The Texas Commission on Environmental Quality (TCEQ, agency, or commission) proposes to amend §§344.1, 344.20 - 344.22, 344.24, 344.30, 344.31, 344.33 - 344.38, 344.40, 344.42, 344.43, 344.50 - 344.52, 344.60 - 344.65, 344.70 - 344.72, and 344.80; to repeal §344.32; and new §344.66.

Background and Summary of the Factual Basis for the Proposed Rules

This rulemaking is in response to two petitions submitted by the Irrigator Advisory Council (IAC), which were approved by the commission on October 4, 2017, to initiate rulemaking with stakeholder involvement (Non-Rule Project Numbers 2017-041-PET-NR and 2017-042-PET-NR). The IAC requested that the commission classify all irrigation systems as health hazards; eliminate the use of double check valves; add the use of Spill Resistant Vacuum Breakers; require that the backflow prevention assembly be tested after repair, replacement, or relocation; require the use of in-line filters or strainers as recommended by the manufacturers; and change the term "Backflow prevention devices" to "Backflow prevention assemblies."

The executive director’s staff collected stakeholder feedback on the proposed changes to the IAC’s petitions. Public meetings were held in Austin, Corpus Christi, El Paso, Fort Worth, Harlingen, Houston, Lubbock, and San Antonio. In addition, written comments were received from 207 interested parties. The feedback from the meetings and comments were incorporated into the proposed draft rule language.
In 2007, the 80th Texas Legislature passed three bills directly affecting landscape irrigation. House Bill (HB) 4 and Senate Bill (SB) 3 directed the commission to adopt rules that govern: 1) the connection of an irrigation system to any water supply; 2) the design, installation, and operation of irrigation systems; 3) water conservation; and 4) the duties and responsibilities of irrigators. These rule changes were included in the most recent updates to Chapter 344 that were effective on January 1, 2009. HB 1656 added a new landscape irrigation license classification, irrigation inspector, and directs municipalities with a population of 20,000 or more to adopt ordinances that require irrigation inspectors to be licensed by the commission and irrigators to obtain a permit before installing an irrigation system. Municipalities were required to adopt standards and specifications for irrigation systems and include rules adopted by the TCEQ. Municipalities were required to exempt on-site sewage systems, agricultural irrigation systems, and irrigation systems connected to a well which is used for domestic purposes. HB 1656 gave water districts the option of adopting rules to govern landscape irrigation in their areas. These provisions were not included in the most recent update to Chapter 344 and are proposed to be added with this rulemaking.

This rulemaking would incorporate some of the requested changes made by the two IAC rule petitions, as well as, amend existing sections, repeal a section, and add a new section. These proposed revisions would strengthen the rules and provide for increased protection of the public health and increased water conservation. In addition, this rulemaking would align terms and definitions in this chapter with those
in other, relevant chapters of 30 Texas Administrative Code (TAC). Specifically, definitions are proposed to be amended to align with 30 TAC Chapter 290, Public Drinking Water.

Section by Section Discussion

The commission proposes to make various stylistic, non-substantive changes, such as, grammatical corrections, correct use of references, and revisions to improve readability. Additionally, the commission proposes to remove the word "installers" since this word is no longer recognized by TCEQ and replace the words "backflow prevention devices" with "backflow prevention assemblies." These changes are non-substantive and generally are not specifically discussed in this preamble.

SUBCHAPTER A: DEFINITIONS

§344.1, Definitions

The commission proposes to amend §344.1(1), to align the "Air gap" definition with the air gap definition used in Chapter 290. This is a more technically correct definition and would provide better consistency across the two chapters.

The commission proposes §344.1(2) by adding a definition for "As-built drawing" as recommended in the IAC petition. This term is commonly used in the irrigation industry to refer to the final irrigation plan produced at the completion of an installation.
The commission proposes to remove the definition of "Atmospheric vacuum breaker" in §344.1(2). This was requested in the rule petition because it is no longer a viable form of backflow prevention for irrigation systems. The IAC voted in favor of removing the atmospheric vacuum breaker as an approved backflow prevention assembly for landscape irrigation on August 18, 2016.

The commission proposes to amend the definition of "Backflow prevention" in §344.1(3). The revision is made to improve clarity and add the term "backpressure" as a cause of reversal of flow.

The commission proposes to amend the definition of "Backflow prevention assembly" in §344.1(4). The revision would clarify that this is a mechanical assembly and can be used with health hazard and non-health hazard installations. In addition, the term "backflow" is replaced by "hydraulic conditions" to refer to additional conditions where a backflow prevention assembly is required.

The commission proposes to amend the definition of "Cross-connection" in §344.1(7) to align with the definition used in Chapter 290.

The commission proposes to amend the definition of "Design pressure" in §344.1(9) to improve clarity and reference the head-to-head spacing requirement.
The commission proposes to amend the definition for "Double Check Valve" in §344.1(10) to "Double Check Valve Assembly" to refer to all the parts for the proper operation of the double check valve assembly. The IAC recommended that this definition be removed since it is not appropriate for use if all irrigation systems were classified as a health hazard per the recommendation from the rule petition. Stakeholder feedback from other interested parties did not support removal of this definition or classification of all landscape irrigation as a health hazard. Local programs may elect to restrict usage of these devices.

The commission proposes to amend the definition of "Employed" in §344.1(12) to reference the amended definition of "Irrigation services" in §344.1(20) rather than "consulting services or perform any activity relating to the sale, design, installation, maintenance, alteration, repair, or service to irrigation systems."

The commission proposes to add a definition for "Exempt business owner" in §344.1(13) as referenced in Texas Occupations Code, Chapter 1903 and in Chapter 344 landscape irrigation rules and consistent with the usage in §344.31. This term is currently in §§344.21, 344.22, 344.32, 344.35. Subsequent paragraphs will be renumbered.

The commission proposes to add a definition for "Graywater" in §344.1(14), to align
with 30 TAC Chapter 210, Subchapter F, Use of Graywater Systems. There has been an increase in the use of graywater in irrigation systems and this chapter is being updated to reflect that increase. This change was recommended by the IAC.

The commission proposes to amend the definition of "Head-to-head spacing" in §344.1(15) (previously §344.1(13)) to specify that the water spray must reach from device to device and to allow for a 10% deviation from the manufacturer's published radius. This aligns with the proposed use of this term in §344.62, Minimum Design and Installation Requirements.

The commission proposes to amend the definition of "Health hazard" in §344.1(16) (previously §344.1(14)) to align with the definition used in Chapter 290.

The commission proposes to remove the definition of "Inspector" in §344.1(16) and combine it with the definition of "Irrigation inspector" in §344.1(18) for improved clarity. The definition of "Irrigation inspector" is proposed to be amended accordingly.

The commission proposes to remove the definition for "Installer" in §344.1(17) since there is no longer a license for "installer" in the landscape irrigation program. This is no longer recognized as a valid term in the industry and has been replaced by "irrigation technician." This change was recommended by the IAC.
The commission proposes to amend the definition for "Irrigation inspector" in §344.1(18) to incorporate language from the definition for "Inspector," which is proposed to be removed. This includes adding reference to, "A water district operator, governmental entity, or licensed irrigation inspector who inspects irrigation systems and performs other enforcement duties for a municipality or water district and is required to be licensed under Chapter 30 of this title (relating to Occupational Licenses and Registrations) or a licensed plumbing inspector."

The commission proposes to amend the definition for "Irrigation plan" in §344.1(19) to reference the applicable rules in Chapter 344, Subchapter F, Standards for Designing, Installing and Maintaining Landscape Irrigation Systems, and include the term "as-built drawing," which is proposed to be added as a definition to this section.

The commission proposes to amend the definition for "Irrigation services" in §344.1(20) to make it more inclusive of all activities involving an irrigation system and adding "selling" to the list of services included in this term.

The commission proposes to amend the definition for "Irrigation system" in §344.1(21) to improve clarity.

The commission proposes to amend the definition for "Irrigation technician" in §344.1(22), to improve clarity and to add the term "irrigation services" in place of the
list of services, "install, maintain, alter, repair, service or supervise installation of an irrigation system." This is consistent with the proposed amended definition of "Irrigation services."

The commission proposes to amend the definition for "Irrigation zone" in §344.1(23) to improve clarity.

The commission proposes to amend the definition for "Irrigator" in §344.1(24) to add the term "irrigation services" in place of the list of services, "install, maintain, alter, repair, service or supervise installation of an irrigation system." This is consistent with the proposed amended definition of "Irrigation services."

The commission proposes to amend the definition of "Master valve" in §344.1(31) to remove the term "remote" and to incorporate the term "assembly" for consistency with the proposed amended definition of "Backflow prevention assembly" in this section.

The commission proposes to amend the definition of "New installation" in §344.1(33) to include the "complete replacement of an existing irrigation system." This reflects the practice in the irrigation industry to consider complete replacements as new systems.

The commission proposes to amend the definition of "Non-health hazard" in §344.1(34) to align with the definition used in Chapter 290.
The commission proposes to amend the definition for "Pass-through contract," in §344.1(36) to clarify that it is also considered a sub-contract to reflect irrigation industry practices.

The commission proposes to amend the definition for "Potable water" in §344.1(37) to refer to the definition of "Drinking water" in Chapter 290.

The commission proposes to amend the definition of "Records of landscape irrigation activities" in §344.1(40) to add the term "irrigation services" in place of the list of services, "installation, maintenance, alteration, repair, or service." This is consistent with the proposed amended definition of "Irrigation services."

The commission proposes to amend the definition of "Static water pressure" in §344.1(42) to clarify that "generally, this is the pressure available to the irrigation system." This is consistent with the irrigation industry use of the term.

The commission proposes to amend the definition of "Supervision" in §344.1(43) to remove the reference to the "installer" which is no longer a recognized TCEQ licensed individual. This change was recommended by the IAC.

The commission proposes to add a definition for "Temporary irrigation system" in
§344.1(44), to establish the types of systems addressed in proposed new §344.66 under Chapter 344, Subchapter F.

SUBCHAPTER B, STANDARDS OF CONDUCT FOR IRRIGATORS, INSTALLERS, IRRIGATION TECHNICIANS, AND IRRIGATION INSPECTORS, AND LOCAL REQUIREMENTS

§344.20, Purpose of Standards

The commission proposes to amend §344.20(a) to replace the word "should" with "shall" to better reflect the mandatory nature of this rule.

The commission proposes to amend §344.20(b) to remove the word "installer" as it is no longer a recognized TCEQ licensed individual and to replace the word "should" with "shall" to better reflect the mandatory nature of this rule.

§344.21, Intent

The commission proposes to amend §344.21(a) to remove the word "installer" because it is no longer a recognized TCEQ licensed individual.

The commission proposes §344.21(c) to address exemptions for on-site sewage systems, agricultural irrigation, and irrigation systems connected to a private well to align with statute (HB 1656).
§344.22, Proficiency in the Field of Irrigation; Representation of Qualifications

The commission proposes to amend §344.22 to remove "installers" as it is no longer a recognized TCEQ licensed individual.

§344.24, Local Regulation and Inspection

The commission proposes to amend §344.24(a) to replace "special purpose district" with "water district" to reflect typical organizational structure of districts as they relate to public water supplies.

The commission proposes to amend §344.24(b) to allow for any city, town, county, water district, other political subdivision of the state, or public water supplier to include inspections of the landscape irrigation systems in addition to the connections to the public water supply.

The commission proposes to amend §344.24(c) by removing the reference to "a water district that chooses to implement a landscape irrigation program" and changing the word "must" to "shall" to reflect the mandatory nature of this rule. The previous combined wording was ambiguous that municipalities with a population of 20,000 or more were required to have a program.

The commission proposes to add §344.24(d) to specifically address water districts that choose to implement a landscape irrigation program. "Water district" was included as
per statute and the word "shall" was included to reflect the mandatory nature of these rules. This change was recommended by the IAC.

The commission proposes to remove existing §344.24(d) - (f), related to requirements for inspectors, and adding the language to proposed §344.37(a)(7), Duties and Responsibilities of Irrigation Inspectors, for better clarity.

Subchapter C, REQUIREMENTS FOR LICENSED IRRIGATORS, INSTALLERS, IRRIGATION TECHNICIANS, AND IRRIGATION INSPECTORS

§344.30, License Required

The commission proposes to amend §344.30(a) to incorporate "irrigation services" in place of the list of services, "sells, designs, provides consultation services, installs, maintains, alters, repairs, or services an irrigation system" and to clarify that a licensed irrigator is not an "exempt business owner." This is consistent with the proposed definition for "Exempt business owner" and the amended definition of "Irrigation services" in §344.1.

The commission proposes to remove §344.30(b) since this was a requirement prior to January 1, 2010 and refers to "installer" which is no longer a recognized TCEQ licensed individual. This change was made per recommendation from the IAC. The subsequent subsections have been re-lettered.
The commission proposes §344.30(b) (previously §344.30(c)) to remove "beginning January 1, 2009" since this date has passed and is no longer relevant. There is no change to the description of an irrigation technician.

§344.31, Exemption for Business Owner Who Provides Irrigation Services
The commission proposes to amend the title of this section from "Exemption for Business Owner Who Provides Irrigation Services" to "Responsibilities of a Business Owner Who Provides Irrigation Services."

The commission proposes to combine §344.31 and §344.32, Responsibilities of a Business Owner Who Provides Irrigation Services, since both rules refer to the overall responsibilities for exempt business owners. With this change, §344.31 becomes §344.31(a) and §344.32 becomes §344.31(b). The term "irrigation services" is added to refer to the various services including design, installation, maintenance, alteration, repairing, or servicing of irrigation systems. This is consistent with the amended definition of "Irrigation services" in §344.1. The word "business" is added to "exempt owner" in §344.31(b) (previously §344.32) to align with the definition of exempt business owner in §344.1.

§344.32, Responsibilities of a Business Owner Who Provides Irrigation Services
The commission proposes to repeal §344.32 and add the rule text language as proposed §344.31(b) since both rules refer to the overall responsibilities for exempt
business owners.

§344.33, Display of License

The commission proposes to amend §344.33(a) to remove "installers" as it is no longer a recognized TCEQ licensed individual.

§344.34, Use of License

The commission proposes to amend §344.34(b) to add "or entity" to broaden the applicability of this rule to include businesses and to remove "licensed installer" as it is no longer a recognized TCEQ licensed individual. The commission proposes to amend §344.34(d) to remove references to installer as it is no longer a recognized TCEQ licensed individual.

