ATTACHMENT: July 14, 2023
Federal Authority Advice Record: Designation Request under the IAA
Response due by August 3, 2023

Port au Port-Stephenville Wind Power and Hydrogen Generation Project (also known as Project Nujio'qonik)

Department/Agency	Environment and Climate Change Canada (ECCC)
Lead Contact	Michael Hingston
Full Address	16th Floor Queen Square, 45 Alderney Drive, Dartmouth, NS B2Y2N6
Email	Michael.hingston@ec.gc.ca
Telephone	(902) 225-3534
Alternate Departmental Contact	Jerry Pulchan

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1. **Has your department or agency considered whether it has an interest in the Project; exercised a power or performed a duty or function under any Act of Parliament in relation to the Project; or taken any course of action (including provision of financial assistance) that would allow the Project to proceed in whole or in part?** No

   Specify as appropriate.

   ECCC has not considered, exercised a power or performed a duty, or taken any course of action as part of the Project.

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2. **Is it probable that your department or agency may be required to exercise a power or perform a duty or function related to the Project to enable it to proceed?** Yes

   If yes, specify that power, duty or function and its legislative source.

   Please note the following requirements that may apply to this project:

   ***Species at Risk Act* permits**

   For species listed in Schedule 1 of the *Species at Risk Act* (SARA) 2002 as Extirpated, Endangered or Threatened, a permit may be required from ECCC (section 73 of SARA) for activities that affect a listed terrestrial wildlife species, any part of its critical habitat, or the residences of its individuals, where those prohibitions are in place. Such permits may only be issued: if all reasonable alternatives to the activity that would reduce the impact on the species have been considered and the best solution has been adopted; all feasible measures will be taken to minimize the impact of the activity on the species or its critical habitat or the residences of its individuals; and if the activity will not jeopardize

the survival or recovery of the species. Permits are also required by those persons conducting activities that contravene the critical habitat destruction prohibitions (subsection 58(1)).

Prohibitions are in place for individuals and residences on federal lands and waters in a province, reserve or any other lands under the *Indian Act*, or lands under the authority of the Minister of the Environment, and for birds listed under the *Migratory Birds Convention Act* (MBCA) 1994 wherever they occur regardless of land tenure.

Furthermore, prohibitions may be in force on land other than federal land pursuant to other orders or regulations under SARA. It is possible that further prohibitions may come into force in the future through orders in Council for individuals, residences and critical habitat on non-federal lands and / or through ministerial order for critical habitat on federal lands. It is also possible that, over the course of the assessment or after the assessment and during the lifetime of the Project, additional species could be listed under SARA; permits may be required for project activities that affect these additional species. Proponents are advised to monitor for such developments on the SARA Registry https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry.html.

Examples of activities that could require a *Species at Risk Act* permit include: [actual list can be tailored to better reflect project details]:

- Species surveys that would affect individuals or residences;
- Site preparation (clearing, grubbing, site access, staging, blasting);
- Construction and operation of temporary and permanent works and infrastructure;
- Creation of new roads, rail lines, or power lines;
- Infilling of wetlands or watercourses;
- Any monitoring that requires capture/release of individuals; and
- Sensory disturbance effects (artificial lighting, noise, vibration, human activity, vehicular traffic).

ECCC will require detailed information on the potential effects of the project, including locations and/or occurrences of species at risk, their use of habitat and critical habitat within the project area, and specific effects on federal land, before ECCC can determine whether a SARA permit is required.

Links to publicly available documents:

- Guidelines for permitting under Section 73 of *Species at Risk Act* https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry/policies-guidelines/permitting-under-section-73.html
- Species at Risk Permitting Policy https://species-registry.canada.ca/index-en.html#/consultations/2983

In the event that a SARA permit is required, ECCC would evaluate and determine consultation requirements, if any.

ECCC-led Indigenous consultations related to the issuance of SARA permits will be coordinated with consultation during the impact assessment where possible.

If a permit is issued, the description of the activity and how SARA's preconditions were met will be posted on the SARA Registry here: https://species-registry.canada.ca/index-en.html#/permits.

