



Via email and mail
December 23, 2016

Vandana Rao, Ph.D., Assistant Director of Water Policy
Executive Office of Energy and Environmental Affairs
100 Cambridge Street
Suite 900
Boston, MA 02114

Re: *Proposed Revisions to Interbasin Transfer Act Regulations, 313 CMR 4.00*

Dear Ms. Rao:

Charles River Watershed Association (CRWA) submits the following comments on the proposed revisions to 313 CMR 4.00 supplementing our comments at the December 8, 2016 public hearing.

The Governor's Executive Order 569, issued in September, requires the development of a statewide Climate Adaptation Plan with a strategy incorporating, among other things, (i) drought, (ii) guidance and strategies for state agencies to proactively address climate change impacts, including guidance regarding changes to regulations and policies, (iii) clear goals, expected outcomes, and a path to achieving results, (v) policies and strategies for ensuring that adaptation and resiliency efforts complement efforts to reduce greenhouse gas emissions, and (vi) strategies that conserve and sustainably employ the natural resources of the Commonwealth to enhance climate adaptation, build resilience and mitigate climate change. It is through this lens that the proposed changes to the Interbasin Transfer Act (ITA) regulations should be examined.

Our freshwater resources are critical for adaptation and resiliency to climate change and will be one of, if not the most, important Commonwealth natural resource, in the coming years for adaptation and resilience. There is also a clear nexus between water and fossil fuel energy use for pumping and transferring water from one basin to another. Accordingly, under the Governor's mandate, CRWA believes that there should be a reset on these regulations and that Water Resources Commission (WRC) should direct staff to re-examine them in the context of E.O. 569 and report back in advance of a vote on the regulations. Areas that should be re-examined and improved pursuant to E.O. 569 include: expansion of service areas of regional water supply systems; use of artificial river basins, the elimination of Local Water Resource Plans, better integration of the peer-reviewed science developed in the Sustainable Water Management Initiative (SWMI) on seasonal streamflow criteria, sub-basin impacts of transfers, and reasonable instream flow; and the criteria for finding transfers insignificant and significant.

The proposed regulations should also further the achievement of the four environmental principles of the *Massachusetts Water Policy* (2004):¹

- Keep water local
- Protect clean water and restore impaired waters
- Protect and restore fish and wildlife habitat
- Promote development strategies consistent with sustainable water resource management

The WRC has the opportunity to modify the draft ITA regulations to further these principles and to achieve the best environmental outcomes. We ask that the WRC exercise its authority to do so.

Expansion of service areas of regional water supply systems

The proposed new section 4.10 sets forth a process to allow a Regional Water Supply System to expand its service area for a Significant Increase Over the Present Rate of Interbasin Transfer. This amendment provides for consolidated Donor Basin application and pre-approval for regional water purveyors to sell large volumes of water before new customers/receiving areas are identified. CRWA strongly opposes the 20-year approval with only an interim 10 year “report” to the WRC.² Twenty years is far too long given the fluidity of climate change conditions that will occur during this period. It is counter to E.O. 569, poor water policy, and frankly unwise we think to allocate transfers of large quantities of water two decades in advance when climatic conditions are changing and will likely alter current assumptions about available water supply. To provide some perspective on this very long timeframe, 20 years ago the worldwide web was only in its infancy! The ongoing severe drought across Massachusetts underscores the problematic nature of long-term approved allocations to Donor Basins for transfer to unidentified future receiving areas.

This section appears to be primarily geared toward accommodating MWRA water supply expansion. It will also be applicable many other systems because the definition of Regional Water Supply System in section 4.02, “Substantially serves or proposed to substantially serve two or more receiving areas” casts a broad net. This should be changed and the words “proposed to substantially serve two or more receiving areas” should be eliminated. Under the proposed definition certain public water systems now supplying water only locally could seek to expand their service areas to two or more receiving areas, qualify as regional supply systems, and sequester this water for 20 years regardless of whether it is being used.³ Water transfers across basins should be avoided unless there is a compelling reason, furthers state water policy, and is part of comprehensive statewide water planning. The Commonwealth should make every effort to avoid the “Californication” of water transfers model. Importantly, neither the water in the MWRA’s system, nor those of other potential regional suppliers is owned by them. Water is a Commonwealth natural resource that should be protected and managed in the public interest.

