

NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT

# WATER USE PERMIT

## APPLICANT'S HANDBOOK

Incorporated by Reference in Section 40A-2.061,  
Florida Administrative Code

*Effective April 2015*



# Water Use Permit Applicant’s Handbook

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## 1.0 General Provisions

### 1.1 Definitions

**Aesthetic use** - the use or supplementation of water for fountains, waterfalls, landscape lakes and ponds where such uses are ornamental and decorative.

**Agricultural use** - the use of water associated with the irrigation of crops (including biofuel), greenhouse and nursery products, sod, forage, and pasture and non-irrigation uses associated with freeze protection, livestock and other domestic animals, aquaculture, and other uses associated with agricultural operations.

**Alternative water supply** - a water source that meets the definition in section 373.019, F.S.

**Annual average daily withdrawal** - an amount of water that is equal to the total volume of water withdrawn or diverted from all sources during one year divided by 365 days, expressed in gallons per day (gpd).

**Annual withdrawal** - the quantity of water withdrawn or diverted during any 365 day period.

**Aquaculture use** - a type of agricultural use that involves the use of water for spawning, cultivating, harvesting or marketing of fin-fish, shellfish, crustaceans, frogs, turtles and other aquatic organisms that have a sport or other economic value.

**Aquifer** - a geologic formation, group of formations, or part of a formation that contains sufficient saturated, permeable material to yield significant quantities of water.

**Aquifer remediation** - the withdrawal of groundwater for the state-authorized removal of contaminants for the purposes of restoring water quality.

**Aquifer storage and recovery** – a well system operated for the purpose of injecting and storing water in an aquifer for direct retrieval and use.

**Area of Resource Concern** - areas delineated on the map contained in section 40A-2.902, F.A.C., where resource concerns exist related to water availability, water quality, high anticipated growth in demand or other factors.

**Base flow** - the sustained or fair-weather streamflow. Base flow is the difference between streamflow (total runoff) and direct runoff. Base flow originates from rainwater that percolates downward to the water table and moves laterally through the groundwater aquifer toward the streams.

**Capacity** - the amount of water that can be withdrawn or diverted by a ground or surface water pump within a 24-hour period. The capacity of a pump is derived by multiplying the rating of a pump in gallons per minute by 1,440 minutes (24 hours), expressed in gallons per day.

**Closed system** - an air conditioning / heat pump supply well and return flow well used to inject water carrying no additives into the same permeable zone from which the water was withdrawn by the supply well.

**Commercial use** - the self-supplied use of water (indoor and outdoor) associated with the production of goods or provisions of services by a commercial establishment. Commercial establishments include general businesses, office complexes, commercial cooling and heating, beverage processing plants, food processing, restaurants, gas stations, hotels, car washes, laundry facilities and the use of water at zoos, theme parks, waterslides, and attractions.

**Conservation rate structure** - a schedule of utility water rates designed to promote efficient use of water by providing economic incentives.

**Department** - the Florida Department of Environmental Protection.

**Dewatering use** - the removal of water to control surface or groundwater when performing activities such as construction or excavation.

**District** - the Northwest Florida Water Management District.

**District offices** - locations staffed by District personnel from which materials incorporated by reference into the rule can be obtained. These are:

- (1) District Headquarters, Permitting Section, 152 Water Management Drive, Havana, FL 32333-9700;
- (2) Tallahassee Field Office, Carr Building, Suite 225, 3800 Commonwealth Blvd., MS LS225, Tallahassee, FL 32399; and
- (3) Crestview Field Office, 180 E. Redstone Avenue, Crestview, FL 32539-7385.

**Diversion and impoundment** - the diversion or extraction of surface water into impoundments and delivery systems designed for such purposes as maintaining structural integrity, maintaining control elevations for groundwater recharge, and supplying water to meet the reasonable-beneficial demands of secondary uses.

**Domestic use or domestic consumption** - the self-supplied use of water for individual personal household purposes such as drinking, bathing, cooking, sanitation, or cleaning, which occurs in a private residence, and includes no more than one rental residence or no more than four non-rental residences served by one well.

**Drawdown** - a relative term to describe the vertical distance that the elevation of the water table in the surficial aquifer, or the pressure head of the potentiometric surface of a confined aquifer, is lowered due to the removal of water from that hydrologic system.

**Environmental augmentation** - the addition of water to artificially maintain the level of natural or artificial water bodies to either protect habitat for fish and wildlife, or to provide for recreational uses.

**Existing legal use** - a water use that is authorized under a District water use permit or is existing and exempt from permit requirements.

**Exports** - water exported or sold to other suppliers.

**Facility** - structure that allows for the withdrawal or diversion of water from a particular source. Facilities include, but are not limited to, wells, pumps, pipelines, flumes, canals, ditches, swales, artificial ponds, etc.

**Florida-friendly landscaping** – a landscaping method detailing nine principles that conserve water, protect the environment, are adaptable to local conditions, and are drought tolerant as outlined in section 373.185, F.S.

**Flow meter** - an instrument, when properly installed and calibrated, that is used for the precise measurement of water flow through a closed pipe.

**Freeze protection** - a type of agricultural water use that involves the periodic and infrequent use of water to protect agricultural or nursery crops from permanent damage due to low temperatures.

**General Water Use Permit** - a permit granted by rule to an entity for those non-exempt water uses that meet specific criteria outlined in Chapter 40A-2, F.A.C.

**Golf course irrigation use** - a type of recreational water use that involves the irrigation of roughs, fairways, greens, and tees on a golf course.

**Governing Board** - the Governing Board of the Northwest Florida Water Management District created under section 373.073, F.S.

**Heating or cooling use** - a type of commercial water use involving heating, air-conditioning, or other cooling uses.

**Hydroperiod** - the range of water level fluctuation coupled with the duration and frequency of the periods of inundation or saturation and drying in a wetland.

**Impact offset** - the use of reclaimed water to reduce or eliminate a harmful impact that has occurred or would otherwise occur as a result of other surface water or groundwater withdrawals, as described in section 62-40.416(7), F.A.C.

**Imports** - water imported or purchased from other suppliers.

**Individual Water Use Permit** - a permit granted by the Governing Board or Executive Director, subject to the evaluation and approval of the application pursuant to procedures described in section 40A-1.203, F.A.C.

**Industrial use** - the use of water (indoor and outdoor) associated with the production of goods or provisions of services by a self-supplied industrial facility. Industrial uses include manufacturing plants, chemical processing plants, power generation plants, and other industrial facilities.

**Informative billing** - a system of providing water utility customers with useful information on the relationship between the amount of water they use and the cost associated with that use.

**Institutional use** - the use of water (indoor and outdoor) associated with the production of goods or provisions of services by a self-supplied institutional establishment which includes hospitals, group home / assisted living facilities, churches, prisons, schools, universities, and military bases.

**Irrigation use** - the process of artificially applying water to plant growth media or directly to living plant material.

**Landscape irrigation use** - the use of water for landscape irrigation including parks, common areas, large lawns and landscaped areas, cemeteries, medians and public right-of-ways.

**Livestock and other animal use** - a component of agricultural water use that involves water supplied to livestock and other animals for drinking, washing or heat stress relief.

**Maximum daily withdrawal** - the maximum volume of water withdrawn or diverted during any consecutive 24-hour period, expressed in gallons per day.

**Maximum monthly withdrawal** - the maximum volume of water withdrawn or diverted during any given month of the year, expressed in gallons.

**Minimum flow and level** - the minimum flow for a water course or the minimum water level for groundwater in an aquifer or the minimum water level for a surface water body at which further withdrawals would be significantly harmful to the water resources of the area.

**Mining use** - the use of water associated with the extraction, transport, and processing of subsurface materials and minerals.



**Non-potable water use** - water not utilized for domestic use, public supply, or other human consumption as defined by Chapter 40A-2, F.A.C.

**Nursery irrigation use (Nonagricultural)** - the commercial use of water on the premises where nursery stock is held for sale or distribution. This term does not apply to water used for production of nursery stock.

**Other use** - the use of water for aquifer remediation; environmental augmentation; cleaning and maintenance; and other purposes not described in section 40A-2.501, F.A.C.

**Power production use** - a component of industrial use involving generation of electricity and that may include the use of water for cooling.

**Public consumption or human consumption** - means oral ingestion or physical contact with water by a person for any purpose other than cleaning work areas or simple handwashing. Examples include: when making food or beverages available to the general public, water used for washing food, cooking utensils, or food service areas and water used for preparing food or beverages; washing surfaces accessed by children as in a child care center or similar setting; washing medical instruments or surfaces accessed by a patient; any water usage in health care facilities; emergency washing devices such as eye washing sinks; washing in food processing plants or establishments like slaughterhouses and packinghouses; and water used in schools.

**Public supply use** - the use of water provided by any municipality, county, regional water supply authority, special district, public or privately owned water utility, multijurisdictional water supply authority, or other entity consistent with the Florida Safe Drinking Water Act, for human consumption and other purposes.

**Reasonable-beneficial use** - the use of water in such quantity as is necessary for economic and efficient utilization for a purpose and in a manner which is both reasonable and consistent with the public interest.

**Reclaimed water** - as defined in section 373.019, F.S., water that has received at least secondary treatment and basic disinfection, and is reused after flowing out of a wastewater treatment facility.

**Recreation use** - the use of water for the creation, maintenance and operation of recreational facilities such as golf courses, athletic fields, playgrounds, water-based recreation areas for hunting, fishing, boating, swimming, or for wildlife enhancement.

**Reservoir** - any artificial or natural holding area which contains or will contain the water impounded by a dam.

**Reuse** - deliberate application of reclaimed water, in compliance with the Department and District rules, for a beneficial purpose.

**Reuse utility** - a utility that produces reclaimed water or distributes reclaimed water to end users.

**Sanitation use** - a component of commercial, industrial, institutional or other uses that involves the use of water for toilet facilities and for cleaning when the use occurs in a non-residence. This use does not include drinking water or water used in cooking.

**Secondary use** - use of water by an entity, separate from a water supplier, as defined herein, whose source of water, in whole or in part, is from a water supplier.

**Stormwater recycling** - capturing stormwater for irrigation or other beneficial reuse.

**Stream** - any river, creek, slough, or natural water course in which water usually flows in a defined bed or channel. It is not essential that the flowing be uniform or uninterrupted. The fact that some part of the bed or channel has been dredged or improved does not prevent the watercourse from being a stream.

**Substitution credit** - the use of reclaimed water to replace all or a portion of an existing permitted use of resource-limited surface water or groundwater, allowing a different user or use to initiate a withdrawal or increase its withdrawal from the same resource-limited surface water or groundwater source, provided that the withdrawal creates no net adverse impact on the limited water resource or creates a net positive impact, if required by District rule as part of a strategy to protect or recover a water resource.

**Surface waters** - water upon the surface of the earth, whether contained in bounds created naturally or artificially or diffused. Water from natural springs shall be classified as surface water when it exits from the spring onto the earth's surface.

**System** - two or more water withdrawal or diversion facilities which are derived from or used to serve properties that are physically proximate and either share the same irrigation infrastructure or are operated as a common enterprise.

**Uniform gross per capita use** - the utility service area total finished water use divided by the utility service area residential population, expressed in gallons per capita per day.

**Uniform residential per capita use** - the utility service area finished water used by residential dwelling units divided by the utility service area residential population, expressed in gallons per capita per day.

**Water-based recreation use** - a type of recreational water use that involves the use of water for public or private swimming and wading pools and other water-oriented recreation such as fishing, hunting, boating and swimming, and waterfowl or wildlife management.

**Water Resource Caution Area** - a geographic area, officially designated by the Governing Board by rule that is experiencing, or is anticipated to experience within the next 20 years, critical water resource problems as provided by the criteria identified in section 40A-2.801(1), F.A.C.

**Water or waters in the State** - any and all water on or beneath the surface or the ground or in the atmosphere, including natural or artificial watercourses, lakes, ponds, or diffused surface water and water percolating, standing, or flowing beneath the surface of the ground as well as all coastal waters within the jurisdiction of the State of Florida.

**Water supplier** - an entity, such as a water utility or regional water authority, that has obtained a water use permit to withdraw water, of which some portion is distributed to another entity for a secondary use.

**Well** - any excavation that is drilled, cored, bored, washed, driven, dug, jetted, or otherwise constructed when the intended use of such excavation is for the location, acquisition, development or artificial recharge of groundwater, but such term does not include any well for the purpose of obtaining or prospecting for oil, natural gas, minerals, or products of mining or quarrying, for inserting media to dispose of oil brines or to repressure oil-bearing or natural gas-bearing formation, or for storing petroleum, natural gas, or other products, or for temporary dewatering of subsurface formation for mining, quarrying, or construction purposes.

**Well casing size** - the nominal diameter (within 0.5 inch) of the water bearing casing at the upper terminus (e.g., 4-inch well casing means casing 4.5-inches outside diameter as a standard dimension).

**Wetlands** - those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soils.

## 1.2 Acronyms and Abbreviations

ADR	Average daily rate
AFSIRS	Agricultural Field Scale Irrigation Requirements Simulation
ASR	Aquifer storage and recovery
AWWA	American Water Works Association
BEBR	Bureau of Economic and Business Research, University of Florida

F.A.C.	Florida Administrative Code
FDEP	Florida Department of Environmental Protection
F.S.	Florida Statutes
GIS	Geographic information systems
gpcd	gallons per capita per day
gpd	gallons per day
gpm	gallons per minute
IFAS	Institute of Food and Agricultural Sciences, University of Florida
MGD	Million gallons per day
MMR	Maximum monthly rate
RAI	Request for Additional Information
WUP	Water Use Permit

## 1.3 Water Use Permit Program Overview, Objectives, Organization and Authorizations

### 1.3.1 Policy

The purpose of Chapter 40A-2, F.A.C., Regulation of Water Use, is to implement the provisions of Part II of Chapter 373, F.S., and the Water Resource Implementation Rule set forth in Chapter 62-40, F.A.C.

Additional rules relating to water use are found in Chapter 40A-1, F.A.C., entitled General and Procedural; Chapter 40A-3, F.A.C., entitled Regulation of Wells; and Chapter 40A-21, F.A.C., entitled Water Shortage Plan.

### 1.3.2 Objectives

The purpose of this Water Use Permit Applicant's Handbook is to assist the Applicant in the permitting process. It establishes the framework for the Applicant to meet the conditions for issuance in section 40A-2.301, F.A.C., thereby providing a consistent application review process.

The conditions for issuance state that an Applicant must provide reasonable assurance to obtain a water use permit, renewal, or modification that the proposed water use, on an individual and cumulative basis: (1) is a reasonable-beneficial use; (2) will not interfere with any presently existing legal use of water; and (3) is consistent with the public interest. The criteria for a "reasonable-beneficial" use are set forth in section 2.4 of this Applicant's Handbook.

### **1.3.3 Statutory Authority**

Chapter 373, F.S., authorizes and directs the Northwest Florida Water Management District (District) to regulate the use of water within its jurisdictional boundaries (Figure 1). This regulatory program, as required by section 373.216, F.S., ensures that water uses are reasonable-beneficial, will not interfere with any existing legal uses of water, and are consistent with the public interest. The District has adopted rules for regulating water uses, which are set forth in Chapters 40A-1 and 40A-2, F.A.C., and reiterated in this Applicant's Handbook.

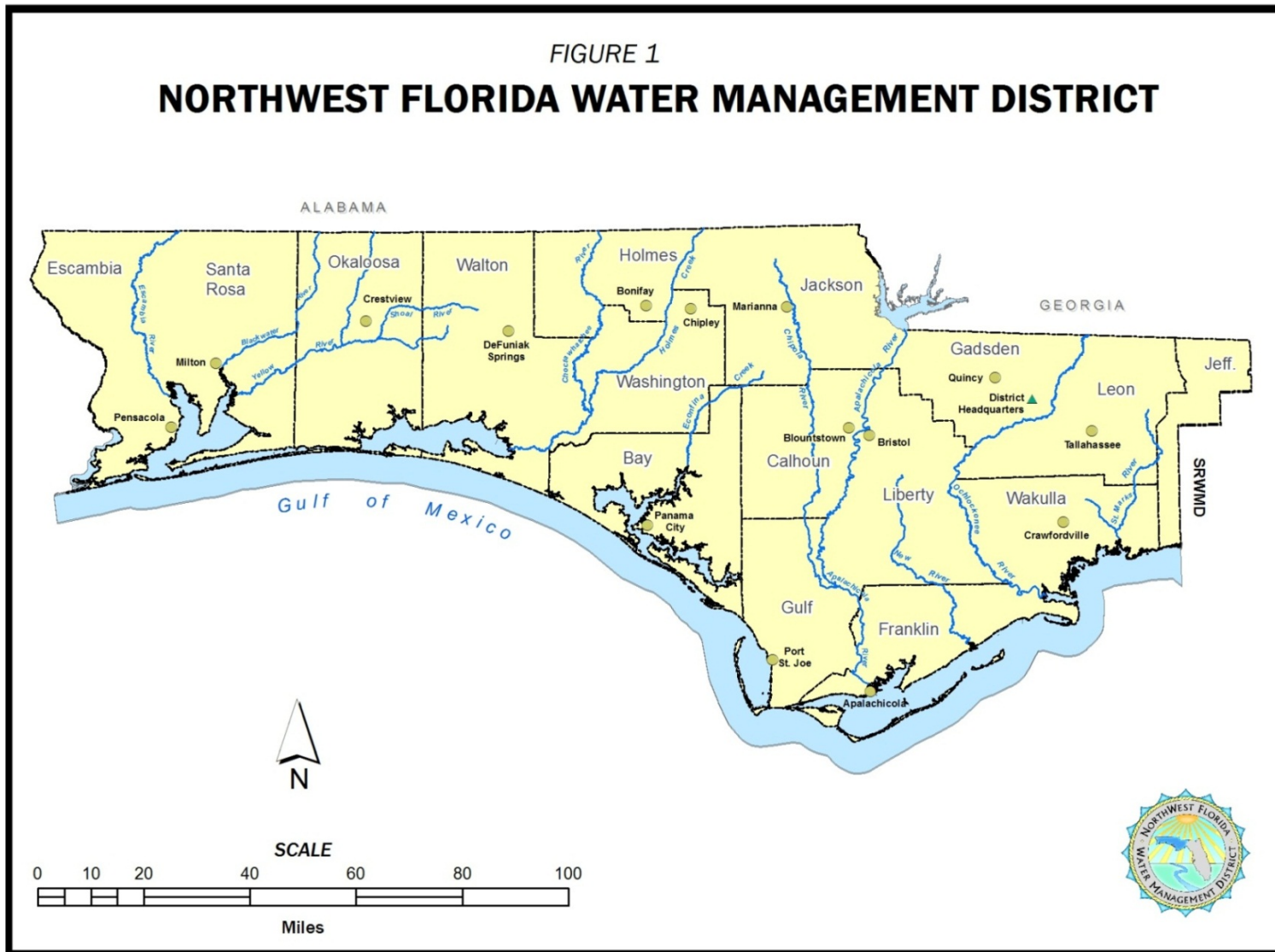
### **1.3.4 Overview of the Applicant's Handbook**

This Applicant's Handbook provides guidance to water use permit Applicants regarding the information and data needed in support of a permit application.

