

## When My Pig isn't the same as Your Pig: Helping State and Tribal Wetland Regulators Address Complexity in Linear Oil and Gas Pipeline Development Permitting Processes

By Brenda Zollitsch, ASWM Policy Analyst

*What is a "pig" in pipeline development? What type of pig should be used and during which phase in the process? Is the correct term "shale oil gas" or "hard rock resources"? Where can states have input on planning for and practices used in pipeline development? How can cumulative impacts be considered? Can permit review processes happen effectively across agencies, boundaries and silos?*

These and many other questions often cause major barriers to effective state and tribal permitting of pipeline projects. The following article shares some initial findings from ASWM's project on improving §401 Certification of Linear Oil and Gas Transmission Project Permits.

Many states across the country are, for the first time, reviewing complex permits for natural gas pipelines, while others are experienced but have limited resources for this review work. Wetland program and other aquatic resource managers at the state and tribal level have expressed a critical need to better understand the science, policy and tools available to approve, waive, condition or deny permits. Through this project, ASWM is working to help states explore ways to adopt practices that may increase the effectiveness and efficiency of their permitting activities.

To address these issues, the Association of State Wetland Managers (ASWM) is in the process of working to better understand and support improvements in state and tribal permitting for linear oil and gas pipeline development projects. ASWM is working to break down these complex processes into manageable parts and develop training resources and tools for use by wetland program staff, consultants and others working on these issues.

ASWM has found that a wide range of experience with and demand for pipeline permit review exists across the nation. In the following article, ASWM shares its work to "unpack complexity" around this topic. Working on these multiple project elements over the last year has brought to light some critical insights about complexity. More importantly, it has helped ASWM and its partners find ways to overcome some of these issues, in ways that will provide new resources and training with the potential for gains in efficiency, effectiveness, transparency, and replicability of permit review efforts.

### ASWM's Energy Project components include working to:

- 1** Identify key barriers and challenges to effective, efficient and transparent wetland permitting processes;
- 2** Understand the importance of language and framing of issues among the key actors in permit development and review;
- 3** Document and discuss the key process steps and points of access for wetland regulators throughout the pipeline permitting process;
- 4** Understand and address common issues that arise when wetland regulators work with consultants that serve as intermediaries for companies developing pipelines.
- 5** Identify and share vetted best management practices for use in pipeline planning, administrative capacity building and conditioning permits.

Additionally, the project is developing training webinars and web-based resources for use by states and tribes.

### The Importance of Place – Where Pipelines are Being Developed Matters

In order to better understand expanding pipeline development, ASWM is working with agencies at multiple levels to gather data about where new pipelines are being constructed, as well as where planning

is taking place currently. The shale revolution is leading to new development where gas pipelines have never been before. This also means that permit reviewers in states may have little experience dealing with the significant task of understanding and participating in the review of pipeline permit applications.

A second challenge for permit reviewers relates to where pipelines are being developed is a lack of access to information about planned projects prior to the formal submission of a permit application. Engagement in pre-planning is recognized by most agencies as one of the most effective ways to reduce barriers during the permit review phase. When key resources are protected or best practices are incorporated into the initial plans, some elements of conditioning or requests for changes to the submitted plans can be avoided. Consequently, developing relationships with energy companies and their consultants in ways that build relationships and spur dialogue outside of the formal review process is very important.

Regardless of where those pipelines may be constructed and access to planning processes, ASWM is working to make sure that states that have not dealt with pipeline permit review in the past or who are about to have a new volume of permits to review will be provided with useful resources to help them think and work through review processes.

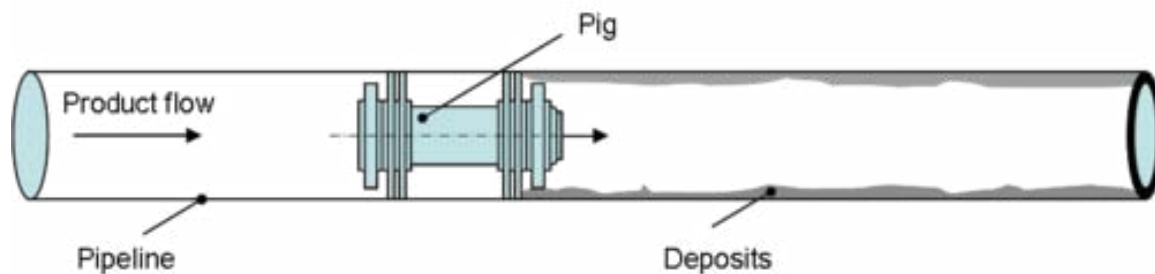
### When Words Don't Mean the Same Thing to Different People

