### OHIO DEPARTMENT OF NATURAL RESOURCES DIVISION OF SOIL & WATER CONSERVATION

#### **Pipeline Standard**

#### And

#### **Construction Specifications**

#### **DEFINITION**

A line of pipe with valves, pumps, and control devices used for the conveying of liquids, gases, or finely divided solids.

#### **PURPOSE**

To convey oil, gasoline, gas, water, or any other liquefied product.

#### **CONDITION WHERE THIS STANDARD APPLIES**

Where it is desirable or necessary to convey liquid or gaseous products in a closed conduit from one point to another point

#### **DEFINITIONS OF TERMS**

Agricultural Land Land which is presently under cultivation; land which

has been previously cultivated and not subsequently developed for non-agricultural use; and cleared land which is capable of being cultivated. It includes land used for cropland, hayland, improved pastureland, managed woodlands, truck gardens, farmsteads, commercial agricultural related facilities, feedlots, livestock confinement systems, land on which farm buildings are located, and land in government set-aside

programs.

Best Management Practice

(BMP)

Any structural, vegetative or managerial practice used to treat, prevent or reduce soil erosion. Such practices may include temporary seeding of exposed soils, construction of retention basins for storm water control and scheduling the implementation of all BMP's to maximize their effectiveness.

Company The Pipeline Company, its successors, and assigns, on

its own behalf and as operator of the Pipeline

Company.

Cropland Land used for growing row crops, small grains, or hay;

includes land that was formerly used as cropland but is currently in a government set-aside program, and

pasture land formerly used as cropland.

Pipeline The pipeline and its related appurtenances described in

the Company's application to the Federal Energy Regulatory Commission for a Certificate of Public

Convenience and Necessity.

Landowner Person(s) holding legal title to property on the pipeline

route from whom the Company is seeking, or has obtained, a temporary or permanent easement.

Landowner's Designate Any person(s) legally authorized by a Landowner to

make decisions regarding the mitigation or restoration of agricultural impacts to such Landowner's property.

Non-Agricultural Land Any land that is not "Agricultural Land" as defined

above.

Right-of-Way Includes the permanent and temporary easements that

the Company acquires for the purpose of constructing

and operating the pipeline.

Slope Breaker A ridge or channel constructed diagonally across

a road or utility right-of-way that is subject to erosion.

Tenant Any person lawfully residing on or in possession of the

land.

Drain Tile Any artificial subsurface drainage system including: clay

and concrete tile, vitrified sewer tile, corrugated plastic

tubing, and stone drains.

Topsoil The upper most part of the soil commonly referred to as

the plow layer, the A layer, or the A horizon, or its equivalent in uncultivated soils. It is the surface layer of the soil that has the darkest color or the highest content of organic matter (as Identified in the USDA County Soil

Survey and verified w/ right-of-way samples).

Surface Drains Any surface drainage system such as shallow surface

field drains, grassed waterways, open ditches, or any

other conveyance of surface water.

#### **PLANNING PHASE**

#### A) <u>Construction Plans and Maps</u>.

The Company shall provide the Landowner general construction plan maps with the following information concerning agricultural areas/uses:

- 1. Pasture/Grazing areas including unimproved grazing areas (brushy or wooded land used by livestock), permanent open pasture (land devoted only to pasture use, not suited to tillage rotation), improved pasture (including tillable rotation pasture/hayland), and livestock fencelines.
- 2. Cropland areas including hayland, rotation cropland, long-term cropland and agricultural lands enrolled either the annual set-aside or the Conservation Reserve Program of the U.S.D.A. Consolidated Farm Service Agency. Such lands will be identified through consultation with the offices of the Consolidated Farm Service Agency and the County Soil and Water Conservation District.
- 3. Unique Agricultural Lands, which include specialty cropland (vegetables, berries, etc.), orchards, vineyards, maple sugarbushes, organic mucklands, and permanent irrigation systems.

These areas mentioned above will be identified with the help of the County Soil and Water Conservation districts.

#### B) Sensitive Agricultural Soils

Sensitive agricultural soils are defined as areas of cropland, hayland, or pasture that are more susceptible than other agricultural soils to construction disturbance due to slope, relative soil wetness, and/or shallowness to bedrock. Wetness conditions are the result of factors such as landscape position, soil texture, seasonal water table and/or slowly permeable subsoil horizons (e.g., areas of laterally draining subsoils). All sensitive agricultural soils including, but not limited to, those identified in the county soil survey as fragipans, lacustrines, dense basal tills, soils with a seasonally high water table, or soils with less than 5 feet of depth to bedrock are to be located and identified on the project map using the following codes:

- "SE" designates the general area of soils sensitive to erosion due to R-O-W factor(s) of slope and/or the texture of exposed soil.
- 2. "SW" designates the general area of soils susceptible to soil horizon wetness as described above.

- 3. "SR" designates the general area of soils susceptible to shallow depth to bedrock.
- 4. "SO" designates the location of unavoidable organic mucklands.

#### C) Other Features

In addition, the Company shall note the following information on the general construction plan maps, or on the construction alignment sheets.

- 1. Other land and water management features including subsurface drainage areas (where they can be identified prior to construction), open ditches, diversions, and diversion terraces, buried utility lines (for farmstead consumptive use), water source (developed springs, etc.), and unnamed water flows.
- 2. Depth of cover if it varies from those listed in the Construction Specifications.
- 3. Any off right-of-way access roads and work or storage areas. Map all such areas identified at the time of the construction plan submission, indicating their proposed locations. Any other areas that may be identified during construction will be considered and filed as a change in the construction plans.
- 4. The planned location of any compressor stations, valve stations, metering and regulating stations and any other proposed facilities.
- 5. General locations for trench breakers, including a notation of the distance between breakers based on percent of slope, or an appended generic chart of trench breaker spacing by degree or percent of slope.
- 6. General locations for subsurface intercept drains to control soil saturation and/or aid trench breakers in minimizing water piping, based on the sensitive agricultural soils data (see Section B) and site monitoring. Such locations will generally coincide with "SE" sensitive agricultural soils and breaks in slopes.

#### D) Point of Contact During Construction

Prior to the construction of the pipeline, the Company shall provide to each Landowner, Landowners Designate and/or Tenant the name, telephone number and mailing address of the Company representative assigned to that geographic area and responsible for the liaison activities on behalf of the Company. This Company representative shall be the contact person both during construction

and operational related activities. The Company shall respond promptly to any Landowner and/or Tenant issues or concerns both during the construction and long-term operational activities.

#### **CONSTRUCTION SPECIFICATIONS**

#### 1) <u>INGRESS AND EGRESS ROUTES</u>

Prior to the pipeline installation, the Company and the Landowner shall reach a mutually acceptable agreement on the route that will be utilized for entering and leaving the pipeline right-of-way, should access to the right-of-way not be practical or feasible from adjacent segments of the pipeline right-of-way or from public highway or railroad right-of-ways.

Where access ramps/pads are required from the highway to the pipeline construction area, the topsoil shall be removed and stock piled for replacement, an underlayment of durable geotextile matting shall be placed over the exposed subsoil surface prior to the placement of temporary rock access fill material. All such material will be removed upon completion of the project. The use of durable geotextile matting as an underlayment helps prevent rock and stone from becoming embedded in the subsoil material. Complete removal of the ramp upon completion of the project and restoration of the impacted site is required prior to topsoil replacement (see DETAIL No. 1, ACCESS PADS AT ROAD CROSSING).

#### 2) <u>TEMPORARY ROADS</u>

The location of temporary roads to be used for construction purposes will be negotiated with the Landowner and the Tenant. The temporary roads will be designed to not impede proper drainage and will be built to minimize soil erosion on or near the temporary roads. Every attempt will be made to use existing farm lanes for access and repair damages to the existing lanes.

Upon construction completion, temporary roads may be left intact through mutual agreement of the Landowner, the Tenant and the Company unless otherwise restricted by federal, state or local regulations. If the temporary roads are to be removed, the right-of-way upon which the temporary roads are constructed will be returned to its previous use and restored to equivalent condition as existed prior to their construction.

#### 3) CLEARING OF BRUSH AND TREES ON THE RIGHT-OF-WAY

Unless otherwise restricted by federal, state or local regulations, the Company shall follow the Landowner's, Landowner Designee's, and the Tenant's desires as stated in the easement agreement regarding the disposal of trees, brush and

stumps of no value to the Landowner by burning, burial, chipping, etc., or complete removal from any affected property.

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The Company shall identify <u>black cherry</u> trees located on the right-of-way near active livestock use areas during the construction plan development. Black cherry tree vegetation is toxic to livestock when wilted and shall not be stockpiled in areas accessible to livestock. During the clearing phase, such vegetation will be disposed of in a manner that prevents contact with livestock.

Unless otherwise restricted by federal, state or local regulations, the Company shall follow the Landowner's or Landowner Designate's desires as stated in the easement agreement regarding the removal of tree stumps that the Company might otherwise leave in the ground.

#### 4) TOPSOIL REMOVAL AND PROTECTION

In agricultural land the topsoil shall be removed prior to any activity by any equipment or delivery trucks. In all other areas the topsoil shall be removed after clearing, clearing and grubbing, and prior to any other construction equipment and delivery trucks. Topsoil shall be removed from the full width of the right-ofway and stockpiled along either edge and on the right-of-way (see DETAIL No. 2, DEPTH OF TOPSOIL REMOVAL). Topsoil shall be kept separated from any other excavated material and construction activity (see DETAIL No. 3, TOPSOIL SEGREGATION). The depth of topsoil removal shall include all of the "A" horizon down to the beginning of the subsoil "B" horizon, or as identified by the County Soil and Water Conservation District, generally not to exceed a maximum of 12 inches. Topsoil removal up to a depth of 16 inches may be required in specially designated soils encountered along the pipeline route and identified in the construction plan. The Agricultural Inspector shall determine the depth of topsoil removal from the specially designated soil areas during the construction plan development by using the local County Soil Survey and on-site soil augering, if necessary. All topsoil material will be stripped, stockpiled, and uniformly returned to restore the original soil profile.

