



**Small Business and Local Government Assistance
Groundwater Community Public Water Systems
Compliance Checklist
September 2011**

Company Information		Site Visit Date: _____		
Company Name		Facility Contact		
Mailing Address		Physical Address		
Business Phone		Fax Number		
PWS ID Number(s)		County(ies)		
Plan Approval Date		CCN		
Population Served		Connections		# Wells

This checklist applies only to existing **GROUNDWATER community public water systems** which have approved plans and specifications from TCEQ or its predecessor agency.

Chapters of the Texas Administrative Code (TAC) which may affect you and your system:

30 TAC 288, Subchapter A: Water Conservation Plans

30 TAC 288, Subchapter B: Drought Contingency Plans

30 TAC 288, Subchapter C: Required Submittals

30 TAC 30, Subchapter A: Administration of Occupational Licenses and Requirements

30 TAC Chapter 290, Subchapter D: Rules and Regulations for Public Water Systems

related to requirements for water treatment plant design, operation and maintenance

30 TAC Chapter 290, Subchapter E: Fees for Public Water Systems

30 TAC Chapter 290, Subchapter F: Drinking Water Standards Governing Drinking Water Quality Reporting Requirements

related to drinking water standards governing drinking water quality and reporting requirements for public water systems

30 TAC 290, Subchapter H: Consumer Confidence Reports

30 TAC Chapter 291: Utility Regulations related to rates, capacity development, and Certificates of Convenience and Necessity for certain utilities

30 TAC 293: Water Districts

To view the most current rules, you can log on to www.sos.state.tx.us and look for 30 Texas Administrative Code Chapter 30, 288, 290, 291, and 293.

Compliance with this checklist does not guarantee that you will not receive a Notice of Violation (NOV), but it should substantially increase your chances of a zero-violation investigation. Notice of Violations may also occur through chemical and bacteriological sampling not addressed in this checklist.

Table of Contents

SECTION I. ADMINISTRATIVE, PAPERWORK, REPORTS	Page 3
Chapter 288 Subchapter B: DROUGHT CONTINGENCY PLANS	Page 3
Chapter 290 Subchapter D: RULES AND REGULATIONS FOR PUBLIC WATER SYSTEMS	
Chapter 291 Subchapter A-K: UTILITY REGULATIONS	Page 3
Chapter 290 Subchapter F: DRINKING WATER STANDARDS GOVERNING DRINKING WATER QUALITY & REPORTING	
REQUIREMENTS FOR PUBLIC WATER SYSTEMS	Page 8
Chapter 290 Subchapter H: CONSUMER CONFIDENCE REPORT (CCR)	Page 9
SECTION II TECHNICAL	Page 11
Chapter 290 Subchapter D: RULES AND REGULATIONS FOR PUBLIC WATER SYSTEMS	Page 11

NOTE: * indicates an item likely to be looked at during a TCEQ inspection. A watermark "A" in the "No" column indicates automatic enforcement if noted by TCEQ staff.

			YES	NO	N/A
SECTION I. ADMINISTRATIVE, PAPERWORK, REPORTS					
Chapter 288 Subchapter B: DROUGHT CONTINGENCY PLANS					
1	*288.20(a)	Has a Drought Contingency Plan been prepared and adopted by the PWS, and submitted to the TCEQ within 90 days of adoption if serving 3,300 connections or more?			
Chapter 290 Subchapter D: RULES AND REGULATIONS FOR PUBLIC WATER SYSTEMS Chapter 291 Subchapter A-K: UTILITY REGULATIONS					
SYSTEM DESIGN					
2	290.39(e)(1)	If deficiencies in design or capacity are identified, has an engineering report been submitted to the TCEQ, Water Supply Division?			
3	290.39(j)(1)(D)	Has the Executive Director been notified in writing prior to making any significant change or addition to the system's production, treatment, storage, pressure maintenance, or distribution facilities? (>10% or 250 connections whichever is smaller)		A	
4	290.39(j)(3)	If a Certificate of Convenience and Necessity (CCN) was required or had to be amended due to changes or additions to the system, was the CCN application submitted to the Executive Director?			
DISINFECTION					
5	290.39(j)(1)(B) &(C)	Have all changes in the process and type of disinfectant used to maintain a disinfectant residual in the distribution system been submitted in writing to the Executive Director?			
6	290.39(l)	Are copies of approved exceptions to any of the requirements found in TAC 290 Subchapter D on file at the utility?			
WELLS					
7	*290.39(e)(2)(B) & 290.41(c)(1)(E)	Have all known abandoned or inoperative wells within one quarter mile of a proposed well site been reported to the Commission prior to construction, along with any existing or potential pollution hazards?			
8	*290.39(e)(4) & 290.41(c)(1)(F)	Are 150' sanitary control easements secured and/or deeds showing that the water system owns all land within 150' radius of the well deed recorded at the county courthouse and provided to the Executive Director for each well location prior to use?			

			YES	NO	N/A
9	290.46(u)	Are all wells that are not in use, and are not deteriorated, inspected every 5 years or as required by the Executive Director, and are the test results submitted to the Executive Director? If wells are abandoned or deteriorated, are they plugged or repaired to non-deteriorated condition?			
10	290.46(n)(3)	Are copies of well material setting data, geological log, sealing information, disinfection information, microbiological sample results and chemical analysis reports on file for each well in service?			
11	290.46(s)(1-2)	Are well meters calibrated at least once every three years? Have benchtop pH meters been calibrated daily, and/or have on-line pH meters calibrated every 30 days? Have benchtop and on-line turbidimeters been calibrated with primary standards at least every 90 days?			
		HAULED WATER			
12	290.44(i)(2)(A-K)	If water is hauled, is the equipment used approved by the Executive Director and constructed and maintained according to 290.44(i)?			
13	290.44(i)(2)(L)	If water is hauled, are the records containing amounts of water hauled, purchases, microbiological sampling results, chlorine residual readings, dates of disinfection and source of water maintained?			
		EXCEPTIONS, ALTERNATIVE CAPACITY REQUIREMENTS, AND EMERGENCY OPERATIONS			
14	*290.43(d)(9)	If more than 3 pressure tanks are located at one site, has the system received prior written approval from the Executive Director?			
15	290.45(a)(7)	If a public water system is an affected utility [see definition in 290.38(1)] and pressure in the distribution system has dropped below 35 psi during emergency operations, has the utility submitted a revised Emergency Preparedness Plan (EPP) or justification regarding pressure drop for review and approval within 180 days of the date normal power is restored?			
16	*290.45(b)(3), (c)(3), (d)(4), and (e)(4)	If the system is an affected utility, does it have an EPP that has been approved by the Executive Director?			
17	290.45(f)	If the water system purchases treated water, does it have a contract with the seller that authorizes the purchaser to buy enough water to meet its monthly or annual needs and that lists the maximum daily and hourly purchase rate (or uniform purchase rate)? If the system purchases water to meet part of its monthly or annual needs, the contract does NOT need to specify the purchase of the system's total water needs, but the water system is required to have another means of meeting the remainder of its required production capacity.			
18	290.45(f)(4)	If the system purchases water, is the purchase rate plus the actual production capacity of the purchaser at least 0.6gpm/connection?			
19	290.45(g)	If a community system has more than 50 connections but cannot meet the capacity requirements stated under 290.45(b), have they been granted an alternative minimum capacity requirement by the Executive Director?			

