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June 15, 2020

## **New York State Department of Environmental Conservation Trout Management Plan: Trout Unlimited Response and Recommendations**

Trout Unlimited (TU) welcomes and commends the New York State Department of Environmental Conservation's (NYS DEC) Trout Management Plan (the Plan) as a new approach to trout management. We believe that the Plan is appropriate and reflects the thoughtfulness and scientific rigor of DEC staff.

The mission of Trout Unlimited is to conserve, protect, and restore North America's coldwater fisheries and their watersheds. The long-term goal implicit in our mission statement is achieving self-sustainability of salmonid populations.<sup>1</sup> TU fully supports the guiding principles of the Plan to strive for self-sustaining populations of wild and native trout through habitat restoration and refining stocking practices while providing a diversity of fishing opportunities across the state.

TU's strategy in providing feedback on the Plan is indicative of our organization's national, state, and local structure. National and state responses focus on broad commentary, while local chapter level responses focus on watershed specific concerns. At all scales, TU is unified in its vision to protect and restore coldwater fisheries and their watersheds so our children can enjoy fishing in their home waters. Our feedback on the Plan is designed to be constructive, with the desired goal of supporting or recommending additional strategies or considerations that will not overwhelm its implementation. Our recommendations are based on existing TU policy, driven by science and a passion for maximizing both the ecological and recreational potential of New York streams.

### **I. Analysis**

#### **a. Wild Stock Management**

TU supports NYS DEC's new stocking management strategy and approach that is designed to promote and maintain abundant wild trout, while also providing diverse opportunities for wild trout fishing. One of TU's significant concerns is the ecological interactions between wild and stocked fish, since it has been found that hatchery stock can suppress wild populations through increased predation on, or competition with, wild fish (Hilborn 1992, Fresh 1997). We believe

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<sup>1</sup> TU's North American Salmonid Policy provides general guidance for our actions as an organization. The policy is based on fundamental scientific principles that focus on the importance of biological diversity and ecosystem processes in a watershed context, the connections between salmonids and watershed ecology, and the changes in populations and habitats over time and how understanding these changes can lead to effective trout management. These general principles highlight the need for thriving, diverse stream ecosystems that support and promote self-sustaining wild and native trout populations. Trout Unlimited 1997. Trout Unlimited's North America Salmonid Policy: science-based guidance for 21st century coldwater conservation. Trout Unlimited, Arlington, VA 22209 (USA).

eliminating stocking in 'wild' designated streams will go a long way towards statewide trout population recovery, which in turn will improve fishing throughout New York. The wild trout management categories (wild, wild-quality and wild-premiere) are inclusive of a variety of stream reaches from small brook trout dominated headwaters to larger high-quality streams.

The elimination of stocking over wild populations of trout in many streams as a result of the Plan is a significant step for coldwater conservation that should be celebrated and not overshadowed by our additional suggestions and recommendations.

The commitment to designate wild and stocked streams and the inclusion of habitat restoration within the Plan demonstrates NYS DEC's commitment to achieving a challenging balance between maximizing both recreational and ecological potential. We believe that this strategy supports several guiding principles: (i) high quality aquatic systems should be managed to preserve their ecological potential as a wild trout fishery, (ii) lesser quality habitat should be stocked to maximize recreational potential and (iii) habitat restoration should focus on restoring conditions to support a thriving wild trout fishery further expanding on the recreation and economic potential.

To further expand wild trout population recovery, ecologically appropriate harvest limits and spawning impacts should be considered to ensure sustained natural survival and reproduction. Concern over a year-round catch and release season is being echoed in several watersheds in the Catskills, from Willowemoc Creek to the East and West Branch Delaware River and elsewhere in watersheds throughout New York. Local anglers and conservationist are concerned about the unintended impacts on wild trout population recovery if spawning is interrupted or redds are destroyed. Although it is noted in the Plan that other states may have less restrictive harvest rates and open fishing seasons,<sup>2</sup> we believe that reducing environmental regulation in order to simplify a process without sufficient data may have the potential unintended consequence of hindering the stated objective of wild trout population recovery and may ultimately be counterproductive.

Climate change impacts in New York could potentially compound existing natural stressors and increase their cumulative impacts on trout populations,<sup>3</sup> further adding to the need to be prudent when reducing environmental regulations that could impact trout reproduction.<sup>4</sup> Using the 'wild' trout categories may be a simplified means to define fishing seasons and would be consistent with the management objectives for these categories. In addition to judicious deregulation, data collection and monitoring to better quantify angler pressure and impacts on trout spawning

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<sup>2</sup> The argument for year-round fishing cites an example from headwaters streams in Pennsylvania, where adult Brook Trout abundance was not affected by year-round fishing (Detar 2014). However, these headwaters had no harvest season through the year and had relatively low fishing pressure – PA's small wild trout streams angling pressure is typically low, between 18 and 50 h/acre (Greene et al. 2005).