Every day, language is used by states, tribes, oil companies, consultants, and other partners to describe a variety of resources, practices and tools that contribute to the development of linear oil and gas pipeline projects. However, it is clear from our work to date, that an initial challenge facing all the actors in this process is language and a lack of shared understanding of key terminology. One word may have a variety of meanings across different groups of actors in the permitting process. Knowing how to speak the language of the other actors in the process

### What is a Pig?

#### An Example of Complexity caused by Technical Terminology

While buildup in a pipeline can cause transmittal slows or even plugging of the pipeline, cracks or flaws in the line can be disastrous. Pipeline "pigging" is a form of flow assurance for oil and gas pipelines and flowlines. Pigging ensures the line is running smoothly. Pigs are introduced into the line via a "pig trap", which includes a launcher and receiver. Without interrupting flow, the pig is then forced through it by product flow, or can be towed by another device or cable. Pigs can be used during different phases of the pipeline development process. For this reason, there are a variety of types of pigs used in pipeline work, including utility pigs (which can be mandrel, foam, solid cast or spherical), inspection pigs (also referred to as in-line inspection pigs or smart pigs), specialty pigs (such as plug pigs) and gel pigs (which can be used in conjunction with conventional pigs or by themselves and are useful in getting another stuck pig out of a pipe). Permit reviewers need to understand what is being done with which equipment. A reviewer who is inadequately trained is likely to struggle dealing with this kind of complexity during the review process. In other cases, they may not even know they should be looking at these intricacies.



Source: Wikipedia For a list of pending natural gas pipeline projects go to:  
<https://www.ferc.gov/industries/gas/indus-act/pipelines/pending-projects.asp>

and being aware of conflicting definitions or perceptions is an important step in reducing misunderstandings and their associated delays and conflict.

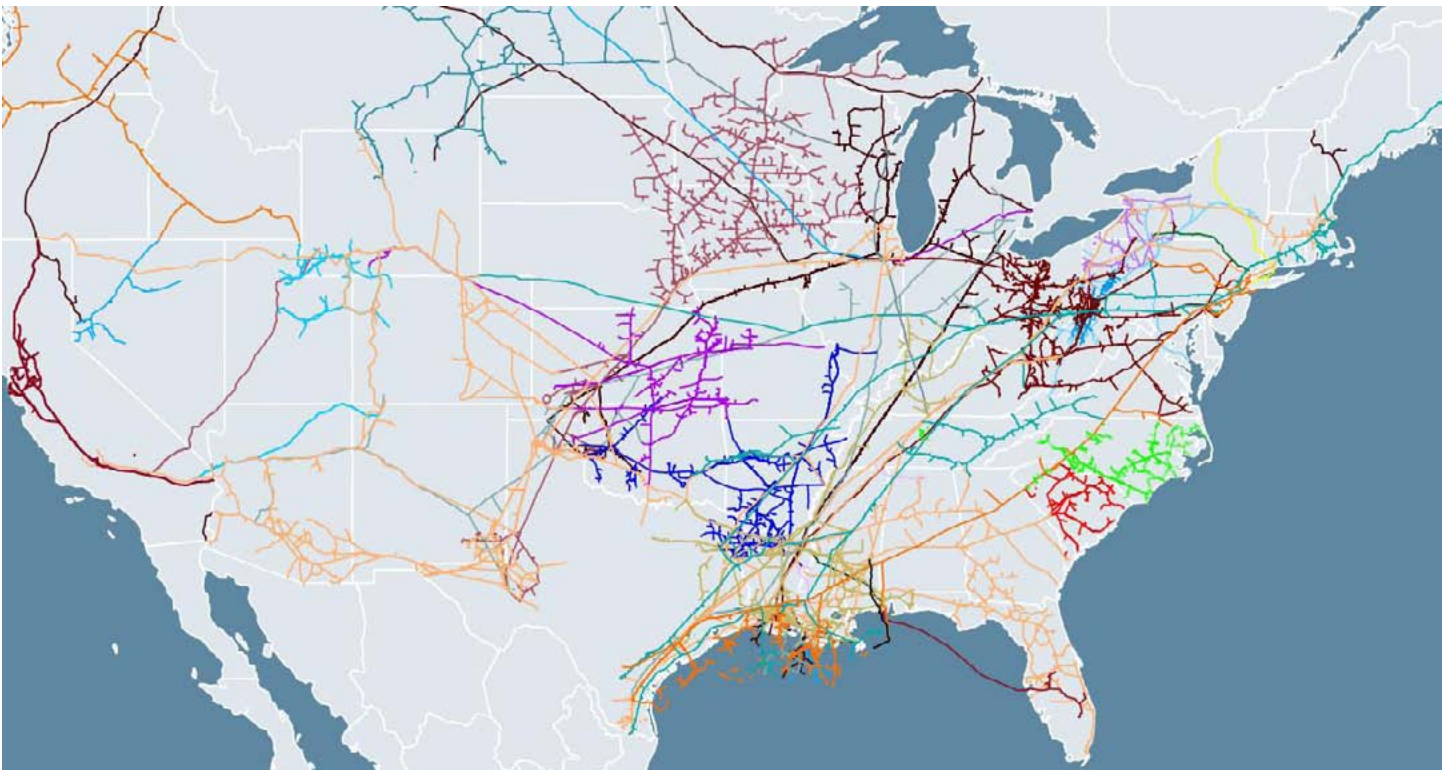
Through this project, ASWM has identified numerous key sticking points that are created by words themselves. ASWM is compiling a list of commonly misunderstood words, terms and concepts. Along with this list are listed the diverse definitions or interpretations. This resource will then be integrated with other project elements, such as the resources to improve work with intermediaries (e.g. consultants), as a support resource with permit process maps, and to accompany best management practice resources.