Section 1 provides an overview of policies and administrative procedures including types of applications and associated supplemental forms, permit transfers and modifications, processing procedures and time frames, and permitting fees.

Section 2 provides guidance to the Applicant regarding how to demonstrate property control, requirements for evaluating the feasibility of using reclaimed water for non-potable use, how to calculate water demands for each use class (e.g., agricultural use, recreation use, landscape irrigation use, public supply use, etc.), conservation requirements for each use class, and requirements for Applicants that utilize aquifer storage and recovery (ASR) systems.

Section 3 provides source-specific criteria including criteria that must be met by Applicants located in Water Resource Caution Areas and provides guidance to Applicants regarding how to perform the necessary data collection, hydrologic analysis, and, when appropriate, modeling to evaluate the potential of harm to existing legal uses, offsite land uses, and water resources and associated natural systems.



Section 4 provides an overview of monitoring requirements for Permittees including reporting of water use, the content and purpose of 10-year compliance reports, and, when necessary, monitoring and reporting of water quality, water levels, or other information.

Section 5 provides the Standard Conditions associated with Individual and General Water Use Permits. Section 5 also summarizes the additional Specific Conditions associated with each use type.

## 1.4 Permitting Procedures

### 1.4.1 Permits Required, Thresholds and Permits by Rule

Unless expressly exempted by law or District rule, a water use permit must be obtained from the District prior to any use, withdrawal, or diversion of water. The District issues two types of water use permits: Individual Water Use Permits and General Water Use Permits. General Water Use Permits are issued by rule, which means that the permit is granted without the need to submit a water use permit application to the District.

An Individual Water Use Permit is required for any use of water which is non-exempt and does not qualify for a General Water Use Permit by rule in accordance with section 40A-2.061, F.A.C. Applicants for Individual Water Use Permits are required to submit a water use permit application, appropriate supplemental forms, and a processing fee to the District. Supplemental forms are required to provide necessary information associated with particular water use classifications. The following 11 water use classifications have been defined: agricultural use, commercial use, dewatering use, diversion and impoundment use, industrial use, institutional use, landscape irrigation use, mining use, public supply use, recreation use, and other use. When applying for an Individual Water Use Permit, an Applicant will complete and submit an Application Form and the appropriate supplemental form(s) based on the water use classification(s). The table below indicates the appropriate supplemental form for each use classification. Public supply Applicants do not need to complete separate supplemental forms for commercial, industrial uses, landscape, recreation, institutional water uses that are served by the public supply system.

Water Use Class	Supplemental Form
<b>Agricultural Use</b> (e.g., crops, livestock, wholesale nursery, aquaculture, pasture)	Form A
<b>Commercial and Industrial Uses</b> (e.g., service business, food and beverage production, cooling and heating, commercial attraction, retail nursery, manufacturing, chemical processing, power generation)	Form B
<b>Landscape and Recreation Uses</b> (e.g., irrigation of parks, cemeteries, landscaped areas, golf courses, athletic fields, playgrounds)	Form C
<b>Mining and Dewatering Uses</b> (e.g., water use or removal associated with construction or excavation)	Form D
<b>Public Supply</b> (e.g., public or privately owned water utility)	Form E
<b>Other Use</b> (e.g., aquifer remediation, environmental augmentation, cleaning and maintenance, or the use of water for other purposes not described in Rule 40A-2.501)	Form F

<b>Institutional Use</b> (e.g., hospital, university, military base, correctional facility)	Form G
<b>Diversions and Impoundments</b> (diversion or extraction of water)	Form H

Individual Water Use Permit applications are processed and evaluated as outlined in section 1.4.7 of this Applicant's Handbook. When the District issues an Individual Water Use Permit, a copy of the permit document, including any limiting conditions, is provided to the Applicant.

A water user shall obtain one permit for all uses, withdrawals or diversions that are intended to serve contiguous property. Two or more properties represented by their owners to be separate properties shall be aggregated and treated as a single property for permitting purposes when the District determines that the properties are physically proximate and either share the same infrastructure or are operated as a common enterprise. However, when multiple use types, as defined in section 40A-2.501, F.A.C., are served by separate withdrawal or diversion facilities, the District has the authority to issue separate Individual Water Use Permits.

The District has established thresholds regarding General and Individual Water Use Permits based on the quantity of water requested, the type and specifications of withdrawal or diversion facilities, and the location. To determine whether a General or an Individual Water Use Permit is required, water users should review the specific thresholds outlined below, which are excerpted from sections 40A-2.041 and 40A-2.061, F.A.C.

#### 1.4.1.1 General Water Use Permits by Rule

- (a) The Board hereby grants a General Permit for all non-exempt water uses of water that satisfy the following criteria:
1. Have a cumulative average annual daily withdrawal less than 100,000 gallons per day on an annual basis;
  2. Are from facilities having a cumulative withdrawal capacity of less than 1,000,000 gallons per day;
  3. Are from groundwater wells less than eight (8) inches in diameter;
  4. Are from surface water facilities which have a cumulative intake diameter less than six (6) inches;
  5. Are consistent with requirements of any applicable mandatory reuse zones; and
  6. Are not within a Water Resource Caution Area or Area of Resource Concern as delineated in section 40A-2.902, F.A.C., (Figure 2).
- (b) The General Permit by rule shall be subject to the Standard Conditions in section 5.1 and the applicable Specific Conditions for the use type in section 5.2.1 of the Applicant's Handbook.

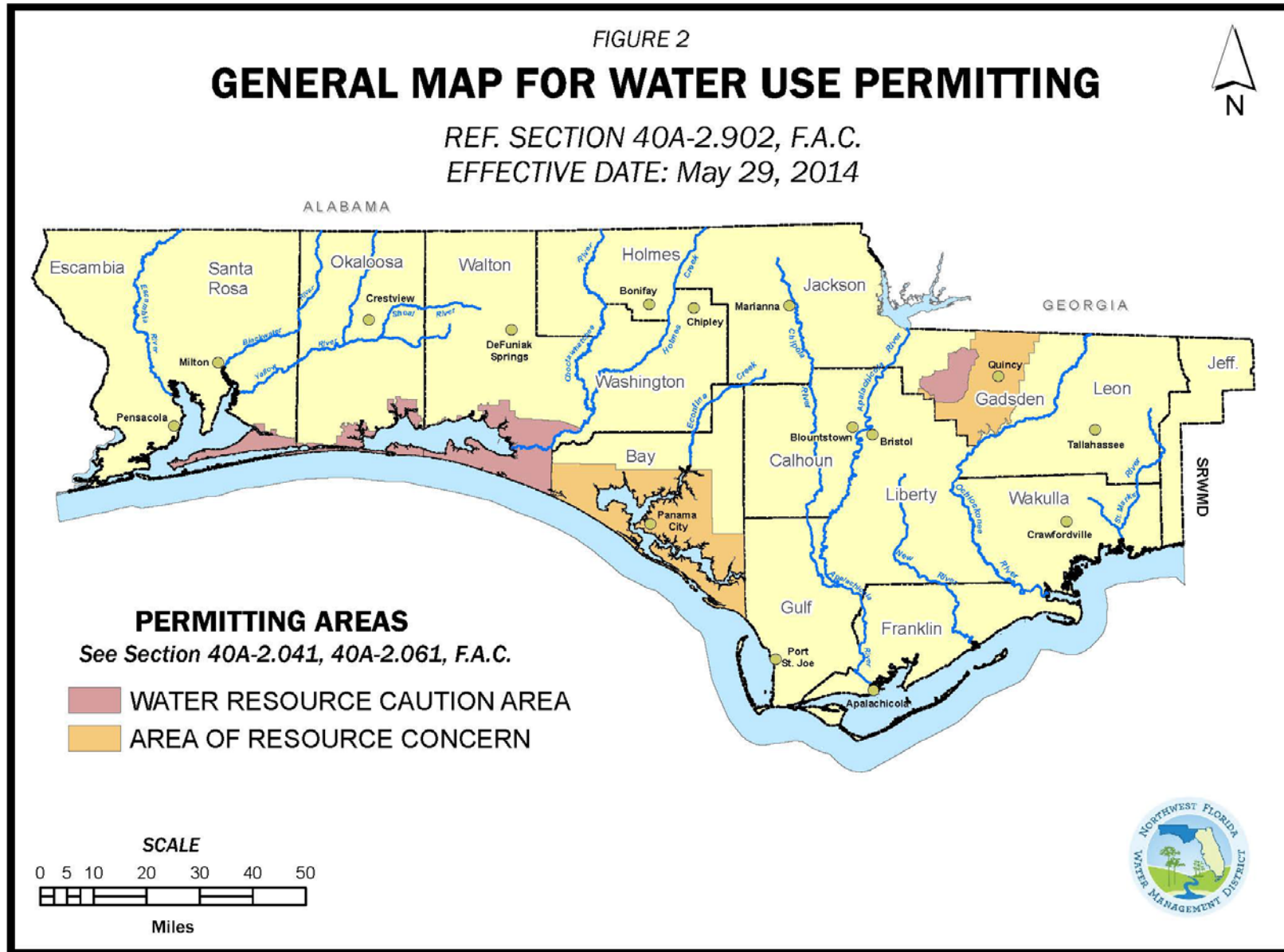
#### 1.4.1.2 General Water Use Permit by Rule for Short-Term Projects

- (a) The Board hereby grants a General Permit for the use of water in conjunction with the following short-term projects: dewatering operations as described in section 40A-2.501, F.A.C., for



purposes such as utility construction and foundation installation; lake drawdown for construction or repair; hydrostatic pipeline testing; exploratory groundwater testing; or aquifer performance tests; provided the use meets the following criteria:

1. Has a duration of 180 days or less;
  2. Has a maximum daily withdrawal of less than five (5) million gallons;
  3. Has a maximum total project withdrawal or diversion of:
    - a. less than 100 million gallons for dewatering operations if all discharge is retained on the project site;
    - b. less than 100 million gallons for lake drawdown; or
    - c. less than 35 million gallons for projects other than dewatering or lake drawdown.
  4. Dewatering is occurring only in the uppermost, water table aquifer.
  5. Will not dewater to a depth below 0.0 feet NGVD within 1,000 feet of saline water laterally, except when dewatering water with a chloride concentration of greater than 1,000 milligrams per liter;
  6. Will not occur within 500 feet of a wastewater treatment plant rapid-rate land application system permitted under Part IV of Chapter 62-610, F.A.C.; and
  7. Will not occur within 1,000 feet of any known contamination in the water bearing zone being dewatered.
- (b) Linear projects, such as roads, utilities, or pipelines, qualify for multiple General Water Use Permits by Rule having a rolling 90-day duration, in which the dewatering operation at the end of each 90-day period occurs more than one (1) linear mile from the location at the beginning of each 90-day period.
- (c) The General Permit by rule shall be subject to the Standard Conditions in section 5.1 of this Applicant's Handbook.



#### 1.4.1.3 General Water Use Permit by Rule for Closed-Loop Systems

- (a) The Board hereby grants a General Permit for the use of water in closed-loop, cooling/heating systems for swimming pools and air conditioning units, provided the following criteria are met:
1. The system withdraws less than an annual daily average of 100,000 gallons;
  2. The withdrawal and discharge points are on property legally controlled by the permittee;
  3. The water is discharged to the same source, aquifer, or permeable zone from which it is withdrawn;
  4. The discharge or injection has been permitted by the Department or is exempt from such permitting;
  5. The water has no contact or mixing with other water sources, additives, and chemicals; and
  6. The use is not from the Floridan Aquifer within the Santa Rosa, Okaloosa, and Walton County Water Resource Caution Area (Figure 2).
- (b) The General Permit by rule shall be subject to the Standard Conditions in section 5.1 and the applicable Specific Conditions for the use type in section 5.2.1 of the Applicant's Handbook.

#### 1.4.1.4 General Water Use Permit by Rule for Aquifer Remediation Activities

- (a) The Board hereby grants a General Permit for the use of water for aquifer or groundwater remediation, provided the following criteria are met:
1. The project is conducted according to a Remedial Action Plan approved by the federal, state or local agency having legal jurisdiction over such activities;
  2. The treated effluent is returned via infiltration or direct injection into the same source, aquifer, or permeable zone from which it is withdrawn; and
  3. The treated effluent meets applicable Department water quality standards.
- (b) The General Permit by rule shall be subject to the Standard Conditions in section 5.1 of this Applicant's Handbook.

#### 1.4.1.5 General Water Use Permit by Rule for Specific Uses in Portions of Gadsden County

- (a) The Board hereby grants a General Permit for water uses in the Upper Telogia Creek Drainage Basin Water Resource Caution Area and Area of Resource Concern of Gadsden County (refer to Figure 2), provided the following criteria are met:
1. The system has an annual average daily withdrawal less than 15,000 gallons;
  2. Groundwater is withdrawn from wells that are four (4) inches or less in diameter;
  3. Surface water facilities have a cumulative diameter less than four (4) inches;
  4. Surface water use does not exceed ten (10) percent of the base flow of the supplying water body; and
  5. Use is consistent with requirements of any applicable mandatory reuse zones.
- (b) The General Permit by rule shall be subject to the Standard Conditions in section 5.1 and the applicable Specific Conditions for the use type in section 5.2.1 of the Applicant's Handbook.

1.4.1.6 General Water Use Permit by Rule for Specific Uses in Portions of Santa Rosa County

- (a) The Board hereby grants a General Permit for water uses in the Water Resource Caution Area of Santa Rosa County (refer to Figure 2), provided the following criteria are met:
  - 1. The system has an annual average daily withdrawal less than 15,000 gallons;
  - 2. Groundwater is withdrawn from wells that are four (4) inches or less in diameter and have a total depth of 100 feet or less;
  - 3. Surface water facilities have a cumulative diameter less than four (4) inches; and
  - 4. Use is consistent with requirements of any applicable mandatory reuse zones.
- (b) The General Permit by rule shall be subject to the Standard Conditions in section 5.1 and the applicable Specific Conditions for the use type in section 5.2.1 of the Applicant's Handbook.

1.4.1.7 General Water Use Permit by Rule for Specific Uses in Portions of Okaloosa and Walton Counties

- (a) The Board hereby grants a General Permit for water uses in the Water Resource Caution Area of Okaloosa and Walton counties (refer to Figure 2), provided the following criteria are met:
  - 1. The system has an annual average daily withdrawal less than 15,000 gallons;
  - 2. Groundwater is withdrawn from wells that are four (4) inches or less in diameter and do not penetrate any competent and continuous confining formation;
  - 3. Surface water facilities have a cumulative diameter less than four (4) inches; and
  - 4. Use is consistent with requirements of any applicable mandatory reuse zones.
- (b) The General Permit by rule shall be subject to the Standard Conditions in section 5.1 and the applicable Specific Conditions for the use type in section 5.2.1 of the Applicant's Handbook.

1.4.1.8 General Water Use Permit by Rule for Specific Uses in Portions of Bay County

- (a) The Board hereby grants a General Permit for water uses in the Area of Resource Concern of Bay County (refer to Figure 2), provided the following criteria are met:
  - 1. The system has an annual average daily withdrawal less than 100,000 gallons;
  - 2. Groundwater is withdrawn from wells that are less than six (6) inches in diameter;
  - 3. Surface water facilities have a cumulative diameter less than four (4) inches; and
  - 4. Use is consistent with requirements of any applicable mandatory reuse zones.
- (b) The General Permit by rule shall be subject to the Standard Conditions in section 5.1 and the applicable Specific Conditions for the use type in section 5.2.1 of the Applicant's Handbook.

1.4.1.9 Additional Provisions for General Water Use Permits by Rule

The permittee shall not utilize the facility associated with a General Permit by rule for any type of water use other than those authorized under section 40A-2.061, F.A.C.

For a use that qualifies for a General Permit to be afforded protection as an existing legal user in the evaluation of subsequent applications, all withdrawal facilities must be registered, at the time the use begins, with the District in one of the following ways:

- (a) The issuance of a well construction permit by the District pursuant to Chapter 40A-3, F.A.C.;

- (b) The registration of any legally constructed well by submittal of the facility information required on the well construction permit application; or
- (c) The registration of any surface water facility by submittal of: the information required in the Water Use Permit Application, Section IV – Sources of Water, in the table “Summary of Surface Water Facilities”; the owner’s name and address; and a map showing the intake.

Notwithstanding the criteria enumerated for any General Permit in this rule, a General Water Use Permit is not authorized for any uses, withdrawals or diversions of water from an illegally constructed or disapproved facility.

Notwithstanding the criteria enumerated for any General Permit in this rule, an Individual Water Use Permit is required for all uses, withdrawals or diversions of water for which evidence indicates the use is likely to cause harm to existing legal uses, offsite land uses, or water resources and related environmental features.

Any person whose withdrawal otherwise meets the criteria for a General Water Use Permit by Rule may submit an application to obtain an Individual Water Use Permit at their discretion.

#### **1.4.2 Exempt Uses**

No permit is required under section 40A-2.041, F.A.C., for water used strictly for domestic use which occurs in a private residence, and includes no more than one rental residence or no more than four non-rental residences served by one well.

#### **1.4.3 Temporary Permits**

Under certain circumstances, the District is authorized to issue a temporary water use permit pursuant to section 373.244, F.S.

