

79 Elm Street • Hartford, CT 06106-5127

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Dam Safety General Permit to Conduct Repairs and Alterations to Dams

GP-016: Approval of Filing Required Categories (Filing and Notice to Municipality Required)

Refer to the Dam Safety General Permit Authorization Table available on the DEEP website.

This general permit authorizes limited amounts of minor repair and alteration to dams and removal of remnants of dams. A filing using the corresponding DEEP form is required. Work authorized under Section 3(a) of this permit to the limits specified may be done on all dams. Professional engineering oversight is required. You must review Section 3(a) of this permit to determine if your proposed work can be authorized by this permit. Refer to the Dam Safety General Permits GP-014 Non-Filing and GP-015 Filing-only if your proposed work is not listed in Section 3(a) or is significantly less than the limitations specified in this permit. An individual dam safety permit is required when the quantities of work exceeds the limits specified in Section 3(a) and are not considered to be minor.

Categories Include:

<u>With Professional Engineering oversight - Use form DEEP-IWRD-GP-016-3(a)</u> Installing up to 400' of new toe Drains; Repair or Replacement of Trash Racks, Gates, and Valves; Placing up to 150 square yards of Riprap; Removing tree root systems (moderate tree density); Filling up to 25 animal burrows; Repairs to Concrete Portions of Dams (limited concrete volume by formula), Repointing masonry (no volume limit); Sliplining Outlet Pipes (no size limit); Grouting Voids; Installing Bridges over Spillways which may require center support; Digging Test Pits, drilling soil borings, installing piezometers; Removal of Low or Moderate Hazard Class Dams Meeting Certain Criteria; and Projects to Provide Fish Passage.

Issuance Date: October 16, 2015 Expiration Date: October 16, 2025

Bureau of Water Protection and Land Reuse, Inland Water Resources Division 79 Elm Street Hartford, CT 06106 860-424-3019 www.ct.gov/deep/dams

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Section 1. Authority

This general permit is issued under the authority of Section 22a-411 of the General Statues.

Section 2. Definitions

As used in this general permit, the following definitions shall apply:

"*Abutment*" means natural ground that borders on either end of the dam structure. Right and left abutments are those on respective sides of the dam when an observer looks downstream.

"Approval of Filing" means an approval of the "Request for Approval of Filing" filed under this general permit which must be issued by the commissioner prior to undertaking activities authorized by this permit.

"Appurtenance" means any structure or mechanism other than the dam itself which is associated with its operation.

"As-Built Drawings" means plans or drawings portraying the actual constructed dimensions and conditions of a dam, dike, levee or related structure. Most often, permit approved plans are marked to indicate where the actual as-constructed conditions differ from those shown on the permit approved plans. The plans are then re-issued and labeled "as-built" or "record" drawings.

"Authorized Activity" means any activity authorized by this general permit.

"Best management practice" means a practice, procedure, activity, structure or facility designed to prevent or minimize pollution or other environmental damage or to maintain or enhance existing environmental quality. Best management practices include, but are not limited to: erosion and sedimentation controls; restrictions on land use or development; construction setbacks from wetlands or watercourses; proper disposal of waste materials; procedures for equipment maintenance to prevent fuel spillage, construction methods to prevent flooding or disturbance of wetlands and watercourses; procedures for maintaining continuous stream flows; confining construction that must take place in watercourses at times when water flows are low and fish and wildlife will not be adversely affected.

"Commissioner" means the commissioner of the State of Connecticut Department of Energy and Environmental Protection as defined by Section 22a-2(a) of the General Statutes.

"Conduit" means a closed channel to convey the discharge through or under a dam, typically a pipe.

"Crest" means the top or highest portion of a dam. The term *"crest of dam"* means the top portion of the dam. The term *"crest of spillway"* means the highest portion of the spillway which allows water to overflow and typically sets the normal impoundment elevation.

"Dam" means any barrier of any kind whatsoever which is capable of impounding or controlling the flow of water, including but not limited to storm water retention or detention dams, flood control structures, dikes, and incompletely breached dams.

"Dam Owner" means any person or entity shown on the most recent deed or report of title recorded in municipal land records as the owner of property upon which a dam is fully or partially located.

"Dam Safety Program" means the Dam Safety Program of the State of Connecticut Department of Energy and Environmental Protection. The Dam Safety Program is located within the Inland Water Resources Division, one of four divisions of the Bureau of Water Protection and Land Reuse of The Department of Energy and Environmental Protection.

"Department" means the State of Connecticut Department of Energy and Environmental Protection.

"Design Storm" means the meteorological precipitation event selected for a particular dam used to compute runoff and inflows to the impoundment of the dam. The minimum design storm for Connecticut dams is the 100 year storm event (one percent chance of being equaled or exceeded in any given year).

"Drawdown" means the intentional lowering of the water surface of an impoundment below its normal elevation by opening gates or valves or otherwise causing a release of water from the impoundment.

"Embankment" means the portion of a dam constructed of earth or earth and stone masonry connecting topographic features and often shaped to have sloping sides, a level crest, typically vegetated with a grass cover, and provides a manmade barrier which impounds water.

"Endangered species" as defined in Section 26-304 of the Connecticut General Statutes means any native species documented by biological research and inventory to be in danger of extirpation throughout all or a significant portion of its range within the state and to have no more than five occurrences in the state, and any species determined to be an "endangered species" pursuant to the federal Endangered Species Act;

"Erosion and sedimentation control measure" means a specific design for vegetative, nonstructural or structural means for controlling erosion and sedimentation described in the *Connecticut Guidelines for Soil Erosion and Sediment Control* published by the Connecticut Council on Soil and Water Conservation pursuant to Section 22a-328 of the General Statutes.

"Existing natural resource map" means a topographic map prepared by the U.S. Geological Survey; a flood boundary map prepared by the Federal Emergency Management Agency; a soil survey map prepared by the Cooperative Soil Survey of the U.S. Natural Resources Conservation Service; a National Wetlands Inventory Map prepared by the U.S. Fish and Wildlife Service; a *State and Federal Listed Species and Natural Communities* map or a map of coastal resources prepared by the Department of Energy and Environmental Protection; photogrammetric map; and similar depictions of the land and natural resources.