¹ Development of the *Massachusetts Water Policy* was led by Jim Stergios, then undersecretary for policy at EEA.

² And if the WRC takes no action within six months of report receipt, the original approval continues under its existing terms. 313 CMR 4.10(1)(m).

³ See, *Regulated Riparian Model Water Code* (American Society of Civil Engineers 2004) at § IR-1-02 Ensuring Efficient And Productive Use of Water, Commentary (“efficient and productive use of water includes environmental as well as economic uses . . . the Code authorizes the State Agency to require diligence in putting water to actual use once [an approval] is authorized.”)

We strongly recommend that if the WRC moves forward with this, at a minimum, Donor Basin transfer approval should be limited to 10 years, and optimally, to seven years, with a robust five-year public hearing and review by the WRC, coupled with the WRC's authority to modify, or further condition, the approval. It is not unduly burdensome for the MWRA or another supplier to seek a new approval and to undergo consolidated MEPA review after seven, or at most 10 years, from the original approval. If conditions have not significantly changed, the burden on the regional supplier will be even less. The exemption for pending applications from a Receiving Area in 4.10(1)(m) also removes uncertainty for applicants. And the public interest requires this.

Importantly, an integral component of this review process for Donor Basin transfers should be reservoir releases based on seasonality for fish and other aquatic life health.

We disagree with the proposed approach in section 4.10 of making Donor Basin and Receiving Area reviews part of one big application process. This is unnecessary. It is also important to recognize that many Receiving Areas would now be taken out of MEPA review entirely based on the size of the "withdrawal" or transfer. All Receiving Area transfers under this section should be significant and the regulations should explicitly state this. And nothing in section 4.10 will drive environmental outcomes in the right places, such as directing MWRA water to stream-depleted headwaters. This section would unnecessarily hamper comprehensive water planning by the WRC, and the environmental benefits, if any, will be haphazard.

We agree that the Receiving Area should be subject to the requirements in 4.10 (2)(b) and particularly the water conservation program required in 4.09 (2)(d). We are also concerned about the scenario where a receiving area is requesting a transfer of less than 1 mgd and later requests additional water. Our understanding is that this could be determined to be insignificant even though the combined transfer total exceeds 1 mgd. To avoid this kind of segmentation, at a minimum, the subsequent (and the original) transfer should always be considered significant.

There are clearly environmental impacts in using Donor Basin water only after local sources are severely depleted, or exhausted, as well as secondary unplanned growth consequences in the receiving area. Wastewater transfers also have clear growth impacts, and over time, result in water losses through I/I export. Interbasin transfers are a piece of the sprawl problem; accordingly, the ITA program should be coordinating with other relevant agencies as a policy matter to achieve smarter growth and prevent sprawl impacts from transfers. This accords with the Massachusetts Water Policy's environmental principle to "promote development strategies consistent with sustainable water resource management."

Artificial River Basins

In its response to comments, the WRC should explain and justify why artificial basins, such as South Coastal and Boston Harbor, are not broken out into their actual watersheds in 313 CMR4.03, as was proposed by the WRC in 2014. Transfer requests should be evaluated by the WRC on the actual watershed (and sub-basin) scale, not on a "combined river basin" scale. The Mystic River Watershed, for example, should not be combined with the Neponset River Watershed, with which it has no hydrologic connection in assessing transfer impacts.

