

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.

- **Review the Exam Study Guide:** Familiarize yourself with the key topics covered in the exam. Use the content outline to assess your strengths and 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.

Resources referenced in the study guide available in

NGWA's Bookstore:

- *Employee Safety Manual*
- *Groundwater and Wells*
- *Manual of Water Well Construction Practices*
- *Procedures for Well Drilling Operations*
- *Water Well Driller's Beginning Training Manual*

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 General Drilling 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 perfectly fine 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 General Drilling Exam Category

Mobilize for the Site

- *Groundwater and Wells*
 - Chapter 9 – subsection "Electrochemical Corrosion"
- *Water Well Driller's Beginning Training Manual*
 - Chapter 2, subsection "Safety on the Road" and "Safety on the Rig"
 - Chapter 5-part II, subsection "Setting Up"
 - Chapter 8
- *Manual of Water Well Construction Practices*
 - Chapter 1, subsection 1.1.1 Site Selection
 - Chapter 3, subsection 3.6 Methods of Joining

- *Employee Safety Manual*
 - Chemical Hazards Electrocution Mechanical Safety

Construct Water Well

- *Groundwater and Wells*
 - Chapter 2, subsection “Slope and Shape of Curve”
 - Chapter 3, subsection “Drilling to Obtain Formation Samples”
 - Chapter 5, subsection “Classes of Compounds and Analysis”
 - Chapter 7, Table 7.2 “Advantages and Disadvantages of Drilling Methods” and “Direct Circulation Methods, Air and Mud Rotary Drilling”
 - Chapter 8, subsection “Drilling-Fluid Density” and “Dry-Air Systems,” and “Treatment of Mix Water for Drilling Fluids”
 - Chapter 9, subsection “Continuous-Slot Wire-Wrap Screen,” and “Screen Slot Size; Naturally Developed Wells,” and “Screen Diameter,”
 - Chapter 10, subsection “Overview of Well Construction,” and Table 10.4 “Hydrostatic loads on casing,” and “Slurry Placement Methods,” and “Setting Screen in Rotary-Drilled Wells,” and “Filter Packing Wells”
 - Chapter 15, subsection “Horizontal Collector Wells”
- *Water Well Driller’s Beginning Training Manual*
 - Chapter 5, subsection “Principle of air rotary drilling”
- *Manual of Water Well Construction Practices*
 - Chapter 2, subsection 2.1 Well Construction Types, 2.2.1 Well Construction Method Descriptions
 - Chapter 4, subsection 4.2 Grouting Requirements, Table 4.4 Approximate Densities and Volumes of Some Grout Slurry Mixtures
 - Chapter 5, subsection 5.2.2.1 Natural development and completion, 5.3.2 Screen diameter, 5.2.2.2.2 Filter pack placement
 - Chapter 9, subsection 9 Well Disinfection (General)
- *Procedures for Well Drilling Operations*
 - Chapter 2, subsection “2-4. Geological Setting. b. Consolidated Deposits (Rock).”
 - Chapter 5, subsection “5-2. Air Rotary Drilling, a. Air Supply,” “5-1. Mud Rotary Drilling. e. Drilling Fluids, (5) Density.” (pg 5-16), “5-4. Reverse Circulation. 1. Advantages and Disadvantages”
 - Chapter 6, subsection “6-5. Selecting Screens. B. Lengths (5) Screen Length. c. Diameters” and “6-5. Selecting Screens. B. Lengths (5) Screen Length. d. Slot Sizes”

Rehabilitate Wells

- *Groundwater and Wells*
 - Chapter 13 subsection “Determining the Quantity of Acid to Use,” and “Chlorine Gas and pH control”
 - Chapter 11, subsection “Mechanical Surging,” and “Jetting with Water,”
 - Chapter 6, subsection “Overview”
- *Water Well Driller’s Beginning Training Manual*
 - Chapter 12, subsection “Summary”
- *Manual of Water Well Construction Practices*
 - Chapter 7, subsection 7.3.4 Jetting Method
 - Chapter 8, subsection 8. Well Testing for Performance

Develop Wells

- *Groundwater and Wells*
 - Chapter 13, subsection “Chlorine Gas and pH Control,” “Chlorine Levels”
 - Chapter 11, subsection “Developing by Surging and Pumping with Air,” and Allowable Sediment Concentration in Well Water,” and “Aquifer-Stimulation techniques,” and “Mechanical Surging”
 - Chapter 8, subsection “Filtration”
 - Chapter 9, subsection “Characteristics Indicative of Corrosive Water”
 - Chapter 6, subsection “Overview”
- *Water Well Driller’s Beginning Training Manual*
 - Chapter 11, subsection “Well development methods,” and “Backwashes and Overpumping”
 - Chapter 12, subsection “Definition of terms”
- *Manual of Water Well Construction Practices*
 - Chapter 7, subsection 7.2.1 Purpose of Well Development, 7.3 Methods of Development, 7.5.3 Turbidity and Sand Content Limits
 - Chapter 10, subsection 10.1.2 Microbiological Quality, 10.2.4 Sample Collection for Microbial Analysis
 - Chapter 9, subsection 9.1 Chlorination Purpose and Application in Well Construction, 9.2.2 Interim Well Disinfection
 - Chapter 3, subsection 3.2.2. Size and Type of installed pumping equipment
- *Procedures for Well Drilling Operations*
 - Chapter 2, subsection “c. Specific Yield and Retention,” “e. Yield and Drawdown.” (pg 2-9)

- Chapter 3, subsection “3-12. Well Development”
- Chapter 5, subsection “(1) Polymers.” (pg 5-11) Chapter 7, subsection “e. Surge-Block Method” (pg 7-2)

Decommission Wells

- *Groundwater and Wells*
 - Chapter 10 – table 10.4 Hydrostatic Loads on Casing, also, subsection “Slurry Placement Methods”
- *Manual of Water Well Construction Practices*
 - Chapter 11, subsection “11.1 Purpose for Well and Borehole Decommissioning Sealing,” “11.1.1 Preparation for Abandonment Decommissioning Sealing,” “11.2.1 Aquifer Fill Material,” “11.2.3 Placement of Grout,” and “11.2.4 Methods of Grout Placement for Specific Seal Types”
- *Procedures for Well Drilling Operations*
 - Chapter 5, Subsection (5) Density. (pg 5-16)

Demobilize the Site

- *Groundwater and Wells*
 - Chapter 3, subsection “Sample Collection”
- *Water Well Driller’s Beginning Training Manual*
 - Chapter 5-part II, subsection “Completion of the well”
 - Chapter 7, subsection “Jetting gravel-packed wells”
 - Chapter 15, subsection “Well Logs”
- *Manual of Water Well Construction Practices*
 - Chapter 3, subsection “3.8 Sanitary Protection of Well”
- *Employee Safety Manual*
 - Fleet Safety Rules