#### **1.4.4 Renewal and Modification of Permits**

Applications for renewal of Individual Water Use Permits shall be made no earlier than one year prior to the expiration of the permit. Application for a permit renewal is timely only if actually received by the District not later than the expiration date of the existing permit. All Individual Water Use Permit renewal applications shall be treated in the same manner as the initial application.

A permittee may seek modification of any terms of an unexpired permit pursuant to section 373.239, F.S. Also, the District may require modification of a permit to address a problem with the existing permit. Applicants who wish to change a portion of their current permit may submit an application for modification.

Modifications shall be requested by:

- (a) Formal application, using the appropriate Application Forms incorporated in section 40A-2.101(1), F.A.C. A request for formal modification shall be reviewed in accordance with the rules in effect at the time the modification application is filed.

- (b) By letter (via Letter Modification Request Form No.161 effective 5/29/2014), including a description of the proposed modification and the appropriate fees, provided that:
1. The proposed modification involves water use of less than 100,000 gallons per day and the permittee establishes that a change in conditions has resulted in the water allowed under the permit becoming inadequate for the permittee's need or that the proposed modification would result in a more efficient utilization of water than is possible under the existing permit;
  2. The annual average daily withdrawal or diversion will not increase by more than 10% of the total permitted quantity;
  3. The total permitted withdrawal or diversion from any surface water body, including the proposed modification, will not exceed 10% of the baseflow or storage volume of the waterbody;
  4. The use(s) of the water will not change;
  5. The source(s) of water will not change;
  6. The modification does not cause the permit to exceed any delegation limits set by the Governing Board for their approval;
  7. The proposed changes would not cause a significant increase in impacts beyond those considered in the initial permit;
  8. The proposed modification will not affect a Reservation of Water identified in section 40A-2.223, F.A.C. or affect an established minimum flow or level;
  9. The proposed modification will not extend a permit duration, with the exception of public water supply utilities which have demonstrated water savings achieved through implementation of a District-approved water conservation plan according to the methods in section 2.3.7.8.3 of this Applicant's Handbook; and
  10. Well replacements are constructed within the same aquifer unit, are located within 300 feet of the original well, are located at least 300 feet from wetlands, lakes, and springs, and have a pumping capacity less than or equal to the original well.

The District shall order the modification of any permit if it is shown that the use or disposition of water is detrimental to other water users or to the water resources or no longer meets the conditions for issuance identified in section 40A-2.301, F.A.C.

#### 1.4.4.1 Formal Modification

A permit modification request shall be treated as a new application and shall be reviewed in accordance with the rules in effect at the time the modification is filed. An Applicant requesting a modification shall submit a Water Use Permit Application and any applicable supplemental forms. An application for a permit modification is processed as outlined in section 1.4.7 of this Applicant's Handbook.

Ordinarily, only the modified aspects of the permit will be addressed in the evaluation of an application for modification. Therefore, in most cases, the original expiration date will remain on the modified permit. However, any application for a modification in the last year of the permit term shall also be an

application for renewal, if renewal of the permit is desired by the permittee. Further, if the modification is deemed to be substantial by the District, as described in the paragraph below, the applicant may request that it be addressed as a renewal application with modification.

An application to modify a permit shall be deemed by the District to be substantial if the amount of effort and time required for the permittee to submit a complete application and for the District staff to evaluate the submission are similar to that required for a renewal application with modification for the same permit. Upon request by the applicant, the District shall process the application for modification as a renewal application with modification notwithstanding that it is submitted more than one year prior to the permit expiration date.

#### 1.4.4.2 Modification by Letter

An Applicant requesting a modification by letter shall complete the Letter Modification Request Form and submit it to the District with the required non-refundable processing fee. As indicated on the Letter Modification Request Form, most qualifying letter modifications requests can be grouped into three categories: (1) administrative changes, (2) technical or operational changes, or (3) water conservation-related changes, including a request to modify an existing water conservation plan or a request for a permit extension for qualifying public supply use Permittees who have implemented a goal-based water conservation plan and can demonstrate achieved water savings.

Administrative changes include requests to change the facility name, a partial change of ownership (e.g., a portion of the property has been sold) with a commensurate reduction in irrigated acreage and withdrawal amounts, and requested changes to the Specific Conditions of a permit such as a request to change monitoring or reporting requirements. As indicated in the Letter Modification Request Form, changes related to property ownership or control must be accompanied by a copy of the lease, deed, or other appropriate legal document and a map depicting the changes. Technical and operational changes include minor changes in authorized withdrawal amounts, minor changes in the location of withdrawal facilities, replacement of failed wells, and other changes consistent with section 1.4.4 of this Applicant's Handbook. Public supply use permittees which have implemented a District-approved water conservation plan and can demonstrate achieved water savings as outlined in section 2.3.7.8 of this Applicant's Handbook may request a permit extension through a letter modification request.

A letter modification request in accordance with section 1.4.4 of this Applicant's Handbook need only provide information and meet the conditions for issuance in section 40A-2.301, F.A.C., that relate to the modification request. A permit which has expired or which has been revoked shall not be subject to letter modification.

There is no limit to the number of letter modifications requested during a permit term, provided that the sum total of the total quantity changes do not exceed the limits specified above.

If the District determines that a letter modification request does not meet the qualifications stated above, the Applicant shall be informed that the desired changes must be made through the formal modification process.

Approval authority for letter modification requests shall rest with the Executive Director and be exercised without a hearing. If a letter modification request is denied by the Executive Director, the Permittee may, at their discretion, apply for formal modification of the permit.

#### **1.4.5 Transfer of Permits**

A Permittee can request that the District transfer his Individual Water Use Permit to another entity with that entity's agreement and provided that appropriate legal control is maintained.

Persons who wish to continue an existing, permitted water use and who have acquired ownership or legal control of permitted water withdrawal or diversion facilities or the land on which the facilities are located must apply to transfer the permit to themselves within 45 days of acquiring ownership or legal control of such water withdrawal or diversion facilities or such land.

Until the permit is transferred or a new permit obtained, the party subsequently controlling the permitted water withdrawal or diversion facilities will be in violation of these rules for making any withdrawals or diversions without the required permit.

A request for permit transfer must be made in writing using the Water Use Permit Transfer form. Forms are available from the District offices or from the District's website. The form must be accompanied by the required processing fee. The District will transfer the permit provided all aspects of the permit except for Permittee remain the same. All terms and conditions of the permit being transferred shall be binding on the transferee.

Persons who apply to transfer a permit and who propose to change the source, use, withdrawal or diversion quantities from those specified on the existing permit must also submit an application to modify the permit with the application to transfer the permit.

A General Water Use Permit is hereby transferred by rule to the entity which has ownership or controlling interest of the point of water withdrawal or diversion.

#### **1.4.6 Cancellation and Revocation of Permits**

District staff has the authority to administratively cancel a permit when the Permittee or Permittee's authorized agent surrenders the water use permit to the District, thereby relinquishing the right to conduct any activities under the permit. The Permittee surrendering an Individual Water Use Permit granted under Chapter 40A-2, F.A.C., shall submit such a request in writing and ensure that all groundwater wells have been either properly capped or plugged and abandoned according to section 40A-3.531, F.A.C., and that all surface water withdrawal points have been dismantled. Prior to an administrative cancellation, District staff shall perform a site visit to confirm these requirements have been met.

The Governing Board has the authority to revoke a permit pursuant to section 373.243, F.S. Circumstances that allow for revocation of a permit, in whole or in part, include nonuse of the water



supply allowed by the permit for a period of two years or more unless the user can prove that his or her nonuse was due to extreme hardship caused by factors beyond the user's control.

## **1.4.7 Permit Application Process**

### 1.4.7.1 Pre-application Meetings

Pre-application meetings are strongly encouraged. The purpose of a pre-application meeting is to identify issues that need to be addressed in detail in the application and to provide guidance to the Applicant regarding how to address these issues. Pre-application meetings assist the Applicant in submitting a complete application. Information provided during a pre-application meeting is considered preliminary and not part of the formal application process or considered during application evaluation.

### 1.4.7.2 Forms

All Individual Water Use Permit applications whether for a new permit, formal modification of an existing permit or renewal of an existing permit, shall be made using the Water Use Permit Application, Form No. 160 effective 5/29/2014. Applicants shall also submit one or more of the following Supplemental Forms, as appropriate, for each type of water use being proposed in the permit application:

- (a) Supplemental Form A – Agricultural Use, Form No. 160A effective 5/29/2014.
- (b) Supplemental Form B – Industrial / Commercial Use, Form No. 160B effective 5/29/2014.
- (c) Supplemental Form C – Landscape / Recreation Use, Form No. 160C effective 04/2015.
- (d) Supplemental Form D – Mining / Dewatering Use, Form No. 160D effective 5/29/2014.
- (e) Supplemental Form E – Public Supply Use, Form No. 160E effective 5/29/2014.
- (f) Supplemental Form F – Other Use, Form No. 160F effective 5/29/2014.
- (g) Supplemental Form G – Institutional Use, Form No. 160G effective 5/29/2014.
- (h) Supplemental Form H – Diversion and Impoundment, Form No. 160H effective 5/29/2014.
- (i) All applications for non-potable use shall include reuse feasibility information required in section 2.2.3.1 of this Applicant's Handbook. Information from the reuse provider shall be submitted on the Reuse Feasibility Information form, NWFWMMD Form No. 174, (11/13).

Letter Modification Requests as described in section 40A-2.331, F.A.C., shall be submitted using Form No. 161 effective 5/29/2014.

Application forms and the required Supplemental Forms are available from the District's website or District offices.

### 1.4.7.3 Fees

There shall be a non-refundable water use permit application processing fee according to the schedule below for all new, modification, or renewal applications. The fee is based on total requested withdrawal amounts for all use types and sources, excluding reclaimed water.

<u>Requested Annual Average Daily Withdrawal (Gallons)</u>	<u>Processing Fee*</u>
Less than 25,000 gallons per day, average	\$100.00
25,000 to 99,999 gallons per day, average	\$250.00
100,000 to 499,999 gallons per day, average	\$500.00
500,000 to 999,999 gallons per day, average	\$1,000.00
1,000,000 to 1,999,999 gallons per day, average	\$2,000.00
2,000,000 gallons or more per day, average	\$3,000.00
Permit Transfer or Letter Modification Request**	\$50.00
Temporary Permit (in addition to the fees identified above)	\$50.00

\*Any county or municipality meeting the criteria specified in section 218.075, F.S., may request a reduction in the required fee amount as provided in section 40A-1.2025, F.A.C. The request for fee reduction shall be submitted on Form No. 165 effective 5/29/2014. Forms are available from the District's website or from District offices.

\*\*No transfer fee is required if the transfer is processed in conjunction with a permit modification or renewal.

### 1.4.7.4 Certification of Documents

Any supporting information or calculations required to be prepared by a professional regulated under Florida law, such as Professional Engineer or Professional Geologist, shall bear the certification of such professional.

### 1.4.7.5 Submittal of Materials

All permit application materials, appropriate fees, notices, and verifications of exemption shall be submitted to a District office. Applications shall be considered received by the District on the date submitted before 5:00 p.m. Eastern Time, Monday through Friday, excluding designated District holidays. An Applicant may submit paper copies or electronic copies of application materials on a compact disk (CD), digital video disk (DVD) or other electronic media.

Substantive changes to a permit application following receipt by the District shall require re-noticing of the application. If a substantive change to an application is made, the date of application receipt shall be reset to the date that the request for a substantive change is received by the District. Substantive changes to an application include: a significant increase in the requested average daily withdrawal

amount that is greater than 10 percent and also greater than 100,000 gallons per day; a change in facility location(s); a change in the proposed source(s) of water or a change in the primary use classification.

#### 1.4.7.6 Noticing Requirements

Noticing of application receipt, the date that an application is deemed complete, and Proposed Agency Action shall occur as prescribed in section 40A-1.203, F.A.C. Upon request, the District shall furnish copies of permit application materials and/or Notice of Proposed Agency Action to the person making the request. The District has the authority to require payment for copying charges.

#### 1.4.7.7 Processing Timeframes

A permit application shall be: (a) filed with the District on the appropriate form and (b) accompanied by the appropriate fee in accordance with the schedule of fees established by the Board.

No later than 30 days after receipt of an application for an Individual Water Use Permit, the District shall cause a notice thereof to be published in a newspaper having general circulation as defined in Chapter 50, F.S. In addition, the District shall provide a copy of the notice to any person who has filed a written request for notification of any pending applications affecting the particular designated area. Interested persons may object to or comment upon the proposed permit in writing by the date specified in the notice. The District has the authority to request that persons submitting objections or comments furnish additional information. The District has the option to consider objections or comments received after the designated time period if proposed agency action has not been taken on the application. The District will provide the Applicant with a copy of all objections and comments received. Publication of the notice of application shall constitute constructive notice of the permit application to all substantially affected persons. Persons who wish to receive a Notice of Proposed Agency Action and the staff report regarding a permit application must file a request with the District by the date specified in the notice. Notices of Proposed Agency Action will be mailed only to persons who have filed such requests. Failure to timely request an administrative hearing pursuant to the directions contained in the Notice of Proposed Agency Action constitutes a waiver of the right to an administrative hearing on the application.

Within 30 days after receipt of an application, the District shall notify the Applicant if the application is incomplete and request the additional information required to make the application complete. The Applicant shall have 90 days after the District mails a timely Request for Additional Information to submit that information to the District. If an Applicant requires more than 90 days in which to complete an application, the Applicant may notify the District in writing of the circumstances and for good cause shown, the application shall be held in active status for one additional period of up to 90 days. Unless both the Applicant and the District agree to further extensions, any application which has not been completed by the Applicant within the given time period following a request for additional information by the District shall be recommended for denial at the next regularly scheduled Governing Board meeting. For the purpose of this paragraph, good cause shall mean unforeseen circumstances outside of the control of the Applicant. Denial of an application for lack of completeness is without prejudice to

the Applicant's right to file a new application on the same subject matter within 180 days without payment of an additional application fee.

The District shall notify the Applicant of the date on which the application is deemed complete. Within a reasonable time thereafter, the District shall prepare a staff report, which shall contain its recommendations regarding the subject application. A Notice of Proposed Agency Action and the staff report shall be furnished to the Applicant and to those persons who have filed written requests. The Notice shall state the District's intention to recommend that the Board approve, approve with conditions, or deny the permit application and shall specify a date for filing a petition for administrative hearing which shall be not less than 21 days after the date of mailing of the Notice of Proposed Agency Action. Substantially affected persons shall have the right to request an administrative hearing under section 120.569, F.S., and Part V of Chapter 40A-1, F.A.C., by filing a petition for administrative hearing with the Agency Clerk by the date specified in the Notice of Proposed Agency Action.

#### 1.4.7.8 Requests for Additional Information (RAIs)

Pursuant to section 40A-1.203(5), F.A.C., the District shall require the Applicant to submit additional information if the application is deemed incomplete. The need for additional information shall be based, in part, on receipt of the required processing fee; demonstration of the legal right to conduct water use on the property and maintain legal control over withdrawal or diversion facilities; the amount of the proposed withdrawal or diversion and supporting documentation; characteristics of the requested water source in the region; the potential for harm to existing legal uses, offsite land uses, or water resources and associated environmental features; and the feasibility of providing the data. A Request for Additional Information shall clearly describe the information needed and shall require the submittal of only information necessary to provide assurance that the permitting criteria are met. A response to a Request for Additional Information shall be submitted either in paper form, on a compact disc (CD), digital video disk (DVD), or other electronic media or as an electronic file attached to an e-mail.

If additional information submitted to the District incorporates or results in material changes in the proposed activity for which the Applicant seeks a permit, the application will be considered to have been amended. The District shall have 90 days from the date of receipt of the additional information in which to approve or deny the amended application and such application shall be subject to review for completeness as described above.

#### **1.4.8 Competing Applications**

If two or more permit applications are pending for a quantity of water that is inadequate for both or are in conflict for any other reason, the District shall approve, modify or deny each application pursuant to section 373.233, FS.

## 1.5 Permit Duration

### 1.5.1 General Duration Provisions

General provisions pertaining to permit durations are as follows:

- (a) The Governing Board is authorized to approve permit durations up to the statutory limits specified in section 373.236, F.S., provided that the applicant demonstrates reasonable assurance that the proposed use meets the conditions for issuance in section 40A-2.301, F.A.C., for the requested duration. Otherwise, the Governing Board is authorized to issue permits for a shorter duration that reflects the period for which such reasonable assurances can be provided.
- (b) Special duration factors listed in section 1.5.2 of this Water Use Permit Applicant's Handbook shall be considered in determining permit durations.
- (c) Nothing herein shall preclude or otherwise prevent the Governing Board from terminating, revoking, or temporarily suspending any permit in accordance with these rules or taking such other action as may be provided for in the permit.

### 1.5.2 Special Duration Factors

The Governing Board has the authority to grant a permit of lesser duration to address case-specific considerations (e.g., short duration projects) or to provide for the protection of the resource or existing legal uses (e.g., insufficient data for long-term authorization) or for other considerations as provided by Florida Statutes. Special duration factors to be considered include:

- (a) Located within a Water Resource Caution Area or other designated Area of Resource Concern;
- (b) Located in an area with localized water resource concerns such as localized upconing of saline water;
- (c) Duration of a lease or other legal document demonstrating the legal right to conduct water use on the property and maintain legal control over withdrawal or diversion facilities;
- (d) Duration of a purchase or water delivery agreement which demonstrates reasonable demand for the requested use for a specified period of time; and
- (e) The duration for which reasonable assurances can be provided, per section 373.236 (1), F.S.

When the Governing Board grants a permit for a duration less than the statutory limits in section 373.236, F.S., the Governing Board has the authority to provide for a period of additional duration, up to the statutory limits, to provide incentives for the implementation of conservation measures and alternative water sources. Special duration factors to be considered include:

- (a) Whether an Applicant is proposing to utilize an alternative water source;
- (b) Whether an Applicant is proposing to implement innovative and extraordinary water conserving measures that are beyond those generally implemented for the subject use such that the proposed demands are significantly reduced as a result, including best management practices associated with high efficiency systems; and

- (c) Whether the Applicant is implementing the requirements of a Florida-friendly landscape ordinance adopted by them or by the county or other local government in which they operate.

