

Stakeholder Engagement and Conflict Mitigation in Pipeline Construction

Consensus Building Institute (CBI) &
Environmental Resources Management
(ERM) Better Practices Report

February 2020



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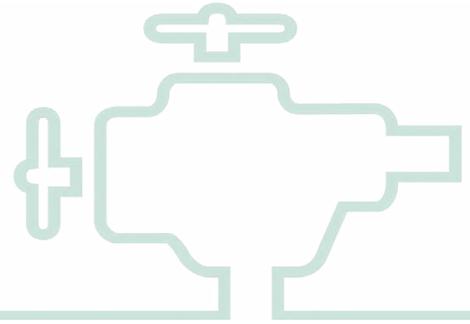
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1. Introduction



1.1 Project Background: *Why has the topic of pipeline construction become so heated?*

There has been increasing opposition, sometimes vehement, to the development of energy projects of all kinds over the last decade. This opposition has been fueled by a number of factors, including concerns about climate change; impacts to natural and cultural resources; the alteration of the natural landscape; public safety and health; all within a context of changing technology, politics, and culture. Pipelines have become focal points of conflict.

Pipeline construction conflict can occur due to harm or fear of harm to landowner property, the environment or other physical assets, poor communication, or even for symbolic reasons. Symbolic conflict, linked to our deepest individual beliefs and values, is difficult to resolve and increasingly common in the United States given broader political polarization. Building relationships and improving understanding during a pipeline project is essential yet especially difficult due to the pace of construction and the geographic extent of these projects. Under the current legal and regulatory framework, project approvals are frequently granted by state and/or federal regulators with input from, but not always with, the consent of landowners, tribes, and local governments affected by the project. As a result, companies, tribes, local communities, state and federal agencies, and elected officials must all deal with the complaints, concerns, problems, impacts, and protests that will likely follow as construction proceeds.

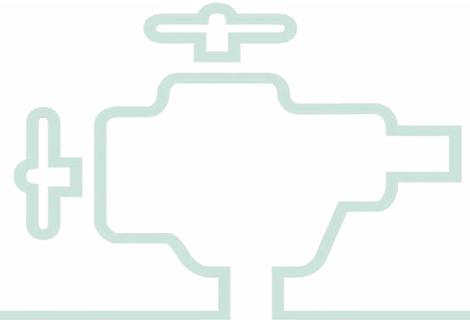


As the controversy over the Dakota Access Pipeline Project (DAPL) illustrates, success in clear communication, conflict mitigation and prevention, and relationship building is extraordinarily challenging for all parties. Failure to manage social risk in these ways is also costly — in terms of dollars, share price, and loss of trust or reputation.

As noted in a recent article on the DAPL, a combination of sustained litigation supported by national legal advocacy organizations, relentless politicking, and on-the-ground protest activity delayed the project's completion by several months. By December 2016, project delays were costing DAPL's private investors more than \$83.3 million per month and had already totaled \$450 million.*

Conflicts like the one that ignited around DAPL have sparked significant reflection nationally on how the development and construction of natural gas, liquids, and oil pipelines are viewed and managed. The need for strategies that help build collaborative, long-term relationships with stakeholders and mitigate, de-escalate, or avoid conflict is clear. These strategies and practices require more than a procedural understanding of and basic compliance with laws and regulations concerning community engagement, worksite safety, natural and cultural resources, and constitutional rights like free speech.

* Troy A. Eid, "Beyond Dakota Access Pipeline: Energy Development and the Imperative for Meaningful Tribal Consultation," 95 *Denver University Law Review* 593 (2018). <http://www.denverlawreview.org/dlr-print-issues/> (page 1).



1.2 Project Team



To help reflect on this significant challenge, the Consensus Building Institute (CBI), a nonprofit organization committed to building collaboration on today's most significant and complex social, environmental, and economic challenges. Environmental Resources Management (ERM), a leading global provider of environmental, health, safety, risk, social consulting, and sustainability related services for the energy industry, undertook a joint effort to investigate the following question:

Given current controversies across the United States regarding the construction of natural gas, oil, and liquids pipelines, what are “better” practices in conflict prevention, mitigation, and resolution before and during project construction?

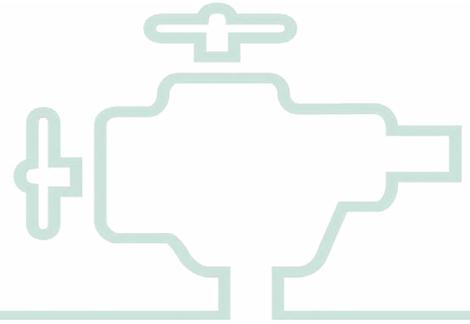
This project is supported by the pro-bono resources of the non-profit CBI and ERM, and is primarily funded by CBI's Board Directed Fund, a fund administered by the Board of CBI to support innovative projects or initiatives that will advance CBI's vision for a world in which our most difficult challenges are solved through collaboration.

1.3 Project Objectives

The primary objective of this collaboration is to provide guidance for all stakeholder groups in setting the highest practicable standards. Specifically, CBI and ERM sought to achieve three goals:

1. **Identify opportunities for improvement as well as barriers and challenges to success;**
2. **Identify specific practices that have not worked well** according to stakeholders; and
3. **Identify and communicate better practices, lessons, and innovations** for addressing these challenges, including actions that have worked or could work better.

This white paper is intended to help those seeking to minimize social, environmental and material damage due to conflicts during pipeline construction. Moreover, it aims to highlight and promote respect, cooperation, and continuous improvement as an industry standard.



The practices described in this report do not supplant any federal, state, or local regulations. Because each project will have unique challenges, it is not feasible to provide guidance for all possible scenarios nor is it expected that every suggested best practice will be utilized on a given project. Project sponsors should evaluate the specific issues, impacts, and stakeholder input relevant to their individual projects and adjust their analyses and consideration of best practices accordingly, while also meeting all regulatory requirements.

1.4 Project Process

CBI and ERM convened stakeholders from diverse sectors to discuss how better to prevent, mitigate, and resolve conflict during the construction of natural gas, liquids, and oil pipelines. **Pipeline route selection, planning, and permitting are beyond the scope of this project.** While recognizing that outright avoidance of contested areas is typically an option on the table for project sponsors, our team focused on better practices that mitigate conflict-related risks for construction activities after the routing and permitting processes have been completed. While we also note the importance of the extensive requirements and practices for engagement during project review and approval, this narrowed scope helped us investigate the challenging circumstance that face all parties when construction is approved to proceed yet dissenting stakeholders feel they have been ignored or overruled.

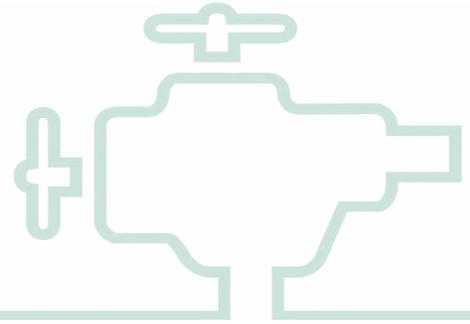
This white paper is not intended to be comprehensive or complete in its presentation. Rather, it offers a framework for issues that occur and suggested new or improved practices, as identified through background research, stakeholder interviews, and a two day workshop.

Background Assessment

The project team conducted 28 interviews with diverse stakeholders in the pipeline space, including energy companies, tribes or tribal representatives, construction companies, landowner organizations, regulatory agencies, advocacy groups, community liaisons, and other consultancy organizations. Issues and practices for stakeholder engagement were described and suggested during interviews for various aspects of the pipeline construction process and research.

The interviews helped surface a number of challenges and possible solutions. The project team supplemented the interview findings with a review of relevant literature. The project team also drew on their experience working on a variety of pipeline projects for companies, agencies, and tribes.

28
interviews with
diverse stakeholders



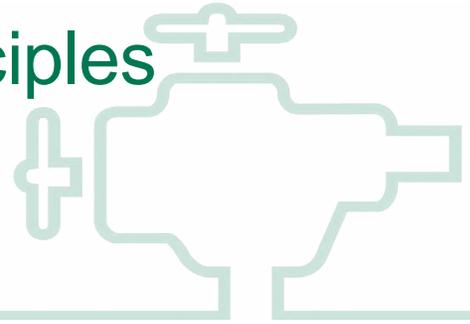
Stakeholder Workshop

To draw on both the diversity and expertise of those deeply engaged in these issues, the project team convened a multi-stakeholder workshop in Minneapolis, Minnesota, in February 2019. Over two days, we asked community and industry leaders to generate “better practices” for preventing and managing conflict around pipeline construction across interests and sectors. After hearing presentations by topic experts, participants rotated through facilitated small groups to discuss five broad areas for improvement. These topics, generated during the background assessment interviews, included:

1. Communicating and Engaging with the Public and Communities
2. Communicating and Engaging with Landowners
3. Engaging with Tribes and Mitigating Impacts to Cultural Resources
4. Improving Safety and Security during Pipeline Construction and Related Conflicts
5. Mitigating Natural and Cultural Resource Impacts

Comments and ideas contained herein are unattributed to specific participants. Note that it is challenging to get robust public representation at long meetings. It asks for a financial and time commitment, which makes attendance difficult for those not working on this area for a living. Though a travel stipend was offered and targeted outreach conducted, this workshop lacked more complete representation of the public or more advocates for environmental, landowner, local, and tribal issues. Several advocates were able to attend to share their perspective to balance those of pipeline project sponsors, contractors, and regulators in the room. Many of the stakeholders who attended the workshop also participated in the research interviews.