"FEMA" means the Federal Emergency Management Agency.

"Fill" means any material that is used to raise the level of the ground surface, whether such surface is above, at, or below the water table, and includes but is not limited to consolidated material such as concrete and unconsolidated material such as sand, gravel and stone.

"Flood" means a general and temporary condition of partial or complete inundation of normally dry land areas.

"Floodplain" means floodplain as defined in Section 25-68b of the General Statues.

"Floodway" means the regulatory floodway as defined in 44 CFR Chapter 1, Part 59.1 for a particular watercourse and delineated on a map titled Floodway & Flood Boundary Map or Flood Insurance Rate Map issued by FEMA for the municipality wherein such watercourse is located.

"Freeboard" means the vertical dimension between the crest (top) of the dam at its lowest point and the crest of the spillway, which controls the reservoir water surface elevation. The *design storm* freeboard is the vertical dimension between the crest (top) of the dam at its lowest point and the peak reservoir water surface elevation during the design storm event. The minimum recommended *design storm* freeboard for earth embankment dams is one foot.

"Grout" means a mixture of cement, sand, and water, or a similar chemical formulation with low viscosity used to fill voids, fractures, or joints in masonry, rock, sand and gravel, and other materials. As a verb, it refers to filling voids with grout.

"Hazard Classification" means a system of classifying dams by their downstream hazard potential in accordance with Section 22a-409-2 of the Regulations of Connecticut State Agencies.

"Height of Dam" means the vertical distance between the lowest point on the crest of the dam and the lowest point in the original streambed.

"Hydrologic and Hydraulic Report or H&H Report" means a report consisting of engineering studies, design computations and other documentation of rainfall, runoff, inflow and discharge rates for a particular dam. These may include but not be limited to spillway analyses and routing computations based on the selected design storm(s).

"Individual permit" means a permit issued by the commissioner to a named permittee pursuant to Section 22a-403 of the General Statutes.

"Intake" means a structure located on a dam, in a reservoir, or on a river through which water can be drawn from the water body into a conduit to a discharge point.

"Jurisdictional Dam" means a dam subject to the jurisdiction conferred by chapter 446j of the Connecticut General Statutes which includes all dams, dikes, reservoirs and other similar structures, with their appurtenances, without exception and without further definition or enumeration herein, which, by breaking away or otherwise, might endanger life or property.

"Length of Dam" means the horizontal distance along the dam and including any incorporated spillway(s) which lies between abutment contacts or to the point where the crest of the dam meets existing natural grade.

"Listed Species" means species of special concern, threatened species, or endangered species as defined in Section 26-304 of the Connecticut General Statutes.

"Low Level Outlet" means an intake structure on a dam or spillway often with a control valve of some sort situated near the bottom of the dam or impoundment such that it is capable of withdrawing water from lower levels of the impoundment and is potentially capable of significantly lowering or draining the impoundment.

"Material" means material as defined in Section 22a-38 of the Connecticut General Statutes.

"Municipality" means a city, town or borough of the state.

"Permittee" means any entity to which the commissioner has issued an approval of the filing.

"Pollution" means pollution as defined in Section 22a-423 of the General Statutes.

"Request for Approval of Filing" means to submit a filing on the required form which incudes the required signatures and fee, and all necessary supporting information required by Sections 3 and 4 of this general permit.

"Riprap" means a layer of large stone or broken rock placed in random fashion on the slope of an embankment dam or in a channel as protection against the erosive flow of water, waves, and/or ice.

"Site" means geographically contiguous land or water on which an authorized activity takes place or on which an activity for which authorization is sought under this general permit is proposed to take place. Non-contiguous land or water owned by the same person and connected by a right-of-way which such person controls and to which the public does not have access shall be deemed the same site.

"Solid Waste" means solid waste as defined in Section 22a-207 of the General Statutes.

"Spalling" means the deterioration of a concrete surface under the action of weather or other erosive force resulting in the breaking away of the surface material and exposing aggregate and/or reinforcing steel.

"Spillway" means a structural component of a dam over or through which water from the impoundment is discharged to downstream receiving waters. If the discharge is controlled by gates or valves, it is considered a controlled spillway; if the spillway crest is not mechanically operable, it is considered an uncontrolled spillway. The "principal spillway" sets the normal elevation of the impoundment and conveys normal flows from the impoundment to the downstream waters. An "Auxiliary Spillway" supplements the discharge of the principal spillway during less frequent flood flows. The term "Emergency Spillway" has been replaced by Auxiliary Spillway, however either term indicates a spillway with a higher crest elevation than that of the principal spillway.

"Storage" means the aggregate volume of water in the impoundment being retained by the dam when the impoundment is at the elevation set by the principal spillway, expressed in millions of gallons or in acre-feet. The storage in acre-feet may be roughly calculated by multiplying the pond surface area in acres by the average depth of the impoundment in feet when the impoundment is at the elevation set by the principal spillway.

"Structure" means the dam, its appurtenances, abutments and foundation.

"Surface Area" means the area in square feet or in acres of the surface of the body of water impounded by the dam when the impoundment is at the level set by the principal spillway.

"Toe" means the base portion of the impounding structure which intersects with natural ground at the upstream and downstream sides. In the case of a concrete gravity dam the upstream intersect is referred to as the "heel."

"Watercourses" means watercourses as defined in Section 22a-38 of the General Statutes.

"Wetlands" means wetlands as defined in Section 22a-38 of the General Statutes.

Section 3. Authorization under this General Permit

(a) Eligible Activities

Provided the requirements of Section 3(b), and Sections 4, 5 and 6 of this permit are satisfied, this general permit authorizes the minor activities listed below on all jurisdictional dams of any size and storage capacity. Connecticut licensed professional engineering oversight is required. Only one filing per dam may be submitted at a time and work authorized under the filing must be completed with reports of completion filed before a subsequent filing may be made. Any impoundment drawdown necessary for the activity must meet the requirements of Section 3(b)6 of this permit. The maximum extent of repairs allowed by an approval of the filing for each activity is as indicated below.

