

**Program for Aquaculture Regulatory Research (PARR)
Call for Proposals (2009/10)**

PROGRAM FOR AQUACULTURE REGULATORY RESEARCH

The Program for Aquaculture Regulatory Research (PARR) supports the Aquaculture Regulatory Science element of the New Aquaculture Program. The New Aquaculture Program was funded in the 2008 budget with the purpose of creating the conditions necessary for the success of the Canadian aquaculture industry through a combination of regulatory, research, and policy reform measures as well as direct contributions to catalyze innovation and investments by the industry.

This Call for Proposals is PARR's second year of research funding that will enable Science to respond to the knowledge priorities of DFO's Aquaculture Management and Habitat Management Directorates. Both directorates have direct responsibilities related to regulation of the aquaculture sector.

The PARR is centrally coordinated for administration and accountability reporting. There are additional requirements to report on the program through the Departmental Program Activity Architecture to demonstrate how the program is achieving intended results, reflecting how it is linked to the Department's strategic outcomes. Fisheries and Aquaculture Management has established a departmental Aquaculture Management Committee which will oversee priorities, spending and annual financial and outcome reporting.

Fisheries and Oceans Canada (DFO) Program Activity Architecture

The Program Activity Architecture (PAA) of DFO's Management, Resources and, Results Structure (MRRS) reflects the allocation and management of the resources under its control to achieve intended results and reflects how programs are linked to the Department's strategic outcomes.

DFO's PAA specifies three strategic outcomes:

1. Safe and Accessible Waterways — managed by Canadian Coast Guard, Small Craft Harbours and Science;
2. Sustainable Fisheries and Aquaculture — managed by Fisheries Management, Aquaculture and Science; and
3. Healthy and Productive Aquatic Ecosystems — managed by Oceans Management, Habitat Management and Science.

The PARR, and all program activities in The New Aquaculture Program initiative, are supportive of the second and third departmental strategic outcomes.

Five-Year Research Agenda

The DFO Five-Year Research Agenda is designed to support current and emerging priorities and identify those areas that require new scientific knowledge in the medium and longer term. One of the key objectives of the research program is to create new knowledge and methods that will support the development of better advice required for policy and decision making and in particular, ecosystem-based management.

Research supported through the PARR will further DFO's research agenda by delivering on many of the priority areas specified in DFO Science's Five-Year Research Agenda, especially those related to:

- Ecosystem Assessment and Management Strategies
- Aquatic Animal Health

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Call for Proposals (2009/10)**

- Sustainability of Aquaculture; and
- Emerging and Enabling Technologies for Regulatory and Policy Responsibilities.

Centre for Integrated Aquaculture Science

Core funding for the Centre for Integrated Aquaculture Science (CIAS) is provided for under the Aquaculture Regulatory Science element of The New Aquaculture Program. CIAS and PARR are complementary in that both are supportive of research focused on improving our understanding of the interactions between aquaculture activities and the supporting ecosystem structure and functions. However, individual research projects supported through CIAS and the PARR will differ based on the specific research priorities being addressed.

Program Details

1. Program Objectives:

- To increase the relevant science knowledge base to support informed DFO ecosystem-based environmental regulation and decision making of the sector; and
- To support informed provincial environmental regulation and decision making.

More indirectly, First Nations, the aquaculture industry, ENGOs and the public will benefit from the results of research projects supported through PARR by having greater access to a wider body of science information.

2. Eligible Expenses:

The PARR is an O&M program designed to support internal aquaculture research, and scheduled to sunset in five years. Eligible expenses include:

- O&M to convert to salary dollars for short-term assistance (e.g. students, casual and term contracts)
- Equipment costs (small to large scale costs)
- Materials and supplies
- Printing and production costs
- Travel
- Field operational costs
- Contract and professional services

Costs, other than those stated above are ineligible unless specifically approved in writing by Fisheries and Oceans at the time of project approval. For all costs, only those deemed to be a reasonable share for completing the project will be considered eligible.

3. Call for Proposals:

DFO Science is inviting proposals under the Program for Aquaculture Regulatory Research, signalling the start of the funding cycle for fiscal year 2009/10.

The following pages outline the key research priorities for the 2009/10 call for Proposals. Also included in the attached material are the evaluation criteria for proposals and the project proposal outline.

**Program for Aquaculture Regulatory Research (PARR)
Call for Proposals (2009/10)**

4. Submission and Review Process:

Proponents are advised to contact the Aquaculture Science Branch as early as possible in the proposal development stage to ensure proposals are aligned with the overall Program objectives and research priorities.

Using the project proposal outline provided, submit proposals by e-mail by 5:00 EST May 1, 2009 to Nancy.House@dfo-mpo.gc.ca.

Proposals will be reviewed and evaluated by the Program for Aquaculture Regulatory Research Review Committee.

The Review Committee will make funding recommendations, which will be reviewed and approved by Science Senior Management.

It is anticipated that proponents should be notified by May 15, 2009.

Research Priorities

Under the Program for Aquaculture Regulatory Research, funds will be dedicated to new research studies and other knowledge gathering activities.

Project and research areas will be prioritized based on aquaculture regulatory management requirements as identified through the Framework for Aquaculture Environmental Risk Management and other opportunities to increase ecosystem-based performance that may be identified.

Science will entertain research proposals with specific, targeted research objectives in support of the research priorities described below.

