ORANGE COUNTY, FLORIDA

INITIAL STORMWATER ASSESSMENT RESOLUTION

ADOPTED JULY 23, 1996
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APPENDIX A ORANGE COUNTY STORMWATER UTILITY MITIGATION CREDIT POLICY

APPENDIX B FORM OF NOTICE TO BE PUBLISHED

APPENDIX C FORM OF NOTICE TO BE MAILED
RESOLUTION NO. 96-M-35

A RESOLUTION PERTAINING TO STORMWATER MANAGEMENT IN ORANGE COUNTY, FLORIDA, ESTIMATING THE COST OF STORMWATER MANAGEMENT SERVICES PROVIDED BY THE COUNTY'S STORMWATER UTILITY; DETERMINING THAT CERTAIN REAL PROPERTY WILL BE SPECIALLY BENEFITED THEREBY; ESTABLISHING THE METHOD OF ASSESSING THE COST OF STORMWATER MANAGEMENT SERVICES AGAINST THE REAL PROPERTY THAT WILL BE SPECIALLY BENEFITED THEREBY; DIRECTING THE STORMWATER UTILITY DIRECTOR TO PREPARE OR DIRECT THE PREPARATION OF A TENTATIVE STORMWATER ASSESSMENT ROLL BASED UPON THE METHODOLOGY SET FORTH HEREIN; ESTABLISHING A PUBLIC HEARING FOR THE PROPOSED STORMWATER ASSESSMENTS AND DIRECTING THE PROVISION OF NOTICE IN CONNECTION THERewith; PROVIDING FOR SEVERABILITY; AND PROVIDING AN EFFECTIVE DATE.

BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF ORANGE COUNTY, FLORIDA:

ARTICLE I

DEFINITIONS AND CONSTRUCTION

SECTION 1.01. DEFINITIONS. As used in this Resolution, the following terms shall have the following meanings, unless the context hereof otherwise requires.

"Board" means the Board of County Commissioners of Orange County, Florida.

"Condominium" means a condominium created by a declaration of condominium, pursuant to Chapter 718, Florida Statutes.
"Condominium Common Area Parcel" means a Tax Parcel of Developed Property including one or more "common elements" (as defined in Section 718.103, Florida Statutes) of a Condominium, to which the Property Appraiser has assigned a DOR Code of 0400, 0410, 0417, 0419, 0420, 0430, 0439, 0440, 0450 or 0494, the taxable value of which has been attributed to Condominium Residential Unit Parcels or Condominium Nonresidential Unit Parcels by the Property Appraiser.

"Condominium Nonresidential Unit Parcel" means a Tax Parcel of Developed Property constituting a Condominium "unit" (as defined in Section 718.103, Florida Statutes) to which the Property Appraiser has assigned a DOR Code of 0410, 0417, 0419, 0420, 0430, 0439 or 0440.

"Condominium Residential Unit Parcel" means a Tax Parcel of Developed Property constituting a Condominium "unit" (as defined in Section 718.103, Florida Statutes) to which the Property Appraiser has assigned a DOR Code of 0400, 0450 or 0494.

"County" means Orange County, a political subdivision of the State of Florida.

"Developed Property" means any Tax Parcel that includes Impervious Area.

"DOR Code" means a property use code established in Rule 12D-8.008, Florida Administrative Code, as applied by the Property Appraiser.

"Duplex Parcel" means a Tax Parcel of Developed Property on which all or part of a multi-family residential building limited to two dwelling units is located, to which the Property Appraiser has assigned a DOR Code of 800.
"ESU" means "equivalent stormwater unit," the standard unit to be used in calculating the Stormwater burden expected to be generated by the Impervious Area of Developed Property, after taking into consideration any mitigation of the Stormwater burden that results from privately maintained Stormwater management facilities and other factors affecting the quantity or quality of Stormwater runoff.

"ESU Value" means the Impervious Area for a typical Single Family Parcel within the Stormwater Service Area. Based upon a median Impervious Area derived from a statistically valid sample of Single Family Parcels, the County has computed an "ESU Value" of 2,165 square feet, which shall be used to calculate the number of ESUs attributable to each Tax Parcel.

"Fiscal Year" means the period commencing on October 1 of each year and continuing through the next succeeding September 30, or such other period as may be prescribed by law as the fiscal year for the County.

"General Parcel" means a Tax Parcel of Developed Property that is not a Single Family Parcel, a Condominium Common Area Parcel, a Condominium Residential Unit Parcel, a Condominium Nonresidential Unit Parcel, or a Duplex Parcel.

"Government Property" means property owned by the United States of America, the State of Florida, a county, a special district, a municipal corporation, or any of their respective agencies or political subdivisions.

"Impervious Area" means hard surfaced areas which either prevent or severely restrict the entry of water into the soil mantle and/or cause water to run off the surface in greater quantities or at an increased rate of flow from that present under natural conditions.
prior to development. Common impervious surfaces include, but are not limited to, rooftops, sidewalks, walkways, patio areas, driveways, parking lots, storage areas and other surfaces which similarly impact the natural infiltration or runoff patterns which existed prior to development.

"Large Single Family Parcel" means a Single Family Parcel with an Impervious Area greater than 4,000 square feet.

"Medium Single Family Parcel" means a Single Family Parcel with an Impervious Area between 1,000 square feet and 4,000 square feet, inclusive.

"Mitigation Credit" means, for any Tax Parcel of Developed Property, a number between 0.0 and 1.0 representing a reduction in the Stormwater burden expected to be generated by such Tax Parcel attributable to privately maintained Stormwater management facilities. The "Mitigation Credit" for each Tax Parcel shall be determined in accordance with Section 3.09 hereof.

"Mitigation Credit Factor" means the figure computed by subtracting the Mitigation Credit from 1.00.

"Mitigation Credit Policy" means the Orange County Stormwater Utility Mitigation Credit Policy attached hereto as Appendix A.

"Ordinance" means Stormwater Utility Ordinance No. 96-___, as amended.

"Property Appraiser" means the Property Appraiser for Orange County, Florida.

"Single Family Parcel" means a Tax Parcel of Developed Property to which the Property Appraiser has assigned a DOR Code of 0100, 0110, 0119, 0130, 0135, 0140, 0194, 0195, 0196, 0200, 0210 or 0220.
"Small Single Family Parcel" means a Single Family Parcel with an Impervious Area less than 1,000 square feet.

"State" means the State of Florida.

"Stormwater" means the flow of water which results from, and which occurs immediately following, a rainfall event.

"Stormwater Assessment" means an annual special assessment imposed upon each benefitted parcel within the Stormwater Service Area to fund Stormwater Management Services.

"Stormwater Assessment Roll" means the special assessment roll relating to Stormwater Assessments.

"Stormwater Management Services" means (A) management and administration of the County's Stormwater management program; (B) Stormwater program engineering; (C) basin planning, including capital improvement plan development; (D) operating and maintaining the County's capital facilities for Stormwater management, including extraordinary maintenance; (E) billing and collection of Stormwater Assessments, including customer information services and reserves for available statutory payment discounts; and (F) legal, engineering and other consultant services. Notwithstanding the foregoing, "Stormwater Management Services" shall not include that portion of the cost to maintain the County's road drainage system that is attributable to the Stormwater burden generated by the Impervious Area of the roads.

"Stormwater Service Cost" means the estimated amount for any Fiscal Year of all expenditures and reasonable reserves that are properly attributable to Stormwater.
Management Services provided within the Stormwater Service Area under generally accepted accounting principles, including, without limiting the generality of the foregoing, reimbursement to the County for any moneys advanced for Stormwater Management Services, and interest on any interfund or intrafund loan for such purpose.

"Stormwater Utility" means the entity established by the Ordinance to implement the Stormwater management program of the County.

"Stormwater Utility Director" means the County's Public Works Director or such person's designee.

"Stormwater Service Area" means all property within the County not located within a municipality, the Ranger Drainage District, the Valencia Drainage District, the Zellwood Drainage District, the Reedy Creek Improvement District or the Upper St. Johns River Hydrologic Basin (as identified in Rule 40C-41.023, Florida Administrative Code).

"Tax Parcel" means a parcel of property, other than Government Property, to which the Property Appraiser has assigned a distinct ad valorem property tax identification number.

"Tax Roll" means the real property ad valorem tax assessment roll maintained by the Property Appraiser for the purpose of the levy and collection of ad valorem taxes.

"Uniform Assessment Collection Act" means Sections 197.3632 and 197.3635, Florida Statutes, or any successor statutes authorizing the collection of non-ad valorem assessments on the same bill as ad valorem taxes, and any applicable regulations promulgated thereunder.
SECTION 1.02. INTERPRETATION. Unless the context indicates otherwise, words importing the singular number include the plural number, and vice versa; the terms "hereof," "hereby," "herein," "hereeto," "hereunder" and similar terms refer to this Resolution; and the term "hereafter" means after, and the term "heretofore" means before, the effective date of this Resolution. Words of any gender include the correlative words of the other genders, unless the sense indicates otherwise.
ARTICLE II

STORMWATER ASSESSMENTS

SECTION 2.01. COMPUTATION. The Stormwater Assessment will be computed for each Tax Parcel located within the Stormwater Service Area by multiplying the number of ESUs attributable thereto by $42.00; provided however, that the $42.00 rate per ESU shall be reduced, if necessary, to ensure that the aggregate Stormwater Assessment within the Stormwater Service Area does not exceed the Stormwater Service Cost.

SECTION 2.02. STORMWATER ASSESSMENT ROLL. The Stormwater Utility Director is hereby directed to prepare, or direct the preparation of, the preliminary Stormwater Assessment Roll in the manner provided in the Ordinance. A copy of this Resolution and the preliminary Stormwater Assessment Roll shall be maintained on file in the office of the Stormwater Utility Director and open to public inspection. The foregoing shall not be construed to require that the Stormwater Assessment Roll be in printed form if the amount of the Stormwater Assessment for each Tax Parcel can be determined by use of an available computer terminal.

SECTION 2.03. METHOD OF COLLECTION. The Stormwater Assessments shall be collected pursuant to the Uniform Assessment Collection Act.
ARTICLE III
DETERMINATION OF ESUS

SECTION 3.01. CLASSIFICATION OF TAX PARCELS. Each Tax Parcel located within the Stormwater Service Area shall be assigned to one of the following classifications: Small Single Family Parcels, Medium Single Family Parcels, Large Single Family Parcels, Condominium Residential Unit Parcels, Condominium Nonresidential Unit Parcels, Condominium Common Area Parcels, Duplex Parcels or General Parcels.

