

**COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL PROTECTION**

In the Matter of

Connecticut River Conservancy, et al.
Appeal of Department's Clean Water Act
Section 401 Water Quality Certification for
Federal Energy Regulatory Commission
Licenses for Turners Falls Hydroelectric
Project and Northfield Mountain Pumped
Storage Project

OADR Docket No. _____

**NOTICE OF CLAIM FOR ADJUDICATORY APPEAL AND
REQUEST FOR ADJUDICATORY HEARING**

The Connecticut River Watershed Council, dba Connecticut River Conservancy ("CRC"), American Rivers, and 12 persons of the Commonwealth ("CRC Group") (collectively, "Petitioners") file this notice of claim for adjudicatory appeal and request for an adjudicatory hearing pursuant to 314 CMR 9.10, 310 CMR 1.01 *et seq.*, and G.L. c. 30A, to challenge the Water Quality Certification with Conditions ("WQC") for Turners Falls Dam (FERC License No. 1889) and Northfield Mountain Pumped Storage Project (FERC License No. 2485) (collectively, "FirstLight Projects") issued by the Massachusetts Department of Environmental Protection ("MassDEP") on April 22, 2025. *See* Exhibit A. Petitioners respectfully request a formal adjudicatory hearing.

I. FACTS WHICH ARE GROUNDS FOR THE APPEAL

Under the current Federal Energy Regulatory Commission ("FERC") licenses for the FirstLight Projects, water quality in the Connecticut River both downstream and upstream of the Projects has suffered. Decades of operations of the FirstLight Projects have resulted in a highly impaired and fragmented Connecticut River, with dewatered river stretches unsuitable for

aquatic habitat or boating, impassable barriers for migratory fish, erosion undercutting the riverbanks and allowing the propagation of invasive species, and the recurring reversal of mainstem river flows, among other water quality harms.

The WQC was, and still can be if changes are made, a once-in-a-generation chance for MassDEP to right these historical ecological wrongs and set the Connecticut River on a course of restoration for the next half century. Unfortunately, MassDEP's WQC falls short in the following significant ways: by not requiring adequate year-round flows below the Turners Falls Dam to support a community of aquatic life and recreational uses; by failing to require timely and sufficient upstream and downstream fish passage installation; by failing to sufficiently address the FirstLight Projects' impacts on erosion; by failing to sufficiently protect the state and federally endangered shortnose sturgeon; by not ensuring the river in the vicinity of the FirstLight Projects exhibits good aesthetic quality; and by largely ignoring the current and expected-to-worsen impacts of climate change. Moreover, in each of these ways the WQC fails to ensure compliance with the water quality standards of the Commonwealth of Massachusetts.

While the WQC provides for some improvement of water quality, that improvement must be viewed in the proper context—as an upgrade over a highly degraded, dewatered and modified stretch of the Connecticut River, all of which are caused by the FirstLight Projects. MassDEP's continual focus in the WQC on the percentages of improvement (from highly impaired levels) rather than the requirements of eliminating water quality impairments and restoring the chemical, physical and biological integrity of the Connecticut River is a fundamental flaw.

Thus, in issuing the WQC, MassDEP failed to satisfy its regulatory obligation to ensure the FirstLight Projects will comply with state water quality standards, 40 C.F.R. §§ 121.2, 121.3(b), and to eliminate the current water quality impairments of the Connecticut River in the

vicinity of the Projects. MassDEP's factual finding that continued operations of the FirstLight Projects will comply with state water quality standards is unsupported and made in error. Accordingly, the Petitioners respectfully request that the Commissioner of MassDEP: (1) grant the Petitioners an adjudicatory hearing on the issues described herein; (2) find that MassDEP's WQC for the FirstLight Projects is not factually supported and MassDEP issued the WQC in error; (3) modify the WQC Conditions to establish conditions that will achieve compliance with state water quality standards and eliminate current water quality impairments in the applicable stretches of the Connecticut River, with appropriate adjustments as warranted after the hearing; or, in the alternative, vacate the WQC and issue a remand to MassDEP to expedite further consideration of the WQC in light of evidence and argument presented at the hearing; and (4) grant any such further relief as is just and proper.

The names, addresses and telephone numbers of the parties filing this Notice of Claim are:

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Connecticut River Conservancy also will serve as the authorized representative of the CRC Group. The 12 persons of the Commonwealth that form the CRC Group are listed in Exhibit C.

The Applicants are FirstLight MA Hydro LLC and Northfield Mountain LLC, and those entities are also owners and operators of the Turners Falls Hydroelectric Project and the

Northfield Mountain Pumped Storage Project, respectively.¹ There is not a specific address for the project, but MassDEP states that the FirstLight Projects are located within the municipalities of Turners Falls, Montague, and Northfield, Massachusetts, on the Connecticut River.² Pursuant to 314 CMR 9.10(3), copies of this Notice of Claim are also being sent by certified mail to FirstLight MA Hydro LLC and Northfield Mountain LLC; the MassDEP Western Regional Office in Springfield, Massachusetts; and the Conservation Commissions of the municipalities of Montague and Northfield, Massachusetts.