§344.35, Duties and Responsibilities of Irrigators

The commission proposes to amend §344.35(c) to clarify that the "irrigator-in-charge" is responsible for the irrigation services performed by the exempt business owner's company.

The commission proposes to amend §344.35(d)(1) to remove "stamp or rubber" to accommodate different approved types of an irrigator's seal. The TCEQ recognizes that emerging technology will provide different approved ways for irrigators to display and use their seal.
The commission proposes to amend §344.35(d)(9) to remove "system beginning January 1, 2010." This date has passed and is no longer relevant.

The commission proposes to amend §344.35(d)(10) and (12) (previously §344.35(d)(13)) to refer to "conducting irrigation services" as defined in §344.1 rather than listing specific services.

The commission proposes to remove §344.35(d)(11) since this requirement applies to an "installer" which is no longer a recognized TCEQ licensed individual. Subsequent paragraphs are renumbered.

§344.36, Duties and Responsibilities of Installers and Irrigation Technicians
The commission proposes to amend the section of this title from "Duties and Responsibilities of Installers and Irrigation Technicians" to "Duties and Responsibilities of Irrigation Technicians." The commission proposes to amend §344.36(a) to clarify that irrigation technicians are required to work under the supervision of a licensed irrigator and to remove references to "installer" since it is no longer a recognized TCEQ licensed individual;

The commission proposes §344.36(a)(1) to include the connection of an irrigation system to a water supply.
The commission proposes §344.36(a)(2) to include the installation requirement of an approved backflow prevention assembly, to be consistent with the proposed revised definition of §344.1.

The commission proposes §344.36(a)(3) referencing "irrigation services" as defined in §344.1 rather than listing specific services.

The commission proposes to add §344.36(a)(4) to include the requirement to conduct the final walkthrough as required by §344.63.

The commission proposes to remove §344.36(c) since this requirement applies to an "installer" which is no longer a recognized TCEQ licensed individual. Subsequent subsection is re-lettered.

The commission proposes §344.36(d) to include the requirement that an irrigation technician shall not act as an irrigator nor advertise or offer to perform irrigation services.

§344.37, Duties and Responsibilities of Irrigation Inspectors

The commission proposes to amend §344.37(a) to include "licensed plumbing inspector" as being qualified to conduct irrigation system inspections and to move the
The commission proposes to amend §344.37(b) to include water district’s operators and to move the recordkeeping requirement for irrigation inspectors from §344.24(d) to §344.37(b)(7) and to remove reference to "installer" since this is no longer a recognized licensed individual.

The commission proposes to remove the requirements to verify licensure from §344.37(b)(1) to proposed §344.37(b)(2) and to add water district operator. Subsequent paragraphs are renumbered.

The commission proposes to remove the requirement in §344.37(b)(6) which lists specific types of irrigation activities to be investigated in order to simplify this rule.

The commission proposes to amend §344.37(b)(7) to include, in full, the recordkeeping requirements for irrigation inspectors (previously in §344.24(d)).

§344.38, Irrigator, Installer, and Irrigation Technician Records

The commission proposes to amend the title of this section from "Irrigator, Installer, and Irrigation Technician Records" to "Irrigator Records."

The commission proposes to revise this section to remove references to "rubber
stamp" and leave the more general requirement for "seal" to allow for alternate types of seals. This section was also revised to remove references to records kept by installers and irrigation technicians. Installer is no longer a recognized licensed individual and there are no specific recordkeeping requirements for irrigation technicians.

SUBCHAPTER D, LICENSED IRRIGATOR SEAL

§344.40, Seal Required

The commission proposes to amend §344.40 so that the rule is strengthened against the inappropriate use of an irrigator’s seal. This is to prevent occasions when an irrigator allows another person to use their seal, changes the format of their seal so that it does not meet the requirements in §344.41, or does not sign and date their seal.

§344.42, Seal Display

The commission proposes to amend §344.42(b) to remove references to a specific type of media used to produce the seal. The TCEQ recognizes that emerging technology will provide different approved ways for irrigators to display and use their seal.

§344.43, Seal Use

The commission proposes to amend §344.43(e) to simplify the language so that it is consistent with the rest of the rule.
The commission proposes to amend §344.43(e)(1) so that the language regarding the change aligns with §344.43(e).

The commission proposes to amend §344.43(e)(2) to clarify that the irrigator making the change is responsible for that change.

The commission proposes to amend §344.43(e)(3) to require that the irrigator must seal any changes made.

The commission proposes to amend §344.43(f) to specify that the irrigator is responsible for the portion of the irrigation plan they created or changed.

SUBCHAPTER E, BACKFLOW PREVENTION AND CROSS-CONNECTION

§344.50, Backflow Prevention Methods

The commission proposes to amend §344.50(a) to eliminate the requirement for approval of backflow prevention assemblies. It was determined that there was no practical way to meet this requirement. Instead, the requirement is to install the assembly per manufacturer’s recommendations and to test it. This is consistent with the requirements in Chapter 290.

The commission proposes to amend §344.50(b) to align with the definition of an air gap in §344.1(1).
The commission proposes to amend §344.50(b)(2) to reference the installation and testing requirements in §344.50(a).

The commission proposes to amend §344.50(b)(3) to reference the installation and testing requirements in §344.50(a) and describe the hydraulic conditions under which the assembly will work. The word "device" was changed to “assembly” per the rule petition.

The commission proposes to amend §344.50(b)(4) to replace atmospheric vacuum breakers (AVBs) as an option for backflow prevention with spill resistant vacuum breakers (SVB) per the recommendation from the rule petition. In practice, AVBs are recognized as not adequate for backflow prevention on irrigation systems because they will not function correctly with a downstream valve. Currently available sprinkler heads are equipped with check valves in order to conserve water and these are not functional with AVBs. Since AVBs cannot be used with a valve downstream of them, each individual zone would have to have its own AVB. AVBs must be installed a minimum of six inches above the highest downstream emission device. These factors increase the cost and complexity of installation with no appreciable benefit.

The commission proposes to amend §344.50(b)(4)(A) to also specify potential for back-pressure.
The commission proposes to amend §344.50(b)(4)(B) to specify the minimum installation height and that it is determined from the highest downstream opening.

Spill resistant vacuum breakers (SVBs) were included as an option for backflow prevention. Requirements for the correct hydraulic conditions (no backpressure) and height installation requirements were included in the requirements for SVBs. These changes were recommended by the rule petition.

The commission proposes to remove the current language in §344.50(c) and include it in proposed §344.50(e) per recommendation from the rule petition. Subsequent subsections are re-lettered.

The commission proposes §344.50(c) (formerly subsection (d)) to replace the word "device" with the word “assembly.”

The commission proposes to amend §344.50(c)(1) to add the word "and" for better readability.

The commission proposes to amend §344.50(c)(2) to eliminate the language referencing backpressure since this information was determined to be incorrect. Subsequent paragraph is renumbered.
The commission proposes to amend §344.50(d) (formerly subsection (e)) to include the word "assemblies" and to specify the installation requirements.

The commission proposes to amend §344.50(d)(3) to remove the requirement for the Y-type strainer as the maintenance requirements to periodically clean it did not make it practical to use. Subsequent paragraphs are renumbered.

The commission proposes to amend §344.50(d)(3) to specify that there must be clearance around the assembly to facilitate testing.

The commission proposes to add §344.50(e) to specify testing requirements for backflow prevention assemblies especially those installed to protect against health hazards. This change was requested by the rule petition.

§344.51, Specific Conditions and Cross-Connection Control

The commission proposes to amend §344.51(a) to make it applicable to any method where a chemical can be introduced into an irrigation system which will increase the hazard to the potable water supply. This language was removed from §344.51(c) and moved to §344.51(a).

The commission proposes §344.51(b) to address the hazard posed by those irrigation
system components with chemical additives added to them in the manufacturing process. Subsequent subsection is re-lettered.

The commission proposes to remove §344.51(b) and move it down one subsection to §344.51(c). The language remains the same.

The commission proposes to amend §344.51(d)(1) and (2) to clearly specify that an irrigation system on a site that also has an On-site Sewage Facility (OSSF) is considered a health hazard.

§344.52, Installation of Backflow Prevention Device

The commission proposes to amend the title of this section from "Installation of Backflow Prevention Device" to "Installation of Backflow Prevention Assembly."

The commission proposes to amend §344.52(b) to add the word "prevention" as it is the correct term.

The commission proposes to amend §344.52(c) to remove the requirement to provide a test report to the "irrigation system's owner or owner's representative" and to replace the word "device" with assembly. This aligns with the requirements in Chapter 290.

SUBCHAPTER F, STANDARD FOR DESIGNING, INSTALLING AND MAINTAINING
LANDSCAPE IRRIGATION SYSTEMS

§344.60, Water Conservation

The commission proposes to update the reference regarding the definition of water conservation from §344.1(44) to §344.1(45).

§344.61, Minimum Standards for the Design of the Irrigation Plan

The commission proposes to amend §344.61(a) to stress the uniqueness of each individual irrigation system and the irrigation plan for it. These changes were also made to address occasions where the same irrigation plan is used multiple times for different sites. The requirement of drawing showing actual installation has been removed from §344.61(a) and is addressed in the proposed amendment to §344.61(c). Language addressing how variances from the original plan can be authorized has been removed from §344.61(a) and is addressed in the proposed amendment to §344.61(d) and (e).

The commission proposes to amend §344.61(b) to specify that the irrigation plan shall clearly show that those areas to be watered were adequately covered and those that were not were clearly identified. This change was made per recommendation from the IAC.

The commission proposes to amend §344.61(c)(2) to reference the requirements in §344.61(b) and specify some common physical features of a site to be irrigated.
The commission proposes to amend §344.61(c)(4) to specify what should be included on the legend of the irrigation plan and prevent irrigation plans with legends that do not adequately describe the symbols used on the irrigation plan. This change was made per recommendation from the IAC.

The commission proposes to amend §344.61(c)(5) to specify what is expected on the irrigation plan in regard to the zone flow measurement and eliminate occasions where the zone flow measurement does not include the station number or valve size. This change was made per recommendation from the IAC.

The commission proposes to amend §344.61(c)(7) to establish that specifications are required for all irrigation system components and lists some of the required information.

The commission proposes to add §344.61(d) to specify that changes shall be clearly noted in red ink and places requirements on the change itself. This language was moved from §344.61(a).

The commission proposes to add §344.61(e) to specify that the as-built drawing provided to the owner or owner's representative shall clearly show all the changes made to the irrigation plan.
§344.62, Minimum Design and Installation Requirements

The commission proposes to amend §344.62(b)(1) to allow for a 10% discrepancy from the manufacturer's published radius in the spacing of emission devices. This will accommodate variations in installations. This change was made per recommendation from the IAC.

The commission proposes to amend §344.62(b)(3) to generalize the requirement for directional spray of emission devices away from impervious surfaces to all irrigation systems and to clarify that this is a requirement for all installations. Exempted areas that drain into a landscaped area have been added.

The commission proposes to amend §344.62(c) to include the requirement to provide the optimum pressure for an emission device and promote water conservation while adequately watering the site. This change was made per recommendation from the IAC.

The commission proposes to amend §344.62(d) to clarify that the acronym "PVC" means polyvinyl chloride.

The commission proposes to amend §344.62(g) to further clarify that water shall not be sprayed on surfaces made of impervious materials.
The commission proposes to amend §344.62(l) to specify that the required depth is six inches and is measured from the topmost pipe so that multiple pipes laid in one trench do not impinge on the depth requirement. For example, irrigators may lay multiple pipes in one trench and the topmost pipe may only be three inches from the surface not the required six inches. This change was made per recommendation from the IAC.

The commission proposes to amend §344.62(n) to specify that the lid of the valve box shall be color-coded purple and not just the box. This is because the box is buried in the ground and is not visible while the lid is visible. This change was made per recommendation from the IAC.

The commission proposes to amend §344.62(o) to remove the effective date as it has passed.

The commission proposes to add §344.62(p) to provide clear requirements for valves and other irrigation system components to be housed in valve boxes. These components are buried, if they are not housed in a valve box, they cannot be located.

§344.63, Completion of Irrigation System Installation

The commission proposes to amend §344.63 to clarify that this section applies to the
irrigator and to the irrigation technician. The introductory statement has been amended to specify 'on-site' supervision for the installation and requires the installer to provide the items listed in §344.63(1) - (4).

The commission proposes to amend §344.63(2) to specify that the completed maintenance checklist shall be provided to the owner or owner's representative.

The commission proposes to amend §344.63(2)(A) to accommodate occasions when an automatic controller is not used. Some irrigation systems do not use an automatic controller to turn the different zones on and off and instead use a valve turned by hand.

The commission proposes to amend §344.63(2)(B) to provide better clarity and to provide the meaning of the acronym “historical ET” which means ‘historical evapotranspiration.’

The commission proposes to amend §344.63(2)(C) by providing a more concise explanation of irrigation components that should be listed for maintenance and frequency of service.

The commission proposes to amend §344.63(2)(D) to improve clarity and to include the defined term §344.1(2) "as-built drawing" which is occasionally provided to the
owner or owner's representative upon completion of the installation.

The commission proposes to amend §344.63(3) to clarify that the ink on the irrigator's sticker shall be waterproof.

The commission proposes to amend §344.63(4) to include the defined term in §344.1(2) "as-built drawing" which is commonly used in the industry and provided to the owner or owner's representative at completion.

§344.64, Maintenance, Alteration, Repair, or Service of Irrigation Systems

The commission proposes to remove existing §344.64(a) to and move it to §344.72(c) concerning Warranties.

The commission proposes to amend §344.64(a) (previously subsection (b)) to specify that trenches shall be filled with soil free of any objects that could damage the irrigation system and should be compacted to eliminate depressions that could develop if not compacted.

The commission proposes to amend §344.64(b) (previously subsection (c)) to provide a meaning for the acronym PVC.

The commission proposes to amend §344.64(c) (previously subsection (d)) to clarify
the location of the isolation valve, to replace the word "device" with "assembly" as per
the rule petition, and to reference the installation requirements in §344.62(k).

§344.65, Reclaimed Water
The commission proposes to amend §344.65(4) to clarify that the backflow prevention
assembly is required to be on the water line providing water to the entire site in order
to protect against contamination.