SECTION 3.02. SINGLE FAMILY PARCELS.
(A) The Board hereby finds and determines as follows:
   (1) Medium Single Family Parcels constitute 82.1 percent of all Single Family Parcels located within the Stormwater Service Area and represent the standard size single-family residence within the Stormwater Service Area.
   (2) Since Medium Single Family Parcels constitute approximately 51.0 percent of the total 194,585 Tax Parcels located within the Stormwater Service Area, the cost of measuring or verifying the Impervious Area for each individual Medium Single Family Parcel greatly exceeds any benefit to be derived from individual measurement or verification. Medium Single Family Parcels constitute a reasonable classification of property for purposes of the Stormwater Assessments.
   (3) Since the ESU Value falls within the range of Medium Single Family Parcels, it is fair and reasonable to assign one ESU to each Medium Single Family Parcel.
(4) Small Single Family Parcels constitute only 3.2 percent of the Single Family Parcels within the Stormwater Service Area. Due to the relatively small amount of Impervious Area, the cost of measuring or verifying the Impervious Area for each individual Small Single Family Parcel greatly exceeds any benefit to be derived from individual measurement or verification. Small Single Family Parcels constitute a reasonable classification of property for purposes of the Stormwater Assessments.

(5) Since the largest Small Single Family Parcel includes Impervious Area that approximates one-half of the ESU Value, it is fair and reasonable to assign one-half ESU to each Small Single Family Parcel.

(6) Large Single Family Parcels constitute only 13.7 percent of the Single Family Parcels within the Stormwater Service Area. Since many of the Large Single Family Parcels include Impervious Area comparable to a commercial business, the cost of measuring or verifying the Impervious Area for each individual Large Single Family Parcel exceeds the benefit to be derived from individual measurement or verification. Large Single Family Parcels constitute a reasonable classification of property for purposes of the Stormwater Assessments.

(7) Due to the large number of Single Family Parcels, it is fair and reasonable to determine the Mitigation Credit Factor for Single Family Parcels without considering, for each Tax Parcel, the percentage of Impervious Area that is directly connected to the County's Stormwater management system.

(B) The number of ESUs attributable to each Single Family Parcel shall be determined as follows:
The number of ESUs attributable to each Small Single Family Parcel shall be determined by multiplying one-half ESU by the appropriate Mitigation Credit Factor. In determining the Mitigation Credit Factor for Small Single Family Parcels, the percentage of Impervious Area that is directly connected to the County's Stormwater management system shall not be taken into consideration.

The number of ESUs attributable to each Medium Single Family Parcel shall be determined by multiplying one ESU by the appropriate Mitigation Credit Factor. In determining the Mitigation Credit Factor for Medium Single Family Parcels, the percentage of Impervious Area that is directly connected to the County's Stormwater management system shall not be taken into consideration.

The number of ESUs attributable to each Large Single Family Parcel shall be determined by (a) dividing the Impervious Area of the Large Single Family Parcel by the ESU Value (2,165 square feet), and (b) multiplying the result by the appropriate Mitigation Credit Factor. In determining the Mitigation Credit Factor for Large Single Family Parcels, the percentage of Impervious Area that is directly connected to the County's Stormwater management system shall not be taken into consideration.

SECTION 3.03. DUPLEX PARCELS.

(A) The Board hereby finds and determines as follows:

Since the Impervious Area has not been measured or verified for each Small Single Family Parcel and Medium Single Family Parcel and since Stormwater Assessments for Small Single Family Parcels and Medium Single Family Parcels will be computed by assigning a uniform number of ESUs to all Small Single Family Parcels.
Parcels, and a uniform number of ESUs to all Medium Single Family Parcels, it is fair and reasonable to compute Stormwater Assessments for comparably sized Duplex Parcels by reference to Small Single Family Parcels and Medium Single Family Parcels.

(2) The Stormwater burden generated by a Duplex Parcel with two dwelling units and an Impervious Area less than 1,000 square feet is expected to approximate that of a Small Single Family Parcel.

(3) The Stormwater burden generated by a Duplex Parcel with two dwelling units and an Impervious Area between 1,000 square feet and 4,000 square feet, inclusive, is expected to approximate that of a Medium Single Family Parcel.

(4) The Stormwater burden generated by a Duplex Parcel with two dwelling units and an Impervious Area greater than 4,000 square feet is expected to approximate that of a Large Single Family Parcel.

(5) The Stormwater burden generated by a Duplex Parcel on which one dwelling unit is located or on which three or more dwelling units are located is expected to decrease or increase proportionately.

(6) To maintain consistency with the method of determining the Mitigation Credit Factors for Single Family Parcels, it is fair and reasonable to determine the Mitigation Credit Factor for Duplex Parcels without considering, for each Tax Parcel, the percentage of Impervious Area that is directly connected to the County's Stormwater management system.

(B) The number of ESUs attributable to a Duplex Parcel shall be computed by (1) dividing the Impervious Area of the Duplex Parcel by the number of dwelling units and
multiplying the result by two; (2) determining whether the resulting Impervious Area would be classified as a Small Single Family Parcel, Medium Single Family Parcel or a Large Single Family Parcel; (3) if the Duplex Parcel that would be classified as a Small Single Family Parcel, the number of ESUs will be determined by (a) multiplying (i) 0.25 ESU (one-half of the number uniformly assigned to Small Single Family Parcels) by (ii) the number of dwelling units, and (b) multiplying the result by the appropriate Mitigation Credit Factor; (4) if the Duplex Parcel that would be classified as a Medium Single Family Parcel, the number of ESUs will be determined by (a) multiplying (i) 0.5 ESU (one-half of the number uniformly assigned to Medium Single Family Parcels) by (ii) the number of dwelling units, and (b) multiplying the result by the appropriate Mitigation Credit Factor; and (5) if the Duplex Parcel would be classified as a Large Single Family Parcel, the number of ESUs will be determined by (a) dividing the Impervious Area of the Duplex Parcel by the ESU Value (2,165 square feet), and (b) multiplying the result by the appropriate Mitigation Credit Factor. In determining the Mitigation Credit Factor for Duplex Parcels, the percentage of Impervious Area that is directly connected to the County's Stormwater management system shall not be taken into consideration.

SECTION 3.04. RESIDENTIAL CONDOMINIUM PARCELS.

(A) The Board hereby finds and determines as follows:

(1) A residential Condominium constitutes a unique form of real property ownership comprised of Condominium Residential Unit Parcels, to which there may be an appurtenant undivided share in Condominium Common Area Parcels.
(2) It is fair and reasonable to attribute the Impervious Area of Condominium Common Area Parcels to the Condominium Residential Unit Parcels to which such Condominium Common Area Parcels are appurtenant.

(3) To maintain consistency with the method of determining the Mitigation Credit Factors for Single Family Parcels, it is fair and reasonable to determine the Mitigation Credit Factor for Condominium Residential Unit Parcels without considering, for each Tax Parcel, the percentage of Impervious Area that is directly connected to the County’s Stormwater management system.

(B) The number of ESUs attributable to each Condominium Residential Unit Parcel in a residential Condominium shall be equal to the sum of the following:

(1) the amount computed by multiplying (a) the amount calculated by (i) dividing the Impervious Area of the Tax Parcel on which the Condominium Residential Unit Parcel is located by the ESU Value (2,165 square feet), and (ii) dividing the result by the total number of Condominium Residential Unit Parcels located on such Tax Parcel, by (b) the appropriate Mitigation Credit Factor; and

(2) the amount computed by multiplying (a) the amount computed by (i) dividing the Impervious Area of each Condominium Common Area Parcel appurtenant to the Condominium Residential Unit Parcel by the ESU Value (2,165 square feet), and (ii) dividing the result by the total number of Condominium Residential Unit Parcels to which the Condominium Common Area Parcel is appurtenant, by (b) the appropriate Mitigation Credit Factor.
In determining the Mitigation Credit Factor for Condominium Residential Unit Parcels, the percentage of Impervious Area that is directly connected to the County's Stormwater management system shall not be taken into consideration.

SECTION 3.05. NONRESIDENTIAL CONDOMINIUM PARCELS.

(A) The Board hereby finds and determines as follows:

(1) A nonresidential Condominium constitutes a unique form of real property ownership comprised of Condominium Nonresidential Unit Parcels, to which there may be an appurtenant undivided share in Condominium Common Area Parcels.

(2) It is fair and reasonable to attribute the Impervious Area of Condominium Common Area Parcels to the Condominium Nonresidential Unit Parcels to which such Condominium Common Area Parcels are appurtenant.

(3) To maintain consistency with the method of determining the Mitigation Credit Factors for Condominium Residential Unit Parcels, it is fair and reasonable to determine the Mitigation Credit Factor for Condominium Nonresidential Unit Parcels without considering, for each Tax Parcel, the percentage of Impervious Area that is directly connected to the County’s Stormwater management system.

(B) The number of ESUs attributable to each Condominium Nonresidential Unit Parcel in a nonresidential Condominium shall be equal to the sum of the following:

(1) the amount computed by (a) dividing the Impervious Area of the Tax Parcel on which the Condominium Nonresidential Unit Parcel is located by the ESU Value (2,165 square feet), (b) dividing the result by the total floor area of all Condominium Nonresidential Unit Parcels located on the Tax Parcel, (c) multiplying
the result by the floor area of the Condominium Nonresidential Unit Parcel, and (d)
multiplying the result by the appropriate Mitigation Credit Factor; and

(2) the amount computed by (a) dividing the Impervious Area of each
Condominium Common Area Parcel appurtenant to the Condominium
Nonresidential Unit Parcel by the ESU Value (2,165 square feet), (b) dividing the
result by the total floor area of all Condominium Nonresidential Unit Parcels to which
the Condominium Common Area Parcel is appurtenant, (c) multiplying the result by
the floor area of the Condominium Nonresidential Unit Parcel, and (d) multiplying the
result by the appropriate Mitigation Credit Factor.

In determining the Mitigation Credit Factor for Condominium Nonresidential Unit Parcels,
the percentage of Impervious Area that is directly connected to the County's Stormwater
management system shall not be taken into consideration.

SECTION 3.06. MIXED USE CONDOMINIUM PARCELS.

(A) The Board hereby finds and determines as follows:

(1) A mixed use Condominium constitutes a unique form of real property
ownership comprised of Condominium Residential Unit Parcels and Condominium
Nonresidential Unit Parcels, to which there may be an appurtenant undivided share
in Condominium Common Area Parcels.

(2) It is fair and reasonable to attribute the Impervious Area of
Condominium Common Area Parcels to the Condominium Residential Unit Parcels
and Condominium Nonresidential Unit Parcels to which such Condominium
Common Area Parcels are appurtenant in the manner hereinbelow set forth.
(B) The Impervious Area of Condominium Common Area Parcels shall be divided between the Condominium Residential Unit Parcels and the Condominium Nonresidential Unit Parcels to which such Condominium Common Area Parcels are appurtenant based upon the aggregate floor area of the Condominium Residential Unit Parcels and Condominium Nonresidential Unit Parcels.