This Notice of Claim is timely filed in accordance with 314 CMR 9.10(2), 310 CMR 1.01(3), and the WQC at page 87 as it is filed within 21 days of the issuance of the WQC by MassDEP on April 22, 2025.³ Concurrent with this Notice of Claim, Petitioners are remitting an Adjudicatory Hearing Fee Transmittal Form and a \$100 filing fee to the Commonwealth Master Lockbox. *See* Exhibit B.

A. The Petitioners

CRC is a nonprofit organization with a mission to restore and advocate for clean water, healthy habitats, and resilient communities to support a diverse and thriving watershed. CRC's principal place of business is located at 15 Bank Row in Greenfield, Massachusetts, 01301. Founded in 1952, CRC represents thousands of members across the four states of the Connecticut River watershed, including Massachusetts. As the only nonprofit organization dedicated to protecting the entire Connecticut River ecosystem, CRC has extensive expertise and knowledge of the Connecticut River and its tributaries. As part of CRC's ongoing commitment to

¹ WQC at 3.

² WQC at 3. Turners Falls is an unincorporated village in the town of Montague.

³ The regulations require the notice include "the 401 Certification Transmittal Number." 314 CMR 9.10(3)(a). The Transmittal Number was not apparent on the face of the WQC but Petitioners provide the FERC Document Accession number, 20250422-5181, that signifies MassDEP filed the WQC on the FERC Dockets for the FirstLight Projects on April 22, 2025.

protecting and restoring the Connecticut River, it has submitted comments on FirstLight's WQC Application on June 3, 2024 (Exhibit D) and on MassDEP's draft WQC on February 24, 2025. Exhibit E. CRC incorporates its comments by reference.

CRC has participated in the relicensing of the FirstLight Projects since the process began in 2012 through previous comments on various FERC benchmarks, including the Preliminary Application Document, scoping documents, and study requests to address the physical plant, automation, water quality monitoring, fish species assemblage, fish passage, and recreation. Over the past 13 years, CRC has commented on many of the draft and final study reports. It has also commented on complications in the Integrated Licensing Process ("ILP") process itself for these projects, such as CRC's March 1, 2016 comments on FirstLight's Draft License Application. CRC also commented on the Amended Final License Application ("AFLA") on January 27, 2021, to request additional information, filed comments on the Flows and Fish Passage Settlement Agreement on May 25, 2023, and filed comments on the Recreation Settlement Agreement on July 10, 2023.

CRC has been an active stakeholder participating in the ongoing relicensing of not just the FirstLight Projects in Massachusetts, but also Wilder Dam, Bellows Falls Dam, and the Vernon Dam in New Hampshire and Vermont, which are contemporaneously seeking relicensing from FERC. CRC's active participation in the companion relicensings happening upstream of the FirstLight Projects is a prime example of its holistic multi-state approach to preserving and advocating for the entire Connecticut River. CRC also has tracked and been involved in other hydroelectric projects on the tributaries of the Connecticut River when they come up for relicensing.

Additionally, CRC has over 70 years of experience working with communities, organizing events, and managing projects related to river access and conservation. As a recognized organization representing the interests of the entire Connecticut River watershed, CRC brings with it the perspectives of thousands of residents, conservationists, scientists, outdoor enthusiasts, and other stakeholders who use and enjoy the Connecticut River. As a result of this unique, basin-wide, long-term, and multifaceted commitment, including submitting written comments on the draft WQC, CRC is an aggrieved person under 314 CMR §§ 9.02, 9.10(1)(b). MassDEP's WQC will permit continued operation of the FirstLight Projects for the next 40 to 50 years. As alleged below, continued operation under the terms of the WQC will perpetuate ongoing water quality impairments of the very river that CRC aims to protect and restore. These impairments directly harm CRC's and its members' interests because it prevents and undermines CRC's ability to carry out its organizational mission: to restore and advocate for clean water, healthy habitat, and resilient communities to support a diverse and thriving watershed for the Connecticut River.

American Rivers works to protect wild rivers, restore damaged rivers, and conserve clean water for people and nature. Since 1973, American Rivers has protected and restored more than 150,000 miles of rivers through educational and advocacy efforts, on-the-ground projects, and an annual America's Most Endangered Rivers campaign. Annually, American Rivers engages in more than 20 hydropower relicensings across the country. American Rivers has regional programs across the country including the Northeast, and more than 100,000 supporters, members, and volunteers nationwide. American Rivers' staff and volunteers work to enhance river flows and increase river connectivity to benefit biodiversity, protect floodplains and wetlands, and restore rivers providing climate change refugia.