2. Pipeline Construction Principles



2.1 Framework for Engaging Stakeholders and Mitigating Conflict during Pipeline Construction

The following key principles emerged during the stakeholder workshop, reflective of overarching ideas behind suggested better practices:

1. Act with integrity.
2. Admit when you are wrong.
3. Listen and adapt to external stakeholder input — do not assume you have the answers
4. Treat your critics with respect (regardless of whether they do the same).
5. Communicate constantly, openly, and honestly.
6. Use multiple and diverse means of communication.
7. Ask questions – communicating is not a one-way street.
8. Share information.
9. Be proactive beyond what is required by the law – relationships are valuable.
10. Building a trusting relationship is a process and does not necessarily create immediate results.
11. Go local for labor, law enforcement, community liaisons, businesses, training, etc.
12. Respond in the context of culture and history.
13. Speak using common words to help ensure everyone understands the conversation.
14. Act as a guest, be it on private land or in a community.
15. Own yourself. You cannot control others; you can only control your own language and behavior.

3. Communicating and Engaging with the Public and Communities

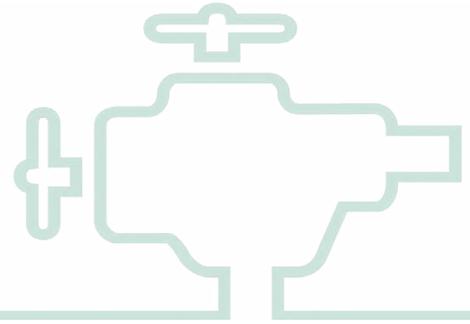
3.1 Opportunities to Avoid, Mitigate, or Resolve Conflict

Improve public and local engagement practices.

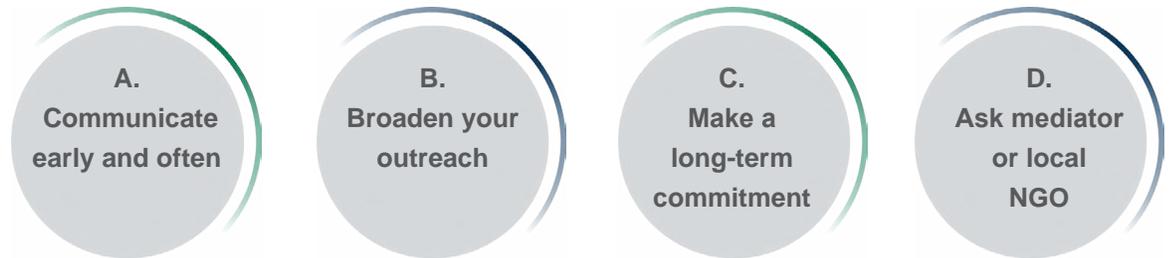
Poor or inconsistent public outreach and engagement, from securing access approval onward, sabotages public perception of pipelines. Entities involved with constructing pipelines benefit from being perceived as providing clear and concise project information, transparent, and responsive to tribal, local community, landowner, and regulating agency concerns. With complex projects, the flow of information will always be imperfect. Changes in construction routes or schedules, however minor they may be thought to be, mistakes in who communicates with whom and the sheer number of staff involved, from lead company officials to subcontractors to land agents, can lead to miscommunications and missteps that quickly sow confusion, mistrust, and frustration.

The Federal Energy Regulatory Commission (FERC) is the lead federal agency for interstate natural gas pipelines; however, oil, natural gas liquids, etc. pipelines are not under FERC's jurisdiction for siting. A FERC Suggested Best Practices for Industry Outreach Programs to Stakeholders document sets out a baseline for project lifecycle outreach for the natural gas interstate pipeline industry. The document is a testament for the importance of project-sponsored outreach programs for stakeholders. However, stakeholders representing environmental non-governmental organizations (NGO's), landowners, and tribal members and governments reported that they frequently feel project sponsors and regulators like FERC do not offer or require nearly enough substantive public engagement opportunities. When pipeline developers refuse to hold a public meeting or open house because they fear confrontation or choose the wrong format for their engagement opportunities, it makes those entities seem opaque and can generate a more antagonistic relationship with relevant communities. Ideal public engagement is early, frequent, and meaningful to all stakeholders. The pipeline developer should work collaboratively with all stakeholder groups to get clarity and agreement on what meaningful engagement looks like. This interface allows pipeline developers to dispel rumors and misinformation.

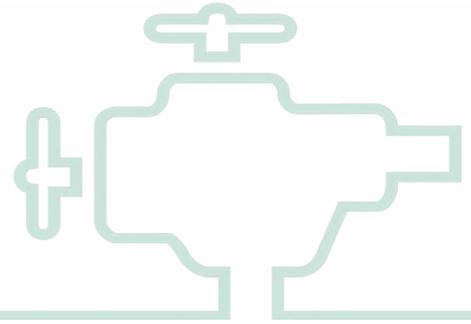
As pipeline projects and the use of fossil fuels have been in nationwide spotlight, there have been multiple requests for FERC and other agencies to look at the overall review process, and the outreach to communities impacted. FERC, and other agencies, are required to comply with all statues, laws, and regulations under which their authority is granted. Limits in agency budgets and staff are often constraining factors on how much outreach an agency can conduct in the communities that could be impacted by pipeline development. Agency outreach is often focused around public participation in the National Environmental Policy Act review of projects or other regulatory requirements for public participation, and once a project is approved, the level of outreach is minimal. Agencies are generally reactive to calls about concerns during construction, and there are often multiple ways to report concerns at the federal, state, and local levels.



Suggested Better Practices for Pipeline Sponsors



- A. Communicate early and often**, sending representatives to every community in or proximate to the right-of-way (ROW). Get out front in talking about what the construction crew is doing and how they are doing it. Implement a stakeholder outreach plan to ensure communications are occurring often —meaning multiple visits before, during, and after construction. Ensure the representatives, preferably people local to the area and possibly community members hired as representatives, as accessible to the community, participate in community activities and are involved in local affairs to develop long-term trusting relationships.
- ✓ Designate and maintain single points-of-contact and widely publicize how to reach them. The single point of contact for landowners should be in addition to their assigned land agent to ensure landowners have options to have their voice heard, questions answered, and a clear path to the project team to clarify information received from land agents.
 - ✓ Keep lines of communication open: provide as many opportunities for substantive, “two-way” engagement as possible.
 - ✓ Work to better understand the community issues and concerns through outreach, research, focus groups, or other tools to ensure the dialogue is two-way and meaningful to all stakeholders.



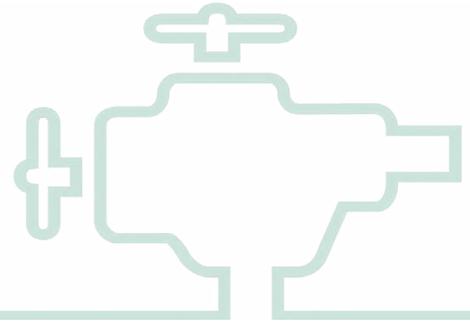
B. Broaden your outreach scope and levels of notification and communication

- ✓ Do not limit communication to those who you think care. Instead, communicate to anyone who will or might want to listen.
- ✓ Have a proactive plan to engage landowners, tribes and other identified (or self-identified) stakeholders within the community. Start with city officials, but also involve community members and those who live near the project. Elected officials alone are not the public.
- ✓ Engage civic organizations, associations, and other community groups because of their local equity and trusted position within community.

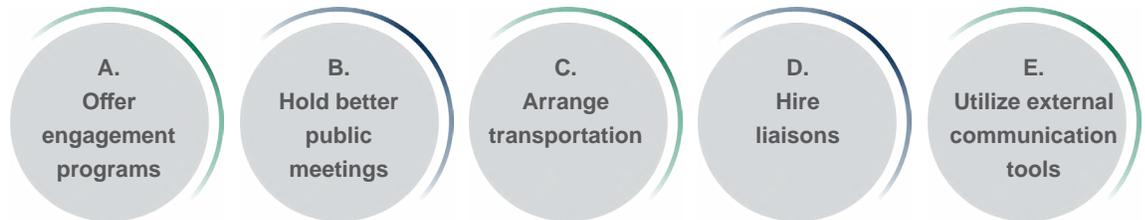
C. Make a long-term commitment to investing in communities in a manner that is not just tied to projects. As a result, communities may actually stand up for you.

D. Ask mediator or local NGO to act as a neutral intermediary for developing conflicts, especially when the situation is too politically delicate for face-to-face meetings.

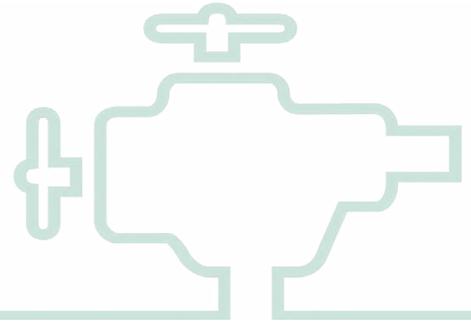




Select Tools for Better Public and Local Engagement

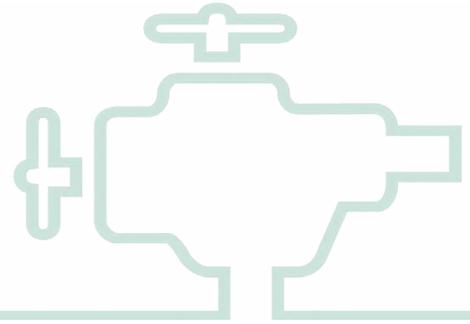


- A. Offer engagement programs:** Engagement does not have to be a meeting. It can be an environmental stewardship program or a grant program and this allows you to uncover community needs. Hire or offer a staff expert to help communities interpret data related to the pipeline or even unrelated issues for which they need technical assistance. For example, pipeline engineers may be able to offer pro bono assistance with water treatment plants or other community projects.
- B. Hold better public meetings:** CBI's seminal handbook, *Dealing with an Angry Public*, describes some of the fundamental indicators that a public meeting is serving the purposes that stakeholder are seeking from it, allowing the convener to be perceived as more transparent and accountable.
- C. Arrange transportation:** Arrange bus tours along the route and group site visits if possible, inviting landowners, NGOs, and elected officials. At key sites where decisions were made about the route, like stream crossings or cultural/natural resource areas, have representatives (or, better, engineers or environmental experts) explain why they made certain decisions along the route in response to certain risk factors. This is an effective way to break down barriers and share useful information. Participants can see how the project sponsor looks at the construction decision tree and resources. It likewise gives the project sponsor a chance to take in a lot of feedback, learn about local concerns, and build relationships. Planning for a shared meal or continued follow-up and discussion can also be helpful.



