NEW JERSEY DIVISION OF
FISH AND WILDLIFE
Bureau of Freshwater Fisheries
P.O. Box 394 Lebanon, NJ 08833
Phone: (908) 236-2118 Fax: (908) 236-7280

WATER LOWERING PERMIT INFORMATION

AUTHORITY

Pursuant to N.J.S.A. 23:5-29 and N.J.A.C. 7:25-6:25, a water lowering permit must be obtained to partially or completely lower a body of water, regardless of ownership. Water withdrawal activities (water supply, irrigation etc.) which are already permitted or specifically exempted by the Department **do not** require a water lowering permit. For example: the lowering of water on a water supply reservoir for potable water use does not require a water lowering permit. However, a water lowering permit is needed for lowering the same body of water for dam repair, or aquatic vegetation control. If uncertain whether or not a permit is required please contact the Bureau of Freshwater Fisheries at (908) 236 – 2118 for clarification. The Division of Fish and Wildlife issues water lowering permits for the sole purpose of protecting the state's aquatic biota.

The timing, duration and extent of lowerings are tailored to each situation and are designed to avoid or minimize the loss of fish, and impacts to other biota. Permits are conditioned to further minimize these impacts to the extent possible and permittees assume responsibilities to protect aquatic biota while the waterway is lowered. Every lowering has an impact to both aquatic biota present within the waterway and downstream and no waterway should be lowered on a routine annual basis.

APPLICATION INFORMATION

Applications are available on the Division of Fish and Wildlife's website www.NJFISHANDWILDLIFE.com or by contacting the Bureau of Freshwater Fisheries at (908) 236 - 2118. Applications should be submitted at least **two months prior** to the date requested to begin lowering to allow time for review and processing. **There is a $ 2 application fee. A separate application is required for each waterbody requested to be lowered.**

Applications should be submitted to:

Division of Fish and Wildlife
Bureau of Freshwater Fisheries
PO Box 394
Lebanon, NJ 08833

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A map, which clearly shows the location of the waterbody in relation to the closest public road or intersection must be submitted with each application.

DIVISION OF DAM SAFETY MANDATED LOWERINGS

Dam owners who have been **mandated** by the DEP's Division of Dam Safety to lower water levels in their impoundment due to concerns with the safety of the dam structure must

immediately begin lowering the waterbody as specified in the mandate order and must contact the Bureau of Freshwater Fisheries at (908) 236-2118 to assure the protection of the aquatic biota. Owners have 15 days from receipt of such notice to submit a water lowering application to the Division of Fish and Wildlife. **A copy of the letter issued by Dam Safety mandating the lowering, and its extent, MUST be submitted along with the application.** Since unsafe dams pose serious safety and property risks they are exempt from timing restrictions. However, waterbody owners are still responsible for the protection of the aquatic biota within the waterway.

GENERAL INFORMATION

A variety of activities including dredging, dam repair, bulkhead and dock repair often require water levels to be lowered to be completed. These lowerings, although necessary, have significant impacts on the aquatic biota present within the waterway depending on their extent, duration and timing. Lowered water levels also inhibit the recreational use of a waterway, and can interfere with state stocking programs.

Poorly planned and unapproved lowerings can and do result in entire fish populations being destroyed often incurring several thousands of dollars in clean up costs and loss of recreational angling use of the waterway for several years which can affect area businesses.

Application approvals are based on whether fish, turtles and other aquatic biota will be adequately protected. Certain variables are particularly important in determining the impact of a lowering on aquatic biota. These variables are the time **of year, duration, extent of drawdown,** and **depth** from which the water is released. Guidelines presented below are designed to assist the applicant in preparing an acceptable water-lowering plan. It is recommended that potential applicants contact the Bureau of Freshwater Fisheries prior to submitting an application to discuss the proposed lowering. Assistance can be provided in completing the application form and informing the applicant of potentially acceptable terms and conditions.

Time of Year: Timing is one of the most critical components to minimizing impacts to aquatic biota. At certain times of the year aquatic biota (especially fish) are less likely to be adversely affected by a drawdown during others the results can be catastrophic. Applicants should also note that time frames suitable for water lowering are often different than stream encroachment and freshwater wetlands permit conditions that restrict the timing of sediment generating activities.. A well planned project schedule is key to preventing project delays due to water lowering timing restrictions. Applicants should refer to the attached table of preferred time frames for water lowerings to assist in project planning. Applicants are strongly urged to consult biologists with the Bureau of Freshwater Fisheries early in the planning process to determine the most appropriate timeframe for water lowering since multiple timing restrictions may apply.