Proponents are advised to contact the Aquaculture Science Branch as early as possible in the proposal development stage to ensure proposals are aligned with the overall Program objectives and research priorities.

For the 2009/10 Call for Proposals, the following research priorities have been identified:

1. Fish Health Management in Aquaculture:

Knowledge of fish health issues at the farm level, such as the ecological effects of chemotherapeutants on non-target species, ecological interactions of sea lice / production diseases between cultured and wild fish, and the role of bay management areas in disease control, is necessary to support informed DFO ecosystem-based environmental regulation and decision making of the aquaculture sector. In order to effectively mitigate against these effects, it is also important to understand and quantify the disease interactions between wild and farmed fish; and understand stress response, immunological interactions and epidemiological factors.

2. Siting Requirements:

Assessment of threats to fish and fish habitat due to aquaculture siting decisions by predicting zone of influence, predicting severity of potential effects and recovery rates, and identifying sensitive habitats to be avoided.

**Program for Aquaculture Regulatory Research (PARR)
Call for Proposals (2009/10)**

Evaluation Criteria

Evaluation criteria are as follows:

1. Relevance:

Proposals must clearly identify key research gaps proposed to be addressed in direct relation to the research priorities. Proposal objectives must be clearly aligned with Departmental objectives, as well as the objectives of the Program for Aquaculture Regulatory Research. Deliverables and milestones must be relevant to the project objectives.

2. Project Feasibility:

The experimental design and approach must be clearly outlined. Justification for the proposed methodology/research strategy must be provided. Challenges associated with the approach, physical infrastructure availability, equipment availability, timelines or other resources must be identified.

3. Proponent Capacity:

Proposals must demonstrate that the capacity exists within the team to undertake and deliver on the proposed work. The Project Leader must have a demonstrated ability to manage research teams and deliver on research projects, including required reporting, on time and on budget. Proposals must demonstrate that an effort has been made to engage suitably qualified personnel, and multidisciplinary research approaches will be rated higher. Additionally, regional collaboration is encouraged.

4. Budget:

Proposal budgets must be proportionate to the magnitude and scope of the project. Budget details must be provided by completing the attached budget spreadsheet.

Capacity to leverage additional funds will not be factored into the overall proposal assessment for the first year submissions; however it is important to identify all other cash and in-kind contributions.

**Program for Aquaculture Regulatory Research (PARR)
Call for Proposals (2009/10)**

Project Proposal Outline

Proposals should be no more than 5 pages in length, not including references and CVs.

1. Research Priority:

Identify the specific research priority being addressed in the proposal.

2. Region:

Identify the DFO region that will lead the project.

3. Title:

Provide a descriptive project title.

4. Project Overview:

Provide a project overview in 200 words or less, including an explanation as to how this research project contributes to existing knowledge in this field. This project overview will be used for internal communication and reporting purposes.

5. Project Leader:

The project leader is responsible for overall project coordination and submission of all required reporting to DFO Science. Include the name, title, and coordinates of the project leader.

6. Project Team Members:

To address the ability of project team members (including the project leader) to contribute to the research project, briefly describe their relevant expertise and experience, role and level of involvement. Include the name, title, coordinates, and CV of all project members.

7. Project Team Collaborators

Project team collaborators are external to DFO. Project team collaborators may contribute funds, expertise and/or infrastructure in support of the research project. Provide details on the role of all project collaborators. Include the name, title, coordinates, and CV of all project collaborators.

8. Project Rationale and Objectives

Describe the relevance of the proposed project, including rationale and objectives, to the overall Departmental objectives, as well as the objectives of the Program for Aquaculture Regulatory Research. Also identify any existing knowledge gaps that will be addressed through the proposed work.

9. Innovation and Linkages

Provide a brief description explaining the innovative aspects of this research. Additionally, identify any linkages between the proposed research project and existing DFO research initiatives.

**Program for Aquaculture Regulatory Research (PARR)
Call for Proposals (2009/10)**

10. Project Description and Methodology:

Describe the operational plans to address the research priority, including technical approach, experimental protocol, locale(s) and project duration. Provide a brief assessment of the infrastructure available to support the proposed work.

11. Milestones

Provide a list of tangible project milestones, including target achievement dates.

12. Project Challenges

Identify key challenges that could potentially result in the research objectives described above not being met. If possible, briefly describe how these challenges could be overcome.

13. References

Include references as an appendix to the proposal. There is no page limit on references.

14. End Users and Outcomes:

Identify anticipated project outcomes, i.e. impact of the research results. Include a list of the most likely end users of the anticipated research results, as well as a brief overview of how the research results will benefit each end user. Letters of support from end users may be included.

15. Communication and Reporting

List major project outputs, including anticipated research results, scientific papers and presentations, personnel trained and so forth.

Successful proponents will be required to submit mid-term progress reports as well as a final report according to templates to be provided by DFO Science. DFO Science is required to report on the Program for Aquaculture Regulatory Research Program according to the integrated Results-Based Management and Accountability and Risk-Based Audit Framework (RMAF/RBAF) for The New Aquaculture Program, and reporting templates will be designed as such. Successful proponents must ensure appropriate reporting information is collected and recorded.

16. Budget and Resources

Complete relevant sections of the attached budget tables, including leveraging opportunities.

Regional collaboration is encouraged, including the optimization of resources through the sharing of equipment and research facilities, databases and personnel. Note: All funds are transferred to regional offices as O&M only.