

Great Lakes Fishery Commission Research Proposal Evaluation

Research proposals are subjected to external review by at least two scientific peers or other appropriate experts. Proposals are evaluated in five general categories: rationale; scientific merit; budget, logistics, and qualifications; responsible conduct of research; and summary of proposal. Peer reviewers are provided with a guided assessment form to complete. For each question, reviewers will select the descriptor that best describes their assessment of each of the five general categories of the proposal. Following each question, reviewers are asked to provide an explanation to support their choice. Reviews are anonymous, and investigators will be provided with a copy of their proposal evaluation when they receive feedback from the research board. The evaluation guide below can help guide research proposal development.

			Exceptional	Satisfactory	Needs Improvement	Unsatisfactory
Rationale	Q1	How important is the proposed research to advancing knowledge and understanding within its own field or across different fields?	Research fills a key gap and could significantly advance field; could advance knowledge across a range of disciplines.	Research addresses a key uncertainty and relates to other ongoing or required efforts in the field.	Research furtheres a line of inquiry or is a necessary next step but will not likely provide major advances in the field.	Research not likely to advance the field.
	Q2	Does this proposal adequately review the related scientific literature?	Literature extensively reviewed. All key publications are referenced.	Adequate literature review; some additional literature could improve the proposal.	Literature review limited; some key publications are missing.	Inadequate literature review; background knowledge is weak.
	Q3	Does the proposal demonstrate awareness of similar work being conducted elsewhere (please explain)? Please describe any related projects not addressed in the proposal and include, if possible, names and organizations involved.	Related and ongoing research explicitly referenced and proposed research is integrated.	Acknowledges related and ongoing research but does not explicitly link proposed research to these efforts.	Acknowledges some current related or ongoing research, but proposal could be improved by referencing additional related work or integrating with related efforts.	No demonstrated knowledge of related or ongoing research.

Scientific merit		Exceptional	Satisfactory	Needs Improvement	Unsatisfactory
Q4	Are the research objectives clear and focused? Are objectives presented correctly as statements related to scientific understanding based on interpretation of information or data analyses (rather than methodological steps such as collect data, conduct experiments, analyze data, write report)? Do the objectives identify a pattern, process, or relationship among variables to be examined? Can the objectives be used to evaluate project progress? Do objectives reflect the research questions to be answered, the hypotheses to be tested, or the processes to be examined?	Research objectives are clearly stated, focused and correctly expressed as statements related to scientific understanding based on interpretation of data analyses rather than expressions of methodological steps.	Research objectives are understandable and correctly expressed as statements related to scientific understanding based on interpretation of data analyses rather than expressions of methodological steps.	Research objectives are understandable but may lack focus and/or clarity or may not directly relate to scientific understanding.	Research objectives lack clarity and focus and are expressed methodological steps as opposed to scientific understanding.
Q5	Will the proposed methods accomplish the objectives? Is the experimental design correct (e.g., sample size, sampling frequency, spatial/temporal distribution of sample collection)? What modifications should be incorporated?	Experimental or investigative methods proposed to achieve the objectives are appropriate.	Experimental or investigative methods are sufficient to achieve the objectives, but alternative procedures may be more appropriate.	Experimental or investigative methods could benefit from updated/alternative procedures. An inappropriate method may be proposes but is not deemed a “fatal flaw.” Methods are incompletely documented.	Experimental or investigative methods are flawed or inappropriate to achieve the objectives. Experimental methods are inadequately detailed.

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Budget, logistics, and qualifications	Q6	Are the proposed analyses or statistical tests appropriate and sufficient to achieve the objectives? What other types of analyses should be considered?	Analytical methods are current and appropriate to achieve objectives. No additional or alternative analyses are required.	Analytical methods are appropriate to achieve the objectives; however, additional and/or alternative approaches could improve the study.	Analytical methods could partially achieve the objectives ; however, additional and/or alternative approaches could improve the study.	Analytical methods are flawed, inappropriate, or inadequately detailed .
	Q7	Is the proposed research feasible? What is the probability that the objectives will be achieved?	Achievement of objectives is feasible .	Achievement of objectives is likely feasible; may be ambitious or some uncertainties exist.	Achievement of objectives may be feasible with revised sampling and/or analytical design.	Achievement of objectives is not feasible as proposed.
	Q8	Is the budget appropriate for the research proposed?	Budget is appropriate and cost efficient .	Budget is appropriate , but some uncertainties exist, or efficiencies gained.	Budget differs from expected ; some line items deficient in detail; unanticipated costs; or missing costs.	The budget is inappropriate or lacking sufficient detail ; budget is irreconcilable with the methods .
	Q9	Are the proposed research personnel (e.g., students, technicians, postdocs) and equipment (e.g., lab facilities) appropriate to achieve the objectives? Are test subjects or specimens available or can they easily be collected? Is the schedule for completion reasonable? What is the probability that the objectives will be achieved within the proposed timeline?	Resources (personnel and equipment) are appropriate and available . The proposed objectives are appropriately scheduled and likely to be achieved within the proposed timeline.	Resources (personnel and equipment) acceptable ; however, additional personnel may be required; samples or equipment may not be available. Proposed objectives are appropriately scheduled and are likely to be achieved within the proposed timeline; some minor resolvable issues in the project delivery schedule.	Resources (personnel and equipment) may be inadequate to achieve project objectives. Questionable whether the schedule to complete the proposed objectives is feasible.	Resources (personnel and equipment) to achieve project objectives inadequate or unavailable . Objectives not likely to be achieved within the proposed timeline.

