

# Long Island Water Quality Challenge (LIWQC)

## Project Proposal Evaluation Rubric

**1. Does the project proposal sufficiently address the Long Island Nitrogen Action Plan and the impact that nitrogen pollution has on Long Island as a whole? 12%**

1 point: The project rarely addresses LINAP's goals and objectives and offers a basic understanding of nitrogen pollution.

4 points: The project addresses LINAP's goals and objectives and offers a good understanding of nitrogen pollution at the regional level.

10 points: Consistently references LINAP Scope and LINAP related resources. Identifies all sources of nitrogen pollution and its impacts on Long Island's surface and groundwater.

**2. Is the project proposal effective in identifying the problem that the project seeks to address? 12%**

1 point: The proposal identifies the basic problem to be addressed.

4 points: The proposal adequately identifies the problem to be addressed. The evidence supporting the proposed treatment is limited.

10 points: The proposal clearly identifies the source of the problem specific to school grounds and presents findings and supportive evidence to logically implement proposed treatment.

**3. How effective will the proposed project be in removing or reducing nitrogen pollution? 12%**

1 point: The proposal estimates the potential nitrogen reductions without citing evidence-based research.

4 points: The proposal does an adequate job at estimating the outcome of the proposed treatment using evidence-based research.

10 points: The proposal provides an estimate of the nitrogen reduction achieved by the proposed treatment.

**4. Is the proposed project feasible from a technical, engineering, and scientific standpoint? 12%**

1 point: The proposal does not use technical, engineering, or scientific data to support its claim.

4 points: The proposal uses some technical, engineering, or scientific data to support its claim.

10 points: Scientific principles are correctly explained to show how and why the evidence supports the proposed project. Majority of data are specific, relevant, and accurate. Draws logical conclusions using evidence-based inferences and reasoning from multiple sources.

**5. Does the project proposal make effective use of visual arts to support what is being proposed? 12%**

1 point: The project has few if any visual aids.

4 points: The project includes some visual aids or has an original art component created by students.

10 points: Uses multiple visuals and original art components to enhance the proposal. Visuals are well-crafted and designed. (I.e. diagrams, charts, posters)

**6. Is the project proposal well organized, easily navigable and complete? 8%**

1 point: Proposal is missing most requirements and does not always present ideas clearly and logically.

4 points: Proposal includes most requirements and presents ideas clearly.

10 points: Includes all proposal requirements. (I.e. Title, table of contents, summary, description, background research, design, analysis and discussion, conclusions, and bibliography.) Presents information, findings and supporting evidence clearly, concisely and logically.

**7. Does the project proposal effectively describe the current practices on the school grounds? 8%**

1 point: Presents a basic understanding of current school practices.

4 points: Presents a good understanding of current school practices and identifies areas in need of treatment.

10 points: The proposal describes the current practices. Includes interviews and collaboration with school grounds crew and administration. Referenced NYS Education Law regarding the use of fertilizer and pesticides. Identifies areas in need of treatment.

**8. Does the project proposal effectively communicate scientific principles? 8%**

1 point: The proposal is backed by limited scientific principles.

4 points: Explains one or more scientific principals behind the proposed technology. The proposal clearly communicates experimental or investigative results. Draws conclusions from collected data.

10 points: Scientific principles are correctly explained to show how and why the evidence supports the proposed project. All data are specific, relevant, and accurate. Draws logical conclusions using evidence-based inferences and reasoning from multiple sources. Evaluates alternate solutions to the problem.

**9. Does the project proposal consistently show creative ideas, clearly stated and supported? 8%**

1 point: Proposal lacks originality and offers little evidence to support claims. Ideas are not always clearly stated.

4 points: Shows imagination when shaping ideas into a product but stays within conventional boundaries. Ideas are clearly stated.

10 points: Ideas are clearly stated. Uses ingenuity and imagination going outside conventional boundaries when developing ideas into a potential solution.

**10. Were references and resources used effectively in the project proposal? 3%**

1 point: Uses some resources relevant to Long Island.

4 points: Uses mostly resources relevant to Long Island throughout the proposal.

10 points: Uses resources and references relevant to Long Island and nitrogen pollution. Consistently references LINAP Scope and LINAP related resources.

**11. Does the proposed project have a realistic budget? 3%**

1 point: Proposed budget does not consider potential funding sources.

4 points: Proposed budget is backed up by research and ideas to solicit funding.

10 points: The proposal includes estimates from potential vendors. Budget can be backed up by research and analysis. The budget factors in cost versus benefit.

**12. Is the proposed project practical from a timeframe standpoint? 2%**

1 point: Proposal pays little attention to timelines.

4 points: Basic timeline is considered and adequately addressed.

10 points: Timelines are well thought out and carefully crafted. The project can be implemented within a reasonable time frame. (12-month time-period.)