

Preparing for Your Exam:

To prepare effectively, decide how much time you'll need. NGWA exams are designed by professionals to reflect best practices in the groundwater industry. While practical experience is essential, studying the recommended materials is key to success.

Resources referenced in the study guide available in [NGWA's Bookstore](#):

- *Water Systems Handbook, 13th edition*
- *Groundwater and Wells, Third Edition*
- *Basic Water Systems*

- **Review the Exam Study Guide:** Familiarize yourself with the key topics covered in the exam. Use the content outline to assess your strengths and identify areas that need more focus.
- **Use NGWA's Recommended Study Materials:** Check out the resources available in the NGWA bookstore. This study guide outlines the materials that align with each exam section and will help deepen your knowledge.
- **Plan Your Study Time:** Break your study sessions into smaller, focused blocks for better retention.
- **Customize Your Study Method:**
 - Take notes, create flashcards, or study with a group.
 - Have someone read the material aloud while you take notes.
 - If you're a visual learner, draw diagrams or process flows.
 - For hands-on learners, discuss practical topics with coworkers or equipment manufacturers.
 - Reinforce what you've learned by explaining it to someone else.

Scheduling Your Exam:

- Schedule your exam online at <https://test-takers.psiexams.com/ngwa> or by calling 855-579-4642 and ask to schedule the National Groundwater Association's Water Systems Less Than 100 GPM exam.
- Frequently asked questions about the exam process may be found at [Test Taker Support | Candidate FAQ](#).
- If you have trouble with scheduling your exam, please contact NGWA at certification@ngwa.org or 800-551-7379, ext. 1526.

Before Your Scheduled Exam:

- **Know What to Expect:** Boost your confidence by familiarizing yourself with the exam process. Review the test center's requirements and policies, which are outlined in [NGWA's Candidate Information Bulletin](#).

- **Arrive Early:** Plan your route to the test center in advance and be sure to allow extra time for any unforeseen circumstances.
- **Rest Well:** Aim for a full night's sleep before the exam. Avoid cramming, as staying up late can negatively affect your performance.
- **Check-In Requirements:** You will need to present a valid, government-issued ID when checking in at the test center.
- **Leave Personal Items Behind:** Personal belongings are not permitted in the test center. Please store them securely before entering.
- **Closed-Book Exam:** No outside materials are allowed, so be sure to leave any study aids behind.
- **Eat Light:** Have a nutritious, light meal before your exam.
- **Stay Positive:** Set realistic expectations for yourself. While it's great to aim for a perfect score, missing a few questions is completely normal-and won't affect your ability to pass.
- **Manage Anxiety:** If you start to feel nervous, take a few deep breaths and consciously relax the tension in your neck and shoulders. Keeping calm will help you focus.

After Your Exam:

- You will receive your score report before leaving the test center. If you didn't pass, check the "scores by section" area below your pass/fail result. These sections align with the categories listed on this study guide. Use this information to guide your studying for the next exam attempt.
- Keep a notebook in your car to jot down any content areas or questions you found challenging. Then, refer to the exam study guide to find relevant study materials and review those topics to strengthen your understanding.

NGWA Study Materials Listed by Water Systems Less Than 100 GPM Exam Category

Assess Job Site

- *Water Systems Handbook, 13th Edition*
 - Book II, Chapter 2, page 25-27
- *Groundwater & Wells, Third Edition*
 - Appendix 12 E, Goulds VLT Installation Manual, page 4

Determine System Component Requirements

- *Water Systems Handbook, 13th Edition*
 - Book II, Chapter 4, page 45-46
 - Book VI, Appendix, pages 43-44
- *Groundwater & Wells, Third Edition*
 - Pages 564, 582
 - Appendix 12 A, Common Groundwater Well Pumps and Pump-System Components, page 29, 34
 - Appendix 12 C, Cornell Pump Hydraulics Workbook, pages 9, 16, 20, 21, and Goulds Technical Guide page 32
- *Basic Water Systems*
 - Pages 58-59, 81, 118

Install Pump System

- *Water Systems Handbook, 13th Edition*
 - Book I, Chapter 2, page 20-21
 - Book II, Chapter 1, page 20
 - Book VI, Chapter 2, page 16
- *Groundwater & Wells, Third Edition*
 - Pages 302, 582
 - Appendix 12 C, Cornell Pump Hydraulics Workbook, pages 7, 18
 - Appendix 12 D, Cornell Install Manual, page 17
 - Appendix 12 G, Franklin Electric AIM 60Hz, page 35
- *Basic Water Systems*
 - Pages 19, 58-59, 86

Troubleshoot Existing Pump System

- *Water Systems Handbook, 13th Edition*
 - Book II, Chapter 1, page 12-13
 - Book II, Chapter 2, pages 24, 26
 - Book II, Chapter 4, page 44
 - Book II, Appendix (Three-Phase Unbalance Requirements), page 50-52
 - Book III, Chapter 1, pages 11-12, 16-17
 - Book III, Chapter 2, page 21
 - Book III, Chapter 3, page 29-30
 - Book V, Chapter 1, page 13
 - Book VI, Chapter 2, page 16

- *Groundwater & Wells, Third Edition*
 - Pages 554, 571
 - Appendix 12 A, Common Groundwater Well Pumps and Pump-System Components, page 18
 - Appendix 12 B, Malfunctions in High-Capacity Centrifugal and Turbine Pumps, Possible Causes, and Solutions, page 7
 - Appendix 12 C, Goulds Technical Guide, page 10
 - Appendix 12 G, Franklin Electric AIM 60Hz, pages 6, 34, 44
- *Basic Water Systems*
 - Pages 14, 65, 117