## **2.0 Demonstration of Water Need, Source(s) and Demand**

### **2.1 Demonstration of Water Need**

To receive a water use permit, an Applicant must demonstrate that the proposed water meets the three-pronged test per section 373.223(1), F.S., and section 40A-2.301, F.A.C. The use: (1) must be reasonable-beneficial, (2) must not interfere with any existing legal use of water, and (3) must be consistent with the public interest. To demonstrate that a use is reasonable-beneficial, the Applicant must show "need" for the water in the requested amount. This chapter describes the factors involved in determining the need for the water and determining the appropriate demand and requested allocation for a particular water use.

#### **2.1.1 Legal Control**

Applicants for an Individual or General Water Use Permit must demonstrate the legal right to conduct the water use on the project lands or site. This is demonstrated through property ownership or other property interest, such as a lease, at the project site. Applicants for an Individual Water Use Permit are required to provide copies of legal documents demonstrating ownership or control of property through the requested permit duration. The recommended permit duration shall take into consideration the time period of the legal interest in the property.

The Applicant must provide reasonable assurance of its ability to operate and maintain the withdrawal and diversion facilities for the duration of the permit in accordance with the permit terms and conditions. All Applicants proposing to lease the lands on which the proposed water use will occur must maintain legal control to access and maintain the withdrawal and diversion facilities through the conditions of the lease as necessary to ensure permit compliance.

Public agencies with the power of eminent domain shall be considered to have legal control of property on which pumps, wells, diversions or other permitted facilities are or will be located as described in the permit application. When a public agency relies on its power of eminent domain for legal control of property, if all other conditions for issuance have been met, the District shall recommend issuance of the WUP with a condition requiring the public agency to acquire ownership or legal control of the property prior to withdrawal, diversion or use of any amounts associated with the facility proposed for that location. The District has the authority to modify the permit and revoke for nonuse those portions of the permit for which the permittee has not acquired property described in the permit application per 373.243 F.S.

An Applicant for an Individual Water Use Permit proposing to supply bulk wholesale water to another entity, such as a public water supplier, must establish need for a water allocation through demonstration of the legal right and obligation to supply the requested allocation. The Applicant may establish this legal control through service area designations, water sale or delivery contracts, or other proof of such legal obligation. Public water suppliers required to receive a service area certificate or order of exemption from the Public Service Commission, shall obtain such designation prior to issuance

of a water use permit pursuant to section 367.031, F.S. An Applicant is no longer entitled to water allocation for which they cannot substantiate demand such as upon termination of the legal obligation to supply water to the receiving entity. Requested water allocations must be supported with detailed demand information for the supply system(s) for the requested permit duration. The requirements of this section of the Applicant's Handbook shall not apply to proposed water uses reviewed in accordance with the Florida Power Plant Siting Act, outlined in sections 403.501 - 403.518, F.S.

## **2.2 Sources Identification**

Sources are classified as surface water, groundwater, or alternative water supplies, all of which shall be further identified with the name of the water body or aquifer. If a source is not reliable throughout the year, the Applicant may request withdrawal quantities from secondary and standby sources of water, to be used when the primary source is limited. If applicable, the permit shall identify the secondary and standby sources and the conditions under which they shall be needed or used.

### **2.2.1 Multiple Water Sources**

Diversification of water sources and interconnections among multiple sources increases source reliability and enhances the ability to meet future water demands. This includes "conjunctive use," such as combining and using surface water and groundwater supplies, a combination of reclaimed water and traditional sources, or any other use of multiple sources. The District does not issue permits for the use of reclaimed water or seawater. However, if reclaimed water is placed into an unlined pond, lake, or surface water management system from which the Applicant then uses, diverts, or withdraws for irrigation purposes, a water use permit shall be required to ensure the use, diversion, or withdrawal is consistent with overall objectives of the District and does not cause harm to existing legal uses, offsite land uses, or water resources and associated environmental features.

The District has the authority to authorize withdrawal or diversions from multiple sources within a single permit. When multiple sources are requested, the District shall work with the Applicant to establish protocols for incorporation into the permit that govern the use of the water sources to collectively meet the needs of the Permittee. Such protocols shall provide for the use of the permitted sources that encourage flexibility of operation while ensuring that the conditions of issuance are met for the permit duration. For example, in years of abundant rainfall, a Permittee may maximize the use of excess wet weather surface water flows to provide a larger percentage of the overall water supply need. In drought years, a Permittee may rely more heavily on sources such as water stored in reservoirs, aquifer storage and recovery facilities or desalination. The protocols shall include limits on the total amount of water to be withdrawn from each source, as needed.

### **2.2.2 Lowest Quality Water Acceptable for Intended Use**

The Applicant must consider the availability of the lowest quality water which is acceptable for the intended use. If a water source of lower quality is available and is technologically, economically, and environmentally feasible for all or a portion of an Applicant's proposed use, this lower quality water



shall be used. Lower quality sources include reclaimed water, recycled irrigation water, saline water, or other sources.

### **2.2.3 Reclaimed Water**

#### 2.2.3.1 General Reuse Requirements

Reclaimed water shall be presumed available to a water use permit Applicant when a reuse utility exists, which has determined it has uncommitted reclaimed water capacity, and which has distribution facilities, that are initially provided by the utility at its own cost, to the site of the affected Applicant's proposed use. When reclaimed water is readily available, it must be used in place of higher quality water sources unless the Applicant demonstrates that its use is economically, environmentally, or technologically infeasible. In determining whether reclaimed water is available and its use is environmentally, technically, and economically feasible, the District shall consider the following factors:

- (a) Whether a suitable source of reclaimed water exists;
- (b) Whether the source is offered to or controlled by the Applicant;
- (c) Whether the Applicant is capable of accessing the source;
- (d) Information regarding the costs to the Applicant of utilizing reclaimed water relative to the costs of other permissible water sources;
- (e) Any other relevant information, including the documentation required in paragraph (f) immediately below; and
- (f) Applicants located within an area that is or may be served with reclaimed water by a reuse utility within five years from the date of application shall provide written documentation from the applicable reuse utility, addressing the availability of reclaimed water. The Applicant shall request the reuse utility to provide a letter stating that reclaimed service is not available, or providing the following information:
  1. Whether a reclaimed water distribution line is at the Applicant's property boundary. If not, provide the following:
    - a. An estimate of the distance in feet from the Applicant's property to the nearest potential connection point to a reuse line; and,
    - b. The date the reuse utility anticipates bringing the connection to the Applicant's property boundary.
  2. If reclaimed water is available at the property boundary, provide the following information:
    - a. The peak, minimum, and annual average daily quantity in gallons per day of reclaimed water supply available from the nearest potential connection point, as well as expected average monthly quantities;
    - b. The reliability of the potential reclaimed water supply (i.e., on-demand 24/7, or bulk-interruptible diurnal or seasonal, length of supply agreement, or other basis);
    - c. All costs associated with the Applicant's use of reclaimed water:
      - i. The reclaimed water rate or rates the reuse utility would charge the Applicant (e.g., the cost per 1,000 gallons) and any other periodic fixed or minimum

- charges for use of reclaimed water by the Applicant for the next five years;  
and,
- ii. Any other one-time charges for the connection to the reuse; and,
- iii. Whether the reuse utility helps fund potential reclaimed customers' costs to connect to the reclaimed line or convert its operation to use reclaimed water.
- d. The water quality parameters of the reclaimed water for any constituents that the Applicant identifies as pertinent to the intended use; and
- e. Any additional information the reuse utility thinks the Applicant should consider in evaluating the economic, environmental, or technical feasibility of its using reclaimed water, including any reclaimed water availability charges the reuse utility would impose if the Applicant chose not to connect to the reclaimed water system.

If the reuse utility fails to respond or does not provide the information within 30 days after receipt of the Applicant's request, the Applicant shall provide the District a copy of the Applicant's written request and a statement that the utility failed to provide the requested information. If the reuse utility provides a partial response, the Applicant shall also provide that to the District.

#### 2.2.3.2 Back-up Allocations for Reclaimed Water Sources

Where reclaimed water is the primary water source, the Applicant may request that the District allocate the use of water from other sources for periods of time when reclaimed water becomes unavailable. The determination of emergency or back-up supply allocations shall consider the risk that reclaimed water may be unavailable in the future, the risk that other sources may be fully allocated to other users in the future, the extent to which an Applicant intends to rely on reclaimed water, and the extent of economic harm if other sources are not available to replace the reclaimed water.

#### 2.2.3.3 Impact Offsets, Substitution Credits, and Supplementation

The Applicant may propose an impact offset derived from the use of reclaimed water as part of a permit application, pursuant to section 62-40.416(7), F.A.C. The Applicant is also allowed to propose a substitution credit for use of reclaimed water in a resource limited area, pursuant to section 62-40.416(8), F.A.C., as part of a permit application. The Applicant can maximize the use of reclaimed water through supplementation, pursuant to section 62-40.416(9), F.A.C., by submitting a plan in accordance with the section.

Applicants proposing an impact offset or substitution credit must demonstrate that the conditions for permit issuance are met through the submittal of a water resource impact evaluation, as described within section 3 of this Applicant's Handbook.

## 2.3 Demonstration of Demand

As part of the demonstration that a water use is reasonable-beneficial, an Applicant must show demand for the water requested in "Section VI Summary of Requested Water Use" on the Water Use Permit

Application form and in the "Requested Water Use" tables on the supplemental forms. This section of the Applicant's Handbook provides guidance to the applicant regarding how to estimate the water demands for a proposed water use.

### **2.3.1 Authorized Amounts**

Applicants must request withdrawal or diversion amounts for each use according to the designations listed below. The District shall evaluate the quantities requested and specify the quantities allocated within each permit. The resulting allocations shall include the following authorized amounts:

- (a) Annual Average Daily Withdrawal. An amount that is equal to the total volume of water or diverted from all sources during one year divided by 365 days and expressed in gallons per day (gpd).
- (b) Maximum Monthly Withdrawal. The maximum volume of water withdrawn or diverted during any given month of the year, expressed in gallons.

### **2.3.2 Water Suppliers and Associated Secondary Use**

A water supplier has legal control to operate and maintain a water system for the purposes of providing for the reasonable-beneficial demands of secondary users for consumptive and non-consumptive uses. A secondary user is one for whom all or a portion of their water is provided by a water supplier, as defined herein.

Water suppliers are strongly encouraged to include, in any new or amended contracts with secondary users, the following:

- (a) Agreement that the secondary user will comply with water shortage restrictions imposed by District rule or order issued pursuant to Chapter 40A-21, F.A.C.;
- (b) Agreement that the secondary user will comply with all applicable water conservation standards required in the water supplier's water use permit;
- (c) Agreement that the secondary user will notify the water supplier of any changes in water use demands or sources;
- (d) Agreement that the secondary user will continue to evaluate the feasibility of using reclaimed water in accordance with the requirements contained within the water supplier's water use permit;
- (e) Agreement that the secondary user will mitigate harm to the resources or existing legal uses caused by the secondary user;
- (f) Agreement that the secondary user will submit a map identifying their system's water supply distribution area, provide customer use information, location and type of any irrigation, and other information required to substantiate demand; and
- (g) Agreement that the secondary user will comply with the above stated conditions and applicable conditions within the water provider's water use permit or be subject to potential District enforcement action pursuant to Chapter 373, F.S.

For water suppliers which provide water to secondary users that either (1) redistribute water for resale or (2) which use an annual average quantity greater than one million gallons per day, the Applicant shall provide the quantity of water projected to be delivered to each secondary user, and, if available, projections of the population served (where applicable) and water demand components, and a copy of the water service delivery agreement to support the demonstration of water demand.

Secondary users may choose to obtain their own water right through a separate water use permit from the District. The District will utilize the applicable demand calculation criteria for the use class associated with the secondary use to determine the proposed demand. If a secondary user meets a portion of their demand through self-supply, such as by operating their own wells, a resource evaluation must be conducted for this portion of the supply as required by section 3 of this Applicant's Handbook. Impact evaluation associated with the water supplier's withdrawal from a regional supply system will not be required. In addition, the requested allocation must be consistent with the water supplier's permit as evidenced by demonstration of legal access to the water supplier's system and by demonstration that the proposed secondary use will not cause the water supplier to exceed its permitted allocation.

### **2.3.3 Agricultural Use (Supplemental Form A)**

Agricultural uses include water associated with the irrigation of crops (including biofuel), greenhouse and nursery products, sod, forage, and pasture and non-irrigation uses associated with freeze protection, livestock and other domestic animals, aquaculture, and other uses associated with agricultural operations.

Applicants must demonstrate that the quantities requested represent agricultural needs. The Applicant must demonstrate irrigation needs by providing information on the irrigated acreage, crop types and rotations, planting and harvest dates, the type of the irrigation system, frost/freeze protection amounts, and other specific use information. The crop types and planting and harvest dates should reflect all crops anticipated to be grown during the requested permit duration. Where more than one crop or agricultural use is needed, (e.g., livestock use and crop irrigation), the requested water allocation should represent the sum of the greatest demand components anticipated to occur during any single year of the requested permit duration. Applicants which operate commercial retail nurseries and use water for irrigation of retail nursery stock should complete the Industrial / Commercial Use Supplemental Form B (Section B2, item 6) rather than the Agricultural Use Supplemental Form A.

The Applicant shall identify the amount of water requested to be provided for each Agricultural use component (e.g., irrigation, livestock, etc.), by source. The primary water sources are surface water (streams and ponds) and groundwater (Floridan Aquifer, Sand-and-Gravel Aquifer, surficial aquifer). Although the District does not regulate the use of reclaimed water, the Applicant should indicate the amount of reclaimed water, if applicable, that is anticipated to be used to meet all or a portion of agricultural water demands. If ponds are used to store irrigation water, the storage volume or the average surface area and depth, historical withdrawal or diversion amounts, and an indication of whether each pond is lined or unlined should be provided. If multiple water sources are proposed, the

application must be accompanied by a description of how the sources and irrigation systems are proposed to be operated to meet the agricultural water demands.

For Individual Water Use Permits issued for agricultural irrigation, reductions in actual use compared to permitted water use that are due to weather events, crop diseases, nursery stock availability, or changes in crop type shall not result in a permit modification by the District to reduce the permitted allocation during the term of the permit duration as long as the water use for each crop remains efficient.

#### 2.3.3.1 Supplemental Crop Irrigation

The supplemental irrigation requirement is the amount of water needed by a particular crop in addition to rainfall. The District uses the Agricultural Field Scale Irrigation Requirements Simulation (AFSIRS) model developed by the University of Florida Institute of Food and Agricultural Sciences to estimate supplemental irrigation requirements. The AFSIRS model simulates a daily water balance of the crop root zone using historical rainfall and evapotranspiration. Input data for the AFSIRS model includes the crop type(s), planting season(s), soil type(s), irrigation system type or efficiency, climate data, and other parameters. At the Applicant's request, District staff shall calculate and provide recommended AFSIRS amounts for supplemental irrigation needs.

An Applicant may determine the supplemental irrigation requirement based on crop coefficients and evapotranspiration estimates published by the University of Florida, Institute of Food and Agricultural Sciences (IFAS), or another source such as the Natural Resources Conservation Service. Documentation and supporting calculations are required if an approach other than the AFSIRS model is used to estimate supplemental irrigation needs.

#### 2.3.3.2 Frost / Freeze Protection

Crops requiring water allocation quantities for frost/freeze protection are uncommon in northwest Florida. However, where applicable, an Applicant may estimate freeze protection quantities based on the irrigated acreage, the type of irrigation used, and the pumping hours required. If the number of hours is unknown, an Applicant may use the best available data for frost/freeze recurrence and duration. Alternate calculations shall be considered by the District if an Applicant documents the data sources and assumptions.

#### 2.3.3.3 Livestock

An Applicant may estimate the need of water for livestock use by multiplying the estimated total number of animals by gallons needed per day as estimated by IFAS or another District-approved source. The following are example livestock daily water needs:

Animal	Daily Water Need (gallons per day)
Beef cattle or horses	12
Chickens	0.10
Dairy Cattle	150 - 175
Goats	2
Hogs	2 - 4

Sheep	2
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#### 2.3.3.4 Aquaculture

An Applicant may estimate the water need for aquaculture based on the number and volume of ponds and tanks and the filling and recirculation requirements of each, as well as other factors that contribute to maintaining necessary water levels or water quality, such as the lining of dug ponds with an impervious material or soil compaction of unlined dug ponds. A water balance, calculations, and other relevant information supporting the requested amounts shall be provided as part of the permit application. An Applicant may provide the water balance in the form of a spreadsheet or a flow diagram.

#### 2.3.3.5 Other Agricultural Water Uses

The water needed for other agricultural uses is determined based on supporting information provided by the Applicant and other data, reports, or research reviewed by District staff.

#### 2.3.3.6 Water Conservation

Applicants for Agricultural use located in a Water Resource Caution Areas or other designated Area of Resource Concern shall identify ongoing or planned water conservation measures. Additionally, all Applicants for agricultural irrigation shall implement the following water conservation measures:

- (a) Avoid irrigating non-planted areas to the extent feasible;
- (b) Maintain and repair the irrigation system to avoid the inefficient use of or loss of water through pipe leaks, broken sprinkler heads, clogged emitters, etc.; and
- (c) Minimize daytime irrigation, aeration, spraying water into the air or other activities to minimize evaporative losses, to the extent feasible.

### **2.3.4 Industrial / Commercial Use (Supplemental Form B)**

Commercial use includes the use of water (indoor and outdoor) associated with the production of goods and services by a self-supplied commercial establishment. Commercial establishments include general businesses, office complexes, commercial cooling and heating, beverage processing, food processing, restaurants, gas stations, hotels, car washes, laundry facilities and the use of water at zoos, theme parks, waterslides, and attractions. Industrial uses include the use of water (indoor and outdoor) associated with the production of goods such as water used at manufacturing plants, chemical processing plants, power generation plants, hydrostatic testing, and other industrial facilities. Applicants for industrial / commercial use may include minor water demands for potable supply, irrigated landscape or recreation areas, or other uses. If the requested amounts associated with any minor water use component exceed 100,000 gpd, a separate supplemental application form should be completed for the corresponding use type. For example, if an Applicant for industrial facility also uses 125,000 gpd of water for landscape irrigation, the Landscape / Recreation Use Supplemental Form C should be completed in addition to the Industrial / Commercial Supplemental Form B.

