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INFORMATION REGARDING COMPLIANCE WITH THE FEDERAL CLEAN WATER
ACT SECTION 404(f)(1) PROVISIONS

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The document is intended to provide information to Norfolk District customers regarding certain activities within waters of the U.S. As listed in Section 404(f)(1) of the Clean Water Act (33 U.S. Code §1344), certain discharges of dredged and/or fill material into waters of the U.S. do not require Department of the Army authorization.

The Norfolk District Regulatory Branch developed this information as a general guide when planning agriculture, silviculture, ranching, mining, and/or maintenance activities within waters of the U.S. While it is not intended to be all-inclusive, this information paper is to serve as an initial reference document for review by and discussion with Norfolk District regulatory staff.

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Part 1: General Information

Exempt Activities Summary

The Clean Water Act (CWA) Section 404 exemptions are very specific and generally limited in their scope. Section 404(f)(1) does not provide a total automatic exemption for all activities related to agricultural, silvicultural, ranching, mining and maintenance practices. Rather, Section 404(f)(1) exempts **only** those activities specifically identified in paragraphs (A) through (F), and "other activities of essentially the same character as named". In addition, if any discharge of dredged or fill material resulting from the activities listed in paragraphs (A) through (F) deviate from the specific criteria outlined in 33 CFR 323.4, such discharge may not be exempt from the permitting requirements of the Section 404 of the CWA.

Note: Only the Clean Water Act provides for certain exemptions from the Section 404 permitting requirement. The Rivers and Harbors Act of 1899 (RHA) does not have such provisions. As such, an activity occurring within a water of the U.S. that is both subject to the RHA and CWA regulations, may require Department of the Army authorization pursuant to Section 10 of the RHA, yet be exempt from Section 404 of the CWA.

Part 2: Codification of the Clean Water Act

After a Federal law, such as the Clean Water Act, is enacted by Congress and signed by the President, it is assigned a number in the United States Code. For the Clean Water Act, its assigned number is Title 33 Navigation and Navigable Waters; Chapter 26 Water Pollution Prevention and Control (Sections 1251-1387).

While the U.S. Code is the written law, it usually does not include an explanation of procedures for administration and compliance. It is the Code of Federal Regulations that explain in detail how the laws are to be carried out and are written by the agency responsible for the subject matter of that law. The Clean Water Act is codified in two sets of Regulations:

Title 33 Navigation and Navigable Waters; Volume 3, Chapter II, Parts 200-399 (The U.S. Army Corps of Engineers Regulations)

Title 40 Protection of the Environment, Parts 104-108, 110-117, 122-140, 230-233, 401-471, and 501-503 (the Environmental Protection Agency Regulations).

For ease of reference, *Part (f) of 33 U.S. Code §1344 – Permits for dredged or fill material* and *33 CFR 323.4 Discharges not requiring permits* are included below in entirety and can also be found at: <https://www.gpo.gov/fdsys/search/home.action>

FEDERAL WATER POLLUTION CONTROL ACT, AS AMENDED BY THE CLEAN WATER ACT OF 1977

Part (f) of 33 U.S. Code §1344 – Permits for dredged or fill material

“(f) Non-prohibited discharge of dredged or fill material

(1) Except as provided in paragraph (2) of this subsection, the discharge of dredged or fill material –

(A) from normal farming, silviculture, and ranching activities such as plowing, seeding, cultivating, minor drainage, harvesting for the production of food, fiber, and forest products, or upland soil and water conservation practices;

(B) for the purpose of maintenance, including emergency reconstruction of recently damaged parts, of currently serviceable structures such as dikes, dams, levees, groins, riprap, breakwaters, causeways, and bridge abutments or approaches, and transportation structures;

(C) for the purpose of construction or maintenance of farm or stock ponds or irrigation ditches, or the maintenance of drainage ditches;

(D) for the purpose of construction of temporary sedimentation basins on a construction site which does not include placement of fill material into the navigable waters;

(E) for the purpose of construction or maintenance of farm roads or forest roads, or temporary roads for moving mining equipment, where such roads are constructed and maintained, in accordance with best management practices, to assure that flow and circulation patterns and chemical and biological characteristics of the navigable waters are not impaired, that the reach of the navigable waters is not reduced, and that any adverse effect on the aquatic environment will be otherwise minimized;

(F) resulting from any activity with respect to which a State has an approved program under section 1288(b)(4) of this title which meets the requirements of subparagraphs (B) and (C) of such section,

is not prohibited by or otherwise subject to regulation under this section or section 1311(a) or 1342 of this title (except for effluent standards or prohibitions under section 1317 of this title).

(2) Any discharge of dredged or fill material into the navigable waters incidental to any activity having as its purpose bringing an area of the navigable waters into a use to which it was not previously subject, where the flow or circulation of navigable waters may be impaired or the reach of such waters be reduced, shall be required to have a permit under this section.

33 CFR 323.4 *Discharges not requiring permits*

“(a) *General.* Except as specified in paragraphs (b) and (c) of this section, any discharge of dredged or fill material that may result from any of the following activities is not prohibited by or otherwise subject to regulation under section 404:

- (1) (i) Normal farming, silviculture and ranching activities such as plowing, seeding, cultivating, minor drainage, and harvesting for the production of food, fiber, and forest products, or upland soil and water conservation practices, as defined in paragraph (a)(1)(iii) of this section.