During the clearing/construction phase, the Agricultural Inspector shall monitor site-specific depths of topsoil stripping. Where right-of-way construction requires cut-and-fill of the soil profile across grades, to the extent practicable, topsoil stockpiling will be located on the up slope edge of the right-of-way (see DETAIL No. 4, TOPSOIL STOCKPILING ON SLOPES). Where topsoil cannot be separately stored on the up slope side, suitable right-of-way space will be provided on the down slope side to ensure the complete segregation of the topsoil from all cut-and-fill material.

#### 5) <u>DEPTH OF COVER</u>

Except for above-ground piping facilities, such as mainline block valves, tap valves, meter stations, etc., and except as otherwise stated in the Agreement, the pipeline will be buried as follows:

- 1. In agricultural land where there are existing subsurface drainage systems, or drain tile is required to provide adequate drainage, and bedrock is not shallower than 96 inches, a minimum of 60 inches of cover shall be provided over the top of the pipeline. Where bedrock is shallower than 96 inches, the Company reserves the right, as an option, to install a drain tile submain to collect drain tile flows to a suitable crossing location or a suitable outfall. This drain tile submain will be designed in conjunction with the local County Soil and Water Conservation Districts.
- 2. In agricultural land without drain tile and where County Soil Survey indicate good drainage, a minimum of 48 inches of cover over the top of pipeline will be maintained.
- 3. In non-agricultural land, unimproved pastureland, and land permanently devoted to pasture a minimum of 36 inches of cover shall be maintained over the top of the pipeline.
- 4. A minimum of 60 inches of cover shall be maintained over the top of the pipeline where it crosses surface drains, diversions, grassed waterways, open ditches, and streams.

A minimum of 12 inches of separation shall be maintained between the pipeline and drainage tile unless adequate measures are taken to protect the present and future integrity of pipeline and the drain tile.

In agricultural lands where the depth of soil over bedrock is 48 inches or less, the pipeline shall be buried entirely below the top of the bedrock or at the depth specified above for the particular land use, whichever is less. At no time shall the depth of cover be less than 24 inches below the soil surface.

#### 6) ROCK REMOVAL (SHALLOW SOILS)

The top 48 inches or the actual depth of top cover, whichever is less, within the pipeline trench, bore pits, or other excavations shall not be backfilled with soil

containing rocks of any greater concentration or size than existed prior to the pipeline construction.

In areas of bedrock removal that requires blasting, matting or controlled blasting shall be used to limit the dispersion of blast rock fragments.

Landowners/operators and adjacent landowners will be given timely notice prior to blasting.

#### 7) REPAIR OF DAMAGED AND ADVERSELY AFFECTED TILE LINES

All drain tile repair and/or replacement shall be completed prior to topsoil replacement.

If underground drain tile is damaged by the pipeline installation, it shall be repaired in a manner that assures the drain tile's proper operating condition at the point of repair. If underground drain tile lines in the pipeline construction area are adversely affected by the pipeline construction, the Company will take such actions as are necessary to insure the proper functioning of the drain tile lines, including the relocation, reconfiguration, and replacement of the existing drain tile lines. The following standards and policies shall apply to the drain tile line repair:

- A. The Company shall make a conscientious effort to locate all drain tile lines within the right-of-way prior to the pipeline installation. The Company will contact the local County Soil and Water Conservation Districts and affected Landowners/Tenants for their knowledge of drain tile line locations prior to the pipeline installation. All identified drain tile lines will be marked with a 4 foot lathe to alert construction crews to the need for drain tile line repairs.
- B. During construction all drain tile lines that are damaged, cut, or removed shall be distinctly marked by placing a highly visible 4 foot lathe in the trench spoil bank directly opposite each drain tile line. This marker shall not be removed until the drain tile line has been permanently repaired and such repairs have been approved and accepted by the Agricultural Inspector and the local County Soil and Water Conservation District. If the County Soil and Water Conservation District Technician is not available at the time of backfill and restoration, the Agricultural Inspector will follow repair guidelines set forth in this document and DETAILS No. 5 thru No. 10, DRAIN TILE REPAIR SYSTEM.

- C. All drain tile lines shall be repaired with materials of the same or better quality as that which was damaged. The repair plans shall be approved by the Agricultural Inspector and the local County Soil and Water Conservation District. The repair may require the installation of a submain to reduce the number of drain tile lines crossing the pipeline (see DETAIL No. 10, TILE SYSTEM NEW SUBMAIN).
- D. Where drain tile lines are severed by the pipeline trench steel channel iron, steel angle iron, full-round slotted steel pipe, half-round steel pipe, or schedule 80 pvc pipe with 1/8 inch diameter holes shall be used to support the drain tile lines across the trench (see DETAIL No. 5 thru No. 10).
  - 1. If the drain tile repairs involve clay or concrete tile, the support member shall extend to the first tile joint beyond the minimum 3-foot distance. If the drain tile repairs involve plastic pipe it shall be supported at a 90-degree angle from the bottom of the drain tile. This may involve using angle Iron to provide proper support.
  - 2. There shall be a minimum of 12 inches of clearance between the drain tile line and the pipeline whether the pipeline passes over or under the tile line. If this clearance cannot be attained, the drain tile line must be protected from damage that might result from the proximity of the pipeline.
  - 3. In no instance shall the grade of the drain tile line be decreased.
- E. Before completing permanent drain tile repairs, all drain tile lines shall be examined by suitable means (see DETAIL No. 5, DRAIN TILE INSPECTION) on both sides of the trench for their entire length within the right-of-way to check for drain tile that might have been damaged by construction equipment. If any drain tile line is found to be damaged, it shall be repaired so it will operate as well after construction as before construction began.
- F. Temporary repairs of drain tile lines shall be made as soon as exposed. This shall include the use of filter material to prevent the movement of soil into the drain tile line or the temporary plugging of the drain tile line until permanent repairs can be made.
- G. All permanent drain tile line repairs shall be made within 30 days following completion of the pipeline installation on any affected Landowner's property.
- H. Following completion of the pipeline construction, the Company shall also be responsible for correcting and repairing all drain tile line repairs that fail

on the permanent and construction right-of-way. The plans for the repairs shall be approved by the local County Soil and Water Conservation District prior beginning work on the repair.

#### 8) <u>INSTALLATIONS OF ADDITIONAL DRAIN TILE LINES</u>

The Company shall be responsible for installing such additional drain tile and other drainage measures as are necessary to properly drain wet areas on the permanent and temporary right-of-ways caused by the construction and/or existence of the pipeline.

#### 9) REPAIR OF DAMAGED SOIL CONSERVATION PRACTICES

All soil conservation practices (such as terraces, diversions, grassed waterways, outlet ditches, wascobs, etc.) that are damaged by the pipeline construction shall be restored to their pre-construction condition as approved by the Agricultural Inspector.

#### 10) CONTROL OF TRENCH WASHOUTS, WATER PIPING AND BLOWOUTS

Trench breakers shall be installed for the dual purpose of preventing trench washouts during construction and abating water piping and blowouts subsequent to trench backfill. The distance between permanent trench breakers may range from the relatively close-spaced formula of the toe of the upper trench breaker being level with the head of the lower trench breaker to the relatively greater spacing (see DETAIL No. 11, PERMANENT TRENCH BREAKERS, and DETAIL No. 12 or 12A, TRENCH BREAKER SPACING). The Company shall record each installed trench breaker location, by map-referenced station-number.

#### 11) PUMPING OF WATER FROM OPEN TRENCHES

No back filling shall be done in water filled trench. All freestanding water shall be removed prior to any back filling.

In the event it becomes necessary to pump water from open trenches, the Company shall pump the water in a manner that will avoid damaging adjacent agricultural land, crops, and/or pasture. Such damages include, but are not limited to: inundation of crops for more than 24 hours, sheet and rill erosion, deposition of sediment in ditches and other water courses, and the deposition of gravel in fields, pastures, and any water courses.

If it is impossible to avoid water-related damages as described above, the Company will restore the land, pasture, watercourses, etc. to their preconstruction condition.

All pumping of water shall comply with existing drainage laws, local ordinances relating to such activities, and provisions of the Clean Water Act.

#### 12) SUBSOIL DECOMPACTION, SOIL SHATTERING, AND STONE REMOVAL

In all agricultural sections of the right-of-way, where topsoil is stripped and prior to topsoil replacement, the subsoil shall be fractured by deep ripping to a depth of 16 inches below the surface of the subsoil with the appropriate industrial ripper. The ripper shall have maximum teeth spacing of 16 inches. The ripping shall be performed parallel to the pipeline and at 90 degrees to the pipeline. Following the ripping operation all stone and rock material four inches and larger in size which has been lifted to the surface shall be collected and removed from the site for disposal.

Upon approval by the Agricultural Inspector of the subsoil decompaction and the stone removal, the topsoil that has been temporarily removed for the period of construction shall then be replaced. The soil profile in the full width of the right-of-way shall be shattered to a depth of 16 inches with a heavy-duty sub-soiling tool having angled legs. Stone removal shall be completed, as necessary, to eliminate any additional rocks and stones brought to the surface as a result of the final subsoil shattering process.

The Company will restore all construction-rutted land to as near as practical to its pre-construction condition. The cost of applying fertilizer and manure or other material with a high level of organic material shall be included in the damages paid, thereby allowing the Landowner and/or Tenant to apply the appropriate type and amounts of fertilizer, lime and other material as needed depending on the crops contemplated and the construction schedule.

Due to the generally unsuitable weather for continuing agricultural land restoration in late autumn, subsoil decompaction and topsoil replacement activities shall not be performed between November 1<sup>st</sup>. and April 1<sup>st</sup>., unless approved on a site-specific basis by the Agricultural Inspector in consultation with the local County Soil and Water Conservation District.