The reasonable demand for a requested allocation must be based on the amount of water needed to perform commercial, industrial, or power generation processes in an efficient and non-wasteful manner. An Applicant may demonstrate water demands by providing a water balance for the operation, including all sources and uses of water and all losses and reuses of water in the industrial and commercial processes, personal/sanitary use, landscape and recreation irrigation use, and treatment and other losses. Example processes include boiler feed and make-up water, equipment cooling, heat exchanges, emission control, product content, product mixing and dilution, and cleaning and maintenance. An Applicant may provide the water balance in the form of a spreadsheet or a flow diagram.

Documentation of minor water needs for potable supply or sanitary uses by employees and visitors (e.g., drinking, bathing, cooking, sanitation, etc.) should include the per capita water use rates utilized in the calculations. The rates should take into consideration the average number of visitors and employees per shift, the number of shifts per work day, and the number of work days per year. Typical rates range from 8 gallons (for office workers and visitors) to 26 gallons (for employees working in shop areas) per person per 8-hour shift.

Minor water needs for landscape or recreation irrigation shall be based on supplemental irrigation requirements for turf grass or other landscape vegetation. An Applicant may estimate this quantity by multiplying the total acres to be irrigated by the appropriate application rate. The District estimates application rates and supplemental irrigation requirements for turf grass and landscape using the Agricultural Field Scale Irrigation Requirements Simulation (AFSIRS) model. Input data for the AFSIRS model includes the soil type, irrigation system type, climate data, and other parameters. At the Applicant's request, District staff will calculate and provide recommended amounts for supplemental irrigation needs. If the Applicant is irrigating plants with special irrigation needs not encompassed by the standard crop coefficients (such as high-value plant specimens) and requests an irrigation allocation greater than the AFSIRS-recommended allocations, the Applicant must submit supporting documentation and calculations for the District's consideration.

An Applicant may estimate minor water demands for heating and cooling, laundry facilities, dust control, equipment washing or other uses by documenting assumptions regarding each minor use and providing supporting calculations, as needed.

The Applicant shall identify the amount of water requested to be provided for each industrial or commercial use component (e.g., manufacturing, heating and cooling, potable supply), by source. The primary water sources are surface water (streams and ponds) and groundwater (Floridan Aquifer, Sand-and-Gravel Aquifer, surficial aquifer). Although the District does not regulate the use of reclaimed water, the Applicant should indicate the amount of reclaimed water, if applicable, that is anticipated to be used to meet all or a portion of any industrial or commercial water demands. If ponds are used to store water, the storage volume or the average surface area and depth, historical withdrawal or diversion amounts, and an indication of whether each pond is lined or unlined should be provided. If multiple water sources are proposed, the application must be accompanied by a detailed description of how the sources are proposed to be used to meet the demands. To substantiate their need for water, an Applicant may also submit items such as: market analysis or other demonstration of current and

anticipated market demand for their product or service; contracts detailing obligation to provide their product of service; or other evidence of physical and financial ability to produce their product or provide the services.

Applicants for industrial use who use the Floridan Aquifer in the Santa Rosa, Okaloosa, and Walton County Water Resource Caution Area and Applicants located in the Upper Telogia Creek Drainage Basin Water Resource Caution Area in Gadsden County shall develop and submit water conservation plans at the time of application. The plan shall identify specific measures to be implemented to conserve water and enhance water use efficiency and a timeline for implementation. Potential measures include leak detection and repair, technological or process-based facility improvements, water recycling and reuse, periodic audits of water use and efficiency practices, employee awareness or customer education concerning water conservation, and other measures to decrease water consumption or improve efficiency.

All other Applicants for industrial and commercial uses requesting an annual average daily withdrawal of greater than 100,000 gpd shall identify all ongoing and planned water conservation measures at the time of application.

### **2.3.5 Landscape / Recreation Use (Supplemental Form C)**

Landscape irrigation use includes water for the irrigation of non-residential lawns and landscapes, parks, medians, cemeteries, right-of-ways, green spaces and other common areas. Recreational uses include water for the irrigation of golf courses, athletic fields, and playgrounds, and water-based recreation such as the use of water for hunting, fishing, boating, and swimming and the maintenance of waterfowl or wildlife management areas.

An Applicant may estimate the irrigation demands for landscape, golf courses and other recreational areas by multiplying the total acres to be irrigated by the appropriate application rate. The application rate or supplemental irrigation requirement is the amount of water needed by turf grass in addition to rainfall. The District estimates the supplemental irrigation requirement using the Agricultural Field Scale Irrigation Requirements Simulation (AFSIRS) model. The AFSIRS model simulates daily water balance of the crop root zone using historical rainfall and evapotranspiration. Input data for the AFSIRS model includes the soil type, irrigation system type, climate data, and other parameters. At the Applicant's request, District staff shall calculate and provide recommended amounts for supplemental irrigation needs. If the Applicant is irrigating plants with special irrigation needs not encompassed by the standard crop coefficients (such as high-value plant specimens) and requests an irrigation allocation greater than the AFSIRS-recommended allocations, the Applicant must submit supporting documentation and calculations for the District's consideration.

An application for landscape / recreation use must be supported by a map showing all existing and proposed irrigated areas. Maps of irrigated areas on golf courses should distinguish between greens and tees, fairways and roughs, driving ranges and other areas. It is important that an Applicant separately estimate the acreage associated with irrigated tees and greens because the irrigation demand for these areas is higher than that of roughs and fairways. The District does not allocate water



for overseeding during winter months. An Applicant may provide supporting documentation or calculations to support requested amounts for minor uses such as equipment washing, spray mixing, and potable or sanitary water needs for guests or employees.

The Applicant shall request the amount of water anticipated to be needed for each landscape or recreation use component, by source. The primary water sources are surface water (streams and ponds) and groundwater (Floridan Aquifer, Sand-and-Gravel Aquifer, surficial aquifer). Although the District does not regulate the use of reclaimed water, the Applicant shall indicate the amount of reclaimed water, if applicable, that is anticipated to be used to meet all or a portion of landscape / recreation water demands. If ponds are used to store irrigation water, the storage volume or the average surface area and depth, historical withdrawal data, and an indication of whether each pond is lined or unlined should be provided. If multiple water sources are proposed, the application must be accompanied by a detailed description of how sources and irrigation systems are proposed to be operated to meet the irrigation demands.

Water-based recreation includes water used for public or private swimming and wading pools; hunting, fishing, boating, and swimming areas; and the maintenance or enhancement of wildlife or waterfowl management areas. The Applicant shall provide a water balance and supporting calculations to support the requested withdrawal amounts associated with water-based recreation. An Applicant may provide the water balance in the form of a spreadsheet or a flow diagram. If the water use involves the filling or maintenance of ponds, the storage volume or the average surface area and depth and an indication of whether each pond is lined or unlined should be provided.

Applicants for golf course irrigation use who use the Floridan Aquifer in the Santa Rosa, Okaloosa, and Walton County Water Resource Caution Area and Applicants located in the Upper Telogia Creek Drainage Basin Water Resource Caution Area in Gadsden County shall develop and submit water conservation plans at the time of application.

Elements of a water conservation plan may include:

- (a) Implementation of Florida-friendly landscaping principles in the construction of future landscape improvements. These principles must be used when modifications to existing projects are requested unless the Applicant demonstrates that it is not economically feasible;
- (b) The installation and use of automatic rain sensor shut-off devices;
- (c) A program for increasing water use efficiency of the Applicant's project, including best management practices and the use of devices such as tensiometers to determine application frequency and duration, if available; and,
- (d) Procedures and time-frames for implementation of identified conservation measures.

All other Applicants for landscape or recreation use with a requested annual average daily withdrawal of greater than 100,000 gpd shall identify in the application any ongoing or planned water conservation measures.

### **2.3.6 Mining / Dewatering Use (Supplemental Form D)**

Dewatering use includes the removal of water to control surface or groundwater when performing activities such as construction or excavation. Mining use includes the use of water associated with the extraction, transport and processing of subsurface materials and minerals. Applicants for dewatering activities must demonstrate the volume and rate of water to be withdrawn from the construction site and duration necessary to perform the activity. In addition, the Applicant shall describe the disposal method and location of water removed for dewatering purposes.

An Applicant may demonstrate the reasonable need for a requested mining or dewatering allocation based on the amount of water needed to economically and effectively extract subsurface materials or to control surface water or groundwater when performing activities such as excavation or construction. An Applicant may provide a water balance to support the requested withdrawal amounts. The water balance shall demonstrate water inputs and outputs, including quantities of water discharged or reused. An Applicant may provide the water balance in the form of a spreadsheet or a flow diagram. The reasonable allocation for a dewatering operation may depend upon the excavation method. If staff cannot recommend the requested amount for dewatering of a mining pit because of harm to existing legal uses, offsite land uses, or water resources and associated environmental features, an Applicant may consider alternative methods with less impacts such as drag-lining or dredging.

Documentation of minor water needs for potable supply or sanitary uses by employees and visitors (e.g., drinking, bathing, cooking, sanitation, etc.) should include the per capita water use rates utilized in the calculations. The rates should take into consideration the average number of visitors and employees per shift, the number of shifts per work day, and the number of work days per year. Typical rates range from eight (8) gallons (for office workers and visitors) to 26 gallons (for employees working in shop areas) per person per eight-hour shift.

The Applicant shall identify the amount of water requested to be provided for each mining / dewatering use component, by source. The primary water sources are surface water (streams and ponds) and groundwater (Floridan Aquifer, Sand-and-Gravel Aquifer, surficial aquifer). Although the District does not regulate the use of reclaimed water, the Applicant should indicate the amount of reclaimed water, if applicable, that is anticipated to be used to meet all or a portion of mining or dewatering demands. If multiple water sources are proposed, the application must be accompanied by a detailed description of how the sources are proposed to be used to meet the mining or dewatering demands.

Applicants for mining / dewatering use requesting an annual average daily withdrawal of greater than 100,000 gpd are required to identify all ongoing and planned water conservation measures at the time of application.

### **2.3.7 Public Supply Use (Supplemental Form E)**

Public supply involves the use of water provided by any municipality, county, regional water supply authority, special district, public or privately owned water utility, multi-jurisdictional water supply

authority, or other entity consistent with the Florida Safe Drinking Water Act, for human consumption and other purposes.

Information needed to demonstrate reasonable demand includes data such as the number and type of service connections; historical and projected population estimates for the water supply distribution area; historical and projected water use by customer type, such as residential, commercial, non-residential recreation use, etc.; water conservation and efficiency measures; and data specific to the projection methodologies used.

Water suppliers which provide water to secondary users that either (1) redistribute water for resale or (2) which use an annual average quantity greater than one million gallons per day, may provide the quantity of water projected to be delivered to each secondary user, projections of the population served (where applicable) and water demand components, and a copy of the water service delivery agreement to support the water supplier's demonstration of demand.

#### 2.3.7.1 Population Estimates and Projections

The Applicant shall provide estimates of the current and projected future population served. Population estimates are necessary to calculate per capita water use, which is used by the District to evaluate water use efficiency and may be used by the Applicant to develop water demand projections.

The Applicant may estimate the current population served within a water supply distribution area by multiplying the number of residential dwelling units served by the average number of persons per household. The number of residential dwelling units should be based on the number of active residential connections within a calendar year. Estimates of the number of dwelling units should account for the possibility that one multi-family or mobile home service connection may serve multiple dwelling units.

The Applicant may obtain an estimate of the number of persons per household at the city, place, or county level from U.S. Census data. The Applicant may develop a refined estimate of the number of persons per household from an analysis of census block data aggregated and averaged across the water supply distribution area. The Applicant may perform this analysis using Geographic Information Systems software (GIS). County-wide averages of persons per household in Northwest Florida were generally in the range of 2.3 to 2.6 in year 2012.

Similarly, an Applicant may estimate the population served by summing the population within census blocks, traffic analysis zones, or other spatial units for which population data are available in the water supply distribution area. In some areas, an Applicant may opt to make adjustments to account for seasonal or tourist populations. An Applicant may utilize other methods of estimating population, subject to District review and approval.

The Applicant may obtain projections of future population at the county level from the University of Florida's Bureau of Economic and Business Research (BEBR), Regional Planning Councils, County Planning Departments, or other District-approved sources. When population estimates are required for years in between published or referenced estimates, the Applicant may interpolate the data.

An Applicant may allocate county level population projections to the anticipated future water supply distribution area using: (1) BEBR growth rates or historical growth trends, (2) based on a proportional share within a base year, adjusted as needed in the future for anticipated changes in population growth or water supply distribution area boundaries, (3) a spatial population allocation model (where available) that is based on parcels, census tracts, or traffic analysis zones, or (4) other District-approved methods.

### 2.3.7.2 Per Capita Daily Water Use

Per capita daily water use is a water use efficiency measure that the District uses in the evaluation of the reasonableness of the requested amounts for public supply Applicants. Per capita daily water use estimates may also be used by Applicants to project future water demands. In 2008, the Florida Department of Environmental Protection and the water management districts established statewide methods for estimating per capita water use. Two different per capita metrics were developed:

- (a) Uniform Gross Per Capita
- (b) Uniform Residential Per Capita

Uniform Gross Per Capita Water Use is estimated as:

$$\frac{\text{Utility Service Area Finished Water Use}}{\text{Utility Service Area Residential Population}}$$

where:

- Utility Service Area Finished Water Use is the sum of finished water (Withdrawals + Diversions + Imports – Exports – Treatment Losses) used by all sectors (residential, industrial, commercial, etc.) served by a utility. Finished water use reflects the input to the distribution system and as such it excludes treatment losses but includes the volume of losses associated with leaks, hydrant flushing, etc. Treatment losses reflect the amount of water diverted during water treatment and not delivered to the distribution system. Treatment losses are typically considered for reverse osmosis or sand filtration systems.
- Utility Service Area Residential Population - the population served within the utility's water supply distribution area.

Uniform Residential Per Capita Water Use is estimated as:

$$\frac{\text{Utility Service Area Finished Water Used by Dwelling Units}}{\text{Utility Service Area Residential Population}}$$

where:

- Utility Service Area Finished Water Use by Dwelling Units is the sum of finished water used by all dwelling units served by a utility, including water used for irrigation at individual residences.

- Utility Service Area Residential Population - the population served within the utility's water supply distribution area.

Per capita water use is expressed in gallons per capita per day (gpcd). The average Gross and Uniform Residential Per Capita Daily Water Use are typically calculated for each of the last five years or for the available period of data, whichever is less. Using a multi-year average per capita use will smooth the effects of year-to-year variations in climate, economic conditions, and other factors that influence water consumption.

Uniform residential per capita daily water use greater than 150 gallons per capita per day (gpcd) should be supported with additional information justifying the high rate of use or the Applicant must supply a plan detailing measures to be taken to reduce the per capita use. In Water Resource Caution Areas and Areas of Resource Concern, per capita water use limits may exist. Public supply utilities located in such areas shall compare their multi-year average per capita water use to any applicable per capita use limits.

Applicants serving a significant seasonal or tourist population may choose to use a seasonally-adjusted population in lieu of the permanent population to calculate capita water use. If significant seasonal population fluctuations are not accounted for, per capita daily water use may be overestimated. Seasonally-adjusted populations can be calculated as a weighted annual average that takes into account seasonal fluctuations. If seasonally-adjusted population estimates are used as the basis for current per capita rates, projections of the seasonal population may be needed to develop water demand projections, depending on the methodology used by the Applicant to project water demand. Applicants shall document the sources of the data and assumptions to explain how seasonal or tourist population estimates were derived.

#### 2.3.7.3 Demand Components

Demand quantities are based on the raw water demand or the volume of water requested to be withdrawn from the proposed water sources for the requested permit duration. The quantities requested must be expressed as the annual average daily rate and the maximum monthly withdrawal rate. The supplemental form requests that demand projections be provided at a minimum of five year intervals. Where metering, billing, or other record-keeping methods do not provide accurate water use data, the Applicant must provide the best estimates for each demand component and document the estimation method used. The quantities must be expressed in annual average gallons per day for each demand component:

- (a) Residential water use should include single and multi-family residential use, including water use associated with seasonal or tourist populations. Irrigation of residential lawns and landscapes should be included in estimates and projections of residential water use.
- (b) Commercial, industrial, and institutional use – metered bulk use (including irrigation use) from businesses, manufacturing facilities, and institutions such as schools and hospitals.
- (c) Recreation and non-residential landscape irrigation use – metered irrigation of non-residential areas such as parks, athletic fields, cemeteries, medians, and rights-of-way.

- (d) Routine exports – for those Applicants which provide bulk water to other utilities through user agreements or other similar contracts, the quantity of water (annual average daily amount) projected to be delivered to each utility and the duration of the water service delivery agreement shall be identified. Projections of water anticipated to be sold shall be provided for the requested permit duration.
- (e) Utility uses include water used for line and valve flushing, well lubrication, and other water system maintenance needs.
- (f) Other uses – Examples include environmental restoration or other uses not previously described.
- (g) Water losses should be estimated using methods consistent with recommendations by the American Water Works Association (AWWA) or other District-approved methods. Applicants with water losses greater than 10 percent of the input to the distribution system (after water treatment) shall be required to implement water loss reduction measures unless the Applicant demonstrates that a higher loss rate is warranted based on the characteristics of the distribution system.
- (h) Water treatment reject may result if the water must undergo a treatment process before it is potable. Some water treatment technologies, such as desalination or sand filtration, cause significant portions of the water withdrawn to become non-potable due to process rejection or loss. In such cases, the Applicant must specify the withdrawal or diversion quantity that has been treated, and the percent product (potable) water, and the percent reject (non-potable) water.

#### 2.3.7.4 Public Supply Demand Projections

An Applicant may develop projections of total raw water demands by projecting and summing each of the water demand components (e.g., residential water use, commercial water use, recreation and irrigation use, other uses, exports, losses, etc.). An Applicant may develop projections for the residential water demand component by multiplying a historical multi-year average residential per capita use by the projected future population served. The multi-year average residential per capita use utilized for demand projections should be based on the most recent five years of data or the period of available data, whichever is less. The residential per capita use utilized for projections generally should not exceed the current or recent multi-year average residential per capita use unless the characteristics of the water supply distribution area are anticipated to change during the permit duration.