- 1) **Installation of up to 400 feet of engineered toe drain systems.** Toe drains shall be designed using accepted dam engineering practice and the filing shall include a plan view of the extent of the toe drains, a profile view indicating the elevations, and a detail of the proposed trench, cleanouts, outlet structure, flow measurement area, material specifications, and a sequence of construction including the drawdown depth and duration necessary for the work. Any impoundment drawdown must meet the requirements of Section 3(b)6 of this permit.
- 2) **Minor repair, removal, and replacement of trash racks, gate valves and sluice gates**, as well as associated hardware. The filing must include documentation of the infrastructure that is to be repaired or removed or replaced and reasons for the work, the materials to be used, and procedures proposed.
- 3) **Placing new or replacing up to 150 square yards of riprap** on dams, along embankments, and within spillway discharge channel(s). Authorization includes adding new riprap in new areas where necessary and includes moving displaced riprap back to its original location. Replacement riprap shall not be smaller in size than the existing riprap. Filing shall include an engineered design and diagrams showing the areas to be riprapped, bedding materials, aggregate sizes and installation procedure. Any impoundment drawdown must meet the requirements of Section 3(b)6 of this permit. The filing must include verification from the US Army Corps of Engineers that the Category 1 wetlands general permit has been accepted for this work.
- 4) Removing tree root systems and restoration of earth dam crests, slopes and abutments where the tree density is less than two three-inch (3") trees per 100 square feet, to restore dam embankments which are not heavily overgrown with woody vegetation back to the original design.

Changes in the shape and slopes of the dam other than to restore it to its original design are not authorized under this permit.

The tree density on the crest and slope shall be computed by counting the number of trees or tree stumps on the dam which are greater than 3" diameter at ground level on the top, the upstream and downstream embankment slopes, and within 25 feet of the downstream toe, and the abutment / embankment contacts and dividing by the square footage of the areas of the dam with tree overgrowth and multiplying that by 100.

When the work includes removal of tree root systems within the phreatic zone of the dam, typically near the downstream toe, the filing must include an evaluation of the need for a downstream filter and / or toe drain.

The filing must include plans showing areas of tree root removal and restoration, indicate the quantity of trees present and the total square footage on the crests and slopes proposed to be restored, fill material specifications appropriate for the portion of the embankment being repaired, compaction requirements, construction procedures and related information.

Whenever this activity would require filling of wetlands, the filing must include in the appropriate attachment, verification from the US Army Corps of Engineers that the Category 1 wetlands general permit has been accepted for this work.

Dams which are more heavily overgrown and having tree densities exceeding the limit of 2 tree per 100 square feet or where the wetlands impacts exceed that which is allowable under the US Army Corps Category 1 wetlands general permit cannot be authorized under this general permit. To conduct this activity will require an individual dam safety permit and the appropriate levels of state and federal permitting.

- 5) **Filling Animal Burrows on upstream or downstream slopes** and restoration of the embankment. For burrows located within the phreatic zone of the dam, typically near the downstream toe, the filing must include an evaluation of the need for a downstream filter and / or toe drain. A maximum of 25 burrows may be restored per filing. The burrows must be refilled with properly compacted suitable embankment fill of similar particle size gradation to the soil of the embankment in the area of the burrow. The work must include topsoil and establishing grass cover or bedding and matching size riprap if the area was riprapped. A plan to prevent further burrowing must be prepared and implemented.
- 6) **Repairs to and construction of concrete structures on dams** including repairs and construction requiring formwork and reinforcing steel. This includes patching of spalling, surface repairs, crack repairs, concrete structure repairs, and repair of intake and outlet structures, headwalls, endwalls, wingwalls, training walls and new appurtenant structures that can be constructed without requiring excavation into the dam. This does not include repairs that would replace or modify the size of the spillway or installation of new intake structures and discharge conduits which require excavation into the lower portion of the dam as those are major repairs requiring individual dam safety permitting. The volume of concrete used for the repair or construction must not exceed the following quantity limitations:
 - a) Earth Embankment Dams:

Dam Length x Dam Height / 100 = maximum cubic yards of concrete allowed. Example: 200' Long Dam x 20' high / 100 = 40 maximum cubic yards for repair.

b) Concrete Gravity Dams:

Dam Length x Dam Height / 50 = maximum cubic yards of concrete allowed.

Example: 200° Long Dam x 20' high / 50 = 80 maximum cubic yards for repair.

7) **Repointing** voids and repairing masonry including brick and block work on the dam's upstream face, crest, and appurtenant structures such as training walls, wing walls, headwalls,

and endwalls. Partial demolition and re-construction is allowed on walls with a maximum vertical height of six feet and only if the base or foundation of the wall is in sound condition and is not removed. Repointing and repairing masonry located on the downstream face of the dam is authorized only where the downstream masonry of the dam or spillway is already mortared and the masonry is not discharging seepage, or where a system to safely discharge seepage reaching the downstream masonry face of the dam is in place and is maintained or a design for which has been included in the filing. This minor repair is authorized for up to a maximum of 250 square feet of masonry per filing.