Fall

Generally, the fall season (mid-September through October) is the most acceptable and desirable time of year to conduct a lowering. Cooler water temperatures prevail which minimizes stress on fish when they become concentrated in a smaller volume of water. Water levels must be drawn down to the full extent permitted by November 1 (waters north of Route 195) and by November 15 (waters located south of Route 195) in order to protect turtles and frogs during the onset of hibernation. Waterways may remain in the lowered state until project completion.

These dates also apply to partial lowerings for weed control purposes. Partial drawdowns during the winter months can help curb the growth of certain types of aquatic vegetation that occur in problem proportions by exposing the substrate (lake bottom) to freezing. The effectiveness of this method is highly varied and dependent on the extent that winter temperatures remain below freezing. Winter lowerings for weed control are not permitted to extend beyond March 1st for southern lakes, and March 15th for northern lakes. Lowerings for weed control purposes are generally limited to one to three feet depending on overall depth of the lake. Applications for weed control purposes will not be approved on a continual annual basis.

Winter

Except under special circumstances (dam safety concerns, catastrophic events etc.) water lowerings will not be approved to begin after November 1 for northern lakes, and November 15 for southern lakes. Lowerings for aquatic vegetation control must be lowered prior to these dates. These timeframes prevent hibernating turtles and frogs, buried in the substrate, from being exposed to the elements.

Spring

A waterbody should be full of water during the spring spawning and summer growing seasons. Pickerel and perch spawn in late winter after ice-out, bass spawn in May and June, and sunfish spawn in May, June, and July. Lowering during these periods can harm fish populations by eliminating suitable spawning areas. Fluctuating water levels can also contribute to egg mortality (by exposure to air) and death of newly hatched and small fish as they become stranded in weed beds and shallow pools. Lowerings for projects that must be conducted in the spring will be **limited in duration** (several days or weeks) **and extent** in order to avoid fish mortality.

Summer

Except in extreme circumstances (imminent dam failure, mandated lowering, etc.) water lowerings will not be approved to begin, or to extend over the summer months. Elevated water temperatures resulting in depleted dissolved oxygen levels can lead to stressed conditions for the entire fish population. These conditions are further exacerbated when fish are crowded in a reduced volume of water. These conditions almost always result in extensive mortality.

Duration: A body of water should not remain lowered any longer than is necessary to accomplish the objective of the lowering. Water levels should never be raised and lowered repeatedly. Waterbody owners should proactively develop water lowering plans to coordinate upcoming activities and projects.

Extent of Lowering: A stream, lake or pond should be lowered only as much as is necessary to accomplish the objective of the lowering. A pool of water which is capable of supporting the fish population should be maintained at all times. Substantial lowerings (remaining water level not sufficient to support the existing fish population) or complete draining of a waterway should only be done when absolutely necessary. These types of lowerings require that the fish be salvaged (collected and relocated), which can be costly. It also often results in the undesirable release of silt, detritus, and debris downstream, which can seriously affect water quality and damage critical habitat in the receiving water. These lowerings also result in loss of recreational use of the waterway for fishing for several years. Substantial and complete drawdowns for aquatic vegetation control are not permitted.

Depth of Water Release: Outlet structures typically have one or more devices (valve, dam boards, etc.) which control the water level and allow the waterbody to be dewatered. During the period from May through September, bottom waters should not be released as this water is typically low or deficient in dissolved oxygen and high in iron. These chemical characteristics can result in extensive mortality of the downstream aquatic biota and negatively affect downstream water uses. If a large portion of a lake's volume is located 10 to 12 feet or more below the surface, water must not be released directly from this or any deeper level during this five-month period. If a siphon or pump is used for dewatering, the intake must be screened and positioned up off the bottom to prevent clogging and transport of sediment downstream.

APPLICANT RESPONSIBILITIES

A water lowering permit does not relieve the permittee from any liabilities to any persons or property affected by the lowering. It is the responsibility of the applicant to coordinate lowering activities that may affect other water users such as state or local water supplies, area businesses, and/or surrounding homeowners **prior to application submittal**. All applications require the approval and signature of the waterbody owner(s).

The permit does not authorize the permittee to conduct any construction or alteration activities in conjunction with the lowering. Activities such as dam repair/construction, dredging, and dock repair/construction often require prior approval from other governmental agencies. It is the applicant's responsibility to procure any additional permit(s) required by other agencies. For questions relating to other potential permitting requirements please call DEP's Land Use Regulation Program at (609) 777 - 0454.