(ii) To fall under this exemption, the activities specified in paragraph (a)(1)(i) of this section must be part of an established (*i.e.*, on-going) farming, silviculture, or ranching operation and must be in accordance with definitions in §323.4(a)(1)(iii). Activities on areas lying fallow as part of a conventional rotational cycle are part of an established operation. Activities which bring an area into farming, silviculture, or ranching use are not part of an established operation. An operation ceases to be established when the area on which it was conducted has been converted to another use or has lain idle so long that modifications to the hydrological regime are necessary to resume operations. If an activity takes place outside the waters of the United States, or if it does not involve a discharge, it does not need a section 404 permit, whether or not it is part of an established farming, silviculture, or ranching operation.

(iii) (A) *Cultivating* means physical methods of soil treatment employed within established farming, ranching and silviculture lands on farm, ranch, or forest crops to aid and improve their growth, quality or yield.

(B) *Harvesting* means physical measures employed directly upon farm, forest, or ranch crops within established agricultural and silvicultural lands to bring about their removal from farm, forest, or ranch land, but does not include the construction of farm, forest, or ranch roads.

(C)(1) *Minor drainage* means:

(i) The discharge of dredged or fill material incidental to connecting upland drainage facilities to waters of the United States, adequate to effect the removal of excess soil moisture from upland croplands. (Construction and maintenance of upland (dryland) facilities, such as ditching and tiling, incidental to the planting, cultivating, protecting, or harvesting of crops, involve no discharge of dredged or fill material into waters of the United States, and as such never require a section 404 permit.);

(ii) The discharge of dredged or fill material for the purpose of installing ditching or other such water control facilities incidental to planting, cultivating, protecting, or harvesting of rice, cranberries or other wetland crop species, where these activities and the discharge occur in waters of the United States which are in established use for such agricultural and silvicultural wetland crop production;

(iii) The discharge of dredged or fill material for the purpose of manipulating the water levels of, or regulating the flow or distribution of water within, existing impoundments which have been constructed in accordance with applicable requirements of CWA, and which are in established use for the production of rice, cranberries, or other wetland crop species. (The provisions of paragraphs (a)(1)(iii)(C)(I) (ii) and (iii) of this section apply to areas that are in established use exclusively for wetland crop production as well as areas in established use for conventional wetland/non-wetland crop rotation (e.g., the rotations of rice and soybeans) where such rotation results in the cyclical or intermittent temporary dewatering of such areas.)

(iv) The discharges of dredged or fill material incidental to the emergency removal of sandbars, gravel bars, or other similar blockages which are formed during flood flows or other events, where such blockages close or constrict previously existing drainageways and, if not promptly removed, would result in damage to or loss of existing crops or would impair or prevent the plowing, seeding, harvesting or cultivating of crops on land in established use for crop production. Such removal does not include enlarging or extending the dimensions of, or changing the bottom elevations of, the affected drainageway as it existed prior to the formation of the blockage. Removal must be accomplished within one year of discovery of such blockages in order to be eligible for exemption.

(2) Minor drainage in waters of the U.S. is limited to drainage within areas that are part of an established farming or silviculture operation. It does not include drainage associated with the immediate or gradual conversion of a wetland to a non-wetland (e.g., wetland species to upland species not typically adapted to life in saturated soil conditions), or conversion from one wetland use to another (for example, silviculture to farming). In addition, minor drainage does not include the construction of any canal, ditch, dike or other waterway or structure which drains or otherwise significantly modifies a stream, lake, swamp, bog or any other wetland or aquatic area constituting waters of the United States. Any discharge of dredged or fill material into the waters of the United States incidental to the construction of any such structure or waterway requires a permit.

(D) *Plowing* means all forms of primary tillage, including moldboard, chisel, or wide-blade plowing, discing, harrowing and similar physical means utilized on farm, forest or ranch land for the breaking up, cutting, turning over, or stirring of soil to prepare it for the planting of crops. The term does not include the redistribution of soil, rock, sand, or other surficial materials in a manner which changes any area of the waters of the United States to dry land. For example, the redistribution of surface materials by blading, grading, or other means to fill in wetland areas is not plowing. Rock crushing activities which result in the loss of natural drainage characteristics, the reduction of water storage and recharge capabilities, or the overburden of natural water filtration capacities do not constitute plowing. Plowing as described above will never involve a discharge of dredged or fill material.

(E) *Seeding* means the sowing of seed and placement of seedlings to produce farm, ranch, or forest crops and includes the placement of soil beds for seeds or seedlings on established farm and forest lands.

(2) Maintenance, including emergency reconstruction of recently damaged parts, of currently serviceable structures such as dikes, dams, levees, groins, riprap, breakwaters, causeways, bridge abutments or approaches, and transportation structures. Maintenance does not include any modification that changes the character, scope, or size of the original fill design. Emergency reconstruction must occur within a reasonable period of time after damage occurs in order to qualify for this exemption.

(3) Construction or maintenance of farm or stock ponds or irrigation ditches, or the maintenance (but not construction) of drainage ditches. Discharges associated with siphons, pumps, headgates, wingwalls, weirs, diversion structures, and such other facilities as are appurtenant and functionally related to irrigation ditches are included in this exemption.

(4) Construction of temporary sedimentation basins on a construction site which does not include placement of fill material into waters of the U.S. The term "construction site" refers to any site involving the erection of buildings, roads, and other discrete structures and the installation of support facilities necessary for construction and utilization of such structures. The term also includes any other land areas which involve land-disturbing excavation activities, including quarrying or other mining activities, where an increase in the runoff of sediment is controlled through the use of temporary sedimentation basins.

(5) Any activity with respect to which a State has an approved program under section 208(b)(4) of the CWA which meets the requirements of sections 208(b)(4) (B) and (C).