Local Water Resource Plans

The proposed regulations would eliminate the requirement of local water resource plans entirely. One rationale provided at a WRC meeting by staff for this is that the form used does not elicit meaningful information.⁴ While CRWA has always disagreed with the WRC's adoption of a water conservation questionnaire in the past as a substitute for these plans, the real answer lies in development of actual local water resource plans with improved information, rather than the abnegation of this requirement. This is precisely the kind of planning that communities should be doing under E.O. 569. Robust water resource plans should be an important prerequisite for an applicant's ITA review.⁵

These plans are also intertwined with the local water resource plan requirements in the Water Management Act (WMA). Eliminating them from the ITA regulations may well have the collateral consequence of effectively eliminating them from the WMA. This is because the local water resource plan in WMA is prescribed by the WRC. This cascading effect should be avoided. In sum, the WRC should lead on this, strengthening the requirement in accordance with the Governor's directive to adopt "strategies that conserve and sustainably employ the natural resources of the Commonwealth to enhance climate adaptation [and], build resilience . . ."

SWMI Science and Reasonable Instream Flow

The peer-reviewed science developed in SWMI by DFW and the US Geological Survey is among the best in the nation on seasonal streamflow criteria and biological and groundwater withdrawal categories. This science while originally applied to WMA permitting is applicable and transferrable to other water-related programs.⁶ Additionally, the tools developed for assessing withdrawal impacts at the sub-basin level in SWMI will be very useful in the ITA process. The SWMI science established that water impacts are both local and cumulative. It also established the relationship among fluvial fish, withdrawals, and streamflow alteration. While section 4.06(1) provides that "To the extent possible" applicants "should utilize existing data and the best available science including, as appropriate, analyses and methodologies currently used in other regulatory jurisdictions," CRWA believes the temporal and spatial scales in the SWMI science need to be better integrated into the proposed regulations in sections 4.08 and 4.09 with the required analyses by Donor Basin applicants. It will also be helpful in the assessment of viable local sources. While we understand that SWMI science may be refined over time, there should be explicit recognition in the regulations of the applicability of this "best available science" and the importance of examination of interbasin transfers of both water and wastewater on ground and surface waters. The SWMI streamflow criteria (now codified in the WMA regulations at 310 CMR 36.14) should also be a component in evaluating and determining whether Criterion 5-Reasonable Instream Flow has been met.

Transfers and Insignificance

⁴ Another reason put forth was that communities are already doing this planning thus making this requirement "redundant." We strongly disagree that communities have developed these plans and suggest that the WRC request full information on the number and content of them before eliminating this very important planning requirement.

⁵ Just as Comprehensive Wastewater Management Plans are required pursuant to section 4.09(2)(d), so too should the WRC require water resource management plans.

⁶ To be clear, it is the SWMI science, not its application to WMA permitting with its 3 permitting tiers—a separate program with different goals— that should be better integrated into the ITA regulations.

With climate change happening now, it has never been more important for the WRC's review of ITA requests to be based on full information and assessment. The WRC has properly exercised its authority to find most transfers to be significant. This full review has increased public participation and confidence in WRC transfer decisions. Yet the regulatory changes proposed are geared toward reducing the WRC's review and making it easier to transfer water between basins. This contravenes state water policy and the wisdom of "Keeping Water Local." The changes proposed in 4.08 reducing the WRC's review are likely to result in less environmental protection.

Because full MEPA review for water and wastewater transfers is triggered by, *inter alia*, whether the transfer (if less than 1mgd) is determined to be significant by the WRC, many transfers will not be subject to a mandatory EIR (or any MEPA review) should the WRC determine the transfer is "insignificant." While the WRC retains its discretion under the proposed regulations to find a transfer less than 1 mgd to be significant, the proposed regulations create a "chicken and egg" situation: far less information is required from the applicant upon which the WRC then makes this determination.⁷ Pursuant to 4.08(2)(a) an applicant need only provide a brief description of the project, timetable, the increase in the present rate of interbasin transfer presented as annual average daily capacity, and a map with certain information. Unless the WRC requests additional information, see, (see, 313 CMR 4.08(2)(a)8 , it will have little data to go on in determining whether a transfer less than or equal to 10,000 gpd is in fact "significant." Consequently, it is likely to become a self-fulfilling prophecy that all transfers below this amount will be found to be insignificant.