Alternatively, the Applicant may develop projections of total raw water demands by multiplying a multi-year annual average uniform gross per capita water use by the future projected population to yield a projection of the total finished water demand. Projections of future treatment losses are then added, where applicable, to obtain projections of raw water demands. A uniform gross per capita use rate that is representative of the anticipated demands shall be identified and used for water demand projection purposes. However, the gross per capita use utilized for projections generally should not exceed the current or recent multi-year average gross per capita use.

In some cases, historical demand patterns are not appropriate for projection purposes. This typically occurs when there are current large users whose growth is not related to population, or when future development has characteristics very different than those of present development. In such cases, alternative per capita estimates, such as a design per capita based on dwelling unit type, population characteristics, seasonality of the population, and comparison with adjacent, similar developments, must be submitted and accompanied by supporting documentation.

If no historical water use data exists or in the case of proposed developments, an Applicant may use a design per capita water based on similar utility systems.

#### 2.3.7.5 Maximum Monthly Peaking Ratio

The recommended maximum monthly allocation for a public supply permit is typically based on peaking ratios. Listed below are methodologies that an Applicant may choose to use to calculate the maximum monthly peaking ratio, depending on the available data.

- (a) In cases where several years of pumpage records are available, the maximum monthly peaking ratio may be calculated for each year. The ratio is based on the comparison of the maximum monthly rate to the average daily rate. The ratio used for future projections is generally the average of the peaking ratios for the previous three to five years of record, unless changes in the historical water use patterns indicate that the use of an alternate timeframe would be more appropriate (such as when there is a projected significant increase for commercial or industrial demands or the Applicant enters into a new large user agreement).
- (b) For proposed developments, an Applicant may use a value of between 1.3 and 1.7 for a maximum monthly peaking ratio, depending upon the characteristics of the water distribution system, although documents justifying a different ratio shall be considered by the District.
- (c) When a utility operates multiple independent water supply distribution systems (no interconnections), an Applicant may determine peaking ratios for each system.

#### 2.3.7.6 Wellfield Operation Schedule

Public supply utilities operating multiple wells shall submit a wellfield operation schedule. The operating schedule shall explain how wells will be operated to meet demands, describe where well operations are constrained or controlled by tank elevations and system pressures, and describe any operational strategies that will be employed to minimize aquifer drawdowns. Multiple well withdrawal configurations are acceptable provided each configuration meets the conditions for permit issuance, the total withdrawals of each configuration do not exceed the allocation, and each withdrawal configuration represents an anticipated future operational scenario. Emergency operating plans are not required.

#### 2.3.7.7 Water Supply Distribution and Franchise Areas

Applicants for public supply use shall, at the time of application, submit a map delineating: (1) the water supply distribution area boundaries where service is currently being provided; (2) the water supply distribution area boundaries where the utility is proposing to provide service during the requested permit duration (if they differ from current water supply distribution area boundaries); and (3) the

franchise area where the utility is legally authorized to provide potable water service. For those Applicants which provide water to secondary users for redistribution, maps depicting items (1) through (3) listed above shall be requested from each secondary user. Preferably, the map(s) should be provided in a District-approved digital format (ESRI shapefile, AutoCAD, DXF, KMZ, or compatible GIS file).

#### 2.3.7.8 Conservation Plans

In addition to the per capita requirements described in section 40A-2.802, F.A.C., and any required conservation measures pursuant to an applicable adopted minimum flow and level recovery or prevention strategy, all public water supply applicants shall implement a standard water conservation plan, as described in section 2.3.7.8.1, or a goal-based water conservation plan, as described in section 2.3.7.8.2. The proposed water conservation plan shall allow no reduction in, and increase where environmentally, technically, and economically feasible, overall utility-specific water conservation effectiveness. The applicant may use publications and materials from Conserve Florida, the Alliance for Water Efficiency, and other similar industry guidance to assist in developing and supporting the selection of measures in its conservation plan and in demonstrating that increases in water use efficiency were achieved through water conservation.

The elements and implementation schedule for the water conservation plan shall be developed by the applicant. The District shall review and approve the plan submitted by the applicant as part of the public water supply permit. In reviewing the applicant's proposed plan for sufficiency, the District will consider whether the elements and sub-elements proposed to be implemented in the plan, taken as a whole, will promote effective conservation. The water conservation plan shall be subject to the schedule and reporting requirements specified in the permit. If implementation of the plan fails to demonstrate progress toward achieving permit requirements for water use efficiency, the permittee shall request a permit modification, if necessary, to revise the plan to address the deficiency.

##### 2.3.7.8.1 Standard Water Conservation Plan

The applicant shall implement each of the following five elements as necessary to achieve efficient water use to the extent economically, environmentally, and technically feasible. The applicant will explain how its proposed plan will effectively promote water conservation.

- (1) A water conservation public education program. A program shall consist of one or more sub-elements. The applicant will consider education sub-elements such as those listed below. Implementation of sub-elements may be achieved through collaboration with other entities, including the District. For each educational sub-element included in the applicant's program, the applicant shall identify the frequency, duration, and implementation schedule for the sub-element.
  - a. Water conservation public service announcements.
  - b. Water conservation speakers, posters, literature, videos, and/or other information provided to schools and community organizations.
  - c. Public water conservation exhibits.
  - d. Water conservation articles and/or reports provided to local news media.



- e. A water audit customer assistance program to address indoor and outdoor water use.
  - f. Water conservation information provided to customers regarding year-round landscape irrigation conservation measures.
  - g. Water conservation information posted on the supplier's website.
  - h. The construction, maintenance, and publication of water efficient landscape demonstration projects.
  - i. Water conservation information provided in customer bills or separate mailings.
  - j. Other means of communication proposed by the applicant.
- (2) An outdoor water use conservation program. The applicant shall consider the following sub-elements.
- a. The adoption of an ordinance or condition of service limiting lawn and landscape irrigation that is provided to the District, and is either no less stringent than or consistent with any irrigation restrictions adopted by the District.
  - b. The adoption of an ordinance or condition of service requiring the use of Florida-Friendly landscaping principles, Florida Water Star, or other generally accepted water conservation programs, guidelines, or criteria that address outdoor water conservation.
  - c. The adoption of an ordinance or condition of service consistent with section 373.62, F.S., relating to automatic landscape irrigation systems.
  - d. The provision of a landscape irrigation audit program for businesses and residents, including the provision of information to assist customers in implementing the recommendations of the audit. The applicant shall provide a description of the program including implementation details and the content of the audits to be provided.
  - e. An education element focusing on outdoor conservation as part of the water conservation public education program required by paragraph (1) a. of this section.
  - f. Any other conservation measures or programs proposed by the applicant designed to reduce outdoor water use.
- (3) The selection of a rate structure designed to promote the efficient use of water by providing economic incentives. The rate structure may include, but not be limited to, increasing block rates, seasonal rates, quantity based surcharges, and/or time of day pricing as a means of reducing demands. The District shall afford a utility wide latitude in adopting a rate structure in accordance with section 373.227(3), F.S.
- (4) A water loss reduction program, if water losses exceed 10% unless the Applicant demonstrates that a higher water loss rate is warranted based on the characteristics of the distribution system. Water losses should be estimated using methods consistent with recommendations by the American Water Works Association (AWWA) or other District-approved methods.
- (5) An indoor water use conservation program. The applicant will consider indoor conservation sub-elements such as those listed below. Implementation of these sub-elements may be achieved through collaboration with other entities, including the District. For each indoor conservation sub-element included in the applicant's program, the applicant shall provide the frequency, duration, and implementation schedule for the sub-element.

- a. Plumbing retrofit rebates.
- b. Faucet aerator and showerhead giveaways.
- c. An education element focusing on indoor conservation as part of the water conservation public education program required by paragraph (1) of this section.
- d. Other indoor conservation measures proposed by the applicant.

#### 2.3.7.8.2 Goal-Based Water Conservation Plan

A public water supply applicant may propose a goal-based water conservation plan in lieu of a standard water conservation plan. A goal-based plan allows the applicant to demonstrate effective water conservation by selecting plan elements that are different from those in the standard water conservation plan, but which are appropriate to the applicant's service area. A permittee operating under a standard conservation plan pursuant to this rule, or conservation plan required by a permit issued prior to this rule's effective date, may request to convert its current conservation plan to a goal-based plan through a letter modification.

A goal-based water conservation plan prepared pursuant to section 373.227(4), F.S., shall contain the following:

- (a) A description of water conservation measures selected for implementation and an implementation schedule for each measure; and
- (b) An explanation of why the alternative elements included in the goal-based plan are appropriate to achieve effective water conservation in the applicant's service area if any of the five elements of the standard water conservation plan are not selected for inclusion in the goal-based plan.

If a public water supply utility provides reasonable assurance that the goal-based plan will achieve efficient water use by meeting the above criteria, the District shall consider the goal based plan to achieve effective water conservation at least as well as a standard water conservation plan.

#### 2.3.7.8.3 Permit Extension Incentive for Water Conservation

In order to promote significant water savings beyond that required to achieve efficient water use in the permit, a public water supply permittee implementing a standard water conservation plan or a goal-based water conservation plan shall receive a permit extension for quantifiable water savings attributable to water conservation when the following conditions are met:

- (a) The permittee must be in compliance with the conditions of its permit.
- (b) The permittee must demonstrate quantifiable water savings exceeding those required in the permit, including per capita requirements in section 40A-2.802, F.A.C. Acceptable methods for quantifying water savings include reductions in residential per capita, gross per capita, per service connection use, or the use of treated potable water for outdoor irrigation. The quantification method used must be consistent with the calculation of demand used to establish the currently permitted allocation.

- (c) The permittee must demonstrate a need for the conserved water to meet the projected demand through the term of the extension.
- (d) The permittee demonstrates water savings sufficient to qualify for at least a one-year permit extension.
- (e) The permit extension shall provide only for the modification of the duration of the permit and shall not be used to increase the quantity of the allocation.
- (f) The permittee must demonstrate that water savings were achieved through water conservation and not as a result of population changes, economic or other factors unrelated to conservation. In the absence of factors unrelated to conservation, if the permittee demonstrates timely implementation of its District-approved conservation plan, then the water savings shall be attributed to implementation of the conservation plan.
- (g) The specific duration of the extension will be calculated based on the quantity of water saved through conservation and the demonstration of water demand based on projected growth, as calculated at the time of the extension request. A permittee may request an extension no sooner than five years after issuance of the original permit, and be granted extensions no more frequently than every five years thereafter.
- (h) For permits with a duration of five years or less, a permittee may request an extension no sooner than one year prior to the original permit expiration date.
- (i) Multiple permit extensions may be requested to reflect additional water saved over the term of the permit. However, in no case shall the cumulative duration of all extensions exceed ten years from the original permit expiration date.

The permittee may request the extension through a letter modification request.

### **2.3.8 Other Use (Supplemental Form F)**

Other use includes aquifer remediation, environmental augmentation, cleaning and maintenance, aesthetic use, and the use of water for other purposes not described in section 40A-2.501, F.A.C. The water needed for Other use shall be determined based on supporting information and calculations provided by the Applicant and research and data available to District staff. Applicants for Other use may include minor water demands for potable supply, irrigated landscape or recreation areas, heating and cooling use (a Commercial use), or other minor uses. If the requested amounts associated with any minor use exceed 100,000 gpd, a separate supplemental application form should be completed for the corresponding use type. For example, if an Applicant for Other use also uses 125,000 gpd of water for landscape irrigation, the Landscape / Recreation Use Supplemental Form C should be completed in addition to the Other Use Supplemental Form F.

Aesthetic use is the use or supplementation of water for fountains, waterfalls, landscape lakes and ponds where such uses are ornamental and decorative. An example of this type of aesthetic use would be the use of groundwater to augment the water level in a decorative lake or wetland. The use of groundwater to augment surface waters during times of drought, normal climatic variability or for purely aesthetic purposes is generally not consistent with the public interest. The use of groundwater to augment surface waters shall be reviewed on an individual basis to determine if the proposed use meets

the conditions for issuance for a water use permit. It is anticipated that such a use would only rarely meet the conditions of issuance.

Long-term environmental augmentation of wetlands or surface waters by using groundwater to artificially maintain natural systems that would otherwise be harmed by an Applicant's proposed withdrawal or diversion shall be avoided. When long-term augmentation is the only feasible alternative, augmentation with reclaimed water or stormwater is encouraged, as provided in section 62-40.410(7)(b), F.A.C., when consistent with water quality standards and other applicable regulations.

The Applicant shall identify the amount of water requested to be provided for each Other use component, by source. The primary water sources are surface water (streams and ponds) and groundwater (Floridan Aquifer, Sand-and-Gravel Aquifer, surficial aquifer). Although the District does not regulate the use of reclaimed water, the Applicant should indicate the amount of reclaimed water, if applicable, that is anticipated to be used to meet water demands. If multiple water sources are proposed, the application must be accompanied by a detailed description of how sources are proposed to be used to meet the water demands.

Applicants for Other use requesting an annual average daily withdrawal of greater than 100,000 gpd shall identify all ongoing and planned water conservation measures at the time of application.

### **2.3.9 Institutional Use (Supplemental Form G)**

Institutional uses (indoor and outdoor) include water associated with the production of goods or provisions of services by a self-supplied institutional establishment. Institutional Uses includes hospitals, group homes, assisted living facilities, churches, prisons, schools, universities, military bases, etc. Applicants for Institutional use may include minor water demands for potable supply, irrigated landscape or recreation areas, heating and cooling (a commercial use), or other minor uses. If the requested amounts associated with any minor use exceed 100,000 gpd, a separate supplemental form should be completed for the corresponding use type. For example, if an Applicant for an Institutional use also uses 125,000 gpd of water for landscape irrigation, the Landscape / Recreation Use Supplemental Form C should be completed in addition to the Institutional Use Supplemental Form G.

Documentation of water needs for potable supply or sanitary uses (e.g., drinking, bathing, cooking, sanitation, etc.) by permanent residents and non-permanent occupants (employees, students and visitors) should include the population projections and per capita water use rates utilized in the calculations. Projections should be provided at a minimum of five-year intervals and historical population data for the preceding five years should also be provided, if available. Where metering or other record-keeping methods do not provide accurate water use records, the Applicant shall provide the best estimates for each use component and document the estimation method used.

Per capita use rates for permanent residents should consider indoor potable and sanitary water needs and, where applicable, outdoor water use associated with lawn irrigation at residential dwelling units. Per capita rates for part-time residents such as students or hospital patients, should consider the average length of residency or occupancy and the average daily potable and sanitary water needs. Per

capita use rates for visitor or employees should consider the number of visitors or employees per shift, the number of shifts per work day, and the number of work days.

An Applicant may estimate the irrigation demands for landscape, recreational areas, or agricultural crops by multiplying the total acres to be irrigated by the appropriate application rate. The application rate or supplemental irrigation requirement is the amount of irrigation water needed in addition to rainfall. The District estimates the supplemental irrigation requirement using the Agricultural Field Scale Irrigation Requirements Simulation (AFSIRS) model. The AFSIRS model simulates daily water balance of the root zone using historical rainfall and evapotranspiration. Input data for the AFSIRS model includes the soil type, irrigation system type or efficiency, climate data, and other parameters. At the Applicant's request, District staff shall calculate and provide recommended amounts for supplemental irrigation needs. If the Applicant is irrigating plants with special irrigation needs not encompassed by the standard crop coefficients (such as high-value plant specimens), separate documentation of such needs should be submitted for the District's consideration.

An application that includes irrigation for landscape, recreational areas, or agricultural crops must be supported by a map showing all existing and proposed irrigated areas. Maps of irrigated areas should distinguish between landscape, recreational fields or golf courses, and agricultural cropland. If golf courses are present, maps of irrigated golf course areas should distinguish between fairways and roughs, greens and tees, and practice areas.

An Applicant may demonstrate the water demand associated with heating and cooling at institutional facilities by providing a description of the heating and cooling system, and indicating the number of times water is circulated prior to discharge, the method of discharge, and where the water is discharged. An Applicant may demonstrate the water demands associated with other minor uses such as laundry facilities, equipment washing, or other uses by providing supporting documentation and calculations.

The Applicant shall identify the amount of water requested to be provided for each institutional use component (e.g., potable supply, landscape irrigation, etc.), by source. The primary water sources are surface water (streams and ponds) and groundwater (Floridan Aquifer, Sand-and-Gravel Aquifer, surficial aquifer). Although the District does not regulate the use of reclaimed water, the Applicant should indicate the amount of reclaimed water, if applicable, that is anticipated to be used to meet water demands. If ponds are used to store water, the storage volume or the average surface area and depth, historical withdrawal or diversion amounts, and an indication of whether each pond is lined or unlined should be provided. If multiple water sources are proposed, the application must be accompanied by a detailed description of how the sources are proposed to be used to meet the institutional water demands.

Applicants for institutional water uses requesting an annual average daily withdrawal of greater than 100,000 gpd shall identify all ongoing and planned water conservation measures at the time of application.

### **2.3.10 Diversion and Impoundment (Supplemental Form H)**

A water use permit is required for diversion and impoundment projects, excluding District-operated facilities, that divert surface water through a pump or operable water control structure, or divert a combination of surface and groundwater to a conveyance canal network system which the Applicant has legal control to operate and maintain for the purposes of providing for the reasonable-beneficial demands of secondary users and their own consumptive and non-consumptive uses.

An Applicant may estimate reasonable demands for diversion and impoundment systems based on the following factors: the dimensions (length, cross sections, and depth) of the diversion and impoundment system used to deliver the water; land use classifications within the areas served by the diversion and impoundment system; surface water demands directly withdrawn from the diversion and impoundment system; seepage losses; water necessary to maintain groundwater elevations for the purpose of aquifer recharge and saltwater intrusion prevention; evaporation losses from the canal surfaces; and any established or proposed water control elevations.

For permit renewals in which no changes are proposed over historical operations, the Applicant may estimate demands from historical pumpage records. For modifications where the proposed allocation is increasing, an Applicant may estimate the demands using the applicable methods for each use type served by the project, and where applicable, considering cycling of water from project to project within the system.