#### 13) BACKFILL PROFILE AND TRENCH CROWNING

In all agricultural land areas, ripped or blasted bedrock or concentrated volumes of excavated stone or rock material may be used for trench backfill material, but

no closer than 24 inches from the exposed working construction surface of the right-of-way. All rock not utilized as trench backfill material shall be removed from the right-of-way. The remaining backfill material shall consist of suitable subsoil material. Trench crowning shall occur during the trench backfilling operation using subsoil materials over the trench to allow for trench settling (see DETAIL No. 13, TRENCH CROWNING). After the initial ripping of the exposed subsoil and the rock cleanup has been completed, the stockpiled topsoil shall be spread over the entire affected right-of-way. In areas where trench settling occurs after topsoil spreading, imported topsoil shall be used to fill each depression. Topsoil from the adjacent agricultural land shall not be used to fill the depressions.

In agricultural areas where the materials excavated during trenching are insufficient in quantity to meet backfill requirements, the soil of any agricultural land adjacent to the trench and construction zone shall not be used as either backfill or surface cover material. Under no circumstances shall any topsoil materials be used for pipe padding material or trench backfill. In situations where imported soil materials are employed for backfill on agricultural lands, such material shall be of similar texture to the existing soils on site.

#### TWO YEAR MONITORING AND REMEDIATION

#### 1. GENERAL MONITORING AND REMEDIATION

The Company shall provide a monitoring and remediation period of no less than two years immediately following the full-length activation of the pipeline or the completion of initial right-of-way restoration, whichever occurs last. The Company shall be responsible for the cost of the monitoring and remediation. The two-year period allows for the effects of climatic cycles such as frost action, precipitation and growing seasons to occur, from which various monitoring determinations can be made. The Company shall maintain an Agricultural Inspector on at least a part-time basis through this period. The monitoring and remediation phase shall be used to identify any remaining impacts associated with the pipeline construction that are in need of correction and to implement the follow-up restoration.

General right-of-way conditions to be monitored include topsoil thickness, relative content of rock and large stones, trench settling, crop production, drainage and repair of severed fences, etc. The problems or concerns shall be identified through on-site monitoring of all areas along the right-of-way and through contact with respective landowner/operator and local County Soil and Water Conservation District.

Topsoil deficiency and trench settling shall be restored with imported topsoil that is consistent with the quality of topsoil on the affected site. Excessive amounts of rock and oversized stone material shall be determined by a visual inspection of the right -of-way. Results shall be compared to portions of the same field located outside of the right-of-way. Included in the determination of relative rock and large stone content is the right-of-way's condition subsequent to tillage and the relative concentration of such materials within the right-of-way as compared to off the right-of-way. All excess rocks and large stones shall be removed and disposed of by the Company.

On site monitoring shall be conducted at least three times during the growing season and shall include a comparison of growth and yield for crops on and off the right-of-way. When the subsequent crop productivity within the affected right-of-way is less than that of the adjacent unaffected agricultural land, the Agricultural Inspector, in conjunction with the Company as well as other appropriate organizations, shall help to determine the appropriate rehabilitation measures for the Company to implement. During the various stages of the project, all affected farm operators shall be periodically apprised of the duration of remediation by their respective Agricultural Inspector. Because conditions that require

remediation may not be noticeable at or shortly after the completion of construction, the signing of a release form prior to the end of the remediation period shall not relieve the Company's responsibility to fully redress all project impacts. After completion of the specific remediation period, the Company shall continue to respond to the reasonable requests of the landowner/operators to correct project related affects on the agricultural resources.

On lands subject to erosion, the Company shall patrol the pipeline right-ofway with reasonable frequency to detect erosion of the top cover. Whenever the loss of cover due to erosion creates a safety issue the Company shall take corrective action.

#### 2. SPECIFIC MONITORING AND REMEDIATION

After the moisture of the soil profile on the affected right-of-way has returned to equilibrium with the adjacent off right-of-way land, subsoil compaction will be tested using an appropriate soil penetrometer or other soil compaction-measuring device. Compaction tests shall be made for each soil type identified on the affected agricultural land. The subsoil compaction test results within the right-of-way shall be compared with those of the adjacent off right-of-way portion of the affected farm field/soil unit. Where representative subsoil density on the right-of-way exceeds the representative subsoil density outside the right-of-way, additional shattering of the soil profile shall be performed using a deep, angled-leg subsoiler tool to a depth of 16 inches. Deep shattering shall be applied during periods of relatively low soil moisture to prevent additional subsoil compaction. Oversized stone/rock material, which is uplifted to the surface as a result of the deep shattering, shall be removed and disposed off the right-of-way. In the event that subsequent construction or cleanup activities result in new compaction, additional deep shattering shall be performed to alleviate such compaction.

For lands disturbed within or adjoined to agricultural areas where the construction alters the natural stratification of soil horizons and natural soil drainage patterns, the Company shall rectify the effects with measures such as subsurface intercept drain tile lines (see DETAIL No. 8, INTERCEPT DRAIN TILE CROSS TRENCH DRAINAGE). Selection of the type of intercept drain lines to be installed to prevent surface seeps and the seasonally prolonged saturation of the backfilled trench zone and adjacent areas shall be performed by a qualified Agricultural Inspector. During monitoring and follow-up remediation drawings of the drain tile shall be provided to the landowner for review before the Company begins the corrective action. All drain tile lines shall be installed according to Natural Resource Conservation Service standards and specifications.

#### 3. <u>COMMUNICATION ACCESS</u>

The Company shall provide all landowners/operators with a telephone number to facilitate direct contact with the Company and the project's Agricultural Inspector(s) through all of the stages of the project, including operation and maintenance.



#### Oil & Gas Infrastructure Briefing

#### Oil and Gas Infrastructure

Pipelines: Need to determine the type and purpose of the pipeline system proposed for the area.

Interstate – Largest pipeline systems; development governed by Federal Energy Regulatory Commission (FERC).

**Eminent Domain provisions** would apply once the project meets several economic, environmental and logistic requirements.





#### Oil and Gas Infrastructure

Pipelines: Need to determine the type and purpose of the pipeline system proposed for the area.

Intrastate – Larger pipeline systems; development governed by Ohio Power Siting Board (OPSB).

**Eminent Domain provisions** could apply once the project meets several economic, environmental and logistic requirements

F3

**F3** 





F3

#### Oil and Gas Infrastructure

Pipelines: Need to determine the type and purpose of the pipeline system proposed for the area.

Collection Systems – Network of pipeline systems used to collect oil, natural gas liquids in area; development governed by ODNR (OPSB).

**Eminent Domain provisions** do not always apply; project still must meet economic, environmental and logistic requirements.



#### Oil and Gas Infrastructure

Pipelines: Need to determine the type and purpose of the pipeline system proposed for the area.

- Other Considerations:
- · Materials being transported...
- Distance involved...
- Diameter of pipe...



#### General Concepts

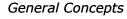
- > Easement Contract Granting a certain right to use real property of another without possessing it.
  - · Also referred to as a "Right of Way." Easements are used to provide pathways across two or more pieces of property.
- May be temporary or perpetual.
- · Landowner's rights on easement could be restricted.





#### General Concepts

- Easement Contract Granting a certain right to use real property of another without possessing it.
  - Ownership of land remains with the landowner, as well as the tax obligations.
  - They could be expanded to enhance existing services and facilities found in the right-of-way.
  - Revert to its original owners if the facility is abandoned.



- Easement Contract Granting a certain right to use real property of another without possessing it.
  - Is there *easement* language in your traditional oil and gas *lease?*
- Does a new easement conflict with an existing easement on the property?
- Look for USDA CRP, CREP or other farm program obligations on the property.





#### General Concepts

- Recognize that the landowner and energy service company become partners.
- Enter the agreement only after careful consideration and legal advice.
- > The easement is one a landowner will live with for the rest of his life, as well as several generations.
- Make adjustments to the lease to fit the farm.

#### General Concepts

F3

- Easement Location Identify clearly on the farm property; avoid "blanket" language.
- Use a map attached to the easement to showing where special features of the land should be protected.
- Access road width and size of construction site specified
- Limit placement of additional infrastructure on your property.





#### Special Considerations

- > Width and Depth
- Pipeline Depth State regulations set good minimum standards; but the landowner has the right/option to require burying lines at a depth he desires.
- Below plow depth is rapidly becoming a meaningless term.





F3

#### Special Considerations

- > Width and Depth
  - Temporary Construction Width 50 Feet (25 feet on either side of the pipeline) is used for temporary construction area.
  - Final Width Reduce to 30 feet after all construction activities are completed.





#### Special Considerations

- Width and Depth
  - · Clarify required depth of pipeline in relationship to tile lines and other underground infrastructure.
  - Agriculture 36-48 inches from top of pipe.
  - Minimum of 18 inches between pipeline and farm infrastructure.



#### Special Considerations

- > Additional Infrastructure and Access
  - Clarify/restrict if and where compressor station, metering equipment and/or other pipeline support infrastructure is placed on right of way and property.
  - · Limit right of way to a single pipeline - no additional infrastructure.
  - Limit pipeline to a single substance; prohibit other substances.

F3



#### **F3**

#### Special Considerations

- > Additional Infrastructure and Access
  - · Clarify pipeline pressure Is this a low pressure or high pressure line? Higher potential risk determines payment.
  - Limit company rights to grant permission to other companies and other easement uses





**F3** 

#### Special Considerations

- Landowner Use of Right of Way
  - Retain rights to use easement area for normal agricultural use (crop production, pasture, etc.)
  - Driveways, parking fence rows, land forming and landscaping.
  - · Consider future uses.
  - · Timber reimbursement.





- Landowner Service Provider Relations
- Address how company will access the property for inspection and routine maintenance.
- · Identify times when company cannot enter area.
- Address landowner damages and disruptions.
- Pipeline markers and signage.