Use of an annual average computed as a daily average of capacity completely ignores transfer seasonal impacts thus preventing a true assessment of the environmental impacts. CRWA asks that seasonal analyses of an Increase Over the Present Rate of Transfer with HUC-12 sub-basin impacts be added to sections 4.08(2)(a) and (c).

While wastewater transfers between 10,000 gpd and 1 mgd require additional information from the applicant for a determination of insignificance, this requirement is "triggered by the development of a local water supply" pursuant to section 4.08(2)(c). We do not understand the reason for this qualifying phrase and recommend it be stricken.⁸

In sections 4.08(2)(c)2 and 4.08(3)(c), the proposed transfer should be calculated as a percentage of the impacted, rather than the unimpacted, 95% Exceedance Flow because transfers should be evaluated under current conditions in the WRC's assessment of the impact of the proposed transfer. A percentage of the unimpacted exceedance flow is not the most useful metric for determining significance. Determining this from the "appropriate point in the Donor Basin river or tributary thereto" also raises the question of how the appropriate point will be determined. We note that use of gages downstream of large drainage areas dampen the impact, or % depletion, and do not accurately reflect the localized impacts of transfers from, or above, subbasins.

⁷ Similarly, the proposed regulations require scant information for a Determination of Applicability. See, 313 CMR 4.07(2).

⁸ Similarly, it is not clear why section 4.08(2)(d) appears to exempt out "transfer of wastewater triggered by the development of a local water supply" from the additional information required in subsections 1. and 2. See, also, section 4.09((2)(d)1.

Very importantly, we think the distinction that the proposed regulations draw between “transfers primarily derived from streamflow” and transfers from “lakes, ponds, reservoirs or other impoundments” in section 4.08(2)(c)2 and (c)3, and in 4.08(3)(c) and (d) is unsupported and unwarranted. Transfers from these surface waters in MA directly affect streamflow and the hydrograph of downstream river segments and tributaries.⁹ We strongly urge you to eliminate this distinction and to eliminate 4.08(3)(d). If the WRC determines to retain 4.08(3)(d), it should be limited to isolated lake and pond systems that have no effect on downstream flow.¹⁰

We also believe determining insignificance based on whether the transfer is less than 5% of the 95% exceedance flow, or 1% of the average annual precipitation on the drainage area of the water body and less than 5% of the drought year inflow are not appropriate in all cases and should in any event be based on at least a 20-year record to more accurately account for climatic variations. The streamflow science developed in SWMI and the streamflow criteria using biological and withdrawal categories, and cumulative impacts also should be integrated into this determination. We note that 5% of the time flows will fall below the 95% exceedance flow and a transfer of up to 5% of this could result in no flow yet still pass muster as “insignificant” under the regulations. A blanket metric also fails to take into account site specific conditions and variation among river systems.

In addition to our comment above to delete 4.08(3)(d), “less than 5% of the drought flow” in this section provides no guidance on how to determine the “drought year inflow.” This should be clarified. We also note that “the cumulative amount of the transfer, including the proposed amount” in both subsections (c) and (d) appears to only require the incremental impact of the increase to the applicant’s (?) or the present rate of transfer(?), in contrast to subsection (h) which requires consideration of the cumulative impacts of all transfers. We strongly recommend that subsection (h) consideration of cumulative impacts be changed to include exports on the sub-basin scale, not just from interbasin transfers because these transfers do not occur in a vacuum. The SWMI-based permitting tool should be useful in evaluating this. Lastly, Section 4.08(3)(g) only requires that “consideration has been given to measures to protect instream flows.”¹¹ (emphasis added). This language should be strengthened to make it clear that the applicant has an affirmative obligation to minimize, offset and protect flows, not just merely “consider” (and then reject) them.

⁹ The Division of Fisheries and Wildlife in conjunction with UMass-Amherst has been working on characterizing flow alterations downstream of water supply reservoirs and drawdown of lakes, and on describing potential impacts to aquatic habitat from these drawdowns, as well as on reservoir releases.

¹⁰ However, these isolated systems are unlikely to be used for water supply transfers.

