

Operation of Municipal Wastewater Treatment Plants
WEF Manual of Practice No. 11

Chapter 22—Biological Nutrient Removal Processes
Sixth Edition

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Preface

This sixth edition of this chapter was produced under the direction of Michael D. Nelson, *Chair*. The principal author of this chapter is John R. Harrison.

Chapter 22 on biological nutrient removal (BNR) incorporates the best training information available from recent workshops or texts on nitrogen and phosphorus removal and presents these in one source. It is intended to provide operators, managers, and engineers with both the fundamentals and practical examples of design and operation of BNR facilities. Chapter 22 is a complete rewrite on nutrient removal and contains figures and examples never before published.

This chapter was also reviewed by Amanda Meitz and Chi-Chung Tang, P.E., DEE, Ph.D.

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