Fisheries and Oceans Canada | Pêches et Océans Canada

SCIENCE FUNDING SECRETARIAT

Competitive Science Research Fund Application Guide

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Canada

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SECTION 1: PROGRAM INFORMATION

PURPOSE

Every fall, the Ecosystem and Oceans Science (EOS) sector of Fisheries and Oceans Canada (DFO) initiates a call for Competitive Science Research Fund (CSRF) proposals through the Science Funding Secretariat (SFS). The SFS serves as an administrative entity responsible for overseeing the coordination of the CSRF program and manages only the competitive portion of research funding for a select set of funding envelopes. Following the call, researchers are able to begin developing applications to request funding for projects, which address specific research priorities that have been identified through a comprehensive regional and national priority-setting process.

To better support researchers in developing their proposals, a revised Application Guide for the 2024-25 CSRF funding cycle has been provided, along with updated application tools and templates. Please carefully review the new materials prior to completing an application and ensure that all application components are completed correctly and align with the criteria and objectives of the 2024-25 funding cycle. **All applications must be submitted using the updated application form.**

For the call for research proposals for fiscal year 2024-25, consideration will be given to those applicants who do not currently have on-going research commitments/programs of work underway that could interfere with the demands of a new project. Collaboration on research projects continues to be encouraged, where appropriate and feasible, to capitalize on synergies across research fields and/or regions. Internal capacity to support new research activities should also be taken into consideration. **Regional Assessment Teams will be permitted to submit only one application per eligible applicant for Technical Evaluation and funding consideration.**

Prior to applying to the CSRF, applicants should carefully assess their capacity and ensure they do not have outstanding commitments or ongoing projects that could hinder their ability to complete proposed CSRF projects in a timely, efficient, and comprehensive manner. Additionally, researchers with the capacity to act in mentorship roles are strongly encouraged to participate and collaborate on research teams, providing guidance to Lead PIs in need of support.

The **2024-25 CSRF Subset of Research Priorities** were developed to guide research efforts toward specific high-priority critical knowledge and data gaps, where there is not already work being conducted or supported by another program, either internally or externally, and for which there is Departmental capacity to conduct the work. As a mandatory requirement of the CSRF, **applicants must address a critical knowledge and data gap identified in the 2024-25 CSRF Subset of Research Priorities** within their proposals. They must also clearly articulate how their research would advance scientific understanding and provide benefits to the Department.

Canada is a proud supporter of the United Nations Decade of Ocean Science for Sustainable Development (2021-2030). DFO, in partnership with the Canadian ocean science community, is building a strong contribution to the Ocean Decade and projects funded through the CSRF can contribute to the Ocean Decade outcomes. The Ocean Decade Framework aligns with many of the research priorities included in the 2024-25 CSRF Subset of Research Priorities and projects funded through the CSRF could contribute to growing the Canadian contribution to the Ocean Decade. For more information on the Ocean Decade, please visit DFO's Ocean Decade website.

SCOPE

This guidance applies to the 2024-25 CSRF funding cycle.

OVERVIEW OF GUIDANCE

- Section 1: Program Information – Overview and important information concerning the CSRF program and funding process.
- Section 2: Application – Detailed guidance to assist applicants in developing proposals and completing the necessary tools and templates.
- Section 3: Additional Information and Relevant Materials – List of CSRF resources, tools, and templates.

ELIGIBLE APPLICANTS

The CSRF is open to staff within the EOS sector, and applications can be submitted in either official language, English or French. It is not necessary to hold a Research Scientist position to apply as a Lead or Co-Lead Principal Investigator (PI). Similarly, CSRF eligibility does not outline specific requirements for applicants to be indeterminate employees; however, any proposal submitted must fit within the term of the applicant's employment with the Department.

In fiscal year 2024-25, Regional Assessment Teams will be permitted to submit only one application per eligible applicant for Technical Evaluation and funding consideration. Collaboration and participation through a variety of team roles is encouraged.

While collaboration with external partners is permissible, please note that CSRF funds are intended to support research that is internal to the Department. External entities may **not** act as a Lead or Co-Lead PI on a CSRF project, and the research must be led and primarily conducted internally. It is the responsibility of the applicant to ensure that any external collaborations are conducted according to Departmental guidelines and policies, particularly those concerning employment and procurement, and to ensure that all necessary agreements (for example, Research Agreements or Memoranda of Understanding) are in place before the start of the project. CSRF recipients must abide by the Values and Ethics Code for the Public Sector at all times.

ELIGIBLE PROJECTS

1. Applications to the CSRF must clearly demonstrate that the proposed project would benefit the Department by addressing a *Research Priority* and *Specific Question* identified in the **2024-25 CSRF Subset of Research Priorities**.
2. The CSRF is designed to fund short-term, stand-alone, scientific research projects that specifically address a *Research Priority* and *Specific Question*. Projects that are long-term, part of a larger ongoing program, or are not within the field of natural sciences will not be accepted.
3. Proposed research must address a critical gap in data and knowledge; be imminently needed by the Department in the next three to five fiscal years to support mandate-related decision-making; there must be current Departmental capacity to complete the research; and, the research is not already being conducted or supported by another program, either internally or externally.