¹¹ Section 4.08(2)(c)1, cited in this section, provides that the request for determination of insignificance must contain “any proposed flow management provisions, flow protection thresholds or other measures to minimize or offset impacts of the transfer on streamflow.” We recommend that the word “any” in the first clause be stricken to make it clear that the WRC’s expectation is that applicant must provide provisions and measures to comply with this section.

Significant Increase Transfers

Section 4.09 does not contain any standards for the WRC's determination of significance for actions to increase the present rate of interbasin transfer by less than 1 mgd.¹² We think a better definition would be helpful and alleviate subjectivity concerns. All applicants should be required to provide their water resource plan, in addition to a narrative of how the transfer supports long-range planning in section 4.09(2)(b)4.

"Is environmentally sound" in the definition of Viable Source in section 4.02 and in 4.09(2)(c) is subject to vastly different interpretations. Instead, we recommend changing this to "is not environmentally damaging." While the language on water supply transfers: "while providing reasonable instream flow" is helpful, the underlying problem is how this is determined in section 4.09(3)(e), the referenced section. Subsection 4.09(3)(e) directs the WRC "to take into account," (should be changed to "shall consider") the impacts of the transfer on streamflow dependent ecosystems and water uses and potential to affect instream flow values in section 4.09(2)(g). The information required to be provided on instream flow in the Donor Basin in section 4.09(2)(g) should include localized impacts.¹³ Again, this is an example of where the science developed in SWMI should be explicitly utilized. All applicants proposing an action to increase the present rate of transfer from a reservoir(s) should be required to provide up-to-date drought and demand management plans: the qualifying language in section 4.(g)(4)(ii) "if they are used" should be stricken.

The water conservation measures in section 4.09(2)(d) should include water audits and billing frequency.

Criterion 6-Impacts on Groundwater Withdrawals in section 4.09(3)(f) should be revised. While pump test results can be considered, it should certainly not be the only measure of groundwater withdrawal impacts. MassDEP's prescribed pump tests for new source approval frequently do not accurately demonstrate the "potential to affect instream values." Many of these pumps tests will be quite old and not reflective of current groundwater conditions, or the combined impacts of newer groundwater withdrawals, and may have been influenced by precipitation, drought, or water discharge returns. The SWMI Permitting Tool, which can be adapted, is a far better measure for identifying groundwater impacts.

Criteria 7 Cumulative Impacts in section 4.09(3)(g) for evaluating applications for significant transfer increases should not be conducted only at the donor basin scale. We strongly recommend the addition of the words "and relevant sub-basins" after "Donor Basin" in this subsection. While the cumulative impacts of multiple transfers can be considerable, it is not clear how additional transfers will be evaluated "with authorized and proposed transfers against relevant criteria."

Additional comments:

- The definition of "Significant Increase," in 313 CMR 4.04 defined as a transfer over the Present Rate of Interbasin Transfer, sufficient in size or impact to invoke the provisions of the Act" is

¹² Significant Increase is only defined in 4.02 as a transfer above the present rate of transfer "sufficient and size and impact so as to invoke the provisions of the Act."

¹³ While subsection vi. requires information on water levels of nearby reservoirs, lakes and ponds in relation to outlet streams, nearby rivers and streams are not included in subsections i.-xv.

standardless and should be eliminated. It is also unnecessary given the provisions for determinations of applicability in 313 CMR 4.07.

- In section 4.04(4) the construction of, or increase in capacity of treatment plants are only subject to the regulations if “such plants increase the ability to transfer water out-of-basin for use[.]” This will often be difficult to determine at the time of construction or expansion, but could well result in “grandfathering” and future exemption from the regulations.
- In section 4.11(3) the final Decision and report should also be noticed in the Environmental Monitor and, in addition to the applicant and Donor Basin and Receiving Area communities, sent to the applicable watershed association and all persons that commented on the proposed transfer.

Thank you in advance for your consideration of CRWA’s comments. Please feel free to call me with any questions at 781-788-0007 ext. 234.

Sincerely,



Margaret Van Deusen
Deputy Director and General Counsel