

3.13 AGRICULTURE

3.13.1 Affected Environment

3.13.1.1 Pipeline

Large sections of the pipeline would cross lands used or suitable for agricultural use, particularly in eastern Washington. For each of the six counties through which the pipeline corridor extends, Table 3.13-1 identifies the amount of pipeline crossing land that is zoned agriculture, describes the current agricultural use, and identifies crops grown near the pipeline corridor and the amount of prime farmland affected. Specific information on the location of agricultural land and on the soil types is included in the ASC land and shoreline use section (OPL 1998).

The pipeline would cross through areas where a wide variety of crops are grown, particularly in eastern Washington where large stretches of the pipeline corridor run adjacent to agricultural crop fields. Approximately 40 percent of the pipeline corridor extends through active agriculture or crop lands. Dryland crops (only 10 percent irrigated) that would be affected include wheat, barley, oats, hay, and dry beans. Partially irrigated crops (50 percent dryland) that could be affected include hay. Irrigated crops that would be affected include corn, peppermint, spearmint, potatoes, asparagus, carrots, apples, apricots, and pears. Crop type at any one location is highly variable, ranging from one to three crops per year, occasionally in fallow, and rarely the same crop each year. Therefore, it is impossible to identify the actual crops and precise value of produce affected by construction in any future year. Additional information, including the average crop value per acre, is included in the ASC.

Specific irrigation methods used in the field (i.e., circular irrigation, fixed pipe, and flood) vary widely depending on soil properties, topography, and cost. Some fields also have drain tiles beneath the soil to enhance subsurface drainage.

Several miles of the pipeline corridor traverse livestock pasture and grazing areas, especially in eastern Washington. Livestock include cattle, sheep, and horses.

3.13.1.2 Pump Stations

The Kittitas Terminal (pump station and storage/distribution facility), Beverly-Burke Pump Station, and Othello Pump Station sites are currently zoned agriculture. The other pump station sites (Thrasher, North Bend, and Stampede) are not currently zoned for or in agricultural use.

The Kittitas Terminal site (10.9 ha or 27 acres in Kittitas County) is irrigated agricultural land currently producing timothy hay. The Beverly-Burke Pump Station site (0.8 ha or 2 acres in Grant County) is vacant and not currently in agricultural use, although there are cultivated land and mechanical irrigation circles to the south. The Othello Pump Station site (1 ha or 2.5 acres in Adams

Table 3.13-1 Description of Agricultural Land Potentially Affected by Pipeline Project

County	Portion of Pipeline Crossing Lands Zoned for Agricultural Use or in Current Agricultural Use	Identified Crops Grown Near Pipeline^a	Amount of Cropland Potentially Impacted^b	% of Total Cropland in County^c
Snohomish	<i>Portion Zoned Agriculture:</i> 1.6 kilometers (1 mile) ^d <i>Current Use:</i> Most used as pasture land for dairy cattle or for grass fodder production.	Hay	3.1 hectares (7.6 acres)	0.04
King	<i>Portion Zoned Agriculture:</i> None ^e <i>Current Use:</i> Most used as pasture land for dairy cattle or for grass fodder production.	Hay	1.5 hectares (3.6 acres)	0.07
Kittitas	<i>Portion Zoned Agriculture:</i> 53 kilometers (33 miles) ^d <i>Current Use:</i> Most used as livestock grazing/rangelands. Some irrigated and non-irrigated croplands.	Corn, potatoes, wheat, barley, oats, hay	26.5 hectares (65.5 acres)	0.12
Grant	<i>Portion Zoned Agriculture:</i> 48 kilometers (30 miles) ^e <i>Current Use:</i> Most used for irrigated and non-irrigated croplands. Some livestock grazing and orchard areas.	Potatoes, beans, asparagus, mint, wheat, barley, oats, corn, hay	95.1 hectares (234.9 acres)	0.05
Adams	<i>Portion Zoned Agriculture:</i> 14.5 kilometers (9 miles) (all of pipeline) <i>Current Use:</i> Most used for irrigated and non-irrigated croplands. Some used for livestock grazing/rangelands and orchard areas.	Wheat, oats, barley, corn, potatoes, beans, hay	25.6 hectares (63.3 acres)	0.01
Franklin	<i>Portion Zoned Agriculture:</i> 66 kilometers (41 miles) (nearly all of pipeline) ^d <i>Current Use:</i> Used for irrigated and non-irrigated croplands, orchard areas, and livestock grazing/rangelands.	Wheat, oats, barley, hay, potatoes, beans, corn, carrots, asparagus, apples	121.8 hectares (301 acres)	0.11

^a Hay includes alfalfa and various grasses grown for fodder.