In addition to the requirements of Diversions and Impoundments Supplemental Form H, diversion and impoundment permit Applicants must submit a map identifying the location of all secondary users of their system and are encouraged to provide copies of the agreements executed with secondary users.

### **2.3.11 Phased Projects**

Many large-scale or long-term projects are developed over a number of years through a number of phases of development. The District encourages planning for long-term water needs in order to compare the projected demands of the project with water availability in a region. Applicants for projects that are to be developed in phases should consider their water needs for all phases of the proposed project. However, the District evaluates permit applications based on the demonstrated need of water for the project only through the recommended duration of the permit; therefore, applicants should focus their water use projections for the term of the permit and only for those phases of the project reasonably expected to utilize water under the permit during or prior to the permit expiration date. As additional phases are projected to be constructed, the existing water use permit can be modified to reflect the increasing demand associated with the new phase or phases pursuant to the criteria applicable at the time of the modification. The permittee cannot rely on receiving permit authorization for unpermitted phases of a project due to issuance of a water use permit for a portion of the phased project.

### 2.3.12 Aquifer Storage and Recovery Systems

An Applicant may calculate the water demands for a proposed project with Aquifer Storage and Recovery (ASR) using the methods previously described for the appropriate use class. For projects with water demands that are expected to increase over the duration of the permit, the incremental demands shall be calculated in five-year increments. For projects where the site-specific characteristics of the storage horizon result in the need for additional allocations to account for storage losses, the Applicant shall estimate the losses and may request an adjustment in the annual allocation to account for reasonable storage losses. An Applicant may estimate the losses considering the degree to which the recovered water, combined with the conventional supply, produces a water quality that is usable for the permitted use. Proposed recovery withdrawals for aquifer storage and recovery systems must not cause harm to natural resources or existing legal uses.

## 2.4 Reasonable-Beneficial Criteria

Section 373.223, F.S., provides a three-pronged test for evaluating each proposed water use. These conditions for issuance require that a water use: (1) be reasonable-beneficial, (2) not interfere with any existing legal use of water, and (3) be consistent with the public interest. Reasonable assurances that the proposed water use from both an individual and cumulative basis meets this three-pronged test must be provided by the Applicant to obtain a water use permit. In order to provide reasonable assurances that the water use is reasonable-beneficial, an Applicant shall demonstrate that the use:

- (a) Is a quantity that is necessary for economic and efficient use;
- (b) Is for a purpose and occurs in a manner that is both reasonable and consistent with the public interest;
- (c) Will utilize a water source that is suitable for the water use;
- (d) Will utilize a water source that is capable of producing the requested amount;
- (e) Except when the use is for human food preparation or direct human consumption, will utilize the lowest quality water source that is suitable for the purpose and is technically, environmentally, and economically feasible;
- (f) Will not cause harm to existing offsite land uses resulting from hydrologic alterations;
- (g) Will not cause harm to the water resources of the area in any of the following ways:
  - 1. Will not cause harmful water quality impacts to the water source resulting from the withdrawal or diversion;
  - 2. Will not cause harmful water quality impacts from dewatering discharge to receiving waters;
  - 3. Will not cause harmful saline water intrusion or harmful upconing;
  - 4. Will not cause harmful hydrologic alterations to natural systems, including wetlands or other surface waters; and
  - 5. Will not otherwise cause harmful hydrologic alterations to the water resources of the area;
- (h) Is in accordance with any minimum flow or level and implementation strategy established pursuant to sections 373.042 and 373.0421, F.S.; and
- (i) Will not use water reserved pursuant to section 373.223(4), F.S.

If the criteria for permit issuance are not met, Applicants shall consider reducing the requested withdrawal or diversion amounts, proposing a pumping rotation schedule or mitigation, changing the withdrawal source, or other means to bring the proposed use into compliance with the criteria.



## **3.0 Water Resource Impact Evaluation**

This section of the Applicant's Handbook provides technical guidance regarding the evaluation of whether the impacts of a proposed withdrawal or diversion constitute harm to existing legal uses, offsite land uses, or water resources and associated environmental features or adversely affect an established minimum flow and level. If the evaluation shows that a proposed withdrawal or diversion may cause or contribute to harm, then the Applicant must eliminate or otherwise mitigate the harm.

Applicants proposing an impact offset or substitution credit as outlined in section 2.2 of this Applicant's Handbook must demonstrate that the conditions for permit issuance are met through the submittal of assessments described within this section.

### **3.1 Data Collection, Evaluation, and Modeling**

The evaluation of harm must consider potential impacts to existing legal uses and water resources, including harm to wetlands and other surface waters, saline water intrusion, migration of pollution, offsite land uses, and minimum flows and levels. An Applicant may assess the impacts of the proposed withdrawals or diversions through data collection, evaluation, and when appropriate, modeling of surface and groundwater systems.

Data collection involves the compilation of existing data or the collection of new data. Examples of data that an Applicant may provide in support of a permit application include hydrologic data, water quality data, lithologic data and geophysical logs, aquifer test data, and ecological data. When field testing is needed to estimate aquifer parameters, the Applicant may request guidance from the District regarding how to perform specific capacity tests and aquifer performance tests.

Models are predictive tools that are used by Applicants and the District to assess the potential for harm to existing legal uses, offsite land uses, or water resources and associated environmental features. An Applicant may use hydrologic, hydraulic, or hydrodynamic models and / or statistical analysis to assess the impact of proposed surface water withdrawals or diversions on stage, flow, water quality, existing legal uses, offsite land uses, and water resources and associated environmental features. Analytical or numerical groundwater flow models may be used to simulate aquifer drawdowns associated with requested groundwater withdrawals. Numerical models may be more appropriate for use in simulating complex systems and large groundwater withdrawals. An Applicant may use groundwater transport models, density-dependent flow models, or other specialized models to address potential saline water intrusion or migration of contaminant plumes. The scale of the model must be appropriate for the quantity of withdrawal and proximity to water resources.

When an Applicant or the District determines that modeling is needed, impact evaluations shall address the following scenarios, unless otherwise approved by the District: (1) the requested annual average withdrawal, (2) the requested maximum monthly withdrawal, (3) historical actual withdrawals (if applicable), (4) the cumulative effects of the requested withdrawal amounts in combination with the

permitted withdrawals of other existing legal users, and (5) for agricultural irrigation, the compressed seasonal withdrawal during the crop season. Where impacts to surface water flows or aquifer levels are of concern, impact evaluations shall address withdrawal impacts under low flow conditions. For the purposes of impact analysis, "low flow conditions" refers to a period of below average rainfall, high evapotranspiration and/or low aquifer recharge that results in aquifer levels or surface water flows being below long-term average values. Examples include, but are not limited to, 1-in-10 year and 2-in-10 year drought events, periods of below average rainfall or aquifer recharge that extend for three to twelve months or longer; and low streamflow conditions such as the  $Q_{90}$  (90 percent exceedence probability) flow or the 7Q10 (the lowest 7-day consecutive flow with a 10-year return frequency). Model results shall also include an assessment of the impact of the withdrawals or diversions on any minimum flows and levels established by the District or the Department pursuant to sections 373.042 and 373.0421, F.S.

Maps of simulated aquifer drawdowns shall be provided at a scale that provides sufficient detail in the area of influence of the proposed withdrawals, and must depict the locations of wetlands and other water resources and existing legal users. For the purpose of creating and displaying maps of aquifer drawdown, the area of influence is generally defined by the 0.1 foot drawdown contour for the surficial or water table aquifer and the 1.0 foot contour for a semi-confined or confined aquifer. At the Applicant's request, the District may allow alternative contour values to be used as the basis for mapping the area of influence in areas with a limited potential for wetland impacts or where warranted by other project-specific considerations.

At the request of an Applicant, the District will perform preliminary impact modeling when the District possesses sufficient information, modeling tools, and resources. However, this does not relieve an Applicant of the requirement to provide reasonable assurance to the District that their water use meets all conditions of issuance. If the District is unable to perform the assessment or if the District's preliminary assessment indicates the potential for harm, modeling and analysis shall be required to be performed by the Applicant. All groundwater and surface water models developed by Applicants must be fully documented in a report and include a description of the conceptual model, model parameters and input data, calibration results, water budget, and model output including drawdown maps for each of the scenarios listed above.

An evaluation of the impact of the requested surface or groundwater withdrawals on existing legal uses, offsite land uses, and water resources and associated environmental features is required. The Applicant may request information regarding the withdrawal locations, facilities and withdrawal amounts of existing legal uses from the District for incorporation into the impact assessment. Guidance regarding the assessment of harm to water resources and associated environmental features is provided in section 3.3 of the Applicant's Handbook (below).

The results of data collection, evaluation, and modeling submitted in support of a water use permit application must provide reasonable assurance to satisfy the conditions for issuance through the requested permit duration. A pre-application meeting to discuss data availability, data analysis, and modeling needs is highly recommended. It is recommended that field data collection and modeling

plans developed by Permittees and their representatives be submitted for approval by the District prior to initiating work.

## **3.2 Source-Specific Criteria**

Source-specific criteria apply in Water Resource Caution Areas, Areas of Resource Concern, and areas where water reservations or minimum flows and levels have been established.

### **3.2.1 Santa Rosa, Okaloosa, and Walton County Water Resource Caution Area**

The District has determined that the coastal area of Santa Rosa, Okaloosa, and Walton County has limited potable water resources, increasing water use demands and has historically experienced significant reductions in groundwater levels. To address the expanding demands and continued depletion of the area's limited potable water resources, the Governing Board in 1989 declared the area south of the Eglin Air Force Base in Santa Rosa, Okaloosa, and Walton County, and the area extending south of SR-20 to the Bay County Line in Walton County, as a Water Resource Caution Area.

Applicants for public supply, golf course, and industrial uses located in the Water Resource Caution Area are required to submit water conservation plans, which shall be evaluated on their effectiveness to reduce water use and promote efficient use of the area's water supplies. For public supply utilities, the plans, programs, and measures shall be reviewed specifically for standards and implementation schedules intended to reduce annual average residential per capita water consumption to 110 gallons per day through such actions as adoption of water conservation-based rate structures, reduction of leaks to 10 percent or less of the water withdrawn, implementation of water conservation public education programs, etc.

Utilities which operate a domestic wastewater treatment facility with an existing or proposed permitted capacity of 100,000 gallons per day or greater shall include in the plan an analysis of the economic, environmental and technical feasibility of providing reclaimed water for reuse within five years, and of providing total reuse of reclaimed water within 20 years. A reuse feasibility study prepared in accordance with section 403.064(2), F.S., satisfies this requirement.

### **3.2.2 Upper Telogia Creek Drainage Basin in Gadsden County**

The District determined that areas of Gadsden County have experienced reductions in water supplies and have experienced continued competition for the available water resources. Water use within portions of the County, if not properly managed, has the potential of harming water resources and existing legal uses. To provide for the comprehensive management of the water supplies within a portion of Gadsden County, the Governing Board in 1992 declared the Upper Telogia Creek Drainage Basin located within Gadsden County, Florida, as determined by United States Geological Survey 7.5 Minute Topographic Maps named, "Gretna", "Sycamore", and "Mt. Pleasant", a Water Resource Caution Area.

To ensure water use is consistent with the overall objectives of the District, Applicants for public supply, golf course, and industrial water uses located within the Water Resource Caution Area are required to submit water conservation plans, which shall be evaluated on their effectiveness to reduce water use demands and promote water reuse and the efficient use of the area's water supplies.

Utilities which operate a domestic wastewater treatment facility with an existing or proposed permitted capacity of 100,000 gallons per day or greater shall include in the plan an analysis of the economic, environmental and technical feasibility of providing reclaimed water for reuse within five years, and of providing total reuse of reclaimed water within 20 years. A reuse feasibility study prepared in accordance with section 403.064(2), F.S., satisfies this requirement.

### **3.3 Evaluation of Impacts to Water Resources**

To demonstrate that no harm will occur to wetlands, surface waters, and other water resources, reasonable assurances must be provided by the Applicant that the criteria below are satisfied.

- (a) Will not cause harmful water quality impacts to the water source resulting from the withdrawal or diversion;
- (b) Will not cause harmful saline water intrusion or harmful upconing;
- (c) Will not cause harmful hydrologic alterations to natural systems, including wetlands or other surface waters;
- (d) Will not otherwise cause harmful hydrologic alterations to the water resources of the area; and
- (e) In addition, a water use must be in accordance with any minimum flow or level and implementation strategy established by the Department or District pursuant to sections 373.042 and 373.0421, F.S., and must not use water reserved by the Department or District pursuant to section 373.223(4), F.S.

#### **3.3.1 Exclusions**

Harm to the following water resources shall not require elimination or reduction of harm or mitigation:

- (a) Wetlands or surface water impacts which have been authorized under an Environmental Resource Permit.
- (b) Artificial water bodies including borrow pits, mining pits, canals, ditches, ,and water management systems, not part of a permitted wetland creation, preservation, restoration, or identified as an existing water source authorized in a water use permit or enhancement program. However, impacts to the design functions of water management systems may be considered with respect to existing offsite land uses.
- (c) Water resource impacts that have been specifically authorized or mitigated in an existing water use permit, unless the Applicant is proposing additional impacts.

### **3.3.2 Identification of Water Resources**

Aquifers, wetlands, springs, lakes, streams, steephead ravines, and other water resources within the area of influence of a proposed withdrawal or diversion are subject to identification and impact assessment.

Reasonable scientific judgment shall be used by the Applicant and the District to evaluate the existence and extent of wetlands, surface waters, and other potentially impacted water resources and associated environmental features. An Applicant may use information obtained from site inspections, aerial photo interpretation, District reports, National Wetland Inventory (NWI) Maps, Land Use / Land Cover maps, Natural Resource Conservation Service soils maps, and wetland maps produced by local governments, and other available data. District staff has the authority to request a site inspection to confirm the location of water resources and other site-specific attributes. If access to offsite water resources is denied by the property owner, the District and the Applicant shall agree on a method of establishing the locations of the offsite water resources. The Applicant and District also may consider relevant information submitted in support of an Environmental Resource Permit / Surface Water Management Permit. The Applicant may perform field delineations of wetland boundaries, pursuant to Chapter 62-340, F.A.C., if such boundaries are in dispute.

### **3.3.3 Harm to Wetlands, Surface Waters, and Other Water Resources**

The analysis of potential harm to existing wetlands, surface waters and other resources, excluding those exempted in section 3.3.1 of the Applicant's Handbook, shall include an assessment of the projected hydrologic alterations caused by the proposed withdrawals or diversions and the cumulative hydrologic alterations resulting from the proposed withdrawals or diversions combined with other existing legal uses as outlined in section 3.1 of the Applicant's Handbook.

In evaluating the Applicant's existing and / or proposed water use, the District shall consider the extent of hydrologic alterations caused by the Applicant's water withdrawals based on modeling and evaluation of the requested withdrawals and, where appropriate, additional site-specific data. Site-specific data includes information such as hydrologic or geologic features; topographic setting; soils and other factors that influence surface water and groundwater interactions; wetland type, condition and uniqueness; vegetation community structure, composition, and zonation; fish and wildlife usage, including listed species; water quality; and other unique characteristics of water resources and associated environmental features.

If an Applicant asserts that historical withdrawals have not caused harm to water resources and associated environmental features, an Applicant may review water use and related data and provide site-specific information regarding the condition of the water resources and associated environmental features.

The determination of harm shall consider the temporary nature of certain seasonal or short-term withdrawals or diversions, where applicable, in assessing whether the hydrologic alteration is constant or whether the water resource recovers seasonally.

Specific factors to be considered in the assessment of harm to wetlands, lakes, springs, and other surface waters are provided below, the occurrence of any one of which shall be considered harm.

Factors to be considered in the assessment of harm to wetlands

- (a) The potential for withdrawals to cause or contribute to a change in wetland water levels or hydroperiods from their normal range and duration to the extent that wetland plant communities are altered;
- (b) The potential for withdrawals to alter wetland habitat functions, to the extent that obligate and facultative vegetation communities or animal populations are adversely impacted; and
- (c) The potential for withdrawals to cause or contribute to habitat alteration for threatened or endangered species to the extent that use by these species becomes impaired.

Factors to be considered in the assessment of harm to lakes

- (a) The potential for withdrawals to cause or contribute to a change in water levels from the normal rate and range of fluctuation, to the extent that water quality, vegetation communities, or animal populations and their habitat are adversely impacted;
- (b) The potential for withdrawals to cause or contribute to a change in water levels from the normal rate and range of fluctuation, to the extent that flows to downgradient receiving watercourses are adversely impacted; and
- (c) The potential for withdrawals to cause or contribute to a change in water levels from the normal rate and range of fluctuation, to the extent that recreational use of the lakes is adversely impacted.

Factors to be considered in the assessment of harm to springs

- (a) The potential for withdrawals to cause or contribute to a change in water levels or flows from the normal rate and range of fluctuation, to the extent that water quality, vegetation communities, or animal populations and their habitat are adversely impacted;
- (b) The potential for withdrawals to cause or contribute to a change in water levels or flows from the normal rate and range of fluctuation, to the extent that flows to downgradient receiving watercourses are adversely impacted; and
- (c) The potential for withdrawals to cause or contribute to a change in water levels or flows from the normal rate and range of fluctuation, to the extent that recreational use of the springs is adversely impacted.

Factors to be considered in the assessment of harm to streams, rivers, and estuaries

- (a) The potential for withdrawals to cause or contribute to a change in flow rates from the normal rate and range of fluctuation to the extent that: water quality, vegetation communities, and animal populations and their habitats are adversely impacted;

- (b) The potential for withdrawals to cause or contribute to a change in temporal or spatial distribution of flows to downstream receiving water bodies to the extent that the water resources are adversely impacted;
- (c) The potential for withdrawals to cause or contribute to a reduction in flow rates from the existing level of flow to the extent that salinity distributions in tidal streams, rivers, and estuaries are altered, resulting in impacts to water quality, vegetation communities, and animal populations and their habitats; and
- (d) The potential for withdrawals to cause or contribute to a change in flow rates from the normal rate and range of fluctuation to the extent that recreational use is adversely impacted.

It is strongly recommended that a pre-application meeting be held to discuss data availability, modeling needs, and related technical analysis or site-specific data that may be required in support of the evaluation of harm.