<sup>3</sup> In New York the annual average temperature has risen 2.4 F statewide since 1970, and annual average temperatures increasing in all regions of the state combined with increased precipitation is expected to continue with more frequent intense storm events. Climate change often acts to compound existing stressors and increase their cumulative impacts (Williams et al. 2015).

<sup>4</sup> Another example was from the Yellowstone River, where 60% of redds were protected from wading within 12 km of the river closed to angling until July 15th (Kelly 1993). Today, the Yellowstone River is closed from the first Sunday in November to July 15<sup>th</sup>.

success could also be incorporated in watersheds where potential impact and concerns may be the greatest.

As stated above, TU believes that categorizing streams by 'wild' versus 'stocked' is an inspired method for describing and highlighting opportunities for distinct stocking practices and trout fishing experiences. It also highlights an intent to focus on and develop a comprehensive management strategy for wild trout. However, reach-specific management may introduce unnecessary complications if the end goal is to achieve a self-sustaining trout population that depends on entire watersheds to thrive.

It is well understood that the watershed is the basic landscape unit in which management of trout and other aquatic species should be undertaken. Although we understand NYS DEC's jurisdiction falls on public land or private easements only, which limits your ability to act more broadly, consideration of watershed scale categorization may further simplify the process and expand the potential to meet wild trout population recovery. Connected streams from mainstem to the headwaters are necessary to support self-sustaining trout populations; to ensure that trout can find new habitat, gain access to suitable spawning grounds (Gowan et al. 1994, Fausch and Young 1995), recolonize habitats following catastrophic events (such as flooding or drought), seek access to winter refuges (Chisholm et al. 1987) and find summer thermal refuge (Kaeding 1995).

The Plan focuses on biomass data to support higher 'wild' categorization. In order to better represent the importance of tributaries for wild trout population recovery, a broader watershed scale could replace the more prescriptive approach outlined in the Plan. For example, 'wild-premiere' streams should be connected to no less than 'wild-quality' tributaries, regardless of the existence of biomass data. Using the East Branch Delaware River as an example, NYS DEC could classify all tributaries to the East Branch as 'wild-quality'. This would have the compounded benefits of simplifying the categorization process and providing greater protection to the tributaries. Wiscoy Creek (wild-premiere) and the North Branch Wiscoy Creek (wild-quality) are good examples of this consistency in categorization and demonstrates the important connection between mainstem and tributary.

#### **b. Stocked Trout Management**

TU supports NYS DEC's new stocking management strategy and approach that is designed to reduce stocking on streams that can support a wild trout fishery, while providing diverse and prolonged fishing opportunities for anglers. TU understands that hatchery production and stocking may be necessary in some places where the causes of population decline such as poor habitat and inadequate hydrologic conditions may limit natural recovery (Frissell and Nawa 1992, Meffe 1992, White 1992, Lichatowich et al. 1995, Stanford et al. 1996). NYS DEC is presenting a comprehensive plan that includes targeted stocking to maximize the recreational opportunity, designated wild streams to promote natural recovery and habitat restoration to expand recovery of wild trout populations in areas where degradation is the cause of the declining population.

The Plan appears to limit these potential impacts of stocking over wild trout populations through the categorization of reaches as either 'wild' or 'stocked', however, reach-scale management may not be successful at reducing the impacts of stocked trout if different categorized reaches are connected. Adopting a watershed approach when designating wild and stocked reaches could reduce the potential conflict and impact on wild trout population recovery. As an example, recovery of a wild trout fishery in the Battenkill watershed may be negatively impacted by the designation of a 'stocked-extended' reach between 'wild' and 'wild-quality' reaches on the mainstem.

It is unclear if stocking numbers will increase in streams where wild populations are thriving, or wild trout recovery is a desirable outcome. Increasing pressure and competition by increasing stocked trout numbers may negatively impact popular wild trout fishing opportunities. Stocking pressure on existing wild populations should be reexamined and monitored to ensure that new stocking practices do not negatively impact wild trout sustainability and recovery.

### **c. Habitat Restoration**

TU strongly supports the inclusion of habitat restoration in the Plan, which is aligned with TUs vision and goals. Habitat is central to the distribution, abundance, and sustainability of trout populations, and is necessary to achieve self-sustaining wild and native trout populations in New York.

High quality stream habitat is evidence of a healthy watershed while compromised habitat is frequently a symptom of larger scale degradation. Sedimentation, eroding banks and warm water can be viewed as site-specific habitat deficiencies, but site-specific insufficiencies are indicators of larger systemic problems.<sup>5</sup> In order to truly improve habitat, the external influences affecting New York streams must be acknowledged and well understood to establish the correct techniques and scale of restoration effort. Common causes of habitat loss include climate change, land use and stream alterations, undersized and decrepit infrastructure, roads, dams and other anthropogenic influences. Each component can contribute to a domino effect resulting in overall habitat loss and stream degradation.