(6) Construction or maintenance of farm roads, forest roads, or temporary roads for moving mining equipment, where such roads are constructed and maintained in accordance with best management practices (BMPs) to assure that flow and circulation patterns and chemical and biological characteristics of waters of the United States are not impaired, that the reach of the waters of the United States is not reduced, and that any adverse effect on the aquatic environment will be otherwise minimized. These BMPs which must be applied to satisfy this provision shall include those detailed BMPs described in the State's approved program description pursuant to the requirements of 40 CFR 233.22(i), and shall also include the following baseline provisions:

- (i) Permanent roads (for farming or forestry activities), temporary access roads (for mining, forestry, or farm purposes) and skid trails (for logging) in waters of the U.S. shall be held to the minimum feasible number, width, and total length consistent with the purpose of specific farming, silvicultural or mining operations, and local topographic and climatic conditions;
- (ii) All roads, temporary or permanent, shall be located sufficiently far from streams or other water bodies (except for portions of such roads which must cross water bodies) to minimize discharges of dredged or fill material into waters of the U.S.;
- (iii) The road fill shall be bridged, culverted, or otherwise designed to prevent the restriction of expected flood flows;
- (iv) The fill shall be properly stabilized and maintained during and following construction to prevent erosion;
- (v) Discharges of dredged or fill material into waters of the United States to construct a road fill shall be made in a manner that minimizes the encroachment of trucks, tractors, bulldozers, or other heavy equipment within waters of the United States (including adjacent wetlands) that lie outside the lateral boundaries of the fill itself;
- (vi) In designing, constructing, and maintaining roads, vegetative disturbance in the waters of the U.S. shall be kept to a minimum;
- (vii) The design, construction and maintenance of the road crossing shall not disrupt the migration or other movement of those species of aquatic life inhabiting the water body;
- (viii) Borrow material shall be taken from upland sources whenever feasible;
- (ix) The discharge shall not take, or jeopardize the continued existence of, a threatened or endangered species as defined under the Endangered Species Act, or adversely modify or destroy the critical habitat of such species;
- (x) Discharges into breeding and nesting areas for migratory waterfowl, spawning areas, and wetlands shall be avoided if practical alternatives exist;
- (xi) The discharge shall not be located in the proximity of a public water supply intake;
- (xii) The discharge shall not occur in areas of concentrated shellfish production;
- (xiii) The discharge shall not occur in a component of the National Wild and Scenic River System;
- (xiv) The discharge of material shall consist of suitable material free from toxic pollutants in toxic amounts; and
- (xv) All temporary fills shall be removed in their entirety and the area restored to its original elevation.

(b) If any discharge of dredged or fill material resulting from the activities listed in paragraphs (a) (1) through (6) of this section contains any toxic pollutant listed under section 307 of the CWA such discharge shall be subject to any applicable toxic effluent standard or prohibition, and shall require a section 404 permit.

(c) Any discharge of dredged or fill material into waters of the United States incidental to any of the activities identified in paragraphs (a) (1) through (6) of this section must have a permit if it is part of an activity whose purpose is to convert an area of the waters of the United States into a use to which it was not previously subject, where the flow or circulation of waters of the United States may be impaired or the reach of such waters reduced. Where the proposed discharge will result in significant discernible alterations to flow or circulation, the presumption is that flow or circulation may be impaired by such alteration. For example, a permit will be required for the conversion of a cypress swamp to some other use or the conversion of a wetland from silvicultural to agricultural use when there is a discharge of dredged or fill material into waters of the United States in conjunction with construction of dikes, drainage ditches or other works or structures used to effect such conversion. A conversion of a section 404 wetland to a non-wetland is a change in use of an area of waters of the United States. A discharge which elevates the bottom of waters of the United States without converting it to dry land does not thereby reduce the reach of, but may alter the flow or circulation of, waters of the United States.

(d) Federal projects which qualify under the criteria contained in section 404(r) of the CWA are exempt from section 404 permit requirements, but may be subject to other State or Federal requirements.”

Part 3: Normal Farming, Silviculture and Ranching

A) Established Operation

Section 404(f)(1)(A) is limited to activities that are part of an "established (i.e., ongoing) farming, silviculture, or ranching operation." While expired, Regulatory Guidance Letter 96-02 provides relative historical context:

"This "established" requirement is intended to reconcile the dual intent reflected in the legislative history that although Section 404 should not unnecessarily restrict farming, forestry, or ranching from continuing at a particular site, discharge activities which could destroy wetlands or other waters should be subject to regulation."

As outlined in the CFR, areas that lie fallow as part of a conventional rotational cycle are part of an established operation, while activities which bring an area into farming, silviculture or ranching are not established. Moreover, converting an area from one use to the other is not part of an established operation nor is those areas lain idle for such a time that modifications to the hydrologic regime would be necessary in order to resume operations.

Examples of documents that may support an operation as "established":

- FSA/NRCS records of crop rotation, plantings, field usage
- Forestry management plan
- Ranching records of livestock and grazing rotations
- Aerial photographs
- Ditch maintenance or irrigation records

B) Normal Activities

33 CFR 323.4(a)(1)(iii) defines in some detail the specific "normal" activities: Cultivating, Harvesting, Minor Drainage, Plowing, Seeding.

The following points may be useful:

- As explained in the 1979 preamble to Clean Water Act regulations, the words "such as" have been consistently interpreted as restricting the section "to the activities named in the statute and other activities of essentially the same character as named," and "preclude the extension of the exemption to activities that are unlike those named."
- Plowing is specifically defined in the regulations not to include the redistribution of surface material in a manner which converts wetland areas to uplands. In other

words, plowing that is exempt under Section 404(f) means all mechanical means of manipulating soil, including land leveling, to prepare it for the planting of crops. However, grading activities that would change any area of waters of the United States, including wetlands, into dry land are not exempt.