#### Special Considerations

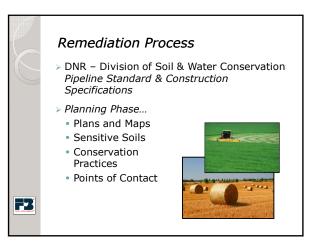
damage to surface property.

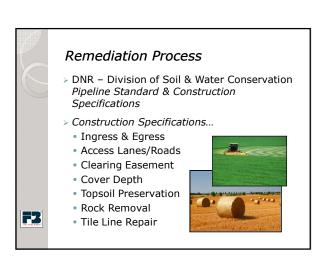
- Payment of damages for property and crops destroyed by construction activity, pipelines and access roads.
- > This provision should include wording that makes the company liable for "damage to growing crops, trees, fences, buildings, tile lines and drainage ditches, springs, water wells for homestead and livestock and all

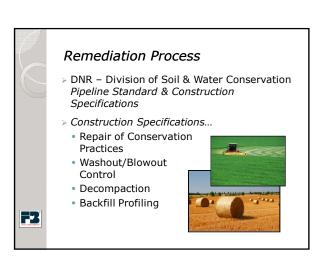


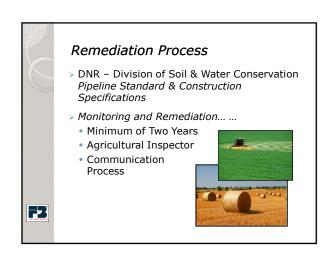


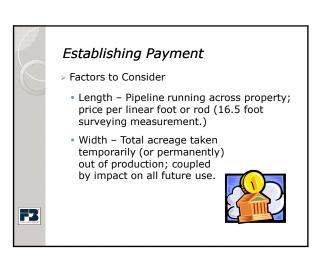
# Remediation Process OPSB Rules provide standards for repair and remediation after construction. Additional resources are available. ODNR - Division of Soil & Water Conservation Pipeline Standard & Construction Specifications Planning Phases Construction Specs Monitoring and Remediation











#### Establishing Payment

- > Factors to Consider
  - · Fair market value of land.
  - · Current land rental rates in area.
  - · Loss of marketable timber/nursery stock.
  - Loss of crop production/compaction
  - Cost for personal attorney fees, survey work, filing fees, etc.



#### Larger Regulatory Authority

- Ohio Power Siting Board (OPSB): Evaluates and approves major utility infrastructure construction throughout Ohio.
- Issues a Certificate of Public Need and Necessity
- Coordinates all points of evaluation for all projects - environmental, economic and aesthetic.
- Work with state and federal agencies.





#### F3

#### Larger Regulatory Authority

- Ohio Power Siting Board (OPSB)
- Voting Members:

Chairman, PUCO Director, OH EPA
Director, ODA Director, ODH
Director, ODNR Director, ODOD
Appointed Engineer

Non-Voting Members: Two House and Two Senate Members





#### Information Sources...

ODNR - Soil & Water Conservation

http://www.dnr.state.oh.us/tabid/22295/Def ault.aspx

Pipeline Standard and Construction Specifications

http://www.dnr.state.oh.us/portals/12/CE/Pi peline/Ohio\_Pipeline\_Const\_Standards.pdf 614.265.6610



#### Information Sources...

Ohio Power Siting Board

Ohio Revised Code - Chapter 4906

Siting New Energy Infrastructure in Ohio A Guidance Document, October 2009

1.866.270.OPSB

http://www.opsb.ohio.gov/





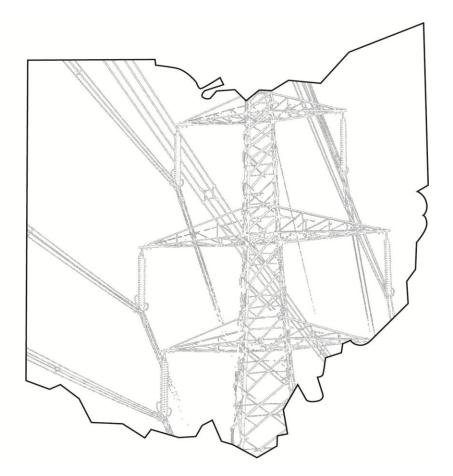
Dale Arnold, Director, Energy Services Ohio Farm Bureau Federation 280 North High Street Columbus, OH 43218

Phone: 614.246.8294

E-Mail: darnold@ofbf.org

## Siting New Energy Infrastructure in Ohio

A Guidance Document March 2010



The Ohio Power Siting Board 180 E. Broad Street; Columbus, Ohio 43215 (866) 270-OPSB (6772) • <a href="www.opsb.ohio.gov">www.opsb.ohio.gov</a> This document is intended to both highlight the many benefits of locating facilities in Ohio and to guide potential developers through the power siting process in Ohio. Although this document contains a wealth of information, it should not be considered to be exhaustive --- particular scenarios may entail different regulatory requirements which would best be addressed with the agency or organization specifically responsible for such activities. The contact information for the majority of such agencies or organizations is included within the document.

#### Acknowledgements

During the development of this document, the Staff of the Ohio Power Siting Board received significant assistance from numerous agencies and organizations, including the following:

- Ohio Air Quality Development Authority;
- Ohio Department of Development;
- Ohio Department of Natural Resources;
- Ohio Department of Taxation;
- Ohio Department of Transportation, Office of Aviation;
- Ohio Environmental Protection Agency;
- Ohio Historic Preservation Office;
- United States Fish and Wildlife Services.

Copies of this report may be obtained from:

The Ohio Power Siting Board

180 East Broad Street Columbus, OH 43215 (866) 270-OPSB (6772) www.opsb.ohio.gov

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#### I. Introduction

Economic growth is directly related to electric growth. The availability of reliable, low-cost electric power is critical to establishing and maintaining economic well-being. It is with this understanding that the state of Ohio, and more specifically the Ohio Power Siting Board (OPSB), views the development and maintenance of the state's energy infrastructure.

The OPSB's mission is to support sound energy policies that provide for the installation of energy capacity and transmission infrastructure for the benefit of the Ohio citizens, while promoting the state's economic interests and protecting the environment and land use. This balancing of interests is successfully achieved through the active participation of the member agencies that comprise the Board.

Ohio has a vast energy system in place, including approximately 33,000 megawatts (MW) of electric generating capacity, 12,500 miles of electric transmission lines, and more than 7,000 miles of natural gas pipelines (greater than 8 inches diameter). While this infrastructure is impressive, enhancements and additions will be needed in the future in order to respond to the continued growth in demand both in Ohio and the surrounding region.

#### **II.** Power Siting in Ohio

#### A. The Ohio Power Siting Board

Before construction can begin on any "major utility facility" or "economically significant wind farm" within the state of Ohio, a Certificate of Environmental Compatibility and Public Need must be obtained from the OPSB (or Board).

The Ohio Revised Code (ORC) defines a "major utility facility" as:

- A generating plant of 50 MW or more;
- An electric transmission line of 125 kilovolts (kV) or more; or
- A gas or natural gas transmission which is more than nine inches in outside diameter <u>and</u> is designed for, or capable, of transporting gas at pressures in excess of 125 pounds per square inch.

An "economically significant wind farm" is defined as:

• Any wind farm of 5 megawatts or more but less than 50 megawatts.

The Board is comprised of 11 members. The seven voting members are: the chair of the Public Utilities Commission of Ohio (PUCO); the directors of the Ohio Environmental Protection Agency, the Ohio Departments of Agriculture, Development, Health, and Natural Resources; and a public member. The public representative, who must be an engineer, is appointed by the governor from a list of nominees submitted by the Ohio Consumers' Counsel The four non-voting members on the Board are legislators — two from the Ohio House of Representatives and two from the Ohio Senate.

The chair of the PUCO serves as the chair of the OPSB, while the Board's staff, drawn from the member agencies' staff, coordinates its work with other state agencies interested in siting activities.

#### **B. Siting Process in Ohio**

The siting process in Ohio is dictated by the ORC, Chapter 4906, and the Ohio Administrative Code (OAC), Chapter 4906-1 et seq. Evolved over time, the current process is both comprehensive and efficient.

#### **Pre-Application**

Before filing an application which addresses the environmental compatibility and public need for a proposed facility, the applicant may request a pre-application conference. Local officials in the areas affected by the proposed facility are notified of the pre-application conference. The conference serves as an opportunity for clarification of the Board's rules and regulations, identification of potential problems with the project, and notification of possible requests for waivers (i.e., departures) from the Board's rules.

#### **Public Informational Meeting**

Prior to any formal filings, the applicant is required to hold a public informational meeting. The purpose of this meeting is to advise affected persons of the upcoming project. Also, public input and concerns are gathered by the applicant to aid in preparation of an application.

#### The Application

Upon completion of the public informational meeting, the application for the proposed facility is filed with the Board. For transmission projects (electric, gas, or natural gas), the application must discuss the need for the facility and describe its impact and effects on the surrounding area.

For electric generating plants, the application should include fully developed information for at least one site. However, applications for transmission lines (electric, gas, and natural gas) must include fully developed information on at least two routes.

While one of the routes is designated "preferred" by the applicant, both the preferred and alternative must be actual and viable routes that the Board could approve. The "preferred" designation does not indicate any favor or prior approval of the Board.

Once the application is received, the Board's staff has 60 days to complete a review to determine if the application complies with the Board's requirements. If it does not, the application is rejected until the deficiencies are corrected.

When the application is determined to be complete, it is sent to local public officials in the area of the project, and legal notices are published in newspapers in those areas impacted by the proposed facility. The legal notice must include a listing of the area libraries where a copy of the application may be viewed. Also during this period, interested parties have the opportunity to be recognized as interveners, or formal parties, in the case.

#### Staff Report

The Board's staff members carefully review the application and consult with and solicit written comments from other interested state agencies. A staff report containing the staff's findings and recommendations must be made available 15 days prior to the start of the hearings. This staff report becomes a part of the evidence in each case, but the Board is not bound by the staff's recommendations.