The commission proposes to amend §344.65(5) to add wording specifying a minimum
"eight-inch by eight-inch" sign be posted for reclaimed water use.

§344.66, Temporary Irrigation Systems
The commission proposes new §344.66 to provide rules that regulate temporary
irrigation systems in order to provide for water conservation and protection of the
public health.

The commission proposes new §344.66(a) to clarify that temporary irrigation systems
must be installed by appropriately licensed individuals.

The commission proposes new §344.66(b) to clarify that temporary irrigation systems
connected to potable water supplies pose a contamination hazard and require
backflow prevention.
The commission proposes new §344.66(c) to clarify that temporary irrigation systems must be installed in a manner that conserves water.

The commission proposes new §344.66(d) to clarify that temporary irrigation systems must be temporary and must have a definite end date at which time they will be removed.

SUBCHAPTER G, ADVERTISING, CONTRACT, AND WARRANTY

§344.70, Advertisement
The commission proposes to amend §344.70(a) to simplify the section by using the term "irrigation services" and to specify that the irrigator's license number must be visible on both outward sides of the vehicle used to advertise irrigation services.

The commission proposes to amend §344.70(b) to apply the requirement regardless of the media used to advertise. This change was made per recommendation from the IAC.

The commission proposes to amend §344.70(c) to clarify the location of the of the information available to the public for complaint purposes.

§344.71, Contracts
The commission proposes to amend §344.71(a) and (b) to provide the correct TCEQ
website address and Mail Code information.

The commission proposes to amend §344.71(c) to clarify that regardless of the existence of a pass-through contract, the irrigator is still responsible for providing a warranty to the owner or owner's representative.

§344.72, Warranties
The commission proposes to amend §344.72(b) to provide the correct TCEQ website address and Mail Code information.

The commission proposes to amend §344.72(c) to specify that during the warranty period the irrigator is responsible for the work they performed or that was performed under their supervision. This section also relieves the irrigator of any responsibility for work performed by any other individual on an irrigation system they installed.

SUBCHAPTER H, IRRIGATOR ADVISORY COUNCIL

§344.80, Irrigator Advisory Council
The commission proposes to amend §344.80(e) to clarify that the council member terms are staggered with three members terms ending each odd-numbered year. The commission proposes further amending §344.80(e) to clarify that interim members are selected to serve the remainder of the departing member's term.
Fiscal Note: Costs to State and Local Government

Jené Bearse, Analyst in the Budget and Planning Division, determined that for the first five-year period the proposed rulemaking is in effect, no fiscal implications are anticipated for the agency or for other units of state or local government as a result of administration or enforcement of the proposed rules.

The proposed rulemaking includes a clarification in §344.24, which brings the section into compliance with Texas Local Government Code, §551.006. This state law requires a municipality with a population of more than 20,000 people to adopt an ordinance with minimum standards for irrigation systems, including a permit for installers. The inclusion of this clarification in the proposed rulemaking may result in an agency enforcement action if a municipality is found to be out of compliance. This possible enforcement action may include penalties, which would result in a fiscal impact to a unit of local government and the state. The agency has identified 17 municipalities that have not yet adopted the ordinance referenced in §344.24.

For the purpose of this fiscal note, the agency assumes that all municipalities would comply with state law and the proposed rulemaking, and no enforcement action will be required.

Public Benefits and Costs

Ms. Bearse determined that for each year of the first five years the proposed rules are
in effect, the public benefit anticipated would be improved readability and compliance with state law, as well as increased protection of public health and better water conservation. The proposed rulemaking is not anticipated to result in significant fiscal implications for businesses or individuals.

Under the Texas Local Government Code, §551.006(d), municipalities have the option of recovering their administrative costs by charging a fee to licensed individuals who are obtaining or renewing a municipal permit.

**Local Employment Impact Statement**

The commission reviewed this proposed rulemaking and determined that a Local Employment Impact Statement would not be required because the proposed rulemaking would not adversely affect a local economy in a material way for the first five years that the proposed rulemaking would be in effect.

**Rural Communities Impact Assessment**

The commission reviewed this proposed rulemaking and determined that the proposed rulemaking would not adversely affect rural communities in a material way for the first five years that the proposed rulemaking would be in effect. The proposed rulemaking does reference a state law which requires a municipality with more than 20,000 people to adopt an ordinance with minimum standards for irrigation systems. The agency estimates that 10 municipalities with a population between 20,000 and
25,000 people would need to adopt an ordinance.

**Small Business and Micro-Business Assessment**

No adverse fiscal implications are anticipated for small or micro-businesses due to the implementation or administration of the proposed rules for the first five-year period the proposed rulemaking would be in effect.

**Small Business Regulatory Flexibility Analysis**

The commission reviewed this proposed rulemaking and determined that a Small Business Regulatory Flexibility Analysis is not required because the proposed rulemaking would not adversely affect a small or micro-business in a material way for the first five years the proposed rulemaking is in effect.

**Government Growth Impact Statement**

The commission prepared a Government Growth Impact Statement assessment for this proposed rulemaking. The proposed rulemaking would not create or eliminate a government program and would not require an increase or decrease in future legislative appropriations to the agency. The proposed rulemaking would not require the creation of new employee positions, eliminate current employee positions, nor require an increase or decrease in fees paid to the agency. The proposed rulemaking would not create, expand, repeal or limit an existing regulation, nor would it increase or decrease the number of individuals subject to its applicability. During the first five
years, the proposed rules should not impact positively or negatively the state’s economy.

**Draft Regulatory Impact Analysis Determination**

The commission reviewed the proposed rulemaking in light of the regulatory analysis requirements of the Texas Administrative Procedure Act, Texas Government Code, §2001.001 *et. seq.*, and determined that the rulemaking is not subject to Texas Government Code, §2001.0225, because it does not meet the definition of a “Major environmental rule” as defined in Texas Government Code, §2001.0225(g)(3). A “Major environmental rule” means a rule, the specific intent of which, is to protect the environment or reduce risks to human health from environmental exposure and that may adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, or the public health and safety of the state or a sector of the state. The intent of the proposed rulemaking is to strengthen the rules and provide for better protection of public health and better water conservation. In addition, this rulemaking seeks to align terms and definitions in this chapter with those in other, relevant chapters of 30 TAC. Specifically, definitions are proposed to be amended to align with Chapter 290. Protection of human health and the environment may be a by-product of the proposed rules, but it is not the specific intent of the rules. Therefore, the commission concludes that the proposed rules do not constitute a major environmental rule.
Furthermore, the proposed rules do not meet any of the four applicability requirements listed in Texas Government Code, §2001.0225(a). Texas Government Code, §2001.0225, applies only to a major environmental rule which: 1) exceeds a standard set by federal law, unless the rule is specifically required by state law; 2) exceeds an express requirement of state law, unless the rule is specifically required by federal law; 3) exceeds a requirement of a delegation agreement or contract between the state and an agency or representative of the federal government to implement a state and federal program; or 4) adopts a rule solely under the general powers of the agency instead of under specific state law.

The proposed rules do not exceed a federal standard because there are no federal standards regulating the practice of landscape irrigation. The proposed rules do not exceed state law requirements. Also, the proposed rules do not exceed a requirement of an agreement because there are no delegation agreements or contracts between the state of Texas and an agency or representative of the federal government to implement a state and federal program regarding landscape irrigation. And finally, these rules are being proposed under specific state laws, in addition to the general powers of the agency.

Therefore, Texas Government Code, §2001.0225, is not applicable to these proposed rules. The commission invites comment on the draft regulatory impact determination.
Written comments on the Draft Regulatory Impact Analysis Determination may be submitted to the contact person at the address listed under the Submittal of Comments section of this preamble.

**Takings Impact Assessment**

The commission evaluated these proposed rules and performed an analysis of whether these proposed rules constitute a taking under Texas Government Code, Chapter 2007. The specific purpose of the proposed rulemaking is to strengthen the rules and provide for better protection of public health and better water conservation. In addition, this rulemaking seeks to align terms and definitions in this chapter with those in other, relevant chapters of 30 TAC. Specifically, definitions are proposed to be amended to align with Chapter 290.

Promulgation and enforcement of these proposed rules would be neither a statutory nor a constitutional taking of private real property. Specifically, the subject proposed regulations do not affect a landowner’s rights in private real property because the proposed rules would neither burden nor restrict or limit the owner’s right to property and reduce its value by 25% or more beyond that which would otherwise exist in the absence of these regulations. In other words, these rules would not constitute a statutory or constitutional taking because they only update existing rules to comply with current technical standards and conservation methods and do not affect a landowner’s rights in private real property.
Consistency with the Coastal Management Program

The commission reviewed the proposed rulemaking and found that it is not a rulemaking identified in Coastal Coordination Act implementation rules, 31 TAC §505.11(b)(2) or (4), nor would the proposed rules affect any action or authorization identified in Coastal Coordination Act implementation rules, 31 TAC §505.11(a)(6). Therefore, the proposed rulemaking is not subject to the Texas Coastal Management Program (CMP).

Written comments on the consistency of this rulemaking with the CMP goals and policies may be submitted to the contact person at the address listed under the Submittal of Comments section of this preamble.

Announcement of Hearing

The commission will hold a public hearing on this proposal in Austin on February 27, 2020, at 2:00pm in Building E, Room 201S, at the commission’s central office located at 12100 Park 35 Circle. The hearing is structured for the receipt of oral or written comments by interested persons. Individuals may present oral statements when called upon in order of registration. Open discussion will not be permitted during the hearing, however commission staff members will be available to discuss the proposal 30 minutes prior to the hearing.
Persons who have special communication or other accommodation needs who are planning to attend the hearing should contact Sandy Wong, Office of Legal Services at (512) 239-1802 or 1-800-RELAY-TX (TDD). Requests should be made as far in advance as possible.

**Submittal of Comments**

Written comments may be submitted to Andreea Vasile, MC 205, Office of Legal Services, Texas Commission on Environmental Quality, P.O. Box 13087, Austin, Texas 78711-3087, or faxed to (512) 239-4808. Electronic comments may be submitted at: https://www6.tceq.texas.gov/rules/ecomments/. File size restrictions may apply to comments being submitted via the eComments system. All comments should reference Rule Project Number 2018-004-344-CE. The comment period closes on March 3, 2020. Copies of the proposed rulemaking can be obtained from the commission’s website at https://www.tceq.texas.gov/rules/propose_adopt.html. For further information, please contact Al Fuentes, Program Support and Environmental Assistance Division, (512) 239-0400.
SUBCHAPTER A: DEFINITIONS

§344.1

Statutory Authority

The amendment is proposed under Texas Water Code (TWC), §5.013, concerning the General Jurisdiction of the Commission; TWC, §5.102, concerning General Powers; TWC, §5.103, concerning Rules; TWC, §5.105, concerning General Policy; TWC, §5.107, concerning Advisory Committees, Work Groups, and Task Forces; TWC, Chapter 37, §§37.001 - 37.015, concerning: Definitions; Rules; License or Registration Required; Qualifications; Issuance and Denial of Licenses and Registrations; Renewal of License or Registration; Licensing Examinations; Training; Continuing Education; Fees; Advertising; Complaints; Compliance Information; Practice of Occupation; Roster of License Holders and Registrants; and Power to Contract; and under TWC, §49.238, concerning Irrigation Systems. The amendment is also proposed under Texas Occupations Code, §1903.001, concerning Definitions; Texas Occupations Code, §1903.002, concerning Exemptions; Texas Occupations Code, §1903.053, concerning Standards; Texas Occupations Code, §1903.151, concerning Council Membership; Texas Occupations Code, §1903.152, concerning Eligibility of Public Members; Texas Occupations Code, §1903.155, concerning Presiding Officer; Texas Occupations Code, §1903.157, concerning Meetings; Texas Occupations Code, §1903.158, concerning Per Diem; Reimbursement; Texas Occupations Code, §1903.159, concerning Council Duties; and Texas Occupations Code, §1903.251, concerning License Required. The amendment is proposed under Texas Local Government Code, §551.006, concerning
Irrigation Systems. Finally, the amendment is also proposed under Texas Health and Safety Code (THSC), §341.033, concerning Protection of Public Water Supplies; and THSC, §341.034, concerning Licensing and Registration of Persons Who Perform Duties Relating to Public Water Supplies.

The proposed amendment implements TWC, §§5.013, 5.102, 5.103, 5.105, 5.107, 37.001 - 37.015 and 49.238; Texas Occupations Code, §§1903.001, 1903.002, 1903.053, 1903.151, 1903.152, 1903.155, 1903.157, 1903.158, 1903.159, and 1903.251; Texas Local Government Code, §551.006; and THSC, §341.033 and §341.034.

§344.1. Definitions.

The following words and terms, when used in this chapter, have the following meanings, unless the context clearly indicates otherwise.

(1) Air gap--The unobstructed vertical distance through the free atmosphere between the lowest opening from any pipe or faucet conveying water to a tank, fixture, receptor, sink, or other assembly and the flood level rim of the receptacle. The vertical, physical separation must be at least twice the diameter of the water supply outlet, but never less than 1.0 inch. [A complete physical separation between the free-flowing discharge end of a potable water supply pipeline and an open or non-pressure receiving vessel.]
(2) As-built drawing--The final irrigation plan produced at the completion of an irrigation system installation and provided to the irrigation system's owner or the owner's representative. The as-built drawing(s) will reflect all changes made to the original irrigation plan and/or specifications during the construction process and show all aspects of the irrigation system including the dimensions, geometry, and location of all elements of the irrigation system. May be referred to as "record drawings" or "as-builts."

[(2) Atmospheric Vacuum Breaker--An assembly containing an air inlet valve, a check seat, and an air inlet port. The flow of water into the body causes the air inlet valve to close the air inlet port. When the flow of water stops the air inlet valve falls and forms a check against back-siphonage. At the same time, it opens the air inlet port allowing air to enter and satisfy the vacuum. Also known as an Atmospheric Vacuum Breaker Back-siphonage Prevention Assembly.]

(3) Backflow prevention--The [mechanical] prevention of the reversal of [reverse] flow, due to [or] back siphonage or backpressure, of nonpotable water from an irrigation system into the potable water supply [source].

(4) Backflow prevention assembly--A mechanical [Any] assembly used to prevent backflow into a potable water system. The type of assembly used is based on
the [existing or potential] degree of [health] hazard (health hazard or non-health hazard) and hydraulic conditions [backflow condition].