Members of American Rivers enjoy and are sustained by the resources of the Connecticut River including for angling, boating, swimming, hiking, and wildlife viewing. The current Northeast Regional Director of American Rivers, Andrew Fisk, is the Chair and Massachusetts public member of the Connecticut River Migratory Fish Restoration Cooperative and active member of the Connecticut River Watershed Partnership. American Rivers has worked throughout the Connecticut River watershed on river restoration projects for the last 15 years, having completed dam removals that support migratory fish restoration in Massachusetts, Vermont, and New Hampshire. American Rivers has been active participant in the development of the recently renamed Connecticut River Watershed Partnership, a successor to the Friends of the Silvio O. Conte Fish & Wildlife Refuge, and currently advocates for federal legislation to formally designate the Connecticut River Watershed Partnership. Organizationally, American Rivers and its members will suffer injury in that the decisions contained in the WQC are in opposition to the organization's successful work in the Connecticut River watershed and across the country to advance operational conditions that protect migratory fish populations, enforce water quality standards, and provide the public access to, and enjoyment of, public trust resources. Accordingly, American Rivers is an aggrieved person under 314 CMR §§ 9.02, 9.10(1)(b). Jointly with CRC, American Rivers filed comments on MassDEP's Draft WQC. *See* Attachment E.

The members of the CRC Group are listed in Exhibit B. They are united in their strong opposition to the WQC as issued. They share a keen interest in ensuring that the Connecticut River is protected and restored to the full extent of the law. The CRC Group members use and enjoy the Connecticut River in the vicinity of the FirstLight Projects in various ways, including

boating, fishing and swimming. As required by 314 CMR § 9.10(1)(c), at least one group member filed written comments. *See* Exhibit F (comments of Michael Bathory).

B. The Federal Energy Regulatory Commission Relicensing Process

On May 14, 1968, and on May 5, 1980 FERC issued the current licenses for the Northfield Mountain Pumped Storage Station and the Turners Falls Dam, respectively. Both licenses expired on April 30, 2018. For the past seven years, the FirstLight Projects have been operating under temporary, year-long licenses under the terms and conditions of the existing licenses until FERC issues new licenses. On December 6, 2020, FirstLight filed its Amended Final License Application with FERC, seeking license reissuance for a 50-year term. This relicensing application triggered FirstLight’s obligation to apply for a Section 401 WQC from Massachusetts, which FirstLight did on April 22, 2024.

C. MassDEP’s Clean Water Act Section 401 Water Quality Certification

Massachusetts water quality standards explicitly incorporate the objective of the Federal Clean Water Act, which is “the *restoration* and maintenance of ‘the chemical, physical and biological integrity of the Nation’s waters.’”⁴ In order to meet that objective, the Clean Water Act prioritizes “the protection and propagation of fish, shellfish, and wildlife and provid[ing] for recreation in and on the water” as interim national water quality goals.⁵ As one tool to achieve these ends, the Clean Water Act regulates discharges of pollutants into navigable waters. Any applicant for a federal license or permit to conduct an activity that may result in a discharge to navigable waters must first obtain certification that the activity will comply with applicable state water quality standards, unless the state waives such certification.⁶

⁴ 314 CMR 4.01(3) (citing 33 U.S.C. § 1251(a)) (emphasis added).

⁵ 33 U.S.C. § 1251(a)(2).

⁶ 33 U.S.C. § 1341 (“Section 401”); 40 C.F.R. § 121.2.

The certifying authority—in this case, MassDEP—“shall include any conditions in a grant of certification necessary to assure that the activity will comply with applicable water quality requirements.”⁷ “Water quality requirements” are defined as “any limitation, standard, or other requirement under sections 301, 302, 303, 306, and 307 of the Clean Water Act, any Federal and state or Tribal laws or regulations implementing those sections, and any other water quality- related requirement of state or Tribal law.”⁸ Massachusetts water quality standards establish designated uses for different classes of waters and set forth the criteria necessary to protect designated and existing uses, as well as to prevent further degradation. The river stretches in the vicinity of the FirstLight Projects are designated as Class B waters to support habitat for fish, other aquatic life, and wildlife, recreation, and they must consistently exhibit good aesthetic quality.⁹

On April 22, 2024, FirstLight filed with MassDEP its 401 Water Quality Certification Application (WQC Application), triggering MassDEP’s one-year period to review and take action on the application. On January 24, 2025, MassDEP published a Draft WQC for public notice and comment. On April 22, 2025, MassDEP timely issued the WQC within the one-year deadline for the FirstLight Projects. Attachment A.

II. SPECIFIC OBJECTIONS TO MASSDEP’S WQC

In at least six important ways, the WQC does not ensure compliance with water quality standards. MassDEP allows inadequate flows below the Turners Falls dam, fails to adequately address erosional impacts from the Projects, does not provide sufficient protection or restoration of the shortnose sturgeon, fails to require timely and effective fish passage, turns a blind eye to

⁷ 40 C.F.R. § 121.3(b).

⁸ 40 CFR 121.1(j).

⁹ 314 CMR 4.05(3)(b); 4.05(5).

the effects of climate change on the impacts of the Projects to the Connecticut River, and fails to provide the public with real-time data flow levels, forecasted flows and Northfield pumping and releasing information.

A. The WQC Does Not Meet MassDEP's Burden to Ensure 500 cfs Flows Will Comply with Water Quality Standards in the One-Mile Stretch of the Connecticut River Below Turners Falls Dam

The presence and operations of Turners Falls Dam have caused and continue to cause significant water quality impairments in the Connecticut River in the four-and-a-half decades since FERC issued its original license in 1980. In particular, lack of sufficient flows in the bypassed reach of the river has significantly decreased available habitat for many aquatic species, including shad, sea lamprey, macroinvertebrates, and resident riverine fish at various life stages, increased the risk of strandings of endangered shortnose sturgeon, detracted from the aesthetic beauty of the natural river, undermined the physical integrity of the river, and made that stretch of the river unsuitable for recreational boating during certain times of year.