One example of the importance of language arose early in ASWM's project work. It was brought to the attention of ASWM policy analysts that the use of the term "shale gas" was not accepted by many energy companies developing gas pipelines. Rather than using the term "shale gas", the companies preferred term is "hard rock resources." When this insight was shared with an array of state regulators, none of them were familiar with the term "hard rock resources" or were comfortable

with replacing term "shale gas" with it. To produce informational materials that would be acceptable to BOTH regulators and energy companies, this language disconnect must be addressed.

### When Reviewers Don't Understand a Process, It's Hard to Engage Effectively in It

Part of unpacking complexity involves working to capture and visualize the steps in pipeline permitting processes and identifying where decision points, access points and outputs exist. ASWM has developed a template for use by states and tribes to document and visualize the steps in their permitting processes. ASWM is now working with several states to adapt a template flow chart to create working models that can be shared between the range of actors in their review process. The most important aspect of this process is the opportunity it provides – to jointly review processes among the state's partner agencies, consultants and applicants to discuss whether or not the process map represents their understanding of how things work. Where there is disagreement, there are opportunities for dialogue and troubleshooting.



Existing Interstate Natural Gas Pipelines in the United States  
Source: Interstate Natural Gas Association of America



## Peer-to-Peer Sharing about Best Practices and Conditioning Permits

ASWM's efforts to disseminate information and assist wetland managers often includes facilitating the sharing of practices and experiences between peers. This project includes a strong peer-to-peer sharing element, compiling resources that share best practices, variations on those best practices that are context- or region-specific, and examples of how those best practices have been used in permit conditioning decisions. The ability to learn from other states and tribes about what has worked, what has been acceptable to permit applicants and what has withstood legal scrutiny are all valuable to states and tribes that are working to implement their own regulations.

At the end of ASWM's project, there will be online resources sharing best management practices for the pre-application, pre-construction planning, construction/implementation and post-construction monitoring and assessment, as well as enforcement around pipeline development projects. ASWM is not creating a BMP manual, but rather compiling a resource of existing BMPs that have been vetted by the national workgroup to serve as examples of ways to address common issues from pipeline development. Various types of BMPs are being compiled and reviewed. These BMPs range from ways to improve administrative review and how to set up regulatory and legal supports to construction and monitoring practices. Examples of BMP types being compiled include practices around stormwater management, hydrostatic testing, creation of wells, considerations for threatened and endangered species and many others. This online resource will be available on the ASWM.org website and include, where available, information and examples about how these BMPs have been integrated into permit conditions.



Lowering a Pipe with a Sideboom  
Photo Credit: Federal Energy Regulatory Commission

## Getting Up to Speed Quickly: Resources for New Permit Reviewers

Many permit reviewers across the U.S. are working hard to learn about the permitting process and how to engage effectively in ways that are efficient and also effective in protecting a state/tribe's water resources. As already discussed in the article, some of this need to learn is because some kinds of pipeline development has never taken place in a state before or because there has been an increase in the number of applications. However, ASWM's recent study of all 50 state wetland programs ([ASWM Status and Trends Report, 2015](#)) indicates that there are also a large number of wetland program staff that have either retired, moved into other roles, or whose positions have been changed/eliminated. Consequently, there has been significant turnover and a wave of new hires, often junior staff, now responsible for permit review. They need to get up to speed quickly. This project is designed to meet these needs, providing new staff with resources to better understand the complexity they face, understand the processes with which they must engage, understand language that is key to their success and learn from their peers about what has and what has not worked in other places across the country.



