Procedure 1

Engineering Manual User's Guide

PART 1: ECUA Background

The Emerald Coast Utilities Authority (ECUA) was originally created under the name Escambia County Utilities Authority in 1981 by an Act of the Florida Legislature to own, manage, finance, promote, improve and expand the water and wastewater systems of Escambia County and the City of Pensacola. ECUA's name was officially changed to the Emerald Coast Utilities Authority on June 29, 2004.

ECUA is a local government body, existing under the laws of the State of Florida, separate and distinct from the City of Pensacola, Escambia County, and the State of Florida. The powers of the ECUA are exercised by a five-member Board. Each member of the Board is elected in one of the five County electoral districts. ECUA is a 100% rate-driven utility and does not receive any of its revenue from local taxes.

Chapter 11 of the ECUA Code formally adopts this Engineering Manual (the Manual) in order to establish the engineering procedures, design standards, and technical specifications for the design and construction of ECUA water and wastewater systems.

PROPOSED

PART 2: Permitting Authority

Beginning on September 15, 1992, ECUA was granted permitting authority from the Department of Environmental Protection (FDEP) for water distribution mains 12 inches or less in diameter, gravity sewage collection systems 12 inches or less in diameter, sewage force mains 12 inches or less in diameter, and associated pump stations which will be connected to water and sewerage plants owned by ECUA. In 2014, the FDEP also granted ECUA permitting authority for low pressure sewer systems.

Division 6 – Supporting Documents, contains documents related to ECUA's self-permitting authority.

PART 3: Manual Stewardship

The ECUA Engineering Department is entrusted with the stewardship of the Manual with respect to organization, updates, and content. The Engineering Department strives to solicit input from all affected Manual users including but not limited to the consulting engineering community, the utility contracting industry, the utility suppliers industry, fellow regulatory agencies, multiple ECUA departments, and ECUA Engineering staff. While input is solicited and welcome, it is the Engineering Department's responsibility for the organization, updates, and final content of the Manual.

PART 4: Manual Availability

This Manual is available online at ECUA's website: http://www.ecua.fl.gov/. It is not available from ECUA in printed format. Users are encouraged to print the Manual from the ECUA website, if desired. Modifications to any section of the Manual are strictly prohibited unless otherwise approved by ECUA's

Director of Engineering. ECUA does not maintain a registry of Manual users. Users are advised to periodically review the Manual online in order to stay current with updates and/or other information.

PART 5: Manual Updates

5.1 *Approval Authority* – Chapter 11 of the ECUA Code cites the ECUA Board's adoption of the Manual, as amended. The Board subsequently authorized the Executive Director to allow the ECUA Director of Engineering to amend the Manual when related to minor issues, with the Board retaining the authority to amend the Manual when related to major issues. The Executive Director will consult with the ECUA Board as needed on the distinction between minor and major issues. The following table summarizes the approval authorities.

Issue	Examples	Authority to Approve Updates
Minor	Re-formatting, re-titling, additions or deletions, and/or content change of documents; product/material changes; code changes; new construction details; etc.	ECUA Director of Engineering
Major	Any issues that are considered to have major policy or cost implications	ECUA Board

PROPOSED

5.2 *Update Listing* – A document containing a listing of recent updates will be maintained on the Manual website.

5.3 *Update Intervals* – Future changes will be grouped as much as practical into single updates. Updates will be made periodically on an as-needed basis and not necessarily on a semi-annual or annual basis.

5.4 *Update Notifications* – Individual notifications of proposed updates will not be made; however, the ECUA Engineering Manual website will be maintained such that proposed updates will be listed on the website as part of a public comment period. A public notice will typically be advertised as well.

5.5 *Update Timing and Plan Approvals* – Submittal of design plans for Capital Improvement Projects, System Extensions, and Single Service Connections shall comply with the current Manual at time of submission as well as any updates made prior to the design plans being approved by ECUA.

PART 6: Manual Contents

The Manual has six sections: Procedures, Design Standards, Technical Specifications, Detail Drawings, Forms, and Supporting Documents. The six sections are described as follows:

6.1 *Procedures* – Procedures are intended to assist commercial customers, developers, engineers, contractors and builders in their various interactions with the ECUA Engineering Department. The procedures identify what information is required to be provided to the Engineering Department, how the Engineering Department will process the information, and the responses to be issued by the Engineering Department.

6.2 *Design Standards* – Standards are intended for use by engineers and others when designing system extensions and submitting plans for review by the ECUA Engineering Department.