- o Consideration should be given in recognizing area and regional differences in normal farming practices. When appropriate, the Corps is encouraged to utilize the expertise of local and state agricultural services (NRCS, Cooperative Extension Services, colleges and universities, etc.) to enhance its implementation of the 404 program.

C) Ditches

Under Section 404(f)(1)(C) of the CWA (see also 33 CFR 323.4(a)(3) and 40 CFR 232.3(c)(3)), discharges of dredged or fill material into waters of the U.S. associated with construction or maintenance of irrigation ditches, or the maintenance (but not construction) of drainage ditches, are not prohibited by or otherwise subject to the Section 404 permitting requirements. Discharges of dredged or fill material into waters of the U.S. associated with siphons, pumps, headgates, wingwalls, weirs, diversion structures, and such other facilities as are appurtenant to and functionally related to irrigation ditches are included in the exemption for irrigation ditches.

In addition and as stated in the preamble to the Corps' Final Rule of November 13, 1986: ". . .we generally do not consider the following waters to be 'Waters of the United States' . . . (b) Artificially irrigated areas which would revert to upland if the irrigation ceased." 51 Federal Register 41217, November 13, 1986. Thus, waters, including wetlands, created as a result of irrigation would not be considered waters of the US even when augmented on occasion by precipitation.

In an effort to provide greater clarity, the following terms are defined for purposes of Subsection 404(f):

Irrigation Ditch: An irrigation ditch is a man-made, often linear, feature and/or an upland swale that either conveys water to an ultimate irrigation use or place of use, or that moves and/or conveys irrigation water (e.g., "run-off" from irrigation) away from irrigated lands. Irrigation ditches may include the distribution system or parts thereof, consisting of manmade canals, laterals, ditches, siphons, and/or pipes, or pump systems. If a ditch carries only irrigation water, irrigation return flows, and overland flow (precipitation and/or snowmelt) that moves from an irrigated field either to or away from an area subject to irrigated agriculture (e.g., an irrigated field), that ditch would be considered an irrigation ditch, not a drainage ditch.

A ditch that diverts water from an open body of water (e.g., stream, lake, or reservoir) for irrigation purposes may be considered an irrigation ditch, even if a substantial portion of the flow or volume is diverted.

Following a case-by-case evaluation, such as a natural or man-altered water body may be considered an irrigation ditch if it has characteristics suggesting a limited functional role in the broader aquatic ecosystem, such as infrequent or low volume flow, minimal habitat value, or small channel size.

Drainage Ditch: A drainage ditch is a man-made, often linear, feature that conveys drainage water (other than irrigation related flows) from one place to another. A ditch whose functions exceed minor drainage, as defined in 33 CFR 323.4(a) (1)(iii)(C), of wetlands (other than wetlands established due to the presence of irrigation water), the ditch would be considered a drainage ditch, not for irrigation, even if also used for irrigation purposes.

A ditch determined to be either an irrigation ditch or a drainage ditch would then need to be evaluated on a case-by-case basis to determine if the recapture provision of Section 404(f)(2) applies.

Construction: Construction includes new work or work that results in an extension or expansion of an existing structure. Ditch construction generally includes, but is not limited to:

- Ditch relocation
- Conversion into a pipe/culvert
- Lining, which means placing impervious material such as concrete, clay, or geotextile within the flow perimeter of an open canal, lateral, or ditch with the intent of reducing seepage losses and improving conveyance efficiency. All new lining of ditches, where the ditch had not previously been lined, is considered construction.
- Installation of new control structures.
- New ditch excavation

D) Minor Drainage:

- Limited to drainage within established farming or silviculture operations.
- Does not include drainage associated with an immediate or gradual conversion of a wetland to a non-wetland.
- Does not include drainage resulting in the conversion of one wetland use to another.
- Does not include construction of waterways or structures that drain or significantly alter a water of the U.S. (i.e. streams, lakes, wetlands)

- Does not include construction of waterways or structures that significantly modifies a water of the U.S.

Part 4: Ponds

Pursuant to 33 CFR 323.4(a)(3), discharges of dredged or fill material into waters of the U.S. associated with the construction or maintenance of farm and stock ponds are not subject to Section 404 permitting requirements, provided:

- The pond serves an agricultural use.
- The discharge does not convert a water of the U.S. into a use to which it was not previously subject.
- The flow and circulation of waters of the U.S. are not impaired.
- The reach of waters of the U.S. are not reduced.

For farm and stock ponds constructed in waters of the U.S. or those that would otherwise result in a discharge of dredged or fill material into a water of the U.S., the Corps encourages project proponents to limit the number and size to the minimum needed for the specific farming activity. Should the producer and land owner wish to obtain documentation from the Corps that their farm or stock pond complies with 22 CFR 323.4, we ask that they submit documentation and information to us for our consideration. Please utilize the Norfolk District's *Farm Pond Information* form.

In order to qualify for this exemption, farm and stock ponds do not need to serve a sole agricultural use. In other words, an impoundment constructed to provide water supply for crop irrigation can also be utilized by the landowner for private recreation and aesthetics. However, should the recreation or aesthetic use supersede the agricultural use, the Corps may consider the discharges of dredged or fill material into waters of U.S. associated with that pond no longer exempt from the permitting requirements.

For those ponds not qualifying as an exempt activity, the Norfolk District's Regional General Permit -05 is one possible option for Department of the Army authorization. In addition, discharges of dredged or fill material into a water of the U.S. for the purpose of constructing a stormwater detention or retention pond do required DA authorization and Nationwide General Permit 43 is available for this purpose.

It is worth noting that a farm or stock pond is constructed in a water of the U.S. are still a water of the U.S., regardless of the exemption from obtaining a Department of the Army permit.

