Specification for WaterSense Labeling of Certification Programs for Irrigation System Designers

1.0 Scope and Objective

This specification establishes criteria for the labeling of certification programs for irrigation designers under EPA's WaterSense Program. It applies to irrigation professionals who develop the design of new irrigation systems and/or modifications to existing irrigation systems. The purpose of the label is to identify programs that certify irrigation designers with demonstrated ability to apply water efficiency concepts in their practice. An irrigation designer who holds a WaterSense labeled certification should be capable of designing irrigation systems with water efficiency being a fundamental component of their practice.

2.0 Criteria for WaterSense Labeling

To be labeled under EPA's WaterSense Program, the certification program must meet the following criteria:

2.1 Independent Oversight Committee

The certification process provided by an organization must be supervised by an independent oversight committee. The oversight committee must be established by the organization and be composed of at least three professionals who are recognized for their expertise in the irrigation field. Employees of the certifying organization must hold no more than one third of the oversight committee positions. The committee must be able to exercise independent judgment and oversight to ensure the integrity of the certification process.

2.2 Experiential Requirement

The certification must require that the applicant have a minimum of three years of demonstrated experience in the field of irrigation design. The oversight committee must establish the documentation required to demonstrate the experiential requirement has been met.

2.3 Exam Requirement

The certification must include a requirement for the successful completion of an exam or series of exams. The exam process may include a written component, a field component, or a combination of the two. Exam procedures must be established or approved by the oversight committee.

2.3.1 Exam Content

The exam process should be structured so that passing practitioners must have demonstrated proficient applied knowledge in the following subject areas and their relationship to water efficiency. (Note: exam content is not limited to these subject areas as they are provided as a minimum for recognition by WaterSense.):

- Design, operation, and scheduling for water efficiency
- Preparation of site design reflecting site requirements
- Soil/water/plant relationships
- Slope and runoff
- Equipment selection and specification
- System hydraulics
- System pumps
- System pressure
- Maintenance
- Evaluation of available water sources
- Water management (budgeting and consumption)
- Awareness of other aspects of good practice, such as OSHA, and electrical and plumbing codes, as well as the knowledge of when local and state regulations supersede federal regulations.
- Recent innovations and technology developments

Specific exam questions should be established or approved by the oversight committee.

2.3.2 Exam Passing Score

The oversight committee should establish the passing score. The passing score on an exam must provide an objective level of assurance that the concepts listed above are understood and can be applied by the practitioner.

2.3.3 Quality Assurance/Quality Control

The exam process must include the following QA/QC elements:

- The technical content of exam questions should be established or approved by, and periodically reviewed by the oversight committee to ensure that the exam meets the requirements specified in Section 2.3.1. In addition, an independent academic institution or professional testing organization must review the exam questions to ensure that they accurately test the subject material. The exam review process should be conducted at least once every two years or every 1,000 exams, whichever occurs first.

- Exams must be administered by an independent academic institute, a professional testing organization, professional test administrator, or an irrigation professional certified in the subject matter.
- Exams must be graded by an independent academic institute, professional testing organization, professional test administrator, or a certified irrigation professional not involved in the training or proctoring of the practitioner being examined.
- The security and integrity of the test questions and test processes must be protected at all times.

2.4 Renewal Process

The certification must have a renewal process with a set periodicity.

2.4.1 Expiration

A certification must be renewed at least once every two years, or more frequently as established by the oversight committee.

2.4.2 Maintained Proficiency

One aspect of the renewal process must require the submission of documentation that the practitioner has maintained proficiency in the subject matter (e.g. continuing education units). Documentation of maintained proficiency must include evidence of the professional's ongoing application of water-efficient concepts in their area of certification. The oversight committee should establish valid documentation requirements of maintained proficiency. The certifying organization must either request submission of this documentation or have an auditing process in place to ensure individuals are completing their maintained proficiency requirements.