MassDEP has listed the 3.7-mile river segment just below the dam (Assessment Unit MA 34-03) as impaired due to “Dewatering” and, separately, for “Flow Regime Modification,” which MassDEP identifies as being caused by impacts from Hydrostructure Flow Regulation/Modification.¹⁰ Massachusetts’s Clean Water Act Section 303(d) list has included this segment as impaired by flow alteration since at least 2004.¹¹ In short, the presence and operations of Turners Falls Dam have been dewatering the Connecticut River for decades, effectively shrinking the size of the river in segment 34-03 and significantly reducing available

¹⁰ WQC at 7.

¹¹ Massachusetts Year 2004 Integrated List of Waters, at 101, at https://www3.epa.gov/region1/tmdl/MA_2004il4.pdf. State 303(d) lists prior to 2004 are not available online from EPA Region One’s archive of state 303(d) lists, so it is possible, and likely, these listed impairments go back much further.

aquatic habitat.

The WQC adopted a condition from Flows and Fish Passage Settlement Agreement (“FFP Agreement”) in the FERC relicensing process for flows immediately below the Turners Falls Dam (down to Station 1) of 500 cubic feet per second (“cfs”) from July 1 to November 15.¹² This level of flows is not sufficiently protective or restorative of aquatic life uses in that stretch of the river, and therefore it is erroneous for MassDEP to certify that condition as complying with state water quality standards. While MassDEP concedes that higher flows would be beneficial and create more habitat for a host of aquatic species, the agency nonetheless limited flows to 500 cfs based solely on the presence of two species of grasses, one listed as threatened and one listed as endangered under the Massachusetts Endangered Species Act.¹³

MassDEP’s decision to adopt the FFP Agreement’s compromise condition of 500 cfs from July 1 to November 15 is inconsistent with the Clean Water Act and state water quality standards for eight significant reasons. One, MassDEP did not establish the state-listed grasses are “aquatic,” which is a prerequisite to protecting them as an aquatic life use, especially at the expense of multiple other indisputable aquatic life uses, such as fish and macroinvertebrates. Two, MassDEP’s decision contradicts the scientific and policy reasons underpinning the regulatory requirement to protect “the most sensitive use” in a particular river segment; instead, it turns that concept on its head by artificially *limiting* flows that would restore and enhance aquatic habitat for many other species of aquatic life. Three, MassDEP did not adequately address evidence of state-listed fish species, including state and federally endangered shortnose sturgeon, in the river stretch immediately below the Turners Falls Dam in reaching its conclusion on flows. This omission is particularly troubling given recent evidence of strandings of shortnose

¹² WQC at 18.

¹³ WQC at 20–22.

sturgeon in the area just below the dam. Four, MassDEP did not meet its burden to show the state-listed grasses are existing uses, as that term is defined in Massachusetts water quality standards. Five, even if the grasses are existing or designated uses, MassDEP did not present any reliable data, analysis or evidence as to whether flow levels greater than 500 cfs but less than 1500 cfs would be sufficiently protective of the grasses because there were no demonstration flows between those two levels when the botanist was observing the impacts on some of the grasses. Six, MassDEP arbitrarily accepted MassWildlife's "compromise" condition of 500 cfs even though MassDEP has entirely different statutory obligations than MassWildlife; moreover, even if compromise were allowed in certifying compliance with state water quality standards, which it is not, the compromise struck improperly favors terrestrial grasses at the expense of other aquatic life. Seven, MassDEP did not sufficiently explain its decision not to pursue transplantation and/or propagation of the grasses, especially those at lower elevation levels, so higher flows could be permitted. Eight, MassDEP did not take climate change into account in assessing the impacts of the 500 cfs flow level over the anticipated 40-50-year timeframe of the FERC licenses.

For all of the reasons above, MassDEP's decision to incorporate the 500 cfs flow level from the FFP Agreement rather than require higher minimum flows from July 1 through November 15 was arbitrary, factually unsupported, made in error, and does not ensure compliance with Massachusetts water quality standards for the life of the FERC licenses. Petitioners respectfully request MassDEP increase the flow level to 1,400 cfs from July 1 through November 15.

