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Re: NGO comments on draft *Great Lakes Binational Strategy for Short-Chain Chlorinated Paraffins (SCCPs) Risk Management*

(Transmission by email)

Dear Mr. Ireland and Ms. Mitchell,

On behalf of the Canadian Environmental Law Association, National Wildlife Federation, and Toxics Free Great Lakes, we are providing these comments on the draft *Great Lakes Binational Strategy for Short-Chain Chlorinated Paraffins (SCCPs) Risk Management* (May 2019), hereafter "SCCP Strategy" or "draft Strategy". Our comments and recommendations, enumerated below, aim to seek binational actions that protect the Great Lakes Basin, wildlife population and human health from exposure to SCCPs.

1) The SCCP Strategy should identify early on ongoing concerns with SCCPs in the Great Lakes.

The Executive Summary in the draft Strategy provides information on the presence of SCCPs in the Great Lakes, including presence of SCCPs in various matrices, including environmental media, wildlife, and in breast milk, while also highlighting declining SCCP levels in the Great Lakes and key data gaps. The Executive Summary may benefit from additional discussion concerning fish consumption advisories associated with SCCPs in provinces and states, as well as work that can be undertaken to estimate releases of SCCP throughout life cycles of products containing SCCP, including waste disposal streams. In addition, the Executive Summary should note that even with data showing decline in SCCP levels in the Great Lakes Basin, releases of SCCPs continued to occur across a number of sectors in the recent past, and uncertainty about these releases (including from waste streams) means there may still be threats to environmental quality in the Great Lakes.

2) Reducing and virtually eliminating SCCPs requires a binational commitment to both Great Lakes Basin-specific actions and targets and tracking of progress.

The SCCP Strategy highlights activities underway (or proposed for enhancement) in both countries to address SCCPs releases. However, we believe the SCCP Strategy should include a more specific framework, which can include setting specific reduction targets, an approach to track activities, and more comprehensive monitoring to assess environmental response. As part of this work, timelines for strategy implementation should be included; though the Great Lakes Water Quality Agreement (GLWQA) does not specifically call out timelines, having such timelines would be helpful in assessing progress as required under the GLWQA, including when reporting on the three-year cycle. In addition, though this draft Strategy is focused on SCCPs, it is important for the Parties to be tracking potential chemical substitutes that may be entering the Great Lakes following the shift from SCCPs in many uses. This point argues for a broader alternative assessment regime that the Parties could promote in support of a more sustainable chemicals program for the region.

3) Ensure all key historic and current activities in the U.S. and Canada affecting SCCP are emphasized in the Strategy, including in the Executive Summary.

The Executive Summary should summarize key activities completed or underway as well as new activities that will contribute to ultimate objectives concerning SCCPs in the Great Lakes Basin For example, the Executive Summary can note earlier settlement agreements with industry to phase out production of SCCPs in the U.S., as well as more recent activities in both countries. In addition, while the Strategy references the value of continued reporting to the U.S. Toxics Release Inventory (TRI), we believe the U.S. should explore the potential value in lowering the reporting threshold, in case there are many more facilities that in aggregate may be releasing appreciable levels, but which are generally not captured in the TRI given existing thresholds.

4) There should be comparable description of key programs addressing SCCP for both countries.

For example, in Section 3 on policies, regulations and programs, Canada's Prohibition on Certain Toxic Chemicals Regulations has been recently updated. There are no details on the exemptions allowed under the new regulations and no consideration by Canada on how exemptions in the regulations associated with SCCPs may be addressed as it relates to the Great Lakes Basin (section 3.2). The U.S. regulatory measures offer more details on what is covered under its regulatory measures on SCCP. Similarly, there is much more detail on pollution prevention (P2) efforts for the U.S. as compared to Canada – more elaboration on types of P2 activities in Canada could be provided in Section 3.2.2.

One other area that could be further noted in the Strategy is the potential extent of locations in the Great Lakes Basin with SCCP levels detected (e.g. in Areas of Concern, Superfund sites on the U.S. side, or more remote sites in the lakes). Further details on results from recent monitoring of SCCPs, including from Minnesota and any other state, provincial or national

efforts would be helpful, including potentially demonstrating the need for additional remedial work necessary to address ongoing releases of SCCPs in the Great Lakes Basin.

Finally, more elaboration is needed on discussion of releases and transfers of SCCPs in Canada (e.g., in Section 3.2.3). The text notes no facilities had reported actual releases of SCCPs via the National Pollutant Release Inventory (NPRI) (draft Strategy, p. 17), while transfers for recycling have been reported. Given the increasing apparent trends in SCCPs and related compounds going to recycling in more recent years (Figure 3), it would be helpful to have further elaboration in the text on the potential significance of these trends, including concerning possible releases, fate of the transferred substances, and exposure implications. Furthermore, SCCP reporting has been required since 1999 but we believe recent changes to reporting requirements will not provide a full scope of SCCP releases and transfers in Canada, and should be revisited.

5) Commit to address waste stream for SCCPs.