			YES	NO	N/A
20	290.45(g)(5)	If a community system has over 2500 connections and does not provide elevated storage, is a copy of the Executive Director's approved alternative capacity requirement on file?			
21	290.45(h)(5)	If the water system is an 'affected utility' and does not meet the elevated storage capacity requirements, does its approved emergency preparedness plan provide adequate pressure to meet the pressure requirements of §290.46(r) and does the system still comply with the production, treatment, total storage and service pump capacity requirements of subchapter D?			
22	290.46(f)(5)(A-C)	If the water system is an affected utility, does it maintain an EPP approved by the Executive Director, a copy of the approval letter, all required operating and maintenance records for auxiliary power equipment (including periodic testing of the auxiliary power equipment under load and any associated automatic switch over equipment), and copies of the manufacturer's specifications for all generators that are part of the approved EPP for as long as they are applicable to the system?			
		OPERATING REPORTS, RECORDS, PLANS, MAPS, PROGRAMS			
23	*290.42(l)	Is the plant operations manual detailed and up to date?			
24	290.44(g)(1) 290.46(k)	Does the public water system have written approval for all interconnections with other public water systems?			
25	290.44(h)(1)(B)(i) & 290.44(h)(4)	Has the public water system adopted an adequate plumbing ordinance, regulations (for example the uniform or international plumbing code), or service agreements with provisions for enforcement to ensure that neither cross-connections nor other unacceptable plumbing practices are permitted?			
26	*290.44(h)(4)(C)	Does the public water system require testing of all backflow prevention assemblies installed at health hazards, as defined in 290.38(31), by a certified backflow prevention assembly tester? Are the signed and dated original backflow prevention assembly test reports kept on file with the public water system for at least 3 years? <i>[testers follow 290.44(h) requirements for equipment and reporting criteria]</i>			
27	290.45(b)(1)(D)(v)	If the <i>community</i> public water system serves more than 250 connections and does not meet the elevated storage capacity requirement, is a log of emergency power use kept on file for at least 3 years and available for Executive Director review?			
28	*290.46(e)	Is the water system being operated by a licensed operator that holds an applicable, valid license of a type and class appropriate for the system?		A	
29	*290.46(f)	Does the public water system maintain a daily operating and maintenance activity record and are operating reports submitted as required?			
30	290.46(f)(1-2)	Are the public water system's records accessible for review during inspection and are they organized and kept on file or stored electronically?			

			YES	NO	N/A
31	*290.46(f)(3)(A)(i)	Are the public water system's reports for chemical use kept on file for two years? If the system has at least 250 connections or serves 750 or more people, or if the system treats surface water or groundwater under the influence of surface water, are the system's records for the amount of chemical used each day kept on file for two years? If the system serves fewer than 250 connections or 750 people, and uses only groundwater or purchased water, are records on file for the amount of chemical used each week?			
32	*290.46(f)(3)(A)(ii)	If the system has at least 250 connections or serves 750 or more people, or if the system treats surface water or groundwater under the influence of surface water, are the system's records for the volume of water treated each day kept on file for two years? If the system serves fewer than 250 connections or 750 people, and uses only groundwater or purchased water, are records kept on file for the volume of water treated each week?			
33	290.46(f)(3)(A)(iii)	Are the system's reports for the date, location, and nature of water quality, pressure, or outage complaints received by the system and the results of any complaint investigations kept on file for at least two years?			
34	290.46(f)(3)(A)(iv)	Are the dates that the dead-end mains are flushed kept on file at least two years?			
35	290.46(f)(3)(A)(v)	Are the dates that storage tanks and other facilities are cleaned kept on file at least two years?			
36	290.46(f)(3)(A)(vi)	Are the maintenance records for water system equipment and facilities kept on file at least two years?			
37	290.46(f)(3)(B)(i)	Are the system's records for notices of violation and corrective actions kept on file for three years?			
38	290.46(f)(3)(B)(ii)	Are copies of any public notices issued by the water system kept on file for three years?			
39	290.46(f)(3)(B)(iii)	Are the disinfectant residual monitoring results kept on file for three years?			
40	290.46(f)(3)(B)(v)	Are the calibration records for laboratory equipment, flow meters, rate-of-flow controllers, on-line turbidimeters, and on-line disinfectant residual analyzers kept on file for three years?			
41	290.46(f)(3)(B)(vi)	Are the records of backflow prevention device programs (including backflow prevention assembly test and maintenance forms) kept on file for three years?			
42	290.46(f)(3)(C)(i)	Are the records for variances or exemptions granted kept for 5 years after they are no longer in effect?			
43	290.46(f)(3)(C)(ii-iii)	Does the public water system retain the records concerning exceptions, Concentration Time studies, the Recycling Practice Form, and other recycling records for five years after these documents are no longer in effect?			
44	290.46(f)(3)(D)(i),	Are the results of microbiological analyses maintained for a period of five years?			
45	290.46(f)(3)(D)(ii-iii)	Are the results of inspections for water storage facilities, maintenance facilities, and pressure filters kept for a period of 5 years?			
46	*290.46(f)(3)(E)(i-ii)	Does the public water system retain records of Monthly Operating Reports, and supporting documentation such as turbidity monitoring results of combined filter effluent and chemical analysis results for ten years?			