^b Assumes worst-case impact of 18 m (60-foot) wide construction corridor (pipeline and pump stations) and assumes all the Agricultural land is productive cropland. All currently productive agricultural land would be able to resume production after construction, with some restrictions on future uses over the pipeline (i.e., restricted excavating activities, no orchards). Exceptions are the Kittitas Terminal site (10.9 ha [27 acres]) in Kittitas County and the Othello Pump Station site (0.6 ha [1.5 acres]) in Adams County.

^c Percentage of total identified cropland in the county potentially impacted by the proposal. County cropland totals are based on 6-year averages (1989-1994) of the total cropland area in production in the county, obtained from the Washington Department of Agriculture (refer to the land and shoreline use discussion in the ASC).

^d Agricultural uses are allowed in all other zones crossed by the pipeline.

^e Agricultural uses are allowed in most other zones crossed by the pipeline.

County) is partially in agricultural use, with 0.6 ha (1.5 acres) irrigated and planted with alfalfa and 0.4 ha (1 acre) not irrigated and used to store farm equipment. Adjacent uses include an irrigation pond and orchards.

3.13.1.3 Farmland Protection Act and Prime Farmland

Section 1539 of the Farmland Protection Act, Public Law 97-98 (December 22, 1981), was established to minimize federal actions that result in unnecessary and irreversible conversion of farmland to non-agricultural purposes. Under the Act, federal agencies must examine their actions for potential adverse effects on farmlands, as determined by applying the criteria established for federal rules (7 CFR 658.4). Section 658.4(a) states that the U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS) (formerly the Soil Conservation Service) may make the determination. The Washington Department of Agriculture uses the NRCS definition of prime farmland (Lang pers. comm.).

The NRCS maintains a map inventory of the prime farmland in the United States. Although there are several specific considerations, prime farmland is defined as having the best combination of soil properties, growing season, and moisture supply needed to produce sustained yields of crops in an economic manner, as determined by soil scientists. Although it is NRCS policy to maintain a current inventory of prime farmland and unique farmland, it is the responsibility of appropriate local and state officials to evaluate prime farmland on a case-by-case basis. (Natsuhara pers. comm.)

There are approximately 133.5 ha (330 acres) of soils meeting NRCS criteria for prime farmland within the 18 m (60-foot) construction corridor for the pipeline and pump stations. The NRCS provided a list of soil types, criteria for prime farmland, and a list of what was considered prime farmland in each county. Individual counties provided maps with soil types within the 18 m (60-foot) construction corridor. Because prime farmland is based on soil types, it is not necessarily in agricultural use. Following is the prime farmland acreage along the construction corridor for each county:

- # 37 ha or 91 acres (Snohomish County)
- # 16 ha or 39 acres (King County)
- # 32 ha or 80 acres (Kittitas County)
- # 16.6 ha or 41 acres (Grant County)
- # 7 ha or 17 acres (Adams County)
- # 25 ha or 62 acres (Franklin County)

Of the six pump station sites, the Thrasher, North Bend, Kittitas, and Othello sites have soils considered prime farmland. However, only the Kittitas Terminal site and Othello Pump Station site are in agricultural production.

3.13.2 Environmental Consequences

This section addresses the amount of crops/cropland potentially affected by the proposal, including prime agricultural land, and effects on livestock and irrigation facilities. Potential impacts from noxious weeds being introduced from construction vehicles are addressed in Section 3.3, Botanical Resources, and the economic impacts of landowner easements are addressed in Section 3.16, Socioeconomics.