#### **Public Hearings**

Adjudicatory, or formal legal hearings, and public hearings are held. The public hearing enables citizens, interest groups, and governmental entities to present sworn testimony, which is testimony given under oath or affirmation and included in the case as evidence.

A hearing officer, who is an attorney, presides over the hearings in the capacity of a judge. Exhibits are marked and a court reporter records all proceedings and testimony.

Following the hearings, the record in the case is closed and the hearing officer recommends an action to the Board. The Board reviews and discusses the information presented in the case and then makes its ruling.

#### The Board's Decision

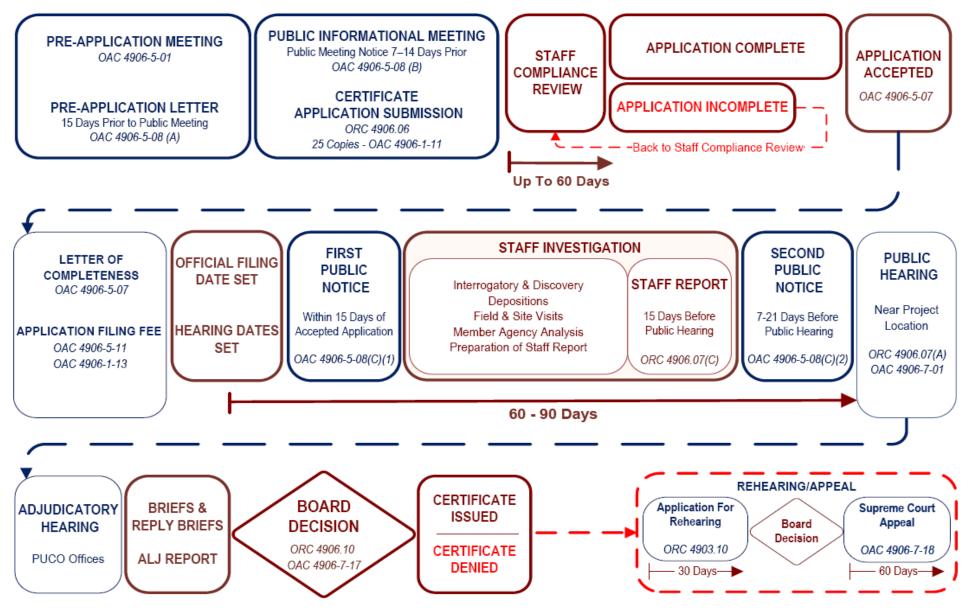
In making its decision, the Board must find and determine eight statutory criteria including:

- The need for the facility if the facility is an electric transmission line or gas or natural gas transmission line;
- The probable environmental impact of the proposed facility;
- Whether the facility represents the minimum adverse environmental impact, considering the technology that is available and the nature and economics of alternatives;
- In the case of electric transmission lines, that the facility is consistent with regional plans for expansion of the electric power grid of the electric systems serving Ohio and interconnected systems and that the facility will serve the interests of electric system economy and reliability;
- That the facility will comply with all air and water pollution control and solid waste disposal laws and regulations;
- That the facility will serve the public interest, convenience, and necessity;
- The facility's impact on the viability as agricultural land of any land in an existing agricultural district; and
- That the facility incorporates maximum feasible water conservation practices as determined by the Board, considering available technology and the nature and economics of various alternatives.

#### Rehearing's and Appeals

The Board follows the PUCO procedure regarding rehearing. Similar to the PUCO, all decisions of the OPSB may be appealed to the Ohio Supreme Court.

#### OHIO POWER SITING PROCESS FLOWCHART



February 2011

BOARD MONITORS CONSTRUCTION AND FIRST TWO YEARS OF OPERATION OF FACILITY

Conditions of Certificate Apply for the Life of the Facility

Working Draft Subject to Administrative Review Every 5 Years

#### III. Incentives

Ohio's leadership understands the significant and far-reaching benefits associated with the wise development of energy infrastructure within the state. To facilitate this objective, the state offers many incentives which could be applied to certain projects.

#### A. Ohio Air Quality Development Authority

www.ohioairquality.org/

(614) 224-3383

The Ohio Air Quality Development Authority (OAQDA) is a non-regulatory, independent state agency that provides conduit financing and a range of tax incentives to both small and large businesses and industries that seek to install or implement air pollution control equipment, technologies, or processes to improve air quality and energy efficiency, including improved power generation efficiencies (for example IGCC). Ethanol and biofuel production facilities are also eligible.

The Clean Air Resource Center (CARC) is the small business program of the OAQDA. Its purpose is to help Ohio's small businesses (fewer than 100 employees) understand what they need to do to meet EPA air quality regulations and to help them comply with these standards for the least possible cost.

CARC/OAQDA can offer tax incentives through conduit financing and small business grants to cover closing costs.

The **Ohio Coal Development Office** (OCDO), within the OAQDA, co-funds the research, development, and implementation of technologies that can use Ohio's vast reserves of high sulfur coal to produce electric power in an economical, environmentally sound manner. While OCDO can support projects ranging from applied research through the first-of-a-kind commercial demonstration, it is this latter category that is of particular interest. OCDO can offer loans, loan guarantees, and grants which can be done in conjunction with OAQDA conduit financing.

#### B. Ohio Department of Development

www.development.ohio.gov/EconomicDevelopment.htm

(614) 466-4551 or (800) 848-1300

#### 1. <u>Loans</u>

#### a. 166 Direct Loan

The State of Ohio provides direct loan financing to help finance manufacturing and other eligible facilities. Eligible uses for funding include new building construction, building acquisition, and acquisition of machinery and equipment. Amounts of financing are usually set at 30 percent of the project cost (to a maximum of \$1 million), subject to an increase by the Director of Development, with a minimum loan amount of \$350,000. The rate is fixed (at or below market rates) with terms similar to those of commercial bank financing. Eligible projects must involve significant job creation or retention.

#### b. Innovation Ohio Loan Fund

Provides loans for acquisition, construction, and related costs of technology, facilities, and equipment purchase. The fund was created to assist existing Ohio companies develop next-generation products and services within certain Targeted Industry Sectors. The Innovation Ohio Loan Fund provides competitive financing terms on loans to finance projects that will positively impact Ohio by creating high-value jobs, increasing tax revenues, and improving the economic welfare of Ohio.

#### c. Logistics and Distribution

Created to promote economic development and job creation in the state of Ohio. The Department of Development, in cooperation with the Ohio Department of Transportation, and the Ohio Rail

Development Commission, will allocate \$100 million in the form of loans for eligible transportation, logistics, and infrastructure projects in the State of Ohio. Loans will be made on favorable terms, including interest at or below market rates, opportunities to earn forgiveness of principal and accrued interest based on attainment of defined performance measures and use of loan proceeds for construction financing.

#### d. Regional 166 Direct Loan

Provides loans for land and building acquisition, construction, expansion or renovation, and equipment purchases for eligible businesses. Twelve local economic development agencies administer the program. The Regional 166 Direct Loan program was created to promote economic development, business expansion and job creation by providing financial assistance for eligible projects in the State of Ohio. It provides low-interest loans up \$350,000 to businesses willing to commit.

#### e. Research and Development Investment Loan Fund

Provides loans financing of between \$1 million and \$5 million for projects primarily engaging in research and development activity. Rates are fixed (at or below market rates) with terms similar to those of commercial bank financing. Companies receive a dollar-for-dollar, non refundable Ohio commercial activity tax credit for all principal and interest payments during the year.

#### f. Rural Industrial Park Loan

Provides direct loans to rural, distresses local communities and applicants committed to creating well-planned industrial parks.

#### 2. Bonds

#### a. Ohio Enterprise Bond Fund

Provides revenue bond financing through this S&P rated fund (currently AA-, "double A-minus"), whereby proceeds from the sale of bonds is loaned to companies for fixed rate, long-term capital asset financing. Rates are fixed depending on the type of bond issued, with terms between seven to 10 years for equipment and 15 to 20 years for real estate. Up to \$10 million in financing is available through this Program.

#### b. Volume Cap

Provides a federal tax benefit by allowing eligible issuers to issue tax exempt Private Act Bonds up to a state limit known as the "Volume Cap". The State of Ohio's allocation of Volume Cap is determined annually by the Internal Revenue Service on a per capita basis for projects consisting of multi-family housing, single-family housing, exempt facilities, manufacturing, and student loan bonds.

#### 3. Grants

#### a. Community Development Block Grant (CDBG)

Using federal funds available to it, a local community can help reduce or offset infrastructure costs associated with a given project. Uses of these funds include sewer and water improvements and roadwork development. Eligibility criteria include a commitment to consider hiring 50 percent low- to moderate-income persons and the payment of federal prevailing wages for all work performed using CDBG funds.

#### b. Ohio Job Ready Sites Program

Bolster our state's inventory of available facility locations served by utility and transportation infrastructure. Sites improved under the program are kept at and ready for future business prospects seeking locations for new or expanded operations. The State of Ohio has awarded \$108.5 million in the first two funding rounds through Fiscal Year 2009. The grants may be used to offset costs traditionally incurred in industrial and commercial development, from acquisition of real property to utility upgrades to construction build-out speculative facilities.

# c. Rapid Outreach

Funds are used for on- or off-site infrastructure improvements, including water, sewer, road, and rail improvements. These funds are awarded to companies primarily engaged in manufacturing, research and development, high technology, corporate headquarters, and distribution. Given the demand for limited grant funds, qualified projects must involve substantial job creation or retention, and all other public and private sources of financing must be considered before the availability of Rapid Outreach funding is made.

# d. Roadwork Development (629) Account

Funds are available for public roadway improvements, including engineering and design costs. Funds are available for projects primarily involving manufacturing, research and development, high technology, corporate headquarters, and distribution activity. Projects must typically create or retain jobs. Grants are usually provided to the local jurisdiction and require local participation.