- D. **Hire liaisons:** Hire construction community liaisons to call and meet with local officials and field questions/concerns in advance of the arrival of construction crews, during construction activity within a community, and following the construction phase to ensure restoration promises are kept. The community liaison should be local to the community, have a familiarity with construction processes and the associated community impacts, and maintain a consistent ongoing outreach process.
- E. **Utilize external communication tools:** Utilize social media and online tools like interactive or static construction status maps (visual aid to see where the pipeline is) to update the public through every available channel. The project website should host a wide variety of project information including links to helpful resources and documents in addition to the interactive or static construction status map. Be sure to know the community/ audience including demographic information and cultural differences and communicate accordingly.

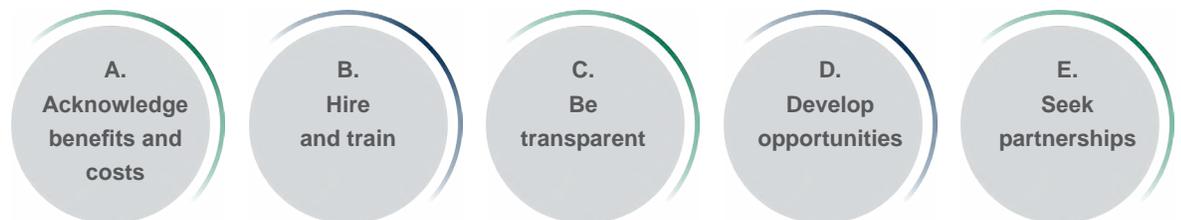




3.2 Provide, Just Don't Talk About, Construction Benefits

The benefits of construction activity to local economies are not always explicit or are not shared equally across stakeholders — as a result, pipeline projects can be viewed as a public nuisance or a major threat. Landowners benefit from access agreements and easements. Tribes may fear impact to their heritage or historical lands. Local businesses benefit from increased business from construction crews during construction, and local municipalities or counties benefit from significant, long-term tax revenues. However, road closures and other activities can prevent residents from getting to medical appointments, shopping, and other activities. Road closures may prevent public access to businesses (e.g. restaurants, tribal casinos) and can cause financial losses. Many residents may experience little direct benefit and possible substantial inconvenience or more. It is difficult for all to balance compensation and benefit for direct, specific activities versus general worries of safety and impact that may linger in the minds of local residents for some time.

Suggested Better Practices



A. Acknowledge both the benefits and the costs of construction.



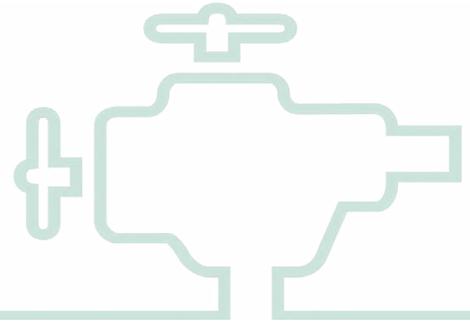
B. Hire and train locals.



Construction companies hiring local residents provides a direct, real link between construction and local benefit; a job as a union-certified laborer, teamster, operator, welder, helper, or journeyman is high-paying work. Providing job fairs, skills training, and certifications for local workers enhances both their current and future economic prospects.



Pipeline Owner companies hiring local residents for inspection roles, security, traffic control, landowner relations, other. Local residents with technical expertise or are interested in participating in training opportunities are within the realm of possible employees.

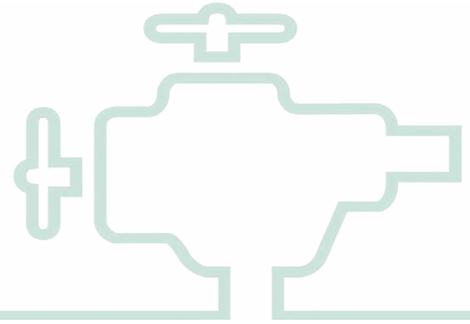


- C. **Be transparent:** Construction community liaisons and other representatives should be transparent about the percentages of labor being hired locally versus out-of-state, per negotiated contracts.

- D. **Develop opportunities:** Opportunities for local businesses to subcontract, supply, and vend goods for construction and workers should be developed. For example, a company can host a series of construction events where local businesses and future employees can learn about opportunities and have a chance to sign up to be a vendor. Companies can join and pay dues to Chambers of towns proximate to their pipelines. Construction crews should also be encouraged to utilize community services (i.e., banks, barbers, hotels, restaurants, etc.).

- E. **Seek partnerships** for mitigation measures involving natural and cultural resources.

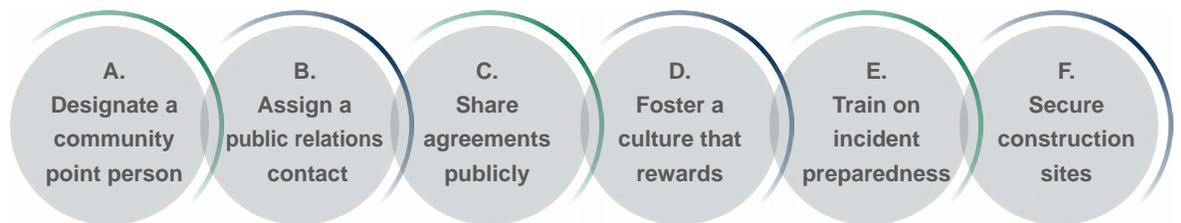




3.3 Respond Quickly and Transparently

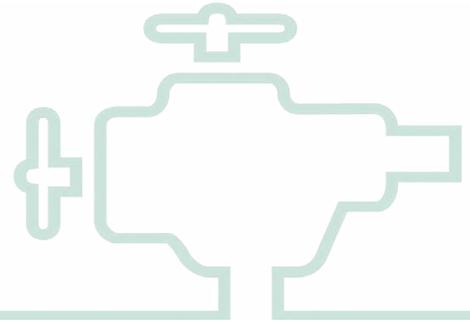
When companies, contractors, subcontractors, and agencies fail to act effectively and quickly in the eyes of the public to incidents, however isolated, overall relationships and public reputation can erode very quickly. Quality-of-life is important to local and tribal communities — pipeline companies must plan and respond carefully and diligently to registered grievances. If complaints filter up to local officials, the situation will escalate, and that relationship will be adversely affected.

Suggested Better Practices



A. Designate a community point person: Pipeline companies should designate a communication point person who has an established relationship with the community (crises are typically a terrible time to build relationships). The communication person is the key point of contact with the person or persons lodging a complaint and lets local officials know a complaint has been registered and is being handled. The communication person also coordinates with the construction lead or other construction company representative to resolve the issue and finally closes the communication loop with all parties.

B. Assign a public relations contact: Pipeline companies should have a public or community relations contact person onsite with construction crews for immediate response and follow-up at all times. This contact would work in concert with the community construction liaison to engage with local officials, community forums, chambers of commerce, and tribal leaders and institutions before construction crews arrive. It should be noted, however, that there is often no substitute for the substantive project lead speaking on behalf of the project and seeking to address major concerns directly, recognizing the enormous time pressures on these individuals.



- C. **Share agreements publicly:** Typically, companies reach agreements with local communities on impacts to roads and local assets. These agreements are best when they are shared publicly, adhere to some measure of fairness across communities, and provide sufficient compensation for impacts imposed.
- D. **Foster a culture that rewards:** Foster a company culture that internally rewards preparedness, safety, and accountability.
- E. **Train on incident preparedness:** Train and drill staff in incident documentation protocols and crisis or incident response.
- F. **Secure construction sites:** Secure trained construction and environmental monitors and inspectors for construction sites.



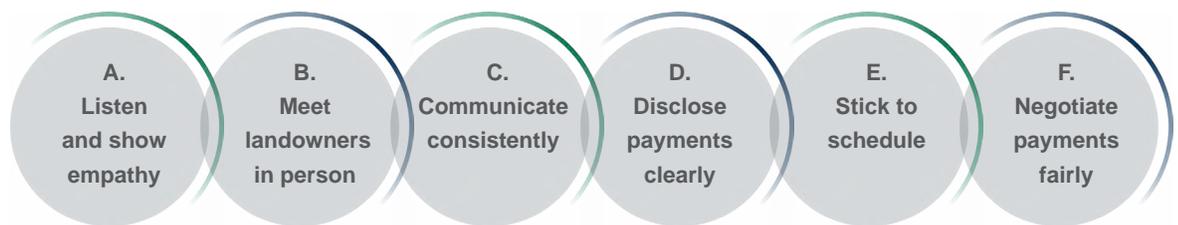
4. Communicating and Engaging with Landowners

4.1 Opportunities to Avoid, Mitigate, or Resolve Conflict

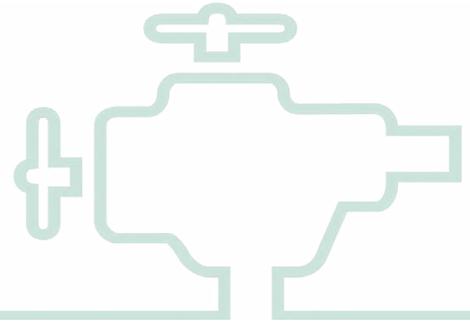
Companies must be wary of their power.

The perceived power, wealth, and legal authority of companies as well as the sustained advocacy of critics can threaten, alienate, and radicalize landowners. While very few tracts may go to eminent domain (often only tens out of hundreds or thousands of cases), individual, multiple negotiations in a publicly visible project; different easement agreements in amount or form; the privacy necessary for private transactions; and the threat, however remote, of eminent domain; can all contribute to a community and landowner sense of distrust or secrecy.