B. The WQC Does Not Meet MassDEP's Burden to Ensure that Erosion Mitigation, Stabilization, and Monitoring and Turners Falls Impoundment Water Level Management Will Comply with Water Quality Standards

The FirstLight Projects are the primary cause of streambank erosion in the Connecticut River upstream of the Turners Falls Dam. The frequent fluctuations in river elevation levels in that stretch of the river, also known as the Turners Falls Impoundment (“TFI”), lead to increased erosion with a myriad of adverse effects on riverbank stability and water quality, including undercutting of banks that can lead to landslides, bank instability, and trees falling in the river, degradation of water quality by increasing Total Suspended Solids that can damage aquatic habitat, decreased aesthetic qualities, recreational nuisances, harm to wetland habitats, and the spread of invasive species. As a result of these adverse impacts, MassDEP listed the two river segments above the Turners Falls Dam (Assessment Units MA 34-01 and MA 34-02) (TFI Segments) as impaired due to “Flow Regime Modification,” which results from “Hydrostructure Flow Regulation/Modification,” and “Alteration in Streamside or Littoral Vegetative Covers,” which results from “Streambank Modifications/Destabilization.”¹⁴ Like the river segment below the Turners Falls Dam (MA 34-03), MassDEP has listed these segments above the Turners Falls Dam as impaired by flow alteration since at least 2004. Alteration in streamside or littoral vegetative covers has impaired both TFI Segments since 2008.¹⁵ In short, the presence and operations of the FirstLight Projects have been contributing to erosion and causing water quality impairments within the TFI for decades.¹⁶ And the WQC, rather than achieve compliance, instead enshrines the status quo of water quality impairment for the Connecticut River above the Turners Falls Dam for the 40-50-year life of the FERC licenses.

¹⁴ WQC at 7.

¹⁵ Massachusetts Year 2008 Integrated List of Waters, at 114, at <https://www.mass.gov/doc/final-massachusetts-2008-integrated-list-of-waters-0/download>.

¹⁶ WQC at 16, n.7.

The Turners Falls Dam creates an impoundment, which acts as a lower reservoir for Northfield Mountain Pumped Storage Facility. Northfield operates as an open looped system¹⁷ that pumps water from the TFI into an Upper Reservoir and later releases water from the Upper Reservoir downhill to generate electricity. One result of this pumping is that the water level in the TFI fluctuates regularly.¹⁸ These fluctuations can be dramatic—as large as 6.2 feet within a 24-hour period¹⁹—and have been occurring for over 50 years since the Northfield Mountain Pumped Storage Station came online in 1972.²⁰

The WQC adopted four Conditions aimed at resolving erosion-driven impairment. Special Condition 10 aims to maintain water levels in the TFI between 178.5 and 185, with numerous exceptions.²¹ Special Conditions 25, 26 and 28 require compliance with an Erosion Mitigation, Stabilization, and Monitoring Plan, Water Quality Monitoring Plan and Riparian Management Plan.²² None of the conditions adequately address the significant erosion in the TFI. As such, none of the Conditions sufficiently address water quality impairments in the TFI. Therefore, in issuing the WQC, MassDEP erroneously certifies these Conditions as complying with state water quality standards. Furthermore, because the plans are prospective and speculative, they do not meet the standard of ensuring compliance with water quality standards at the time of certification.

Specifically, Special Condition 10 fails to demonstrate compliance with water quality standards and the Clean Water Act because:

1. MassDEP fails to establish that discretionary exceptions to Special Condition 10 that allow

¹⁷ WQC at 16, n.8 (noting that closed loop systems, which do not cause the same erosive consequence, are commonplace).

¹⁸ Exhibit E (CRC Comments on Draft WQC, Exhibits C, D, and E).

¹⁹ Exhibit E (CRC Comment on Draft WQC, Attachment E, at 14–15, Figure 3).

²⁰ Exhibit E (CRC Comment on Draft WQC, Attachment E, at 13).

²¹ WQC at 63–65.

²² WQC at 81–85.

FirstLight to drop the TFI water level 177.5 feet for up to 168 hours annually comply with water quality standards. Indeed, “FirstLight failed to provide sufficient information for MassDEP to determine that operating in the range of 176-179 without sufficient limitations would comply with the SWQS,”²³ which makes it unclear how MassDEP came to the conclusion to allow operations within that range;

2. MassDEP did not sufficiently explain its decision declining to add an upper limit to the acceptable range of water level fluctuation in the TFI;
3. MassDEP did not sufficiently explain its decision to continue measuring the water level in the TFI at a single point at the Turners Falls Dam rather than from multiple points, particularly given evidence that fluctuations are wider further up the impoundment from the Turners Falls Dam than closer to it;²⁴
4. MassDEP did not adequately address fluctuations within the allowable range of water level in the TFI. As such, the Special Condition does not adequately account for daily fluctuations in water level that cause erosion;
5. MassDEP failed to analyze the future changes in water level patterns due to climate change and changing energy markets. For example, changing patterns under climate change could increase the number and magnitude of nondiscretionary events that allow deviation from minimum water levels in the TFI.

The Mitigation, Stabilization and Monitoring Plan, included as Attachment F in the WQC, likewise fails to demonstrate compliance with WQS because:

1. In developing its Mitigation, Stabilization, and Monitoring Plan, MassDEP relies on the methodologically flawed and inadequate 2013 Quality Assurance Project Plan (“QAPP”) for

²³ WQC at 29.