4. Applications must be stand-alone documents and written in such a way that they are accessible to a non-expert audience; reviewers will not consult outside resources or follow-up to request additional information or clarification. It is the responsibility of the applicant to demonstrate that their proposed research is feasible, scientifically sound, and would address the selected *Research Priority* and *Specific Question*.
5. Project budgets must be reasonable and include all relevant costs, including any expenses for ship time, data management, translations, or publications.
6. The CSRF is intended to support internal research by Departmental staff. Research activities should be primarily undertaken by the Lead PI and current DFO staff who have the expertise and capacity necessary to complete the project.
7. The project length must not exceed three fiscal years, and projects must be completed by the end date identified in the original application. It is crucial that applicants take into account all aspects of their project plan when determining the project length, including data analysis and report writing, to ensure they are able to complete all deliverables by the project end date specified.

Note:

All projects must align with the Departmental fiscal-year cycle. Projects will always begin in the fiscal year corresponding to the current CSRF cycle (for example, proposals that are successful in the 2024-25 CSRF cycle will start on or after April 1st, 2024). Project end dates will always fall on March 31st of the final fiscal year, not exceeding three years in total. A project may include fiscal years in which no funding is requested, but the project end date may not extend past three years. Applicants are expected to complete all project deliverables and reports by the scheduled end date and take into account all aspects of their project workplan when determining the project duration.

CSRF RESEARCH PRIORITIES

The **2024-25 CSRF Subset of Research Priorities** focuses research efforts on specific high-priority critical gaps in data and knowledge. To apply to the CSRF, applicants must refer to the **2024-25 CSRF Subset of Research Priorities** and formulate a research project which would directly address a *Research Priority* and *Specific Question*.

CSRF SUBSET OF RESEARCH PRIORITIES

For ease of purpose, the Subset of Research Priorities is broken down as follows:

a) **Research Priority:** The CSRF *Research Priority*, as developed through the CSRF priority-setting exercise.
b) **Specific Question:** The *Specific Question* used to articulate the critical knowledge gap and direct the research proposal development.
c) **Priority Identification Number:** The unique Priority Identification Number (PIN) associated with the CSRF *Research Priority.*

Applicants must identify which *Research Priority* and *Specific Question* they are proposing to address on their application. Each *Specific Question* also has a unique *PIN,* which must also be identified on proposal submissions. The selection of the PIN determines which committee will be responsible for the technical review of each proposal. **Note:** PIN selection has no bearing on research funding available and will not impact whether or not a proposal will be funded.

FULL PROPOSAL DEVELOPMENT AND REGIONAL REVIEW

The CSRF application procedure for Year 4 (2024-25) will begin with the development of Full Proposals, and applicants, with the support of their Section Head/Division Managers, will prepare their applications to submit to the office of their RDS and CSRF Regional Coordinator for regional review and triaging. This regional review process will help to ensure that proposals submitted to the SFS for Technical Evaluation align well with the selected *Research Priority* and *Specific Question* selected from the **2024-25 CSRF Subset of Research Priorities**, have feasible workplans, and are well-written, complete, and accurate. Furthermore, the regional review will closely assess whether the research addresses a critical gap in data and knowledge; the research is imminently needed by the Department in the next three to five fiscal years to support mandate-related decision-making; if there is existing Departmental capacity to complete the research; and, if the research is not already being conducted or being supported by another program, whether internal or external.

During regional reviews, Regional Assessment Teams, composed of Regional Directors of Science (RDSs), Section Heads, and/or Division Managers, will be responsible for ensuring project objectives, timelines, deliverables, and budgets are logical and feasible, and that proposals are well-written, complete, and accurate. Regional reviews will also examine the skills and capacity of the proposed research team to assess whether applicants can reasonably add to their workloads given their existing duties and/or prior commitments. Please note, the regional reviews of Full Proposals are not technical reviews.

Full Proposals will be triaged by the Regional Assessment Team and only select applications will be submitted to the SFS. **Not all Full Proposals will advance to the Technical Evaluation stage** and the triage process will serve as a comprehensive and selective process. Applications may not be endorsed for several reasons including, but not limited to, other sources of funding and in-kind support being available to support a project. During Full Proposal regional reviews, Regional Assessment Teams will provide feedback to applicants on their proposals. Once the regions have submitted proposals to the SFS for technical review, applicants will not be provided with feedback. Applications will be reviewed as submitted and applicants will not be contacted if information is missing, incorrect, or requires clarification.

SUPPORT FOR PROPOSAL DEVELOPMENT

If, prior to developing a proposal, an early-career scientist feels that they could benefit from receiving guidance and mentorship during proposal development, they are encouraged to speak to their manager or CSRF Regional Coordinator to arrange this support. CSRF Regional Coordinators can review the skills of the applicant requesting mentoring and make an effort to pair them with a mature-career scientist.

FULL PROPOSAL DEVELOPMENT AND REGIONAL REVIEW PROCESS

a) **Full Proposal development:** Applicants, with the support of their Section Head/Division Manager, will develop their Full Proposal applications.
   - The Full Proposal development period will begin **October 23rd, 2023.**

b) **Full Proposal submission to Regional Assessment Team:** Applicants will forward their Full Proposal to the office of their RDS and CSRF Regional Coordinator for regional review.