			YES	NO	N/A
47	290.46(f)(3)(E)(iii)	Does the public water system retain written reports, summaries, or communication relating to sanitary surveys conducted by the system, private consultant or the Executive Director, and customer service inspection reports for ten years?			
48	290.46(f)(3)(E)(iv-vi)	Does the public water system retain customer service inspection reports and a copy of their Initial Distribution System Evaluation (IDSE) plan, report, approval letters, and other required compliance documentation for Disinfection By-products (DBPs), including documentation of state notification of modifications to an IDSE report, for ten years?			
49	290.46(f)(3)(E)(vii-ix)	Does the public water system retain a copy of 40/30 certification, corrective actions taken by the water system, and monitoring plans required by TAC Chapter 290, Subchapter F for ten years?			
50	290.46(f)(3)(F)	Does the public water system maintain records relating to special studies and pilot projects, special monitoring, and other system specific matters as directed by the Executive Director?			
51	*290.46(f)(4)	Does the public water system submit all routine reports required in a complete and timely manner?		A	
52	*291.93(3)	If the public water system has a CCN and has reached 85% of its capacity, has it completed and turned in a Planning Report?			
53	*290.46(m)	Is a maintenance program in place to ensure reliability and general appearance of all facilities (in order to minimize possibility of the harboring of rodents, insects, vectors, etc.)?			
54	*290.46(n)(2)	Is an up-to-date and accurate map of the distribution system readily available?			
55	290.46(p)(1)	Were changes in system ownership reported to the Commission 120 days prior to the transaction date and in accordance with TAC Chapter 291?			
56	290.46(p)(2)	On an annual basis, does the water system submit to the TCEQ a list of all operators and operating companies employed by the water system?			
57	290.46(q)(1) and 290.47(e)	Are boil water notices issued in a timely manner and as specified in 290.47 for low pressure (below 20 psi), water outages, unsafe microbiological samples, low chlorine residuals, high turbidity levels, or other conditions which indicate the potability of the drinking water has been compromised?		A	
58	*290.121(a)	Is the system's chemical and microbiological monitoring plan up to date and maintained at each plant and at a central location?			
59	291.71 thru 291.76	Does the utility produce and maintain general reports, financial reports, annual reports, management audits, and regulatory assessment records according to this section of the rules?			
60	291.90(b)	Does the utility keep records of interruptions both emergency and scheduled- showing cause, date, time, duration, location, number of customers affected, and if an emergency action, to prevent recurrence?			
		TARIFF (Applies to corporations, cooperatives, and affected counties, NOT municipalities, water supply corporations, or political subdivisions, such as districts)			

			YES	NO	N/A
61	291.21(a)	If the system is owned by a person, corporation, cooperative corporation, affected county, or any combination of those persons or entities, are tariffs (rates) charged in accordance to a tariff signed and approved by the commission?			
62	291.21(b)(2)	Does the utility get approval from the Executive Director before changing their tariff (rates)?			
		CERTIFICATE OF CONVENIENCE AND NECESSITY (CCN)			
63	291.91 thru 291.95	If the system is a retail public utility required to possess a Certificate of Convenience and Necessity (CCN), is continuous and adequate service being supplied to every qualified applicant requesting service in the boundaries of the CCN?			
64	291.101	If the utility charges for water directly or indirectly, do they possess a CCN and only serve outside their certificated area with Commission approval? (N/A for those systems only submetering and allocating service)			
		Chapter 290 Subchapter F: DRINKING WATER STANDARDS GOVERNING DRINKING WATER QUALITY MONITORING & REPORTING REQUIREMENTS FOR PUBLIC WATER SYSTEMS			
65	290.104	Are the Maximum Contaminant levels (MCLs), maximum residual disinfectant levels (MRDLs), treatment techniques, and action levels in this section met?			
66	290.106(e) and (g)	Does the public water system monitor and report the monitoring results of inorganic contaminants (IOC), and if applicable, does it notify the customers and the TCEQ Water Supply Division of any violations?			
67	290.107(e) and (g)	Does the public water system monitor and report the monitoring results of organic contaminants, and if applicable, does it notify the customers and the TCEQ Water Supply Division of any violations?			
68	290.108(e) and (g)	Does the public water system monitor and report the monitoring results of radionuclides other than Radon, and if applicable, does it notify the customers and the TCEQ Water Supply Division of any violations?			
69	290.109(e) and (g)	Does the public water system monitor and report the monitoring results of microbial contaminants, and if applicable, does it notify the customers and TCEQ Water Supply Division of any violations?			
70	290.110(e) and (g)	Does the public water system monitor and report the monitoring results of disinfectant residuals, and if applicable, does it notify the customers and the Executive Director of any violations?			
71	290.112(e) and (g)	Does the public water system monitor and report monitoring results of total organic carbon (TOC), and if applicable, does it notify the customers and the TCEQ Water Supply Division of any violations?			
72	290.113(e) and (g)	Does the system monitor and report the monitoring results of disinfection by-products (DBPs) such as trihalomethanes (TTHM) and haloacetic acids (five) (HAA5), and if applicable, does it notify the customers and the TCEQ Water Supply Division of any violations?			