Part 5: Roads

Discharges of dredged or fill material into waters of the U.S. associated with the construction or maintenance of farm road, forest roads, or temporary roads for moving mining equipment may be exempt from the Section 404 permitting requirements, provided those discharges comply with the 33 CFR 323.4(a)(6).

These roads do NOT need to be part of an established, on-going agriculture or silvicultural operation in order to qualify as an exempt activity.

The roads can serve multiple functions and still potentially qualify as exempt. For example, a silviculture road can also be utilized to provide access to a residence or hunting lands; however, as with farm and stock ponds, should that residential or recreational use supersede the silviculture use, the discharges of fill or dredged material into waters of the U.S. associated with that road may no longer be exempt.

Additional Guidance for Forest Roads: Forest roads constructed and maintained within waters of the U.S. in accordance with the guidelines outlined below may ensure that flow and circulation patterns and chemical and biological characteristics of waters of the United States are not impaired, that the reach of the waters of the United States is not reduced, and that any adverse effect on the aquatic environment will be otherwise minimized and may therefore meet the exemption.

Permanent roads forestry activities, temporary access roads, and skid trails (for logging) in waters of the U.S. shall be held to the minimum feasible number, width, and total length consistent with the purpose of specific silvicultural operations, and local topographic and climatic conditions. The following are suggested design specifications that should, in most cases, minimize impacts to aquatic resources while allowing forestry operations to proceed in a safe and economically viable fashion.

- Road Placement - Every attempt should be made to limit the number and length of forest roads to the minimum feasible. This is best accomplished by responsible planning prior to road construction. In most cases, skidding distances of $\frac{1}{4}$ mile are reasonable, and result in minimal damage to the site and the timber resource. Therefore, forest roads should normally be constructed a minimum of $\frac{1}{2}$ mile apart and should terminate no closer to the outer boundary of the logging or timber management areas being accessed than $\frac{1}{4}$ mile.
- Road Construction - It is generally accepted that single lane roads with periodic turnouts are sufficient for most normal forestry activities. It is also commonly accepted that most operations large enough in scale to necessitate road construction will employ tractor-trailer type logging trucks. Road top widths should therefore normally be limited to the travel

surface necessary to accommodate single lane tractor-trailer traffic plus additional shoulders appropriate to provide adequate safety and road stability. Travel surfaces 12 to 14 feet wide, with a maximum 3 to 4 foot wide shoulder on each side are in most cases sufficient. This would result in a total top width of 18 to 22 feet (Figure 1).

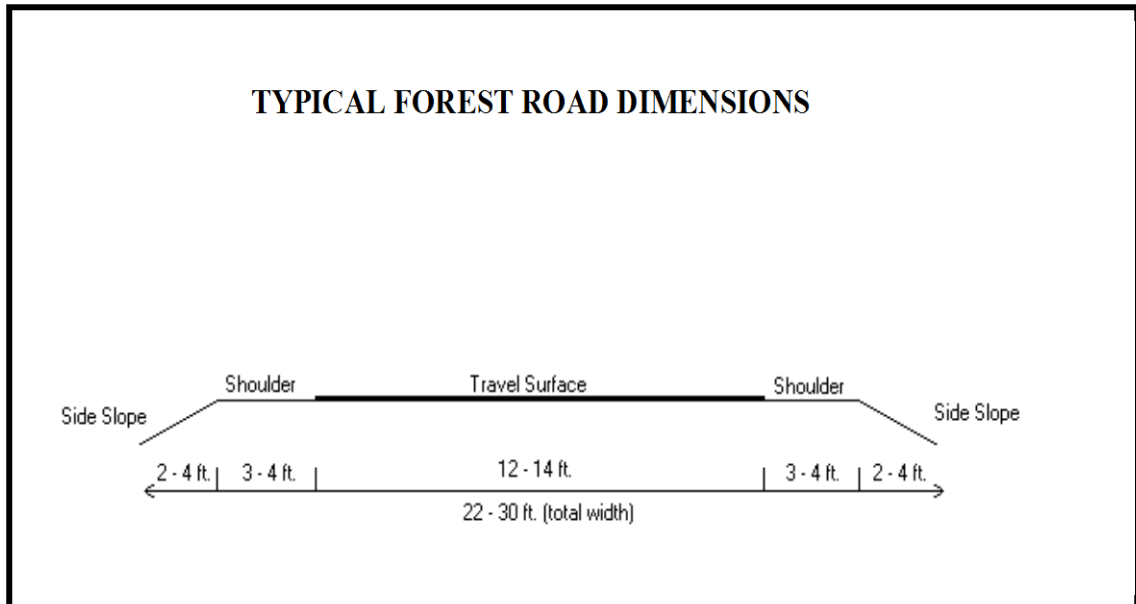


Figure 1. Dimensions of a typical forest road constructed in wetlands. In general a top width of 18-22 ft., made up of a 12-14ft. wide travel surface with 3-4 ft. shoulders on either side, should be sufficient. Road heights of 1-2 ft. with 2:1 slopes will result in total widths of 22-30 ft.

- Road height will be largely dependent on site conditions and access requirements. The height of a road and corresponding side slopes should be kept to the minimum necessary for silviculture activities to be conducted safely and economically. Typically, 2:1 side slopes will provide sufficient stability for roads used in normal silvicultural operations. In most instances where forest roads are constructed by excavation of material from adjacent borrow ditches or swales, a final road height of 1 to 2 feet above the existing substrate is adequate. Using a slope ratio of 2:1, side slopes on a 1 to 2 foot high road will normally be 2 to 4 feet wide on each side of the road (Figure 1).
- Turnouts are areas designed to allow vehicular traffic to pass. These areas should be of adequate width to allow two tractor-trailer units to safely pass one another. In most cases, twice the total top width

discussed previously (18 to 22 feet) plus an adequate safety margin should be sufficient. The length of each turnout should be limited to that necessary for one unit to pull over and stop, allowing a second unit to pass. Spacing of these turnouts will be determined by horizontal sight distance and traffic loads. Normally, forest roads are low traffic roads and, in flatter terrain, have ample horizontal sight distances, allowing turnouts to be spaced at ½ mile intervals.

