62-555 WC Specific Permit Application
Review Checklist
Public Water System Components

☐ Community ☐ Non-Transient Non-Community ☐ Transient Non-Community
☐ Consecutive (skip to preliminary design report)
Notations used:

NA – does not apply to/is not part of the project under review	∅ - Not provided

Project Name		**Permit Number**			
Owner		**Address**			
System Address					
Engineer		**PWS ID Number**	629		
Email		**Utility**			
Date Submitted		**Review Date**			
Application: New WTP with:		**Modification of:**		☐ Out of Compliance	
Chlorination and/or		**Storage**		**Yard Piping**	
Aeration and/or		**Capacity**		**Chem. Inj. Pt.**	
Softening and/or		**Well(s), number of**	**Rerating: review 62-555.528**		
Well(s), number of		**Treatment, specify**	**Expansion: review 62-555.348**		
Other treatment, specify					

√ - Reviewed and acceptable	**IS** – insufficient or inadequate response

	40D-3	SWFWMD Well log and drilling permits, if applicable
	62-555.525	Capacity Development Provisions if Community or NTNC new system
		5. Pilot Plant studies, or 6. Other information deemed relevant (if requested by the Department).
		Original Signature Of Owner Or Authorized Agent: Permittee must hold one of the following corporate offices or submit notarized affidavit designating representation from one of the following: Owner, President, Vice President, or Director. Authorized agents may be found at: www.sunbiz.org.
Hydropneumatic tank sizing:	(Washington Dept. of Health design manual)	Hydro system: Number of pump cycles should be less than 7-10 starts per hour (at maximum cycle ($O = \frac{1}{2}I$)), and pump run time a minimum of 1-2 minutes, depending on horsepower and manufacturer's recommendation.
		One cycle defined: $\frac{Ve}{I-O} + \frac{Ve}{O}$ V_e = effective volume, I = average pump flow, O = system demand.
		Boyle's law determines hydro tank effective water volume: $V_t P_1 \left(\frac{P_3 - P_2}{P_3 P_2}\right)$ Where: V_t = gross tank volume P_1 = atmospheric or pre-charge pressure P_2 = cut-in pressure, gage P_3 = cut-out pressure, gage Refer to DOH hydro tank spreadsheet.

	62-555.320 (20), RSWW 7.2.2	a. The capacity of the wells and pumps in a hydropneumatic system should be at least ten times the average daily consumption rate *(peak instantaneous demand).* b. The gross volume of the hydropneumatic tank, in gallons, should be at least ten times the capacity of the largest pump, rated in gallons per minute. For example, a 250 gpm pump should have a 2,500 gallon pressure tank, unless other measures (e.g., variable speed drives in conjunction with the pump motors) are provided to meet the maximum demand. In addition additional storage may be required. Consult 62-555.320 (19). c. Sizing of hydropneumatic storage tanks must consider the need for disinfectant contact time.
	62-555.320(20) & RSWW 7.2	Hydro tanks must be ASME certified, or; if ≤ 120 gallons and max. 40 psi pre-charge, at a minimum, ANSI/WSC PST 2000 compliant. See list at: www.watersystemscouncil.org/standards_products.php?std=3 Include pressure relief valve capable of protecting system at pump capacity. *Tanks must include a by-pass so they may be taken out of service for maintenance.*
	DEP Capacity Analysis Guidance Manual	For proposed treatment systems, or systems lacking actual plant flow data; Maximum day demand (MDD) typically ranges from 1.5 to 3.5 times average daily water demand (ADD) (if unsure, use the median 2.5). Peak Hour Demand (PHD) typically ranges from 2.0 to 7.0 times average daily demand (if unsure, use the median 4.5). Peak instantaneous demand (PID) is assumed to be 10 times average daily demand. If plant cannot sustain PHD for 4 hours and PID for 20 minutes, storage may be necessary Refer to 62-555.320(19)
	62.555.320(8) & RSWW 3.2.7.5	Well head must include: screened vent facing down, sanitary seal, smooth-nosed unthreaded raw sample tap, located upstream of check valve, at least 12" agl., and turned facing down.