(5) Completion of irrigation system installation--When the landscape irrigation system has been installed, all minimum standards met, all tests performed, and the irrigator is satisfied that the system is operating correctly.

(6) Consulting--The act of providing advice, guidance, review or recommendations related to landscape irrigation systems.

(7) Cross-connection--A physical connection between a public water system and either another supply of unknown or questionable quality, any source which may contain contaminating or polluting substances, or any source of water treated to a lesser degree in the treatment process. [An actual or potential connection between a potable water source and an irrigation system that may contain contaminates or pollutants or any source of water that has been treated to a lesser degree in the treatment process.]

(8) Design--The act of determining the various elements of a landscape irrigation system that will include, but not limited to, elements such as collecting site specific information, defining the scope of the project, defining plant watering needs, selecting and laying out emission devices, locating system components, conducting
hydraulic [hydraulics] calculations, identifying any local regulatory requirements, or scheduling irrigation work at a site. Completion of the various components will result in an irrigation plan.

(9) Design pressure--The pressure that is required for an emission device to operate properly and in conjunction with the head-to-head spacing requirement. Design pressure is [calculated by adding] the sum of the minimum operating pressure of [necessary at] an emission device to the total of all pressure losses accumulated from the [an] emission device to the water source.

(10) Double Check Valve Assembly--An assembly that is composed of two independently acting, [approved] check valves, including tightly closing [closed] resilient seated shutoff valves attached at each end of the assembly and fitted with properly located resilient seated test cocks. Also known as a Double Check Valve Backflow Prevention Assembly.

(11) Emission device--Any device that is contained within an irrigation system and that is used to apply water. Common emission devices in an irrigation system include, but are not limited to, spray and rotary sprinkler heads, and drip irrigation emitters.
(12) Employed--The state of being engaged [Engaged] or hired to provide irrigation services [consulting services or perform any activity relating to the sale, design, installation, maintenance, alteration, repair, or service to irrigation systems.] and of being [A person is employed if that person is] in an employer-employee relationship as defined by Internal Revenue Code, 26 United States Code Service, §3212(d) based on the behavioral control, financial control, and the type of relationship involved in performing employment related tasks.

(13) Exempt business owner--an owner of a business who employs a licensed irrigator to supervise the irrigation services performed by the business as referenced in Texas Occupations Code, Chapter 1903.

(14) Graywater--wastewater from showers, bathtubs, handwashing lavatories, sinks that are used for disposal of household or domestic products, sinks that are not used for food preparation or disposal, and clothes-washing machines. Graywater does not include wastewater from the washing of material, including diapers, soiled with human excreta or wastewater that has come into contact with toilet waste.

(15) [(13)] Head-to-head spacing--The spacing of emission devices such that the distance between them is within [spray or rotary heads equal to] the
manufacturer's published radius range and the water spray reaches from device to
device [of the head]. A deviation of 10% or less is acceptable.

(16) [(14)] Health hazard--A cross-connection, potential contamination hazard, or other situation involving any substance that can cause death, illness, spread of disease, or has a high probability of causing such effects if introduced into the potable drinking water supply. [A cross-connection or potential cross-connection with an irrigation system that involves any substance that may, if introduced into the potable water supply, cause death or illness, spread disease, or have a high probability of causing such effects.]

(17) [(15)] Hydraulics--The science of dynamic and static water; the mathematical computation of [determining] pressure losses and/or [and] pressure requirements of an irrigation system.

[(16) Inspector--A licensed plumbing inspector, water district operator, other governmental entity, or irrigation inspector who inspects irrigation systems and performs other enforcement duties for a municipality or water district as an employee or as a contractor.]

[(17) Installer--A person who actually connects an irrigation system to a private or public raw or potable water supply system or any water supply, who is
licensed according to Chapter 30 of this title (relating to Occupational Licenses and Registrations).]

(18) Irrigation inspector--A water district operator, governmental entity, or licensed irrigation inspector who inspects irrigation systems and performs other enforcement duties for a municipality or water district and is required to be licensed under Chapter 30 of this title (relating to Occupational Licenses and Registrations) or a licensed plumbing inspector. [A person who inspects irrigation systems and performs other enforcement duties for a municipality or water district as an employee or as a contractor and is required to be licensed under Chapter 30 of this title (relating to Occupational Licenses and Registrations).]

(19) Irrigation plan--A scaled drawing of a new landscape irrigation system to be installed. The irrigation plan shall meet all the requirements in §§344.60 - 344.65 of this title (relating to Water Conservation; Minimum Standards for the Design of the Irrigation Plan; Minimum Design and Installation Requirements; Completion of Irrigation System Installation; Maintenance, Alteration, Repair, or Service of Irrigation Systems; and Reclaimed Water) and is provided as an as-built drawing to the owner or owner's representative upon completion of the irrigation system installation [which lists required information, the scope of the project, and represents the changes made in the installation of the irrigation system].
(20) Irrigation services--All activities involving an irrigation system including, selling [Selling], designing, installing, maintaining, altering, repairing, servicing, permitting, [providing] consulting services [regarding], or connecting an irrigation system to a water supply.

(21) Irrigation system--A system permanently installed on a site and that is composed of an [An] assembly of component parts [that is permanently installed] for the controlled distribution and conservation of water to irrigate, reduce dust, and control erosion in any type of landscape vegetation in any location[, and/or to reduce dust or control erosion]. This term does not include a system that is used on or by an agricultural operation as defined by Texas Agricultural Code, §251.002.

(22) Irrigation technician--A person who works under the supervision of a licensed irrigator to perform irrigation services [install, maintain, alter, repair, service or supervise installation of an irrigation system,] including the connection of an irrigation [such] system [in or] to a private or public, raw or potable water supply system or any other water supply, and who is required to be licensed under Chapter 30 of this title (relating to Occupational Licenses and Registrations).

(23) Irrigation zone--A subdivision of an irrigation system with a matched precipitation rate based on plant [material] type ([such as] turf, shrubs, or trees), microclimate ([factors] ([such as] sun/shade ratio), topographic features, [(such as}
slope) and soil type ([conditions] [such as] sand, loam, clay, or combination), and [or for] hydrological control.

(24) Irrigator--A person who performs irrigation services [sells, designs, offers consultations regarding, installs, maintains, alters, repairs, services] and/or [or] supervises the installation of an irrigation system, including the connection of such system to a private or public, raw or potable water supply system or any water supply, and who is required to be licensed under Chapter 30 of this title (relating to Occupational Licenses and Registrations).

(25) Irrigator-in-Charge--The irrigator responsible for all irrigation work performed by an exempt business owner, including, but not limited to obtaining permits, developing design plans, supervising the work of other irrigators or irrigation technicians, and installing, selling, maintaining, altering, repairing, or servicing a landscape irrigation system.

(26) Landscape irrigation--The science of applying the necessary amount of water to promote or sustain healthy growth of plant material or turf.

(27) License--An occupational license that is issued by the commission under Chapter 30 of this title (relating to Occupational Licenses and Registrations) to
an individual that authorizes the individual to engage in an activity that is covered by this chapter.

(28) Mainline--A pipe within an irrigation system that delivers water from the water source to the individual zone valves.

(29) Maintenance checklist--A document made available to the irrigation system's owner or owner's representative that contains information regarding the operation and maintenance of the irrigation system, including, but not limited to: checking and repairing the irrigation system, setting the automatic controller, checking the rain or moisture sensor, cleaning filters, pruning grass and plants away from irrigation emitters, using and operating the irrigation system, the precipitation rates of each irrigation zone within the system, any water conservation measures currently in effect from the water purveyor, the name of the water purveyor, a suggested seasonal or monthly watering schedule based on current evapotranspiration data for the geographic region, and the minimum water requirements for the plant material in each zone based on the soil type and plant material where the system is installed.

(30) Major maintenance, alteration, repair, or service--Any activity that involves opening to the atmosphere the irrigation main line at any point prior to the discharge side of any irrigation zone control valve. This includes, but is not limited to,
repairing or connecting into a main supply pipe, replacing a zone control valve, or repairing a zone control valve in a manner that opens the system to the atmosphere.

(31) Master valve--A [remote] control valve located after the backflow prevention assembly [device] that controls the flow of water to the irrigation system mainline.

(32) Matched precipitation rate--The condition in which all sprinkler heads within an irrigation zone apply water at the same rate.

(33) New installation--An irrigation system installed at a location where one did not previously exist or is a complete replacement of an existing irrigation system.

(34) Non-health hazard--A cross-connection, [or] potential contamination hazard, or other situation involving [cross connection from a landscape irrigation system that involves] any substance that generally will [would] not be a health hazard but will [would] constitute a nuisance or be aesthetically objectionable if introduced into the public [potable] water supply.

(35) Non-potable water--Water that is not suitable for human consumption. Non-potable water sources include, but are not limited to, irrigation
systems, lakes, ponds, streams, gray water [that is discharged from washing machines, dishwashers or other appliances], water [vapor] condensate from cooling towers, reclaimed water, and harvested rainwater.

(36) Pass-through contract--A written contract between a contractor or builder and a licensed irrigator or exempt business owner to perform part or all of the irrigation services [relating to an irrigation system]. A pass-through contract is also referred to as a sub-contract.

(37) Potable water--Water that is suitable for human consumption and meets the definition of drinking water in §290.38(23) of this title (relating to Definitions).

(38) Pressure Vacuum Breaker--An assembly that contains an independently operating internally loaded check valve and an independently operating loaded air inlet valve located on the discharge side of the check valve. Also known as a Pressure Vacuum Breaker Back-siphonage Prevention Assembly.

(39) Reclaimed water--Domestic or municipal wastewater which has been treated to a quality suitable for beneficial use, such as landscape irrigation.
(40) Records of landscape irrigation activities--The irrigation plans, contracts, warranty information, invoices, copies of permits, and all other documents that relate to irrigation services [the installation, maintenance, alteration, repair, or service of a landscape irrigation system].

(41) Reduced Pressure Principle Backflow Prevention Assembly--An assembly containing two independently acting approved check valves together with a hydraulically operating mechanically independent pressure differential relief valve located between the two check valves and below the first check valve.

(42) Static water pressure--The pressure of water when it is not moving. Generally, this is the pressure available to the irrigation system.

(43) Supervision--The on-the-job oversight and direction by a licensed irrigator who is fulfilling his or her professional responsibility to the client and/or employer in compliance with local and [or] state requirements. Also performed by a licensed [installer working under the direction of a licensed irrigator or beginning January 1, 2009, an] irrigation technician who is working under the direction of a licensed irrigator to perform [install, maintain, alter, repair or service an] irrigation services [system].
(44) Temporary Irrigation System – A temporarily installed, above ground system of pipes and component parts used to distribute water to the landscaping of a site for the establishment of plant growth, reduction of dust, and erosion control. Temporary irrigation systems must meet the requirements in §344.66 of this title (relating to Temporary Irrigation Systems).

(45) [(44)] Water conservation--The design, installation, service, and operation of an irrigation system in a manner that prevents the waste of water, promotes the most efficient use of water, and applies the least amount of water that is required to maintain healthy individual plant material or turf, reduce dust, and control erosion.

(46) [(45)] Zone flow--A measurement, in gallons per minute or gallons per hour, of the actual flow of water through a zone valve, calculated by individually opening each zone valve and obtaining a valid reading after the pressure has stabilized. For design purposes, the zone flow is the total flow of all nozzles in the zone at a specific pressure.

(47) [(46)] Zone valve--An automatic valve that controls a single zone of a landscape irrigation system.
SUBCHAPTER B: STANDARDS OF CONDUCT FOR IRRIGATORS, [INSTALLERS,] IRRIGATION TECHNICIANS, AND IRRIGATION INSPECTORS, AND LOCAL REQUIREMENTS

§§344.20 - 344.22, 344.24

Statutory Authority

These amendments, are proposed under Texas Water Code (TWC), §5.013, concerning the General Jurisdiction of the Commission; TWC, §5.102, concerning General Powers; TWC, §5.103, concerning Rules; TWC, §5.105, concerning General Policy; TWC, §5.107, concerning Advisory Committees, Work Groups, and Task Forces; TWC, Chapter 37, §§37.001 - 37.015, concerning: Definitions; Rules; License or Registration Required; Qualifications; Issuance and Denial of Licenses and Registrations; Renewal of License or Registration; Licensing Examinations; Training; Continuing Education; Fees; Advertising; Complaints; Compliance Information; Practice of Occupation; Roster of License Holders and Registrants; and Power to Contract; and under TWC, §49.238, concerning Irrigation Systems. These amendments are also proposed under Texas Occupations Code, §1903.001, concerning Definitions; Texas Occupations Code, §1903.002, concerning Exemptions; Texas Occupations Code, §1903.053, concerning Standards; and Texas Occupations Code, §1903.251, concerning License Required. These amendments are proposed under Texas Local Government Code, §551.006, concerning Irrigation Systems. Finally, these amendments are also proposed under Texas Health and Safety Code (THSC), §341.033, concerning Protection of Public Water
Supplies; and THSC, §341.034, concerning Licensing and Registration of Persons Who Perform Duties Relating to Public Water Supplies.

These proposed amendments, implement TWC, §§5.013, 5.102, 5.103, 5.105, 5.107, 37.001 - 37.015 and 49.238; Texas Occupations Code, §§1903.001, 1903.002, 1903.053, and 1903.251; Texas Local Government Code, §551.006; and THSC, §341.033 and §341.034.

§344.20. Purpose of Standards.

(a) The correct practice of irrigation as a science and profession is essential for the protection and conservation of the water resources of the state and shall [should] be conducted by individuals who are held to the highest ethical standards. The legislature has vested the commission with the authority and duty to establish and enforce standards of professional conduct and ethics for practitioners in the irrigation industry.

(b) Every applicant for an irrigator, [installer,] irrigation technician, or irrigation inspector license shall [must] become fully informed of the obligations and responsibilities inherent in the practice of irrigation as outlined by these standards of conduct. Each licensed irrigator, [installer,] irrigation technician, or irrigation inspector
is deemed to have notice of these standards of conduct and is required to abide by the standards.

§344.21. Intent.

(a) These standards of conduct are established to prescribe responsibility on the part of an irrigator, [an installer,] an irrigation technician, an irrigation inspector, and a qualifying exempt business owner to aid in governing the irrigation industry.