			YES	NO	N/A
73	290.113(b)(1)-(2)	Is the public water system delivering water to the public that has TTHM and total HAA5 levels less than the maximum contaminant levels (MCL) of 0.08 milligrams/liter (mg/L) and 0.60 mg/L respectively?			
74	290.114(a)(4) and (6), 290.114(b)(4) and (6)	Does the system monitor and report the monitoring results of other DBPs (Chlorite and Bromate), and if applicable, does it notify the customers and the TCEQ Water Supply Division of any violations?			
75	290.117(i) and (m)(1)	Does the public water system report, monitor, and provide public education relating to the regulations of lead and/or copper?			
76	290.118(e) and (g)	Does the public water system report the monitoring results of secondary constituent levels, and if applicable, does it notify the customers of any violations according to 290.122?			
77	290.118	Does the public water system follow the monitoring requirements for secondary constituent levels as required in this section?			
78	290.119(a)	Does the public water system use only acceptable laboratories to analyze its samples as required by this section?			
79	290.119(b)	Does the public water system use the acceptable analytical methods as described in this section?			
80	*290.121(a)	Is a copy of the monitoring plan maintained at each water treatment plant and at a central location?			
81	290.122(a)(1)	<i>If applicable</i> , does the public water system notify the customers by its system when acute violations occur as required by this section?		A	
		Chapter 290 Subchapter H: CONSUMER CONFIDENCE REPORT (CCR)			
82	*290.271(b)	Has the water system provided an annual (CCR) report that contains all information required to its customers?			
		<u>Content of the CCR Report</u>			
83	290.272(a)(2)	If a source water assessment has been completed, does the report indicate how to obtain a copy?			
84	290.272(g)(2)	Does the report include the telephone number of the owner, operator, or designee of the water system as another source of information regarding the report?			
85	290.272(g)(3)	If the report is written in English, does it include the Spanish statement required in this section?			
86	290.274(a)	Are the reports mailed or delivered to each bill paying customer by July 1 each year?			
87	290.274(a)	Does the system provide a copy of the report to each new customer upon request?			
88	290.274(b)	Has a good faith effort been made to deliver a copy of the report to non bill paying customers such as renters or workers as described in this section?			

			YES	NO	N/A
89	290.274(c)	Has the system certified that the reports were distributed and that information in the report is correct and consistent with the compliance monitoring data previously submitted to the Executive Director, and was this certification along with a copy of the report mailed to the Executive Director by July 1 each year?			
90	290.274(d)	Has the system sent the report to any other agency identified by the Executive Director by July 1 each year ?			
91	290.274(e)	Does the system make its report available to the public upon request?			
92	290.274(f)	If the system serves 100,000 or more customers, is the current year's report posted to a publicly accessible site on the Internet?			
93	290.274(g)	If the system provides water to a community water system, is the report delivered to the receiving system by April 1, and has the certification to the Executive Director that the required information has been delivered mailed to the Executive Director by May 1 of each year?			
94	290.274(h)	Does the system retain copies of its CCRs for a minimum of 5 years?			

			YES	NO	N/A
SECTION II TECHNICAL					
Chapter 290 Subchapter D: RULES AND REGULATIONS FOR PUBLIC WATER SYSTEMS					
WATER SOURCES - WELLS					
1	*290.41(c)(1)(A)	Is the well site 150 feet or more from a septic tank perforated drain field, areas of irrigation by an OSSF, absorption bed, evapotranspiration bed, improperly constructed water well, or underground petroleum and chemical storage tank, and liquid transmission pipeline, or abandoned and improperly sealed wells?			
2	*290.41(c)(1)(A)	Is the well site at least 50 feet from a cemetery or a tile or concrete sanitary sewer, sewerage appurtenance, septic tank, storm sewer, or at least 10 feet from a sanitary or storm sewer constructed of ductile iron or PVC meeting American Water Works Association (AWWA) standards and having a minimum working pressure of 150 psi or greater?			
3	*290.41(c)(1)(B)	Is the well site located 500 feet or more from a sewage treatment plant?			
4	*290.41(c)(1)(B)	Is the well located 300 feet or more from a sewage wet well, sewage pumping station, or a drainage ditch which contains industrial waste discharges or the wastes from sewage treatment systems?			
5	*290.41(c)(1)(C)	Is the water well located 500 feet or more from an animal feed lot, solid waste disposal site, lands on which sewage plant or septic tank sludge is applied, or lands irrigated by sewage plant effluent?			
6	*290.41(c)(1)(D)	Is the water well inaccessible to livestock in pastures such that animals are prevented from coming within 50 feet of the water well?			
7	290.41(c)(1)(F)	Have all pollution hazards within 150 feet of the well location(s) been removed?			
8	*290.41(c)(3)(B)	Does the well casing extend at least 18 inches above the elevation of the finished floor of the pump room or natural ground surface and a minimum one-inch above the sealing block or pump motor foundation block if one is provided?			
9	*290.41(c)(3)(H)	Was the water supply installation constructed without any below ground-level pump rooms and pump pits?			
10	*290.41(c)(3)(I)	Is the well site fine graded and free from depressions, reverse grades, and areas too rough for proper ground maintenance so that surface water drains away from well?			
11	*290.41(c)(3)(J)	Does the concrete sealing block extend at least three feet from the well casing in all directions?			
12	*290.41(c)(3)(J)	Is the concrete sealing block at least six inches thick?			
13	*290.41(c)(3)(J)	Does the concrete sealing block slope at least 0.25 inches per foot to drain away from the wellhead?			

14	*290.41(c)(3)(K)	Are the wellheads and pump bases sealed by a gasket or sealing compound and properly vented to prevent possible contamination of the water well?			
15	*290.41(c)(3)(K)	Is the well casing vent in place and covered with 16-mesh or finer corrosion resistant screen, facing downward, elevated and located to minimize drawing contaminants into the well?			
16	290.41(c)(3)(K)	Are the wellheads and vents two feet or more above the highest known watermark or 100-year flood elevation, or adequately protected from possible floods?			
17	*290.41(c)(3)(L)	If there is a well blow-off line, is its discharge(s) terminated in a downward direction where it cannot be submerged by flood waters?			
18	*290.41(c)(3)(M)	Is a suitable sampling cock located on the discharge pipe of each well pump prior to treatment?			
19	*290.41(c)(3)(N)	Are flow-measuring devices provided for each well and located for ease of daily readings?			
20	*290.41(c)(3)(Q)	If an air release device is provided on the discharge piping, is it elevated and located to avoid submergence and minimize drawing contaminants into the well, and are all openings covered with 16-mesh or finer corrosion resistant screen?			
21	290.41(c)(4)(A)	If pitless well units are supplied, are they shop fabricated from the point of connection with the well casing to the unit cap or cover; threaded or welded to the well casing, watertight, and constructed of materials and weight comparable to the casing?			
22	290.41(c)(4)(A)	If pitless well units are supplied, do they have field connections to the lateral discharge with threaded, flanged or mechanical joint connection?			
23	290.41(c)(4)(B)	If pitless well units are supplied, are they designed with access to disinfect the well, a properly designed casing vent, a cover at the upper terminal of the well that will prevent the entrance of contamination, a sealed entrance connection for electrical cable, and at least one check valve in the well casing?			
24	290.41(c)(4)(B)	If pitless well units are supplied, do they have a diameter as large as the well casing up to and including well casing diameters of 12 inches?			
25	290.41(c)(4)(C)	If pitless well units are supplied and designed for field welding to the casing, is the shop assembled unit designed specifically for field weld?			
		WATER TREATMENT			
26	*290.42(a)(1)	Is the total capacity of the public water system production and treatment facilities greater than its anticipated maximum daily demand?			
		Groundwater Treatment			
27	290.42(b)(1)	Is a disinfection facility provided for microbiological control and distribution protection and is it in conformity with disinfection requirements?		A	