- 8) **Sliplining and grouting existing outlet pipes** where the existing pipe is not significantly deformed. There is no maximum pipe diameter or length limitation. If the pipe to be sliplined is part of the principal spillway, the filing shall include documentation that the sliplining will not reduce the capacity of the existing pipe or that the dam will have adequate capacity to safely pass the design storm once the liner pipe is installed. In addition, the filing must include documentation of the interior condition of the pipe to be sliplined including confirmation that the existing pipe can accept a liner and that deformation of the existing pipe will not prevent the liner from being installed. Any impoundment drawdown must meet the requirements of Section 3(b)6 of this permit.
- 9) **Grouting voids** by means of gravity fed cement of pressure injection chemical grouting process which is overseen by a Connecticut licensed professional civil engineer. Filing must include a plan view indicating areas to be grouted and include the procedures proposed and materials to be used. There is no volume restriction on the amount of grout.
- 10) **Installation of footbridges or vehicular bridges over spillways** provided the low chord of the bridge is set above the maximum water surface elevation anticipated during the peak impoundment elevation of the design flood for the dam. The filing shall include plans of the spillway portion of the dam showing the proposed bridge and support abutments and include elevations of the bridge low chord and the maximum pond elevation of the dam's design storm. Information indicating the spillway training / abutment walls are capable of supporting the bridge should be included. If a center support pier or piers are required, the filing shall include hydraulic computations of the spillway capacity with and without the support pier(s) and the expected peak pond elevations and freeboard the dams design flood.
- 11) **Digging test pits, drilling soil borings, installing piezometers** when necessary to investigate internal conditions within earth embankment dams. Documentation of these activities including the location, depths, water levels, materials and conditions found including photographs if appropriate shall be kept within the permanent file maintained for the dam and provided to the commissioner upon request. Test pits shall be backfilled and properly compacted in lifts appropriate for the material being excavated and the top cover restored.
- 12) Removal of DEEP Dam Safety confirmed class A (Low) or class BB (moderate) downstream hazard dams with narrow impoundments which contain no or minimal impounded sediment, and the sediment that is present is predominately coarse grained and relatively free of contamination. In addition to the requirements for authorization in Section 3(b) dams proposed for removal shall meet the following conditions:
 - i. The width of the impoundment is no greater than twice the width of the channel upstream and downstream;
 - ii. the volume of impounded sediment is minimal such that no negative impacts to downstream reaches, public or private property and infrastructure are anticipated upon release;

- iii. the work necessary to gain access to the dam and the actual removal of the dam must not create adverse effects to or on public or private property and infrastructure;
- iv. the character of impounded sediment is dominated by gravel, cobbles or boulders (i.e., greater than 2 mm diameter), with fine sediment (i.e., less than 2 mm diameter clay, silt and sand) comprising less than 10% of the total volume of impounded sediment; and
- v. the dam is not providing significant stormwater detention and the removal will not cause increased frequency or depth of flooding downstream due to a loss of established stormwater detention function.

Parties proposing to remove a dam under the authorization of this permit must during the early planning stages, consult with the DEEP Dam Safety Program and the DEEP <u>Inland Fisheries</u> <u>Division</u> to confirm the hazard class and discuss the proposed removal project. A consultation with the DEEP Wildlife Division's Natural Diversity Database (NDDB) must also be completed when the most recent NDDB map indicates that endangered, threatened and special concern species may exist in the area of the project. A consultation with the municipal wetlands agent is also recommended. In addition to documentation and record keeping requirements in Sections 3(b) and sections 4, 5, and 6 of this general permit such documentation for a dam removal should include:

- vi. Records of consultations with municipal or state or federal agencies; the dam owner(s), adjacent property owners, property owners on the impoundment, and other parties who may have interest in the dam removal;
- vii. a description of the project including identification of the owner(s) of the property the dam is located on and of the owners consent to allow the removal of the dam;
- viii. copies of any environmental and physical testing of the sediment impounded which may be released by the removal;
- ix. copies of the notification to the municipality and of any communications to and from the municipality or residents in the municipality regarding the dam removal; and
- x. photographs documenting the dam to be removed and upstream and downstream areas which will be affected by the removal.
- 13) **Stabilization of naturally breached dams**. Dams which have breached during storms or have partially failed may be temporarily or permanently stabilized and the DEEP Dam Safety downstream hazard classification may reduced to AA (negligible) provided the following steps are taken:
 - i. The breached area is stabilized to prevent impounding and retention of water during a 100-year design storm;
 - ii. the filing must include computations for the sizing and stabilization of the breach using natural channel materials as much as is possible;
 - iii. the breach channel is designed to allow for fish passage where required by the Inland Fisheries Division;
 - iv. consideration is given to any need to retain or limit the downstream release of additional pond sediment; and
 - v. a written statement from the dam owner(s) regarding the future of the dam and their intentions to either restore the dam and former impoundment or make the breach permanent, must be included in the filing.

- 14) **Removal of weir boards or creation of a notch in a spillway to incrementally lower an impoundment** and mobilize upper level sediments in impoundments behind a dam scheduled for removal and for which either this permit or an Individual Dam Safety permit will be required for the removal project. All consultations as per paragraph 3(a)12 must have been completed and this activity has been accepted as the most appropriate method to initiate the removal of the dam.
- 15) **Installation of fishways at spillways** provided such installation will not reduce the capacity of the primary or auxiliary spillways to discharge the dam's design flood and the installation of such does not require excavation at the abutments of the dam. The filing shall include computations that indicate the proposed fishway will not reduce necessary spillway capacity for discharge of the dams design flood with freeboard.
- 16) **Improvements to spillway discharge channels** to allow for fish migration by such means as rock weirs or other similar modifications which will not reduce the capacity of the primary or auxiliary spillways to discharge the dam's design flood. The filing must include evidence of exemption or confirmation of Category 1 US Army Corps of Engineers wetlands general permit coverage for all proposed filling of wetlands or channel alterations.

(b) Requirements for Authorization

The activities listed in Section 3(a) of this general permit are authorized provided:

1) Filing the Request for Approval of Filing.

A filing on forms prescribed and provided by the commissioner indicating the proposed activities to be authorized by this permit including the appropriate fee has been submitted in accordance with Section 4 of this general permit. The filing must be prepared, signed and stamped by a Connecticut licensed professional engineer.

2) Approval Required by Commissioner.

The commissioner has issued a written approval of such request.

3) Notification to Municipality.

Notification of intent to conduct regulated activities authorized under this general permit using the Department provided form has been submitted to the inland wetlands agency or corresponding environmental agency in the municipality where such activities are located in advance of the initiation of the activities as follows:

- a. For activities authorized in Sections 3(a)1 through 3(a)11 of this general permit, the notice has been delivered to the municipality at least two weeks prior to initiating the activity.
- b. For dam removal and fish passage projects authorized in Sections 3(a)12 through 3(a)16 of this general permit, the notice has been delivered to the municipality at least sixty (60) days in advance of initiating the activity.