(C) The number of ESUs attributable to each Condominium Residential Unit Parcel in a mixed use Condominium shall be equal to the sum of the following:

(1) the amount computed by multiplying (a) the amount calculated by (i) dividing the Impervious Area of the Tax Parcel on which the Condominium Residential Unit Parcel is located by the ESU Value (2,165 square feet), and (ii) dividing the result by the total number of Condominium Residential Unit Parcels located on such Tax Parcel, by (b) the appropriate Mitigation Credit Factor; and

(2) the amount computed by multiplying (a) the amount calculated by (i) dividing that portion Impervious Area of each Condominium Common Area Parcel appurtenant to the Condominium Residential Unit Parcel that is allocated to Condominium Residential Unit Parcels pursuant to Section 3.06(B) hereof by the ESU Value (2,165 square feet), and (ii) dividing the result by the total number of Condominium Residential Unit Parcels to which the Condominium Common Area Parcel is appurtenant, by (b) the appropriate Mitigation Credit Factor.

(E) The number of ESUs attributable to each Condominium Nonresidential Unit Parcel in a mixed use Condominium shall be equal to the sum of the following:

(1) the amount computed by (a) dividing the Impervious Area of the Tax Parcel on which the Condominium Nonresidential Unit Parcel is located by the ESU
Value (2,165 square feet), (b) dividing the result by the total floor area of all
Condominium Nonresidential Unit Parcels located on the Tax Parcel, (c) multiplying
the result by the floor area of the Condominium Nonresidential Unit Parcel, and (d)
multiplying the result by the appropriate Mitigation Credit Factor; and

(2) the amount computed by (a) dividing that portion Impervious Area of
each Condominium Common Area Parcel appurtenant to the Condominium
Nonresidential Unit Parcel that is allocated to Condominium Nonresidential Unit
Parcels pursuant to Section 3.06(B) hereof by the ESU Value (2,165 square feet),
(b) dividing the result by the total floor area of all Condominium Nonresidential Unit
Parcels to which the Condominium Common Area Parcel is appurtenant, (c)
multiplying the result by the floor area of the Condominium Nonresidential Unit
Parcel, and (d) multiplying the result by the appropriate Mitigation Credit Factor.

SECTION 3.07. GENERAL PARCELS. The number of ESUs attributable to
each General Parcel shall be determined by (1) dividing the Impervious Area of the General
Parcel by the ESU Value (2,165 square feet), and (2) multiplying the result by the
appropriate Mitigation Credit Factor. In determining the Mitigation Credit Factor for General
Parcels, the percentage of Impervious Area that is directly connected to the County's
Stormwater management system shall be taken into consideration.

SECTION 3.08. APPROVAL OF MITIGATION POLICY. The Board hereby
approves the Mitigation Credit Policy attached hereto as Appendix A.

SECTION 3.09. PRIVATE STORMWATER MANAGEMENT FACILITIES.
(A) The Board recognizes the benefits provided by privately maintained Stormwater management facilities. Properties supporting private Stormwater management facilities should be credited for the public benefits they provide. Accordingly, the number of ESUs otherwise attributable to such property shall be adjusted by a Mitigation Credit determined in accordance with the Mitigation Credit Policy.

(B) In order to receive a Mitigation Credit for which property is eligible, a property owner may be required to provide the Stormwater Utility Director with "as built" drawings of the Stormwater management facility sealed by a Florida registered professional engineer, a certification from a Florida registered professional engineer as to the standards of retention and detention achieved by the facility, and such other reasonable requirements as may be necessary to effectuate the purposes of this Section 3.09.

(C) No Mitigation Credit shall be applied for service provided to property by a Stormwater management facility constructed or maintained with public funds. However, a Mitigation Credit shall be applied for service provided to property by a regional Stormwater management facility if the developer of the property provided a capital contribution to the regional facility in lieu of constructing on-site facilities.
ARTICLE IV

NOTICE AND PUBLIC HEARING

SECTION 4.01. PUBLIC HEARING. The County Chairman is hereby authorized to establish the date and time of a public hearing to be held between June 1, 1997 and September 15, 1997, in the Orange County Commission Chambers located on the first floor of the County Administration Building at 201 Rosalind Avenue, Orlando, Florida 32801, to consider imposition of the Stormwater Assessments and their collection pursuant to the Uniform Assessment Collection Act.

SECTION 4.02. NOTICE BY PUBLICATION. Upon direction of the County Chairman, the Stormwater Utility Director shall publish a notice of the public hearing authorized by Section 4.01 hereof in the manner and the time provided in Section 3.04 of the Ordinance.

SECTION 4.03. NOTICE BY MAIL. Upon direction of the County Chairman, the Stormwater Utility Director shall, at the time and in the manner specified in Section 3.05 of the Ordinance, provide first class mailed notice of the public hearing authorized by Section 4.01 hereof to each property owner proposed to be assessed at the address indicated on the Tax Roll.

SECTION 4.04. RESOLUTION OF INTENT. The County Chairman is hereby further authorized to establish the date and time of a public hearing to be held prior to January 1, 1997, in the Orange County Commission Chambers located on the first floor...
of the County Administration Building at 201 Rosalind Avenue, Orlando, Florida 32801, to consider adoption of the resolution required by the Uniform Assessment Collection Act to express the Board's intent to collect Assessments on the ad valorem tax bill. Upon direction of the County Chairman, the Stormwater Utility Director shall publish weekly notice of such intent for four consecutive weeks preceding the hearing.

ARTICLE V

GENERAL PROVISIONS

SECTION 5.01. ADJUSTMENT OF ESUs.

(A) Petitions for review of the number of ESUs attributed to any Tax Parcel shall be submitted to the Stormwater Utility Director, who shall have authority to correct any errors made in applying the provisions of Article III hereof to the Tax Parcel. The following procedures shall apply to all petitions.

(1) Each petition shall be made to the Stormwater Utility Director by the owner of the Tax Parcel or such owner's authorized agent.

(2) The petition shall be in writing and set forth, in detail, the grounds upon which adjustment is sought.

(3) The petition must be filed with the Stormwater Utility Director within thirty days of the notice required by Section 3.05 of the Ordinance and shall be reviewed within thirty days of the filing date. Filing of a petition shall not extend the time for payment of any Stormwater Assessment or affect the amount of any discount for early payment. If the number of ESUs is adjusted for any Tax Parcel,
the Stormwater Assessment shall be corrected in accordance with Section 3.12 of the Ordinance. If the Stormwater Assessment has been paid prior to adjustment of the number of ESUs, the Tax Collector shall refund the amount by which the Stormwater Assessment has been reduced, adjusted for any early payment discount taken by the owner.

(4) The petitioner may be required, at petitioner's own cost, to provide supplemental information to the Stormwater Utility Director including, but not limited to, survey data approved by a professional land surveyor and/or engineering reports approved by a professional engineer. Failure to provide such information may result in the denial of the petition.

(5) The Stormwater Utility Director shall respond to each petition in writing.

(B) The Stormwater Utility Director may initiate adjustments to the number of ESUs attributed to any Tax Parcel. If the number of ESUs is reduced for any Tax Parcel, the Stormwater Assessment shall be corrected in accordance with Section 3.12 of the Ordinance. In such event, if the Stormwater Assessment has been paid prior to adjustment of the number of ESUs, the Tax Collector shall refund the amount by which the Stormwater Assessment has been reduced, adjusted for any early payment discount taken by the owner. If the number of ESUs is increased for any Tax Parcel, the adjustment shall become effective for Stormwater Assessments in subsequent Fiscal Years.

SECTION 5.02. SEVERABILITY. The provisions of this Resolution are severable; and if any section, subsection, sentence, clause or provision is held invalid by
any court of competent jurisdiction, the remaining provisions of this Resolution shall not be affected thereby.

SECTION 5.03. EFFECTIVE DATE. This Resolution shall take effect immediately upon its adoption.

DULY ADOPTED this 23rd day of July, 1996.

ORANGE COUNTY, FLORIDA

ATTEST: Martha O. Haynie, County Comptroller, as Clerk to the Board of County Commissioners

By: County Chairman

By: Deputy Clerk
APPENDIX A

ORANGE COUNTY
STORMWATER UTILITY MITIGATION CREDIT POLICY
APPENDIX B

FORM OF NOTICE TO BE PUBLISHED
Notice is hereby given that the Board of County Commissioners of Orange County, Florida, will conduct a public hearing to consider imposing Stormwater Assessments in the area receiving stormwater management services from the County, as shown above. The hearing will be held at ___ p.m. on _____ __, 1996, in the Orange County Commission Chambers located on the first floor of the County Administration Building, 201 Rosalind Avenue, Orlando, Florida 32801. In accordance with the Americans with Disabilities Act, persons needing a special accommodation or an interpreter to participate in this proceeding should contact the County’s Stormwater Management Department at 407/836-7990 at least seven days prior to the date of the hearing. All affected property owners have a right to appear at the hearing and to file written objections with the Board of County Commissioners within 20 days of this notice. Any person wishing to appeal any decision of the Board of County Commissioners with respect to any matter considered will need a record and may wish to ensure that a verbatim record is made.

The Stormwater Assessments have been proposed to fund a portion of the County’s cost to provide stormwater management services in the area shown above. The Stormwater assessments will be based upon the estimated amount of stormwater runoff generated by impervious surface on each parcel of property. Impervious surfaces include the roof top, patios, driveways, parking lots and similar areas. The County has
determined that the median single-family residence in the stormwater service area includes 2,165 square feet of impervious surface, which is defined as one "equivalent stormwater unit" or "ESU." The initial annual Stormwater Assessment rate will be $42.00 for each ESU.

Generally, the number of ESUs will be calculated individually for each parcel of property by dividing the impervious surface area by 2,165. However, since verifying the impervious surface for each single-family residence in the County is a practical impossibility, single-family residences with impervious surface area between 1,000 square feet and 4,000 square feet, inclusive, will be assigned one ESU. Smaller single-family residences will be assigned one-half ESU and larger single-family residences will be calculated individually. A more specific description is set forth in the Initial Assessment Resolution adopted by the Board of County Commissioners on ________, 1996. Copies of the Initial Assessment Resolution and the preliminary assessment roll are available for inspection at the Orange County Stormwater Management Department, 4200 John Young Parkway, Orlando, Florida.

Failure to pay the Stormwater Assessment will cause a tax certificate to be issued against the assessed property which may result in a loss of title.

If you have any questions, please contact the Orange County Stormwater Management Department 407/836-7990.