62-555.520:

Comments	Citation	Rule
	(4)	Each "Application for a Specific Permit to Construct PWS Components" shall be accompanied by one copy of either; a preliminary design report as described in paragraph (a) below or drawings, specifications, and design data as described in paragraph (b) below. (When completed, Part II of the "Notice of Intent to Use the General Permit for Construction of Water Main Extensions for PWSs" or Part II of the "Notice of Intent to Use the General Permit for Construction of Lead or Copper Corrosion Control, or Iron or Manganese Sequestration, Treatment Facilities for Small or Medium PWSs" serves as a preliminary design report, and thus, it is unnecessary to submit a separate preliminary design report or drawings, specifications, and design data with a notice of intent to use a general permit.) Additional information may be required by the Department to clarify any construction permit application or notice; to clarify any preliminary design report or drawings, specifications, and design data; or to demonstrate that new or altered public water system components will comply with requirements in this chapter and provide drinking water meeting all applicable standards in Chapter 62-550, F.A.C.
	(4)(a)	Preliminary Design Reports. Preliminary design reports prepared under the

		responsible charge of one or more Florida-licensed professional engineers in accordance with subsection (3) above shall be signed, sealed, and dated by the professional engineer(s) in responsible charge. Preliminary design reports shall contain the following information where pertinent:
	(4)(a)1.	A brief description of the project and its purpose and an estimate of the cost to construct the project.
	(4)(a)2.	If the project will connect to, or become part of, an existing public water system, a description of the existing water system and discussion of the impact that the project will have on the existing water system. The description of the existing water system shall include the information in sub-subparagraphs a. through c. below if the project involves new or altered drinking water source facilities, drinking water treatment facilities, or finished-drinking-water pumping or storage facilities.
	(4)(a)2.a.	The name/location of existing water sources and the number and capacity of existing wells and raw surface water pumps.
	(4)(a)2.b.	The name/location of existing water treatment plants, the existing design capacity of each plant's source water facilities and each plant's treatment facilities and the permitted operating capacity of each plant, the existing type of treatment provided at each plant, and the number and capacity of existing finished-water pumps.
	(4)(a)2.c.	The name/location, type, and useful capacity of existing finished-water storage tanks.
	(4)(a)3.	The water service area, water use, and water service pressure information in sub-subparagraphs a. through d. below for the water system's service area or for the project's service area if the project involves only new or altered water mains or new or altered, finished-drinking-water booster pumping facilities.
	(4)(a)3.a.	A description of the nature and extent of both the present and the design water service area, including both the present and the design number of water service connections; an appraisal of both present and design commercial, institutional, and industrial water needs and fire fighting requirements; and discussion of both existing and proposed interconnections with other public water systems, including regulated consecutive systems. *Also 64E-6.008*
	(4)(a)3.b.	Discussion of historical water use trends in the present water service area.
	(4)(a)3.c.	Both the present and the design water demands-average daily demand; maximum-day demand (including fire-flow demand, i.e., fire-flow rate times fire-flow duration, if fire protection is being provided); peak-hour demand (and if fire protection is being provided, fire-flow rate plus a background water demand equivalent to maximum-day demand other than fire-flow demand); and for small water systems that use hydropneumatic tanks or that are not designed to provide fire protection, peak instantaneous demand.
	(4)(a)3.d.	Both the present and the design water service pressure range.
	(4)(a)4.	If the project involves new or altered drinking water source facilities, the information in sub-subparagraphs a. through d. below.
	(4)(a)4.a.	The name/location of new water sources and documentation that new water sources are the best available sources as required under subsection 62-555.310(1), F.A.C.
	(4)(a)4.b.	Documentation that new wells meet applicable construction requirements