3.0 Application for the WaterSense Label

The organization seeking the label must submit an application to EPA's WaterSense Program for review. The label will be granted upon the approval of an organization's application by WaterSense staff. The application should document that the organization's certification process meets the criteria listed in Section 2.0. The application must include the following materials:

3.1 Letter of Intent

The letter of intent serves to introduce the organization's certification program and should include a background section that describes its certification and reason for seeking the label under EPA's WaterSense Program. The letter should include a statement attesting to the validity of information submitted, and be signed by the chairman of the oversight committee responsible for the certification program and an officer of the organization.

3.2 Identifying Information

Provide the following identifying information for this application: a) Title of certification, b) Name and address of certifying organization, and c) Name, address, phone number, and email address of point of contact with certifying organization.

3.3 Documentation of Independent Oversight Committee Responsibility

For the oversight committee identified in Section 2.1, provide a description of the role, responsibility, and function of the oversight committee within the organization. The description should address the following topics: 1) How committee members are selected or appointed, and 2) Committee member terms of service, such as duration of appointment or nature of compensation, if any. If available, a copy of the organization's by-laws pertaining to the oversight committee may be submitted as documentation.

3.4 Documentation of Independent Oversight Committee Composition

For the current oversight committee, provide each committee member's name, committee position, professional affiliation, and a brief synopsis of irrigation expertise.

3.5 Documentation of the Certification Process

This portion of the application consists of documentation for both the experiential and exam requirements.

3.5.1 Experiential Requirement

The organization must submit a description of the process they use to ensure the experiential requirement listed in Section 2.2 is met as part of the certification process.

3.5.2 Exam Content

The organization must submit a sample certification exam that has been administered no more than 6 months prior to the application date. The sample exam should be annotated to indicate how each subject, listed in Section 2.3.1, is tested in a sufficient manner. This documentation should link exam questions or field demonstration requirements with the subject areas and demonstrate how each subject area was tested. The exam may be claimed as confidential business information and if so, will be safeguarded as such.

3.5.3 Exam Administration

Describe the process used to administer and grade the exam. Indicate what a passing grade is.

3.5.4 Documentation for the Exam Material Review Process

Provide the name and address of the independent academic institution or professional testing organization used to review exam material, and describe the process used by that organization for the review.

3.6 Documentation of the Certification Renewal Process

The organization must submit a description of the certification renewal process, including the documentation required for renewal, or a description of the auditing mechanism used to ensure compliance.

3.7 Letters of Reference

The organization must submit two letters of reference that address how the certification program has benefited water efficiency within their region, their state, or on a national level. One letter must come from a utility and the other from a state agency or regional water district. Both letters must be signed and dated by the individual responsible for the reference.

4.0 Effective Date

This specification is effective on 20 October 2006. Certifying organizations may apply for the label upon release of this specification.

5.0 Renewal Process for the WaterSense Labeling of Certification Programs

The WaterSense label for a certification program is effective for 3 years from the date use of the label is granted. To renew the label, the certifying organization must submit a new application prior to the expiration of the label for review by WaterSense staff. This application must include all materials designated in Section 3.0.

In addition, it is the responsibility of the certifying organization to notify WaterSense of any changes to its program that result in the program no longer meeting the criteria designated in Section 2.0. The WaterSense label will be revoked if the certification program no longer meets the listed criteria.

6.0 Definitions

Irrigation System Designer: Individual who develops the design of new irrigation systems and/or modifications to existing irrigation systems.

Independent Oversight Committee: A committee formed by the certifying organization that supervises the certification program while exercising independent, professional judgment. This committee should act as a governing body for the certification program and be responsible for establishing policies and requirements. It must be established by the organization and be composed of at least three professionals who are recognized for their expertise in the irrigation field. No more than one third of the positions may be held by employees of the certifying organization.

Professional Testing Organization: An organization that supports, or provides for the development or administration of standardized tests, typically on a fee for service basis.

Independent Academic Institution: A public or private institution dedicated to higher education, which grants academic degrees.

Professional Test Administrator: A professional trained to maintain a secure, fair, and consistent testing environment.

Water Management: The practice of creating a water budget by comparing landscape water use to landscape water needs, taking into consideration weather, variability in plant needs, and source water availability. This assessment should include adjustments to the irrigation schedule or irrigation system to balance the water budget.