²⁴ Exhibit E (CRC Comments on Draft WQC, Exhibit E, at 14–15).

the Full River Reconnaissance (FRR) to determine which priority stabilization projects (listed in Attachment F, Table A) must be completed within six years of license issuance rather than basing those decisions on new, methodologically sound surveys;²⁵

2. Even if MassDEP decides to continue with the priority stabilization projects listed in Attachment F, Table A as currently proposed, MassDEP does not adequately address why a six-year timeline to complete initial projects listed is appropriate rather than a shorter, two-year timeline;
3. MassDEP does not adequately address its decision to forego modernized, objective monitoring to better and more predictably identify new or recurring erosion, including not only LiDAR but UAVs and other technology.
4. While recognizing that future, updated QAPPs are needed, MassDEP does not sufficiently explain its failure to require an updated QAPP be used for the initial, Year 2 Erosion Monitoring Study. As such, MassDEP allows the inadequate 2013 QAPP to remain in place as the operative monitoring survey until Year 10 of the plan;
5. MassDEP does not explain why a change from requiring stabilization of 5% equivalent linear feet of newly eroded banks to 10% equivalent linear feet will ensure compliance with WQS.

The Water Quality Monitoring Plan does not establish a sufficient nexus between proposed monitoring and addressing water quality impairments caused by erosion. Likewise, MassDEP does not provide a factual basis for how the Riparian Management Plan's 75-foot vegetated riparian zone—limited only to property owned by FirstLight—will sufficiently address erosion in the TFI over the life of the FERC licenses to achieve compliance with water quality standards.

²⁵ Exhibit E (CRC Comments on Draft WQC, Exhibit E, at 8).

For all of the reasons above, MassDEP's decision to incorporate Special Conditions 10, 25, 26, and 28 without more stringent controls on water level variability or improved mitigation, stabilization, riparian management, and monitoring, is arbitrary, factually unsupported and made in error.

C. MassDEP Has Not Met Its Burden to Protect and Restore Show Endangered Shortnose Sturgeon

Shortnose sturgeon are listed as endangered both under the Federal Endangered Species Act and under the Massachusetts Endangered Species Act. A migratory fish that is present in the stretches of the Connecticut River both above and below Turners Falls Dam, shortnose sturgeon face a host of adverse impacts from the relicensing of the FirstLight Projects, including reduction of habitat range and population abundance, increased risk of strandings, increased risk of mortality due to impingement and entrainment at the Northfield Mountain Pumped Station, habitat degradation, and detrimental effects on migration due to unnatural river flows. Even though the National Marine Fisheries Service has had a Recovery Plan for shortnose sturgeon in place since December 1998, the iconic species has shown no sign of recovery in the Connecticut River.

Shortnose sturgeon are both an existing and designated aquatic life use for the portions of the Connecticut River affected by the Projects. However, MassDEP did not ensure that WQC conditions related to three important aspects of the FirstLight Projects were sufficient to support recovery of shortnose sturgeon in the Connecticut River: (1) flows below Turners Falls Dam; (2) upstream and downstream fish passage; and (3) operations of the Northfield Mountain Pumped Storage Project. Throughout the WQC, MassDEP's analysis is internally inconsistent, applies incorrect standards, fails to grapple relevant and contrary evidence, and relies on studies and analysis that predate new evidence.

MassDEP acknowledges the significant adverse impacts to shortnose sturgeon the continued operations of the FirstLight Projects' present, but then largely discounts those impacts in order to remain in alignment with the FFP Agreement, which was entered into before the presence of shortnose sturgeon in these reaches was proven. Insufficient flows below Turners Falls Dam reduce and degrade available sturgeon habitat, impede fish passage through that section of the river, and expose sturgeon to harmful, and potentially fatal, strandings. Upstream and downstream fish passage that is not designed for sturgeon limits sturgeon migration and blocks miles of potential riverine habitat. And the presence of sturgeon above Turners Falls Dam, requires more analysis and conditions by MassDEP to ensure impacts to shortnose sturgeon from continued Northfield operations, which concededly cause erosion and unnatural river flows, will be sufficiently minimized and mitigated.

With regard to many of these impacts to shortnose sturgeon, MassDEP erroneously touts the improvements to water quality as evidence of compliance with water quality standards, but improvements do not equate to compliance. This flawed approach merely highlights how significantly the FirstLight Projects have impaired the Connecticut River over the course of their current license term. For example, MassDEP characterizes new flows below Turners Falls Dam as a "significant increase," WQC at 18, but this is relative to the paltry flows and river-degrading flows that have existed for decades. Rather than measure new conditions against a highly degraded river system, MassDEP must determine whether it is imposing conditions sufficient to recover shortnose sturgeon and eliminate current water quality impairments.

D. MassDEP's Lengthy Timeframes for Upstream/Downstream Fish Passage Installation Are Unsupported and Contrary to Protection and Recovery of Aquatic Life

MassDEP's acquiescence to the fish passage and mitigation installation timeframes in the

FFP does not satisfy its duty to certify compliance with water quality standards. The fish passage and protective measures for the FirstLight Projects has been insufficiently protective and restorative for decades, resulting in ongoing and significant harm to migratory and resident fish species. Now, MassDEP is permitting that harm to continue longer than necessary by not requiring shorter timeframes for fish passage and barrier net installation for the FirstLight Projects. Faster timeframes are possible and compliance with water quality standards demands MassDEP require them.