3.13.2.1 Proposed Petroleum Product Pipeline

Construction Impacts - Overall Proposal

Croplands and Crops. Although approximately 50 percent (183.5 km or 114 miles) of the 18 m (60-foot) wide construction corridor extends through croplands, it is estimated that less than 10 percent (likely less than 5 percent) of the croplands would be temporarily affected by construction activities. This is because the proposed pipeline was routed at the edge of fields or property lines. Construction of the overall proposal would avoid removing orchards or other crops, such as asparagus, that would have long-term impacts (i.e., asparagus requires 2 to 3 years for production). However, the proposal extends adjacent to fruit orchards in Grant and Franklin Counties. Orchards not only take several years to replace and have a higher compensation cost, but would interfere with aerial visual inspection and have potential for tree root growth around the pipeline. Additionally, construction would be timed to avoid hay and grass fields during the growing season to the extent practicable; however, if it cannot be avoided, payment for easements would also include the expected crop value lost.

The amount of croplands potentially affected by the proposal (from the pipeline and pump stations) is summarized in Table 3.13-1. In all six counties, impacts to croplands would account for less than 0.2 percent of the total county croplands typically planted with crops along the pipeline corridor.

Along the pipeline corridor, construction activities could disrupt a portion of the planting, growing, and/or harvesting of crops. Additionally, there could be partial loss of productivity of croplands directly adjacent to construction activities due to compaction of soil by construction equipment and removal of crops and topsoil for ROW and staging area preparation. The efficiency and productivity of farming activities could also be reduced from disrupted access across the ROW to adjoining cropland parcels.

These impacts are considered minor because of the short, temporary duration of construction activities and the small area of cropland affected. Construction through agricultural areas is expected to occur at a rate of 2.7 to 4.0 km (1.7 to 2.5 miles) per day, with the active construction zone at any one location limited to approximately 10 days. Equipment cleaning and washing procedures would be implemented to prevent the spread of noxious weeds.

Following construction, agricultural lands would be restored to their pre-existing soil types and graded levels; compacted soil would be loosened by tilling after pipeline is installed and backfilled; and most agricultural activities would be able to resume over the top of the pipeline. Additionally, there would be coordination with property owners/farmers to ensure construction activities would occur outside the planting, growing, and harvesting period wherever feasible; and farmers would be compensated for crop removal and/or damage or lost productivity caused by construction activities. Recovery would occur in agricultural areas with returned top soil, although returned productivity can occur from 1 to 3 years if the soil layer is changed.

There would be a permanent loss of productive agricultural land at the Kittitas Terminal and Othello Pump Station sites. Refer to **Operational Impacts - Overall Proposal** below.

Livestock. Although the proposal would avoid all commercial livestock corrals, it would cross through several miles of livestock pasture and grazing areas. In these areas, fencing and gates would be removed to provide construction vehicle access. This could restrict livestock to other fenced areas, reduce the amount of land available for grazing, and disrupt livestock access to supplementary feeding and watering stations for up to 3 hours during the construction period. Construction activities could also result in small losses of pasture and grazing lands available for forage as vegetation is removed and soil is disturbed and compacted.

These impacts are considered minor. Impacts would be temporary, and construction activities would be coordinated with farmers to ensure livestock access to feeding and watering stations and farm equipment access across the ROW. After construction, fences and gates that were removed would be replaced, and native vegetation (or other vegetation upon landowner request) would be replanted.

For ranchers leasing grazing lands from BLM, individual plans would have to be developed prior to construction. These plans would identify means for minimizing impacts to lessees and potential mitigation measures. Mitigation measures could include providing feed for animals if the rancher has no alternative pastures and excluding livestock from newly seeded areas for at least two seasons after planting to allow reestablishment.

Irrigation Facilities and Systems. Impacts on irrigation facilities are considered negligible because the proposal would avoid mechanical irrigation circles, as well as drain tiles.

Farm Protection Act and Prime Farmland. Prime farmland is defined based on soil types and includes soils not currently in agricultural production. Impacts on agricultural land currently in use, including that considered prime farmland, are primarily from construction activities. Such impacts are considered minor because of the short, temporary duration of construction activities and the restoration of agricultural lands to their pre-existing soil types and graded levels. Therefore, there would be a minimal loss of prime farmland.

The only permanent loss of productive agricultural land would be 10.9 ha (27 acres) of timothy hay production at the Kittitas Terminal and 0.6 ha (1.5 acres) of alfalfa production at the Othello Pump Station. Both sites have soil types considered prime farmland. As described under **Operational Impacts - Overall Proposal**, the total cropland lost as a result of constructing and

operating these facilities would be approximately 11.5 ha (28.5 acres) and is considered a minor impact to crops and cropland.