(b) The commission will determine what actions constitute violations of the standards in accordance with Chapter 70 of this title (relating to Enforcement) and Texas Water Code, Chapter 7 and institute appropriate disciplinary action, which may lead to monetary penalties or the suspension or revocation of a license in accordance with the applicable state statutes.

(c) This section does not apply to:

(1) an on-site sewage disposal system, as defined by Texas Health and Safety Code, §366.002; or

(2) an irrigation system:
(A) used on or by an agricultural operation as defined by Texas Agriculture Code, §251.002; or

(B) connected to a groundwater well used by the property owner for domestic use.

§344.22. Proficiency in the Field of Irrigation; Representation of Qualifications.

(a) All irrigators, [installers,] irrigation technicians, and inspectors shall be knowledgeable of the current industry standards regarding selling, designing, providing consulting services, installing, maintaining, altering, repairing, or servicing irrigation systems, including the connection of such a system to any source of water and water conservation. All irrigators, [installers,] irrigation technicians, and inspectors shall conform to the current adopted version of these rules and any local rules that do not conflict with these rules, or that are more stringent than these rules, when performing these activities.

(b) All irrigators, [installers,] irrigation technicians, irrigation inspectors, and exempt business owners shall accurately and truthfully represent to prospective clients their qualifications to perform the services requested and shall not perform services for which they are not qualified by experience, knowledge, or license in the technical field involved.
(c) All irrigators, [installers,] irrigation technicians, and inspectors shall be knowledgeable of local requirements related to landscape irrigation systems.

§344.24. Local Regulation and Inspection.

(a) Where any city, town, county, water [special purpose] district, other political subdivision of the state, or public water supplier requires licensed irrigators, [installers,] irrigation technicians, or irrigation inspectors to comply with reasonable inspection requirements, ordinances, or regulations designed to protect the public water supply, any of which relates to work performed or to be performed within such political subdivision's territory the licensed irrigator, [installer,] irrigation technician, or irrigation inspector shall [must] comply with such requirements, ordinances, and regulations.

(b) Any city, town, county, water district, other political subdivision of the state, or public water supplier that is not required to adopt rules or ordinances regulating landscape irrigation may adopt a landscape irrigation program by ordinance or rule and may be responsible for inspection of irrigation systems on sites that are connected [connections] to its public water supply system [up to and including the backflow prevention device]. Any rule or ordinance adopted to regulate landscape irrigation shall be at least as stringent as the requirements in this chapter.
(c) Municipalities with a population of 20,000 or more shall [and a water district that chooses to implement a landscape irrigation program must] verify that the irrigator that designs and installs an irrigation system holds a valid irrigator's license and has obtained a permit before installing a system within its territorial limits or if a municipality, its extraterritorial jurisdiction. Inspectors must verify that the design and installation meet the requirements of this chapter and local ordinances or rules that do not conflict with this chapter, or that are more stringent than this chapter.

(d) A water district that chooses to implement a landscape irrigation program shall meet the program requirements in subsection (c) of this section.

[(d) Each inspector shall maintain a log of all irrigation systems inspected that includes, but is not limited to, the system location, property owner, irrigator responsible for installation, permit status, problems noted during the inspection, and date of the inspection. The log must be kept for three years. The log shall be available for review within two business days of the request by authorized representatives of the commission or any regulatory authority with jurisdiction over landscape irrigation issues in the area the inspector is employed to inspect.]

[(e) An inspector may not inspect a landscape irrigation system that is an on-site sewage disposal system, as defined by Texas Health and Safety Code, §366.002.]
[(f) An inspector may not inspect an irrigation system that is used on or by an agricultural operation as defined by Texas Agricultural Code, §251.002; or is connected to a groundwater well that is used by the property owner for domestic use.]
SUBCHAPTER C: REQUIREMENTS FOR LICENSED IRRIGATORS, [INSTALLERS,]
IRRIGATION TECHNICIANS, AND IRRIGATION INSPECTORS

§§344.30, 344.31, 344.33 - 344.38

Statutory Authority

These amendments, are proposed under Texas Water Code (TWC), §5.013, concerning the General Jurisdiction of the Commission; TWC, §5.102, concerning General Powers; TWC, §5.103, concerning Rules; TWC, §5.105, concerning General Policy; TWC, §5.107, concerning Advisory Committees, Work Groups, and Task Forces; TWC, Chapter 37, §§37.001-37.015, concerning: Definitions; Rules; License or Registration Required; Qualifications; Issuance and Denial of Licenses and Registrations; Renewal of License or Registration; Licensing Examinations; Training; Continuing Education; Fees; Advertising; Complaints; Compliance Information; Practice of Occupation; Roster of License Holders and Registrants; and Power to Contract; and under TWC, §49.238, concerning Irrigation Systems. These amendments are also proposed under Texas Occupations Code, §1903.001, concerning Definitions; Texas Occupations Code, §1903.002, concerning Exemptions; Texas Occupations Code, §1903.053, concerning Standards; and Texas Occupations Code, §1903.251, concerning License Required. These amendments are proposed under Texas Local Government Code, §551.006, concerning Irrigation Systems. Finally, these amendments are also proposed under Texas Health and Safety Code (THSC), §341.033, concerning Protection of Public Water Supplies; and THSC, §341.034, concerning Licensing and Registration of Persons Who Perform Duties Relating to Public Water Supplies.
These proposed amendments implement TWC, §§5.013, 5.102, 5.103, 5.105, 5.107, 37.001 - 37.015 and 49.238; Texas Occupations Code, §§1903.001, 1903.002, 1903.053, and 1903.251; Texas Local Government Code, §551.006; and THSC, §341.033 and §341.034.

§344.30. License Required.

(a) An irrigator is an individual who:

(1) performs irrigation services including [sells, designs, provides consultation services, installs, maintains, alters, repairs, or services an irrigation system, including] the connection of such system to any water supply;

(2) is not an exempt business owner and advertises or represents to anyone that the individual can perform irrigation services [any or all of these functions]; and

(3) is required to hold a valid irrigator license issued under Chapter 30 of this title (relating to Occupational Licenses and Registrations).
[(b) Through December 31, 2009, an installer is an individual who connects an irrigation system to any water supply.]

(b) [(c)] An [Beginning January 1, 2009, an] irrigation technician is an individual who:

(1) connects an irrigation system to a water supply;

(2) under the supervision of a licensed irrigator, installs, maintains, alters, repairs, or services a landscape irrigation system;

(3) represents to anyone that the individual can perform any or all of these functions; and

(4) is required to hold a valid irrigation technician license issued under Chapter 30 of this title.

(c) [(d)] All irrigators [, installers,] and irrigation technicians shall comply with the rules contained in this chapter when performing any or all of the functions listed in this section.

(d) [(e)] An individual who inspects irrigation systems and enforces a municipality's landscape irrigation ordinance must:
(1) hold a valid irrigation inspector license issued according to Chapter
30 of this title; or

(2) hold a valid plumbing inspector license.

(e) [(f)] An individual who inspects irrigation systems and enforces a water
district's rules related to landscape irrigation systems must:

(1) hold a valid irrigation inspector license issued according to Chapter
30 of this title; or

(2) hold a valid plumbing inspector license; or

(3) be the district's operator; or

(4) be employed by another regulatory authority with jurisdiction over
landscape irrigation and hold the appropriate license.

(f) [(g)] An inspector shall comply with the rules contained in this chapter when
performing any [or all] of the functions listed in this section.
(g) [(h)] A property owner is not required to be licensed in accordance with Texas Occupations Code, Title 12, §1903.002(c)(1) if he or she is performing irrigation work in a building or on a premise [premises] owned or occupied by the person as the person’s home. A home or property owner who installs an irrigation system must meet the standards contained in §344.62(b), (c), (g), (j), and (k) of this title (relating to Minimum Design and Installation Requirements) concerning spacing; water pressure; spraying water over impervious materials; rain or moisture shut-off devices or other technology; and isolation valve [§344.62(b) Spacing, §344.62(c) Water pressure, §344.62(g) related to spraying water over impervious materials, §344.62(j) Rain or moisture shut-off devices or other technology, and §344.62(k) Isolation valve]. Municipalities or water districts may adopt more stringent requirements for a home or property owner who installs an irrigation system.

§344.31. **Responsibilities of a [Exemption for] Business Owner Who Provides Irrigation Services.**

(a) Under Chapter 30 of this title (relating to Occupational Licenses and Registrations), a business owner who employs a licensed irrigator as an irrigator-in-charge to provide consulting services, or to supervise, or conduct [the exempt business’s] operations relating to irrigation services [the design, installation,
maintenance, alteration, repairing, and servicing of irrigation systems] is exempt from the licensing requirements of Texas Occupations Code, Chapter 1903.

(b) An exempt business owner who provides landscape irrigation services shall ensure that all irrigation services are supervised by a licensed irrigator, according to the requirements of this subchapter. An exempt business owner who engages in landscape irrigation is responsible for verifying the validity of the license belonging to all irrigators and irrigation technicians performing irrigation services for the business. An exempt business owner who engages in landscape irrigation is responsible for designating an irrigator-in-charge.

§344.33. Display of License.

(a) Irrigators [, installers,] and irrigation technicians shall prominently display their license certificate at the place of irrigation business or employment and shall present their license upon request by any regulatory authority, irrigation system's owner, or prospective owner.

(b) Irrigation inspectors shall present their license, when requested by any entity that is regulated under this chapter, and when that request is made while an irrigation inspector is conducting business.
§344.34. Use of License.

(a) No one other than the irrigator, [installer,] irrigation technician, or irrigation inspector to whom a license is issued shall use or attempt to use the license, which includes the license number.

(b) An individual or entity who uses or attempts to use the license or license number of someone else who is a licensed irrigator, [licensed installer,] licensed irrigation technician, or licensed irrigation inspector is in violation of Texas Occupations Code, Chapter 1903, and this chapter.

(c) An irrigator's license or license number may be used at only one entity as the irrigator-in-charge. An irrigator may work for other entities, but not as the irrigator-in-charge.

(d) It is a violation of this chapter for an irrigator, [installer,] irrigation technician or irrigation inspector to authorize or allow another person or entity to use the irrigator's, [installer's,] irrigation technician's, or irrigation inspector's license or license number in a manner inconsistent with this chapter.

§344.35. Duties and Responsibilities of Irrigators.
(a) An irrigator shall comply with the rules contained in this chapter when performing any or all of the functions described in this section.

(b) An irrigator who performs work for an entity or for an exempt business owner who performs or offers to perform irrigation services shall be knowledgeable of and responsible for all permits, contracts, agreements, advertising, and other irrigation services secured and performed using the irrigator's license.

(c) A licensed irrigator who is employed by an exempt business owner and designated as the irrigator-in-charge [as defined by §344.31 of this title (relating to Exemption for Business Owner Who Provides Irrigation Services)] shall supervise all irrigation services of the business, in accordance with this chapter.

(d) A licensed irrigator is responsible for:

(1) using the [stamp or rubber] seal in accordance with this chapter;

(2) obtaining all permits and inspections required to install an irrigation system;

(3) complying with local regulations;
(4) determining the appropriate backflow prevention method for each irrigation system installation and installing the backflow prevention device correctly;

(5) maintaining landscape irrigation systems records;

(6) conserving water;

(7) developing and following an irrigation plan for each new irrigation system;

(8) designing an irrigation system that complies with the requirements of this chapter;

(9) providing on-site supervision of the installation of [an] irrigation systems [system beginning January 1, 2010];

(10) providing supervision to an irrigation technician who is conducting irrigation services [while connecting an irrigation system to a water supply, installing, maintaining, altering, repairing, or servicing an irrigation system];

[(11) providing supervision to an installer connecting an irrigation system through December 31, 2009;]
(11) [(12)] completing the irrigation system including the final "walk through," completing the maintenance checklist, placing a permanent sticker on the controller or on the maintenance checklist if the irrigation system does not have an automatic controller, and providing a copy of the design plan;

(12) [(13)] conducting irrigation services in compliance [selling, consulting, performing maintenance, alteration, repair, and service of irrigation systems that complies] with the requirements of this chapter;

(13) [(14)] providing advertisements, contracts, and warranties that comply with the requirements of this chapter; and

(14) [(15)] installing an irrigation system that complies with the requirements of this chapter.

§344.36. Duties and Responsibilities of [Installers and] Irrigation Technicians.

(a) A licensed irrigation technician under the supervision of a licensed irrigator, is responsible for: [licensed installer may connect an irrigation system to a water supply through December 31, 2009. This includes installing an approved backflow prevention method pursuant to §344.50 of this title (relating to Backflow Prevention
Methods) when connecting an irrigation system to a potable water supply. Beginning January 1, 2009, a licensed irrigation technician may connect an irrigation system to a water supply, including installing an approved backflow prevention method pursuant to §344.50 of this title and may maintain, alter, repair, service, or direct the installation of irrigation systems under the supervision of an irrigator.]

(1) connecting an irrigation system to a water supply;

(2) installing an approved backflow prevention assembly pursuant to §344.50 of this title (relating to Backflow Prevention Methods);

(3) conducting irrigation services including maintaining, altering, repairing, servicing, or directing the installation of irrigation systems; and

(4) conducting the final walk through in compliance with the requirements §344.63 of this title (relating to Completion of Irrigation System Installation).

(b) If an [installer or] irrigation technician connects an irrigation system to a potable water supply, the connection and installation of the backflow prevention assembly [method] must be as indicated on the site irrigation plan or as directed by the licensed irrigator and documented on the site irrigation plan.
[(c) Through December 31, 2009, an installer is responsible for the connection of an irrigation system to a water supply under the supervision of a licensed irrigator.]

(c) [(d)] An [Beginning January 1, 2009, an] irrigation technician, under the supervision of a licensed irrigator, is responsible for:

(1) connecting an irrigation system to a water supply; and

(2) providing on-site supervision of the installation, maintenance, alteration, repair, service of an irrigation system including the final walk through with the irrigation system owner or owner’s representative to explain the maintenance and operation of the irrigation system.

(d) An irrigation technician shall not act as an irrigator nor advertise or offer to perform irrigation services.

§344.37. Duties and Responsibilities of Irrigation Inspectors.