Applicants are responsible for submitting complete and accurate information. Additional information, if requested, must be submitted within the timeframe requested to facilitate application review. Failure to do so will result in denial of the application.

The timing, duration and extent of drawdowns are tailored to each situation and are designed to avoid or minimize the loss of fish, and impacts to other biota. Permits are conditioned to further minimize these impacts to the extent possible. The permittee always assumes the responsibility for protecting aquatic biota while the waterway is lowered. These conditions include but are not limited to the following:

Rate of Water Release: When lowering, water must be released slowly at a rate which will prevent the stranding of fish in off-channel pools within the lake basin and avoids flushing fish downstream. The rate of release must be controlled such that there is no over-bank flow of the primary downstream channel. If bottom waters are released, a slow rate of release will minimize the undesirable release and transport of silt, detritus and debris downstream.

Refilling: Refilling should begin as soon as possible once the objective of the lowering has been met, and must begin no later than the expiration date of the permit. When refilling, water flow out of the impoundment must be maintained. The water flow must be continuous and sufficient in quantity to prevent the destruction of downstream aquatic biota. For example, an outlet pipe may not be closed completely when refilling so that continuous, adequate flow downstream is maintained.

Prevent Loss of Fish: The permittee must take all reasonable measure to prevent the loss of fish. Even in the event of unforeseen circumstances (such as unusually warm weather patterns, heavy rains etc.) where conditions are aggravated by the lowered state of the waterway, the permittee is responsible for monitoring the fishery and taking any immediate action necessary to prevent the loss of fish life. This includes collecting and relocating the fish if necessary. Permittees should be aware that scientific collecting and fish stocking permits, also issued by the Bureau of Freshwater Fisheries, are required to collect and relocate fish. Applications are available on the Division's website www.NJFISHANDWILDLIFE.com or by contacting (908) 236 - 2118.

FISH SALVAGE

Fish must be salvaged (collected and relocated) when a waterbody is completely drained or lowered beyond the extent able to support fish. Salvages are the responsibility of the permittee and should be conducted during the early spring or fall (prior to November 1 for northern waters, and November 15 for southern waters) when handling and transportation is less stressful on the fish. Allowing fish to be flushed downstream is an unacceptable practice because it overloads the receiving waters with fish and can result in fish mortality downstream. A partial lowering in which the remaining volume of water is sufficient to maintain the fish population is preferred as this usually eliminates the need to conduct a fish salvage.

Before any fish can be collected or transferred to other waters of the state a scientific collecting permit and a fish stocking permit must be obtained from the Division. A scientific collecting permit allows the use of non-conventional fish collection methods such as electrofishing gear or seines, while a stocking permit allows the introduction of fish into another waterbody). If fish mortality occurs despite salvage attempts, the dead fish must be gathered and properly disposed.

Carp, Koi & Goldfish: In the event a salvage of a fishery is necessary, and fish must be relocated, pursuant to N.J.S.A. 23:5-30, it is illegal to relocate carp or koi. Carp are an invasive species and although well distributed in many waters throughout the state the transport and introduction of carp into any water, public or private, is prohibited. All carp and koi must be humanely destroyed. The Division of Fish and Wildlife does not support the practice of leaving carp or any fish species stranded along the shoreline, or simply left in the remaining pool of water.

Suggested methods to euthanize fishes humanely include: exposure to high concentrations of MS-222 or other chemical anesthetics. Pithing, decapitation, or induced hypothermia, are also acceptable provided they are done properly . Stunning with electroshock or anesthetics immediately prior to euthanasia may also be considered. Regardless of method, euthanasia should occur quickly.

Euthanized fishes shall be disposed of properly. Contact local disposal companies to discuss disposal options.

Restoring Fish Populations: For bio-diversity and mosquito control purposes, all permanent bodies of water should contain fish. Fish also play an important role in the life history cycle of several important mussel species. Waters which have been completely drained, or lowered to the extent that fish had to be relocated, should be restocked once refilled. Lakes that are open to the general public for fishing will be restocked with the appropriate fish species, at the proper stocking rates, free of charge by the Division of Fish and Wildlife. For lakes and waterways that are privately owned, or

restricted to local residents, fish can be purchased from private hatcheries. A stocking permit is required and a list of commercial hatcheries approved to stock fish in New Jersey is supplied with each application.

11/2011