28	290.42(b)(2)	If the ground water does not meet drinking water standards, is an acceptable treatment facility provided? (Follow 290.42(b)(2) thru (7) for specifics)			
29	290.42(b)(4)	Are laboratory facilities provided for controls and to check the effectiveness of disinfection and other treatment processes?			
30	290.42(b)(5)	Is all plant piping constructed for minimal leakage?			
31	*290.42(b)(6)	Are sampling taps provided for raw water, treated water, and at every point water enters the distribution system?			
32	*290.42(b)(7)	Are air release valves covered with 16 mesh or finer corrosion resistant material and installed so they cannot be submerged to prevent contaminants from entering?			
33	*290.46 (f)(3)(B)(vii)	If a system treats ground water under the direct influence of surface water and bin classification (for TTHM) is established, are raw water monitoring results retained for a period of three (3) years?			
34	290.46(f)(3)(B)(viii)	If a system treats ground water under the direct influence of surface water and elects to provide 5.5-log <i>Cryptosporidium</i> treatment in lieu of raw surface water monitoring, has the Executive Director been notified and are records retained for three (3) years?			
35	290.42 (g)	If a system is using innovative or alternative treatment processes, such as an arsenic removal system, has pilot test data or data collected at a similar full-scale operation been submitted for review and approval by a licensed professional engineer to the Executive Director?			
		DISINFECTION			
36	290.42(e)(1)	Is all water disinfected in accordance with 290.110?			
37	*290.42(e)(2)	Is all groundwater disinfected prior to distribution and if storage is provided prior to distribution, is the application point prior to the storage tanks?			
38	290.42(e)(3)	Is disinfection equipment installed and does it provide continuous and effective disinfection at all times?			
39	*290.42(e)(3)(A)	Does the disinfection equipment have a capacity 50% greater than the highest expected dosage to be applied at any given time?			
40	290.42(e)(3)(B)	Is automatic proportioning equipment for disinfectant equipment provided?			
41	*290.42(e)(3)(D)	Does the system have facilities available to determine the amount of disinfectant used daily and the remaining amount for use? (scales, gauges)			
42	290.42(e)(3)(E)	Are calcium hypochlorite solutions prepared in separate mixing tanks and allowed to settle?			
43	*290.42(e)(4)(A)	If chlorine gas is used, is a full-face self-contained breathing apparatus or supplied air respirator readily accessible and immediately available outside the chlorine room?			

44	*290.42(e)(4)(A)	Is a small bottle of fresh ammonia for testing for chlorine leaks readily accessible and immediately available outside the chlorine room?			
45	*290.42(e)(4)(B)	Is the gas chlorination equipment stored in a separate building or separate room with impervious walls separating it from all other mechanical and electrical equipment?			
46	290.42(e)(4)(C)	Is adequate ventilation (forced air) provided for areas where chlorine is stored or fed?			
47	*290.42(e)(5)	Are hypochlorination solution containers and pumps housed in secure enclosures to protect from adverse weather conditions and vandalism? Are the solution container tops completely covered to prevent the entrance of dust, insects, etc?			
48	*290.42(e)(6)	Is anhydrous ammonia feed equipment stored in a secure, separately enclosed, and appropriately ventilated (forced air) area?			
		FACILITIES			
49	*290.41(c)(3)(O), 290.42(m) and *290.43(e)	Are all facilities protected by intruder resistant fences, with gates that have locks; or are all facilities enclosed in locked, ventilated structures to prevent intruder passage or damage to the facilities by trespassers? Is the gate or well house locked after dark and when the plant is unattended?			
50	*290.41(c)(3)(P), and 290.42(a)(3)	Does each plant and well site have an all weather access road leading to it?			
51	*290.42(h)	Are appropriate toilets and hand washing facilities provided in areas where employees frequent?			
		PERMITS			
52	*290.42(i)	Have wastewater permits been obtained as necessary for water treatment processes?			
		CHEMICALS			
53	*290.42(j)	Do all the chemicals and any additional or replacement process media used in treatment of water supplied conform to American National Standards Institute/National Sanitation Foundation Standard (ANSI/NSF) 60 for direct additives and ANSI/NSF Standard 61 for indirect additives?			
		SAFETY			
54	290.42(k)(1)	Does all safety equipment meet OSHA standards or the Texas Hazard Communication Act, Texas Health and Safety Code, Title 6, Chapter 502?			
55	*290.42(k)(2)	Does the system comply with the EPA requirements for Risk Management Plans?			
		WATER STORAGE			
56	*290.43(b)(1)	Are the elevated and/or ground storage tanks located 500 feet or more away from any municipal or industrial sewage treatment plant or any land that is spray irrigated with treated sewage effluent or sludge disposal?			