- All Full Proposals must be submitted for regional review by **November 27th, 2023**.

c) **Regional review:** Proposals will be triaged and reviewed by Regional Assessment Teams to ensure only proposals that are complete, well written, and that meet CSRF requirements, advance to the Technical Evaluation stage. If an RDS determines that a proposal does not meet requirements, or otherwise chooses not to submit the proposal to the SFS, a rationale will be provided to the applicant.
   - Full Proposals decisions and feedback will be provided to applicants by **December 18th, 2023.**

d) **Full Proposal submission to the SFS:** The CSRF Regional Coordinator will submit endorsed proposals to the SFS for Technical Evaluation.
   - Final CSRF submissions are due to the SFS by **December 18th, 2023**.
   - A copy of unsuccessful Full Proposals should also be provided to the SFS by this date for tracking and reporting purposes.

Note:

1. ALL sections and fields on the proposal application forms MUST be filled out (unless otherwise indicated in the instructions). The SFS will accept submissions as received. There will be no follow-up to seek missing information or clarification. Prior to submission to the office of the RDS, please ensure that all required sections of the application are complete.
2. All CSRF proposals must be submitted to the SFS through the office of the RDS. Individual submissions emailed to the SFS from applicants will not be considered.

TECHNICAL ADVISORY SUB-COMMITTEE REVIEW

The SFS has established Technical Advisory Sub-Committees (TASCs)s to provide Technical Evaluations of all Full Proposals. Committees include subject matter experts responsible for the review and evaluation of research proposals. Each TASC includes at least one EOS representative from each region.

The committee will evaluate proposal composition, paying particular attention to the objectives and methodologies. Each member of the TASC will individually evaluate and score the proposals using the **CSRF Technical Evaluation Criteria**. Each proposal will be reviewed by at least four TASC members. When committee members require further expertise to conduct a comprehensive evaluation, they are able, with the approval of the TASC Chair, to obtain comments from external evaluators. External evaluators will not be considered as additional reviewers; rather, their comments will be included only with those of the member requesting input. Proposal scores will be tallied, and the proposals will be ranked accordingly.

The Committee will then submit the evaluated proposals, with scores, to the SFS. The SFS will collate Committee evaluations and submit a summary of proposals to the Science Executive Committee (SEC) for review and approval.

CSRF TECHNICAL EVALUATION CRITERIA

TASCs review applications and apply scores to each application based on an evaluation rubric. The **CSRF Technical Evaluation Criteria** used by the TASCs can be found on the CSRF intranet page. The evaluation rubric includes the following components:

- Research Priorities
- Knowledge gaps
- Objectives
- Methodology
- Workplan
- Data Management Plan
- Outputs
- Project Risk Management
- Budget

SCIENCE EXECUTIVE COMMITTEE FINAL REVIEW AND FUNDING APPROVAL

While the Regional Assessment Teams, SFS and TASCs contribute to the review process, SEC, which comprises the Assistant Deputy Minister (ADM) of EOS, Director Generals (DGs), and RDSs, is ultimately responsible for all funding decisions. SEC considers multiple factors when determining which CSRF proposals to fund. While the Technical Evaluations are a key consideration, other factors such as national and regional priorities, are also taken into account. These factors can vary from year to year, and SEC's decisions to fund or not fund a particular proposal are complex and multifaceted. Feedback on the Technical Evaluation will not be provided to PIs, as this would not necessarily provide applicants with an explanation of why their proposal was or was not funded. The SFS receives a large number of high-quality CSRF proposals during each funding cycle, and it is not feasible to provide individual feedback to each applicant. The Regional Assessment Teams are best positioned to provide feedback to PIs throughout the development of their proposals and identify mentorship opportunities to strengthen proposal submissions. Final approval rests with the ADM of EOS. Decisions are final; there is no appeal process.

Both successful and unsuccessful applicants will be notified of final funding decisions made by SEC through the SFS. The SFS will notify successful applicants as funding decisions are made. This means that the SFS will start by notifying the first suite of funded applicants of their success and provide additional funding decisions in the weeks that follow. This staggered approach will allow successful applicants to initiate project planning early in the fiscal year, as decisions are made, rather than having to wait for all final decisions.

PROJECT REPORTING

Throughout the lifecycle of a project and upon its completion, applicants who receive CSRF funding will be required to provide the SFS with (i) interim, (ii) year-end, (iii) final, and (iv) plain language reports. Interim reporting will be completed in the fall (October) of each project year. Year-end reports will be completed at the end of each fiscal year (April) until the completion of the project. Final and plain language reports will be completed after the project end date. These reports are **mandatory deliverables**

for all CSRF projects. The SFS will provide reporting templates and email reminders to PIs of CSRF projects.

Interim reports will be due in the Fall of each project year and will be used to assess project progress. If PIs fail to provide interim reports, the funded amounts for the subsequent years of their project may be reconsidered. During this reporting period, PIs are expected to conduct a comprehensive review and feasibility assessment of all aspects of their project. If any issues or concerns arise, PIs should communicate them to their manager and CSRF Regional Coordinator. This proactive communication will ensure that PIs receive the necessary guidance and assistance required to address any challenges they may encounter and successfully complete the project deliverables.