***Migratory Birds Convention Act* permits**

The *Migratory Birds Regulations, 2022* (MBR 2022) protect migratory birds, their eggs and their nests, by prohibiting activities that may harm them. Unless a person has a permit or the regulations authorize it, it is prohibited to engage in the following activities:

- Capturing, killing, taking, injuring or harassing a migratory bird or attempting to do so;
- Destroying, taking or disturbing an egg; and
- Damaging, destroying, removing or disturbing a nest, nest shelter, eider duck shelter or duck nesting box, unless the following exceptions apply:
    - The nest does not contain a live migratory bird or a viable egg; and,
    - The nest was not built by a species listed in Schedule 1.

Modernization of the MBCA in 2022 has additionally identified 18 species of birds whose nests are protected year round (Schedule 1 of MBR 2022). The nests of species listed in Schedule 1 are protected at all times, unless the following conditions are met:

- Notification of the unoccupied nest has been submitted/received through the Registry for Abandoned Nests; and,
- The waiting time designated in the regulations has passed, during which time the nest has not been occupied by a migratory bird.

In some situations, it may be possible to obtain a permit to move or destroy an unoccupied nest of a Schedule 1 MBR 2022 species. For more information, please visit: https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds.html

Disposal at Sea permits, as per Part 7, Division 3 of the Canadian Environmental Protection Act, 1999 (CEPA 1999)

"Disposal" is defined in Part 7, Division 3 of the *Canadian Environmental Protection Act, 1999* (CEPA 1999) to include any disposal activity that takes place from a ship, aircraft, platform, or other structure into the marine or estuarine environment, including the storage of material on or below the seabed. More broadly, it includes the disposal of dredged material from any source. Disposal at sea is prohibited without a permit issued by ECCC under CEPA 1999, which is valid for a maximum of a one-year period. Permits can only be issued for substances listed in Schedule 5 of CEPA 1999. Material proposed for disposal at sea must undergo a detailed waste assessment and characterization process in accordance with Schedule 6 of CEPA 1999. This includes the requirement for an alternatives assessment to examine alternative waste management options in accordance with environmental, human health, and economic considerations. Disposal at Sea permits will only be considered for material that both meets characterization criteria and where disposal at sea is demonstrated to be the most suitable waste management option.

If Disposal at Sea permits are likely to be sought, the proponent is strongly encouraged to discuss this with ECCC as soon as possible. Plans for a detailed sediment characterization program should be reviewed by ECCC prior to implementation. The proponent is strongly encouraged to apply for the Disposal at Sea permit during the impact assessment process, providing they have all the necessary information for a complete permit application.

Upon receipt of a complete Disposal at Sea permit application, ECCC will circulate the permit application and associated information to other relevant government departments for review. ECCC has a legal duty to consult all Indigenous communities in Canada that have potential or established Aboriginal or treaty rights that overlaps with the Disposal at Sea permit request. The public is notified of a Disposal at Sea permit application through a Notice of Intent that must be published by the applicant in a locally circulated newspaper. The Notice provides contact information through which the public can seek additional information or provide comment. The permit is also posted publicly on the CEPA Registry for a 7-day period prior to coming into effect (https://pollution-waste.canada.ca/environmental-protection-registry/permits). Consultation on Disposal at Sea permits will be coordinated with consultation during the project environmental assessment where possible.

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3. **If your department or agency will exercise a power or perform a duty or function under any Act of Parliament in relation to the Project, will it involve public and Indigenous consultation?** Yes

   Specify as appropriate.

   Public and Indigenous consultations are not expected to be required to meet the *Migratory Birds Convention Act* and *Species at Risk Act* permit processes.

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4. **Is your department or agency in possession of specialist or expert information or knowledge that may be relevant to any potential adverse effects within federal jurisdiction caused by the Project or adverse direct or incidental effects stemming from the Project?** Yes

   Specify as appropriate.