#### e. State Energy Plan

Conducts special projects to promote awareness, develop capacity, deploy projects, and provide technical assistance, training, and outreach for renewable energy technologies, alternative fuels infrastructure, energy efficient buildings, fuel cells, and industrial process efficiency.

#### 4. <u>Tax Incentives</u>

#### a. Ohio Job Creation Tax Credit

A refundable tax credit to companies creating at least 10 new jobs (within three years) and \$660,000 additional payroll in Ohio. The tax credit is measured as a percentage of the state income tax withholdings for all new employees hired under the program, and is applied toward the company's commercial activity tax liability. Should the amount of the credit exceed the company's commercial activity tax liability for any given year, the difference is refunded. Approved projects generally range between a 25 and 55 percent credit for a period of five to seven years. The business must apply for the credit before committing to the project.

#### b. Ohio Job Retention Tax Credit

A non-refundable tax credit to companies retaining at least 500 full-time jobs in Ohio. Companies must also commit to new fixed-asset investment of either \$50 million for most projects. The credit is measured as a percentage of the state income tax withholdings for all employees retained under the program. Approved projects range up to 75 percent for 15 years. The business must apply for the credit before committing to the project.

#### c. Qualified Energy Project Tax Exemption

The Qualified Energy Project Tax Exemption provides owners (or lessees) of renewable, clean coal, advanced nuclear, and cogeneration energy projects with an exemption from the public utility tangible personal property tax. In order to qualify, the owner or lessee subject to sale leaseback transaction must apply to the Department of Development on or before December 31, 2011 for renewable energy projects and before December 31, 2013 for clean coal, advanced nuclear, and cogeneration projects. If the project meets the requirements of the exemption, then the Director of Development will certify the project as a "Qualified Energy Project." Qualified Energy Projects will remain exempt from taxation so long as the project is completed within the statutory deadlines, meets the "Ohio Jobs Requirement," and continues to meet several ongoing obligations including providing the Ohio Department of Development with project information on an annual basis.

Large projects (above 5 mega-watts) require approval from each Board of County Commissioners in which the project is located. In addition, these large projects require agreements to train and equip local emergency responders, as well as repair roadway infrastructure following the construction of the project. Small projects (less than 250 kilowatts) are exempt as a matter of law pursuant to Ohio Revised Code Section 5709.53.

#### d. Sales Tax Exemptions for Manufacturing M&E

The state of Ohio exempts from state and local sales tax all machinery and equipment to be used in the manufacturing process.

#### e. Sales Tax Exemption for Warehousing M&E

The state of Ohio exempts from state and local sales tax all machinery and equipment to be used in the warehousing and distribution process.

# f. Research and Development Investment Tax Credit

A non-refundable tax credit up to 7 percent for qualified research and development expenses. Qualifying expenses fit into two categories: in-house research expenses and contracted research expenses. Any unused portion of a tax credit may be carried forward for up to seven years.

# g. Foreign Trade Zones (FTZ)

By locating in either a General Purpose FTZ, or Foreign Trade Subzone, a company can defer or avoid payment of United States customs taxes. Deferment and exemption conditions include the entrance of production materials or finished goods into domestic commerce and whether or not the finished goods are exported. Additionally, inventory located in one of Ohio's seven General Purpose FTZs established prior to January 1992, is exempt from tangible personal property taxes.

## h. Warehouse Tax Exemption

Goods shipped into the state of Ohio from an out-ofstate source for storage only are exempt from tangible personal property taxes if they are ultimately shipped to out-of-state destinations. No value can be added to the goods while they are stored in Ohio. Goods shipped to Ohio destinations for consumption are taxable as tangible personal property.

# i. Ohio Enterprise Zone Program

Provide real and personal property tax incentives for businesses that expand or relocate in Ohio. In order to apply, the municipality or county must apply to the State Development Director for certification. To secure benefits, non-retail businesses must apply to the local community for local property tax exemptions and to the Director of Development for state franchise or state income tax incentives.

# j. <u>Community Reinvestment Areas</u>

By locating in a designated Community Reinvestment Area, companies can receive an abatement of up to 100 percent for 15 years on real property taxes. Eligibility criteria include making new real property investment and formalizing an agreement with the local community prior to going forward with the qualifying project.

# k. <u>Tax Increment Financing</u>

Through the use of a negotiated Tax Increment Financing with the local community, a company may pay up to 75 percent of its real property taxes for up to 10 years into a fund that will improve public infrastructure around the owner's development. With school-board approval, a TIF may last for up to 30 years and may redirect up to 100 percent of the incremental real property tax.

The infrastructure improvements must also be declared to be of "public purpose." Additionally, the value of the exemption can be raised to 100 percent of real property taxes for 30 years, contingent upon local school board approval.

# 5. <u>Workforce Development</u>

# a. Ohio Workforce Guarantee Program

Supports companies that are making investments in facilities, equipment, and training that result in the retention and creation of jobs for Ohioans. The Program is one of the few programs in Ohio that provides direct financial support to employers for training, paying for a portion of instructor salaries, materials, travel, and special needs. Ohio Workforce Guarantee Regional Coordinators are located at the Department's Regional Economic Development Offices located around the state and are ready to provide free assistance in preparing an application.

# C. Ohio Department of Taxation

www.tax.ohio.gov/ Phone: (800) 282-1782

#### 1. Sales and Use Tax

a. Property used in air, noise, or water pollution control

Tangible personal property used in industrial air, noise, or water pollution control facilities by holders of pollution control certificates is exempt from the sales and use tax. [ORC <u>5709.25</u>, <u>5709.20</u>]

b. Property used in energy or waste conversion facilities

Tangible personal property used in energy conversion, solid waste conversion, or thermal efficiency improvement facilities by holders of energy conversion or thermal efficiency improvement certificates is exempt from the sales and use tax [ORC 5709.20, 5709.25]

# 2. <u>Public Utilities Property Tax</u>

- a. Certified air, water, and noise pollution control facilities are exempt from the pubic utility tax. [ORC 5727.01]
- b. Qualified electric generating property may qualify for a property tax reduction if placed in an enterprise zone. [ORC 5709.61]

An allowance is available of funds used during construction and interest used during construction. For electric and rural electric companies, this allowance applies only to transmission and distribution property.

#### **D. Public Utilities Commission**

http://www.puco.ohio.gov/puco/

Phone: (866) 270-6772

# 1. Ohio's Renewable and Advanced Energy Portfolio Standard

a. Renewable energy resource generating facilities may be eligible to create Renewable Energy Credits (RECs) that can be used by Ohio utilities and retail generation suppliers to comply with Ohio's alternative energy portfolio standard. Eligible facilities must be certified by the Public Utilities Commission of Ohio (PUCO). For information about Ohio's standard and the certification process, go to: <a href="http://www.puco.ohio.gov/PUCO/renewables/">http://www.puco.ohio.gov/PUCO/renewables/</a>

# Permits, Approvals, or Authorizations

The following tables summarize information relevant to the permitting of new energy infrastructure in Ohio. These tables, however, should not be viewed as an exhaustive list of all permits or authorizations that may be required. Interested parties should contact the appropriate agency or organization, as listed on the tables

Air				
Permit/Authorization	Required	Expected Agency	Contact	
Name and Description	Information	Review Time	Information	
Permit-to-Install and Operate (PTIO) – required prior to the installation of any new air contaminant emissions unit or the modification of an existing emissions unit under OAC Rule 3745-31; construction must be commenced within 18 months of the PTI's issuance	Application (available on web), along with all supporting documentation  Includes air dispersion modeling	3 to 6 months prior to construction for most sources;	Ohio EPA – Division of Air Pollution Control PO Box 1049 Columbus, Ohio 43216-1049 Phone: 614.644.2270 www.epa.state.oh.us/dapc	
NOx Budget Trading Program, Account Certificate of Representation – determines the authorized account representative or alternate account representative, as dictated by OAC 3745-14-02	Identification of NOx budget source, and each NOx budget unit at the source     Complete contact information for the account representative or alternate     List of owners and operators for the budget source and units Completed certification statement		Ohio EPA – Division of Air Pollution Control PO Box 1049 Columbus, Ohio 43216-1049 Phone: 614.644.2270 www.epa.state.oh.us/dapc	

Water				
Permit/Authorization Name and Description	Required Information	Expected Agency Review Time	Contact Information	
NPDES Construction Storm Water Permit – required for disturbances of 1 acre or more; graduated fee depending on disturbed area	Notice of Intent (NOI):  • Available on EPA website  • Requires administrative details, as well as quantity/location of outfall	NOI must be submitted at least 21 days before any ground-disturbing activities commence	Ohio EPA – Division of Surface Waters PO Box 1049 Columbus, Ohio 43216-1049 Phone: 614.664.2001 www.epa.ohio.gov/dsw/permits/GP ConstructionSiteStormWater.aspx	
<b>Permit to Install (PTI)</b> – required before installing a new or modified wastewater disposal, treatment, collection or recycling system	PTI Permit Application:      Available on EPA website     Requires administrative information     Requires project description, plans, drawings, and reports	Up to 6 months	Ohio EPA – Division of Surface Waters PO Box 1049 Columbus, Ohio 43216-1049 Phone: 614.644.2001 www.epa.ohio.gov/dsw/pti/index.aspx	
Corps of Engineers Permit (Section 10 of the Rivers and Harbors Act and/or Section 404 of the Clean Water Act) Permit to work in navigable waters of the United States – Section 10; Permit for discharge of fill or dredged material into the waters of the United States – Section 404 33 CFR 320 to 330	<ul> <li>Design drawings for facility</li> <li>Purpose statements and description of overall project</li> <li>Delineation of wetland areas when present</li> <li>Environmental Assessment would require information on existing environment, expected impacts and alternatives</li> </ul>	Up to 18 months depending on permit type issued	United States Army Corps of Engineers Buffalo District 1776 Niagara Street Buffalo, New York 14207-3111 Phone: 716.879.4330 www.lrb.usace.army.mil/	
Categorical Exclusion/ Environmental Assessment/ Environmental Impact Statement National Environmental Policy Act (NEPA) Impact Statement – Issuance of COE Construction Permit for a major action with significant environmental impact	Comprehensive analysis of all environmental impacts from construction and operation of proposed facility	Up to 18 months	Unites States Army Corps of Engineers Headquarters, US Army Corps of Engineers 441 G. Street, NW Washington DC, 20314-1000 www.usace.army.mil/Pages/Default.aspx May also involve other federal agencies	
Water Quality Certificate - Section 401 of the Clean Water Act triggered by application for US Army Corps of Engineers Construction Permit (Section 404 only)	<ul> <li>Complete application</li> <li>Drawings for facility</li> <li>Description of overall project</li> <li>Delineation of wetland areas</li> <li>Information on existing environment, expected impacts and alternatives analysis</li> </ul>	6 to 12 months	Ohio EPA – Division of Surface Water Randy Bournique 122 South Front Street PO Box 1049 Columbus, Ohio 43216-1049 Phone: 614.644.2013 www.epa.state.oh.us/dsw	