(a) A licensed irrigation inspector or licensed plumbing inspector shall enforce the applicable irrigation rules or ordinance of the employing governmental entity and, at a minimum, is responsible for:[.]
(1) verifying that the appropriate permits have been obtained for an irrigation system;

(2) verifying that the irrigator, irrigation technician, or water operator is licensed;

(3) inspecting the irrigation system;

(4) determining that the irrigation system complies with the requirements of this chapter;

(5) determining that the appropriate backflow prevention assembly was installed, tested, and the test results were provided to the water purveyor;

(6) investigating complaints related to irrigation systems including the advertisement of irrigation services; and

(7) maintaining records according to this chapter. Each inspector shall maintain a log of all irrigation systems inspected that includes, but is not limited to, the system location, property owner, irrigator responsible for installation, permit status, problems noted during the inspection, and date of the inspection. The log must
be kept for three years. The log shall be available for review within two business days of the request by authorized representatives of the commission or any regulatory authority with jurisdiction over landscape irrigation issues in the area the inspector is employed to inspect.

(b) A licensed irrigation inspector, licensed plumbing inspector, a water district’s operator or other appropriately licensed individual employed by a governmental entity shall be responsible for:

(1) verifying that the appropriate permits have been obtained for an irrigation system [and that the irrigator and installer or irrigation technician, if applicable, are licensed];

(2) verifying that the irrigator, irrigation technician, or water district operator is licensed;

(3) [(2)] inspecting the irrigation system;

(4) [(3)] determining that the irrigation system complies with the requirements of this chapter;
(5) [(4)] determining that the appropriate backflow prevention assembly [device] was installed, tested, and the test results were provided to the water purveyor;

(6) [(5)] investigating complaints related to irrigation systems including the [system installation, maintenance, alteration, repairs, or service of an irrigation system and] advertisement of irrigation services; and

[(6) maintaining records according to this chapter.]

(7) each inspector shall maintain a log of all irrigation systems inspected that includes, but is not limited to, the system location, property owner, irrigator responsible for installation, permit status, problems noted during the inspection, and date of the inspection. The log must be kept for three years. The log shall be available for review within two business days of the request by authorized representatives of the commission or any regulatory authority with jurisdiction over landscape irrigation issues in the area the inspector is employed to inspect.


Upon the licensed irrigator obtaining the seal [or rubber stamp], in accordance with this chapter, an impression of the seal shall [or rubber stamp will] be made on letterhead, or other business stationary, and maintained on file for review by the
commission. Archival copies of all records given to the irrigation system’s owner or owner's representative shall be maintained by the irrigator. Records will be maintained by the irrigator for a period of three years from the date installation, maintenance, alteration, repair or service was completed. Irrigators [installers, and irrigation technicians] shall make all records of landscape irrigation services available within ten business days of any request made by authorized representatives of the commission or the local regulatory authority with jurisdiction over landscape irrigation [issues].
SUBCHAPTER C: REQUIREMENTS FOR LICENSED IRRIGATORS, [INSTALLERS,]
IRRIGATION TECHNICIANS, AND IRRIGATION INSPECTORS

[§344.32]

Statutory Authority

The repealed section is proposed under Texas Water Code (TWC), §5.013, concerning the General Jurisdiction of the Commission; TWC, §5.102, concerning General Powers; TWC, §5.103, concerning Rules; TWC, §5.105, concerning General Policy; TWC, §5.107, concerning Advisory Committees, Work Groups, and Task Forces; TWC, Chapter 37, §§37.001 - 37.015, concerning: Definitions; Rules; License or Registration Required; Qualifications; Issuance and Denial of Licenses and Registrations; Renewal of License or Registration; Licensing Examinations; Training; Continuing Education; Fees; Advertising; Complaints; Compliance Information; Practice of Occupation; Roster of License Holders and Registrants; and Power to Contract; and under TWC §49.238, concerning Irrigation Systems. The repealed section is also proposed under Texas Occupations Code, §1903.001, concerning Definitions; Texas Occupations Code, §1903.002, concerning Exemptions; Texas Occupations Code, §1903.053, concerning Standards; and Texas Occupations Code, §1903.251, concerning License Required. The repealed section proposed under Texas Local Government Code, §551.006, concerning Irrigation Systems. Finally, the repealed section is also proposed under Texas Health and Safety Code (THSC), §341.033, concerning Protection of Public Water Supplies; and THSC, §341.034, concerning Licensing and Registration of Persons Who Perform Duties Relating to Public Water Supplies.
The proposed repealed section implements TWC, §§5.013, 5.102, 5.103, 5.105, 5.107, 37.001 - 37.015 and 49.238; Texas Occupations Code, §§1903.001, 1903.002, 1903.053, and 1903.251; Texas Local Government Code, §551.006; and THSC, §341.033 and §341.034.

[§344.32. Responsibilities of a Business Owner Who Provides Irrigation Services.]

[An exempt owner who provides landscape irrigation services shall ensure that all irrigation services are supervised by a licensed irrigator, according to the requirements of this subchapter. An exempt business owner who engages in landscape irrigation is responsible for verifying the validity of the license belonging to all, installers, and irrigation technicians performing irrigation services for the business. An exempt business owner who engages in landscape irrigation is responsible for designating an irrigator-in-charge.]
SUBCHAPTER D: LICENSED IRRIGATOR SEAL

§§344.40, 344.42, 344.43

Statutory Authority

These amendments are proposed under Texas Water Code (TWC), §5.013, concerning the General Jurisdiction of the Commission; TWC, §5.102, concerning General Powers; TWC, §5.103, concerning Rules; TWC, §5.105, concerning General Policy; TWC, §5.107, concerning Advisory Committees, Work Groups, and Task Forces; TWC, Chapter 37, §§37.001 - 37.015, concerning: Definitions; Rules; License or Registration Required; Qualifications; Issuance and Denial of Licenses and Registrations; Renewal of License or Registration; Licensing Examinations; Training; Continuing Education; Fees; Advertising; Complaints; Compliance Information; Practice of Occupation; Roster of License Holders and Registrants; and Power to Contract; and under TWC §49.238, concerning Irrigation Systems. These amendments are also proposed under Texas Occupations Code, §1903.001, concerning Definitions; Texas Occupations Code, §1903.002, concerning Exemptions; Texas Occupations Code, §1903.053, concerning Standards; and Texas Occupations Code, §1903.251, concerning License Required. These amendments are proposed under Texas Local Government Code, §551.006, concerning Irrigation Systems. Finally, these amendments are also proposed under Texas Health and Safety Code (THSC), §341.033, concerning Protection of Public Water Supplies; and THSC, §341.034, concerning Licensing and Registration of Persons Who Perform Duties Relating to Public Water Supplies.
These proposed amendments implement TWC, §§5.013, 5.102, 5.103, 5.105, 5.107, 37.001 - 37.015 and 49.238; Texas Occupations Code, §§1903.001, 1903.002, 1903.053, and 1903.251; Texas Local Government Code, §551.006; and THSC, §341.033 and §341.034.

§344.40. Seal Required.

Each irrigator, upon being licensed with the commission, shall obtain a seal, as described in §344.41 of this title (relating to Seal Design). Licensed irrigators shall not engage in any landscape irrigation services without physical possession of the seal and the license. The irrigator is responsible for the security of the seal and for ensuring that it shall not be used in a manner that does not meet the requirements of this chapter.

§344.42. Seal Display.

(a) On every document requiring an irrigator's seal, the seal shall be clearly visible and legible on the original document and all copies or reproductions of the original document.

(b) An irrigator may use an alternative media (electronic, rubber stamp, embossing, etc.) to use their [or other format] seal and signature if the seal, signature,
and date are clearly visible and legible on the original document and all copies or reproductions of the original document.

§344.43. Seal Use.

(a) Irrigators shall:

(1) sign their legal name;

(2) affix the seal above the irrigator's signature; and

(3) include the date of signing (month, day, and year) of each document to which the seal is affixed.

(b) The presence of the irrigator's seal displayed above the irrigator's signature and date on any document constitutes the acceptance of all professional responsibility for the document and the irrigation services performed in accordance with that document.

(c) The irrigator will maintain, for three years, a copy of each document bearing the irrigator's seal.
(d) Once a document containing a seal is issued, the seal may not be altered.

(e) Irrigators shall not change [use or authorize the use of a seal on] any plan or specification created by another irrigator unless [the irrigator]:

(1) the change is made to [Reviews and makes changes to] adapt the plan or specification to the specific site conditions and to address state and local requirements; [and]

(2) the irrigator accepts [Accepts] full responsibility for any changes the irrigator makes [alterations] to the original plan or specification [and any downstream consequences; and].

(3) the irrigator seals and dates the changes made to the original irrigation plan.

(f) If an irrigator prepares only a portion of a plan or specification, that portion of the plan [design] or specification must be sealed [prepared] by the irrigator [or under the irrigator’s supervision] and [seal, should be] clearly identified.

(g) Irrigators shall sign, seal and date the irrigation plan and specifications, contract, addenda or change orders, warranty, and the maintenance checklist.
SUBCHAPTER E: BACKFLOW PREVENTION AND CROSS-CONNECTIONS

§§344.50 - 344.52

Statutory Authority

These amendments are proposed under Texas Water Code (TWC), §5.013, concerning the General Jurisdiction of the Commission; TWC, §5.102, concerning General Powers; TWC, §5.103, concerning Rules; TWC, §5.105, concerning General Policy; and TWC, §5.107, concerning Advisory Committees, Work Groups, and Task Forces; TWC, Chapter 37, §§37.001 - 37.015, concerning: Definitions; Rules; License or Registration Required; Qualifications; Issuance and Denial of Licenses and Registrations; Renewal of License or Registration; Licensing Examinations; Training; Continuing Education; Fees; Advertising; Complaints; Compliance Information; Practice of Occupation; Roster of License Holders and Registrants; and Power to Contract; and under TWC, §49.238, concerning Irrigation Systems. These amendments are also proposed under Texas Occupations Code, §1903.001, concerning Definitions; Texas Occupations Code, §1903.002, concerning Exemptions; Texas Occupations Code, §1903.053, concerning Standards; and Texas Occupations Code, §1903.251, concerning License Required. These amendments are proposed under Texas Local Government Code, §551.006, concerning Irrigation Systems. Finally, these amendments are also proposed under Texas Health and Safety Code (THSC), §341.033, concerning Protection of Public Water Supplies; and THSC, §341.034, concerning Licensing and Registration of Persons Who Perform Duties Relating to Public Water Supplies.
These proposed amendments implement TWC, §§5.013, 5.102, 5.103, 5.105, 5.107, 37.001 - 37.015 and 49.238; Texas Occupations Code, §§1903.001, 1903.002, 1903.053, and 1903.251; Texas Local Government Code, §551.006; and THSC, §341.033 and §341.034.

§344.50. Backflow Prevention Methods.

(a) All backflow prevention assemblies installed per this chapter shall be installed according to manufacturer's recommendations and provided with sufficient clearance to facilitate testing. [Any irrigation system that is connected to a public or private potable water supply must be connected through a commission-approved backflow prevention method. The backflow prevention device must be approved by the American Society of Sanitary Engineers; or the Foundation for Cross-Connection Control and Hydraulic Research, University of Southern California; or the Uniform Plumbing Code; or any other laboratory that has equivalent capabilities for both the laboratory and field evaluation of backflow prevention assemblies. The backflow prevention device must be installed in accordance with the laboratory approval standards or if the approval does not include specific installation information, the manufacturer's current published recommendations.]

(b) If conditions that present a health hazard exist, one of the following types of backflow prevention shall [methods must] be used, [to prevent backflow;]
(1) An air gap may be used if installed per the definition of air gap in §344.1 of this title (relating to Definitions). [:]

[(A) there is an unobstructed physical separation; and]

[(B) the distance from the lowest point of the water supply outlet to the flood rim of the fixture or assembly into which the outlet discharges is at least one inch or twice the diameter of the water supply outlet, whichever is greater.]

(2) Reduced pressure principle backflow prevention assemblies may be used if installed per subsection (a) of this section and:

(A) the assembly [device] is installed at a minimum of 12 inches above ground in a location that will ensure that the assembly will not be submerged; and

(B) drainage is provided for any water that may be discharged through the [assembly] relief valve.

(3) Pressure vacuum breakers may be used if installed per subsection (a) of this section and:
(A) **there is no actual or potential for a back-pressure condition** [will occur]; and

(B) the **assembly** [device] is installed at a minimum of 12 inches above any downstream piping and the highest downstream opening. Pop-up sprinklers are measured from the retracted position from the top of the sprinkler.

(4) **Spill-resistant pressure vacuum breakers** may be used if in installed per subsection (a) of this section and [Atmospheric vacuum breakers may be used if]:

(A) **there is no actual or potential for a back-pressure condition** [no back-pressure will be present]; and

(B) the **assembly** is installed at a minimum of 12 inches above any downstream piping and the highest downstream opening. Pop-up sprinklers are measured from the retracted position from the top of the sprinkler. [there are no shutoff valves downstream from the atmospheric vacuum breaker;]

[(C) the device is installed at a minimum of six inches above any downstream piping and the highest downstream opening. Pop-up sprinklers are measured from the retracted position from the top of the sprinkler;]
[(D) there is no continuous pressure on the supply side of the atmospheric vacuum breaker for more than 12 hours in any 24-hour period; and]

[(E) a separate atmospheric vacuum breaker is installed on the discharge side of each irrigation control valve, between the valve and all the emission devices that the valve controls.]

[(c) Backflow prevention devices used in applications designated as health hazards must be tested upon installation and annually thereafter.]

(c) [(d)] If there are no conditions that present a health hazard, double check valve backflow prevention assemblies may be used to prevent backflow if the assembly [device] is tested upon installation and:

(1) a local regulatory authority does not prohibit the use of a double check valve; and

(2) backpressure caused by an elevation of pressure in the discharge piping by pump or elevation of piping above the supply pressure which could cause a reversal of the normal flow of water or back-siphonage conditions caused by a reduced or negative pressure in the irrigation system exist; and]


(2) [(3)] test cocks are used for testing only.