   ECCC has specialist or expert information that may be relevant to the impact assessment in the areas listed below. In each of these subject areas we have expertise related to establishing an adequate baseline, assessing potential effects to biophysical valued components, effectiveness of mitigation measures, methods for monitoring and follow-up, as well as information regarding federal policies, standards, and regulations that may be relevant to the assessment (Note: ECCC does not assess proposed projects for regulatory compliance, but instead provides technical input to the Agency to inform the assessment). Once the scope of the project and of the assessment are established by the Agency, this list may change if additional project activities or components should come into scope.

Air quality: ambient air quality; sources of emissions; emissions estimation and measurement; atmospheric transport, transformation and dispersion modelling; and follow-up monitoring.

Greenhouse gas emissions and climate change: estimations of greenhouse gas (GHG) emissions (net and upstream); impact on carbon sinks; GHG mitigation measures and determination of Best Available Technologies/Best Environmental practices (BAT/BEP); credible plan to achieve net-zero GHG emissions by 2050; climate change science to inform evaluation of potential changes to the environment and project resilience to effects of climate change; climate change policies; and national GHG projections.

Water quality and quantity: surface water quality; contamination sources for surface water and groundwater, including effluent; wastewater; water quality predictions and modelling; seepage and runoff effects; management of contaminated soils or sediments; hydrology (streamflow rates data and modelling, flooding and extreme events management, drainage control, water levels, water balances); geochemistry; cumulative effects and follow-up and monitoring.

Wildlife, species at risk, and habitat: priority species and places as outlined in the Pan-Canadian Approach to transforming species at risk conservation in Canada; migratory birds, their nests, eggs, and habitat under authority of the *Migratory Birds Convention Act* 1994; species assessed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC); species at risk listed on Schedule 1 of the *Species at Risk Act* 2002, individuals, their residences, habitat and critical habitat [proposed and final] including recovery strategies, action plans and management plans under ECCC's mandate; impact to ecological functions of wetlands Federal Policy on Wetland Conservation in Canada; and ecotoxicology.

Environmental emergencies: emergency management planning and guidance, including where the release of hazardous substances could affect species at risk and/or migratory birds; atmospheric transport and dispersion modelling of contaminants in air; fate and behaviour; and hydrologic trajectory modelling of contaminants in water.

Climate and meteorology: long-term climate patterns and norms; marine winds, waves, and weather; and sea ice and icebergs; severe weather.

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5. **Has your department or agency had previous contact or involvement with the Proponent or other parties in relation to the Project?** Yes

Provide an overview of the information or advice exchanged.
ECCC is currently participating in the provincial environmental assessment process for the review of this project. A summary of our input to date is attached.

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6. **From the perspective of the mandate and area(s) of expertise of your department or agency, does the Project have the potential to cause adverse effects within federal jurisdiction or adverse direct or incidental effects as described in section 2 of the IAA? Could any of those effects be managed through legislative or regulatory mechanisms administered by your department or agency? If a licence, permit, authorization or approval may be issued, could it include conditions in relation to those effects?** Yes

Specify as appropriate.

The activities related to this project have the potential to cause adverse effects as defined under Section 2 of the *Impact Assessment Act*. Potential adverse effects on fish and fish habitat could be managed, in part, through pollution prevention provisions of the *Fisheries Act*. Potential adverse effects on migratory birds may be managed via conditions of approval, and prohibitions of the *Migratory Birds Convention Act* and *Species at Risk Act*.

Other potential environmental effects (that relate to ECCC's mandate) include:

Environmental Emergencies: The Project, as proposed, includes construction work (including dock facilities, a wastewater treatment plant marine outfall, marine cable crossing, access roads, and wind turbines), possible marine dredging, barging of wind turbine components and other supplies, and use, production, storage, and shipment of hazardous materials (including fuels, water treatment chemicals, and toxic and explosive substances). As such, there is potential for adverse environmental effects from accidents and malfunctions including spills or releases of hazardous materials such as diesel

fuel, bunker fuel, water treatment chemicals, or other explosive materials such as hydrogen and ammonia. Adverse effects to air quality, water quality, wildlife and wildlife habitat could result from the accidental release of fuels or explosion from hydrogen or ammonia during manufacturing, storage, or shipping. Optimized prevention, preparedness and response measures and systems will be important given the risk of spills of hazardous substances to water and uncontrolled releases of manufactured substances.