Water (Continued)				
Permit/Authorization Name and Description	Required Information	Expected Agency Review Time	Contact Information	
Ohio Wetland Review – Ohio law requires that construction affecting isolated wetlands obtain an isolated wetland permit; Ohio Revised Code 6111.02029; Ohio Administrative Code Chapters 3745-32 and 3745-45	<ul> <li>Project design plans and photos</li> <li>Wetland delineation of the project areas as prescribed by the COE 1987 Manual</li> <li>Wetland categorization</li> <li>Wetland acreage</li> <li>Mitigation proposal</li> </ul>	Up to 6 months	Ohio EPA – Division of Surface Waters Randy Bournique 122 South Front Street PO Box 1049 Columbus, Ohio 43216-1049 Phone: 614.644.20163 www.epa.state.oh.us/dsw	
Federal Endangered Species Consultation – issuance of COE Construction or NPDSE permit if it has potential effects to federally- threatened species or critical habitat; Section 10 (Exceptions) of the Endangered Species Act (ESA)	Detailed biological assessment of potential impacts	Indeterminate		
National Pollutant Discharge Elimination System (NPDSE) Permit – Clean Water Act Section 402; Ohio Revised Code 6111.03 (]); discharge of wastewater to surface waters; required prior to operation, recommend prior to construction	<ul> <li>Application Form 1 and 2D with Antidegredation Addendum</li> <li>Water balance diagram</li> <li>Expected wastewater flows and characteristics</li> <li>Water pollution control equipment and systems</li> </ul>	Up to 6 months	Ohio EPA – Division of Surface Water District Offices www.epa.state.oh.us/dsw	
Sewer Extension Permit-to-Install (PTI) – construction and operation of sewers connecting to public sewer systems; required prior to construction	<ul> <li>Design drawings of sewers, manholes, pump stations, etc.</li> <li>Description of wastewater treatment and equipment</li> </ul>	3 months (approx.)	Ohio EPA – Division of Surface Water District Offices www.epa.state.oh.us/dsw	
Septic System Permit-to-Install (PTI) – construction and operation of a septic system; required prior to construction (Notes: Ohio EPA issues permits for septic systems for anything other than 1, 2 or 3 family dwellings)	Design drawings of septic systems	Up to 6 months	Ohio EPA – Division of Surface Water District Offices www.epa.state.oh.us/dsw	
Wastewater Facility Permit-to-Install (PTI) – construction of wastewater treatment equipment (oil/water separators, etc.); required prior to construction	Design information for wastewater treatment equipment and structures     Expected characteristics of raw and treated wastewater     Design drawings for wastewater equipment and structures	6 to 9 months	Ohio EPA – Division of Surface Water District Offices www.epa.state.oh.us/dsw	

Water (continued)			
Permit/Authorization Name and Description	Required Information	Expected Agency Review Time	Contact Information
ODNR Division of Water – this Division should be contacted for registration, contracts, or permits for water withdrawal (ground and/or surface), projects affecting canal lands or canal lakes, or a new large (>5 MGD) consumptive water withdrawal in the Lake Erie watershed; ODNR consultation with the other Great Lakes states would be required for any new proposed consumptive water withdrawals in the Lake Erie watershed; a permit may also be required for projects proposing to construct a new dam or modify an existing dam	<ul><li>Project description</li><li>Project location, with maps</li><li>Design drawings</li></ul>	Approximately 30 to 120 days, although can be shorter or longer depending on project specifics	ODNR - Division of Water Chief, Division of Water 2045 Morse Road E-3 Columbus, Ohio 43229-6693 Phone: 614.265.6717 www.dnr.state.oh.us/tabid/21817/Default.aspx
ODNR Division of Watercraft- this Division should be contacted for any proposed project that would potentially impact navigation on Ohio's lakes and streams, including the Ohio River, Lake Erie, and inland lakes/streams; the Division's focus includes boating safety, access, education, and law enforcement	<ul><li> Project description</li><li> Project location, with maps</li></ul>	Approximately 1 month (project specific)	ODNR – Division of Watercraft Chief, Division of Watercraft 2045 Morse Road A-2 Columbus, Ohio 43229-6693 Phone: 614.265.6480 www.dnr.state.oh.us/watercraft/

Potential Regulatory Programs for Wind Power on Lake Erie				
Permit/Authorization Name and Description	Required Information	Expected Agency Review Time	Contact Information	
US Army Corps of Engineers Construction Permit (Section 10 of the Rivers and Harbors Act and/or Section 404 of the Clean Air Act)  Permit to work in navigable waters of the United States-Section 10; Permit for discharge of fill or dredged material into the waters of the United States - Section 404  33 CFR 320 to 330  KEY REGULATORY ISSUES ASSESSMENT PER NATIONAL POLICY ACT	<ul> <li>Design drawings for facility</li> <li>Purpose statements and description of overall project</li> <li>Permit application triggers need for environmental impact statement – requiring information on existing environment, expected impacts and alternatives</li> </ul>	18 months depending on permit type issued  Potentially expedited for "pilot" projects	United States Army Corps of Engineers Buffalo District 1776 Niagara Street Buffalo, New York 14207-3111 Phone: 716.879.4330 www.lrb.usace.army.mil/	
Water Quality Certificate- Section 401 of the CWA to be issued by Ohio EPA; Triggered by application for US Army Corps of Engineers Construction Permit (Section 404 only)	<ul> <li>Complete application</li> <li>Drawings for facility</li> <li>Description of overall project</li> <li>Delineation of wetland areas</li> <li>Information on existing environment, expected impacts and alternative analysis</li> </ul>	6 to 12 months	OEPA – Division of Surface Waters Randy Bournique 122 South Front Street PO Box 1049 Columbus, Ohio 43216-1049 Phone: 614.644.2013 www.epa.state.oh.us/dsw	
Federal Endangered Species Consultation – Issuance of COE Construction or NPDSE permit if it has potential effects to federally threatened species or critical habitat; Section 10 (Exceptions) of the Endangered Species Act (ESA)	Detailed biological assessment of potential impacts	Indeterminate	US Fish and Wildlife Service 4625 Morse Road, Suite 104 Columbus, OH 43230 Phones: 614.416-8993 www.fws.gov/midwest/Ohio/	
Ohio Power Siting Board (OPSB) Certificate - The OPSB is responsible for approving the construction of energy projects in Ohio, including electric wind generating facilities of at least 5 MWs, other electric generating stations of 50 mWs or greater, electric transmission lines of 125kV or greater and pipelines capable of transporting gas at pressures above 125 psi	Details on required contents are included in the Ohio Administrative Code, Chapter 4906-17	Approximately 8 to 12 months to process an application	Ohio Power Siting Board 180 East Broad Street Columbus, Ohio 43215-3707 Phones: 866.270.OPSB (6772) www.opsb.ohio.gov	

Potential Regulatory Programs for Wind Power on Lake Erie (continued)				
Permit/Authorization	Required	<b>Expected Agency</b>	Contact	
Name and Description	Information	Review Time	Information	
Ohio Department of Natural Resources (ODNR) – this Department should be contacted on all proposed projects to determine possible adverse effects on: navigation, State Scenic Rivers, State Nature Preserves and Wildlife Areas, and wildlife & their habitat. The Department can also provide information on the presence or absence of rare and endangered species, and the suitability of the placement of structures and possible impacts to geological processes. Permits and other regulatory programs administered by this Department include submerged land leases, state & Federal consistency, and shore structure permits.	<ul> <li>Project description</li> <li>Project location, with maps</li> <li>Description of proposed structures</li> <li>Summary of construction activities</li> <li>Environmental/biological assessment</li> <li>Note evolving protocols and cooperative agreement for onshore projects</li> </ul>	Approximately 1 month for environmental review, and up to 6 months for Coastal Consistency and Permits for projects on Lake Erie. The Department should be contacted as soon as project location is known to determine ODNR resources in project vicinity and level of coordination required.	Ohio Department of Natural Resources Brian Mitch, Environmental Review Manager 2045 Morse Road, Bldg E-3 Columbus, OH 43229-6693 Phone: 614.265.6378 Email: brian.mitch@dnr.state.oh.us www.dnr.state.oh.us/	
Public Utilities Commission of Ohio (PUCO) Entity seeking resource qualification under ORC 4928.64 (AEPS, REC) shall first apply for certification of resource and technology	Details will be delineated in Ohio Administrative Code, Chapter <u>4901:1-40</u>	At the Commission's discretion	Public Utilities Commission of Ohio 180 East Broad Street Columbus, Ohio 43215-3707 Phone: 800.686.PUCO (7826)	
Interconnection (Electric Distribution Company/PUCO (RTO/FERC)	www.puco.ohio.gov/PUCO/Consumer/Information.cfm?i d=6608 Ohio Administrative Code, Chapter 4901:1-22	Dependant on complexity. If a project mandates impact studies through the RTOS, queue process can take up to two years. (FERC jurisdictional)		
Contracts, special arrangements, purchased power agreements, cost recovery If choose to serve retail load, certification process for Competitive Retail Service Providers is required If serve wholesale market, FERC jurisdictional	ORC 4905.31, OAC 4901:1-38 ORC, 4928, OAC 4901:1-35 OAC 4901:1-21	At the Commission's discretion		