ORANGE COUNTY, FLORIDA
APPENDIX C

FORM OF NOTICE TO BE MAILED
NOTICE OF PUBLIC HEARING
FOR ADOPTION OF STORMWATER ASSESSMENT

* * * * * THIS IS NOT A BILL * * * * *

Property Identification Number: [Insert]
Number of Equivalent Stormwater Units (ESUs): [Insert]
Annual Stormwater Assessment: [Insert]

[YOUR PROPERTY IS LOCATED WITHIN THE _______________ AND IS CURRENTLY ASSESSED $____ PER YEAR FOR DRAINAGE POND MAINTENANCE. IF THE STORMWATER ASSESSMENTS DESCRIBED IN THIS LETTER ARE IMPOSED, THE CURRENT DRAINAGE POND MAINTENANCE ASSESSMENT WILL BE TERMINATED. YOU WILL NOT BE REQUIRED TO PAY BOTH ASSESSMENTS.]

Dear Orange County Property Owner:

The past decade has brought increasing recognition of environmental and other problems associated with stormwater runoff from developed property, including degradation of our surface waters (lakes and rivers) and standing water on our streets and other property. Orange County has actively pursued solutions to these problems by developing a comprehensive stormwater management program. In addition, the Orange County Comprehensive Plan and recent Federal regulations mandate improvements to Orange County's stormwater management infrastructure. This will require additional expenditures both for capital facilities (land and structures) and operation and maintenance (for example, cleaning and correcting erosion problems in ditches and culverts).

As a result, the Board of County Commissioners has enacted Orange County Ordinance No. 96-__ to create a Stormwater Utility and provide a dedicated funding source for stormwater management. The Board has also adopted Resolution No. 96-__, which identifies the area receiving stormwater management services from the County and specifically describes the method of determining the Stormwater Assessment for each parcel of property. The area receiving stormwater management services from the County includes your property and all other property within the County not located within a municipality, the Ranger Drainage District, the Valencia Drainage District, the Zellwood Drainage District, the Reedy Creek Improvement District or the St. Johns River Basin. It is estimated that Orange County will collect $________ from the Stormwater Assessments.

C-1
The Stormwater Assessments will be based upon the estimated amount of stormwater runoff generated by impervious surface on the property. Impervious surfaces include the roof top, patios, driveways, parking lots and similar areas. The County has determined that the median single-family residence in the stormwater service area includes 2,165 square feet of impervious surface, which is defined as one "equivalent stormwater unit" or "ESU." The initial annual Stormwater Assessment rate will be $42.00 for each ESU.

Generally, the number of ESUs will be calculated individually for each parcel of property by dividing the impervious surface area by 2,165. However, since verifying the impervious surface for each single-family residence in the County is a practical impossibility, single-family residences with impervious surface area between 1,000 square feet and 4,000 square feet, inclusive, will be assigned one ESU. Smaller single-family residences will be assigned one-half ESU and larger single-family residences will be calculated individually. The number of ESUs assigned to your property is provided at the beginning of this letter.

The Board of County Commissioners will hold a public hearing at _____ p.m. on _____, 1996, in the Orange County Commission Chambers located on the first floor of the County Administration Building (201 Rosalind Avenue, Orlando, Florida 32801), to receive comments on the proposed Stormwater Assessments, including collection on the ad valorem tax bill. You are invited to attend and participate in the hearing. You may also file written objections with the County Commission prior to or during the hearing. If you decide to appeal any decision made by the Board of County Commissioners with respect to any matter considered at the hearing, you will need a record of the proceedings and may need to ensure that a verbatim record is made, including the testimony and evidence upon which the appeal is to be made. In accordance with the Americans with Disabilities Act, if you need a special accommodation or an interpreter to participate in this proceeding, please contact the County's Stormwater Management Department at 407/836-7990 at least seven days prior to the date of the hearing.

If you have any questions regarding the number of ESUs assigned to your property or the amount of the Stormwater Assessment, please contact the Orange County Stormwater Management Department by telephone (407/836-7990) or by mail (4200 John Young Parkway, Orlando, Florida 32809-9205).

Very truly yours,

[Insert Name]
[Insert Title]
Stormwater Management Department
ORANGE COUNTY

STORMWATER UTILITY

MITIGATION CREDIT POLICY

Prepared by:

Dyer, Riddle, Mills & Precourt, Inc.
1505 East Colonial Drive
Orlando, Florida 32803

July 1996
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A Chapter 62-40 State Water Policy
B Concept for Rate Mitigation Credit
C Development / Mitigation Scenarios
D Mitigation Credit Application Form and Procedures
E Mitigation Credit Implementation Procedures
1.0 INTRODUCTION

It has been determined that stormwater mitigation credit can be divided into three distinct components. These components are Quality, Peak Rate and Quantity (Volume). Quality refers to acts such as storing the first inch of runoff and other activities which enhance water quality. Rate is associated with the peak flow of stormwater off-site. Quantity refers to the volume of stormwater runoff stored on-site. These three categories will be used for mitigation purposes.

Each of the three components may have a different weighting depending on the stormwater goals in each basin and parcel land use. This percent should be set by the Orange County Board of County Commissioners, based on recommendations from County Staff.

2.0 MITIGATION FACTOR COMPONENTS

2.1 Weighting Factors

This policy recommends a higher priority be given to the Quality and Quantity aspects than to the Rate aspect. These percentages may vary in the future as needed to achieve the County’s objectives for each individual basin. The recommended weighting factors are 40% for Quality, 20% for Rate and 40% for Quantity. Quality and Quantity receive a heavier weighting than Rate since the added impervious area and pollutant loadings associated with development significantly impact these parameters. The Rate aspect is weighted lower as it only slows the flow of water, but the imperviousness added by development increases the runoff volume discharged off-site.
2.2 Quality
The Quality reduction is based on Chapter 62-40.432, State Water Policy as found in Attachment A. This rule states in Section 62-40.432.5.a.1 that new stormwater management systems shall be designed to achieve at least 80% reduction of the average annual load of pollutants that would cause or contribute to violations of state water quality standards. The Quality mitigation curve developed by Dr. M. Wanielista at the University of Central Florida and adapted by DRMP, in Figure 1 and Table 1, identifies one inch (1") of storage over the site as equivalent to an 80% reduction in annual pollutants. This is true as storm events less than one inch amount to 80% of the annual rainfall volume and 90% of the annual rainfall events.

2.3 Rate
The Rate aspect is based on the amount of attenuation provided. The maximum credit of 100% will be received if the 100-year, 24-hour storm event is attenuated. If smaller storms are attenuated, Figure 2 will be used to compute the reduction. The Rate mitigation credit is based on the attenuation volume in a pond beyond that which is required for water quality.

Table 2 summarizes the curve development. The storage volume necessary to attenuate a given storm event, beyond that required for water quality, was computed. If the pond is designed to accommodate a 100-year storm event, full credit is received. Smaller storm events can be attenuated using smaller pond volumes. Therefore, the rate mitigation factors are computed based on the relative pond sizes needed for attenuating the various storm events, such as the 10-year and 25-year storms, versus the pond size which would be needed to attenuate the 100-year storm. Attachment B provides further detail on the Rate mitigation curve development.
Figure 1
Quality Mitigation Curve

Wet Detention Treatment Volume (equivalent inches of runoff over entire site)
Retention Treatment Volume (expressed as treatment volume divided by the product of site area and coefficient of imperviousness)
<table>
<thead>
<tr>
<th>Precipitation Inches</th>
<th>Ni</th>
<th>Vi Inches</th>
<th>Sum Ni</th>
<th>NiVi Inches</th>
<th>Sum NiVi Inches</th>
<th>Vol Inches</th>
<th>Volume (%) Quality/Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.00</td>
<td>396</td>
<td>0</td>
<td>396</td>
<td>19.8</td>
<td>19.8</td>
<td>125.0</td>
<td>18.0</td>
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<tr>
<td>0.10</td>
<td>284</td>
<td>0.05</td>
<td>680</td>
<td>42.6</td>
<td>62.4</td>
<td>216.0</td>
<td>31.1</td>
</tr>
<tr>
<td>0.20</td>
<td>133</td>
<td>0.25</td>
<td>813</td>
<td>33.3</td>
<td>95.7</td>
<td>286.2</td>
<td>41.2</td>
</tr>
<tr>
<td>0.30</td>
<td>107</td>
<td>0.35</td>
<td>920</td>
<td>37.5</td>
<td>133.1</td>
<td>344.3</td>
<td>49.5</td>
</tr>
<tr>
<td>0.40</td>
<td>93</td>
<td>0.45</td>
<td>1013</td>
<td>41.9</td>
<td>175.0</td>
<td>392.5</td>
<td>56.4</td>
</tr>
<tr>
<td>0.50</td>
<td>70</td>
<td>0.55</td>
<td>1083</td>
<td>38.5</td>
<td>213.5</td>
<td>432.5</td>
<td>62.2</td>
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<tr>
<td>0.60</td>
<td>46</td>
<td>0.65</td>
<td>1129</td>
<td>29.9</td>
<td>243.4</td>
<td>466.7</td>
<td>67.1</td>
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<tr>
<td>0.70</td>
<td>43</td>
<td>0.75</td>
<td>1172</td>
<td>32.3</td>
<td>275.6</td>
<td>496.4</td>
<td>71.4</td>
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<tr>
<td>0.80</td>
<td>36</td>
<td>0.85</td>
<td>1208</td>
<td>30.6</td>
<td>306.2</td>
<td>522.2</td>
<td>75.1</td>
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<tr>
<td>1.00</td>
<td>36</td>
<td>0.95</td>
<td>1244</td>
<td>34.2</td>
<td>340.4</td>
<td>544.4</td>
<td>78.3</td>
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<tr>
<td>1.10</td>
<td>35</td>
<td>1.05</td>
<td>1279</td>
<td>36.8</td>
<td>377.2</td>
<td>563.1</td>
<td>81.0</td>
</tr>
<tr>
<td>1.20</td>
<td>23</td>
<td>1.15</td>
<td>1302</td>
<td>26.5</td>
<td>403.6</td>
<td>578.8</td>
<td>83.2</td>
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<td>1.30</td>
<td>18</td>
<td>1.25</td>
<td>1320</td>
<td>22.5</td>
<td>426.1</td>
<td>592.5</td>
<td>85.2</td>
</tr>
<tr>
<td>1.40</td>
<td>13</td>
<td>1.35</td>
<td>1333</td>
<td>17.6</td>
<td>443.7</td>
<td>604.7</td>
<td>87.0</td>
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<tr>
<td>1.50</td>
<td>17</td>
<td>1.45</td>
<td>1350</td>
<td>24.7</td>
<td>468.3</td>
<td>615.3</td>
<td>88.5</td>
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<tr>
<td>2.00</td>
<td>47</td>
<td>1.75</td>
<td>1397</td>
<td>82.3</td>
<td>550.6</td>
<td>652.6</td>
<td>93.9</td>
</tr>
<tr>
<td>2.50</td>
<td>22</td>
<td>2.25</td>
<td>1419</td>
<td>49.5</td>
<td>600.1</td>
<td>672.6</td>
<td>96.7</td>
</tr>
<tr>
<td>3.00</td>
<td>11</td>
<td>2.75</td>
<td>1430</td>
<td>30.3</td>
<td>630.3</td>
<td>684.3</td>
<td>98.4</td>
</tr>
<tr>
<td>3.50</td>
<td>8</td>
<td>3.25</td>
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<td>656.3</td>
<td>691.3</td>
<td>99.4</td>
</tr>
<tr>
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<td>4</td>
<td>3.75</td>
<td>1442</td>
<td>15.0</td>
<td>671.3</td>
<td>695.3</td>
<td>100.0</td>
</tr>
<tr>
<td>&gt;4.00</td>
<td>6</td>
<td>11</td>
<td>1448</td>
<td>66.0</td>
<td>737.3</td>
<td>695.3</td>
<td>100.0</td>
</tr>
<tr>
<td>1448</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Precipitation = Precipitation interval from histogram of rainfall volumes
Ni = Number of rainfall events in each precipitation interval
Vi = Volume in each precipitation interval per event
Sum Ni = Summation of precipitation events
NiVi = Volume of inches for all storm events of a particular size
Sum NiVi = Summation of volumes in inches for all storm events of an equal or lesser magnitude
Volume (inches) = Diversion volume for the 15 years of records associated with a particular diversion depth
Volume Percent = Percent of storm event that are equal to or less than the current storm event