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	Q10	To what degree are the investigators qualified (i.e., education, training, experience) to conduct the proposed research? Do the investigators have the core competencies (i.e., fundamental knowledge, skills, experience, abilities, established relations) to ethically and responsibly conduct the research? Are there other skillsets that could complement the team? If so, what types of technical and interpersonal skills are missing and how should investigators address this deficiency?	Expertise, relevant organizations, or investigators are appropriate to achieve objectives. Research team highly qualified with required experience in relevant fields.	Expertise, relevant organizations, or investigators are sufficient to achieve objectives.	Additional expertise, relevant organizations, or investigators are required in a particular field	Additional expertise, relevant organizations, or investigators are required . Research team does not have adequate training or experience to achieve research objectives.
Responsible conduct of research	Q11	Was the team composition informed by where and how work is being conducted? Does the project use an interdisciplinary approach and involve all team members?	Team composition reflects where and how the research is being conducted; an interdisciplinary approach is used; and core competencies* of each team member are reflected in the project design and methods (i.e., roles and responsibilities of all team members are described and appropriate to implement methods).	One of the following is lacking: (1) team composition reflects where and how research is being conducted; (2) an interdisciplinary approach is used; or (3) core competencies of each team member are reflected in the project design and methods.	Two of the following are lacking: (1) team composition reflects where and how research is being conducted; (2) an interdisciplinary approach is used; or (3) core competencies of each team member are reflected in the project design and methods.	Team composition does not reflect where and how research is being conducted; an interdisciplinary approach is not being used; and core competencies of each team member are not reflected in the project design and methods.

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	Q12	Were the methods informed by where and how the proposed work is being conducted? Are the proposed methods ethical, collaborative, and use participatory approaches?	Methods are clearly informed by where and how the work is being conducted (e.g., awareness of local customs, policies, practices); methods are ethical, collaborative, and participatory; adherence to appropriate data sovereignty (e.g., OCAP) and other protocols and standards specific to team, collaborators, or participants are demonstrated .	One of the following is lacking or uncertain: (1) methods are informed by where and how the work is being conducted (e.g., awareness of local customs, policies, practices); (2) methods are ethical, collaborative, and participatory; or (3) adherence to appropriate data sovereignty and other protocols and standards specific to team, collaborators, or participants are demonstrated.	Two of the following are lacking or uncertain: (1) methods are informed by where and how the work is being conducted (e.g., awareness of local customs, policies, practices); (2) methods are ethical, collaborative, and participatory; or (3) adherence to appropriate data sovereignty and other protocols and standards specific to team, collaborators, or participants are demonstrated.	Methods are not informed by where and how the work is being conducted (e.g., no awareness of local customs, policies, practices); methods are unethical, exclusive, and non-participatory; data sovereignty and other protocols and standards specific to team, collaborators, or participants are not addressed .	
	Q13	For projects involving or working within the lands or territories of Tribes, First Nations, Métis, Indigenous organizations or local communities, did investigators demonstrate they have established relationships and support from the community? If applicable, did clear communication occur, was agreement reached, and were appropriate permissions granted?	Investigators clearly demonstrated they have established relationships and support from the /Nation/Tribe/community; community member(s) or representative(s) are identified as co-investigators; appropriate communication occurred, agreement was reached, and appropriate permissions were granted.	Investigators demonstrated a relationship with the Nation/Tribe/community but lack formal support for the research; appropriate communication occurred, agreement was reached, and appropriate permissions were granted..	Investigators propose to work with a Nation/Tribe/community but did not demonstrate established relationship (s) and lack formal support. Uncertain if appropriate communication occurred, agreement was reached, and appropriate permissions were granted.	Investigators failed to demonstrate they have an established relationship with the community and/or support from the community; no community member or representative co-investigators. No communication occurred , and no agreement was	Does not apply to research proposal.

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						reached, or appropriate permissions were granted.	
	Q14	For projects relying on agency support, did investigators demonstrate that they have explicit support from those agencies?	Investigators clearly demonstrated they have established relationship and support from agencies.	Investigators demonstrated they have established relationship and support from agencies.	Investigators referenced agency support, however, did not provide a clear plan or a letter of support.	The investigators failed to demonstrate they have an established relationship with the agency and/or support from the agency.	Does not apply to research proposal; no agency support required
	Q15	Does the project foster training and/or leadership development for team members?	Clear and detailed plans for training and/or leadership development is evident within the proposal. Specific actions to support development are clearly defined .	Training and /or leadership opportunities are defined .	Some training and/or leadership development is evident but could be further developed .	The project will not provide training and/or leadership opportunities for the research team.	
	Q16	Does the project demonstrate clear actions to ensure that the project and its outcomes will engage with appropriate audiences?	The proposal clearly describes specific deliverables and how they will reach appropriate audiences. Multiple types and methods of deliverables are included.	Deliverables are identified and a description of how they will reach appropriate audiences is included in the proposal.	Some deliverables are described but the proposal would benefit from more detail on how these will reach appropriate audiences.	The project did not demonstrate how results and deliverables will reach appropriate audiences.	

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Summary	Q17	Does this proposal contain any critical flaws that would affect the feasibility, applicability, and/or timely completion of the proposed research (please explain) ? Open-ended response			
	Q18	Does the proposal apply new conceptual or technological approaches to solving problems or investigating processes (please explain) ? Open-ended response			
	Q19	Given your overall impression of the proposal, would you support this research?	Strong proposal; would strongly support.	A well-written proposal requiring minor revisions; would support if minor revisions were addressed.	Research question is relevant but proposal requires major revisions; suggest resubmission.

*Core competencies: the fundamental knowledge, skills (interpersonal and professional), experience, and abilities required for effective research.