### **3.3.4 Elimination or Reduction of Harm**

An Applicant may modify the project design or proposed water use, to the extent practicable, to eliminate or reduce harm to existing legal uses, offsite land uses, or water resources and associated environmental features if the District determines that harm is predicted to occur. Modifications to the project design or proposed water use include developing alternative water supply sources, modification of pumping rates or schedules, deepening or relocation of wells, relocation of surface water withdrawal or diversion facilities, and implementation of water conservation measures to reduce water demands. Impact offsets and substitution credits are additional strategies that may be used to eliminate harm. If harm cannot be eliminated or sufficiently reduced, the Applicant may propose a plan to mitigate impacts for District approval. In circumstances of cumulative contributions to harm where mitigation is required, an Applicant shall only be required to mitigate its contribution.

## **3.4 Saline Water Intrusion**

A staff recommendation for denial shall be submitted to the Governing Board for any water use application for which the proposed withdrawals or diversions are predicted to have the potential to cause harmful saline water intrusion. Harmful saline water intrusion occurs when saline water movement detrimentally affects the Applicant or other existing legal uses of water, or is otherwise detrimental to the water resources. The District considers the following factors in determining the potential for harmful saline water intrusion:

- (a) Whether predicted movement of a saline water interface inland or toward a freshwater source is greater than has occurred historically as a consequence of seasonal fluctuations or climatic conditions to the extent that existing legal uses or water resource are adversely impacted. A saline water interface is defined for the purposes of this document as a zone of dispersion between two geochemical types of groundwater or a transition zone between areas of groundwater with significantly different chloride concentrations.

- (b) Whether sustained upward movement of saline water within the area of influence of a proposed withdrawal or diversions is predicted to increase chloride concentrations to the extent that existing legal uses or water resources are adversely impacted. Sustained upward movement is the level of movement that persists when the withdrawals or diversions have ceased.
- (c) Whether a detrimental change in the geochemistry of the groundwater at the base of an aquifer or producing zone within the area of influence of a proposed withdrawal is predicted to occur to the extent that use of the existing legal uses or the water resource are adversely impacted. An example of such a change is where a newly-constructed well yields a bicarbonate type water initially, but after withdrawals commence, the well or nearby wells begin to yield a sodium-chloride type water.

### 3.5 Pollution of the Water Resources

A staff recommendation for denial shall be submitted to the Governing Board for any water use permit application for which the withdrawals or diversions are predicted to cause harmful water quality impacts to the sources through the induced movement of pollutants. Movement of pollutants is considered to be harmful if it causes violations of water quality standards in areas previously meeting such standards, if sources are rendered unusable for reasonable-beneficial uses, or if pollutants interfere with an existing legal use.

### 3.6 Existing Offsite Land Uses

A staff recommendation for denial shall be submitted to the Governing Board for any permit application for which the proposed withdrawal or diversion of water are predicted to cause harm to an offsite land use which existed at the time of the permit application. If harm occurs after the permit is issued, the Governing Board has the authority to modify the permit to curtail or abate the withdrawals, unless the Permittee submits a plan demonstrating that they can mitigate the harm in a timely manner.

### 3.7 Harm to Existing Legal Uses

Presently, existing legal uses at the time of application are protected from interference by proposed uses of water. Existing legal uses are all uses of water which are exempt under Chapter 373, F.S., or 40A-2, F.A.C., or which have a valid permit under Chapter 373, Part II.

Pursuant to section 373.223(1)(b), F.S., an Applicant for a new water use, modification of an existing water use or renewal of an existing water use, must provide reasonable assurance that they will not interfere with any legal use of water existing at the time of application. Interference is considered to occur when the requested use would harm the withdrawal or diversion capability of an existing legal use to a degree that the existing use would require substantial modification or replacement of the withdrawal or diversion facilities. If the permit Applicant cannot provide reasonable assurance that a proposed withdrawal or diversion will not harm existing legal uses without mitigation, the Applicant



must submit a mitigation plan for District approval. Mitigation measures that the Applicant may choose to implement include, but shall not be limited to, pumpage reduction, change in source, relocation of wells, lowering of pumps of impacted users, deepening or replacement of wells, or other measures. The Applicant must mitigate harm to existing legal uses caused in whole or in part by the Applicant's withdrawals or diversions, consistent with the District's mitigation requirements or an approved mitigation plan.

A staff recommendation for denial will be submitted to the Governing Board for any water use permit application for which the proposed use, withdrawal or diversion of water is predicted to cause harm and for which the harm cannot be mitigated.

### 3.8 Otherwise Harmful

A staff recommendation for denial shall be submitted to the Governing Board for any application for which the proposed withdrawal, diversion, or use of water has been predicted or determined to otherwise be harmful to existing legal uses, offsite land uses, or water resources and associated environmental features and is within the District's purview to consider when evaluating an application for water use, pursuant to Chapter 373, F.S., and Chapter 40A-2, F.A.C.

### 3.9 Minimum Flows and Levels

The proposed use must not cause the rate of flow of a surface watercourse or spring, or the level of an aquifer, wetland, lake, or other water body to be lowered below a minimum flow or level which has been established pursuant to sections 373.042 and 373.0421, F.S, except as may be allowed under an adopted recovery or prevention strategy.

### 3.10 Aquifer Storage and Recovery Systems

Applicants for Aquifer Storage and Recovery (ASR) systems shall demonstrate that the provisions of section 40A-2.301, F.A.C., are met during: a) diversion of the water for storage; b) the time period in which the water is introduced into an aquifer for storage and stored within the aquifer; and c) recovery of the stored water. Impact evaluations shall be based on the reasonable demand for water associated with the proposed ASR system. An Applicant may estimate the reasonable demand for an ASR system based on the volume of water needed for recovery considering losses in the storage zone.

The Applicant shall identify the area of influence based on the volume of water calculated for the reasonable demand. The area of influence of an ASR system shall address two factors: (1) the area affected by the pressure change resulting from the injection and removal of stored water; and (2) the orientation of the stored fresh water and associated buffer zone. The Applicant shall identify all existing legal uses within the area of influence and provide reasonable assurance that the operation of the proposed ASR system will not cause interference.

An ASR monitoring program shall be required in the event there is a potential for interference with an existing legal use, offsite land use, or harm to the water resources and associated environmental features. Example components of a monitoring program include monitor well(s) to measure aquifer pressure and water quality. In addition, monitoring and reporting of the quantities of water that are stored and recovered shall be required for permitted ASR systems.

### **3.11 Water Reservations**

Section 373.223(4), F.S., indicates that the Governing Board is authorized to reserve from use by permit Applicants, water in such locations and quantities, and for such seasons of the year, as in its judgment are required for the protection of fish and wildlife or the public health and safety. The Governing Board has established reservations of water on the Apalachicola and Chipola rivers in section 40A-2.223, F.A.C.

## 4.0 Monitoring Requirements

Water use permits shall be conditioned as necessary so that the use is consistent with the overall objectives of the District and is not harmful to the water resources of the area. Environmental monitoring shall be performed where required to assess the effects of the withdrawals or diversions and to provide continued verification that no harm is occurring as a result of the ongoing water use.

### 4.1 Withdrawal or Diversion Quantity

Proper accounting of withdrawals and diversions is essential to establish that the use is a reasonable-beneficial use of the resource and in the public interest. In addition, proper accounting of the various water uses enables the District to better estimate water use and to implement water shortage plans. The District has the authority to require water use reporting depending on the authorized water use classification, source, quantities or concern for potential harm to occur. All water use reporting shall be recorded and submitted according to the permit condition.

### 4.2 Water Quality

The purpose of water quality and saline water monitoring is to ensure that water quality impacts do not occur. Water quality monitoring is accomplished by routine sampling of the discharge water from production wells or from separate monitor wells. In areas of known saline water intrusion, the District has the authority to require separate monitor wells to be constructed expressly for the purpose of saline water intrusion monitoring. All water quality analysis shall be conducted by a qualified laboratory and submitted according to the permit condition.

### 4.3 Hydrologic and Ecological Monitoring

To ensure continuing compliance with the conditions for permit issuance, monitoring and reporting of hydrologic and ecological conditions shall be performed where required as a condition of the permit. Examples of monitoring requirements include water levels, rainfall, wetland vegetation, spring discharge, surface water discharge or other data needed to demonstrate continued compliance with the conditions of issuance. The details of any required monitoring plan are generally developed as part of cooperative effort between the Applicant and the District during the water use permit application process.

### 4.4 10-Year Compliance Reports

When necessary to maintain reasonable assurance that permits with a duration of 20 years or longer can continue to meet the conditions for issuance, the District shall require the Permittee to submit a compliance report pursuant to section 373.236(4), F.S., no more than once every ten years. Permits

issued for greater than 20 years pursuant to section 373.236(6), F.S., shall require submittal of a compliance report once every five years.

The report shall include sufficient information to maintain reasonable assurance that the permittee's use can continue, for the remaining duration of the permit, to meet the conditions for issuance set forth in the rules existing when the District issued the permit. After reviewing this report, the District will modify the permit, if required to ensure that the use of water authorized by the permit can continue to meet the conditions for issuance set forth in the rules existing when the District issued the permit. As required by sections 120.569 and 120.60, F.S., the District shall provide notice of intent to modify the permit.

For all water use classes, when economic conditions or population growth rates result in the actual water use being lower than permitted water use, a modification to reduce the permitted allocation shall only be made by the District when there is no reasonable likelihood that the allocation will be needed during the permit term. For agricultural water use permits for irrigation, reductions in actual use compared to permitted water use that are due to weather events, crop diseases, nursery stock availability, or changes in crop type shall not result in a permit modification by the District to reduce the permitted allocation during the term of the permit.

Additionally, in order to incentivize conservation of water, if actual water use is less than permitted water use due to documented implementation of water conservation measures, the permitted allocation shall not be modified by the District due to these circumstances during the term of the permit.

Nothing in this subsection shall be construed to alter the District's authority to reduce permitted water use under circumstances not addressed by this section, nor be construed to alter the water conservation requirements of the permit for the duration of the permit.

## 5.0 Permit Limiting Conditions

Water use permits shall be conditioned, as necessary, to ensure that the permitted water use continues to meet the conditions for issuance in section 40A-2.301, F.A.C. There are two categories of permit conditions that will be applied to water use permits. Standard Conditions contain general information and operational constraints that generally apply to all water uses unless waived or modified by the District upon a determination that the conditions are inapplicable to the use authorized by the permit. Specific Conditions vary among use classes, source classes, and geographic locations.

### 5.1 Standard Conditions

The following Standard Conditions shall apply to all General and Individual Water Use Permits:

- (a) All water uses authorized by this permit shall be implemented as conditioned by this permit, including any documents incorporated by reference in a permit condition. The District may revoke this permit, in whole or in part, or take enforcement action, pursuant to sections 373.136 or 373.243, F.S., unless a permit modification has been obtained to address the noncompliance.
- (b) The Permittee shall immediately notify the District in writing of any previously submitted information that is later discovered to be inaccurate.
- (c) This permit does not convey to the Permittee any property rights or privileges other than those specified herein, nor relieve the Permittee from complying with any applicable local government, state, or federal law, rule, or ordinance.
- (d) The Permittee shall notify the District in writing within 45 days of any sale, transfer, or conveyance of ownership or any other loss of permitted legal control of the Project and / or related facilities from which the permitted water use is made. Where Permittee's control of the land subject to the permit was demonstrated through a lease, the Permittee must either submit documentation showing that it continues to have legal control or transfer control of the permitted system / project to the new landowner or new lessee. All transfers of ownership are subject to the requirements of section 40A-2.351, F.A.C. Alternatively, the Permittee may surrender the water use permit to the District, thereby relinquishing the right to conduct any activities under the permit.
- (e) Nothing in this permit should be construed to limit the authority of the District to declare a water shortage and issue orders pursuant to Chapter 373, F.S. In the event of a declared water shortage, the Permittee must adhere to the water shortage restrictions, as specified by the District. The Permittee is advised that during a water shortage, reports shall be submitted as required by District rule or order.
- (f) With advance notice to the Permittee, District staff with proper identification shall have permission to enter, inspect, observe, collect samples, and take measurements of permitted facilities to determine compliance with the permit conditions and permitted plans and

- specifications. The permittee shall either accompany District staff onto the property or make provision for access onto the property.
- (g) The Permittee may seek modification of any term of an unexpired permit. The Permittee is advised that section 373.239, F.S., and section 40A-2.331, F.A.C., are applicable to permit modifications.
  - (h) The Permittee shall mitigate any harm caused by withdrawals or diversions permitted herein on legal water uses, offsite land use, and water resources and associated environmental features which existed at the time of permit application. The District reserves the right to curtail permitted withdrawal and diversion rates if the withdrawal or diversion causes harm to legal uses of water, offsite land use, or water resources and associated environmental features that existed at the time of permit application.
  - (i) The Permittee shall not cause harmful saltwater intrusion. The District reserves the right to curtail permitted withdrawal rates if withdrawals cause harmful saline water intrusion.

## 5.2 Specific Conditions

A water use permit contains monitoring and/or reporting requirements based on site-specific considerations including classes, source classes, and geographic locations.

### 5.2.1 Specific Conditions for General Water Use Permits

#### 5.2.1.1 Public Supply

- (a) The Permittee shall encourage and provide for the efficient and non-wasteful use of water, and shall implement water conservation measures, including a proactive leak detection program, designed to enhance water use efficiency and reduce water demand and water losses.
- (b) The Permittee shall encourage and provide for the efficient and non-wasteful use of water, and shall implement water conservation measures designed to enhance water use efficiency and reduce water demand.
- (c) The Permittee shall maintain, in working order, an in-line totaling flow meter on each supply well.

#### 5.2.1.2 Agricultural Irrigation

- (a) The Permittee shall annually evaluate the efficiency of each of its irrigation units and undertake necessary maintenance, repairs and upgrades to provide for the proper efficiency of its equipment. The Permittee shall maintain the irrigation system to prevent wasteful runoff from the property associated with irrigation.
- (b) The Permittee shall equip the well and irrigation system with an anti-siphoning device if chemicals are to be applied through the irrigation system, as required by section 487.064, F.S.
- (c) The Permittee, prior to the construction, alteration and/or enhancement of any surface water withdrawal, diversion, or management system, shall contact the District to determine if a permit

will be required. A permit would be required by the District for activities including creek sandbagging, sump excavation, and any maintenance beyond that considered routine or custodial.

#### 5.2.1.3 Landscape / Recreation Irrigation Use

- (a) The Permittee shall annually evaluate the efficiency of each of its irrigation units and undertake necessary maintenance, repairs and upgrades to provide for the proper efficiency of its equipment. The Permittee shall maintain the irrigation system to prevent wasteful runoff from the property associated with irrigation.
- (b) The Permittee shall equip the well and irrigation system with an anti-siphoning device if chemicals are to be applied through the irrigation system, as required by section 487.064, F.S.
- (c) The Permittee shall use "Florida-friendly" landscape techniques, as described in section 373.185, F.S., when designing or modifying the landscape of the irrigated sites.
- (d) The Permittee shall maintain rain sensing devices which will override any automatic irrigation system when adequate rainfall occurs, and shall operate its irrigation system to prevent wasteful runoff.
- (e) The Permittee shall immediately enhance irrigation efficiency by limiting irrigation activity to the lower evapotranspiration periods of 4:00 p.m. to 10:00 a.m.
- (f) The Permittee, prior to the construction, alteration and/or enhancement of any surface water withdrawal, diversion, or management system, shall contact the District to determine if a permit will be required. A permit would be required by the District for activities including creek sandbagging, sump excavation, and any maintenance beyond that considered routine or custodial.
- (g) The Permittee shall maximize the use of reclaimed water if it is available and its use is environmentally, economically and technically feasible.

#### 5.2.1.4 Industrial / Commercial Use

- (a) The Permittee shall encourage and provide for the efficient and non-wasteful use of water, and shall implement water conservation measures, including a proactive leak detection program, designed to enhance water use efficiency and reduce water demand and water losses.
- (b) The Permittee shall maximize the use of reclaimed water if it is available and its use is environmentally, economically and technically feasible.
- (c) Heat Pump Supply Uses - The Permittee shall return nominally 100% of water withdrawn for Heat Pump Supply to the same portion of the aquifer from which it was withdrawn.

#### 5.2.1.5 Power Production

- (a) The Permittee shall encourage and provide for the efficient and non-wasteful use of water, and shall implement water conservation measures, including a proactive leak detection program, designed to enhance water use efficiency and reduce water demand and water losses.
- (b) The Permittee shall maximize the use of reclaimed water if it is available and its use is environmentally, economically and technically feasible.

## **5.2.2 Specific Conditions for Individual Water Use Permits**

The District has the authority to require reporting by the Permittee to ensure the authorized water use continues to meet the conditions for issuance in section 40A-2.301, F.A.C. Example types of Specific Conditions, by use class, are listed in Table 5.1. The District has the authority to include additional Specific Conditions based on site-specific or project considerations.

## **5.3 Project Specific Conditions**

The District has the authority to include project-specific conditions to address additional considerations not identified in the table below.



Table 5.1 Types of Specific Conditions, by Use Class.

	Public Supply	Agricultural Irrigation	Landscape and Recreation Irrigation	Industrial / Commercial	Power Production	Mining / Dewatering	Institutional	Diversion and Impoundment
Water Use Reporting	✓	✓	✓	✓	✓	✓	✓	✓
Flow Meter Installation and Maintenance	✓	✓	✓	✓	✓	✓	✓	✓
Flow Meter Calibration	✓	✓	✓	✓	✓	✓	✓	✓
Alternative Method Verification		✓	✓	✓		✓	✓	✓
Water Loss Accounting	✓			✓	✓		✓	✓
Water Conservation Measures	✓	✓	✓	✓	✓		✓	✓
Annual Report	✓			✓	✓		✓	✓
10-year Compliance Report	✓			✓	✓		✓	✓
Hydrologic Monitoring	✓	✓	✓	✓	✓	✓	✓	✓
Water Quality Monitoring	✓	✓	✓	✓	✓	✓	✓	✓
Reuse Feasibility	✓	✓	✓	✓	✓		✓	
Distribution Area and Franchise Area Maps	✓							✓
Annual Crop Summary		✓						
Crop Protection		✓						