Submission Package Checklist

Enhancing Nitrate Removal in Denitrifying Woodchip Bioreactors

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1 Main Submission Files

Document	Status	Description
`revised_bioreactor_paper.pdf`	✓	Main manuscript (26 pages)
`cover_letter.pdf`	✓	Comprehensive submission letter
`highlights.pdf`	✓	Key research highlights (6 points)
`response_to_reviewers.pdf`	✓	Round 2 revision response (5 pages)

Table 1: Essential submission documents

2 Supporting Materials

File	Status	Purpose
`revised_bioreactor_paper.tex`	✓	LaTeX source file
`lit.bib`	✓	Bibliography (186+ references)
`fig1-fig10_*.pdf`	✓	All manuscript figures
`supplementary_material.pdf`	✓	Additional supporting data

Table 2: Source files and supporting materials

3 Quality Verification

3.1 Manuscript Quality

✓ All citations verified against bibliography

✓ Critical citation error corrected (RN239 → RN632)

✓ Units standardized throughout (g N/m^3/day)

✓ Economic data standardized to 2023 USD

✓ All figures properly referenced and included

✓ LaTeX compiles without errors or warnings

✓ No fabricated data - all values from authentic sources

3.2 Content Completeness

✓ Abstract refined to ∼150 words

✓ Enhanced figure captions with equations and applications

✓ Greenhouse gas mitigation strategies added

✓ Economic analysis strengthened with lifecycle considerations

✓ MMRT temperature modeling discussion added

✓ Stakeholder recommendations condensed by 75%

✓ Developmental stage disclaimers added

4 Key Manuscript Metrics

Metric	Value
Total pages	26
Studies reviewed	70
References cited	186+
Figures included	10
Performance range (carbon dosing)	5.1–8.6 g N/m^3/day
Performance range (alternative media)	12.8–15.2 g N/m^3/day
Cost-effectiveness range	\$10.56–86/kg N
Temperature sensitivity range	Q_{10} = 1.8–3.0

Table 3: Key quantitative findings

5 Recent Revisions Summary

Round 2 Comprehensive Revisions Completed:

1. Fixed critical citation error for carbon dosing data
2. Standardized all removal rate units across sections
3. Enhanced figure captions with technical details and equations
4. Added comprehensive greenhouse gas mitigation strategies

5. Strengthened economic analysis with additional literature support
6. Added advanced temperature modeling discussion (MMRT)
7. Condensed verbose stakeholder recommendations
8. Refined abstract for improved clarity and conciseness

6 Submission Declaration

We, the authors, declare that:

✓ This manuscript has not been published elsewhere

✓ This manuscript is not under consideration for publication in another journal

✓ All authors have approved the manuscript and agree to its submission

✓ All data presented is verified against authentic literature sources

✓ The manuscript adheres to ethical research standards

✓ All previous reviewer comments have been addressed

Submission Date: September 12, 2025
Package Prepared by: Reza Moghaddam & Laura E. Christianson
Status: **READY FOR SUBMISSION**