PIs with ongoing projects will be required to submit year-end reports. These reports will be used to summarize the project's status, progress made during the year, and any concerns or issues encountered since the interim reporting period. Similar to the interim reporting phase, PIs submitting year-end reports will be asked to conduct a thorough review and feasibility assessment of all project aspects and communicate any issues or concerns to their manager and CSRF Regional Coordinator for guidance and assistance in completing project deliverables.

Final and plain language reports will be due upon conclusion of the project, which includes the fulfillment of all deliverables as outlined in the original application, as well as the completion of any associated analyses or report writing. Completion of all deliverables and reports is mandatory by the scheduled project end date as identified in the original application. Final reports will be used to assess the overall success of the project and confirm that all deliverables have been completed. They will allow PIs to report on their completed project, note their contributions to the scientific body of knowledge, and specify the location of their contributions such as datasets, repositories, and publications.

Plain-language reports will be used to provide project summaries using easily understandable, non-scientific language, making them accessible, inclusive, and transparent. PIs drafting plain-language reports will be required to ensure that their report can be read by a non-scientific audience and should be written at a Grade 6 reading level. Full and/or components of plain-language reports may be posted to the SFS intranet site and shared within the Science sector. If applicants fail to provide these reports, they may be considered ineligible for future funding under this program.

Templates for all mandatory reports will also be made available on the CSRF intranet page.

PROJECT RISK MANAGEMENT AND AMENDMENTS

Within their workplans, PIs should consider and anticipate various delays and setbacks. This should be well documented within the Project Risk Management section of the Full Proposal. However, unforeseeable challenges may arise which could result in the need for a PI to submit a request for a Project Amendment. Amendments are not intended to increase the size and/or scope of a project and should be used only in exceptional circumstances. Amendments will be granted only in rare instances related to specific, unforeseeable complications, such as tragic events or natural disasters.

If, due to an amendment, a project is expected to take longer than three years to complete, amendment applicants are asked to clearly indicate the anticipated time for full completion of the project on their CSRF Project Amendment Request form. The project cannot be ongoing indefinitely and there must be a clear end date which should include the completion of all deliverables.

Amendment forms and further instructions will be made available to all successful PIs when Interim Report templates are circulated for completion.

CONTACT

If you require further clarification or detail regarding the CSRF process, please contact the Science Funding Secretariat at: DFO.SFS-SFS.MPO@dfo-mpo.gc.ca.

SECTION 2: APPLICATION

FULL PROPOSAL

Applicants must download the most recent version of the Full Proposal template available from the CSRF intranet site. Outdated and/or altered versions of the form will not be accepted. **ALL** sections and fields on the application forms **MUST be true and correct**. Applicants are expected to abide by the Values and Ethics Code for the Public Sector, and Policy on Science Integrity, acting at all times in a manner that will bear the closest public scrutiny. To ensure fairness and equity in the process, text that exceeds the word limits or illustrations that do not meet the guidelines may be redacted and excluded from consideration during the evaluations. Any misrepresentation may result in refusal of the application and disqualification of the applicant(s) from the CSRF process.

Applicants must name the file using the following naming convention: **PIN-Region-PI last name and PI first name**

- For Example: 2024-25-01-NL-SmithJohn

Completing the Form:

1. Research Priority: From the **2024-25 CSRF Subset of Research Priorities**, select the Research Priority that you will aim to address with your project.

2. Specific Question: From the **2024-25 CSRF Subset of Research Priorities**, select the *Specific Question* that you will aim to address within your research proposal. All CSRF proposals must address a *Specific Question*. Do not alter the text in any way.

3. Priority Identification Number (PIN): From the **2024-25 CSRF Subset of Research Priorities**, select the unique Priority Identification Number (PIN) that aligns with your chosen Research Priority.

4. Project Identification

4.1 Project Title: Enter the title of your proposed project.

4.2 Keywords: List 3 to 5 keywords that describe your project.

4.3 Amount of Funding Requested: Enter the total amount of funding being requested from the CSRF for the project. This amount should match the “Total” amount in section 12.5.

4.4 Project Duration: Select the proposed duration of your project. Duration can be one, two or three fiscal years. All projects will end on March 31st of the final fiscal year. All project activities, including analysis, reporting, and all other deliverables included in the application must be completed by this end date. Applicants should consider all aspects of the project workplan when identifying the project duration.

- **Note:** Projects may include project years when no funding is requested, but the total project duration may not exceed three years.

4.5 Scope of Project: Select the scope of the project (regional, zonal, national, or international).

- Regional: Only a single DFO region exists on the research team and the research is specific for use in a particular DFO region.
- Zonal: The project is based on collective collaboration and consultation across DFO regions. Multiple regions are actively involved on the research team and the resulting research is intended for use across multiple DFO regions.
- National: The project is based on national level consultation and horizontal collaboration across DFO regions. NCR is listed on the research team, and the project is of national scope for use in multiple DFO regions.
- International: There is at least one international representative on the research team and the project is intended to contribute to DFO's international commitments.

5. Research Team: Identify each member of the research team, beginning with the Lead PI and Co-Lead PI (if applicable). List all key collaborators/partners who will be actively engaged in the project. If you require more space, you may add additional collaborators in the section at the end of the application form.