Suggested Better Practices



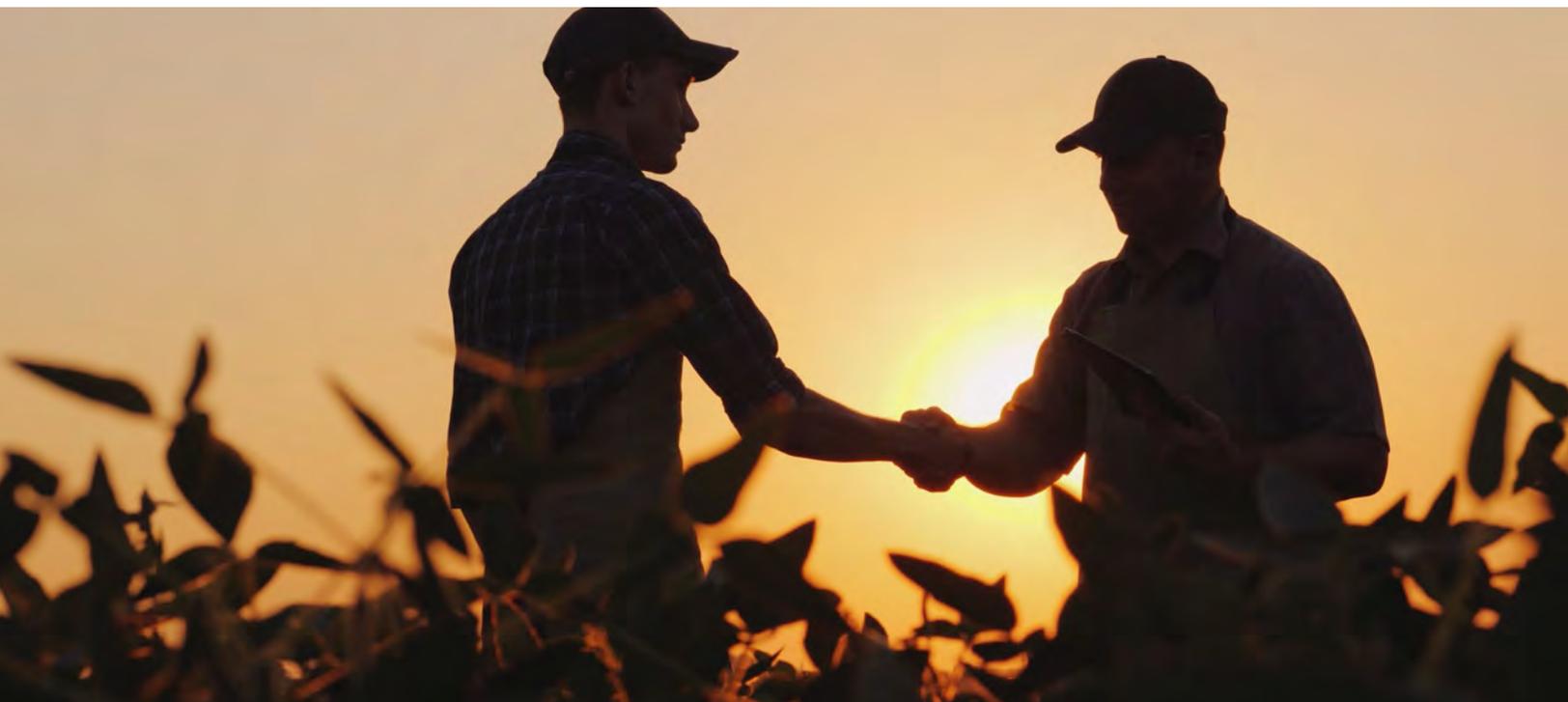
- A. Listen and show empathy:** Land agents should seek to listen for landowner needs, projecting empathetic, non-arrogant, respectful attitudes and positions. The project team, construction representatives and land agents should understand that people/families (some multi-generational) are emotionally connected to their land.
- B. Meet landowners in person:** Company land agents/representatives should meet with landowners in person, one-on-one, as early as possible in the development timeline and should maintain a regular schedule throughout the life of the project for landowner meetings. The hiring process for land agents should include the highest qualifications to support better relationships during the life of the project.
- C. Communicate consistently:** Land agents must be instilled with, trained in, and incentivized with the values and goals of clear, consistent communication, fairness and respect in interactions, cultural sensitivities, and honesty and transparency. Land agents, whatever their contractual relationships with companies, are the front line of how the company is perceived by landowners and communities. In addition, land agents need to be allowed the time needed to respectfully negotiate with landowners.

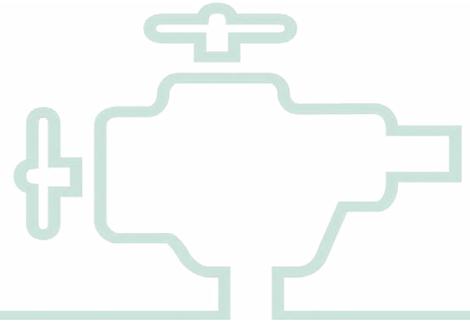


- D. **Disclose payments clearly:** Easement payments should be consistent and defensible; based so that if and when made public, they do not cause harm to other landowners' senses of their own agreements. The variables included in the easement agreement and payment (i.e., property easement, driveway reconstruction, agricultural repairs, etc.) should be clearly listed to avoid confusion and to clarify differences if necessary.

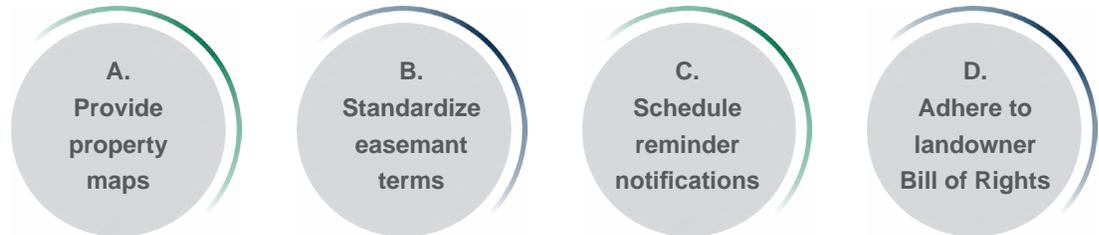
- E. **Stick to schedule:** It is imperative that what is agreed to between land agents and landowners, with regard to easement agreements and a construction plan, is carried out in the course of construction. Sometimes, because of schedule and budget, promises are made that are not readily communicated to the construction process and issues arise.

- F. **Negotiate payments fairly:** Negotiating payments in easement agreements could be broken out over time (e.g. as annual lease payments) instead of as a lump sum may help establish a more ongoing, fair relationship.

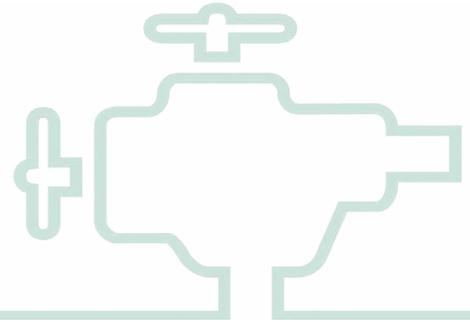




Select Tools for Better Landowner Engagement



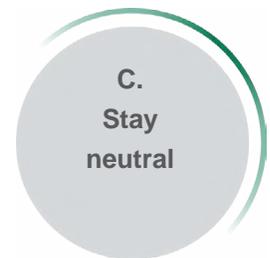
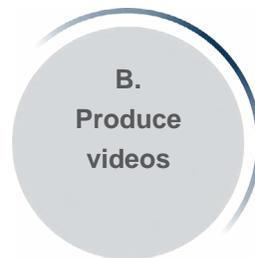
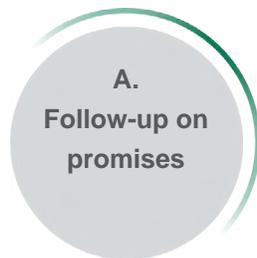
- A. **Provide landowners maps** of their individual properties with reference information and the route.
- B. **Standardize easement terms:** Some communities or informal gatherings of landowners in gas and oil leasing areas more generally have opted to develop standard easement terms on their own that they request a company follow across landowners. While perhaps concerning to the bargaining position of companies, these collective arrangements can ensure fairness, confidence, and conviviality among landowners, reducing a sense of powerlessness and unfairness that can drive strong negative behaviors.
- C. **Schedule reminder notifications:** While in some cases aerial reconnaissance of land (high-resolution photography) can be used in lieu of surveying, in general, the survey crew members must tread carefully on landowner property. Early, repeat notifications and respectful interactions during site visits are key. Company representatives and construction crews are always a guest on others' property.
- D. **Adhere to landowner Bill of Rights:** Understand and adhere to the Landowner Bill of Rights, sharing the information with landowners and including in the construction commitment plan.



4.2 Restoration Disagreements

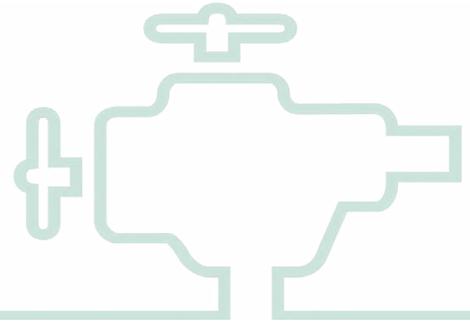
Landowners may feel that their concerns are not addressed during construction or ROW agreement terms for items such as restoration are not upheld.

Suggested Better Practices



Follow-up on promises: ROW agents should follow-up on promises, particularly quality-of-life assurances, and respond quickly to grievances registered during construction.

- ✓ It is best for this relationship if grievances (lights, sounds, trash, traffic/road access, a field damaged by tire tracks) are conveyed to their original point of contact. That person can be responsible for seeing that grievance addressed. However, providing a public hotline for complaints can also be effective.
- ✓ Companies may want to reassign ROW agents that do not work well with certain landowners. However, this cannot be seen as a means of resolving the issue a landowner registers, and it will seem evasive unless that issue is clearly recorded and addressed.
- ✓ Provide realistic information about the impacts from construction and what they may see during construction to help prevent concerns as construction progresses on their land.