6.3 *Technical Specifications* – Specifications are supplied for use in construction of all water and wastewater improvements which will become the property and responsibility of the ECUA. The Engineer's design shall conform to these specifications and the Contractor shall construct the improvements according to these specifications.

6.4 *Detail Drawings* – Details are drawings depicting industry/ECUA accepted standards related to the construction of typical water and sewer infrastructure. These details are intended to match the content of the technical specifications and are considered a supplement to the technical specifications.

6.5 *Forms* – Forms are documents used by an array of parties that do business with ECUA.

6.6 *Supporting Documents* – Supporting documents are listed in this section for reference purposes only.

PART 7: <u>Commonly Used Terms</u>

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7.1 *Applicant* – The Owner (or Developer) desiring to connect new services to ECUA's system (i.e. SSC) or desiring to extend ECUA's water or sewer system (Extension) to serve the Applicant's property or project.

7.2 *Commercial* – Any type of Applicant other than the owner of a single family home requesting service to said home.

7.3 *ECUA Engineering Manual (Manual)* – Document used by ECUA to provide procedural, design, and construction requirements for work involving ECUA water and sewer infrastructure.

7.4 *Engineer of Record (EOR)* – Applicant's Engineer tasked with the responsibility to design and submit reports and plans to and coordinate with ECUA on the approval of the Applicant's SSC or Extension request; the EOR shall be Professional Engineer licensed as such in the State of Florida.

7.5 *Force Main* – A pressurized pipe used to transport sewage flow, typically from lift stations to treatment facilities.

7.6 *Formal Submittal for Extension Projects* – **Mandatory** submittal of a formal engineering report, engineering plans, etc. that address the issues and design needs as determined from the Preliminary Submittal meeting; review time clock is started with complete submission.

7.7 *Lift Station* – An underground storage tank (wetwell) equipped with pumps and other electrical equipment that acts as a receiving point where sewage flow is collected and then pumped into a force main toward a treatment facility.

7.8 *Mains* – Water distribution piping, sewage collection piping, or sewage transmission piping; sometimes referred to as water and sewer lines, not including individual building service connections.

7.9 *Preliminary Submittal for Extension Projects* – **Mandatory** submittal of a Preliminary Engineering Report that highlights the project's background and water/sewer needs.

7.10 *Preliminary Submittal Meeting for Extension Projects* – **Mandatory** meeting following the Preliminary Submittal for Extension Projects; meeting shall focus on the project's needs along with information regarding ECUA's water and sewer systems and applicable ECUA policies.

7.11 *Right-of-Way (ROW)* – A publicly owned corridor that contains public streets, drainage, and utilities.

7.12 *Service* – Typically smaller diameter water service lines connecting an ECUA water main to a water meter, fire service lines that connect an ECUA water main to a private fire line on private property, irrigation service lines that connect an ECUA water main to an irrigation meter, and sewer lines that connect an ECUA sewer main to a private sewer line on private property.

All service lines shall be located in the public ROW and shall be owned and maintained by ECUA with the exception of gravity sewer laterals (see ECUA Code for sewer lateral ownership and maintenance responsibilities) or as determined by ECUA.

7.13 *Single Service Connection (SSC)* – ECUA term used to describe a proposed connection of one commercial property or building to ECUA's water and/or sewer mains, with service lines being installed in a public ROW from the Applicant's property line to the ECUA main(s). Examples include gravity sewer laterals, fire lines, water services and meters, irrigation services and meters.

All water and sewer service lines installed on private property shall be privately owned and shall be reviewed, approved, and inspected by either City of Pensacola's or Escambia County's Building Inspections Department.

PROPOSED

7.14 *SSC Application* – Application with sketch and/or plans showing the requested service connections to ECUA's water and/or sewer systems.

7.15 *System* – A utility's assemblage of water mains and/or sewer mains as a whole.

7.16 *System Extension (Extension)* – ECUA term used to describe any project that requires new ECUA water mains and/or gravity sewer mains and/or sewer force mains and/or low pressure sewer force mains to be constructed in public ROW or in a dedicated ECUA easement in order to serve the proposed project. Examples include:

7.16.1 Residential subdivisions (Water and sewer systems shall be designed to ECUA standards and shall be accepted by ECUA for ownership and maintenance. Private systems in residential subdivisions are not allowed).

7.16.2 Commercial subdivisions.

7.16.3 Project, which due to property location and lack of existing available ECUA infrastructure, can only be served by extensions to ECUA water/sewer mains.

7.16.4 Low-pressure sewage collection systems, typically designed for residential subdivisions.

7.16.5 Private lift stations for commercial customers, regardless of how connection to ECUA system is proposed.