Information Source: Stormwater Management by Martin P. Wanielista, P.E., Ph.D.
### Table 2
Rate Mitigation Curve Development

<table>
<thead>
<tr>
<th>Occurrence Interval* (Year)</th>
<th>Water Quality (ac-ft)</th>
<th>Outflow Hydrograph Volume (ac-ft)</th>
<th>Post Development Pond Volume (ac-ft)</th>
<th>Volume Required for Attenuation (ac-ft)</th>
<th>Mitigation Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6.6</td>
<td>3.1</td>
<td>20.0</td>
<td>10.3</td>
<td>27</td>
</tr>
<tr>
<td>2</td>
<td>6.6</td>
<td>4.0</td>
<td>24.1</td>
<td>13.5</td>
<td>36</td>
</tr>
<tr>
<td>5</td>
<td>6.6</td>
<td>8.8</td>
<td>35.7</td>
<td>20.2</td>
<td>54</td>
</tr>
<tr>
<td>10</td>
<td>6.6</td>
<td>12.1</td>
<td>43.9</td>
<td>25.2</td>
<td>67</td>
</tr>
<tr>
<td>25</td>
<td>6.6</td>
<td>15.3</td>
<td>50.4</td>
<td>28.5</td>
<td>76</td>
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<tr>
<td>50</td>
<td>6.6</td>
<td>18.5</td>
<td>56.3</td>
<td>31.1</td>
<td>83</td>
</tr>
<tr>
<td>100</td>
<td>6.6</td>
<td>20.4</td>
<td>64.6</td>
<td>37.6</td>
<td>100</td>
</tr>
</tbody>
</table>

* 24 hour storm event
2.4 Quantity

Quantity mitigation refers to the volume of storage on site. This credit is given based on the storage provided by stormwater devices, mainly ponds, that have been constructed on site. The analysis is based on the annual runoff from a typical ESU of 2,165 square feet of impervious area and 6,864 square feet of pervious area. Adding these two numbers, an average lot size of 9,028 square feet is obtained. Using this information and a typical rainfall histogram, 7.19 inches over the site is anticipated to run off the property in a given year. Table 3 and Figure 3 outline the Quantity mitigation curve development. These exhibits show that as retention storage increases, the amount of runoff collected increases; likewise, the credit allocated increases.

2.5 Agricultural Range Management Practices

The Natural Resources Conservation Service has a program which develops Range Management Plans (RMP) for the agricultural community. An RMP is individualized to the specific land use, soil type, elevation, etc. of the parcel. After extensive on-site investigation and discussions with the landowner, an RMP is developed. This plan incorporates any number of over 120 Range Management Practices. Very few are quantitative in regard to treatment volume or attenuation, which are directly related to Quality, Rate and Quantity. Table 4 identifies the possible activities that may be included in an RMP and the area (Quality, Rate, Quantity) that each activity may qualitatively affect. The County or its designated representative will assign credits based on the extent that the range management practices achieve the County’s storm water goals.

Credit will be assigned for only recommended procedures listed in Table 4. Elements related to Quality, Rate and Quantity which are recommended (marked with "XX") will receive 15 points for each facility. Each facility can only be counted once when
### TABLE 3
Quantity Mitigation Curve Development

<table>
<thead>
<tr>
<th>Precipitation (inches)</th>
<th>Incremental Runoff (in/yr)</th>
<th>Treatment Volume Over, Site</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.5 inches</td>
<td>1 inch</td>
</tr>
<tr>
<td>0.0 - 0.5</td>
<td>1.41</td>
<td>0.00</td>
</tr>
<tr>
<td>0.5 - 1.0</td>
<td>1.24</td>
<td>1.24</td>
</tr>
<tr>
<td>1.0 - 1.5</td>
<td>1.02</td>
<td>1.02</td>
</tr>
<tr>
<td>1.5 - 2.0</td>
<td>0.76</td>
<td>0.76</td>
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<tr>
<td>2.0 - 2.5</td>
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<td>0.63</td>
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<tr>
<td>3.0 - 3.5</td>
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<td>0.47</td>
</tr>
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<td>3.5 - 4.0</td>
<td>0.31</td>
<td>0.31</td>
</tr>
<tr>
<td>4.0 - 4.5</td>
<td>0.58</td>
<td>0.58</td>
</tr>
<tr>
<td>Total Runoff</td>
<td>7.19</td>
<td>5.78</td>
</tr>
<tr>
<td>Percent Reduction *</td>
<td>100</td>
<td>80</td>
</tr>
<tr>
<td>Mitigation Credit **</td>
<td>0</td>
<td>20</td>
</tr>
</tbody>
</table>

7.187 inches is total annual runoff for an ESU with no mitigation

* Percent Reduction = (Total Runoff / Total Runoff with no storage) * 100
  Example = 5.78/7.187 * 100 = 80%

** Mitigation Credit = (Reduction in quantity retention is excess of 1 inch)/(7.187 inches)*100
  Example = (7.187-5.78) / 7.187 * 100 = 20%
determining credit; if a site has one pond, that pond can only earn 15 points for water quality not 45 water quality points by counting it as a pond, a sediment basin and a water and sediment control basin. A certain Range Management Practice can, however, earn points in multiple elements. For example, if an irrigation pit used for reuse is incorporated into the site plan, then 15 points for all three elements will be awarded because it is recommended under Quality, Rate and Quantity.

The maximum credit available is 48% on the portion of their property receiving benefit. The 48% mitigation credit assumes an 80% reduction in pollutant loadings as mandated by the State for Quality, a 40% reduction in Rate and a 20% reduction in Quantity. The verification process must be performed yearly in order to maintain the mitigation credit. The maximum percent reduction calculations are presented below.

\[
\text{Total Mitigation Credit} = (40\%)(80\%) + (20\%)(40\%) + (40\%)(20\%) = 48\%
\]

(\text{Quality Weight})(\text{Percentage}) \\
+ (\text{Rate Weight})(\text{Percentage}) \\
+ (\text{Quantity Weight})(\text{Percentage}) = \text{Mitigation Credit}
TABLE 4
Range Management Plan Summary

<table>
<thead>
<tr>
<th>Irrigation Practices</th>
<th>Activity</th>
<th>Quality</th>
<th>Rate</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irrigation Canal or Lateral (ft)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Irrigation Field Ditch (ft)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Irrigation Land Leveling (acre)</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
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<tr>
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<td>Irrigation System, Sprinkler (No. and acre)</td>
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<td>Irrigation System, Surface and Subsurface (No. and acre)</td>
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<td>Irrigation System, Tailwater Recovery (No.) - (Reuse)</td>
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<td>Irrigation Water Conveyance, Ditch and Canal Lining (ft)</td>
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<td>Irrigation Water Conveyance, Pipeline (ft)</td>
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<td>Irrigating Water Management (acre)</td>
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<td>Well (No.)</td>
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<table>
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<th>Activity</th>
<th>Quality</th>
<th>Rate</th>
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<td>Bedding (acre)</td>
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<td>Pumped Well drain (No.)</td>
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<td>Bedding (acre)</td>
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<td>Clearing and Snagging (ft)</td>
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<td>Stream Channel Stabilization (ft)</td>
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<tr>
<td>Structure for Water Control (No.)</td>
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<td>D</td>
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<tr>
<td>Pumping Plant for Water Control (No.)</td>
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<td>Regulating Water in Drainage System (acre)</td>
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</tr>
<tr>
<td>Spoil Spreading (ft)</td>
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</tr>
<tr>
<td>Streambank and Shoreline Protection (ft)</td>
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<tr>
<td>Surface Drainage Main or Lateral (ft)</td>
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<td>Vertical Drain (No.)</td>
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<tr>
<td>Subsurface Drain (ft)</td>
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<tr>
<td>Surface Drainage, Field Ditch</td>
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</table>

X = Applicable
XX = Recommended
D = Depends on Situation
Blank = No Effect or Negative Effect
### TABLE 4
Range Management Plan Summary

<table>
<thead>
<tr>
<th>Activity</th>
<th>Quality</th>
<th>Rate</th>
<th>Volume</th>
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<tr>
<td><strong>Water Impoundment Practices</strong></td>
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<tr>
<td>Dam, Floodwater Retarding</td>
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<td>Waste Storage Pond (No.)</td>
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<td>Pond (No.)</td>
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<td>Sediment Basin (No.)</td>
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<td>D</td>
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<td>Wildlife Watering Facility (No.)</td>
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<td>Floodwater Diversion (ft)</td>
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<td>Channel Vegetation (acre)</td>
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<td>Dike (ft)</td>
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<td>D</td>
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<tr>
<td>Streambank and Shoreline Protection (ft)</td>
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<tr>
<td>Stream Channel Stabilization (ft)</td>
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</tr>
<tr>
<td>Floodway (ft)</td>
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<td></td>
</tr>
<tr>
<td>Pumped Well Drain (No.)</td>
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<tr>
<td>Pumping Plant for Water Control (No.)</td>
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<tr>
<td>Spring Development (No.)</td>
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<td>Flexible Membrane</td>
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<td>Pipeline (ft)</td>
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<td>Spoil Spreading (ft)</td>
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<td>Water Spreading (acre)</td>
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</table>

X = Applicable  
XX = Recommended  
D = Depends on Situation  
Blank = No Effect or Negative Effect
2.6 "Drain-To" Factor

The "Drain-To" Factor is used to adjust the Equivalent Stormwater Unit (ESU) calculation based on the amount of runoff actually entering a County-owned and maintained system. There are a multitude of subjective techniques with which this parameter could be defined. However, in an effort to be fair to all parties, a quantitative analysis was developed. The percentage of the property that is impervious and the portion of that impervious area that is considered to be directly-connected impervious area is the key in defining this parameter.