A copy of the notice has been provided to the Department at the address provided thereon or has been included within the filing.

4) Dam Registration

The dam has been registered in accordance with Section 22a-409(b) of the Connecticut General Statutes (CGS).

5) Documentation of Work, Record Keeping, and Notifications

In order to be able to verify that work undertaken under the authorization of this permit complies with the limits of the permit, the permittee and or dam owner shall document the quantity of work completed by means of recorded measurements, sketches, diagrams, plans, photographs, and other written methods in a manner that complies with the Reporting and Record keeping requirements in Section 5(b) of this permit.

6) Impoundment Drawdown Consultations, Notifications, and Limitations

The permittee shall not draw down the impoundment by more than three (3) inches below the normal pool elevation set by the principal spillway or the permittee shall consult with the DEEP <u>Inland Fisheries Division</u> a minimum of two weeks in advance of initiating any drawdown necessary to undertake an activity authorized by this permit which will lower the impoundment more than three (3) inches below the normal pool elevation set by the principal spillway. The drawdown and refilling procedures shall conform to any limitations imposed by the Inland Fisheries Division.

Prior written notification to the commissioner of the intent to draw down an impoundment shall be made and the drawdown shall be in conformance with the exemption provisions of the water diversion regulation in section 22a-377(b)-1(a)(16) paragraphs (A), (B), and (C) and which includes the requirements of section 22a-377(b)-1(b) regarding best management practices.

The requirements of this Section shall not apply to active public water supply or flood control dams which routinely have variable impoundment elevations or when low inflow or drought conditions cause lowered impoundments.

7) Access by Mechanical Construction Equipment

Mechanical equipment used to conduct activities authorized by this permit shall access the dam and site by traveling on existing access roads, on the dam itself, or through uplands as much as is possible and may only travel through wetlands which are associated with the dam which are within twenty five (25) feet of the dam's abutments, downstream toe, upstream shoreline, or any appurtenant structure associated with the dam and its function. Wetlands outside of these areas and not associated with the dam shall not be filled or altered to create access road(s) for mechanical equipment without prior approval and permission of the entity having jurisdiction over those wetlands.

8) Water Resources

Such activity will cause only minimal adverse impacts individually, and only minimal adverse cumulative impact, on the environment, including without limitation on wetlands and watercourses and fish and wildlife habitat.

9) Fisheries Impacts.

The activities including impoundment drawdowns shall not impact fisheries resources, including fisheries habitat.

10) Listed Species

Such activity does not threaten the continued existence of any species listed pursuant to Section 26-306 of the General Statutes as endangered, threatened or species of special concern and will not result in the destruction or adverse modification of habitat designated as essential to such species.

11) US Army Corps of Engineers (USACE)-Connecticut General Permit.

Such Activity has been exempted from permitting by the US Army Corps of Engineers, or meets the requirements for Category 1 of the USACE's Connecticut General Permit whenever filling of wetlands is proposed.

12) Avoidance of Adverse Impacts.

Such activity, as described in the Request for Approval of Filing, is the least environmentally damaging means of accomplishing the main objective of such activity.

13) Water Quality Standards.

Such activity will meet the requirements of the Connecticut Water Quality Standards Regulations sections 22a-426-1 to 22a-426-9, inclusive, of the Regulations of Connecticut State Agencies.

14) Coastal Area Management.

Such activity will be consistent with all applicable goals and policies in Section 22a-92 of the General Statutes and will not cause adverse impacts to coastal resources as defined in Section 22a-93 of the General Statutes.

15) Aquifer Protection.

Such activity, if it is located within an aquifer protection area as mapped under Section 22a-354b of the General Statutes, will comply with regulations adopted pursuant to Section 22a-354i of the General Statutes.

16) Conservation and Preservation Restrictions

Such activity, when located on or which may affect property upon which a conservation or preservation restriction meeting the requirements of Section 47-42d of the Connecticut General Statutes exists, shall be in compliance with any such restriction. A written notice stating that the proposed activity is in compliance with the terms of the restriction and with this permit shall be prepared and signed by the permittee and by the holder of such restriction. A copy the notice shall have been provided to the commissioner.

17) Flood Management

Such activity shall be consistent with all applicable standards and criteria established in sections 25-68d(b) of the General Statutes and sections 25-68h-1 through 25-68h-3, inclusive, of the Regulations of Connecticut State Agencies.

18) Flood Hazards.

Such activity does not and will not cause or contribute to flooding or flood hazards, permanently obstruct a floodway, or interfere with federal, state or municipal flood management efforts, and does and will comply with 44 CFR Chapter 1, Parts 59 through 79, inclusive.

(c) Geographic Area

This general permit shall apply throughout the State of Connecticut.

(d) Effective Date and Expiration Date of This General Permit

This general permit is effective on the date it is issued by the commissioner and expires ten (10) years from such date of issuance.

(e) Effective Date of Authorization and Completion of Activities

An activity is authorized by this general permit on the date the commissioner issues a written approval of such request for approval of the filing for such activity. The activity or activities authorized by written approval of an acceptable filing must be completed within three (3) years of the date of the written approval unless an extension is authorized in writing by the commissioner.

- (*f*) *Transition to and from an Individual Permit.* No person shall operate or conduct an activity authorized by both an individual permit and this general permit. The requirements for transitioning authorization are as follows:
 - 1) *Transition from an Individual Permit to Authorization under this General Permit.* If an activity meets the requirements of authorization of this general permit and such operation or activity is presently authorized by an individual permit, the entity to whom any such individual permit has been issued ("the permittee") may surrender the right to operate or conduct any activity under such individual permit. The permittee shall acknowledge its intention to surrender its permit in writing to the commissioner. However, any such surrender shall not take effect, and such permittee's individual permit shall continue to apply, until the date that the commissioner issues an authorization for such operation or activity under this general permit.
 - 2) *Transition from Authorization under this General Permit to an Individual Permit.* If the commissioner approves a Request for Approval of Filing under this general permit and subsequently issues an individual permit for the same activity, then on the date any such individual permit is issued by the commissioner, the authorization issued under this general permit shall automatically expire.

