

# American Academy of Water Resources Engineers

## Rule No. 7 Evaluation of Professional Experience

*Approved by the AAWRE Board of Trustees – September 15, 2007*

Water resources engineering is the professional discipline for the stewardship and sustainable use of the world's water and related resources that develops and applies scientific and engineering principles to plan, design, construct, manage, operate, and maintain infrastructure and programs.

Applicants for the Diplomate, Water Resources Engineer credential shall possess a minimum of ten years of professional experience after completion of the undergraduate degree. Such work experience shall be in one or more of the specialty areas established by the Board of Trustees. Further, such work shall include active participation in responsible planning, design, analysis, construction, operation, management, regulation, research, or academia.

Experience must be progressively responsible in water resources engineering to indicate that it is of increasing quality and requiring greater responsibility.

Experience should be gained as a licensed professional engineer or under the supervision of a licensed professional engineer. If not, an explanation should be made showing why the experience should be considered acceptable.

Experience must not be obtained in violation of any licensure act or regulation.

Experience may not be anticipated. The experience must have been gained by the time of the application.

### Education:

A. Master degree – One (1) year of professional experience will be granted for earning a masters degree in water resources or a related field from a college or university with a recognized program. The application must include a description of how the degree relates to the practice of water resources engineering.

B. Doctorate degree – Two (2) years of experience will be granted for earning a doctorate degree in water resources or a related field from a college or university with a recognized program. The application must include a description of how the degree relates to the practice of water resources engineering.

**C. No more than two (2) years of experience towards the required ten (10) years may be granted through graduate education degrees.**

### Academia (teaching):

A year of credit will be granted for each year that the applicant is employed fulltime faculty member in an ABET/EAC accredited water resources engineering or civil engineering program. In order to qualify for a year of professional experience, the applicant must have been engaged in the teaching of a graduate or undergraduate engineering course, and also engaged in research related to advancing the science of water resources engineering.

### Research:

A year of credit will be granted for each year of research performed at a state or federal government sponsored laboratory or institute, or at a privately sponsored institute or company engaged in performing research that is directly applicable to the practice of water resources engineering. This may include, but is not limited to, the construction and testing of physical hydraulic models, mathematical simulation models, water quality models, computer programs for analyzing water distribution systems, etc.

### Private and Public Practice:

A year of credit will be granted for each year the applicant is actively engaged in the professional practice of water resources engineering.

Experience gained in the armed services, to be creditable, must be of a character equivalent to that which would have been gained in the civilian sector doing similar work. Normally, it would be expected that the applicant, while in the armed services, served in an engineering or engineering-related group.

Experience gained in construction, to be creditable, must demonstrate the application of water resources engineering principles were required and used in gaining the experience.

Experience gained in technical engineering sales, to be creditable, must demonstrate that water resources engineering principles were required and used in gaining the experience.

**If the candidate's undergraduate degree is not in an engineering discipline that includes water resources topics, professional experience for this certification will qualify when the candidate can demonstrate that their work involves technical aspects of water resources engineering under a licensed professional engineer.**

### Description of Experience:

The applicant must include in their application for admission a year-by-year description of the nature and extent of their practice of water resources engineering. The applicant should also describe the level of independent judgment they were authorized to use in applying the principles of water resources engineering. The applicant should also

describe how their level leadership and supervision of others progressed during their professional career.

In order to be given full credit for professional experience, the applicant shall have demonstrated that he or she was granted increasing levels of independent judgment and leadership during their professional careers. In order to be given credit for a year of experience, the applicant must have also demonstrated that in addition to applying engineering principles to the planning, design, analysis, operation, construction, management, or regulation of water resources projects, the applicant was involved in communicating their work both orally or in writing, budget development and administration, interaction with supervisors, clients, public administrators, etc.

**In addition, the applicant must show that they are actively engaged in the profession of water resources engineering through interactions with their peers. This includes such activities as; membership and active participation in professional societies, interactions with water resources professionals from various water districts and government agencies, continuing education, etc.**

For experience gained in academia or by conducting research, the applicant must include in his or her application for admission a general description of the results of the research and the publications prepared to communicate the results of their research to the water resources engineering profession. At least one such publication must have been peer reviewed. Or, the applicant must include in their application for admission a description of the product produced by his or her research and provide at least one example of the application of their research to the solution of a real-life water resources engineering problem.