The average annual runoff from a typical lot within Orange County is 7.187 inches over the site. This annual runoff is the benchmark from which all other properties are to be analyzed. Various combinations of percent impervious area and percent directly-connected impervious areas were analyzed to determine the amount of average annual runoff from different sites. These runoff values were then divided by the average annual runoff from a typical lot to obtain the "Drain-To" factor. For example, a lot with the same percent impervious area and percent directly-connected impervious area as a typical lot would receive a factor of 1. Similarly, a site with a lower percentage of impervious area and/or less directly connected impervious area would receive a "Drain-To" factor less than unity. Conversely, a site with a higher percentage of impervious area and/or more directly connected impervious area would receive a "Drain-To" factor greater than unity. This concept is illustrated in Figure 4. Various combinations of the two parameters can yield either higher or lower ESUs for a particular parcel. The "Drain-To" factors developed are presented in Table 2-5 and Figure 5.

This concept has a unique application for facilities with pervious ground covered by a roof or some other structure. If the stormwater runoff is directed onto the pervious ground...
### IMPACTS OF IMPERVIOUSNESS & ITS “CONNECTEDNESS”

<table>
<thead>
<tr>
<th>50 ACRE SITE</th>
<th>50 ACRE SITE</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 ACRES IMPERVIOUS</td>
<td>20 ACRES IMPERVIOUS</td>
</tr>
<tr>
<td>0% DCIA</td>
<td>100% DCIA</td>
</tr>
<tr>
<td>DCIA ADJUSTMENT FACTOR = 0.21</td>
<td>DCIA ADJUSTMENT FACTOR = 2.15</td>
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Table 2-5
"Drain To" Factors

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<th>30</th>
<th>40</th>
<th>50</th>
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<th>70</th>
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<td>0</td>
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<td>1.53</td>
<td>2.52</td>
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<td>0.55</td>
<td>0.76</td>
<td>0.99</td>
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<td>1.64</td>
<td>2.15</td>
<td>2.95</td>
<td>5.36</td>
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<td>1.89</td>
<td>2.38</td>
<td>3.13</td>
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<td>1.14</td>
<td>1.45</td>
<td>1.78</td>
<td>2.16</td>
<td>2.63</td>
<td>3.33</td>
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<td>2.90</td>
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<td>1.73</td>
<td>2.17</td>
<td>2.61</td>
<td>3.06</td>
<td>3.53</td>
<td>4.06</td>
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<td>0.97</td>
<td>1.45</td>
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<td>2.91</td>
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<td>3.89</td>
<td>4.40</td>
<td>5.36</td>
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<td>0.00</td>
<td>0.54</td>
<td>1.08</td>
<td>1.61</td>
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<td>2.68</td>
<td>3.22</td>
<td>3.76</td>
<td>4.29</td>
<td>4.83</td>
<td>5.36</td>
</tr>
</tbody>
</table>

* Bold indicates unity has been exceeded, therefore the ESU calculation would increase by the factor listed above.
Conversely, the non-bolded factors represent decreases in the number of ESUs calculated.

* Assumed Type 'A' Soil on Property, Type 'B' Soil Used on ESU
Directly Connected Impervious Area Adjustment Factor

FIGURE 5
under the impervious cover, then the site's pervious area can be increased. The percentage of impervious area is thereby decreased, increasing pervious area and resulting in a lower "Drain-To" factor. This concept is demonstrated in Figure 6.

2.7 Application of Mitigation Factors

The historical criteria of the St. Johns River Water Management District, South Florida Water Management District and Orange County were reviewed with respect to water quality (pollution abatement), rate (attenuation of flow) and quantity (additional retention requirements). These data were then used to define standard mitigation credits for developments occurring within specified time periods. Table 6 summarizes the findings of this investigation.

Orange County's Commercial Site Ordinance, which was adopted in September of 1981, is equal to, or more restrictive than standard Water Management District criteria through the present time. As such, Orange County's requirement to treat the first half-inch of runoff from the developed site or the runoff generated from the first one-inch of rainfall on the developed site and attenuate the 25-year, 24-hour storm event will be used to assign mitigation credit for parcels developed from 1981 through the present. Treating the first inch of rainfall gives an 80% credit for quality; attenuating the 25-year, 24-hour storm event gives a 76% credit for rate; and one-half inch of retention yields a 20% mitigation for quantity. This yields a 55% mitigation credit (0.4*80 + 0.2*76 + 0.4*20 = 55). Between 1979 and 1981, the Department of Environmental Protection enforced water quality criteria. As such, an 80 percent credit will be given for water quality for developments constructed during this time period. This will amount to a total mitigation credit of 32%. Prior to 1979, minimal criteria were in place and the enforcement and
**MAXIMIZING SITE DRAINAGE TO MAXIMIZE CREDIT**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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<tbody>
<tr>
<td>50 ACRE SITE</td>
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</tr>
<tr>
<td>20 ACRES IMPERVIOUS - 50 ACRES PERVIOUS (NOT 30 ACRES)</td>
<td></td>
</tr>
<tr>
<td>0% DCIA</td>
<td></td>
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<tr>
<td>DCIA ADJUSTMENT FACTOR = 0.10</td>
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</tbody>
</table>
depth of these requirements are in question. Therefore, no credit is given for developments constructed before 1979.

The standard mitigation credits calculated are based on typical developments. Additional credit may be available on a case-by-case basis if more stringent criteria are required. This may be the case if construction occurred within a landlocked basin, a primary groundwater recharge area or within designated Outstanding Florida Waters. The burden of proof lies with the property owner. The owner must show evidence to the County or its designated representative of designing and constructing to a higher level. A variety of development/mitigation scenarios are presented in Attachment C.

Procedures and forms have been developed in an effort to simplify the mitigation credit review process. The procedures are designed to limit the need for an engineer’s review. However, in some instances a surveyor or an engineer would be helpful. A Mitigation Application Form must be completed and submitted by the applicant in order to initiate the review process. The Application Form is located in Attachment D. A detailed procedure for use primarily by County Staff can be found in Attachment E.

<table>
<thead>
<tr>
<th>Year</th>
<th>Quality 40%</th>
<th>Rate 20%</th>
<th>Quantity 40%</th>
<th>Total Mitigation Credit</th>
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<tr>
<td>1981-1996</td>
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<td>20</td>
<td>55</td>
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<td>1979 - 1981</td>
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<td>0</td>
<td>32</td>
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<tr>
<td>Prior to 1979</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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</tbody>
</table>
depth of these requirements are in question. Therefore, no credit is given for developments constructed before 1979.

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<table>
<thead>
<tr>
<th>Year</th>
<th>Quality 40%</th>
<th>Rate 20%</th>
<th>Quantity 40%</th>
<th>Total Mitigation Credit</th>
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<tr>
<td>1981-1996</td>
<td>80</td>
<td>76</td>
<td>20</td>
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<td>1979 - 1981</td>
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<tr>
<td>Prior to 1979</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
3.0 DEFINITIONS

1. **Attenuation**: The act or process of maintaining or decreasing the rate of water flow from the pre-development to the post-development condition.

2. **Detention**: The storage and slow release of stormwater runoff to effect a reduction in flow rate through a structure or from a site.

3. **First Flush**: That portion of a storm event in which the pollutants in the runoff are generally considered to be at the highest concentration, generally accepted to be the first inch of rainfall for retention systems and the first inch of runoff for wet detention systems.

4. **Quality**: The aspect of stormwater runoff related to pollutant levels in the receiving water bodies.

5. **Quantity**: The aspect of stormwater runoff related to the total volume of water generated by a storm event and evacuated through a structure or from a parcel of land.

6. **Rate**: The aspect of stormwater runoff related to the volume of stormwater and the time required to evacuate it through a structure or from a parcel of land, expressed as cubic feet per second (cfs).

7. **Retention**: The storage of stormwater runoff on-site with volume recovery only through infiltration into the ground, or through evaporation.

8. **Wet Detention**: The storage of stormwater runoff on-site such that it is gradually released to downstream drainage systems, allowing the cleansing of the stormwater runoff through contact with planted wetland vegetation.
ATTACHMENT A

CHAPTER 62-40

STATE WATER POLICY
CHAPTER 62-40
WATER POLICY

PART I GENERAL WATER POLICY
62-40.110 Declaration and Intent.
62-40.120 Department Rules.

PART II DEFINITIONS

PART III GENERAL PROVISIONS
62-40.310 General Policies.

PART IV RESOURCE PROTECTION AND MANAGEMENT
62-40.401 Water Use and Reuse. (Repealed)
62-40.422 Interdistrict Transfer.
62-40.430 Water Quality.
62-40.432 Surface Water Protection and Management.
62-40.450 Flood Protection.
62-40.458 Floodplain Protection.
62-40.470 Natural Systems Protection and Management.

PART V WATER PROGRAM DEVELOPMENT
62-40.510 Florida Water Plan.
62-40.540 Water Data.

PART VI WATER PROGRAM ADMINISTRATION AND EVALUATION
62-40.610 Review and Application.

PART I GENERAL WATER POLICY
62-40.110 Declaration and Intent.

(1) The waters of the state are among its basic resources. Such waters should be managed to conserve and protect natural resources and scenic beauty and to realize the full beneficial use of the resource. Recognizing the importance of water to the state, the Legislature passed the Water Resources Act, Chapter 373, Florida Statutes, and the Air and Water Pollution Control Act, Chapter 403, Florida Statutes. Additionally, numerous goals and policies within the State Comprehensive Plan, Chapter 187, Florida Statutes, address water resources and natural systems protection.

(2) This Chapter is intended to provide water policy goals, objectives, and guidance for the development and review of programs, rules, and plans relating to water resources, as expressed in Chapters 187, 373, and 403, Florida Statutes.

(3) These policies shall be construed as a whole and no individual policy shall be construed or applied in isolation from other policies. All constructions of this Chapter shall give meaning to all parts of the rule when possible.

(4) Notwithstanding the incorporation of other Department rules in Rule 62-40.120, F.A.C., this Chapter shall not constitute standards or criteria for decisions on individual permits.

(5) A goal of this Chapter is to coordinate the management of water and related land resources. Local governments shall consider state water policy in the development of their comprehensive plans as required by Chapter 163, Florida Statutes, and as required by Section 403.0891(3)(a), F.S. Special districts which manage water shall consider state water policy in the development of their plans and programs. The Legislature has also expressed its intent, in Section 373.0195, F.S., that future growth and development planning reflect the limitations of available ground water and other water supplies.