- Where it is not practicable to obtain fill material for use in road construction from an upland source, it is common practice to borrow this material from onsite wetland areas by excavating a borrow ditch or swale immediately adjacent the roadway being constructed. As stated in 33 CFR 323.4(c), activities will require a permit if such activities act to reduce the reach of Waters of the United States. In other words, the borrow ditches should not be constructed in a manner that would facilitate draining or significantly modifying the hydrology of the wetland area. Borrow ditches or swales should not be connected either permanently or temporarily to any outfall including existing drainage ditches, canals, creeks, streams or other natural or man-made drainage features. To avoid unintended drainage resulting from a hydraulic connection between a borrow ditch and an existing drainage feature, borrow ditches should terminate a sufficient distance from the existing drainage feature (generally 50 – 150 ft., depending on soil type and site conditions).

It is further stated in 33 CFR 323.4(c) that activities will require a permit if such activities act to impair the flows or circulation of Waters of the United States. Therefore, roads should be culverted or bridged across sloughs, streams, natural drains, or areas of ponded or standing water to allow for natural lateral movement of surface waters from one side of the road to the other.

Maintenance to Existing Roads - Any road constructed in waters of the US after July 1977 must comply with the necessary BMP's and Baseline Provisions in order to be considered exempt. Roads constructed in waters of the US that do not meet the exemption criteria and were not permitted, are unauthorized activities.

The Corps recognizes that the guidelines included here may not be feasible for all operations. These specifications are intended for normal forestry operations under most conditions. Landowners and managers may utilize these guidelines as an aid in determining when construction or maintenance of forest roads would be considered exempt pursuant to CWA Section 404(f)(1).

Large-scale operations and/or operations carried out on tracts presenting atypical environmental or logistical concerns may require deviation from these

recommendations. Operations exceeding these specifications will not necessarily be considered non-exempt. However, landowners and managers may be required to adequately demonstrate the need for the additional construction. Landowners and managers whose operations may exceed these recommendations are encouraged to contact the local Corps Regulatory office prior to initiating work to ensure the discharge is not prohibited by, or otherwise subject to, regulation under CWA Section 404.

Part 6: Maintenance

A) Structures

33 CFR 323.4(2) briefly states that discharges of dredged or fill material into a water of the U.S. resulting from maintenance of currently serviceable structures is not prohibited by or subject to regulation under Section 404. Currently serviceable structures include, but are not limited to, dikes, dams, levees, riprap, causeways, bridge abutments or approaches.

This exemption does not apply if the modification changes the character, scope or size of the original fill design.

This exemption does apply for emergency reconstruction of recently damaged parts of a structure; however, the work must occur with a reasonable period of time after the damage occurs.

Maintenance includes a repair to an existing structure to keep the structure in its existing state or proper condition, or to preserve it from failure or decline.

For those maintenance activities resulting in a discharge of dredged or fill material into waters of the U.S. that do not qualify as exempt from the permitting requirements, they may qualify for Nationwide Permit 3 (Maintenance).

B) Ponds

33 CFR 323.4 (3) includes the maintenance of farm and stock ponds. This could include, but is not limited to, discharges of fill or dredged material into waters associated with dredging of the pond or repair of the spillway.

C) Ditches

33 CFR 323.4 (3) includes the maintenance of irrigation and drainage ditches.

Maintenance means the physical preservation of the original, as-built configuration of the ditch and appurtenant structures, to restore the original function and the approximate capacity of the ditch. In many cases, accurate historical records are not available to determine the exact “as-built” specifications of the original ditch. In these cases, the Corps we should work closely with the project proponent to establish an appropriate maintenance depth to restore the ditch’s original function and approximate capacity, while meeting the spirit of the exemption and ensuring adequate protection of aquatic resources. The Corps allows the maintenance of ditches to be performed to the level of current engineering standards where more graduated side-slopes result in greater stability, so long as those modifications of the ditch will not result in the drainage, degradation, or destruction of additional natural wetlands or other waters of the U.S., as referenced above. Removal of material and re-contouring of the ditch should be in accordance with the historical design and function of that ditch (i.e., the ditch must not be substantially deepened so as to drain additional areas).

Maintenance of ditches generally includes, but is not limited to, activities such as:

- Excavation of accumulated sediments back to original contours.
- Re-shaping of the side-slopes.
- Bank stabilization to prevent erosion where reasonably necessary using best management practices. For maintenance of drainage ditches as defined in this guidance, materials used for stabilization should be compatible with existing bank materials.
- Armoring, lining and/or piping. These activities qualify as maintenance only where a previously armored, lined, or piped section is being repaired and all work occurs within the footprint of the previous work.
- Replacement of existing control structures, where the original function is not changed and original approximate capacity is not increased.

As with all exempt maintenance activities, they are conducted for the purpose of retaining a ditch or structure in its existing condition, improve its condition and/or prevent its decline or failure. Drainage ditches without routine or historical maintenance may no longer perform the intended drainage function. In those cases, the Corps considers a discharge of dredged or fill material into waters of the U.S. for the purpose of re-establishing the drainage function to be construction, not maintenance and subject to the permitting requirements of the Section 404 of the CWA.

