Handy Checklist:

An overview of key items discussed in this brochure to aid in the development of an easement agreement and "line list" for pipeline construction, reclamation and monitoring on rangeland.

A. Pipeline Planning / Location

- ☐ Pipeline location identified and mapped.
  - ☐ Plant inventory conducted.
  - ☐ Soil inventory conducted.
  - ☐ Ecological inventory conducted.
- ☐ Sensitive areas (wildlife, etc.) identified along the route.
  - ☐ Mitigation measures identified (i.e. re-routing, "necking down," non-development clause).
- ☐ Areas for potential future landowner development identified (i.e. Corrals, waterlines, subdivisions, etc.).
  - ☐ Mitigation measures and/or property owner easements identified.
- ☐ Damage and liability types, limits, and durations defined.

B. Pipeline Construction

- ☐ Number, size of pipes proposed for pipeline defined, along with burial depths (latter may vary with topography).
- ☐ Substance being carried (oil, gas, etc.) identified.
- ☐ Pipeline CONSTRUCTION easement width defined.
- ☐ Pipeline PERMANENT easement width defined.
- ☐ Construction limits set when soils are wet.
- ☐ Erosion and dust control activities specified.
- ☐ Cleanup and site abandonment requirements established (i.e. responsible parties for removal of litter, human waste, construction materials and unutilized pipelines).
- ☐ Weed control protocols specified.
- ☐ Easement holder property access points identified.
- ☐ Written notification required when pipeline company changes hands.

C. Construction Timeline

- ☐ Construction limited to avoid sensitive times for wildlife.
- ☐ Alternative timeline provided for when construction cannot be done when desired.
- ☐ End date set for easement (not common, but is done on occasion).

D. Reclamation Measures

- ☐ Reclamation species list developed that considers species currently found at the construction site and the seed source used for replanting.
- ☐ Desired seed mixes and "critical planting" rates and times specified, including party responsible for planting.
- ☐ Erosion and dust control measures identified, including acceptable use of short-lived cover crops for forage or soil stabilization.
- ☐ Planting timeline for managing risk developed.
- ☐ Grazing exclusion timeline specified, if applicable.
- ☐ Define targets for successful recovery (i.e. percentage cover, stems per square foot, weed absence, topographic feature restoration, etc.).

E. Monitoring

- ☐ Responsible parties identified for monitoring and repairing leaks, erosion problems and weed infestations.
- ☐ Duration, frequency of monitoring specified, along with timeline for repair.

June 2013

MONITORING:

Monitoring for erosion problems, pipeline leaks, and weed infestations can either be the responsibility of the land owner or the easement holder. Duration and frequency of monitoring and timeline for repair and mitigation may be specified. Land owners need to monitor for weeds, regardless, and document site recovery with photographs.

ADDITIONAL NOTES:

Ask LOTS of questions. Don't be in a hurry. Find out how and when deadlines need to be met. Know that eminent domain does not apply to all pipelines. Ask your neighbors if there's a local landowner or property rights group that can give you information. Documents used by public landowners for pipeline planning, construction and reclamation can be found by searching the internet for "*BLM pipeline conditions of approval*" or "*BLM pipeline stipulations*". Similar documents can be found by replacing "*BLM*" with "*USFS*".

Detailed documents regarding planting procedures, baseline data collection, soils management, wildlife considerations, and monitoring can be found on the Wyoming Reclamation and Restoration Center website: *www.uwyo.edu/wrrc/bulletins.html*

Montana State University Extension has information on oil and gas leasing at: *http://www.msuextension.org* (search for "*oil and gas*")

North Dakota State University Extension has a resource page *at: http://www.ag.ndsu.edu/ccv/oil-and-gas-resources*

Planting methods, seedbed preparation, post-reclamation weed control, and species-specific information can be found at: *http://www.mt.nrcs.usda.gov/technical/ecs/plants/technotes/*

Is there a pipeline in your future?

Development in the Bakken:

Things for a private landowner to think about when a pipeline is in their future.

Information included in this pamphlet was derived from two 2013 regional reclamation workshops, the first, "Reclamation - Bringing Ideas Together" was held in Dickinson, ND on February 26, and the second, the "Pipeline Reclamation Workshop" was held in Sidney, MT on March 5.

Is there a pipeline in your future?

If so, then you may want to ask yourself these questions as you negotiate easement agreements and line lists for construction and reclamation of pipelines on your property:

PIPELINE LOCATION:

Where will the pipeline be located? What's there now (topography, plant species, soils)? How will a linear disturbance that cannot be crossed by people or cattle during construction affect current land use? Is a landowner easement required for future construction like sub-developments, corrals, and water lines? Think carefully about future land uses and how the pipeline easement may restrict them.

Landowners should also carefully document and photograph the existing landscape along the proposed route prior to construction, both to monitor progress and help determine when successful recovery has occurred. Consider compiling the following inventories.