(6) It is an objective of the State to protect the functions of entire ecological systems, as developed and defined in the programs, rules, and plans of the Department and water management districts.

(7) Government services should be provided efficiently. Inefficiency resulting from duplication of permitting shall be eliminated where appropriate, including water quality and water quantity permitting functions.

(8) Public education, awareness, and participation shall be encouraged. The Department and Districts should assist educational institutions in the development of educational curricula and research programs which meet Florida's present and future water management needs.

(9) This Chapter does not repeal, amend or otherwise alter any rule now existing or later adopted by the Department or Districts. However, procedures are included in this Chapter which provide for the review of Department and District plans, programs, and rules to assure consistency with the provisions of this Chapter. The procedure for modification of District rules as requested by the Department shall be as prescribed in Section 373.114, F.S., and applicable provisions of this Chapter.

(10) It is the intent of the Department, in cooperation with the Water Management Districts, to seek adequate sources of funding to supplement District ad valorem taxes to implement the provisions of this Chapter.

Specific Authority 373.025(10), 373.043, 373.171, 403.061(33), 403.073 FS. Law Implemented 373.016, 373.114, 403.063(33), 403.073, 403.0891 FS., Ch. 93-213, s. 2, 1993 Fla. Laws 1652, 1654. History—New 5-24-81, Formerly 17-01.01, Amended 12-5-88, Formerly 17-10.05, Amended 8-14-90, 12-17-91, Formerly 17-40.110, Amended 7-26-95.

62-40.120 Department Rules. State water policy shall also include the following Department rules:

(1) Water Quality Standards, Chapter 62-3, F.A.C.
standards and water classifications adopted by the surface are delineated according to their potential frequency of flooding.

inundation by floodwaters from any wastewater treatment facility or watershed.

the management plan prepared by a District. These limitations serve to implement state water quality standards.

“Pollutant load reduction goal” means estimated numeric reductions in pollutant loadings needed to preserve or restore designated uses of receiving bodies of water and maintain water quality consistent with applicable state water quality standards.

“Prime recharge areas” means areas that are generally within high recharge areas and are significant to present and future ground water uses including protection and maintenance of natural systems and water supply.

“Reasonable-beneficial use” means 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.

(21) “Reclaimed water” means water that has received at least secondary treatment and is reused after flowing out of a domestic wastewater treatment facility.

(22) “Retention” means the prevention of stormwater runoff from direct discharge.

(23) “Reuse” means the deliberate application of reclaimed water, in compliance with Department and District rules, for a beneficial purpose.

(a) For example, said uses may encompass:

1. Landscape irrigation (such as irrigation of golf courses, cemeteries, highway medians, parks, playgrounds, school yards, retail nurseries, and residential properties);

2. Agricultural irrigation (such as irrigation of food, fiber, fodder and seed crops, wholesale nurseries, sod farms, and pastures);

3. Aesthetic uses (such as decorative ponds and fountains);

4. Groundwater recharge (such as slow rate, rapid-rate, and absorption field and land application systems) but not including disposal methods described in Rule 62-40.210(23)(b), F.A.C.

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5. Industrial uses (such as cooling water, process water, and wash waters);
6. Environmental enhancement of surface waters resulting from discharge of reclaimed water having received at least advanced wastewater treatment or from discharge of reclaimed water for wetlands restoration;
7. Fire protection; or
8. Other useful purpose.

(b) Overland flow land application systems, rapid-rate land application systems providing continuous loading to a single percolation cell, other land application systems involving less than secondary treatment prior to application, septic tanks, and groundwater disposal systems using Class I wells injecting effluent or wastes into Class G-IV waters shall be excluded from the definition of reuse.

(24) "Secretary" means the Secretary of the Department of Environmental Protection.

(25) "State water quality standards" means the standards that the Department of Environmental Protection is required to establish, pursuant to Sections 403.0615, F.S., and 62-40.001, F.A.C., for the use and development of waters of the State.

(26) "State Water Use Plan" means the plan formulated pursuant to Section 373.016, Florida Statutes, for the use and development of waters of the State.

(27) "Stormwater" means the water which results from a rainfall event.

(28) "Stormwater management program" means the institutional strategy for stormwater management, including urban, agricultural, and other stormwater.

(29) "Stormwater management system" means a system which is designed and constructed or implemented to control stormwater, incorporating methods to collect, convey, store, absorb, inhibit, treat, use, or reuse stormwater to prevent or reduce flooding, over-drainage, environmental degradation and water pollution or otherwise affect the quantity and quality of discharges from the system.

(30) "Stormwater utility" means the entity through which funding for a stormwater management program is obtained by assessing the cost of the program to the beneficiaries based on their relative contribution to its need. It is operated as a typical utility which bills services regularly, similar to water and wastewater services.

(31) "Surface water" means 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.

(32) "Surface water availability" means the potential quantity of surface water that can be removed or retained without significant harm to the water resources or associated natural systems.

(33) "Water resource caution area" means a geographic area identified by a water management district as having existing water resource problems or an area in which water resource problems are projected to develop during the next twenty years. A critical water supply problem area, as described in Section 403.064, F.S., is an example of a water resource caution area.

(34) "Water" or "waters in the state" means any and all water on or beneath the surface of 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.

(35) "Watershed" means the land area which contributes to the flow of water into a receiving body of water.

(36) "Watershed management goal" means an overall goal for the management of water resources within a watershed.

(37) "Wetlands" means those areas that are inundated or saturated by surface or ground water with a frequency sufficient to support, and under normal circumstances do or would support, a prevalence of vegetation or aquatic life that requires saturated or seasonably saturated soil conditions for growth and reproduction, such as swamps, marshes, bayheads, cypress ponds, sloughs, wet prairies, wet meadows, river overflows, mudflats and natural ponds. This definition does not alter the Department's jurisdiction over dredging and filling activities in wetlands as defined in Section 403.064, F.S., and 62-40.001, F.A.C.

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(b) Reserve from use that water necessary to support essential non-withdrawal demands, including navigation, recreation, and the protection of fish and wildlife.

(c) Champion and develop sound water conservation practices and public information programs.

(d) Advocate and direct the reuse of reclaimed water as an integral part of water and wastewater management programs, rules, and plans consistent with protection of the public health and surface and ground water quality.

(e) Encourage the use of water of the lowest acceptable quality for the purpose intended.

(f) Encourage the development of local and regional surface and ground water supplies within districts rather than transfer water across District boundaries.

(g) Encourage demand management and the development of alternative water supplies, including water conservation, reuse of reclaimed water, desalination, stormwater and industrial wastewater reuse, recharge, and aquifer storage and recovery.

(h) Protect aquifers from depletion through water conservation and preservation of the functions of high recharge areas.

(2) Water Quality Protection and Management

(a) Restore and protect the quality of ground and surface water by solving current problems and ensuring high quality treatment for stormwater and wastewater.

(b) Identify existing and future public water supply areas and protect them from contamination.

(3) Flood Protection and Floodplain Protection

(a) Encourage nonstructural solutions to water resource problems and give adequate consideration to nonstructural alternatives whenever structural works are proposed.

(b) Manage the construction and operation of facilities which dam, divert, or otherwise alter the flow of surface waters to minimize damage from flooding, soil erosion or excessive drainage.

(c) Encourage the management of floodplains and other flood hazard areas to prevent or reduce flood damage, consistent with establishment and maintenance of desirable hydrologic characteristics and associated natural systems.

(d) Encourage the development and implementation of a strict floodplain management program by state, regional, and local governments designed to preserve floodplain functions and associated natural systems.

(e) Avoid the expenditure of public funds that encourage or subsidize incompatible new development or significant expansion of existing development in high-hazard flood areas.

(f) Minimize flood-related emergencies, human disasters, loss of property, and other associated impacts.

(4) Natural Systems Protection and Management

(a) Establish minimum flows and levels to protect water resources and the environmental values associated with marine, estuarine, freshwater, and wetlands ecology.

(b) Mitigate adverse impacts resulting from prior alteration of natural hydrologic patterns and fluctuations in surface and ground water levels.

(c) Utilize, preserve, restore, and enhance natural water management systems and discourage the channelization or other alteration of natural rivers, streams and lakes.

(5) Management Policies

(a) Protect the water storage and water quality enhancement functions of wetlands, floodplains, and aquifer recharge areas through acquisition, enforcement of laws, and the application of land and water management practices which provide for compatible uses.

(b) Emphasize the prevention of pollution and other water resource problems.

(c) Develop interstate agreements and undertake cooperative programs with Alabama and Georgia to provide for coordinated management of surface and ground waters.

Specific Authority 373.026(10), 373.036, 373.043, 403.06(13), 403.089 FS; Law Implemented 373.013, 373.014, 373.016, 373.028(7), 373.036, 373.039(1), 373.042, 373.043, 373.084, 373.085, 373.10(4), 373.114, 373.171, 373.173, 373.223, 373.413, 373.415, 373.416, 373.418, 373.451, 377.37(1)(c), 403.06(13), [34], 403.06(13), 403.064, 403.089 FS, Ch. 93-313, sec. 2, Laws of Florida. History—New 7-1-81; Formerly 17-40.02; Amended 12-5-88, Formerly 17-40.030, Amended 8-13-90, 12-17-91, Formerly 17-40.310, Amended 7-20-93.

PART IV RESOURCE PROTECTION AND MANAGEMENT

62-40.401 Water Use and Reuse.

Specific Authority 373.026, 373.043 FS; Law Implemented 187.101(3), 373.016, 373.039(1)[c], Part II of Ch. 373, 403.06(13) FS; History—New 5-3-81, Amended 2-4-82, Formerly 17-40.04, Amended 12-5-88, Formerly 17-40.040, Amended 8-14-90, 12-17-91, Formerly 17-40.401, Repealed 7-20-93.

62-40.410 Water Supply Protection and Management. The following shall apply to those areas where the use of water is regulated pursuant to Part II of Chapter 373, Florida Statutes:

(1) No permit shall be granted to authorize the use of water unless the applicant establishes that the proposed use is a reasonable-beneficial use, will not interfere with presently existing legal uses of water and is consistent with the public interest.