B. **Produce videos** showing the landowner's property before and after construction to gain agreement and approval of the state of the property and the implementation of the agreed-upon restoration plan.

C. **Stay neutral:** Neutral parties are intermediaries and can help resolve differences of opinion and work out fair settlements.

- ✓ Be responsive. FERC compliance monitors, environmental inspectors or other company-designated officials should go to the ROW to check out a construction or remediation complaint whenever possible. For FERC regulated interstate natural gas pipelines, the project sponsor can volunteer to participate in the FERC's third-party compliance monitoring program.
- ✓ A potential neutral party to assist in disputes. An example of one such agency program that can be used for interstate natural gas projects is the Alternative Dispute Resolution Program at FERC. Another example is the U.S. Institute of Environmental Conflict Resolution that maintains a roster of mediators for environmental conflicts and a roster for Native Dispute Resolution resolvers.



5. Engaging with Tribes and Mitigating Impacts to Cultural Resources

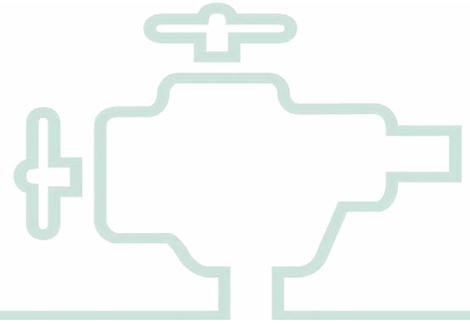
Tribal opposition to pipelines is becoming more common even in parts of the United States that saw little tribal participation in such matters until recently.

Tribes and tribal advocacy groups are now scrutinizing projects more closely, including new pipelines as well as ROW renewals for existing systems. Moreover, as agencies have adopted more sweeping consultation guidelines, tribes are actively seeking to enforce them in the federal courts and to see commitments put into practice.

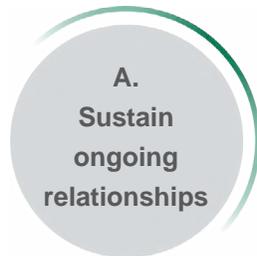
5.1 Opportunities to Avoid, Mitigate, or Resolve Conflict

Tribal officials, staff, and elders are disrespected if their sovereignty, self-determination, and treaty rights are not known or honored by companies. Companies and agencies should treat tribes with dignity given they are interfacing with a sovereign nation for negotiations, not simply fee-simple private landowners. It is also important to ensure the decision-making within the tribe is understood and respected, as tribal governance, delegation, and politics may be unclear or unfamiliar to outsiders. It should also be understood that tribal governments have no more “influence” over their members than any local, state or federal government. Citizens and tribal members are free to raise concerns, advocate for their own interests, and protest under the First Amendment. Tribes are not stakeholders but rights holders with centuries of treaty rights, federal trust obligations, and statutes, laws, and court cases that have affirmed, defined, and delineated those rights.

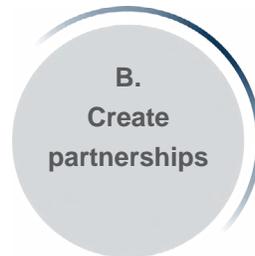




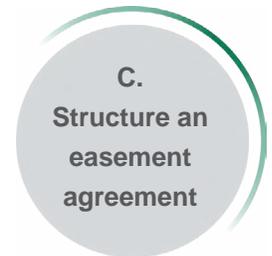
Suggested Better Practices



A.
**Sustain
ongoing
relationships**



B.
**Create
partnerships**



C.
**Structure an
easement
agreement**



A. Sustain ongoing relationships: Pipeline sponsors should listen carefully and check in frequently to try to develop relationships with tribes to learn about their lifeways and traditions, even when there is no active project on their lands. This can result in programs that build community relations and trust towards pipeline companies and could also foster trust between tribes and federal agencies.



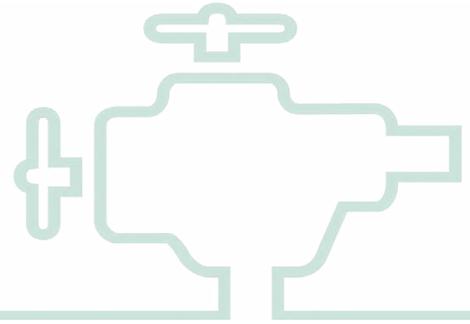
This begins with composition of a public outreach project team: as the duties of a Tribal Affairs Representative typically straddle those of a Government Affairs Representative and a Stakeholder Outreach Representative, this designated role and its associated duties can fall through the cracks. This cannot be allowed to happen, especially in the cases where projects cross tribal lands or a tribe's aboriginal homelands.



B. Create partnerships: Pipeline sponsors should listen for other opportunities to partner with tribal communities on economic development, job training and key infrastructure needs, thereby providing funding, technical, and project management expertise to that community. Regular, consistent tribal benefits developed jointly and provided over time can do more to build relationships than one-time “grand bargains.”



C. Structure an easement agreement: Easement agreements with tribes should be structured to require ongoing engagement and communications between tribes and pipeline companies to ensure that the easement conditions are honored.



Many Native American tribes are extremely concerned about the impacts to natural and cultural resources from construction. Tribes also fear increased risk of crime, violence, and harm to tribal members and other adverse social impacts associated with pipeline construction.



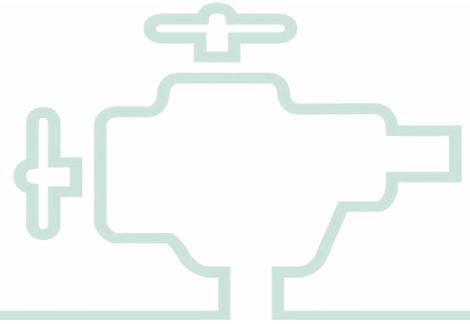
A. Offer methods for mitigating impacts: Operators and regulators should discuss and offer the full range of methods for addressing and mitigating any impacts when meeting with tribes.

B. Recommend government agency assistance: State and federal agencies can assist, if desired, to help tribes prepare, plan, coordinate and communicate ahead of time, particularly if a pipeline affects multiple tribes.

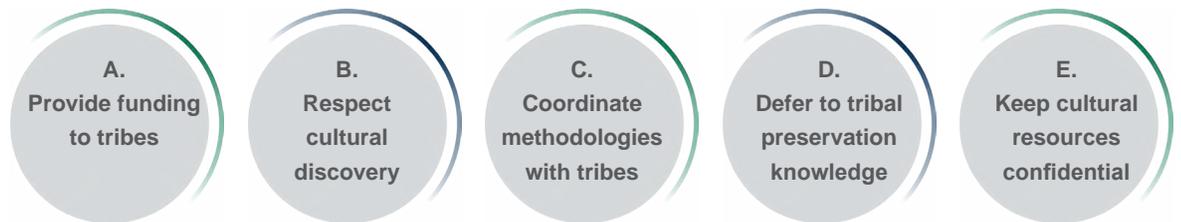
C. Provide tribal culture training: Construction crews, public law enforcement, public officials, and pipeline company management should be trained in cultural/tribal sensitivity by specialists who are well versed with tribal cultures.

D. Engage tribes during planning: Pipeline companies should engage tribes during the planning phases of a project and involve them as much as possible in surveys conducted prior to construction as well as monitoring during construction. This monitoring should not be limited to tribal lands, but also include locations that may contain resources of interest to the tribe.

E. Establish mitigation funds: Pipeline companies should consider establishing voluntary mitigation funds for local tribal-determined philanthropy projects.

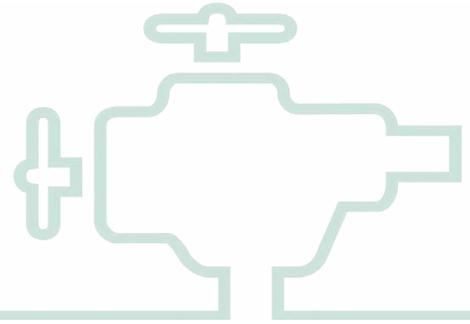


Tribes have a specialized a unique knowledge of their resources and should be actively engaged during the planning and construction phases of a project.



- A. Provide funding to tribes:** Companies should provide funding to tribes to conduct their own ethnographic studies prior to construction, and work closely with tribes during each phase of a project, including surveying, negotiating mitigation agreements, and construction, regardless of state agency requirements. Companies also should engage with tribes and appropriate agencies to develop and implement tribal monitoring programs during construction of a project. This monitoring may extend to locations that have not been identified as containing Native American cultural, historic resources or artifacts.*
- B. Respect cultural discovery:** If artifacts or human remains are uncovered, construction must stop immediately. Projects typically have Unanticipated Finds/Discovery Plans that lay out a specific process for dealing with inadvertent discovery of cultural resources and/or human remains.
- C. Coordinate methodologies with tribes:** Archaeologists should coordinate with tribes when developing methodologies for the identification and assessment of cultural resources.
- D. Defer to tribal preservation knowledge:** Archaeologists should defer to tribal knowledge of preservation officers or elders in designating cultural resources.
- E. Keep cultural resources confidential:** The location of tribally significant cultural resources must be kept strictly confidential.

* Troy A. Eid, "Beyond Dakota Access Pipeline: Energy Development and the Imperative for Meaningful Tribal Consultation," 95 Denver University Law Review 593 (2018). <http://www.denverlawreview.org/dlr-print-issues/>



Pipeline construction can cost tribal law enforcement/emergency response teams' extensive time and over-extend their capacity for other ongoing duties. Tribal leaders are concerned about the stress that pipeline construction will put on already under-resourced and overworked tribal law enforcement.



A. Develop a partnership with tribes: Prior to-construction, pipeline companies must liaise with and discuss respective needs with tribal officials and law enforcement, determine traffic routes, and hear about other local priority concerns. Local officials and emergency response officers can offer information on their capacity (may have very few officers in remote and rural areas). They can also offer supplemental knowledge on problem areas to avoid routing through areas that they know will be a trigger for conflict (i.e., historically important water crossings, culturally sensitive areas).