Plant inventory: What plant species are present? Weeds already present may become more problematic due to construction activities. Who will be responsible for controlling weeds on site? Are there plant species other than Class A noxious weeds that are unwanted on this property?

Soil inventory: What is the depth of topsoil that will be removed separately? Are there soil salty layers present that may interfere with reclamation success?

Ecological inventory: Recovery rates for all sites may not be the same: some areas will take longer to recover than others, and some may need to be avoided altogether. Document pre-pipeline conditions with many photos. Are there sensitive areas on the property? Consider making a "non-development" clause, or "necking down" during construction.

Weed Resources:

North Dakota noxious weed lists by state, county, plus city and county weed coordinator contact information:
http://www.nd.gov/ndda/program/noxious-weeds

Identification of Montana's noxious weeds:
http://www.mtweed.org/weed-identification/

Montana – find your local weed coordinator:
http://www.mtweed.org/find-weed-coordinator/

North Dakota Weed Control Association:
http://ndweeds.homestead.com

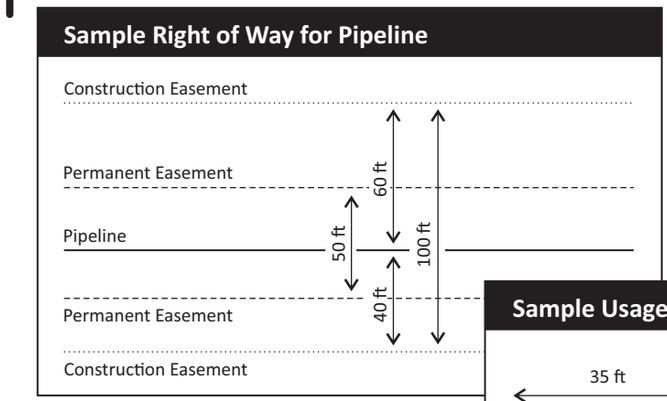
Management / ecology of invasive plant species:
http://www.mt.nrcs.usda.gov/technical/ecs/invasive/management/

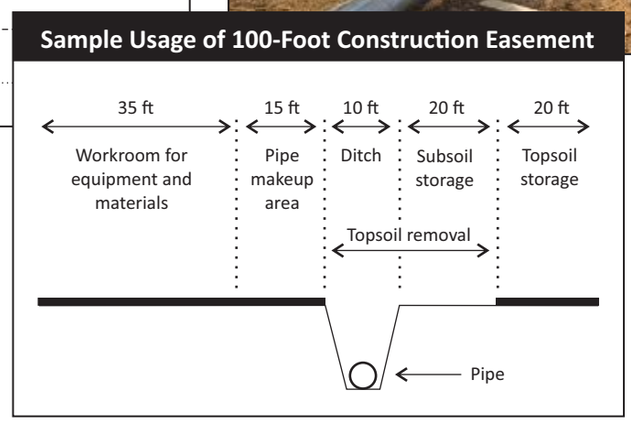
PIPELINE CONSTRUCTION:

There are many factors in pipeline construction that may affect the use and productivity of the site during as well as after construction is completed. In addition, survey and construction activities may introduce weeds to the property without proper hygiene protocols in place. Who is responsible for liability and damages to your or your neighbors' property? For how long?

How many pipes will be in the pipeline? If unspecified, the door may be open to construction re-entry at the site as multiple pipes may be installed in the pipeline on multiple dates over the easement period.

What material will the pipeline carry? How deeply will the pipe be buried? A point of information: "plow depth" has no strict definition and may vary among operators. To avoid detrimental soil compaction, prevent construction activities when soils are very wet. Erosion and dust control activities may be specified.





Clean up and site abandonment may be covered in the easement agreement: this may include litter, human waste, construction materials, and unutilized pipelines. Construction permits should be available to view during activity and a line list maintained to track communications regarding the easement and construction can be checked periodically to ensure it includes all relevant information.

Factors to consider in developing a construction timeline: is the property important for wildlife? Construction can be limited to avoid sensitive times. An alternative timeline should be developed for when work cannot be performed at desired times. Placing an end date on the easement is unusual but provides an opportunity for renegotiation.

RECLAMATION:

Reclamation includes restoring topographic features of the site, seedbed preparation, seeding, and monitoring. The goal of reclamation is recovery: definitions of successful recovery can range from 60-70% cover compared to intact vegetation to one stem per square foot. Is it important that all species establish? Recovery can also be based on absence of weeds at a site. Develop a reclamation species list based on species that already exist at the site. A short-lived cover crop such as annual oats or slender wheatgrass may be included for soil stabilization or forage but at low densities so as not to outcompete other species. Specify erosion and dust control and develop a timeline that manages risks: planting in the summer may cause germination of seeds after a summer rain, seeds that then may die of drought. Reclamation is a "critical planting" which means recommended seeding rates (based on PLS, or, Pure Live Seed) are doubled.

Continued on back panel