## Building Collaboration among Permitting Actors

Another sticking point will not be a surprise – agreement, communication and collaboration in multi-actor processes – has long plagued most regulatory systems that require the involvement of multiple agencies. Pipeline permitting is no different. Pipeline permitting seldom includes just one state agency. Agencies must not only complete their own elements of the permitting process, but also understand the overall project and how other agencies are involved with the process and how to work in conjunction with those other players. Successful coordination requires handing the torch along the road to the completed review process and it doesn't happen automatically. Along with this multi-actor, multi-agency comes frequent disagreement and/or confusion about the applicability of specific laws and can result in inconsistent agency decisions, as well as approval

delays. Other challenges include dealing with current lawsuits that have not set clear directives, and differing agency perspectives on such things as horizontal drilling and what constitutes adequate setbacks. Others may be concerned about what needs to be in emergency response plans and what should be required for mitigation.

In order to better understand the role of each agency and interest group in the permitting process and their constraints, ASWM is working with its national workgroup to provide process map templates to states for their use in discussions with their partners. By working collaboratively to come to agreement on steps, responsible parties and points of access, state agencies have an opportunity to develop organizational understanding and capacity. The maps themselves are just a tool. State and tribal investments in time and relationship building by staff is required to capitalize on these tools.



Photo Credit: Federal Energy Regulatory Commission

## Dealing with the Piecemeal Approach to Applying for Permits

Another barrier that contributes to complexity around pipeline permitting is the common approach by energy companies of applying for piecemeal applications for different elements over time to complete a larger project. While frustrating for reviewers, who are not able to assess the range of impacts from the complete project at one time, energy companies are not inclined to submit full plans, as their route often changes in response to economic changes and opportunities to purchase and develop land. This is especially difficult for reviewers working to understand and prevent cumulative adverse impacts. This is one of the hardest elements to overcome, as the companies' business model disincentivizes the sharing of plans in advance.

## Uncertainty from Shifting Energy and Environmental Policy Directives

Learning about policies and regulations that need to be applied is a critical task for wetland regulators. However, the task for today's wetland managers is not as simple as learning how to apply existing laws and regulations. The current political environment, which is moving away from federal regulation to a more state-led approach, adds an element of significant uncertainty. While current laws still apply, there may be less political will to enforce and more challenges to conditioning than there has been over the last several decades. With the potential of a more Scalia-based Water of the United States Rule on the horizon and federal actions to incentivize energy development, state regulators need to be ready to work within a rapidly changing and uncertain regulatory environment.

## Working with Intermediaries

Another level of complexity is brought into the permitting mix when intermediaries are used to work with and communicate between the energy company seeking to build a pipeline project and the regulatory agencies. Some consultants have extensive experience with state regulations and processes, are skilled in selecting and

implementing best management practices, and have strong relationships with all parties involved. However, many others are missing some of these important assets. With these gaps come the potential for disconnects – where the process is not followed, there is not shared understanding of what needs to happen with siting or on the ground to protect water resources and communications get jumbled.

## Some Final Thoughts

Drawing on the principles of project management, ASWM's pipeline permitting project is designed to address the complexity of problems associated with linear oil and gas pipeline development permitting simply by breaking them into more manageable units and then identifying key tasks that can be completed in order to improve each issue -- with an eye to improving the overall permit review processes undertaken by states and tribes.

ASWM aspires to help states and tribes build stronger, more efficient and effective permitting processes that protect the nation's wetlands and other water resources. ASWM is working to this end by helping states understand existing and emerging laws and regulations and developing a set of building blocks that can help train wetland regulators and other actors in the permitting process, as well as encourage establishment of clear, collaborative permit review processes.

Over the coming months, ASWM will be working with its national project workgroup and five subworkgroups to complete analysis and make recommendations on how to improve the various components of pipeline project review and permitting. As these suggested practices and tools become available, ASWM will launch both electronic resources and webinar-based trainings to share the project's findings with all interested parties.

If you would like to share any ideas, resources or training materials with ASWM to assist in this project, please contact Brenda Zollitsch at [brenda@aswm.org](mailto:brenda@aswm.org) or call (207) 892-3399. 🌱