57	*290.43(b)(2)	Are clearwells or treated water tanks located appropriately so that they are not under any part of any building and if possible, constructed wholly or partially above ground?			
58	*290.43(b)(3)	If the clearwell or storage tank is located below ground level, is it more than 50 feet from a sanitary sewer or septic tank (unless the sanitary sewer is constructed of 150 psi pressure rated pipe with pressure tested, watertight joints, then the distance is no closer than 10 feet)?			
59	*290.43(b)(4)	If the storage tank or clearwell is constructed below ground level, is it at least 150 feet from a septic tank soil absorption system?			
60	*290.43(c)	Are all facilities for potable water storage covered and designed, fabricated, erected, tested and disinfected in strict accordance with current AWWA standards and do they provide the minimum number, size, and type of roof vents, manways, drains, sample connections, access ladders, overflows, liquid level indicators, and other appurtenances required?			
61	*290.43(c)	Are roofs on all tanks designed and erected so that no water ponds on roof, and no roof has a slope of less than 0.75 inches per foot?			
62	*290.43(c)(1)	Are the roof vents that are gooseneck or ventilator type designed for maximum outflow from the tank, and installed according to AWWA standards?			
63	*290.43(c)(1)	Do the roof vents have approved 16 mesh or finer screens securely fastened with stainless or galvanized bands or wires to prevent animals, birds, insects, or heavy air contaminants from entering?			
64	*290.43(c)(2)	Are all the roof openings designed in accordance to AWWA standards and at least 30 inches in diameter, with a raised 4 inch curb and lockable cover that overlaps the curbing at least two inches in a downward direction?			
65	*290.43(c)(3)	Are all overflow pipes equipped with a gravity-hinged and weighted cover that does not gap more than 1/16"?			
66	*290.43(c)(3)	Are all the overflow discharges located above ground level and not subject to submergence?			
67	*290.43(c)(3)	Do all the overflows terminate at ground level or are they located close enough and at a position accessible from a ladder or the balcony for inspection purposes?			
68	*290.43(c)(4)	Do all ground storage tanks have liquid level indicators at the tank site?			
69	*290.43(c)(5)	Are all inlet and outlet connections located to prevent short circuiting or stagnation of water?			
70	290.43(c)(5)	Are any clearwells used for disinfectant contact time appropriately baffled to prevent short-circuiting?			
71	*290.43(c)(6)	Are the clearwells and potable water storage tanks tight to prevent leakage, and are they located above ground level with no common walls with any other part of the plant containing water in the process of being treated?			
72	*290.43(c)(6)	Are all associated appurtenances including valves, pipes, and fittings tight against leakage?			

73	*290.43(c)(7)	Do all storage tanks have a means to remove accumulated silt and deposits at all low points in the bottom of the tank, and have drains that are not connected to a waste or sewage disposal system constructed such that they are not a potential contamination hazard?			
74	290.43(c)(8)	Are all clearwells, ground storage tanks, standpipes, and elevated tanks painted (with lead-free paint), disinfected, and maintained in strict accordance to AWWA standards, and do newly installed coatings conform to ANSI/NSF Standard 61, and are they certified by an organization accredited by ANSI?			
75	290.43(c)(9)	Is a letter from the previous owner of any used tank on file with the Commission confirming that the used tank put into operation was only used previously for potable water storage or was not previously used for non potable water purposes?			
76	290.43(c)(10)	Are all the access manways in the riser pipe, shell area, access tube, bowl area or any other location opening directly into the water compartment placed according to AWWA standards?			
77	*290.43(c)(10)	Are all the manways or other openings at least 24 inches in diameter (with some exceptions spelled out in 290.43(c)(10) for riser pipes or access tubes 36 inches in diameter or less, and primary access manways in the lower section of ground storage tanks)?			
78	*290.43(c)(10)	Are all openings that directly open to the water compartment sealed with a gasket to make a positive seal when closed?			
		PRESSURE TANKS			
79	290.43(d)	Are all the pressure (hydropneumatic) tanks located above grade and made from steel with welded seams? (Some exceptions in 290.43(d)(8))			
80	*290.43(d)(1)	Is the thickness of the metal in all pressure tanks sufficient to withstand the highest expected working pressure with a four to one safety factor?			
81	*290.43(d)(1)	Do all pressure tanks 1,000 gallons or larger meet ASME standards and have an access port for inspections (those installed before 7/1/1988 are exempt from the ASME coding requirement)?			
82	290.43(d)(1)	Do all pressure tanks of 1,000 gallons or larger have a permanently affixed ASME name plate?			
83	*290.43(d)(2)	Do all pressure tanks have a pressure release device?			
84	*290.43(d)(2)	Do all pressure tanks have an easy to read pressure gauge?			
85	*290.43(d)(3)	Do all the pressure tanks provide facilities to maintain air-water volume at its design water level and working pressure?			
86	*290.43(d)(3)	Do all pressure tanks larger than 1,000 gallons have a device readily available to determine the air-water volume? (Galvanized tanks installed before 7/1/1988 are exempt)			
87	290.43(d)(3)	Do air injection lines have filters or other devices to prevent compressor lubricants and other contaminants from entering the pressure tank?			

88	290.43(d)(4)	Are protective paint or coating applied to the inside portion of all pressure tanks and do they conform to ANSI/NSF Standard 61 and been certified by an organization accredited with ANSI?			
89	290.43(d)(5)	Have all pressure tanks only been used to store potable water?			
90	290.43(d)(6)	Are all pressure tanks equipped with a slow closing valve and time delay pump controls?			
91	*290.43(d)(7)	Are all associated pipe, valves, and fittings connected to the pressure tanks tight against leaks?			
92	290.43(d)(8)	Are any seamless fiberglass tanks used no greater than 300 gallons?			
93	*290.43(e)	Are the water storage tanks and pressure maintenance facilities installed in a lockable building that is intruder resistant or enclosed by an intruder resistant fence with lockable gates?			
94	290.43(f)	Are any service pumps taking suction from storage tanks provided with an automatic low water cutoff device, and does the service pump circuitry resume pumping automatically once the minimum water level is reached in the tank?			
		WATER DISTRIBUTION			
95	*290.44(a)(1)	Do all newly installed pipes and related products used in the system conform to ANSI/NSF Standard 61 and are they certified by an organization accredited by ANSI?			
96	290.44(a)(2)	Do all of the plastic pipes used in the system have an ASTM design pressure rating of 150 psi or a standard dimension ratio of 26 or less?			
97	290.44(a)(3)	Have all the pipes used in the water system only been used for conveying drinking water?			
98	290.42(c)(4)	Is there no cross-connection or interconnection between a conduit carrying potable water and another carrying raw water or water in a prior stage of treatment?			
99	290.44(a)(4)	Are the water transmission/distribution lines buried at least 24" below ground surface?			
100	290.44(a)(5)	Does the hydrostatic leakage rate not exceed the amount allowed or recommended by AWWA formulas?			
101	290.44(b)(1)	Do the pipe and pipe fittings not exceed 8 percent lead, and does the lead in solders and flux not exceed 0.2 percent? (Waived for repairs to cast iron pipe)			
102	290.44(c)	Are all new pipes used in the system at least 2 inches in diameter? (Does not apply to individual customer service lines)			
103	*290.44(d)	Does the water distribution system provide a minimum pressure of 35 psi at all points in the distribution network at flow rates of 1.5 gpm/ connection and maintain 20 psi during combined fire fighting and drinking water flow conditions?			
104	*290.44(d)(1)	Are all air release devices installed in the distribution where topography or other factors may create air locks?			