CRC presented MassDEP with expert evidence that fish passage installation at Turners Falls Dam and the barrier net at the Northfield Mountain Pumped Storage Station could be installed and become operational sooner than the overly lengthy timeframes in the FFP Agreement, particularly in light of the new evidence of the presence of shortnose sturgeon above Turners Falls Dam. Specifically, CRC presented evidence that the following timeframes for fish passage installation are reasonable and achievable:

Fish Passage Installation Project	WQC Timeline	CRC Expert Timeline
Spillway Lift at Turners Falls Dam	9 years	4–6.5 years
Gatehouse Trapping Facility	9 years	2–3.5 years
Cabot Station trashrack structure	4 years	3–3.5 years
Station No. 1 bar rack	4 years	3 years
Turners Falls Dam plunge pool	9 years	6–8.5 years
Barrier Net at Northfield	5 years ²⁶	3 years

Moreover, MassDEP acknowledges that simultaneous upstream and downstream fish passage installation is possible from a “theoretical engineering standpoint” and that “it would be

²⁶ The FFP Agreement required the barrier net to be installed in Year 7, but MassDEP reduced that timeframe to Year 5 based on the CRC’s expert’s testimony. However, MassDEP did not explain why the timeframe should not be reduced further to Year 3, as recommended by the CRC’s expert.

ideal to install both the upstream and downstream passages simultaneously,”²⁷ but the agency then rejected it as “not compelled by the status of the American shad population” saying that population is “robust and self-sustaining.”²⁸ As an initial matter, CRC disagrees with this assessment of the status of the American shad population and MassDEP’s conclusion that simultaneous installation is therefore not compelled. Moreover, the Connecticut River shortnose sturgeon population undisputedly is not robust, and MassDEP fails to address the lengthy installation timeframes in the context of that endangered species.

Ultimately, MassDEP’s explanation for why it was not crediting CRC’s expert evidence was unconvincing. Accordingly, Petitioners maintain their position that fish passage and the barrier net installation can and should happen sooner than the WQC currently requires in order to bring the FirstLight Projects into compliance with water quality standards in a timely manner. Simply put, there is no need and no justification for further delay to address ongoing violations of water quality standards. Petitioners respectfully request MassDEP adopt the timelines for fish passage and barrier net installation proposed by CRC’s expert.

E. MassDEP Did Not Take Reasonably Foreseeable Effects of Climate Change into Account in Determining the WQC’s Compliance with Water Quality Standards

MassDEP did not adequately analyze the impacts of climate change over the 40-50-year FERC license term. As CRC noted in its comments on the Draft WQC, climate change will impact nearly every aspect of FirstLight’s Projects, including but not limited to water quality, temperature, timing of fish migration, and volume of flows. The bulk of MassDEP’s discussion of climate change was in three paragraphs, mostly related to fish passage. Such short shrift by MassDEP is especially egregious given the data and analysis of climate change impacts available

²⁷ WQC at 35.

²⁸ WQC at 35.

from recent environmental analyses at the nearby Holyoke Dam. As the National Marine Fisheries Service (“NMFS”) noted in the context of the Holyoke Dam FERC relicensing, excessive water withdrawals and land development have already stressed many rivers and “this stress may be exacerbated by changes in climate” such that “anticipating and planning adaptive strategies may be critical.”²⁹ NMFS went on to analyze species specific information related to predicted impacts of climate change, including for shortnose sturgeon. Given this available and relatively recent and geographically proximate evaluation of climate impacts, MassDEP’s lack of analysis and failure to include conditions sufficient to ensure continued compliance with water quality standards over the next 40–50 years in the face of the rapidly changing climate is arbitrary, unsupported and in error.

F. Conditions Related to the Flow Notification Website Are Inadequate

The flow notification website for the Turners Falls Project proposed in the WQC is insufficient for a number of reasons. The WQC requires the Licensee to provide a website with “real-time data on an hourly basis.” Real-time data is not on an hourly basis and Petitioners request that the data be updated every five minutes. Additionally, there is no mention of forecasting ahead for flows. Recreators need to know ahead of time when releases will happen (that are not the regular recreation releases), such as for flood mitigation. For the Northfield Mountain Pumped Storage facility, the public needs to know when the river water will get pumped into, or released from, the upper reservoir, which could change river height and flow direction drastically. It is also necessary to notify the public in real time when a nondiscretionary event occurs because this may cause even larger fluctuations.

²⁹ Holyoke Hydroelectric Project 2017 Biological Opinion, at 71, https://www.google.com/url?sa=t&source=web&rct=j&opi=89978449&url=https://repository.library.noaa.gov/view/noaa/29547/noaa_29547_DS1.pdf&ved=2ahUKEwiL_NGn4JmNAXWNFFkFHWJ7BHgQFnoECBkQAQ&usg=AOvVaw00Zlsu1IRfcjGMGQZpczYX.