Part 8 of *the Canadian Environmental Protection Act* (CEPA) *1999* on environmental emergencies (sections 193 to 205) addresses the prevention of, preparedness for, response to and recovery from environmental emergencies caused by uncontrolled, unplanned or accidental releases. It also addressed the reduction of any foreseeable likelihood of releases of toxic or other hazardous substances listed in Schedule 1 of the *Environmental Emergency Regulations*. This act may apply if Schedule 1 substances onsite meet or exceed the threshold to be regulated under CEPA 1999, which seems likely in the operational phase of this project.

Wildlife and Wildlife Habitat: The activities linked to the construction, operation and decommissioning of the project and associated infrastructure could have negative effects on terrestrial wildlife, migratory birds and species at risk (e.g. birds, terrestrial mammals [e.g. bats, caribou]), birds not protected by the MBCA (e.g., raptors), amphibians, arthropods, lichens, mosses, and vascular plants) listed on the *Species at Risk Act* (SARA) and their habitat (e.g. wetlands) and critical habitat.

The nature of effects to wildlife and habitat (including residences and critical habitat defined under the SARA) can vary based on a number of factors, including: project location, duration, scale, and configuration; ancillary project activities (e.g., land clearing); existing cumulative effects; the type of habitat that may be disturbed; and sensitivity of species found in the project area. The pathway through which potential effects are conveyed will depend on the land, air, and water constituents associated with the site along with the behavioral adaptability, presence and interaction with the species limiting factor (e.g. habitat supporting staging, nesting, roosting or foraging) and population resilience.

Individual mortality and the destruction of nests and eggs or any other structure necessary for the reproduction and survival of species of risk could occur during all project phases. Construction of wind turbines and associated infrastructure can contribute to land clearing activities, which could lead to destruction, disturbance and fragmentation of habitat (e.g., foraging, nesting, migration, hibernating), habitat avoidance, sensory disturbance, and the inadvertent disturbance and destruction of individuals, nest and eggs of migratory birds and species at risk.

There is a higher risk that these effects would be more severe for migratory birds that are also species at risk and species where habitat is sensitive to disturbance (e.g. wetlands) or where there is already a high degree of cumulative effects to habitat or individuals. Destruction and/or disturbance of habitat can have increased impacts on species at risk individuals, residence and their critical habitat, which can lead to changes in prey and predator dynamics, loss of food resources, loss of breeding areas, changes in migration or movement, and increased risk of mortality.

The project may require new road infrastructure (e.g. access roads) or an increase in capacity to existing road networks, where an increase in road traffic volumes are likely to result in an increase in wildlife injury, mortality, and the introduction of invasive species. Although adverse direct effects to migratory birds and their nests are typically managed through appropriate scheduling of activities outside of the breeding season, collisions with vehicles and associated infrastructure can result in direct mortality of wildlife.

The construction, operation and decommissioning of the Project may impact wildlife directly and indirectly through impacts to habitat through changes in geomorphological processes (e.g., sedimentation processes, water quality and quantity). During construction, operation, maintenance and decommissioning, there is the potential for harmful substances to enter or be spilled into the receiving environment that may negatively affect wildlife. Depending on the nature of the release (e.g., toxicity, volume release, exposure pathways), effects to wildlife could be acute, chronic or both. Changes to water quality and quantity can affect migratory birds, wildlife, and their habitat.

Collision with turbines and towers is a risk for migratory birds and species at risk and may cause direct collision related mortality to bird species that are migrating through the area.

Noise, vibrations, artificial lighting and disturbances from construction, operation and decommissioning activities may result in injury, mortality, sensory disturbance and change in habitat use. Attraction to lights at night or in poor visibility conditions may cause birds to collide with lit structures or vertical support structures, resulting in injury or death. In other instances, birds can be disoriented while

circling an artificial light source and may deplete their energy reserves and either die of exhaustion or drop to the ground where they are at risk of predation.