Potential Regulatory Programs for Wind Power on Lake Erie (continued)			
Permit/Authorization	Required	<b>Expected Agency</b>	Contact
Name and Description	Information	Review Time	Information
Consultation with the Office of Aviation and FAA (Ohio Department of Transportation)- consultation with the Office of Aviation can assure that the project does not introduce any safety issues for air traffic and potential FAA approval	<ul> <li>Project description</li> <li>Project location, including longitude and latitude readings</li> <li>Proposed structure heights</li> <li>Identification of nearby airports</li> </ul>	Varies according to site and proximity to runway and landing patterns, but can be one of the most difficult to expedite	Ohio Department of Transportation-Office of Aviation 2829 West Dublin-Granville Road Columbus, Ohio 43235-2786 Phone: 614.793.5040 www.dot.state.oh.us/Aviation/
National Pollutant Discharge Elimination System (NPDSE) Permit- Clean Water Act Section 402; Ohio Revised Code 6111.03(]); discharge of wastewater to surface waters; required prior to operation, recommended prior to construction	<ul> <li>Application Forms 1 and 2D with Anti-degradation Addendum</li> <li>Water balance diagram</li> <li>Expected wastewater flows and characteristics</li> <li>Water pollution control equipment and systems</li> </ul>	4 to 9 months	Ohio EPA- Division of Surface Waters District Offices www.epa.state.oh.us/dsw
US Coast Guard - the USCG Responsible for Local Notices to Mariners (LNMs) and Bridge permits in navigational waters of the Great Lakes, including Lake Erie and all Section 9 streams in the Lake Erie Basin of Ohio. Bridge permits are per Section 9, Rivers Harbors Act of 1899; Water safety in Great Lakes and tributaries.	<ul> <li>Project description</li> <li>Project location, with maps</li> <li>Description of proposed structures</li> <li>Summary of construction activities</li> <li>Coordination with other agencies</li> </ul>	2 to3 months for project review 9to 15 months for permit	Bridge and Navigation Permitting Section Blair Stanifer, Section Chief  US Coast Guard, 9th District Office 1240 East Ninth Street, Rm. 2025 Cleveland, Ohio 44199 Phone: 216.902.6086 Email: william.b.stanifer@uscg.mil  Timothy Cummins Water Safety Section, Chief  US Coast Guard, 9th District Office 1240 East Ninth Street, Rm. 2069 Cleveland, Ohio 44199 Phone: 216.902.6049 Email: timothy.m.cummins@uscg.mil

Other			
Permit/Authorization	Required	<b>Expected Agency</b>	Contact
Name and Description	Information	Review Time	Information
Ohio Power Siting Board (OPSB) Certificate- the OPSB is responsible for approving the construction of energy projects in Ohio including electric generating facilities of at least 50MWs, any wind farm of 5 MW or more, electric transmission lines of 125 kV or greater and pipelines capable of transporting gas at pressures above 125 psi	Required filing information will vary according to the project and the type of filing (i.e., construction notice, letter of notification, application); details in required contents are included in the Ohio Administrative Code, Chapter 4906-17	Approximately 1 to 3 months for construction notices and letters of notification; approximately 6 to 12 months for applications; expedited schedules may be an option to coal R&D projects	Ohio Power Siting Board 180 East Broad Street Columbus, Ohio 43215-3707 Phones: 866.270.OPSB (6772) www.opsb.ohio.gov/
Consultation with the Ohio Historic Preservation Office (OHPO)- OHPO is an advisory board, and in most energy-related scenarios does not issue permits; OHPO maintains inventories which can aid a developer's efforts to identify and quantify impacts to historic properties, with aims of avoiding or minimizing these impacts; ORC 149.53; 36 CFR 800 Protection of Historic Properties	<ul> <li>Project description</li> <li>List of parties involved</li> <li>Details on project location, including maps and photographs</li> <li>Details on archaeological investigations</li> </ul>	1 to 2 months for initial response; subsequent response time is project-specific	Ohio Historic Preservation Office 1982 Velma Avenue Columbus, Ohio 43211-1030 Phone: 614.297.2300 www.ohiohistory.org/resource/histpres ∠
Consultation with the Office of Aviation (Ohio Department of Transportation)- consultation with the Office of Aviation can assure that the project does not introduce any safety issues for air traffic	Project description Project location, including latitude and longitude readings Proposed structure heights Identification of nearby airports		Ohio Department of Transportation – Office of Aviation 2829 West Dublin-Granville Road Columbus, Ohio 43235-2786 Phone: 614.793.5040 www.dot.state.oh.us/Aviation/
Ohio Department of Natural Resources (ODNR) Office of Coastal Management Submerged land Leases/Permits (ORC 1506.11) State and Federal Consistency (ORC 1506.03) Shore Structure Permits (ORC 1506.40) Abandoned shipwreck/aircraft permit (ORC 1506.32)	<ul> <li>Project description</li> <li>Project location, with maps and surveys</li> <li>Design information, prepared by PE</li> <li>Summary of activities</li> <li>Description of proposed structures</li> <li>Other information related to specific ORC authority</li> </ul>	15 days for completeness review Technical review completed within 90 days of receipt of complete application	ODNR- Office of Coastal Management Chief, Office of Coastal Management 105 West Shoreline Drive Sandusky, Ohio 44870-2501 www.dnr.state.oh.us/coastal/
ODNR Division of Forestry- a permit or contract is needed from this Division if an entity proposes to locate, use, or secure an easement or right-of-way (ROW) on ODNR State Forest property	A clear explanation as to why the proposed use of the property is needed	Approximately 1 month (project specific)	ODNR- Division of Forestry Chief, Division of Forestry 2045 Morse Road H-1 Columbus, Ohio 43229-6693 Phone: 614.265.6694 www.dnr.state.oh.us/forestry/

Other (continued)			
Permit/Authorization	Required	<b>Expected Agency</b>	Contact
Name and Description	Information	Review Time	Information
ODNR Division of Geological Survey- this Division should be consulted with regards to suitability of the placement of structures and possible impacts to geological processes	<ul> <li>Project description</li> <li>Project location, with maps</li> <li>Description of proposed structures</li> <li>Summary of construction activities</li> </ul>	Approximately 1 month (project specific)	ODNR- Division of Geological Survey Chief, Division of Geological Survey 2045 Morse Road C-4 Columbus, Ohio 43229-6693 Phone: 614.265.6576 www.dnr.state.oh.us/geosurvey/
ODNR Division of Natural Areas and Preservesthis Division should be contacted if the proposed project would impact a State Scenic River, State Nature Preserve, or property owned by the Division; Division can provide information on presence or absence of rare and endangered species, scenic rivers, and state nature preserves within the vicinity of the proposed project	<ul> <li>Project description</li> <li>Project location, with maps</li> <li>Description of proposed structures</li> <li>Summary of construction activities</li> <li>Environmental/biological assessment</li> </ul>	Approximately 1 month (project specific)	ODNR- Division of Natural Areas and Preservation Chief, Division of Natural Areas and Preservation 2045 Morse Road F-1 Columbus, Ohio 43229-6693 Phone: 614.265.6543 www.dnr.state.oh.us/dnap/
ODNR Division of Parks and Recreation- a permit or contract is needed from the Division if an entity proposes to locate, use, or secure an easement or right-of-way (ROW) for ODNR State Park property or water; a license fee may be applied	A map or plan-related diagram indicating the property the utility wants to use. Entity also would need to specify what width corridor they desire for construction and maintenance activities. Construction schedules must be submitted, along with details on any pre-existing easements held relative to the proposed project. As-built plans are routinely requested for recently-licensed projects. A clear explanation of the need to use the property is also required.	Approximately 1 month (project specific)	ODNR- Division of Parks and Recreation Chief, Division of Parks and Recreation 2045 Morse Road C-3 Columbus, Ohio 43229-6693 Phone: 614.265.6561 www.dnr.state.oh.us/parks/
ODNR Division of Wildlife- this Division would be involved with the review of any project that has potential impacts to wildlife and their habitat; compensatory mitigation may be required if projects impact rare or endangered animals, aquatic or terrestrial, in the state; compensation may be required if wildlife species are killed	<ul> <li>Project description</li> <li>Project location, with maps</li> <li>Summary of construction activities</li> <li>Environmental/biological assessments</li> <li>Construction schedule</li> </ul>	Approximately 1 month (project specific)	ODNR- Division of Wildlife Chief, Division of Wildlife 2045 Morse Road G-3 Columbus, Ohio 43229-6693 Phones: 614.265.6300 www.dnr.state.oh.us/wildlife/
ODNR Division of Real Estate and Land Management- this Division works to ensure coordination and compliance with the National Environmental Policy Act (NEPA), the Intergovernmental Cooperation Act, and the Federal Water pollution Control Act; reviews focus on rare and endangered species, wetland and stream impacts, and proposed mitigation plans; this Division also coordinates, conducts, and administrates real estate transactions related to all ODNR lands	<ul> <li>Project description</li> <li>Project location, with maps</li> <li>Summary of construction activities</li> <li>Environmental/biological assessments</li> <li>Construction schedule</li> </ul>	Approximately 1 month (project specific)	ODNR-Division of Real Estate and Land Management Chief, Division of Real Estate and Land Management 2045 Morse Road C-4 Columbus, Ohio 43229-6693 Phone: 614.265.6717 www.ohiodnr.com/tabid/9411/Default.aspx