Section 4. Request for Approval of Filing

(a) Who Must File a Request for Approval of Filing

Any person or municipality seeking under the authority of this general permit to undertake a regulated activity shall file with the commissioner: 1) a Request for Approval of Filing form which meets the requirements of Section 4 of this general permit; and 2) the applicable general permit fee.

(b) Scope of Request for Approval of Filing

A single filing shall typically be limited to a single dam and its associated impoundment. If there are additional dams or dikes on that impoundment, all proposed repair and alteration activities at the structures of that impoundment may be included in a single filing.

(c) Contents of a Request for Approval of Filing

- 1) Fees
 - a) A filing fee of \$250 shall be submitted with each Request for Approval of Filing.

50% Municipal Discount. The filing fee for a municipality shall be \$125. A Request for Approval of Filing shall not be deemed complete and no activity shall be authorized by this general permit unless the Request for Approval of Filing fee has been paid in full.

- b) The fee shall be paid by check or money order payable to the *Department of Energy and Environmental Protection*.
- c) The filing fee is non-refundable.
- 2) Information Requirements and Request for Approval of Filing Form

A request for approval shall be filed on forms prescribed and provided by the commissioner and shall include the following:

- a) Legal name, address, telephone number, and email address of the person, corporation or municipality making the filing. If the filer is not an individual person, provide the exact name of the entity including as registered with the Connecticut Secretary of the State if so registered and include the name, title, phone number, and email address of the person or persons representing the entity in this matter.
- b) Name of Property Owners. If different from that of the requester: the legal name, address, and telephone number and email address of the owner(s) of the properties including the municipal assessors map block and lot (or the equivalent) data for each parcel within which the dam is contained or on which the subject activity is to take place.
- c) Legal name, address, and telephone number of the requester's attorney or other representative, if applicable.
- d) Legal name, address, and telephone number of any consultant(s), engineer(s), or contractor(s) retained by the requester to prepare the Request for Approval of Filing or to design, construct or oversee the subject activity.
- e) The nearest street address to the primary access to the dam. Information necessary for obtaining access to the dam.
- f) Location Map. A map with a minimum scale of 1:24,000 which includes labels indicating the location of the dam, street names, municipality name, the name of the dam, the Connecticut DamID#, north arrow, and includes an arrow indicating the nearest location (street) address for access to the dam.
- g) A description of the present and intended use(s) of the dam at which such activity will be conducted and the reason for conducting such activity.
- h) The proposed initiation date(s) for the activity including the estimated duration(s) of the subject activity or activities.
- i) Description of Proposed Activities. Narrative descriptions and information shall be provided on the filing form and supplemented as necessary by attachments for all the proposed dam repair and alteration activities to be conducted under the authorization of this general permit including the following:
 - i. Computations utilizing the formulas in Section 3(a) of this general permit for determining the limits of the scope of work to be conducted for verification that the proposed work is within the limits established by this permit.
 - ii. Photographs, sketches, diagrams, reports as necessary to depict the existing conditions and the proposed areas and quantities of repairs to be conducted under the filing.
 - A scale drawing or other detail drawings which include the signature and professional engineer stamp of the Connecticut licensed professional engineer shall be included. The preferred paper size is 11x17. The drawings shall be at a minimum scale of 1"=40', include a scale bar, north arrow, title block, with dam name, Connecticut Dam ID#, town, dam owners name, consultants name, date, and be fully

labeled to show all pertinent features necessary to properly depict the proposed work as within the limits of the authorizations of this permit.

- iv. The filing must include information describing the type and quantities of materials to be used or placed and include details of construction methods and a sequence of construction activities specifying proposed dates of starting and for completing the work.
- j) Fisheries Review. For dam removal activities or when an impoundment drawdown which lowers the impoundment more than three (3) inches below the principal spillway is necessary for the completion of the activities for which authorization is sought, the filing must include the results of the DEEP Inland Fisheries Division consultation. Identified fisheries interests at the subject dam must be incorporated into the project. The consultation is typically initiated by submitting the form entitled "*Request for Determination of Need for Fishway for Dam Safety Permit*," which is available on the Dam Safety Website www.ct.gov/deep/dams or on the DEEP Inland Fisheries Division Fisheries Management Programs webpage.
- k) Natural Diversity Database (NDDB). When a preliminary screening indicates that your project and any additionally affected areas intersect or overlap with an NDDB area on the screening maps, the filing must include a completed NDDB review with a response from DEEP Wildlife confirming that the proposed activity will have no impact on the listed species. The consultation with DEEP Wildlife is typically initiated by filing a *Request for Natural Diversity Data Base (NDDB) State Listed Species Review* Form, available on the DEEP Wildlife website.
- Wetlands. If the work will include any filling of federally regulated wetlands, the filing must include a copy of the filed Appendix 1a: Category 1 Certification Form and any included attachments as associated with obtaining coverage under the Department of the Army General Permit for the State of Connecticut. Return confirmation from the US Army Corps of Engineers that the activity is covered within Category 1 of that general permit must also be included.
- m) A detailed description of the pollution prevention and best management practices that will be implemented to minimize construction in and disturbance of floodplains, wetlands, and watercourses, and prevent pollution.
- n) A copy of the notice filed with the Municipality.
- o) The signature of the requester and of the individual or individuals responsible for actually preparing the Request for Approval of Filing, each of whom shall certify in writing in accordance with Section 6(d) of this general permit.

(d) Where to File a Request for Approval of Filing

The Request for Approval of Filing shall be filed with the commissioner at the following address:

CENTRAL PERMIT PROCESSING UNIT DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION 79 ELM STREET HARTFORD, Connecticut 06106-5127

(e) Notice to Municipality

A notification of intent to conduct regulated activities using the DEEP provided form shall be submitted to the inland wetlands agency or corresponding environmental agency in the municipality where such activities are located in advance of the initiation of the activities as follows:

- 1) For all activities except for dam removals and fish passage projects, the notice shall be delivered to the municipality at least two weeks prior to initiating the activity
- 2) For dam removal and fish passage projects the notice shall be delivered to the municipality at least sixty (60) days in advance of initiating the activity.