B. Offer funds for security: Pipeline companies can offer to provide funds for law enforcement and emergency management departments and point officers/firefighters for training on spill and demonstration response.

Cultural sensitivity in response to tribal demonstrations is paramount.

- ✓ Peaceful, traditional ceremonial activities in trespassed areas should not be interrupted and should be addressed with great sensitivity.
- ✓ Traditional ceremonial and sacred objects should never be treated with scorn or disrespect, or be thrown on the ground, in a heap, or otherwise defiled.
- ✓ Individuals wearing paint or other ceremonial or religious markers should be treated with particular care and respect to avoid discriminatory practices or the perception of discrimination. As one Tribal leader stated: "Just because [we] have face paint, doesn't mean [we] should be singled out and profiled." Conversely, assuming an individual is not a tribal member because they do not fit a certain profile could also lead to cultural disrespect and the infringement of individual rights.

6. Improving Safety and Security during Pipeline Construction and Related Conflicts

6.1 Opportunities to Avoid, Mitigate, or Resolve Conflict

There is strong public concern that construction companies (and sub-contractors) will bring numerous outsiders into the state or region without sufficient background checks and supervision.

Tribal and community leaders are concerned about possible criminal behavior from outside workers and the addition of temporary workforce housing, from disturbing the peace, to theft, assault, sexual assault, domestic assault, and possible sex trafficking of minors. Some communities may have past experience with pipeline construction, and others may have past experience with gas and oil development more generally, though quite different in its development and operations from pipelines.

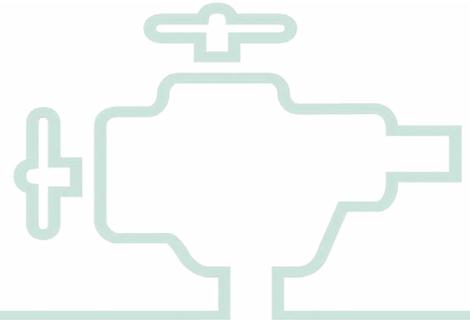
Suggested Better Practices

Because companies depend on numerous contractors and subcontractors to undertake pipeline construction, contract and subcontract language is essential to setting appropriate and enforceable norms and standards for all employees involved.



A. Hire reputable contractors: Hire contractors who are not just the lowest price point, but have a reputation for quality work and a history of few incidents.

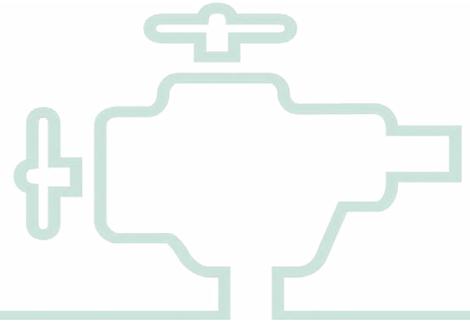
B. Implement stringent safety standards: Operator companies should require construction companies to implement more stringent safety standards than regulators require via their contracts.



- C. **Emphasize respectful behavior:** Both contracts and more informal mechanisms (safety trainings, community interaction training, on-boarding conversations, on-going contract and subcontract oversight) should emphasize the absolute importance of appropriate and respectful behavior across all employees and the notion of good customer relations and social license to operate.

- D. **Enforce discipline as needed:** Companies and their contractors must be prepared to enforce behavioral standards in employees, err on the side of the public's view of problems in interactions, and be prepared to discipline or fire "bad" actors.





The complex jurisdictional nature of law enforcement between tribes, counties, localities, the state, and the federal government may make worker and protestor behavior more difficult to address.

Long-standing historic conflicts among some law enforcement agencies can exacerbate the challenges of conflict during pipeline construction.



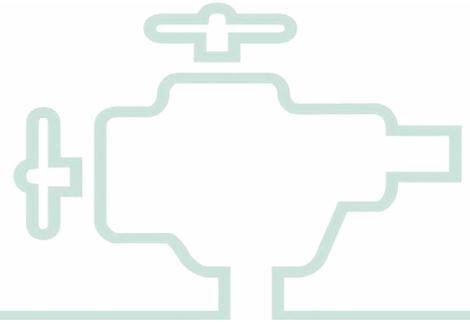
Update outdated law-and-order codes and emergency protocols. Have protocol prepared for various land ownership scenarios, both public and private.



Utilize a unified communication system to coordinate law enforcement personnel from different forces.



Work with law enforcement: Seek to gather law enforcement across jurisdictions to help coordinate, assure communication protocols, undertake joint training, and be prepared for various scenarios.



Accounting for both the safety and constitutional rights of demonstrators and construction crews should always be priority one when responding to demonstrations.

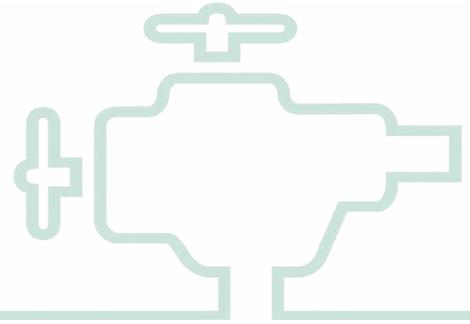
U.S. citizens have the right to assemble, peaceably demonstrate, express their freedom of speech, conduct culturally appropriate ceremonies, and to be treated with respect and dignity. Workers and protestors both have the right to work and act without intimidation or threat to bodily harm or injury. The safety of all is preeminent. Companies should have easement rights respected without threat or harm to equipment, workers or real property.



Inform demonstrators of their rights: Demonstrators should be informed of their rights to demonstrate verbally and in writing before any party attempts to engage them about their presence. Companies, landowners, law enforcement, and private security should assume demonstrators do not understand whether their actions are legal or illegal until informed of their rights.

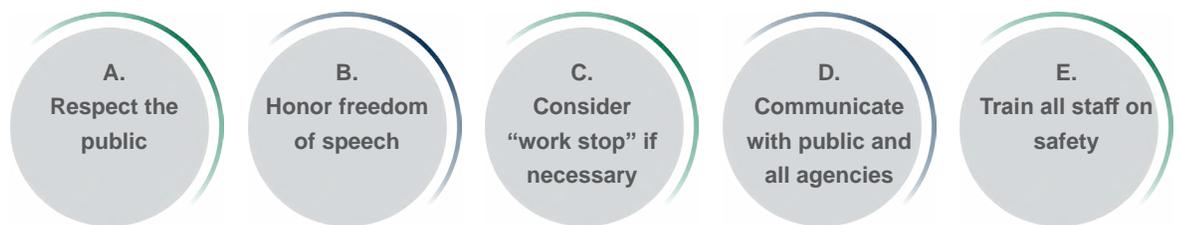


Use caution to take on legislation: States should be cautious about passing legislation that seeks to constrain the right to assembly through permits or other tools specifically for a project or singular construction project. If states plan to take on legislation to change rights to demonstrate during the course of a project's lifetime, legislators should allow input from those undertaking active demonstrations by consulting leaders and representatives from stakeholder groups and tribes.



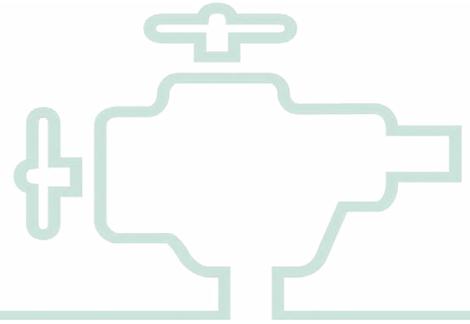
Company and agency response can escalate the intensity and violence of demonstrations.

Tribal leaders and local officials are very concerned about how demonstrators will be handled by all parties — tribes, law enforcement in all jurisdictions, towns and cities, counties, the state, and, if involved, the federal government. The rougher/more physical/more militarized a counter-response appears to be (even just arresting) the more galvanized the resulting social outcry and backlash. At the same time, local, often more rural police departments do not have the extensive training and experience in large-scale crowd control, making it more difficult for them to respond most effectively.



A. Respect the public: Use of force increases the scale of protest action, allowing opponents to increase awareness and recruitment, and should be avoided. Deployment of dogs, tear gas, rubber bullets, water cannons, and other “crowd control” techniques by law enforcement or security is rarely if ever a helpful response, regardless of perceived threats to company property.

B. Honor freedom of speech: Using the courts to block what the public generally views as free speech via temporary restraining orders was also reported to be ineffective at de-escalating situations by interviewees.

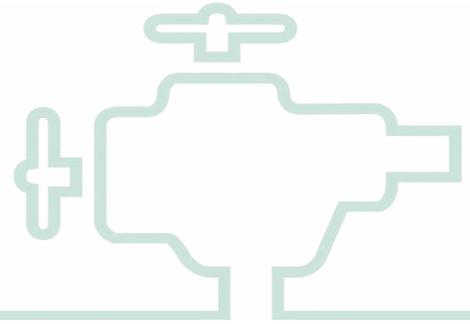


- C. **Consider “work stop” if necessary:** Work stop (“stand down, shut down”) is expensive for operators, but may be essential for de-escalating a frontline demonstration. Unfortunately, short-term cost considerations can often overwhelm longer-term cost implications of failing to act quickly and appropriately.

- D. **Communicate with public and all agencies:** Pipeline companies’ should communicate with and about demonstrators early and publically, seeking in-person meetings with one-on-one parties and coalitions. They should also communicate with state/county agencies and local officials about the situation on the ground. If there is an ongoing protest, companies and contractors must constantly communicate their work plans (starts and stops) as well as security plans to law enforcement, with sufficient forewarning before major actions.

- E. **Train all staff on safety:** Train all levels of staff, from construction crews to security to corporate executives, in de-escalation techniques, proper responses to protestors (“walk away”), and how to avoid inflammatory and highly amplifiable “social media moments”. Companies and regulators should continually monitor and engage with traditional and social media, seeking to address false information and stories in a respectful, fact-based manner.





