTACT: Vendor appoints the individual identified in this Section as the Contract Administrator and the initial point of contact for matters relating to this Contract.

(Printed Name and Title) Wilhelm Halm Lutterodt CEO

(Address) 12641 Barton Drive Hagerstown, MD, 21740

(Phone Number) / (Fax Number) 9738734477

(email address) contactus@awdtsolutions.com

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through wvOASIS, I certify that: I have reviewed this Solicitation/Contract in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation/Contract for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that this bid or offer was made without prior understanding, agreement, or connection with any entity submitting a bid or offer for the same material, supplies, equipment or services; that this bid or offer is in all respects fair and without collusion or fraud; that this Contract is accepted or entered into without any prior understanding, agreement, or connection to any other entity that could be considered a violation of law; that I am authorized by the Vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on Vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

By signing below, I further certify that I understand this Contract is subject to the provisions of West Virginia Code § 5A-3-62, which automatically voids certain contract clauses that violate State law; and that pursuant to W. Va. Code 5A-3-63, the entity entering into this contract is prohibited from engaging in a boycott against Israel.

Automated Workforce Digital Solutions
(Company) _____

(Signature of Authorized Representative)
 _____
Wilhelm Halm Lutterodt CEO

(Printed Name and Title of Authorized Representative) (Date)
9738734477

(Phone Number) (Fax Number) _____

contactus@awdtsolutions.com
(Email Address) _____

REQUEST FOR PROPOSAL

WV Department of Environmental Protection
CRQS DEP2600000017

Attachment A: Cost Sheet

ATTACHMENT A					
UIC Class 1 and 6 Agentic AI System Solution Cost Sheet					
Item	Service Description	Unit	Qty	Unit Cost	Extended Cost
Implementation & Configuration (Initial Setup)					
1	Turnkey Setup: Agentic AI, Dashboard, and Legacy Integration	LS	1	\$450,000	\$450,000
2	Data Migration: Historical Data & GIS Layer Ingestion	LS	1	\$150,000	\$150,000
Annual SaaS Subscription (Fixed Cost)					
3	Year 1: FedRAMP Hosting, Support, Security and Adversarial Validation	YR	1	\$200,000	\$200,000
4	Year 2: Hosting, Maintenance, Support, Licensing Renewal, Security and Adversarial Validation	YR	1	\$175,000	\$175,000
5	Year 3: Hosting, Maintenance, Support, Licensing Renewal, Security and Adversarial Validation	YR	1	\$175,000	\$175,000
6	Year 4: Hosting, Maintenance, Support, Licensing Renewal, Security and Adversarial Validation	YR	1	\$175,000	\$175,000
7	Year 5: Hosting, Maintenance, Support, Licensing Renewal, Security and Adversarial Validation	YR	1	\$175,000	\$175,000
Supportive & Variable Services					
8	Custom Enhancement Labor (Hourly Bank)	HR	200	\$200	\$40,000
9	AI Token Usage (1 EA = 1 Million Tokens/MTOK)*	Mtok	250	\$25	\$6,250
10	Cloud Data Storage Overage (per GB)	GB	100	\$0.50	\$50
Renewal Year					
11	Year 6: Maintenance, Support, Licensing Renewal, Security and Adversarial Validation	YR	1	\$175,000	\$175,000
TOTAL BID AMOUNT (Items 1.1 through 3.3)					\$1,722,300

Token Usage Calculation (Attachment B - 4.3.2.6.4)

Bidders must provide a Price Per 1M Tokens (MTok). For evaluation and award, the total bid is calculated by multiplying the unit price by a fixed quantity of 100,000,000 tokens (250MTok).

Contractual Cap & Change Orders

The 250MTok quantity represents a fixed contractual limit. Should the State's requirements exceed the initial 250MTok allocation, additional tokens must be purchased via a formal Change Order process. Usage cannot exceed 250MTok unless the Purchasing Department approves a formal Change Order to increase the quantity. The State is not liable for any usage beyond the authorized amount.

Billing and Payment

Payment is made in arrears based on actual consumption documented via vendor-provided usage reports, up to the maximum authorized contract total.

ATTACHMENT B

UIC Class 1 and 6 Agentic AI System Solution Estimated Token Usage

Est. Annual Total (20 Applications)

Processing Activity	Est. Tokens per App
Document Ingestion & OCR	500,000
Administrative Completeness Review	750,000
Technical Compliance Analysis	3,000,000
Geologic/AoR Evaluation	4,500,000
Draft Permit Generation	1,500,000
Public Notice & Response to Comments	750,000
HITL Review Support & Explanations	1,500,000
Total per Application (Average)	12,500,000

ATTACHMENT C
UIC Class 1 and 6 Agentic AI System Solution Timeline

Phase	Duration	Key Activities
Phase 1: Discovery & Configuration	3 Months	Requirements validation, tenant setup, SSO integration, and ERIS/ESS system assessment.
Phase 2: Integration Development	6 Months	API integration with WVDEP systems, WV-specific regulatory rule configuration, and AI model training.
Phase 3: Data Migration & Testing	6 Months	Historical data migration, User Acceptance Testing (UAT), security testing, and HITL workflow validation.
Phase 4: Pilot Deployment	5 Months	Pilot launch with limited applications, user training, and system refinement based on feedback.
Phase 5: Production Launch	4 Months	Full production deployment, go-live support, and 30-day "hypercare" stabilization period.