

## DIRECTIVE TO THE INTERNATIONAL LAKE CHAMPLAIN-RICHELIEU RIVER TECHNICAL WORKING GROUP

The purpose of this directive is to establish and direct the International Lake Champlain-Richelieu River Technical Working Group (TWG) to examine and report to the International Joint Commission on the matters identified by the governments in their July 24 and July 31, 2014 reference letters to the Commission on Lake Champlain and Richelieu River flooding. (copies attached) As stated in these letters, the governments requested that the Commission initiate and complete two scalable components from the 2013 Lake Champlain-Richelieu River Plan of Study (POS). The 2013 POS was prepared in response to the floods of 2011 in the Richelieu River and the Lake Champlain basin and built upon IJC's long history investigating water management in this basin including the 1937 order of approval and the 1973 reference by the US and Canadian governments to "investigate and report on the feasibility and desirability of regulation of the Richelieu River ...for the purpose of alleviating extreme water conditions in the Richelieu River and in Lake Champlain..." (see Dockets 38A, 98R). The POS recommended a comprehensive study of measures to mitigate flooding and the impacts of flooding in the basin. Work on two scalable components identified in the POS is to be completed by the IJC within existing funding limits.

These components are:

1. Addressing and closing data gaps through data collection and harmonization of topographic, bathymetric, aquatic vegetation, soil texture, Light Detection and Ranging (LiDAR) and observed climate and hydrometric data (per section 3.1, page 34 of the July 2013 Plan of Study) as are necessary as a basis for the earliest possible initiation of a real-time flood forecasting and inundation mapping system. This system would consist of the development of new real-time Lake Champlain and Richelieu River hydrologic and hydraulic models for predicting lake and river levels, and a precise Digital Elevation Model of the flood plain to delineate the contours of corresponding inundated areas.
2. Creation of static flood inundation maps using a combination of existing and new data and modeling to provide practical information to communities. These maps would show which areas would be affected if Lake Champlain and Richelieu River water levels hit different heights.

To assist the Commission in the organization and implementation of the work outlined in the July reference letters, the Commission will appoint members to a Technical Working Group and Co-Chairs to lead the Technical Working Group's efforts. The co-chairs shall convene and preside at meetings of the Technical Working Group and shall jointly take a leadership role in planning and implementing the Group's work. The Technical Working Group will be binational,

with an equal number of members from each country. The Commission shall arrange for provision of secretariat support to carry out such duties as are assigned by the Co-Chairs or the Technical Working Group as a whole. The Commission will provide guidance to the TWG and will pursue technical assistance from the two governments, as identified by the TWG. Members of the TWG and any committees or work groups created by it will be responsible for their own expenses unless otherwise arranged with the Commission.

The Technical Working Group is to work with the IJC, and the agencies that are identified by the IJC to perform work tasks, providing those agencies and IJC staff with technical determinations, evaluations and guidance on how best to complete IJC-designated tasks within the budget and time frame included in the reference from governments. Given that the envisioned work tasks contain unknown factors related to the extent and resolution of existing data, the scope of data collection needed to close data gaps, and the nature of computer modeling and graphical products or interfaces needed to make the data useful to the public and government, the Technical Working Group may suggest to the IJC modifications to the work tasks.

To facilitate public outreach, the Technical Working Group shall make information related to its work plan as widely available as practicable, including data, its reports and other materials, as appropriate. The Technical Working Group in collaboration with the IJC shall develop and maintain a web-site hosted by the IJC as a means for disseminating information related to implementation of its tasks. To the extent practicable, the Technical Working Group shall make available on the web-site all documents that are available for public information under the Commission's Rules of Procedure.

The Technical Working Group shall keep the Commission fully informed of its progress and direction. The Technical Working Group shall also maintain an awareness of basin-wide activities and conditions and shall inform the Commission about any such activities or conditions that might affect its work. In addition to regular contact with designated Commission personnel, the Technical Working Group shall be prepared to meet with the Commission at least semi-annually if requested by Commissioners, and if so requested, it shall submit written progress reports to the Commission at least three weeks in advance of those meetings.

The Technical Working Group shall act as a unitary body. The members of the work group shall serve the Commission in their professional capacity, in an impartial manner for the common good of both countries, and not as representatives of their countries, agencies, organizations, or other affiliations. The Technical Working Group will strive to reach decisions by consensus and will immediately notify the Commission of any irreconcilable differences. Any lack of clarity or precision in instructions or directions received from the Commission shall be promptly referred to the Commission for clarification.

The Technical Working Group shall within one month of its creation submit for the Commission's approval an initial work plan with a schedule of tasks, products and budget based on this directive. The work plan shall include a proposal that will describe how public consultation will be undertaken. The consultation plan shall discuss how the TWG will collaborate with federal governments, provinces, states as well as the wider body of stakeholders and the public. The TWG will compile the data necessary as a basis for initiation of a real-time flood forecasting and inundation mapping system, complete the static flood inundation maps and submit its final report no later than September 15, 2015. The final report should contain the TWG's findings, conclusions and recommendations regarding the matters raised by the governments.

Documents, letters, memoranda and communications of every kind in the official records of the Commission are privileged and become available for public information only after their release by the Commission. The Commission considers all documents in the official records of the TWG or any of its committees to be similarly privileged. Accordingly, all such documents shall be so identified and maintained as separate files.