105	*290.44(d)(2)	If booster pumps are installed to take suction directly from the distribution system, is minimum residual pressure of 20 psi maintained on the suction at all times?			
106	*290.44(d)(2)	Has an exception been granted by the Executive Director in a plan approval letter or by separate correspondence for all booster pumps taking suction from any area other than a storage tank in the public water system lines?			
107	*290.44(d)(3)	Are the booster pumps equipped with an automatic pressure cut off device?			
108	290.44(d)(4)	Do all service connections provide accurate metering devices?			
109	290.44(d)(5)	Are sufficient valves and blowoffs available for repairs and flushing to avoid large areas of interrupted service?			
110	*290.44(d)(6)	Do all dead end mains have acceptable flush valves and discharge piping?			
111	*290.44(d)(6)	Are dead end mains located and arranged for ultimately connecting them to provide circulation?			
112	*290.44(e)	Does the water system follow the requirements in this section regarding the installation of water distribution lines, wastewater collection lines, wastewater force mains, or other potential sources of contamination?			
113	290.44(f)	Are sanitary precautions including flushing, disinfection and bacteriological sampling followed according to AWWA standards when disinfecting water mains and when laying water lines?			
114	290.44(h)(1)(A)	Have all connections to residences or establishments where an actual or potential contamination hazard exists been protected by an air gap or backflow prevention assembly?			
115	290.44(h)(2)	Does the water system prohibit the water used for condensing, cooling, or industrial processes from returning to the potable water supply?			
116	290.44(h)(3)	Do overhead bulk water dispensing stations provide an air gap between the filling outlet hose and the receiving tank?			
117	290.44(h)(4)	Have all backflow prevention assemblies required by 290.44(h) and 290.47(i) which are installed to provide protection against health hazards been tested and certified to be operating within specifications at least annually by a recognized backflow prevention assembly tester?			
118	290.44(h)(4)(A)	Have all backflow prevention assembly testers completed an Executive Director approved course on cross connection control and backflow prevention assembly testing and have they passed an examination administered by the Executive Director and hold a current professional license as a backflow prevention assembly tester?			
119	290.44(h)(4)(B)	Are gauges used in testing backflow prevention assemblies tested annually for accuracy?			
120	290.44(i)(1)&(2)	If water is hauled, is it obtained from an approved source and has the equipment used for transportation been approved by the Executive Director and constructed according to 290.44(i)(2)(A-L)?			

		MINIMUM CAPACITY REQUIREMENTS			
121	290.41(b)	Does the source have a safe yield capable of supplying maximum daily demands of the distribution system during extended periods of peak usage and critical hydrologic conditions?			
122	290.44(g)(2)	If there is a direct connection between public water systems, is the system utilized as the secondary source capable of supplying a minimum of 0.35 gpm per connection for the total number of connections in the combined distribution system?			
		Groundwater systems with less than 50 connections and without ground storage			
123	290.45(b)(1)(A)(i)	Is the well capacity 1.5 gpm per connection or greater?			
124	290.45(b)(1)(A)(ii)	Is the pressure tank capacity 50 gallons per connection or greater?			
		Groundwater systems with less than 50 connections with ground storage			
125	290.45(b)(1)(B)(i)	Is the well capacity 0.6 gpm per connection or greater?			
126	290.45(b)(1)(B)(ii)	Is the total storage capacity 200 gallons per connection or greater?			
127	290.45(b)(1)(B)(iii)	Are there two or more service pumps having a total capacity of 2.0 gpm per connection?			
128	290.45(b)(1)(B)(iv)	Is the pressure tank capacity 20 gallons per connection or greater?			
		Groundwater systems with 50 to 250 connections			
129	290.45(b)(1)(C)(i)	Is the well capacity 0.6 gpm per connection?			
130	290.45(b)(1)(C)(ii)	Is the total storage capacity 200 gallons per connection or greater?			
131	290.45(b)(1)(C)(iii)	Does each pump station or pressure plane have two or more pumps with a total capacity of 2.0 gpm per connection, or if there is an elevated storage capacity of 200 gallons per connection, are there two service pumps with a minimum combined capacity of 0.6 gpm per connection at each pump station or pressure plane?			
132	290.45(b)(1)(C)(iv)	Is there an elevated storage capacity of 100 gallons per connection or a pressure tank capacity of 20 gallons per connection?			
		Groundwater systems with more than 250 connections			
133	290.45(b)(1)(D)(i)	Are there at least two wells with a total capacity of 0.6 gpm per connection?			
134	290.45(b)(1)(D)(i)	Under emergency situations where an emergency interconnect exists, is there a supply of 0.35 gpm per connection in the combined system?			
135	290.45(b)(1)(D)(ii)	Is there a total storage capacity of 200 gallons per connection?			