(d) [(e)] Double [If a double] check valve assemblies [is] installed below ground shall meet the following installation requirements:

(1) test cocks shall [must] be plugged, except when the double check valve is being tested;

(2) test cock plugs shall [must] be threaded, water-tight, and made of non-ferrous material; and

[(3) a y-type strainer is installed on the inlet side of the double check valve;]

(3) [(4)] there shall [must] be a clearance all the way around the assembly [between any fill material and the bottom of the double check valve] to allow space for testing and repair; [; and]

[(5) there must be space on the side of the double check valve to test and repair the double check valve.]
(e) At a minimum, all backflow prevention assemblies shall be tested by a licensed backflow prevention assembly tester upon installation, repair, replacement, or relocation. Those backflow prevention assemblies used in irrigation systems designated as health hazards shall be tested annually.

§344.51. Specific Conditions and Cross-Connection Control.

(a) Before any chemical is added by any method (aspiration, injection, etc.) to an irrigation system which is connected to any potable water supply, the irrigation system shall [must] be connected through a reduced pressure principle backflow prevention assembly or air gap.

(b) Irrigation system components treated with chemical additives and connected to any potable water supply shall be connected through a reduced pressure principle backflow prevention assembly.

(c) Connection of more than one water source to an irrigation system presents the potential for contamination of the potable water supply if backflow occurs. Therefore, connection of any additional water source to an irrigation system that is connected to the potable water supply can only be made [done] if the irrigation system is connected to the potable water supply through a reduced-pressure principle backflow prevention assembly or an air gap.
(c) Irrigation system components with chemical additives induced by aspiration, injection, or emission system connected to any potable water supply must be connected through a reduced pressure principle backflow device.

(d) If an irrigation system is designed or installed on a property that is served by an on-site sewage facility, as defined in Chapter 285 of this title (relating to On-Site Sewage Facilities), then:

1. all irrigation piping and valves shall [must] meet the separation distances from the On-Site Sewage Facilities system as required for a private water line in §285.91(10) of this title (relating to Tables), concerning the minimum required separation distances for on-site sewage facilities [Minimum Required Separation Distances for On-Site Sewage Facilities];

2. the irrigation system is designated a health hazard and any connections using a private or public potable water source shall [must] be connected to the water source through a reduced pressure principle backflow prevention assembly as defined in §344.50 of this title (relating to Backflow Prevention Methods); and

3. any water from the irrigation system that is applied to the surface of the area utilized by the On-Site Sewage Facility system shall [must] be controlled on a separate irrigation zone or zones so as to allow complete control of any irrigation to
that area so that there will not be excess water that would prevent the On-Site Sewage Facilities system from operating effectively.

§344.52. Installation of Backflow Prevention Assembly [Device].

(a) If an irrigation system is connected to a potable water supply and requires major maintenance, alteration, repair, or service, the system shall [must] be connected to the potable water supply through an approved, properly installed backflow prevention method as defined in this title before any major maintenance, alteration, repair, or service is performed.

(b) If an irrigation system is connected to a potable water supply through a double check valve, pressure vacuum breaker, or reduced pressure principle backflow prevention assembly and includes an automatic master valve on the system, the automatic master valve shall [must] be installed on the discharge side of the backflow prevention assembly.

(c) The irrigator shall ensure the backflow prevention assembly [device] is tested prior to being placed in service and the test results provided to the local water purveyor [and the irrigation system's owner or owner's representative] within ten business days of testing [of] the backflow prevention assembly [device].
SUBCHAPTER F: STANDARDS FOR DESIGNING, INSTALLING, AND MAINTAINING LANDSCAPE IRRIGATION SYSTEMS

§§344.60 - 344.66

Statutory Authority

These amendments and new section are proposed under Texas Water Code (TWC), §5.013, concerning the General Jurisdiction of the Commission; TWC, §5.102, concerning General Powers; TWC, §5.103, concerning Rules; TWC, §5.105, concerning General Policy; and TWC, §5.107, concerning Advisory Committees, Work Groups, and Task Forces; TWC, Chapter 37, §§37.001 - 37.015, concerning: Definitions; Rules; License or Registration Required; Qualifications; Issuance and Denial of Licenses and Registrations; Renewal of License or Registration; Licensing Examinations; Training; Continuing Education; Fees; Advertising; Complaints; Compliance Information; Practice of Occupation; Roster of License Holders and Registrants; and Power to Contract; and under TWC, §49.238, concerning Irrigation Systems. These amendments and new section are also proposed under Texas Occupations Code, §1903.001, concerning Definitions; Texas Occupations Code, §1903.002, concerning Exemptions; Texas Occupations Code, §1903.053, concerning Standards; and Texas Occupations Code, §1903.251, concerning License Required. These amendments and new section are proposed under Texas Local Government Code, §551.006, concerning Irrigation Systems. Finally, these amendments and new section are also proposed under Texas Health and Safety Code (THSC), §341.033, concerning Protection of Public Water Supplies; and THSC, §341.034, concerning Licensing and Registration of Persons Who
Perform Duties Relating to Public Water Supplies.

These proposed amendments and new section implement TWC, §§5.013, 5.102, 5.103, 5.105, 5.107, 37.001 - 37.015 and 49.238; Texas Occupations Code, §§1903.001, 1903.002, 1903.053, and 1903.251; Texas Local Government Code, §551.006; and THSC, §341.033 and §341.034.

§344.60. Water Conservation.

All irrigation systems shall be designed, installed, maintained, altered, repaired, serviced, and operated in a manner that will promote water conservation as defined in §344.1(45) of this title (relating to Definitions).


(a) An irrigator shall prepare a site-specific irrigation plan for each new irrigation system [site where a new irrigation system will be installed. A paper or electronic copy of the irrigation plan must be on the job site [at all times] during the installation of the irrigation system and must be consulted for installation requirements. A drawing showing the actual installation of the system is due to each irrigation system owner after all new irrigation system installations. During the
installation of the irrigation system, variances from the original plan may be authorized by the licensed irrigator if the variance from the plan does not:

[(1) diminish the operational integrity of the irrigation system;]

[(2) violate any requirements of this chapter; and]

[(3) go unnoted in red on the irrigation plan.]

(b) The irrigation plan must show that the irrigation system provides complete coverage of all areas [the area] to be irrigated. If there are areas on the site that are not to be irrigated, they must be clearly identified on the irrigation plan. If a system does not provide complete coverage of the area to be irrigated, it must be noted on the irrigation plan.

(c) All irrigation plans used for construction must be drawn to scale. The plan must include, at a minimum, the following information:

(1) the irrigator’s seal, signature, and date of signing;
(2) all major physical features in accordance with subsection (b) of this section including, but not limited to, property lines, streets, sidewalks, buildings, fences, flower bed lines, and the boundaries of the areas to be watered;

(3) a North arrow;

(4) a legend showing the symbols used in the irrigation plan and an accurate description of what the symbol represents;

(5) the zone flow measurement for each zone which includes the zone/controller station number and the zone valve size;

(6) location and type of each:

(A) controller;

(B) sensor (for example, but not limited to, rain, moisture, wind, flow, or freeze);

(7) specifications for all irrigation system components to include, but not limited to, location, type, size, manufacturer, model number, operating pressure, flow range, radius of throw;
[(7) location, type, and size of each:]

[(A) water source, such as, but not limited to a water meter and point(s) of connection;]

[(B) backflow prevention device;]

[(C) water emission device, including, but not limited to, spray heads, rotary sprinkler heads, quick-couplers, bubblers, drip, or micro-sprays;]

[(D) valve, including, but not limited to, zone valves, master valves, and isolation valves;]

[(E) pressure regulation component; and]

[(F) main line and lateral piping.]

(8) the scale used; and

(9) the design pressure.
(d) During the installation of the irrigation system, changes from the original plan may be authorized by the licensed irrigator if they are clearly documented in red ink on the irrigation plan and the change does not:

1. diminish the operational integrity of the irrigation system; and

2. violate any requirements of this chapter.

(e) All changes to the irrigation plan shall be documented as an as-built drawing.


(a) No irrigation design or installation shall require the use of any component, including the water meter, in a way which exceeds the manufacturer's published performance limitations for the component.

(b) Spacing.

1. The maximum spacing between emission devices must not exceed the manufacturer's published radius or spacing of the device(s). The radius or spacing is determined by referring to the manufacturer's published specifications for a specific emission device at a specific operating pressure. In no instance shall the spacing
 exceed plus or minus 10% of the manufacturer's published radius or spacing of the device(s).

(2) New irrigation systems shall not utilize above-ground spray emission devices in landscapes that are less than 48 inches not including the impervious surfaces in either length or width and which contain impervious pedestrian or vehicular traffic surfaces along two or more perimeters. [If pop-up sprays or rotary sprinkler heads are used in a new irrigation system, the sprinkler heads must direct flow away from any adjacent surface and shall not be installed closer than four inches from a hardscape, such as, but not limited to, a building foundation, fence, concrete, asphalt, pavers, or stones set with mortar.]

(3) Pop-up spray heads or rotary sprinkler heads must direct flow away from any adjacent surface and shall not be installed closer than four inches from a hardscape, such as, but not limited to, a building foundation, fence, concrete, asphalt, pavers, or stones set with mortar. Narrow paved walkways, jogging paths, golf cart paths or other small areas located in cemeteries, parks, golf courses or other public areas may be exempted from this requirement if the runoff drains into a landscaped area.

(c) Water pressure. Emission devices must be installed to operate at the optimum or recommended sprinkler head pressure as published by the manufacturer.
for the nozzle and head spacing that is used. If an optimum or recommended pressure is not published, then the emission devices must be installed to operate at not below the minimum and not above the maximum sprinkler head pressure as published by the manufacturer for the nozzle and head spacing that is used. Methods to achieve the water pressure requirements include, but are not limited to, flow control valves, a pressure regulator, or pressure compensating spray heads.

(d) Piping. Polyvinyl chloride (PVC) piping in irrigation systems must be designed and installed so that the flow of water in the pipe will not exceed a velocity of five feet per second [for polyvinyl chloride (PVC) pipe].

(e) Irrigation Zones. Irrigation systems shall have separate zones based on plant material type, microclimate factors, topographic features, soil conditions, and hydrological requirements.

(f) Matched precipitation rate. Zones must be designed and installed so that all of the emission devices in that zone irrigate at the same precipitation rate.

(g) Irrigation systems shall not spray water on or over any surfaces made of impervious material including but not limited to concrete, asphalt, brick, wood, stones set with mortar, [or any other impervious material, such as, but not limited to,] walls, fences, sidewalks, and streets[, etc].
(h) Master valve. When provided, a master valve shall be installed on the discharge side of the backflow prevention device on all new installations.

(i) PVC pipe primer solvent. All new irrigation systems that are installed using PVC pipe and fittings shall be primed with a colored primer prior to applying the PVC cement in accordance with the Uniform Plumbing Code (Section 316) or the International Plumbing Code (Section 605).

(j) Rain or moisture shut-off devices or other technology. All new automatically controlled irrigation systems must include sensors or other technology designed to inhibit or interrupt operation of the irrigation system during periods of moisture or rainfall. Rain or moisture shut-off technology must be installed according to the manufacturer's published recommendations. Repairs to existing automatic irrigation systems that require replacement of an existing controller must include a sensor or other technology designed to inhibit or interrupt operation of the irrigation system during periods of moisture or rainfall. El Paso, Hudspeth, Culberson, Jeff Davis, Presidio, Brewster, Terrell, Loving, Winkler, Ward, Reeves, Ector, Crane and Pecos Counties are excluded from this requirement.

(k) Isolation valve. All new irrigation systems must include an isolation valve between the water meter and the backflow prevention device.
(l) Depth coverage of piping. Piping in all irrigation systems must be installed according to the manufacturer's published specifications for depth coverage of piping.

(1) If the manufacturer has not published specifications for depth coverage of piping, the piping must be installed to provide minimum depth coverage of six inches of select backfill, between the top of the topmost pipe and the natural grade of the topsoil. All portions of the irrigation system that fail to meet this standard must be noted on the irrigation plan/as-built drawing [plan]. If the area being irrigated has rock at a depth of six inches or less, select backfill may be mounded over the pipe. Mounding must be noted on the irrigation plan/as-built drawing [irrigation plan] and discussed with the irrigation system owner or owner's representative to address any safety issues.

(2) If a utility, man-made structure, or roots create an unavoidable obstacle, which makes the six -inch depth coverage requirement impractical, the piping shall be installed to provide a minimum of two inches of select backfill between the top of the topmost pipe and the natural grade of the topsoil.

(3) All trenches and holes created during installation of an irrigation system must be backfilled and compacted to the original grade.

(m) Wiring irrigation systems.
(1) Underground electrical wiring used to connect an automatic controller to any electrical component of the irrigation system must be listed by Underwriters Laboratories as acceptable for burial underground.

(2) Electrical wiring that connects any electrical components of an irrigation system must be sized according to the manufacturer's recommendation.

(3) Electrical wire splices which may be exposed to moisture must be waterproof as certified by the wire splice manufacturer.

(4) Underground electrical wiring that connects an automatic controller to any electrical component of the irrigation system must be buried with a minimum of six inches of select backfill.

(n) Water contained within the piping of an irrigation system is deemed to be non-potable. No drinking or domestic water usage, such as, but not limited to, filling swimming pools or decorative fountains, shall be connected to an irrigation system. If a hose bib (an outdoor water faucet that has hose threads on the spout) is connected to an irrigation system for the purpose of providing supplemental water to an area, the hose bib must be installed using a quick coupler key on a quick coupler installed in a [covered purple] valve box with a colored-coded purple lid or cover and the hose bib
and any hoses connected to the bib must be labeled "non-potable, not safe for drinking." An isolation valve must be installed upstream of a quick coupler connecting a hose bib to an irrigation system.

(o) A [Beginning January 1, 2010, either a] licensed irrigator or [a] licensed irrigation technician shall be on-site at all times while the landscape irrigation system is being installed. When an irrigator is not on-site, the irrigator shall be responsible for ensuring that a licensed irrigation technician is on-site to supervise the installation of the irrigation system.

(p) Valve boxes. A valve box shall be used as a durable, rigid enclosure for valves and/or any other irrigation system components that require subsurface protection.

§344.63. Completion of Irrigation System Installation.