While the draft Strategy identifies information gaps concerning SCCPs from waste streams to the Great Lakes region, the draft Strategy commitment for Canada and U.S. to address this gap is not adequate. The commitment to "Promote proper waste and disposal management of SCCPs containing product" should be strengthened to "Require…" rather than "Promote…" This commitment could involve reviewing existing regulations to focus on bans and or improved requirements for recycling provisions targeting SCCP-containing products.

6) More elaboration on pollution prevention activities for SCCPs is needed.

Pollution Prevention activities can contribute to reduction of SCCP levels. Canada and U.S. provide different approaches to monitor P2 activities. In the U.S., the focus is on the Toxics Release Inventory program to monitor P2 activities while Canada has not made the same commitment. Canada should reconsider its approach to require improved reporting on P2 activities via amendments to the NPRI program (ES Table A). A specific effort reporting P2 activities on SCCPs within the GL Basin using data from U.S. TRI and Canada's NPRI would be valuable to assess progress in voluntary measures addressing SCCP in the region.

7) Further elaboration on the issue of guidelines and standards is needed.

The draft Strategy notes the absence of any environmental standards or guidelines for SCCPs in the U.S., while Federal Environmental Quality Guidelines are in place in Canada (Section 3.2.4). It would be helpful to have a very brief review of the endpoints protected by the Canadian environmental quality guidelines, including the extent to which the guidelines consider bioaccumulation and biomagnification (in protection of wildlife), as will be the case for SCCPs. In addition, the Strategy should note clearly that the absence of guidelines or standards (as is the case on the U.S. side) does not imply an absence of risk from SCCPs. Hence, work to establish such guidelines for SCCPs and possibly related compounds is justified, as noted in the

ES Table A. The ES Table A also outlines U.S. commitment to implement water quality standards for surface waters while Canada has not proposed to develop drinking water quality guideline for SCCPs which could complement its Federal Environmental Quality Guidelines on SCCPs (section 5.5).

8) The Strategy should include discussion on the issue of fish uptake of SCCPs and potential human health risks

While the draft Strategy briefly mentions human biomonitoring data for SCCPs as well as bioaccumulation potential of SCCPs, there is no explicit discussion on fish uptake and potential human exposures via this route. Given the longstanding concern with persistent, bioaccumulative, and toxic chemicals in the Great Lakes region, the Strategy should have a section discussing this issue, including any studies reviewing human exposures to SCCP via fish consumption (or other dietary items), any epidemiological or toxicological studies on health concerns, and any potential need for development of fish consumption advisories in the states and province, which to our knowledge, have not been developed in the region.

9) The Parties need to highlight resource needs to carry out Annex 3 activities.

The SCCP Strategy notes that through the GLWQA, "…the Parties' respective obligations are subject to the appropriation of funds in accordance with their respective procedures." (Introduction section, page 8). Again as we noted in the recent comments on the PBDE and Mercury Strategies, given the binational commitment the Parties have made through the GLWQA to address Great Lakes threats, it is important that the Parties highlight the importance of funding programs to meet objectives of the GLWQA. It is reasonable to ensure that those making decisions related to authorizing and appropriating funds recognize the importance of funding programs addressing SCCPs and other CMCs in the Great Lakes Basin.

10) The Strategy should ensure appropriate discussion of technical material.

It is important for the draft Strategy to appropriately use or cite technical content. For example, the report provides inconsistent information on vapor pressure and its implications. By definition, substances with a relatively *high* vapor pressure will have a greater tendency to volatilize to the air (e.g., from soils), in contrast to language used on two occasions in the report – Executive Summary and Section 2.2. These errors should be corrected. In addition, the actual vapor pressure values cited in Table 2 show a range for the different SCCPs spanning five orders of magnitude, so the vapor pressures are not uniformly "low" or "high". At the same time, vapor pressures (especially at the higher end) are sufficient such that the compounds would have appreciable volatility. Discussion on this issue should be clarified – i.e., SCCPs have a range of vapor pressures, but in general are sufficiently high that some volatility and subsequent atmospheric transport can be expected.

In addition, in Section 2.4.3, in reference to van Mourik et al. 2018, the draft Strategy states the study reported greatest challenges in determining SCCPs in fish tissue, due to lower levels.

While van Mourik et al. 2018 did note particular challenges with fish tissue analysis, they noted some general challenges across multiple matrices, and in the case of fish tissue, the results were based on a single inter-comparison study involving pooled fish tissue from multiple sites in the Netherlands. It is important to note that one cannot infer from that study that Great Lakes fish tissue SCCP levels would be extremely low.

In summary, we appreciate the opportunity to provide these comments on the draft *Great Lakes Binational Strategy for Short-Chain Chlorinated Paraffins (SCCPs) Risk Management*. As we have noted in comments on earlier strategy documents, it is important that these strategy documents highlight ongoing as well as additional activities that should be pursued to meet objectives for chemicals of mutual concern under the Great Lakes Water Quality Agreement. We believe addressing the comments above can result in actions more likely to address ongoing concerns with SCCPs in the Great Lakes Basin.

Sincerely,

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