Please carefully read the following definitions when determining who will act as the Lead and Co-Lead PI for the project:

- Lead Principal Investigator: The individual identified as the Lead PI must be the person who takes direct responsibility for the management and completion of a funded project and directs all aspects of the research. They are responsible for conceptualizing the research idea; designing the study; submitting the proposal; assembling and coordinating the research team; overseeing the collection, management, and analysis of data; interpreting the results; producing the agreed-upon project outputs and deliverables; reporting on the project results; and ensuring that the project is conducted according to the competition guidelines. They will act as the decision-making authority on the project, the main point of contact, and will be responsible for the project and its funds. This person must be identified honestly and accurately.
- Co-Lead Principal Investigator: The individual identified as the Co-PI must be internal to DFO and may share the responsibilities of the Lead PI.

Name: Enter the full name of the Lead PI, Co-Lead PI (if applicable) and all collaborators/partners.

Project Contribution:

- Title: For the Lead PI and Co-Lead PI *only*, enter the professional title(s)
- Email: For the Lead PI and Co-Lead PI *only*, enter the professional email address(es)

- Role: Detail the role of each team member and describe their specific tasks and responsibilities in the proposed project.
- Estimated time: Provide the estimated amount of Full-Time Equivalent (FTE) hours each person will contribute to the project.
- Key expertise: Briefly describe the expertise, skills, and/or knowledge that each team member will contribute to the proposed project.

Region: Select the DFO region of employment for each team member. If the team member is not a DFO employee, select 'external' and fill in the Affiliation section.

Affiliation: Select the type of organization of the collaborator(s)/partner(s) that are external to DFO. Enter the name of the external organization.

5.1 Additional partnership/collaboration information: Enter any additional information about the partnerships and collaborations relevant to the project (for example, whether a Memorandum of Understanding is required, etc.). **(100 words max)**

6. Indigenous Collaboration: If your project includes Indigenous collaboration, provide the requested details below. If your project does not include Indigenous collaboration, you may skip this section.

6.1 Indigenous Collaborators: Please (i) identify which Indigenous nations, organizations, and/or communities are collaborating on this project, (ii) describe how each collaborator will be involved in the project and (iii) indicate whether you have received a letter of support from the collaborator. Be as specific as possible in your response. **(150 words max)**

6.2 Indigenous Engagement: Indigenous engagement in research refers to the intentional and inclusive involvement of Indigenous communities or organizations throughout the research process. Describe how the Indigenous collaborators have been and will be engaged before, during and after the project is completed. Please provide information regarding the existence of collaboration protocols established by the nation or community involved, whether a community research or engagement agreement will be necessary, and whether an agreement or statement of shared understanding will be developed. Provide any additional and relevant details. **(200 words max)**

6.3 Indigenous Knowledge: If applicable, describe how Indigenous knowledge (IK) will be incorporated meaningfully into the project and how you will include knowledge keepers such as elders and community members into the process. IK remains undefined due to the vast diversity among Indigenous Peoples, each with their own distinct histories, experiences, and viewpoints. IK is often holistic and embraces the intricate interrelatedness between knowledge, customs, and beliefs. It may comprise scientific, technical, ecological, or other information transmitted through multiple generations, and is often community specific and place based. To uphold the proper care and inclusion of IK in research efforts, Indigenous communities, organizations, and tribal councils may have established IK guidelines. It is crucial for researchers to strictly adhere to these outlined procedures. **(200 words max)**

6.4 Project Benefits: Please detail the tangible benefits that the project will provide to the Indigenous collaborators and/or communities involved. Benefits could include, but are not limited to, training or educational opportunities for community members, access to valuable scientific research products that would be beneficial to the collaborator(s), or employment opportunities that contribute

to community development and/or capacity. Benefits will vary depending on the nature of the research project, the Indigenous collaborators, and the context of the community involved. **(150 words max)**

6.5 Indigenous Data Sovereignty: Clearly describe how your data management plan will align with the First Nations Principles of Ownership, Control, Access and Possession®, as outlined by the First Nations Information Governance Centre. Outline how any data or information collected or generated through the project will be stored, protected and managed including any external or media communications. Indicate who will be responsible for data management at each stage and who will have access to the data, including during and after project completion. **(150 words max)**

7. Project Description: Provide an overview of the proposed project. To exclude citations from your word count, please use section 7.6 below to document all citations.

7.1 Project Research Question: Clearly detail the question around which you are centering your research proposal. Your project research question will likely be more focused than the *Specific Question* identified in section 2. Ensure the question is focused and concise. **(60 words max)**

7.2 Project Summary: Summarize your project proposal. If the application is successful, this description will be used as the description posted to the DFO internal CSRF Funded Projects webpage. **(250 words max)**

7.3 Addressing Knowledge Gaps: Explain how this project would address the critical knowledge gap identified by the *Specific Question* in section 2. Clearly indicate how the research would advance scientific understanding beyond what is already available in the scientific literature, and how it would benefit the Department. **(300 words max)**

7.4 Objectives: State the objective(s) of the project. Point form is acceptable. **(200 words max)**

7.5 Methodology: Outline the methods you will use to achieve the objective(s) of the project. Ensure that concepts and terminology are clearly defined. Reviewers will not consult external resources. **(600 words max)**

7.5.1 Methodology – Figures: If applicable, embed up to two images to better illustrate to reviewers, the methods and processes of your project. Images may not contain more than 50 words each. Do not include figure captions. Figures should be fully explained within the text of section 7.5. Any images including excessive text may be redacted and not taken into consideration during the evaluation process.