That said, the Corps does not automatically categorize all unmaintained ditches as ineligible for the ditch maintenance exemption. Some ditches require little or no periodic

maintenance to remain functional. Provided the ditch is still performing its drainage function, the lack of periodic maintenance in these situations does not preclude the ditch from being maintained under the exemption.

Part 7: Recapture

The Clean Water Act includes a provision in Section 404(f)(2) that "recaptures" or reestablishes the permit requirement for those otherwise exempt discharges which:

- a. converts an area of the waters of the United States (U.S.). to a new use,
and
- b. impairs the flow or circulation of waters of the U.S. or reduces the reach of waters of the U.S.

BOTH a. and b. must be met in order for the activity to be considered non-exempt.

Conversion of an area of waters of the U.S. to upland will trigger both provisions (a) and (b) above. Otherwise exempt discharges that result in a conversion not intended into upland becomes recaptured under Section 404(f)(2) and requires a permit.

Relative to a) above, discharges associated with activities that establish an agricultural operation in wetlands where previously ranching had been conducted, represents a "change in use" within the meaning of Section 404(f)(2). Similarly, discharges into waters of the U.S. to establish a silviculture operation in an area of prior agricultural use also represents a change in use.

Part 8: Summary

While Section 404(f) of the CWA and the corresponding regulations are relatively brief, interpretation and application can be challenging for both the regulators and the public.

As a general guide, when determining if a project requires a Section 404 permit, one should consider the following:

- 1) Would the proposed activity result in a discharge of dredged or fill material?

If the proposed activity does not involve or result in a discharge or placement of fill material, regardless of the reason or where it occurs (in a waters of the U.S. or not), a Section 404 permit is not required because it is simply not a regulated activity.

- 2) If the proposed activity would result in a discharge of dredged or fill material, what is the reason for the discharge?

In this case, if the discharge complies with 33 CFR 323.4, regardless of whether or not the activity would occur in a water of the U.S., no permit is required as it is considered an exempt activity pursuant to 404(f).

- 3) If the proposed activity would result in a discharge of dredged or fill material but that discharge does not qualify as a 404(f) activity, would that discharge occur in a waterbody? If so, is that waterbody a water of the U.S.?

If, after the Corps completed an approved jurisdictional determination, they determined that the waterbody was not a water of the U.S. (i.e. wetland without a significant nexus to a navigable water), the activity would NOT require Department of the Army authorization.

Additional Resources and References:

The following documents are available at the U.S. Army Corps of Engineers Headquarters webpage: <http://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/Related-Resources/>

3 May 1990 - Memorandum for the Field: Clean Water Act Section 404 Regulatory Program and Agricultural Activities (USEPA and Department of the Army)

4 Jan 1993 - Amendment to the Jan. 19 1989 DA/EPA Memorandum of Agreement Concerning the Determination of the Geographic Jurisdiction of the Section 404 Program and the Application of the Exemptions Under Section 404(f) of the Clean Water Act (USEPA and Department of the Army)

19 Jan 1989 - MOA Between the Department of the Army and the USEPA Concerning the Determination of the Section 404 Program and the Application of the Exemptions under Section 404(f) of the Clean Water Act

Regulatory Guidance Letters:

RGL 96-02 – historical purpose only

RGL 86-03 – expired, generally applicable

RGL 87-07 – expired, generally applicable

RGL 87-09 – expired, generally applicable

RGL 07-02

The following is available at the U.S. Army Corps of Engineers, Wilmington District webpage: <http://www.saw.usace.army.mil/Missions/Regulatory-Permit-Program/Permits/Exemptions/>

Information Regarding Compliance with the Federal Clean Water Act Section 404(f) Provisions for the Construction of Forest Roads within Wetlands, in North Carolina, USACE Wilmington District, November 9, 2004

The following references are included with this document:

Norfolk District Regulatory Branch Farm Pond Information Form

Farm Pond Q&As

Farm Pond Rate and Production Examples

Frequently Asked Farm Pond (Q) & (A's)

A farm pond is an impounded water source created by constructing an embankment or excavating a pit that is intended to provide water for the irrigation of crops or water supply for livestock operations. Activities for the purpose of maintaining existing farm ponds and construction of new farm ponds are exempt from jurisdiction under Section 404 of Clean Water Act (CWA) provided they meet the criteria outlined in Section 404(f) of the CWA and Section 323.4(a)(3), Title 33 of the Code of Federal Regulations. The U.S. Army Corps of Engineers (Corps) will follow procedures outlined in the "Farm Pond Exemption Information Guide" when reviewing proposals for construction of farm ponds. The following are answers to frequently asked farm pond questions, and additional information can be provided on the Norfolk District Regulatory Website.
<http://www.nao.usace.army.mil/regulatory>

Q. Can a farm pond be used for watering livestock (cows, horses, goats, etc.)?

A. Yes. However, please be aware that you may be asked to provide documentation relative to the size and water needs. (e.g. 50 head of beef cattle would only need a $\frac{3}{4}$ acre pond for a reliable source of drinking water. Cattle generally need 20-25 gallons of drinking water per head per day.)

Q. Can a farm pond, either existing or proposed, be used for commercial fish production?

A. No. The purpose of a farm pond is to provide a reliable source of supplemental irrigation water necessary for the production of a crop during periods of drought or during the critical growth period(s) of a particular crop.

Q. Can a farm pond be used for recreational fishing?

A. Yes. A farm pond can be used for recreational fishing, but neither recreational nor commercial fishing can be a purpose for the construction of a farm pond. The size of the pond is determined by the farm activity.

Q. For new farming operations, can a farm pond be built to provide irrigation water for land that has not yet been cleared of trees and other vegetation, but where a crop would be planted in the future?

A. Yes. A farm pond can be built in advance of clearing land for planting a crop; however, the Corps may, after one year, request information or site visit to confirm the agricultural use of the pond.