		in Chapter 62-532, F.A.C.
	(4)(a)4.c.	Discussion of sanitary hazards located within 500 feet of new wells or located less than 500 feet upstream of new surface water intakes; and for each well being connected to a community water system, documentation of continuing protection of the well from sanitary hazards as required under subsection 62-555.312(4), F.A.C.
	(4)(a)4.d.	A description of new or altered surface water intake structures, impoundments, and reservoirs.
	(4)(a)5.	If the project involves new or altered source water or treatment facilities for a drinking water treatment plant, the information in sub-subparagraphs a. through d. below.
	(4)(a)5.a.	The design capacity of the plant's source water facilities and the plant's treatment facilities. Refer to subsection 62-555.320(6) & .315(3), F.A.C. Also > 4(a)3c?
	(4)(a)5.b.	Water quality data assessing applicable microbiological, physical, chemical, and radiological characteristics of raw water from all new, altered, or existing water sources for the plant. For new or altered wells, the water quality data shall include the applicable sulfide-related measurements required under subsection 62-555.315(5), F.A.C, and the results of the bacteriological survey required under paragraph 62-555.315(6)(b), F.A.C.
	(4)(a)5.c.	Discussion of applicable primary or secondary drinking water standards, including treatment technique requirements, in Part III of Chapter 62-550, F.A.C.; sulfide treatment requirements in subsection 62-555.315(5), F.A.C., if applicable; and applicable disinfection requirements in subsection 62-555.320(12), F.A.C.
	(4)(a)5.d.	An evaluation of the adequacy of new, altered, or existing treatment facilities to meet applicable standards and requirements given the quality of raw water from all new, altered, or existing water sources for the plant. If the sulfide treatment requirements in subsection 62-555.315(5), F.A.C., are applicable, the water quality and treatment evaluation shall include the affirmative demonstration required under paragraph 62-555.315(5)(b), F.A.C.
	(4)(a)6	If the project involves new or altered drinking water treatment facilities, the information in sub-subparagraphs a. through l. below.
	(4)(a)6.a.	The design daily operating period for the treatment facilities.
	(4)(a)6.b.	A flow diagram showing all new, altered, or existing water treatment operations and processes (including residuals handling operations *[with proper backflow protection]*), chemical application points, water pumping facilities, bypass arrangements, and recycle flows.
	(4)(a)6.c.	A hydraulic profile establishing operating water elevations through new, altered, or existing water treatment facilities at design flow rates.
	(4)(a)6.d.	For new or altered disinfection facilities, the design level of Cryptosporidium, Giardia lamblia, or virus inactivation to be achieved, if applicable, and the design minimum CT or ultraviolet dose if chemical or ultraviolet disinfection will be used to achieve Cryptosporidium, Giardia lamblia, or virus inactivation. Refer to subsection 62-555.320(12), F.A.C.
	(4)(a)6.e.	The design dose of water treatment chemicals.
	(4)(a)6.f.	An evaluation of the types, quantities, and characteristics of residuals (all waste materials to be) generated by existing, altered, or new water

		treatment facilities (whether liquid, gaseous, or solid). 3. Proposed waste control facilities (if applicable)
	(4)(a)6.g.	Sizes, capacities, retention times, loading rates, schematic diagrams, and other design parameters and details sufficient to demonstrate that new or altered water treatment facilities (including chemical application facilities and residuals handling facilities) and water pumping facilities will comply with applicable requirements in Part III of this chapter *(62-555.310-.405)*, including applicable requirements in the engineering references listed in Rule 62-555.330, F.A.C. The schematic diagrams of water treatment facilities, including chemical application facilities, shall show proper air gaps between drains or overflows from such facilities and sanitary or storm sewers.
	(4)(a)6.h.	For innovative or alternative processes and equipment, the supporting information required under subsection 62-555.320(2), F.A.C.
	(4)(a)6.i.	Assurance of compliance with the odor control requirements referenced under subsection 62-555.320(9), F.A.C.
	(4)(a)6.j.	For new or altered storage tank systems subject to regulation under Chapter 62-761, 62-762 F.A.C., assurance that the storage tank systems will meet applicable performance standards in Chapter 62-761, 62-762 F.A.C.
	(4)(a)6.k.	Discussion of housing and safety or protective equipment for new or altered chemical application facilities.
	(4)(a)6.l.	For new or altered fluoridation facilities, discussion of how the analytical equipment required under paragraph 62-555.325(2)(f), F.A.C., will be provided.
	(4)(a)7.	If the project involves new or altered, raw-water or finished-drinking-water pumping facilities, including well pumping facilities, the number and capacity of pumps and the basis therefore , schematic diagrams, and other design parameters and details sufficient to demonstrate compliance with applicable requirements in Part III of this chapter, including applicable requirements in the engineering references listed in Rule 62-555.330.
	(4)(a)8.	If the project involves new or altered, finished-drinking-water storage facilities, the name/location and type of storage tanks, the useful capacity of storage tanks and the basis therefore, schematic diagrams, and other design parameters and details sufficient to demonstrate compliance with applicable requirements in Part III of this chapter, including applicable requirements in the engineering references listed in Rule 62-555.330, F.A.C. (*Tanks must include a by-pass so they may be taken out of service for maintenance.)*
	(4)(a)9.	If the project involves new or altered water mains, including treatment plant process piping, conveying either raw, partially treated, or finished drinking water, the information in sub-subparagraphs a. through g. below.
	(4)(a)9.a.	Hydraulic analyses or other justification for the size of new or altered water mains.
	(4)(a)9.b.	Discussion of color coding or marking of new or relocated water main pipe that will convey finished water. Refer to subparagraph 62-555.320(21)(b)3., F.A.C. & .320(10)
	(4)(a)9.c.	Discussion of installation procedures for new or altered water mains, including bedding and cover for underground mains; thrust restraint at