7.6 Literature Cited: Document the complete reference list for all in-text citations used in the application. Any established format is acceptable. If you require more space, you may add additional citations in the blank section provided at the end of the application.

8. Work Plan

8.1 Work Plan Outline: Using point form, describe the main activities that will occur during each fiscal year of the project.

8.2 Planned Activities: Indicate whether your project will involve any of the following activities. Ensure that any costs associated with these activities are fully captured in your budget estimates in Section 12 below.

- **Staffing or Other Major Human Resources Requests:** Select "Yes" if the completion of the project would require you to staff a new position or otherwise require a major HR request, such as a Term Extension, Assignment, Deployment or Secondment. If not, select "No."
- **High Performance Computing:** Select "Yes" if the completion of the project would require HPC. If you select "Yes", you must also complete section 14 of the application form. If not, select "No".
- **Field Work:** Select "Yes" if the project would involve any type of work outside of DFO facilities or an employee's regular place of work. If not, select "No".
- **CCG Ship Time:** Select "Yes" if the project would require the use of a Canadian Coast Guard vessel. If not, select "No".
- **Note:** If you selected "Yes", you should have already applied for science ship time through the Canadian Ocean Infrastructure Portal (COIP). Note that ship time requests are to be submitted through the COIP portal one year prior to the start of the fiscal year (February to May of the previous fiscal year), and received requests are then reviewed and submitted to the Canadian Coast Guard in September for the following fiscal years operations. If you have not yet applied through COIP but anticipate requiring CCG ship-time and/or for costing estimates, please contact the National Science at Sea program at DFO.NCRScienceatSea-ScienceenMerRCN.MPO@dfo-mpo.gc.ca.
- **Other Vessel Use (DFO or Charter):** Select "Yes" if the project would involve the use of any other vessel that is not part of the CCG fleet. If not, select "No".
  - **Note:** The National Science at Sea Program has developed a *Request for Supply Arrangement* Database for science charter vessels available from private industry. This database is accessible to all DFO staff, is updated bi-annually with new vessels and can be accessed here: RFSA Database.

9. Data Management Plan

9.1 Data Steward: Identify the person(s) on the research team responsible for stewarding the data throughout the project lifecycle, and their data stewardship role (e.g., collecting, analysing, storing, etc.). The data steward for the project is the person on the research team responsible for 'shepherding' data throughout the lifecycle of the project (Planning, Acquisition/Collection, Processing & Analysis, Storage/Archival, and Publishing). More than one individual may be the steward of various aspects of the lifecycle of the project. Some examples of key responsibilities of data stewards include developing/implementing the project's data management plan, coordinating data collection, data input, and database management (project dependent), ensuring project outputs are stored safely in a Departmental approved repository, and after project completion, making project outputs as openly available as possible. **(50 words max)**

9.2 Regional Data Manager: Identify your Regional Data Manager (Science Data Manager Sub-Committee [SDM-SC] representative) and describe how they will support this project. If the SDM-SC determines that the Information Management and Technology Services (IM/TS) Directorate should be involved, ensure that all necessary requirements to meet their standards are fulfilled and allocate sufficient time in the project schedule for completion by the specified end date. Information provided in this section by should be based on discussions with your SDM-SC. **(50 words max)**

9.3 Data Acquisition: Provide details on how data will be acquired, including timeframes and geographic locations, resource requirements (instruments and equipment), and any partnerships required (e.g., data sharing agreements, MOUs, etc.). Point form is acceptable. **(100 words max)**

9.4 Processing and Analyzing: Provide details on how raw instrument data will be processed and analyzed, including hardware/software needs, whether IM/TS support will be required, and in what formats the processed data will be made available (e.g., Excel, csv, R code). Point form is acceptable. **(150 words max)**

9.5 Data Preservation and Protection: Provide details on data storage, including how physical samples will be stored and tracked, the final destination for data (e.g., hard drive, enterprise database), and the data maintenance cycle (e.g., backup frequency). If data is not stored on DFO infrastructure, describe how it will be brought back into the department. Point form is acceptable. **(150 words max)**

9.6 Data Publication: Describe your plan for making data available, including details on where data will be openly published and how proprietary/sensitive data will be classified/handled. Point form is acceptable. **(150 words max)**

- **Note:** Applicants must adhere to the Directive on Open Government and researchers should collect data with the intention of publicly sharing the information.

10. Project Outputs

10.1 Deliverables: Summarize the (i) expected deliverables of the project, (ii) year in which they will be completed, and (iii) relevance/usefulness of each deliverable to the Department. Deliverables/Project Outputs should only consist of tangible products, such as databases, maps or reports, that will be made accessible to potential end-users. Please do not include intangible benefits or workplan items such as field work, training, or equipment purchase/maintenance.

Note:

- Deliverables listed in the original application cannot be modified or revised throughout the project duration, unless formally approved through an amendment process.
- All deliverables must be completed by the end date specified in the original application.
- Like the interim and year-end reports, the plain language and final reports are mandatory deliverables required as part of the CSRF process. The plain language and final reports have been pre-filled in this section for your convenience. All report templates, including interim, year-end, final, and plain language reports, will be accessible on the CSRF intranet site. The SFS will request these reports from PIs at designated intervals during the fiscal year.