The activities linked to the construction, operation, and decommissioning of the Project could have negative effects on wetlands and their ecological functions. Carrying out the Project, particularly the activities related to construction, is likely to alter the existing hydrological regimes essential for maintaining wetlands and thus affect the quality or availability of habitat for migratory birds, species at risk, and other wildlife. The destruction and modification of wetlands is likely to have adverse effects on migratory birds and species at risk that use these areas for breeding, foraging, resting and migration.

GHG emissions and climate change: The construction, operation, and decommissioning of the Project may result in GHG emissions or may impact carbon sinks (e.g. wetlands), and may hinder or contribute to the Government of Canada's ability to meet its commitments in respect of climate change. Furthermore, the Project has the potential to be affected by future climate change, possibly resulting in impacts to the environment.

Cumulative effects: Given the areal extent of the proposed activities, the Project has the potential to contribute to cumulative effects in the region (including water quality, air quality, and impacts to wildlife and their habitat). The impact assessment (if the project is designated) would consider both direct (and indirect) project effects and cumulative effects.

Disposal at Sea: The proposed project (specifically the dredging/disposal of dredged material, as well as submarine cable installation) may also be subject to the Disposal at Sea provisions (of the *Canadian Environmental Protection Act, 1999* (CEPA 1999). ECCC's Marine Programs group administers the Disposal at Sea permitting process and should be contacted directly to determine if project-related activities would trigger the requirement for a permit.

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7. Does your department or agency have a program or additional authority that may be relevant and could be considered as a potential solution to concerns expressed about the Project? In particular, the following issues have been raised by the requestor:

- effects to fish and fish habitat; Yes
- effects to wildlife, including migratory birds and species at risk; Yes
- effects to the marine environment (e.g., disruption of historic contamination); Yes
- accidents or malfunctions (e.g., ammonia or hydrogen leaks); Yes
- alternative means of carrying out the project were not adequately considered; No
- cumulative effects from past drilling, mining, milling, and accidents and malfunctions in the area; No
- mistrust in the proponent and the provincial process (e.g., perceived project-splitting); No
- effects to Indigenous peoples (e.g., country foods, current use); No
- effects to climate change from upstream and downstream impacts of hydrogen and ammonia production; Yes, and
- inadequate public and Indigenous engagement on the Project. No

If yes, please specify the program or authority.

- *Fisheries Act*, Pollution Prevention Provisions
- *Species at Risk Act*, 2002
- *Migratory Birds Convention Act*, 1994
- *Canadian Environmental Protection Act, 1999*
- *Strategic Assessment of Climate Change*
    - draft *Technical Guide Related to the Strategic Assessment of Climate Change: Guidance on quantification of net GHG emissions, impact on carbon sinks, mitigation measures, net-zero plan and upstream GHG assessment*

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8. **Does your department or agency have information about the interests of Indigenous groups in the vicinity of the Project; the exercise of their rights protected by section 35 of the *Constitution Act, 1982*; and/or any consultation and accommodation undertaken, underway, or anticipated to address adverse impacts to the section 35 rights of the Indigenous groups?** No

If yes, please specify.

ECCC does not have information about the interests of Indigenous groups in the vicinity of the project as they relate to the project.

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9. If your department has guidance material that would be helpful to the Proponent or the Agency, please include these as attachments or hyperlinks in your response.

Appropriate guidance has already been identified above. Additional guidance pertinent to this project is as follows:

Fisheries Act Registry: Pollution Prevention Provisions
This registry provides information about the pollution prevention provisions under the Fisheries Act. These provisions apply to all waters in the fishing zones and territorial seas of Canada as well as all internal waters of Canada. They are administered and enforced by Environment and Climate Change Canada. https://www.canada.ca/

Migratory Birds and Species at Risk
The *Migratory Birds Convention Act* (MBCA) protects most bird species in Canada however, some families of birds are excluded. A list of species under MBCA protection can be found at: https://www.canada.ca/en/environment-climate-change/services/migratory-birds-legal-protection/list.html

Information regarding regional nesting periods can be found at: https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/general-nesting-periods.html.