Private security brought in from other states can be perceived as invaders.

Based in part on their experience with DAPL, many tribal leaders express worry about the role, behavior, and impacts of private security details hired by the pipeline company. Private security forces may have little cultural awareness or experience, and may exacerbate cultural differences and conflict. Private security forces may use militaristic and strong-arm techniques that exacerbate rather than mitigate conflict.



- A. Train site security:** Site security should view their primary obligation as perimeter monitoring of site construction sites and alerting law enforcement.
- B. Refrain from setting up "military camp":** Fences and barriers around equipment to separate personnel from protestors are a tactic that helps mitigate large-scale physical confrontations. However, assembling a "military base camp" around construction activity projects fear, siege, and distrust.
- C. Empower retired law enforcement:** Hiring retired or off-duty local law enforcement can improve interface with local communities.
- D. Consider private security firms:** An important role of private security firms is to pre-empt dangerous situations by monitoring social media and establishing clear communication protocols with local law enforcement. Private security should monitor social media for dangerous or violent activity, know the difference between locals and paid protestors, and communicate perceived risks to law enforcement. Using "infiltrators" within protest assemblies or camps as agents of private or company security is highly suspect and likely to lead to blowback.

7. Mitigating Natural and Cultural Resource Impacts

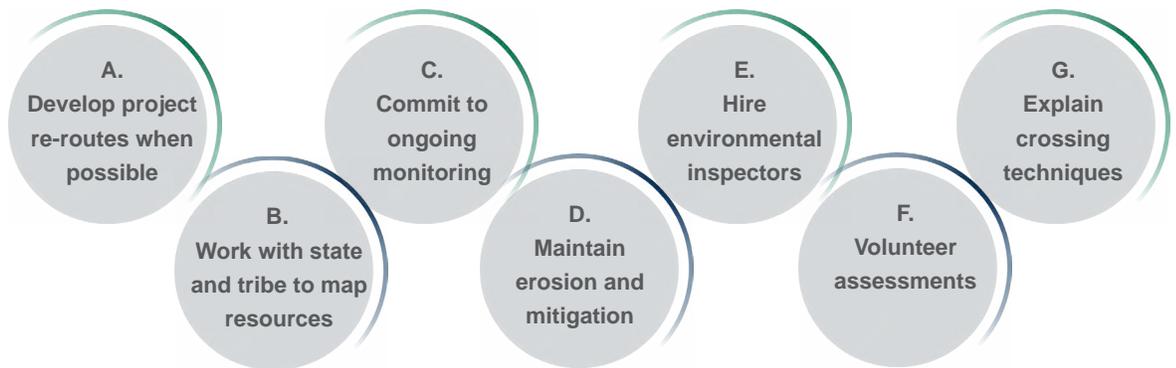
7.1 Opportunities to Avoid, Mitigate, or Resolve Conflict

Streams, rivers, wetlands, and forested areas are frequent flashpoints for protests.

The safety, quality, and future of freshwater resources (e.g. lakes, streams, rivers, ponds and groundwater) is a fundamental, if not the primary, concern expressed by many critics and opponents. State agencies can issue penalties but do not always have the authority to halt a pipeline project in violation of

state environmental laws. Whether agencies can obtain relief for damages and receive civil penalties is key to future debate on the power of states to sanction companies who refuse to maintain proper permits before releasing contaminants into water supplies.

Suggested Better Practices



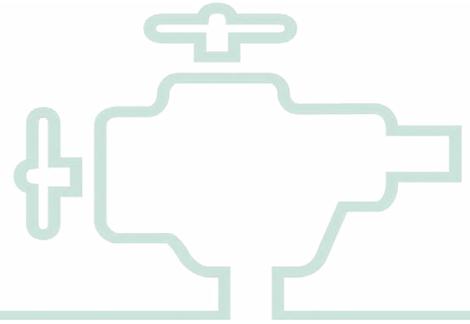
A. Develop project re-routes when possible: The development of re-routes or the use of directional drilling techniques or other avoidance measures should be used, whenever possible, to avoid sensitive natural resource impacts.

B. Work with state and tribe to map resources: Companies should work with local, tribal, and state resource managers to accurately and precisely map and inventory natural resources along the pipeline routes, especially when state or tribal databases are incomplete or insufficient.



- C. **Commit to ongoing monitoring:** Commitments to ongoing monitoring that exceeds state and federal law and regulation can help increase information and trust in the project.
- D. **Maintain erosion and mitigation:** All appropriate erosion control and other mitigation measures should be put in place and maintained during construction.
- E. **Hire environmental inspectors:** Environmental inspectors are hired by pipeline companies and are an excellent local employment opportunity for appropriately qualified individuals. They ensure that a pipeline is constructed in compliance with permitting requirements and help the project be completed in a safe and environmentally responsible manner.*
- F. **Volunteer assessments:** Volunteer pipeline visual assessment programs support and train volunteer citizen observers to identify, document, and report pollution and erosion/ sedimentation incidents associated with large-scale development. Volunteers are not allowed to enter construction areas. However, remote, electronic filing of environmental reports of violations has increased the effectiveness of these monitors input to regulators. Rather than see these volunteer corps as adversaries, companies could work with them and their organizers in a coordinated fashion.
- G. **Explain crossing techniques pros and cons:** If landowners, opposition groups and other stakeholders better understood the depth of engineering involved in designing these crossing techniques, it could address some concerns. Some examples include pump arounds, horizontal directional drilling, Port-a-Dan, direct pipe, type of pipe used, valve placements, filtration, turbidity, etc.

* <https://www.cepa.com/wp-content/uploads/2014/01/A-Practical-Guide-for-Pipeline-Construction-Inspectors-16Mar2016-FIN....pdf>



Companies should place a priority on managing and mitigating impacts on sensitive wildlife and habitats in order to avoid inciting opposition.



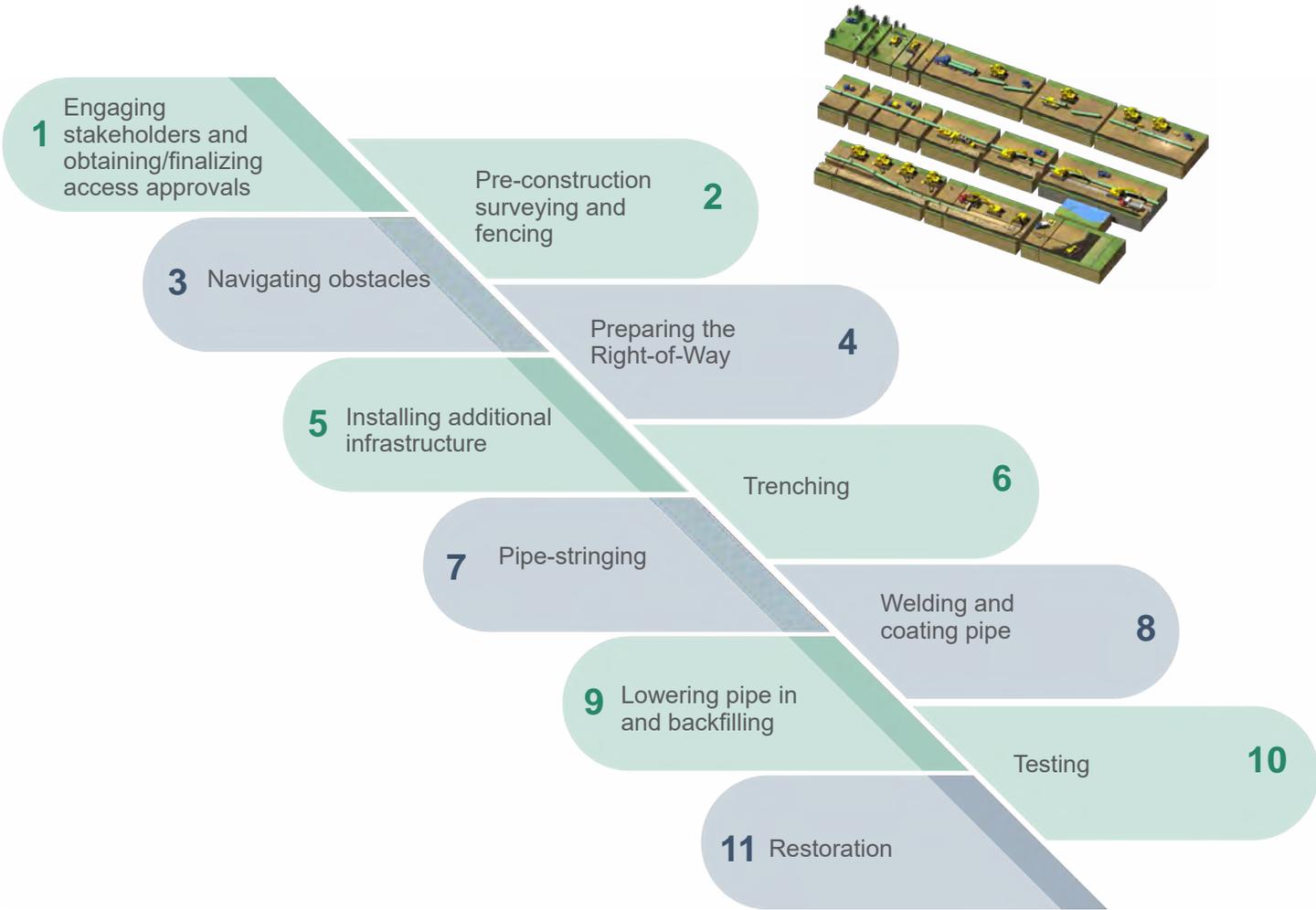
- A. Research tools for monitoring security:** Though fences are thought of as helpful for managing access and equipment security, conservationists dislike the way they fragment habitat areas, particularly in forests. Other techniques for monitoring security may be both more effective and non-disruptive to ecosystem continuity (e.g. in-ground sensors).
- B. Work with agencies to establish funds:** Companies can work with agencies to establish voluntary funds they can use to purchase stakeholder-identified high-conservation value plots to conserve, or undertake other environmental mitigation projects.*
- C. Ensure wildlife restoration with stakeholders:** Companies can develop site-specific reclamation and re-vegetation strategies with relevant stakeholders to ensure wildlife habitat restoration post-construction.
- D. Conduct construction monitoring:** Companies can also work with agencies and NGOs to conduct pre- and post-construction monitoring for sensitive wildlife and vegetation resources.