According to the Farmland Protection Act, federal agencies must examine their actions for potential adverse effects on farmlands, as determined by applying the criteria established for federal rules (7 CFR 658.4). The USFS, as federal lead agency for this EIS, is evaluating the potential adverse effects of the proposal on farmlands, and has determined that the proposal would have a minor impact on farmlands.

Further, Section 658.4(a) of the Farmland Protection Act states that the NRCS may determine potential adverse effects. According to NRCS policy, although the NRCS is responsible for maintaining a current inventory of prime farmland and unique farmland, it is the responsibility of appropriate local and state officials to evaluate prime farmland on a case-by-case basis (Natsuhara pers. comm.).

The impact of losing 11.5 ha (28.5 acres) of prime farmland is considered minor because the effect of the proposal on crops and croplands at these sites would be minor, because the amount of lost prime farmland is negligible, and because OPL is coordinating with the appropriate local and state officials as required by NRCS policy.

Construction Impacts - Columbia River Approach and Crossing Options.

There would be no impacts to croplands and irrigation facilities in these sections because no crops are currently cultivated in the Ginkgo Petrified Forest State Park, YTC, or the Columbia River crossing areas. There is rangeland which may support livestock, but impacts to livestock would be minor for the reasons described under **ALivestock@**above.

Operational Impacts - Overall Proposal. As stated under **AConstruction Impacts@**, most agricultural activities along the proposed pipeline could resume once construction is complete. However, certain activities in the ROW would be restricted for the life of the project, including activities involving the excavation of dirt below 0.9 to 1.2 m (3 to 4 feet) and the planting of woody tree species. This impact is considered minor because of the small area affected. In addition, most crops only require excavation of much less than 1.2 m (4 feet) -- generally a few inches up to a foot is excavated. A minimum of 1.2 m (4 feet) of soil cover will be placed over the pipeline where deep tilling occurs (although no place was identified along the pipeline where deep tilling would be required).

Agricultural activities could not resume at the Kittitas Terminal or Othello Pump Station sites. At the Kittitas Terminal, there would be a loss of 10.9 ha (27 acres) of timothy hay production. At the Othello Pump Station, there would be a loss of 0.6 ha (1.5 acres) of alfalfa production. The total cropland lost as a result of the construction and operation of these facilities would be approximately 11.5 ha (28.5 acres). This impact is considered minor because of the relatively small amount of cropland lost (a fraction of a percent of the total county cropland), and because farmers would be compensated for land permanently removed from productive use.

Additionally, the Kittitas Terminal site vicinity could be considered in a state of transition. Although the unincorporated land is currently zoned agriculture, it is within the City of Kittitas urban

growth area with a general industrial zoning designation, which has been accepted by the county (although a rezone has not yet occurred) (refer to **AEffects on Future Land Uses** in Section 3.12).

There would be no impacts on livestock as a result of operation except that livestock should be kept from the ROW until vegetation is reestablished. Impacts relative to the Farmland Protection Act and prime farmlands would be minor, as discussed above.

Operational Impacts - Columbia River Approach and Crossing Options. There would be no impacts to croplands and irrigation facilities because no crops are currently cultivated in the Ginkgo Petrified Forest State Park, YTC, or the Columbia River crossing areas. Although there is rangeland that may support livestock, there would be no impacts to livestock as a result of operation.

Cumulative Impacts. The only currently productive agricultural land that would be lost is 10.9 ha (27 acres) of timothy hay at the Kittitas Terminal site and 0.6 ha (1.5 acres) of alfalfa at the Othello Pump Station for a total of 11.5 ha (28.5 acres). The cumulative impact of the lost cropland is considered minor because of the small amount of cropland lost, relative to that being produced in the county (a small fraction of a percent). The Kittitas Terminal is located within an urban growth area near I-90.

3.13.2.2 No Action

Under the No Action Alternative, no new pipeline and associated facilities would be constructed, and there would be no effects on agricultural lands. Under No Action, the number of barges and trucks carrying petroleum products would likely double over the next 30 years. This may increase the demand for supporting facilities in ports and along the highway (i.e., gas stations, mini-marts, and rest stops), which could result in the conversion of agricultural land, but this is uncertain. The land use effect of developing such facilities is considered minor.

3.13.3 Additional Proposed Mitigation Measures

No additional mitigation beyond that included as part of the project by the applicant is proposed.

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