		new or altered tees, bends, plugs, and hydrants; pressure and leakage testing of new or altered mains; support, anchorage, and protection for new or altered mains crossing above surface water; and special construction of flexible, restrained, or welded watertight joints for new or altered mains crossing under surface water.
	(4)(a)9.d.	Discussion of separation distances between new or relocated, underground water mains, including hydrant drains, and existing or proposed sanitary or storm sewers, wastewater force mains, reclaimed water pipelines, and on-site sewage treatment and disposal systems. The Department shall allow exceptions to the separation distances required under subsections 62-555.314(1) and (2), F.A.C., only if justification and alternative construction features are provided in accordance with subsection 62-555.314(5), F.A.C.
	(4)(a)9.e.	Justification for each conflict manhole, identification of the party responsible for maintaining each conflict manhole, and assurance of compliance with design and construction requirements relative to conflict manholes. Refer to paragraph 62-555.314(3)(b), F.A.C.
	(4)(a)9.f.	Discussion of how proper backflow protection will be provided at those new or altered service connections where backflow protection is required or recommended under Rule 62-555.360, F.A.C., or in Recommended Practice for Backflow Prevention and Cross-Connection Control, AWWA Manual M14, as incorporated into Rule 62-555.330, F.A.C.
	(4)(a)9.g.	Schematic diagrams and other design parameters and details sufficient to demonstrate that new or altered hydrants and hydrant leads; air relief valves; valve, meter, or blow-off chambers; and backflow preventer installations will comply with applicable requirements in Part III of this chapter, including applicable requirements in the engineering references listed in Rule 62-555.330, F.A.C.
	(4)(a)10.	The project site information in sub-subparagraphs a. through f. below.
	(4)(a)10.a.	A site plan showing the approximate location of new or altered public water system wells; new or altered structures used to treat, store, or handle drinking water, drinking water treatment chemicals, or drinking water treatment residuals; structures housing new or altered drinking water pumping or treatment facilities, including chemical application facilities and residuals handling facilities; and new or altered water mains, including treatment plant process piping, conveying either raw, partially treated, or finished drinking water. The site plan shall indicate sizes of new or altered water mains and approximate locations of meters, valves, hydrants, blow-offs, and backflow preventers; approximate locations of new or altered interconnections between public water systems; approximate dimensions and elevations of structures; and both the 100-year and the 10- to 25-year flood elevation and wave-action elevation.
	(4)(a)10.b.	If applicable, discussion of how the permit applicant is avoiding locating a new public water system, or an expansion of an existing public water system, at any site subject to significant risk from contamination or significant risk from floods, fires, or other disasters. Refer to subsection 62-555.310(2), F.A.C.
	(4)(a)10.c.	Discussion of how community water system structures, and electrical or mechanical equipment, used to treat, pump, or store drinking water, apply drinking water treatment chemicals, or handle drinking water treatment

		residuals will be protected from physical damage by the 100-year flood and the 100-year wave action and will remain fully operational and accessible during the 25-year flood and the 25-year wave action. The Department shall allow use of less than the 25-year flood or wave action, but not less than the 10-year flood or wave action, only if justification is provided in accordance with subsection 62-555.320(4), F.A.C.
	(4)(a)10.d.	Discussion of approximate ground water elevations in relation to subsurface structures.
	(4)(a)10.e.	A description of security features for new or altered drinking water wells and new or altered drinking water treatment, pumping, or storage facilities. Also see 62-555.315(1) & ANSI/ASCE/EWRI 56-10.
	(4)(a)10.f.	A description of areas where new or altered water mains, including treatment plant process piping, conveying either raw, partially treated, or finished drinking water will be installed above or under surface water, in aggressive soil, or in areas contaminated by low-molecular-weight petroleum products or organic solvents.
	(4)(a)11.	A description of materials that will be used for new or altered public water system components and documentation that the materials and components will comply with the following standards, regulations, or requirements:
	(4)(a)11.a.	The American Water Works Association standards as incorporated into Rule 62-555.330, F.A.C., if applicable. The Department shall allow use of pipe and appurtenances that do not conform to these standards only if documentation is provided in accordance with paragraph 62-555.320(21)(c), F.A.C.
	(4)(a)11.b.	NSF International Standard 61 as adopted in Rule 62-555.335, F.A.C., or other standards, regulations, or requirements referenced under paragraph 62-555.320(3)(b), F.A.C., if applicable. The Department shall allow exceptions to conformance with these standards, regulations, or requirements only if documentation and assurance are provided in accordance with paragraph 62-555.320(3)(d), F.A.C.
	(4)(a)11.c.	The lead use prohibition in Rule 62-555.322, F.A.C., if applicable.
	(4)(a)12.	Discussion of color coding of new or altered, aboveground piping at drinking water treatment plants.
	(4)(a)13.	A description of electrical systems and provisions for standby power at new or altered drinking water treatment or pumping facilities. Refer to subsection 62-555.320(14), F.A.C. *(It is the responsibility of the contractor to provide the electrical connection which meets all local codes and permitting requirements. Electrical wiring shall be in an approved conduit and shall have a disconnect device between the backwash head and the pressure switch or other GFI protected power source.)*
	(4)(a)14.	A description of operation and control strategies and instrumentation and control systems, including monitoring or alarm systems, at new or altered drinking water treatment, pumping, or storage facilities. Refer to subparagraph 62-555.320(8)(a)3., F.A.C.; subsection 62-555.320(11), F.A.C.; subparagraph 62-555.320(13)(a)9., F.A.C.; sub-subparagraph 62-555.320(13)(a)10.c., F.A.C.; subparagraph 62-555.320(13)(b)12., F.A.C.; and paragraph 62-555.320(14)(f), F.A.C., for required alarm systems.
	(4)(a)15.	A description of provisions for metering and sampling finished drinking water at new or altered drinking water treatment plants. Refer to subsections 62-555.320(16) and (17), F.A.C.
	(4)(a)16.	A schematic diagram of the entire finished-water supply (i.e., plumbing)