Some species protected under the MBCA may nest outside these timeframes.

The risk of impacting active nests or birds caring for pre-fledged chicks, discovered during project activities outside the regional nesting period, can be minimized by measures such as the establishment of vegetated buffer zones around nests, and minimization of activities in the immediate area until nesting is complete and chicks have naturally migrated from the area. It is incumbent on the proponent to identify the best approach, based on the circumstances, to complying with the MBCA.

Further information can be found at: https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds.html

The complete text of SARA, including prohibitions, is available at www.sararegistry.gc.ca

Disposal at Sea
The proponent should identify any anticipated need for a Disposal at Sea permit. This should include estimates of disposal volumes, source(s) of the material, and proposed disposal location(s) that cover all phases of the project. If disposal at sea is pursued, a disposal at sea site will need to be established. It is recommended that Marine Programs be contacted for sampling and disposal site selection guidance. The timeline for the disposal at sea permit application process is 90 days upon receipt of a complete application (plus up to14 days for required publishing on the CEPA Registry).

Further information about the Disposal at Sea permit system can be found here:

- Disposal at Sea Website (https://www.canada.ca/en/environment-climate-change/services/disposal-at-sea.html)
- The Disposal at Sea permit application guide (https://www.canada.ca/en/environment-climate-change/services/disposal-at-sea/permit-applicant-guide.html)

Environmental Emergency Regulations, 2019
The ECCC publication, Technical Guidelines for the *Environmental Emergency Regulations, 2019* is available at: https://www.canada.ca/en/environment-climate-change/services/environmental-emergencies-program/regulations/technical-guidelines.html.

Wind Energy Guidance
ECCC-CWS environmental assessment (EA) guidance, outlining considerations related to wind project-planning, baseline monitoring and assessing potential impacts to migratory birds and species at risk, is available at:

- "Wind Turbines and Birds - A Guidance Document for Environmental Assessment" (CWS(a), 2007) (http://publications.gc.ca/site/eng/9.698741/publication.html),
- "Recommended Protocols for Monitoring Impacts of Wind Turbines on Birds" (CWS(b), 2007) (http://publications.gc.ca/site/eng/9.698742/publication.html)

- “ECCC-CWS-ATL Wind Energy & Birds EA Guidance Update” (April 2022)(attached)
- “Avoiding harm to migratory birds: reducing risk to migratory birds” (ECCC, 2017) www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds.html

Guidelines for wind turbine and weather radar siting

Environment and Climate Change Canada's guidelines for wind turbine and weather radar siting are based on a general guidance statement developed by the World Meteorological Organization that suggests siting distances around weather radar within which wind farm proponents should not install wind turbines.

If they have not already done so, the proponent should contact ECCC to allow ECCC’s weather radar specialists to perform a preliminary analysis of the proposal in order to technically assess the likely impacts on the quality of products delivered by the Environment and Climate Change Canada radar network. Information and guidance on this process is available at: https://www.canada.ca/en/environment-climate-change/services/weather-general-tools-resources/radar-overview/wind-turbine-interference/guidelines-for-wind-turbine-weather-radar-siting.html

Open Science Data Platform (canada.ca) (OSDP)

The OSDP is publicly available at the following website: https://osdp-psdo.canada.ca/dp/en. It provides information relevant to cumulative effects and development activities across Canada. The platform integrates fragmented data and scientific knowledge relevant to cumulative effects from federal, provincial, and territorial systems, providing interactive geospatial mapping capabilities. It encompasses information about environmental, health, and socio-economic effects relevant to project planning, effects assessment, and decision-making processes. It offers various features, including keyword-based searching, interactive data visualization on maps, and educational resources covering key topics such as cumulative effects, water, air, climate, biodiversity, land, economy and industry, health, and society and culture. The OSDP provides access to records from 13 federal departments and agencies and 11 provinces and territories.

OSDP information may be of value to proponents that are preparing projects assessments including cumulative effects assessments.

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Name of departmental / agency responder

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Title of responder

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Date