11. Project Risk Management

11.1 Project Risks: Clearly identify and assess any reasonable risks that could potentially impact the completion of the project within the planned timeframe. It is the responsibility of the applicant to predict and plan for all foreseeable complications that could routinely interfere with the completion of a scientific research project. Project risks should include, for example, any potential staffing issues, financial management complications, delays due to weather conditions or illness, delays in delivery

of equipment, or vessel or equipment availability. Failure to account for reasonable and foreseeable risks will result in a lower score. **(250 words max)**

11.2 Risk Mitigation: Clearly describe the plan for mitigating each of the risks identified in section 11.1 above. The mitigation plan should include both preventative measures (actions that will be taken to reduce the likelihood of a particular complication occurring) and adaptive measures (actions that will be taken to ensure that the project remains on track in the event that a particular complication occurs). Applicants are expected to demonstrate that they have carefully considered all reasonable risks to project completion and developed clear strategies to ensure the success of the project. **(300 words max)**

12. Budget: Outline the funding required **from the CSRF** to complete the project for each project year. **Do not** include expenses that will be covered by other sources of funding or support from other programs or institutions (i.e., in-kind contributions). The **Budget Spreadsheet Template** can be used to provide guidance and assist you in preparing these calculations. Be sure to include all relevant costs, including any expenses for data management, translations, publications, or ship time. For costing estimates related to ship time, please contact the National Science at Sea program at DFO.NCRScienceatSea-ScienceenMerRCN.MPO@dfo-mpo.gc.ca. Provide all amounts in Canadian Dollars (CAD) and **round all amounts to the nearest dollar.**

- **Note:** A project may include fiscal years in which no funding is requested, but the project end date may not extend past three years. Applicants are expected to complete all project deliverables and reports by the scheduled end date and take into account all aspects of their project workplan when determining the project duration. Enter “0” for project years in which work is continuing but no funding is required.

12.1 Salary Requirements: The CSRF is intended to support internal research by Departmental staff. Research activities should be primarily undertaken by the Lead PI and current DFO staff who have the expertise and capacity necessary to complete the project. Internal capacity to support new research activities should be taken into consideration.

Provide the estimated salary amounts for any casual employees, Post-doc hires, Full-Time Equivalent employees (e.g., Term employees) or students, for whom you require funding. Determine the salary requirements by referencing the current rates of pay for public service employees, taking into consideration the relevant job classification and the specific step within that classification of the employee you intend to hire. Please do not include amounts for current DFO employees whose salaries are covered through other funding sources. It is the responsibility of applicants to determine whether any potential employees funded through the CSRF would be eligible for the Employee Benefits Plan (EBP). Review the relevant Departmental employment policies to determine whether each employee would be eligible for the EBP based on their unique situation. In most instances, casuals and students **are not** eligible for the EBP. Include EBP amounts in your estimates **only** where appropriate. EBP is not auto-calculated. **Do not include any additional tax amounts in salary estimates.** Ensure the totals are properly calculated.

- **Note:** CSRF funds do **not** qualify for sunset designation.

12.2 Detail of Salary Costs: Using the space provided, provide a clear breakdown of salary requirements (include employee classifications and level, employment period, EBP calculations,

etc.). Provide a rationale for hiring, if needed. If you have used the "Other" category in section 12.1, provide an explanation for the type of employee you expect to hire.

- **Note:** It is the responsibility of the PI to abide by abide by the Values and Ethics Code for the Public Sector and all Departmental employment policies when establishing any employment-related contract pertaining to their project. Please contact your Human Resources representative for information on establishing employment contracts within the Department. Applicants are **not** permitted to distribute CSRF funds to an external entity (including universities) in order to conduct employment activities on their behalf. Any external contract for professional services must abide by the Government of Canada Directive on the Management of Procurement and all guidelines and policies as stipulated by Public Services and Procurement Canada (see section 12.3 below).

12.3 O&M Requirements: Provide rough estimates for Operations and Maintenance (O&M) costs per project year and ensure the total is properly calculated. A standard overhead amount has been included in **the Budget Spreadsheet Template** and will automatically apply to O&M expenses only. Overhead has been preset for all regions and cannot be changed. No overhead is to be applied to salary expenditures. Please do not inflate your cost estimates to cover additional overhead. Please also do not include amounts for salaries in the O&M section, as these amounts should be included in section 12.1 above.

Eligible O&M Expenses:

- Equipment purchases or rental (not including capital purchases)
- Materials and supplies (chemicals, instruments, tools, PPE, etc.)
- IT requirements (High Performance Computing, data storage, and data management costs)
- Ship time and other vehicle rentals
- Communications, printing, production, and distribution costs, including open access fees and translation fees
- Training expenses (such as course fees or learning materials)
- Travel and field costs (gas and consumables)
- Other goods or professional services that abide by the Government of Canada Directive on the Management of Procurement and all guidelines and policies as stipulated by Public Services and Procurement Canada

Note: Applicants are **not** permitted to distribute CSRF funds to an external entity (including universities) to conduct procurement activities on their behalf. Any exchange of funds for goods or professional services must be conducted through the Department and Public Services and Procurement Canada, and must abide by the Values and Ethics Code for the Public Sector.