For habitat improvements to be effective, stream stability needs to be adequately addressed by considering the site within the context of the entire watershed. This type of analysis helps reveal the root causes of the degradation. In this context, both public and private lands play a critical role in the sustainability of natural stream function as well as securing and supporting a healthy trout fishery. Restoring floodplains, replacing undersized culverts and stabilizing banks provide additional benefits for communities struggling with frequent and more intense storms. Watershed-scale goals designed to meet multiple objectives expands the opportunity for diverse funding and partnerships. Habitat restoration has the potential to move streams from a stocked

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<sup>5</sup> It is well understood that habitat is more than the static physical structure of the environment; dynamic destruction and recreation of local habitat elements are central to maintaining high native biological diversity and ecosystem integrity (Poff et al. 1997). The dynamic natural of streams is part of the "template" to which trout and other species are adapted (Minshall 1988, Poff and Ward 1990, Reeves et al. 1995, Stanford et al. 1996). Recognizing the importance of habitat dynamics and methods for restoration requires that habitat be considered at more than simply the local-reach scale.

management strategy to a wild trout management strategy and should be considered where both ecological potential and local buy in exists. Partnerships with conservation groups such as TU, Land Trusts and others already working with private property owners and local municipalities can magnify efforts to create community wide benefits at the watershed level. With this in mind, we believe that focusing on watersheds with strong local support, multiple partners, adequate state and federal funding and high ecological potential will provide the greatest return on public investment.

#### **d. Angling Opportunity**

TU believes that if you take care of the fish, the fishing will take care of itself. This Plan demonstrates the important balance needed to provide exceptional trout fishing opportunities in New York. TU supports the addition of Public Fishing Rights that are designed to expand opportunities for public access and diverse fishing experiences. Through the strategies outlined in the Plan and the concentrated efforts for NYS DEC and your partners, we believe angling opportunities will be expanded and improved. The local communities that rely on the trout fishing economy will also benefit from an increase and focus on wild trout population recovery which can be a draw for many anglers.

## **II. Recommendations**

Recommendation #1 – Expand management from reach to watershed scale to maximize habitat continuity and recovery of wild trout population while focusing on the watersheds with the highest ecological potential to protect and restore.

Recommendation #2 – Expand protection and consideration of headwater streams as a critical link in the recovery and sustainability of native trout populations that may be more intensely impacted by climate change.

Recommendation #3 – Focus on the tributary benefits to achieving wild trout population recovery and increase tributary protection through higher quality categorization consistent with the mainstem management strategy.

Recommendation #4 – Provide protection of wild and native trout during spawning through identification of spawning habitat and development of fishing season regulations designed to protect natural reproduction in order to maintain or improve self-sustaining wild trout population recovery.

Recommendation #5 – Ensure that 'stocked' or 'stocked-extended' categories are appropriate within the watershed context and that new numbers of stocked fish do not impact the existing wild trout population.

Recommendation #6 – Consider watershed scale when planning, funding or prioritizing habitat restoration. Consider both private and public lands in the restoration strategy supporting the idea that connections across the landscape are critical to trout recovery.

Recommendation #7 – Develop a monitoring and an adaptive management strategy to assess the effectiveness of management actions to ensure that the regulations set forth achieve the desired goals of the protection and enhancement of a wild trout fishery.

Recommendation #8 – Work between agency departments and bureaus within NYS DEC to identify and reduce the unintended hurdles to promote wild trout population recovery and minimize the roadblocks that slow and impede the ecological restoration process. Examples include; historic preservation and wetland regulations and laws that prevent or slow dam removal projects; water quality requirements that require de-watering construction measures on restoration projects that are expensive and counterproductive; and an ineffective water quality reclassification process designed to protect trout.

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TU recognizes that any policy or plan based on the best scientific knowledge available will contain some uncertainty. And although imperfect knowledge is no excuse for inaction, lack of data should also be considered when modifying more restrictive measures. We would like to stress the need for adaptive management strategies and for conservative action that does not preclude future options (including reversing previous actions) when new data becomes available. In the face of uncertainty and where the risk to the resource is deemed high, TU advocates for the best science in order to maximize protection of trout, habitats, and ecosystems.

TU continues to be a strong supporter of DEC's work and dedication to improving New York trout streams. We have many dedicated members that are willing to assist NYS DEC on a variety of tasks from monitoring to habitat restoration. TU is already working closely with NYS DEC staff in many watersheds of New York and we look forward to expanding opportunities for us to partner together to achieve our mutual goals.

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