A copy of the notice form indicating its delivery at the municipality shall be submitted to the DEEP at the address provided thereon or within the filing.

(f) Additional Information

The commissioner may require a requester to submit additional information, which the commissioner reasonably deems necessary to evaluate the consistency of the subject activity with the requirements for authorization under this general permit.

(g) Action by Commissioner

- 1) The commissioner may reject without prejudice a Request for Approval of Filing if he determines that it does not satisfy the requirements of Section 4(c) of this general permit or more than thirty days have elapsed since the commissioner requested that the requester submit additional information or the required fee and the requester has not submitted such information or fee. Any Request for Approval of Filing refiled after rejection shall be accompanied by the fee specified in Section 4(c)(1) of this general permit.
- 2) The commissioner may disapprove a Request for Approval of Filing if he finds that the proposed activity is reasonably likely to be inconsistent with the requirements for authorization under Section 3 of this general permit, or for any other reason provided by law.
- 3) Disapproval of a Request for Approval of Filing under this Section shall constitute notice to the requester that the subject activity may not lawfully be conducted or maintained without approval under another general permit, or the issuance of an individual permit.
- 4) The commissioner may approve a Request for Approval of Filing with reasonable conditions. If the commissioner approves a Request for Approval of Filing with conditions, the permittee shall be bound by such conditions as if they were a part of this general permit.
- 5) Rejection, disapproval, or approval of a Request for Approval of Filing shall be in writing.

Section 5. Conditions of this General Permit

The permittee shall at all times continue to meet the requirements for authorization set forth in Section 3(b) of this general permit. Any permittee authorized to conduct activities as described in Sections 3(a) of this general permit shall assure that activities authorized by this general permit are conducted in accordance with the following conditions:

(a) **Operating Conditions**

A permittee shall assure that each action with respect to which he has sought and obtained authorization under this general permit is, as applicable, constructed and maintained in accordance with the authorization and the following conditions:

1) Time of Year Restriction on In-water Construction

From September 30th through May 31st the permittee shall not place fill, excavate material, or conduct any other construction activity in any watercourse unless such activity is confined by a cofferdam or other device which isolates such activity from the watercourse.

2) Pollution Prevention/Best Management Practices

The permittee shall not cause or allow the authorized activity, including any construction associated therewith, to result in pollution or other environmental damage and shall employ best management practices to prevent such damage. The permittee shall, in addition to employing any other best management practices necessary to prevent such damage, do the following:

a) Controlling Erosion

The permittee shall install and maintain in optimal condition erosion and sedimentation controls to prevent erosion and discharge of material into any waters of the state, including wetlands, as a result of the authorized activity or any construction associated therewith. Such controls shall be installed and maintained in conformity with the *Connecticut Guidelines for Soil Erosion and Sediment Control*, as revised, published by the Connecticut Council on Soil and Water Conservation pursuant to Section 22a-328 of the General Statutes.

b) Proper Disposal of Material

All material and solid waste generated during any construction associated with such activity shall be staged and managed in accordance with applicable federal, state and municipal law including but not limited to the provisions of the General Permit for Contaminated Soil and/or Sediment Management (Staging and Transfer) (DEP-SW-GP-001).

(b) Reporting and Record Keeping Requirements

- 1) If the work authorized by the approval of the filing issued by the commissioner under this general permit is not initiated within sixty (60) days of the date of the approval, the permittee shall provide written notice of the initiation of the work to the commissioner a minimum of one week prior to the proposed initiation. An email to the dam safety program staff at: <u>DEEP.DamSafety@ct.gov</u> will be accepted as written notice.
- 2) Within 30 days of the completion of activities authorized under Section (3)(a) of this permit a work completion report which includes a description of the work completed along with photos, diagrams, sketches indicating the work completed must be submitted. The report must be signed and stamped by the Connecticut licensed professional engineer overseeing the work. A Record Drawing comprising an as-built revision of the scale drawing(s) provided under Section 4(c)i of this permit which has been signed and stamped by a Connecticut licensed professional engineer is required. The work completion report and any record drawings should be submitted as an Adobe Acrobat pdf (portable document format) to the program staff at <u>DEEP.DamSafety@ct.gov</u>.

- 3) The permittee shall maintain a copy of this general permit and all permit-related information on site whenever undertaking work authorized by this permit.
- 4) The permittee, if not the dam owner, shall provide copies of all records of maintenance and repairs done under the authorization of this permit to the dam owner.
- 5) The dam owner shall retain a permanent file with records of maintenance and repairs to the dam, all engineering plans and diagrams, reports and correspondence regarding the dam and shall provide copies of any or all of that information to the commissioner upon request.
- 6) Contractor Notification.

If the authorized activity will be constructed by a person(s) under contract to the permittee or dam owner, the permittee shall (A) give a copy of this general permit and of commissioner's approval of the filing for authorization hereunder to such contractor(s) prior to the start of construction, and (B) for one year after completion of the authorized activity, retain a written receipt for such copy, signed and dated by such contractor(s).

(c) Recording and Reporting Violations

Within forty-eight (48) hours after the permittee learns of a violation of this general permit, the permittee shall report same in writing to the commissioner. Such report shall include the following information:

- 1) the provision(s) of this general permit that has been violated;
- 2) the date and time the violation(s) was first discovered and by whom;
- 3) the cause of the violation(s), if known;
- 4) if the violation(s) has ceased, the duration of the violation(s) and the exact date(s) and time(s) it was corrected;
- 5) if the violation(s) has not ceased, the anticipated date when it will be corrected;
- 6) steps taken and steps planned to prevent reoccurrence of the violation(s) and the date(s) such steps were implemented or will be implemented; and
- 7) the signatures of the permittee and of the individual(s) responsible for actually preparing such report, each of whom shall certify in writing in accordance with Section 6(d) of this general permit.