III. THE PETITIONERS' RIGHT TO APPEAL

Petitioners have several, independently cognizable grounds on which to assert their right to request an adjudicatory hearing to challenge the WQC pursuant to 314 CMR § 9.10(1) and WQC page 87:

- (1) CRC and American Rivers are private organizations with mandates to protect the environment that have submitted comments during the comment period. 314 CMR § 9.10(1)(d); WQC at 87.
- (2) CRC and American Rivers are persons aggrieved by the WQC that have submitted comments during the public comment period. 314 CMR § 9.10(1)(b); 314 CMR 9.02 (broadly defining “person” as a “public or private corporation,” “association” and “other entity”); WQC at 87.
- (3) The CRC Group are “any ten persons of the Commonwealth pursuant to M.G.L. c. 30A” and one member of the CRC Group submitted written comments during the public comment period. 314 CMR § 9.10(1)(c); WQC at 87; *see* Exhibit F.

To the extent Petitioners are required to include allegations that damage to the environment is or might be at issue under M.G.L. c. 30A, § 10A,³⁰ those allegations appear throughout this filing, including, but not limited to, continued water quality impairments from lack of sufficient flows below Turners Falls Dam, harm to aquatic life due to ongoing barriers to migratory fish passage, erosion, aquatic habitat degradation, impingement and entrainment from the Northfield Mountain Pumped Storage Station, and increased water temperatures, all of which is or might be at issue if as a result of the WQC.

³⁰ Under its Notice of Appeal Rights, the WQC includes “any ten persons of the Commonwealth pursuant to M.G.L. c. 30A, § 10A” without citation. WQC at 87. Petitioners infer that these rights are taken from 314 CMR § 9.10(1), which includes a similar list for appeals of Section 401 Water Quality Certifications. However, that list does not include a reference to § 10A. *See* 314 CMR 9.10(1)(c).

IV. RELIEF SOUGHT

Based on the foregoing, the Petitioners respectfully requests that MassDEP:

1. Grant the Petitioners an adjudicatory hearing on the issues described herein;
2. Find that MassDEP's WQC for the FirstLight Projects is not factually supported and MassDEP issued the WQC in error;
3. Modify the WQC Conditions to establish conditions that will achieve compliance with state water quality standards and eliminate current water quality impairments in the applicable stretches of the Connecticut River, with appropriate adjustments as warranted after hearing; or, in the alternative, vacate the WQC and issue a remand to MassDEP to expedite further consideration the WQC in light of evidence and argument presented at the hearing;
4. Grant any such further relief as is just and proper.

Dated: May 12, 2025

Respectfully submitted,

CONNECTICUT RIVER CONSERVANCY,
AMERICAN RIVERS, CRC GROUP

By their attorney,



By:

Kevin Cassidy (BBO # 681301)
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781-659-1696

Attorney for Petitioners

EXHIBIT INDEX

Exhibit A	Water Quality Certification with Conditions for Turners Falls Dam (FERC License No. 1889) and Northfield Mountain Pumped Storage Project (FERC License No. 2485) issued by the Massachusetts Department of Environmental Protection on April 22, 2025.
Exhibit B	Copy of Adjudicatory Hearing Fee Transmittal Form and \$100 Check for Filing Fee sent to the Commonwealth Master Lockbox
Exhibit C	List of Members of the CRC Group
Exhibit D	CRC's June 3, 2024 Comments on FirstLight's WQC Application
Exhibit E	CRC's February 24, 2025 Comments on MassDEP's Draft WQC
Exhibit F	Michael Bathory's February 24, 2025 Comments on MassDEP's Draft WQC

CERTIFICATE OF SERVICE

Pursuant to 310 CMR 1.01(4)(f), and 314 CMR 9.10(3), to the extent applicable, the undersigned certifies, under the penalties of perjury, that on this date of May 12, 2025, I have made service of the Connecticut River Conservancy, et al.'s Appeal of Department's Clean Water Act Section 401 Water Quality Certification for Federal Energy Regulatory Commission Licenses for Turners Falls Hydroelectric Project and Northfield Mountain Pumped Storage Project and Request for Adjudicatory Hearing with attached Exhibits upon the following persons **via certified mail**,

Applicant: FirstLight MA Hydro LLC 100 District Ave., Suite 102 Burlington, MA 01083	Applicant: Northfield Mountain LLC 100 District Avenue, Suite 102 Burlington, MA 01083
Massachusetts Department of Environmental Protection Bureau of Water Resources Western Regional Office 436 Dwight Street Springfield, MA 01103	
Town of Montague, Conservation Commission 1 Avenue A Turners Falls, MA 01376	Town of Northfield, Conservation Commission 12 East Main Street Erving, MA 01344

and upon the following persons **via electronic mail (without exhibits)**:

Applicants Contact Person: Justin Trudell, justin.trudell@firstlight.energy	Applicants Authorized Agent: Adam Kahn, akahn@foleyhoag.com
MassDEP Timothy M. Jones, timothy.m.jones@mass.gov	Town of Northfield Bill Llewelyn, Chair, Conservation Commission Williamllewelyn1942@icloud.com
Town of Montague	

Mark Fairbrother, Chair, Conservation Commission bogelfin@crocker.com	
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Respectfully submitted,

CONNECTICUT RIVER CONSERVANCY,
AMERICAN RIVERS, CRC GROUP

By their attorney,



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