136	290.45(b)(1)(D)(iii)	Does each pump station or pressure plane have two or more pumps with a total capacity of 2.0 gpm per connection, or a total capacity of 1,000 gpm and the ability to meet peak hourly demands with the largest pump out of service (whichever is less)?			
137	290.45(b)(1)(D)(iii)	Do the public water systems with elevated storage capacity of 200 gallons per connection have two service pumps with a minimum combined capacity of 0.6 gpm per connection at each pump station or pressure plane (except where only wells and elevated storage are provided)?			
138	290.45(b)(1)(D)(iv)	If the public water system serves 2,500 connections or less, is the elevated storage capacity 100 gallons per connection, or is there a pressure tank of 20 gallons per connection (system may request an exception to use alternate methods of pressure maintenance if the criteria contained in 290.45(g)(5) are met)?			
139	290.45(b)(1)(D)(v)	If elevated storage requirements are not met, is there emergency power to the system with enough power to operate at 0.35 gpm per connection?			
		Groundwater systems with 2,500 connection or more			
140	290.45(b)(1)(D)(iv)	Is the elevated storage capacity 100 gallons per connection?			
		Mobile home parks with groundwater sources, 8 or more units per acre or apartments with fewer than 100 connections and no ground storage			
141	290.45(b)(1)(E)(i)	Is the well capacity 1.0 gpm per connection or greater?			
142	290.45(b)(1)(E)(ii)	Is the pressure tank capacity 50 gallons per connection with a maximum of 2,500 gallons?			
		Mobile home parks and apartment complexes with groundwater sources, which supply 100 connections or more, or less than 100 connections and use ground storage			
143	290.45(b)(1)(F)(i)	Is the well capacity 0.6 gpm per connection?			
144	290.45(b)(1)(F)(ii)	Is the total storage 200 gallons per connection?			
145	290.45(b)(1)(F)(iii)	Are there at least two service pumps with a total capacity of 2.0 gpm per connection?			
146	290.45(b)(1)(F)(iv)	Is the pressure tank capacity 20 gallons per connection?			
		Mobile home parks and apartment complexes with groundwater sources, which supply 250 connections or more			
147	290.45(b)(1)(F)(i)	Are there two wells or an approved interconnection which is capable of supplying at least 0.35 gpm for each connection in the combined system?			
		MINIMUM OPERATING PRACTICES			
148	*290.46(d)	Is the public water system's disinfection continuously maintained during the treatment process and throughout the system?			

149	*290.46(d)(2)(A-B)	Does the system maintain a free chlorine residual of 0.2 mg/L or, for systems that feed ammonia, a chloramine residual of 0.5 mg/L (measured as total Chlorine)?			
150	*290.46(m)(1)	Are the system's ground, elevated and pressure tanks inspected annually, and do they meet the requirements in 290.46(m)(1)(A-C)?			
151	*290.46(m)(4)	Are water storage facilities, pressure maintenance, water treatment units, and distribution system lines and related appurtenances in watertight condition and free of excess solids?			
152	290.46(m)(2)	If pressure filters are used, are visual inspections of the filter media and internal surfaces conducted annually to ensure the filter media is in good condition and the internal coating materials continue to provide adequate protection to the internal surfaces?			
153	290.46(m)(3)	If cartridge filters are used, are they changed according to the manufacturer's specifications or more frequently?			
154	290.46(m)(5)	Are the basins used for clarification maintained free of excess solids?			
155	*290.46(m)(6)	Are pumps, motors, valves and other mechanical devices maintained in good working condition?			
156	290.46(n)(1)	Are accurate and up to date as built plans and specifications for the treatment plant, pump station, and storage tanks maintained at the PWS?			
157	290.46(s)	Is accurate testing equipment or other means to monitor effectiveness of all chemical treatment processes provided?			
158	290.46(s)(1)	Are flow measuring devices and rate of flow controllers required in 290.42(d) calibrated at least every 12 months and well meters required in 290.41(c)(3)(N) calibrated at least once every three years?			
159	*290.46(s)(2)	Is all laboratory equipment used for compliance testing calibrated in accordance with 290.46(s)(2)?			
160	290.46(s)(2)(C)	Are all disinfectant residual analyzers properly calibrated according to 290.46(s)(2)(C)?			
161	*290.46(t)	Are legible signs which include the utility name and emergency contact number located at each of the production, treatment, and storage facilities?			
162	290.46(u)	Are all abandoned wells owned by the system plugged with cement, or if not in use and not deteriorated, are they tested every five years?			
163	290.46(v)	Is all electrical wiring securely installed in compliance with local or national electrical code?			
		Operator requirements			
164	*290.46(e)(3)(A) and (4)(A)	If the public water system serves no more than 250 connections, does it have a Class "D" or higher licensed operator?			
165	*290.46(e)(3)(B) and (4)(B)	If the public water system serves more than 250 to 1,000 connections and uses groundwater or purchased water, does it have a Class "C" or higher licensed operators on staff?			

166	*290.46(e)(3)(C) and (4)(C)	If the water system serves more than 1,000 connections and uses groundwater or purchased water, does it have two Class “C” or higher licensed operators on staff (with the correct type “C” license) that work at least 16 hours per month at the treatment or distribution facility?			
167	*290.46(e)(2)(C)	If the public water system uses chlorine dioxide, are the chlorine dioxide facilities under the direct supervision of at least a Class “C” or higher licensed operator?			
168	290.46(e)(2)(A)	Has a licensed water works operator given prior approval and guidance to the public water system if and/or when new or repaired production, treatment, storage, pressure maintenance or distribution facilities go into service?			
169	290.46(e)(2)(B)	Has the public water system ensured that their operators have been trained regarding the use of all chemicals used in the treatment plant?			
170	*290.46(g)	If the public water system installs or repairs lines, is all disinfection work is performed under the supervision of the water systems personnel?			
		Cross-connection control program			
171	*290.46(i)	Has the water system adopted a plumbing ordinance, plumbing regulation (i.e. plumbing code) or a customer service agreement that provides provisions for proper enforcement to insure that neither cross-connections nor unacceptable plumbing practices are permitted?			
172	*290.46(j)	Are customer service inspections performed prior to providing continuous water service to new construction?			
173	*290.46(j)	Are customer service inspections performed on any existing construction when the water purveyor has reason to believe that a cross connection or other unacceptable plumbing practices exist or after any material improvements, corrections, or additions are made to the private water distribution facilities (the plumbing past the water meter)?			
174	*290.46(j)(1)(A-B)	Are customer service inspections performed by TCEQ licensed Customer Service Inspectors, or by Texas State Board of Plumbing Examiners licensed Plumbing Inspectors or Water Supply Protection Specialists?			
175	290.46(j)(2)	As potential contamination hazards are discovered, are they eliminated or is service terminated?			

J:\sblga\Public Water Supply\PWS Checklists Folder\pws_GW_checklist_Sept11.doc