* Offsetting lost forested area in habitat conservation is a model being developed by the Conservation Fund and their partners.

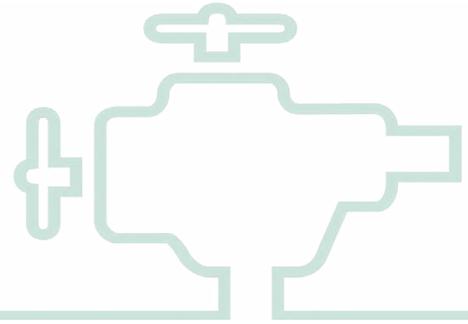
Appendix A: Overview of the Pipeline Construction Process

After required federal and state permits are approved, the process of pipeline construction begins in earnest. A pipeline construction project looks much like a moving assembly line. A large project typically is broken into manageable lengths called “spreads,” and utilizes specialized workgroups (various construction crews, each with its own responsibilities). As one crew completes its work, the next moves into position to complete its piece of the construction process.

Their tasks include the following.* While we are by no means experts in pipeline construction, the below seeks to outline the general steps involved in final design and construction.



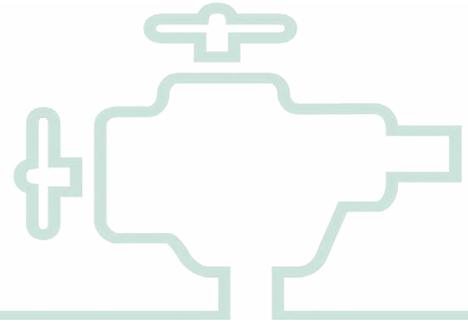
* Adapted from APA Group and Williams materials



1. **Engaging stakeholders and obtaining or finalizing access approvals:** Teams of representatives meet with affected landholders, public officials, and Tribal leaders to secure access to their properties prior to and during pipeline construction and ongoing operations. Easement agreements or eminent domain condemnations must be completed in order to lay pipe.
2. **Pre-construction surveying and fencing:** Crews survey environmental features along proposed pipeline segments. Utility lines and agricultural drainages are located and marked to prevent accidental damage during pipeline construction. Next, the pipeline's centerline and the exterior right-of-way (ROW) boundaries are staked. Crews flag the boundaries of all locations where construction activities will take place. The flags mark the extent of the temporary construction zone* surrounding the pipeline ROW, as well as the staging and storage areas.†
3. **Navigating obstacles:** Though careful routing can minimize these occurrences, pipelines must cross existing roads, highways, streams, rivers, wetlands, and possibly cross near cultural resources. Often, pipelines are constructed underneath these obstacles by either boring for shallow depth placement or using horizontal directional drilling for deeper placement. Other obstacles include abandoned mines, karst topography, and densely populated areas. Each kind of obstacle requires a unique method and order of operations.
4. **Preparing the Right-of-Way:** After the equipment is accessible in the staging area, work will begin to clear-clear the ROW of trees and other vegetation. Landowners often have the option of selling the timber themselves or allowing the company responsibility for its sale or disposal – these agreements are included in easement access documents. Temporary erosion control measures are installed prior to any earth-moving activities.

* The width of the right-of-way is determined based on the diameter of the pipe (8 – 42 inches), with widths ranging from 80 – 125.

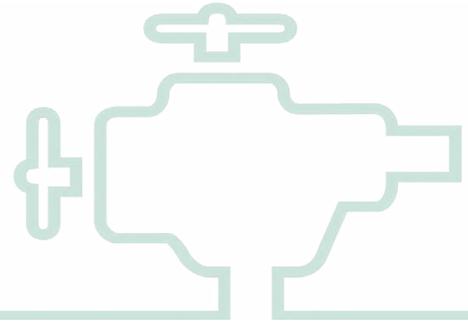
† These areas are used to stockpile pipe and to store fuel tanks, sand bags, silt fencing, stakes, and equipment parts. They provide parking for construction equipment, employee trucks, and locations for office trailers.



5.

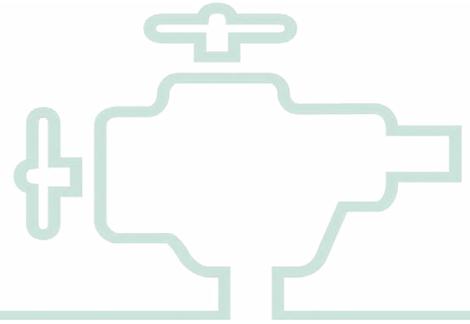
Installing additional infrastructure: While the majority of a pipeline is underground, there are several types of supporting infrastructure that are constructed.

- ✓ **Compressor or pump stations,** facilities that maintain the pressure level within the pipeline, are built to support new pipeline projects, or existing stations are upgraded. These facilities can be constructed within a building or behind fencing depending on location and the need for visual aesthetics.
- ✓ **Valve sites** are built along the pipeline ROW, allowing operators to shut off sections of the line for maintenance or in an emergency — typically, remotely. Most valves are held open by the operating pressure of the pipeline and in the unlikely event of a rupture, automatically close to shut off the flow.
- ✓ **Metering stations** are built along the length of pipelines, providing a measure of the flow of product throughout the line.
- ✓ **Staging and storage areas** are cleared and covered in rough stone gravel, sometimes reinforced with large wood timber matting. These areas can be located in fields, pasture, or forested land and can impact streams and wetlands. When possible, these are built on previously disturbed or industrial areas to minimize impact.
- ✓ **Access roads** to and from paved roads are often required to construct these staging areas, and from the areas to the pipeline ROW. While existing roads are used when possible, temporary access roads are also constructed to create direct paths from staging areas to the pipeline ROW. Traffic routes on local roads must also be determined.



6. **Trenching:** The cleared ROW is graded to provide a level workspace and where appropriate, topsoil is removed from the work area and stockpiled separately from the subsoil. Crews use backhoes or trenching machines to excavate a pipeline trench.* The soil that is excavated during ditching operations is temporarily stockpiled on the non-working side of the trench.
7. **Pipe-stringing:** Individual joints of pre-coated pipe, in varying lengths depending on the scope of the project, are transported from stockpiles in the staging area to be strung end-to-end along the ROW adjacent to the excavated ditch and arranged to be accessible to construction personnel. A mechanical pipe-bending machine bends individual joints of pipe to the desired angle to match the natural topography at locations where there are significant changes in the natural ground contours or where the pipeline route changes direction.
8. **Welding and coating pipe:** After the stringing and bending are complete, the pipe sections are aligned, welded together, and placed on temporary supports along the edge of the trench. All welds (100%) are then visually and radio-graphically (x-ray) or ultrasonically inspected. Line pipe, normally mill-coated or yard-coated prior to stringing, requires a coating at the welded joints to reduce corrosion. Prior to the final inspection, the entire pipeline coating is electronically inspected to locate and repair any coating faults or voids.
9. **Lowering pipe in and backfilling:** The pipe assembly is lowered into the trench by highly skilled operators using side-boom tractors. The trench is backfilled with fine grain padding and then previously excavated subsoil using a backfilling or bladed equipment; no foreign materials are permitted in the trench. Subsoil is compacted to limit settlement of the trench. Soils are returned to the trench in reverse order to ensure the topsoil remains on top. Final grading is then conducted.

* If rocks ledges are encountered, track hoes with jackhammers are brought in to create the trench. In steep terrain, sandbags are placed within the trench to restrict water flow and to support the pipe.



10.

Testing: After backfilling, the pipeline’s integrity is hydrostatically tested following federal regulations. Pipeline companies receive permits to withdraw water from streams and rivers along the pipeline path. This water is sent through the pipeline and the pressure is increased to above the maximum operational level.* If the pipeline remains intact during this test, it is deemed operational; any incidents are repaired and retested to ensure integrity of the pipe. Then, all water is removed from the pipeline, cleaned/filtered and returned to the watershed according to permits. “Pigs”, air compressors, and nitrogen are used to clean and dry the pipe. Only then is the pipeline ready to transport product. The water used for the hydrostatic test must be disposed of in accordance with applicable federal, state, and local regulations.

11.

Restoration: Companies typically seek to clean up and restore the work area as soon as possible. After the pipeline is backfilled and tested, disturbed areas are restored as close as possible to their original contours, covered in conserved topsoil, then seeded in accordance with approved restoration plans. Restoration measures are maintained until the area (e.g. farmland) is restored to its original condition, in accordance with approval requirements and landholder considerations. Approved mitigation techniques on restored agricultural land are designed to ensure full productive reuse.

* The expected MAOP or maximum average operating pressure

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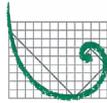
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ERM is a leading global provider of environmental, health, safety, risk, and social consulting and sustainability related services. We have more than 5,500 people in over 40 countries and territories working out of more than 160 offices. ERM is committed to delivering solutions while providing a service that is consistent, professional and of the highest quality to create value for our clients. We have worked with many of the Global Fortune 500 companies delivering innovative solutions for business, providing advice that has underpinned billions of dollars of investment decisions. For all we have helped them understand and manage the sustainability challenges that the world is increasingly facing.

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CBI is a nonprofit organization with decades of experience helping leaders collaborate to solve complex problems. Our staff are experts in facilitation, mediation, capacity building, citizen engagement, and organizational strategy and development. We are committed to using our skills to build collaboration on today's most significant social, environmental, and economic challenges. Over the last decade, we have worked in 70 countries with over 4,000 organizations engaging 100,000s of people. We have staff across the US, in Canada, and in Latin America. We work within and across organizations, sectors, and rights and stakeholder groups.

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