(d) Modification of Authorized Activity

In conducting and maintaining the activity authorized by this general permit, the permittee shall not make any alteration, except a de minimis alternation, to such activity and shall not make any de minimis alternation without first obtaining the written approval from the commissioner of such alteration. For the purposes of this general permit, a de minimis alteration means a change in the design or operation of the authorized activity that does not increase its adverse environmental or other impacts or significantly change the scope of work authorized.

If during the process of construction, unforeseen conditions are found at the dam and the permittee and engineer determine that it would be appropriate to modify the design authorized by the approval of the filing, then the permittee shall notify the DEEP Dam Safety Program Staff by telephone at (main number is 860-424-3706) within 24 hours of the discovery of the unforeseen conditions. If required, the permittee must provide a written description or drawings showing the

proposed design modifications. The commissioner shall determine if the proposed design modifications can be categorized as de minimis or within the limits of the activities authorized under this permit. No work shall take place which was not authorized by the approval of the filing until the determination has been made and the design modification approved.

(e) Initiation and Completion of Authorized Activity

The permittee may not initiate authorized activities until receiving written approval of the Request for Approval of Filing from the commissioner and until the notifications to the Municipality have been made. If the permittee does not complete the authorized activity within three (3) years after the date of the applicable approval of authorization, said approval shall be null and void.

Section 6. General Conditions

(a) Reliance on Request for Approval of Filing

In evaluating the permittee's Request for Approval of Filing, the commissioner has relied on information provided by the permittee. If such information proves to be false or incomplete, the permittee's authorization under this general permit may be suspended or revoked in accordance with law, and the commissioner may take any other legal action provided by law.

(b) Duty to Correct and Report Violations

Upon learning of a violation of a condition of this general permit, a permittee shall immediately take all reasonable action to determine the cause of such violation, correct such violation and mitigate its results, prevent further such violation, and report in writing such violation and such corrective action to the commissioner in accordance with Section 5(c) of this general permit.

(c) Duty to Provide Information

If the commissioner requests any information pertinent to the authorized activity or to compliance with this general permit or with the permittee's approval of Request for Approval of Filing, the permittee shall provide such information in writing within thirty (30) days of such request. Such information shall be certified in accordance with Section 5(i) of this general permit.

(d) Certification of Documents

Any document, including but not limited to any notice, which is submitted to the commissioner under this general permit shall be signed by, as applicable, the registrant or the permittee in accordance with Section 22a-430-3(b)(2) of the Regulations of Connecticut State Agencies, and by the individual or individuals responsible for actually preparing such document, each of whom shall certify in writing as follows:

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement made in the submitted information may be punishable as a criminal offense, in accordance with Section 22a-6 of the General Statutes, pursuant to Section 53a-157b of the General Statutes, and in accordance with any other applicable statute."

(e) Date of Filing

For purposes of this general permit, the date of filing with the commissioner of any document is the date such document is received by the commissioner. The word "day" as used in this general

permit means the calendar day; if any date specified in the general permit falls on a Saturday, Sunday, or legal holiday, such deadline shall be the next business day.

(f) False Statements

Any false statement in any information submitted pursuant to this general permit or the Request for Approval of Filing may be punishable as a criminal offense, in accordance with Section 22a-6, pursuant to Section 53a-157b of the General Statutes, and in accordance with any other applicable statute.

(g) Correction of Inaccuracies

Within fifteen (15) days after the date a permittee becomes aware of a change in any information in any material submitted pursuant to this general permit, or becomes aware that any such information is inaccurate or misleading or that any relevant information has been omitted, such permittee shall correct the inaccurate or misleading information or supply the omitted information in writing to the commissioner. Such information shall be certified in accordance with Section 6(d) of this general permit. The provisions of this subsection shall apply both while the approval of the filing for authorization is pending and after the commissioner has approved such filing.

(h) Transfer of Authorization

The approval of filing under this general permit is not transferable.

(i) Other Applicable Law

Nothing in this general permit shall relieve the permittee of the obligation to comply with any other applicable federal, state and municipal law, including but not limited to the obligation to obtain any other authorizations required by such law.

(j) Other Rights

This general permit is subject to and does not derogate any present or future rights or powers of the State of Connecticut and conveys no rights in real or personal property nor any exclusive privileges, and is subject to all public and private rights and to any federal, state, and municipal laws pertinent to the property or activity affected by such general permit. In conducting any activity authorized hereunder, the permittee may not cause pollution, impairment, or destruction of the air, water, or other natural resources of this state. The issuance of this general permit shall not create any presumption that this general permit should or will be renewed.

Section 7. Commissioner's Powers

(a) Abatement of Violations

The commissioner may take any action provided by law to abate a violation of this general permit, including the commencement of proceedings to collect penalties for such violation. The commissioner may, by summary proceedings or otherwise and for any reason provided by law, including violation of this general permit, revoke a permittee's authorization hereunder in accordance with sections 22a-3a-2 through 22a-3a-6 of the Regulations of Connecticut State Agencies, inclusive. Nothing herein shall be construed to affect any remedy available to the commissioner by law.

(b) General Permit Revocation, Suspension, or Modification

The commissioner may, for any reason provided by law, by summary proceedings or otherwise, revoke or suspend this general permit or modify it to establish any appropriate conditions,

schedules of compliance, or other provisions which may be necessary to protect human health and the environment.

(c) Filing of an Individual Application

When the commissioner notifies a permittee, in writing, that such permittee must obtain an individual permit if he wishes to continue lawfully conducting the authorized activity, the permittee may continue conducting such activity only if he files an application for an individual permit within thirty (30) days of receiving the commissioner's notice. While such application is pending before the commissioner, the permittee shall comply with the terms and conditions of this general permit and the subject approval of the Request for Approval of Filing. Nothing herein shall affect the commissioner's power to revoke a permittee's authorization under this general permit at any time.

Issued Date: October 16, 2015

ROBERT J. KLEE

Commissioner

This is a true and accurate copy of the general permit executed on February 5, 2016* by the Commissioner of the Department of Energy and Environmental Protection.