		system at new or altered drinking water treatment plants and pumping stations. The diagram shall show proper air gaps or mechanical backflow preventers where appropriate.
	(4)(a)17.	Discussion of procedures for disinfecting, and conducting bacteriological surveys or evaluations of, new or altered public water system (PWS) wells; new or altered drinking water treatment or storage facilities; and new or altered water mains conveying either raw, partially treated, or finished drinking water, including treatment plant process piping, fire hydrant leads, and service lines that are under the control of the PWS and that have an inside diameter of three inches or greater. Refer to subsection 62-555.315(6), F.A.C., and Rule 62-555.340, F.A.C.
	(4)(a)18.	Discussion of procedures for keeping existing public water system components in operation, or for minimizing interruptions in the operation of the existing components, during construction of the project.
	(4)(a)19.	A description of drinking water additives and treatment chemicals that will be used or obtained under the construction project and documentation that the additives and chemicals will conform to NSF International Standard 60 as adopted in Rule 62-555.335, F.A.C., or other standards referenced under paragraph 62-555.320(3)(a), F.A.C.
	(4)(b)	Drawings, Specifications, and Design Data. Drawings, specifications, and design data prepared under the responsible charge of one or more Florida-licensed professional engineers in accordance with subsection (3) above shall be signed, sealed, and dated by the professional engineer(s) in responsible charge. Drawings and specifications shall be sufficiently complete and detailed to allow the Department to determine whether the design of a project provides assurance of compliance with Chapter 62-550, F.A.C., if applicable, and complies with this chapter. Drawings shall be at least 18 inches by 24 inches and not larger than 36 inches by 42 inches, but photographically reproduced drawings with a reduced size as small as 11 inches by 17 inches are acceptable if the original drawings are drawn to a scale that will permit all necessary information to be plainly seen on the reduced-size reproductions.
	(5)	Each application for a specific permit to construct a new public water system subject to the jurisdiction of the Florida Public Service Commission (FPSC) shall be accompanied by one copy of the FPSC certificate authorizing the permit applicant to provide water service.
	(6)	Each construction permit application or notice shall be accompanied by the proper processing fee made payable to the Department of Environmental Protection or the appropriate Approved County Health Department. Processing fees for specific permits are listed in paragraph 62-4.050(4)(n), F.A.C. In cases where these fees vary depending upon drinking water treatment plant capacity, the capacity to be used in determining the proper fee is the design maximum-day capacity of the entire new or altered plant after construction. Processing fees for general permits are listed in paragraph 62-4.050(4)(p), F.A.C *(County Health Departments have additional fees; see permit fees on Specific Permit webpage).*
	(7)	If required by the Department, permit applicants shall publish a notice of permit application and furnish proof of publication in accordance with subsections 62-110.106(5), (6), and (9), F.A.C.

Notes:		

Specific Authority 403.087(2), 403.814(1), 403.861(2), (6), (9) FS. Law Implemented 367.031, 403.087(6)(a), 403.0877, 403.815, 403.861(2), (6), (7), 403.8615, 471.003 FS. History–New 11-19-87, Formerly 17-22.720, Amended 1-18-89, Formerly 17-555.520, Amended 12-10-96, 9-22-99, 8-28-03.