Examples of Ineligible Expenses:

- Capital purchases (i.e., equipment over $10,000 CAD)
- Overhead or tax amounts for external organizations (for example, university overhead)
- Grants or contributions to external entities

12.4 Detail of O&M Costs: Provide a breakdown for line items, detailing specific expenses (year, amount, what for, which region). For example, if you are renting a vehicle or equipment, detail the

rental/daily/hourly costs for the item. If the expenses are occurring over several years, recognize and consider the cost trends of these items and think about the potential increases in cost and inflation when submitting requests. Note that capital purchases (goods over $10,000 CAD) are not eligible.

12.5 Total Funding Requested from CSRF: The total funding requested from CSRF should equal the Salary total, the auto calculated Overhead total and the O&M total. This will be auto-calculated. Overhead has been preset for all regions and cannot be changed. Ensure that this amount reflects your total ask from the CSRF program and **does not** include any other sources of project funding.

13. Other Contributions: Provide details for any non-CSRF support (i.e., cash or in-kind contributions) you expect to receive for this project. You should not include costs for materials and equipment already purchased or owned by DFO, nor should you include any salaries for current DFO employees that are already covered by other sources of funding. Include only contributions that are specific to the proposed project and will directly support the completion of the project objectives. Detailed accounts of in-kind contributions provide a comprehensive understanding of the project's requirements and feasibility, demonstrates cost-effectiveness, showcases collaborations and partnerships, and enables reviewers to gain a deeper understanding of the project's financial landscape and impact, strengthening the overall proposal. Note that amounts entered in this section **are separate** from the budget in section 12 and **will not** impact the Total Funding Requested from CSRF.

13.1 Source of Funding/Support: Identify other sources of project support (program or institution), the type of support (cash/in kind) and the approximate monetary amount (if applicable). Ensure the total is properly calculated.

- Cash contribution: Funding received by the accountable project manager to directly support the project. The funding can come from another program within DFO or from external partners.
- In-kind contribution: A contribution of goods, supplies, services, and/or time (from **external** collaborators) that do not involve the transfer of money.
    - **Note:** DFO salary is not considered an in-kind contribution. Do not include amounts for DFO employees or materials/equipment that are already purchased or owned by the Department.

13.2 Description of Expected Use: For each source of funding/support identified in section 13.1, describe how the amount will be used to support the completion of the project. Indicate whether the amount would be used to provide salary for an internal or external employee, provide goods or services, or be used to purchase/access instruments or equipment.

HIGH PERFORMANCE COMPUTING (HPC) REQUIREMENTS

Please complete Section 14 if your project requires HPC.

If you have questions regarding the use of HPC in your CSRF project, please reach out to an HPC Coordinator at DFO.HPCCoordinators-CoordonnateursCHP.MPO@dfo-mpo.gc.ca.

14.1 HPC Consultations: Detail whether you have consulted with HPC Coordinators, Business Requirement Managers, or Service Agreement Managers responsible for managing access to and use of the General Purpose Science Cluster (GPSC) resources, in order to receive assistance in

determining the appropriate sizing for your project requirements and/or to assess whether sufficient HPC capacity is available to run your software within the appropriate project group. **(200 words max)**

14.2 HPC Group: Identify the HPC group that will be running your software, for example, the Centre for Ocean Model Development and Application (COMDA), Aquaculture, or Marine Environmental Quality (MEQ). **(50 words max)**

14.3 Computing Requirements and Timing: Provide details on the core utilization of the software and estimated duration of a single run. Specify the frequency of required runs per week, day, or month, and provide an estimate of the project completion date. Additionally, outline the proposed timeline for the project, including plans to leverage resources during periods of historically low demand (such as overnight, summer, or winter break). For example: 100 cores per run, 3 runs at a time, once a day for 8 weeks, overnight, starting in April. **(100 words max)**

14.4 Contingency Plan: If there is very limited HPC access, how will you complete the necessary work (including, for example, modelling and analysis)? **(200 words max)**

14.5 Storage Needs (i): How much storage do you require (in terabytes)? **(50 words max)**

14.6 Storage Needs (ii): General Purpose Science Cluster (GPSC) storage cannot be used long term (no longer than a few months). Describe your plan for long term storage. **(100 words max)**

14.7 Storage Needs (iii): What is your plan for archiving your data (including, how often you will move and delete your runs, and whether it will be done automatically)? **(200 words max)**

14.8 Software Requirements: Do you need access to proprietary software (for example, Matlab)? **(100 words max)**

SECTION 3: ADDITIONAL INFORMATION AND RELEVANT MATERIALS

To support applicants and other participants of the CSRF submission and review process, the CSRF internal web pages have been updated to include:

Guide

1. CSRF Application Guide 2024-25_V23-1

Research Priorities

1. 2024-25 CSRF Subset of Research Priorities

Tools and Templates

1. CSRF Full Proposal Template 2024-25_V23-1
2. CSRF Budget Spreadsheet Template 2024-25_V23-1

Evaluation Criteria

1. CSRF Technical Evaluation Criteria 2024-25_V23-1

Additional Information

1. Important Dates
2. List of Science Data Manager Sub-Committee [SDM-SC] members