Upon completion of the irrigation system, the irrigator or irrigation technician who provided the on-site supervision for the [on-site] installation shall be required to provide [complete] four items:

(1) a final "walk through" with the irrigation system's owner or the owner's representative to explain the operation of the system;
(2) The completed maintenance checklist on which the irrigator or irrigation technician shall obtain the signature of the irrigation system's owner or owner's representative and shall sign, date, and seal the checklist. If the irrigation system's owner or owner's representative is unwilling or unable to sign the maintenance checklist, the irrigator shall note the time and date of the refusal on the irrigation system's owner or owner's representative's signature line. The irrigation system owner or owner's representative will be given the original maintenance checklist and a duplicate copy of the maintenance checklist shall be maintained by the irrigator. The items on the maintenance checklist shall include but are not limited to:

(A) the manufacturer's manual for the automatic controller, if one is used [the system is automatic];

(B) a seasonal (spring, summer, fall, winter) watering schedule based on either current/real time evapotranspiration data or monthly historical [reference] evapotranspiration [(historical ET)] data, monthly effective rainfall estimates, plant landscape coefficient factors, and site factors;

(C) a list of irrigation system components[, such as the] (nozzle, [or] pump filters, etc.) [and other such components;] that require maintenance and the recommended frequency for the service; and
(D) the statement, "This irrigation system has been installed in accordance with all applicable state regulations as well as applicable [and] local laws, ordinances, rules, [regulations] or orders. I have tested the system and determined that it has been installed according to the Irrigation Plan/As-built drawing [Irrigation Plan] and is properly adjusted for the most efficient application of water at this time."

(3) A permanent sticker printed with waterproof ink which contains the irrigator's name, license number, company name, telephone number and the dates of the warranty period shall be affixed to each automatic controller installed by the irrigator or irrigation technician. If the irrigation system is manual, the sticker shall be affixed to the original maintenance checklist. [The information contained on the sticker must be printed with waterproof ink and include:]

(4) The irrigation plan/As-built drawing [irrigation plan] indicating the actual installation of the system must be provided to the irrigation system's owner or owner's [owner] representative.

§344.64. Maintenance, Alteration, Repair, or Service of Irrigation Systems.

[(a) The irrigator is responsible for all work that the irrigator performed during the maintenance, alteration, repair, or service of an irrigation system during the warranty period. The irrigator or business owner is not responsible for the]
professional negligence of any other irrigator who subsequently conducts any irrigation service on the same irrigation system.]

(a) [(b)] All trenches and holes created during the maintenance, alteration, repair, or service of an irrigation system must be backfilled and returned to the original grade with suitable soil free of any objects that could damage the plumbing of the irrigation system. The backfill must be compacted such that a depression does not develop [select backfill].

(b) [(c)] Colored polyvinyl chloride (PVC) pipe primer solvent must be used on all PVC pipes and fittings used in the maintenance, alteration, repair, or service of an irrigation system in accordance with the Uniform Plumbing Code (Section 316) or the International Plumbing Code (Section 605).

(c) [(d)] When maintenance, alteration, repair or service of an irrigation system involves excavation work at the water meter or at a point upstream of the backflow prevention assembly [device], an isolation valve shall be installed, if an isolation valve is not currently installed per §344.62(k) of this title (relating to Minimum Design and Installation Requirements) [present].

§344.65. Reclaimed Water.
Reclaimed water may be utilized in landscape irrigation systems if:

(1) there is no direct contact with edible crops, unless the crop is pasteurized before consumption;

(2) the irrigation system does not spray water across property lines that do not belong to the irrigation system's owner;

(3) the irrigation system is installed using purple components;

(4) the domestic potable water line providing water to the site is connected using an air gap or a reduced pressure principle backflow prevention device, in accordance with §290.47(f) [§290.47(i)] of this title (relating to Appendices);

(5) a minimum of an eight-inch [eight inch] by eight-inch [eight inch] sign, in English and Spanish, is prominently posted on/in the area that is being irrigated, that reads, "RECLAIMED WATER - DO NOT DRINK" and "AGUA DE RECUPERACIÓN - NO BEBER"; and

(6) backflow prevention on the reclaimed water supply line shall be in accordance with the regulations of the water purveyor.
§344.66. Temporary Irrigation Systems.

(a) Temporary irrigation systems must be installed by a licensed irrigator or an irrigation technician under the supervision of a licensed irrigator.

(b) Temporary irrigation systems must meet the backflow prevention requirements in Subchapter E of this chapter (relating to Backflow Prevention and Cross-Connections).

(c) Temporary irrigation systems must be installed in accordance with §344.1(45) of this title (relating to Definitions).

(d) Temporary irrigation systems must have established a definite end date at which time the temporary irrigation system must be removed.
SUBCHAPTER G: ADVERTISING, CONTRACT, AND WARRANTY

§§344.70 - 344.72

Statutory Authority

These amendments are proposed under Texas Water Code (TWC), §5.013, concerning the General Jurisdiction of the Commission; TWC, §5.102, concerning General Powers; TWC, §5.103, concerning Rules; TWC, §5.105, concerning General Policy; TWC, §5.107, concerning Advisory Committees, Work Groups, and Task Forces; TWC, Chapter 37, §§37.001 - 37.015, concerning: Definitions; Rules; License or Registration Required; Qualifications; Issuance and Denial of Licenses and Registrations; Renewal of License or Registration; Licensing Examinations; Training; Continuing Education; Fees; Advertising; Complaints; Compliance Information; Practice of Occupation; Roster of License Holders and Registrants; and Power to Contract; and under TWC, §49.238, concerning Irrigation Systems. These amendments are also proposed under Texas Occupations Code, §1903.001, concerning Definitions; Texas Occupations Code, §1903.002, concerning Exemptions; Texas Occupations Code, §1903.053, concerning Standards; and Texas Occupations Code, §1903.251, concerning License Required. These amendments are proposed under Texas Local Government Code, §551.006, concerning Irrigation Systems. Finally, these amendments are also proposed under Texas Health and Safety Code (THSC), §341.033, concerning Protection of Public Water Supplies; and THSC, §341.034, concerning Licensing and Registration of Persons Who Perform Duties Relating to Public Water Supplies.
These proposed amendments implement TWC, §§5.013, 5.102, 5.103, 5.105, 5.107, 37.001 - 37.015 and 49.238; Texas Occupations Code, §§1903.001, 1903.002, 1903.053, and 1903.251; Texas Local Government Code, §551.006; and THSC, §341.033 and §341.034.

§344.70. Advertisement.

(a) All vehicles used in the performance of irrigation services [installation, maintenance, alteration, repair, or service] must display the irrigator's license number in the form of "LI________" in a contrasting color of block letters at least two inches high, visible on both outward sides of the vehicle.

(b) All forms of advertisement [written and electronic advertisements] for irrigation services, regardless of the type of media, must display the irrigator's license number in the form of "LI________." Any form of advertisement [including business cards, and estimates] which displays an entity's or individual's name other than that of the licensed irrigator must also display the name of the licensed irrigator and the licensed irrigator's license number. Trailers that advertise irrigation services must display the irrigator's license number.

(c) At the location of the permanent structure where the irrigation business is primarily conducted and irrigation records are kept, the [The] name, mailing address,
and telephone number of the commission must be prominently displayed on a legible sign [and displayed] in plain view for the purpose of addressing complaints [at the permanent structure where irrigation business is primarily conducted and irrigation records are kept].

§344.71. Contracts.

(a) All contracts to install an irrigation system must be in writing and signed by each party and must specify the irrigator's name, license number, business address, current business telephone numbers, the date that each party signed the agreement, the total agreed price, and must contain the statement, "Irrigation in Texas is regulated by the Texas Commission on Environmental Quality (TCEQ), MC-235 [MC-178], P.O. Box 13087, Austin, Texas 78711-3087. TCEQ's website is: www.tceq.texas.gov [www.tceq.state.tx.us]." All contracts must include the irrigator's seal, signature, and date.

(b) All written estimates, proposals, bids, and invoices relating to the installation or repair of an irrigation system(s) must include the irrigator's name, license number, business address, current business telephone number(s), and the statement: "Irrigation in Texas is regulated by the Texas Commission on Environmental Quality (TCEQ) (MC-235 [MC-178]), P.O. Box 13087, Austin, Texas 78711-3087. TCEQ's website [web site] is: www.tceq.texas.gov [www.tceq.state.tx.us]."
(c) An individual who agrees by contract to provide irrigation services as defined in §344.30 of this title (relating to License Required) shall hold an irrigator license issued under Chapter 30 of this title (relating to Occupational Licenses and Registrations) unless the contract is a pass-through contract as defined in §344.1(36) of this title (relating to Definitions). If a pass-through contract includes irrigation services, then the irrigation portion of the contract can only be performed by a licensed irrigator. If an irrigator installs a system pursuant to a pass-through contract, the irrigator shall still be responsible for providing the irrigation system’s owner or owner’s representative a copy of the warranty and all other documents required under this chapter. A pass-through contract must identify by name and license number the irrigator that will perform the work and must provide a mechanism for contacting the irrigator for irrigation system warranty work.

(d) The contract must include the dates that the warranty is valid.

§344.72. Warranties.

(a) On all installations of new irrigation systems, an irrigator shall present the irrigation system's owner or owner's representative with a written warranty covering materials and labor furnished in the new installation of the irrigation system. The
irrigator shall be responsible for adhering to terms of the warranty. If the irrigator's warranty is less than the manufacturer's warranty for the system components, then the irrigator shall provide the irrigation system’s owner or the owner's representative with applicable information regarding the manufacturer's warranty period. The warranty must include the irrigator's seal, signature, and date. If the warranty is part of an irrigator's contract, a separate warranty document is not required.

(b) An irrigator’s written warranty on new irrigation systems must specify the irrigator's name, business address, and business telephone number(s), must contain the signature of the irrigation system’s owner or owner’s representative confirming receipt of the warranty and must include the statement: "Irrigation in Texas is regulated by the Texas Commission on Environmental Quality (TCEQ), MC-235 [MC-178], P.O. Box 130897, Austin, Texas 78711-3087. TCEQ’s website is: www.tceq.texas.gov [www.tceq.state.tx.us]."

(c) On all maintenance, alterations, repairs, or service to existing irrigation systems, an irrigator shall present the irrigation system’s owner or owner's representative a written and sealed document that details the work performed and identifies the materials furnished [in the maintenance, alteration, repair, or service]. If a warranty is provided, the irrigator shall abide by the terms. The warranty document must include the irrigator's name and business contact information. The irrigator is responsible for all work that is performed by the irrigator or that is performed under
the irrigator's direction on an irrigation system installed by the irrigator during the warranty period. The irrigator is not responsible for any work performed by any other individual on the same irrigation system.
SUBCHAPTER H: IRRIGATOR ADVISORY COUNCIL

§344.80

Statutory Authority

The amendment is proposed under Texas Water Code (TWC), §5.013, concerning the General Jurisdiction of the Commission; TWC, §5.102, concerning General Powers; TWC, §5.103, concerning Rules; TWC, §5.105, concerning General Policy; TWC, §5.107, concerning Advisory Committees, Work Groups, and Task Forces; TWC, Chapter 37, §§37.001 - 37.015, concerning: Definitions; Rules; License or Registration Required; Qualifications; Issuance and Denial of Licenses and Registrations; Renewal of License or Registration; Licensing Examinations; Training; Continuing Education; Fees; Advertising; Complaints; Compliance Information; Practice of Occupation; Roster of License Holders and Registrants; and Power to Contract; and under TWC, §49.238, concerning Irrigation Systems. The amendment is also proposed under Texas Occupations Code, §1903.001, concerning Definitions; Texas Occupations Code, §1903.002, concerning Exemptions; Texas Occupations Code, §1903.053, concerning Standards; Texas Occupations Code, §1903.151, concerning Council Membership; Texas Occupations Code, §1903.152, concerning Eligibility of Public Members; Texas Occupations Code, §1903.155, concerning Presiding Officer; Texas Occupations Code, §1903.157, concerning Meetings; Texas Occupations Code, §1903.158, concerning Per Diem; Reimbursement; Texas Occupations Code, §1903.159, concerning Council Duties; and Texas Occupations Code, §1903.251, concerning License Required. The amendment is proposed under Texas Local Government Code, §551.006, concerning
Irrigation Systems. Finally, the amendment is also proposed under Texas Health and Safety Code (THSC), §341.033, concerning Protection of Public Water Supplies; and THSC, §341.034, concerning Licensing and Registration of Persons Who Perform Duties Relating to Public Water Supplies.

The proposed amendment implements TWC, §§5.013, 5.102, 5.103, 5.105, 5.107, 37.001 - 37.015 and 49.238; Texas Occupations Code, §§1903.001, 1903.002, 1903.053, 1903.151, 1903.152, 1903.155, 1903.157, 1903.158, 1903.159, and 1903.251; Texas Local Government Code, §551.006; and THSC, §341.033 and §341.034.

§344.80. Irrigator Advisory Council.

(a) The Irrigator Advisory Council is composed of nine members that are appointed by the commission. Appointments to the council will be made without regard to race, creed, sex, religion, or national origin of the appointees. The purpose of the council is to give the commission the benefit of the members’ collective business, environmental, and technical expertise and experience with respect to matters relating to landscape irrigation. The council has no executive or administrative powers or duties with respect to the operation of the commission, and all such powers and duties rest solely with the commission.
(b) Six members of the council must be licensed irrigators who are residents of the State of Texas, experienced in the irrigation business, and familiar with irrigation methods and techniques.

(c) Three members must be representatives of the public. A person is not eligible for appointment as a public member if the person or the person’s spouse:

(1) is licensed by an occupational regulatory agency in the field of irrigation; or

(2) is employed by, participates in the management of, or has, other than as a consumer, a financial interest in a business entity or other organization related to the field of irrigation.

(d) It is grounds for removal from the council by the commission if a member:

(1) does not meet, at the time of the appointment, the qualifications that are required by subsection (b) or (c) of this section for appointment to the council;

(2) does not maintain, during service on the council, the qualifications that are required by subsection (b) or (c) of this section for appointment to the council; or
(3) misses three consecutive regularly scheduled meetings or more than half of all the regularly scheduled meetings in a one-year period.

(e) The members of the council serve staggered six-year terms, with the terms expiring February 1 of each odd-numbered year. For cases where a council member cannot finish their term, the replacement member will serve the remainder of the term.

(f) A member of the council is entitled to per diem as appropriated by the Texas Legislature for each day that the member engages in the business of the council. A member is entitled to reimbursement for travel expenses, including expenses for meals and lodging, as provided for in the General Appropriations Act.

(g) The council shall hold meetings at the call of the commission or chairman.

(h) A majority of the council constitutes a quorum for conducting business.

(i) The council will elect a chairman by a majority vote.