Q. Can two or more farmers build a farm pond to provide irrigation water for crop lands located on adjoining or nearby farms?

A. Proposals for construction of multiple user farm ponds will be reviewed by the Corps on a case-by-case basis. For multi-farm pond proposals, all agricultural lands that would be irrigated from the pond must be identified. A proposal for a multi-farm pond requires information to document water needs (water budget), all other available water sources and the availability of irrigation equipment that would be required to pump water from the pond to all identified fields.

Q. If a farm, with an existing farm pond, is sold to a developer for the purpose of constructing a residential or commercial subdivision; would this be considered a change in use of the exempt farm pond?

A. Yes. The conversion of a farm to a residential or commercial subdivision would be a change in use.

FARM POND INFORMATION

U.S. Army Corps of Engineers Norfolk District

PRODUCER INFORMATION						
Name:						
Mailing Address:						
City, State, Zip Code:				County:		
POND INFORMATION						
Primary Purpose of Pond (Check the applicable purpose)						
Agricultural Irrigation	<input type="checkbox"/>					
Livestock Water Supply	<input type="checkbox"/>					
Proposed Agricultural Irrigation	<input type="checkbox"/>					
Proposed Livestock Water Supply	<input type="checkbox"/>					
Recreation (Non-Farm Pond)	<input type="checkbox"/>					
		Location:		Lon.	Lat.	
Size at Normal Pool (acres):			Estimated Storage at normal pool (Ac-ft):			
AGRICULTURE OR LIVESTOCK PRODUCTION INFORMATION ^{3/}						
Crop Type:		Cropped Acreage (ac.):		Crop Water Needs (ac-ft)		
Livestock Type:		Herd Size (hd):		Livestock Water Needs (ac-ft)		
				Additional Water Needs (ac-ft)		
				Total Farm Water Needs (ac-ft)		
Please attach to this page as Exhibit 1 a topographic, aerial, or street map showing the location of the pond site.						

Producer Certification: I certify that the above information is accurate to the best of my knowledge. I understand that this exemption does **NOT** free me from obtaining any other federal, state or local permits for construction of the proposed pond. I understand that if any revisions are made to the project or its intended use, this exemption determination may be invalidated. Should it be determined that the pond has been converted to a non-agricultural use at any point, I may be required to obtain a Department of the Army permit in order to maintain the pond. Any Department of the Army permit application may include an alternatives analysis and mitigation and should a permit not be issued, restoration of the site may be required. A pond exempt from the need for a Department of the Army permit is not exempt from the Virginia Department of Conservation and Recreation / Dam Safety for agricultural ponds.

(Type or print name)

(Signature)

(Date)

Pond Rate and Production Examples

Agricultural production: Agricultural production may be grown on a farm or ranch operation and involve the production of crops including but not limited to:

- Field-grown ornamentals (not containerized)
- Grains or row crops
- Hay, forage or pasture
- Naval stores
- Orchards or vineyards
- Seed Crops
- Plant materials
- Tobacco
- Trees
- Vegetables or fruits

Note: Trees will require case specific justification from the Virginia Department of Forestry and acceptance by USACE defining the need and quantity of irrigation water.

Livestock production: Livestock production may occur on a farm or ranch operation involving the production, growing, raising, or reproducing of livestock or livestock products, including but not limited to:

- Beef cattle
- Buffalo
- Dairy cattle
- Ostriches or Emu
- Poultry
- Sheep or goats
- Swine
- Turkeys

Estimated Crop Water Requirements in VA

<i>Ag. Production E</i>	<i>Crop Water Needs (Ac-ft / acre of crop)</i>
Row crops	1.5
Tobacco	1.0
Hay, Forage or Pasture	1.25
Vegetables	1.25
Orchards	1.5

Producer must have existing irrigation equipment.

Example 1: A producer irrigates 500 acres of cotton. What pond storage volume is generally considered sufficient?

Crop Acreage		500 acres
Water needs	x	<u>1.5 ac-ft/ac</u>
Total Water Needs	=	<u>750 ac-ft</u>

***See attached basis for
area & volume
calculation insert**

Estimated Livestock Water Requirements in VA

Livestock Production ^{1,2}	Drinking Water Needs (gallons/day/head)
Dairy cattle	25
Beef cattle	20
Sheep or Goats	2

¹ Other livestock may be used with proper documentation to the Corps to predict water needs. Operations requiring water for other purposes than drinking water (i.e. dairy flush water) must also submit proper documentation.

² Storage calculations of livestock drinking water should be based on the average livestock consumption for 12 months.

Example 2: A producer operates a dairy with 750 cows. The producer provides documentation of 5,000 gallons/day of additional fresh water use for milkroom washdown. What is a reasonable pond storage volume?

750 head @ 25 g/day/head		18,750 gal/day
Additional water needs	+	5,000 gal/day
Total Water Needs	=	<u>23,750 gal/day</u>

1 acre-ft	/	325,851 gal
Therefore, total water needs	=	.073 acre-ft/day
Maximum storage volume	x	365 days
Total Storage Requirements	=	26.6 Ac-ft.

Example 3: A producer with a 50-head beef cattle operation has requested a pond exemption for a 2 acre pond. The water depth at the dam would be approximately 10 feet. Approximate storage volume for the requested pond is 0.4 x 2 Acre x 10 ft water depth = 8 acre-feet. What pond storage volume is reasonable?

50 hd @ 20 g/day/hd		1000 gal/day
1 acre-ft	/	325,851 gal
Therefore, total water needs	=	<u>.003 acre-ft/day</u>
Maximum storage volume	x	365 days
Total Storage Requirements	=	1.12 Ac-ft.