(2) In determining whether a water use is a reasonable-beneficial use, the following factors will be considered:

(a) The quantity of water requested for the use;

(b) The demonstrated need for the use;

(c) The suitability of the use to the source of water;

(d) The purpose and value of the use;

(e) The extent and amount of harm caused;

(f) The practicality of mitigating any harm by adjusting the quantity or method of use;
(g) Whether the impact of the withdrawal extends to land not owned or legally controlled by the user;
(h) The method and efficiency of use;
(i) Water conservation measures taken or available to be taken;
(j) The feasibility of alternative sources such as reclaimed water, stormwater, brackish water and salt water;
(k) The present and projected demand for the source of water;
(l) The long-term yield available from the source of water;
(m) The extent of water quality degradation caused;
(n) Whether the proposed use would cause or contribute to flood damage;
(o) Whether the proposed use would significantly induce saltwater intrusion;
(p) The amount of water which can be withdrawn without causing harm to the resource;
(q) Whether the proposed use would adversely affect public health; and
(r) Whether the proposed use would significantly affect natural systems.
(3) Water may be reserved from permit use in such locations and quantities, and for such seasons of the year, as is required for the protection of fish and wildlife or the public health or safety. Such reservations shall be subject to periodic review and revision in light of changed conditions. However, all presently existing legal users of water shall be protected so long as such use is not contrary to the public interest.
(4) Water use shall not be allowed to exceed ground water availability or surface water availability. If either is exceeded, the Districts shall expeditiously implement a remedial program. The remedial program shall consider options such as designation of a water resource caution area, declaration of a water shortage, development of water resource projects, regulation of consumptive water users, or other options consistent with this chapter and Chapter 373, F.S.
(5) In implementing consumptive use permitting programs, the Department and the Districts shall recognize the rights of property owners, as limited by law, to make consumptive uses of water from their land, and the rights of other users, as limited by law, to make consumptive uses of water, for reasonable-beneficial uses in a manner consistent with the public interest that will not interfere with any presently existing legal use of water.
(6) Permits authorizing consumptive uses of water which cause unanticipated significant adverse impacts on off-site land uses existing at the time of permit application, or on legal uses of water existing at the time of permit application, should be considered for modification, to curtail or abate the adverse impacts, unless the impacts can be mitigated by the permittee.
(7) The Districts shall determine whether Section 373.233, F.S., entitled "Competing Applications", and implementing rules, are applicable to pending applications.
(8) Any reallocation of an existing permitted quantity of water shall be reviewed by the District and shall be subject to full compliance with the applicable permitting criteria of the District.
62-40.412 Water Conservation. The overall water conservation goal of the state shall be to prevent and reduce wasteful, uneconomical, impractical, or unreasonable use of water resources. Conservation of water shall be required unless not economically or environmentally feasible. The Districts shall accomplish this goal by:
(1) Assisting local and regional governments and other parties in formulating plans and programs to conserve water to meet their long-term needs, including incentives such as longer term or more flexible permits, economic incentives, and greater certainty of supply during water shortages;
(2) Establishing efficiency standards for urban, industrial, and agricultural demand management which may include the following:
(a) Restrictions against inefficient irrigation practices;
(b) If a District imposes year-round restrictions, which may include variances or exemptions, on particular irrigation activities or irrigation sources, using a uniform time period of 10:00 a.m. to 4:00 p.m.;
(c) Minimizing unaccounted-for water losses;
(d) Promoting water-conserving rate structures;
(e) Water-conserving plumbing fixtures, strainers, and rain sensors.
(3) Maintaining public information and education programs for long- and short-term water conservation goals;
(4) Executing provisions to implement the above criteria and to consistently apply water shortage restrictions between those Districts whose boundaries contain political jurisdictions located in more than one District.
62-40.416 Water Reuse. (1) As required by Section 373.0391(2)(e), F.S., the Districts shall designate areas that have water supply problems which have become critical or are anticipated to become critical within the next 20 years. The Districts shall identify such water resource caution areas during preparation of a District Plan pursuant to Rule 62-40.520, F.A.C., and shall adopt and amend these designations by rule.
(2) In implementing consumptive use permitting programs, a reasonable amount of reuse of reclaimed water shall be required within designated water resource caution areas, unless objective evidence demonstrates that such reuse is
not economically, environmentally, or technically feasible.

(3) The Districts shall periodically update their designations of water resources caution areas by rule. Such updates shall occur within one year after updates of the District Plan prepared pursuant to Rule 62-40.520, F.A.C. After completion of the District Plan or updates pursuant to Rule 62-40.520, F.A.C., the Districts may limit areas where reuse shall be required to areas where reuse is specified as a remedial or preventive action pursuant to Rule 62-40.520, F.A.C. Any such limitation of areas where reuse shall be required shall be designated by rule.

(4) In implementing consumptive use permitting programs, a reasonable amount of reuse of reclaimed water from domestic wastewater treatment facilities may be required outside of areas designated pursuant to Rule 62-40.416(1), F.A.C., as subject to water supply problems, provided:

(a) Reclaimed water is readily available;

(b) Objective evidence demonstrates that such reuse is economically, environmentally, and technically feasible; and

(c) The District has adopted rules for reuse in these areas.

(5) The Department encourages local governments to implement programs for reuse of reclaimed water. The Districts are encouraged to establish incentives for local governments and other interested parties to implement programs for reuse of reclaimed water. These rules shall not be deemed to pre-empt any such local reuse programs.

Specific Authority 373.026, 373.042, 403.061(33), 403.062, 403.064 FS. Law Implemented 187.101(1), 373.016, 373.023(1), 373.039(2)(a), Part II of Ch. 373, 403.064 FS. History-New 7-20-93.

62-40.422 Interdistrict Transfer. The following shall apply to the transfers of surface and ground water where such transfers are regulated pursuant to Part II of Chapter 373, Florida Statutes:

(1) The transfer or use of surface water across District boundaries shall require approval of each involved District. The transfer or use of ground water across District boundaries shall require approval of the District where the withdrawal of ground water occurs.

(2) In deciding whether the transfer and use of surface water across District boundaries is consistent with the public interest pursuant to Section 373.223, Florida Statutes, the Districts should consider the extent to which:

(a) Comprehensive water conservation and reuse programs are implemented and enforced in the area of need;

(b) The major costs, benefits, and environmental impacts have been adequately determined including the impact on both the supplying and receiving areas;

(c) The transfer is an environmentally and economically acceptable method to supply water for the given purpose;

(d) The present and projected water needs of the supplying area are reasonably determined and can be satisfied even if the transfer takes place;

(e) The transfer plan incorporates a regional approach to water supply and distribution including, where appropriate, plans for eventual interconnection of water supply sources; and

(f) The transfer is otherwise consistent with the public interest based upon evidence presented.

(3) The interdistrict transfer and use of ground water must meet the requirements of Section 373.225, Florida Statutes.

Specific Authority 373.006, 373.043, 403.085 FS. Law Implemented 373.016, Part II of Ch. 373, 403.061(33), FS. History-New 5-3-81, Amended 17-40.05, 17-40.030, 17-40.402, 17-40.422, Amended 7-20-93.

62-40.430 Water Quality.

(1) Water quality standards shall be enforced pursuant to Chapter 403, Florida Statutes, to protect waters of the State from point and non-point sources of pollution.

(2) State water quality standards adopted by Department rule shall be a part of the Florida Water Plan.

Specific Authority 403.061, 373.026, 373.042, 403.085 FS. Law Implemented 373.016, 403.021 FS. History-New 3-5-81, Formerly 17-40.06, 17-40.060, 17-40.403, Formerly 17-40.430.

62-40.432 Surface Water Protection and Management.

(1) Surface Water Protection and Management Goals. The following goals are established to provide guidance for Department, District and local government stormwater management programs:

(a) It shall be a goal of surface water management programs to protect, preserve and restore the quality, quantity and environmental values of water resources. A goal of surface water management programs includes effective stormwater management for existing and new systems which shall seek to protect, maintain and restore the functions of natural systems and the beneficial uses of waters.

(b) The primary goals of the state's stormwater management program are to maintain, to the maximum extent practicable, during and after construction and development, the pre-development stormwater characteristics of a site; to reduce stream channel erosion, pollution, siltation, sedimentation and flooding; to reduce stormwater pollutant loadings discharged to waters to preserve or restore beneficial uses; to reduce the loss of fresh water resources by encouraging the reuse of stormwater; to enhance ground water recharge by promoting infiltration of stormwater in areas with appropriate soils and geology; to maintain the appropriate salinity regimes in estuaries needed to support the natural flora and fauna; and to address stormwater management on a watershed basis to provide cost effective water quality and water quantity solutions to specific watershed problems.

(c) Inadequate management of stormwater throughout a watershed increases stormwater flows...
and velocities, contributes to erosion and sedimentation, overtaxes the carrying capacity of streams and other conveyances, disrupts the functions of natural systems, undermines floodplain management and flood control efforts in downstream communities, reduces ground water recharge, threatens public health and safety, and is the primary source of pollutant loading entering Florida's rivers, lakes and estuaries, thus causing degradation of water quality and a loss of beneficial uses. Accordingly, it is a goal to eliminate the discharge of inadequately managed stormwater into waters and to minimize other adverse impacts on natural systems, property and public health, safety and welfare caused by improperly managed stormwater.

(d) It shall be a goal of stormwater management programs to reduce unacceptable pollutant loadings from older stormwater management systems, constructed before the adoption of Chapter 62-25, F.A.C., (February 1, 1982), by developing watershed management and stormwater master plans or District-wide or basin specific rules.

(e) The concept of developing comprehensive watershed management plans in designated watersheds is intended not only to prevent existing environmental, water quantity, and water quality problems from becoming worse but also to reduce existing flooding problems, to improve existing water quality, and to preserve or restore the values of natural systems.

(2) Watershed management goals shall be developed by the District for all watersheds within the boundaries of each District and shall be consistent with the Surface Water Improvement and Management (SWIM) program and the EPA National Pollutant Discharge Elimination System (NPDES) program. Watershed management goals shall be included in the District Water Management Plans.

(3) Stormwater Management Program Implementation. As required by Section 403.0891, F.S., the Department, Districts and local governments shall cooperate to implement on a watershed basis a comprehensive stormwater management program designed to minimize the adverse effects of stormwater on land and water resources. All such programs shall be mutually compatible with the State Comprehensive Plan (Chapter 187, Florida Statutes), the Local Government Comprehensive Planning and Land Development Regulation Act (Chapter 163, Florida Statutes), the Surface Water Improvement and Management Act (Sections 373.451—4595, F.S.), Chapters 373 and 403, F.S., and this chapter. Programs shall be implemented in a manner that will improve and restore the quality of waters that do not meet state water quality standards and maintain the water quality of those waters which meet or exceed state water quality standards.

(a) The Department shall be the lead agency responsible for coordinating the statewide stormwater management program by establishing goals, objectives and guidance for the development and implementation of stormwater management programs by the Districts and local governments. The Department shall implement the state's stormwater management program in Districts which do not have the economic and technical resources to implement a comprehensive stormwater and surface water management program.

(b) The Districts which have implemented a comprehensive stormwater and surface water management program shall be the chief administrators of the state stormwater management program. The Department or the Districts, where appropriate, shall set regional stormwater management goals and policies on a watershed basis, including watershed stormwater pollutant load reductions necessary to preserve or restore beneficial uses of receiving waters. For water bodies which fully attain their designated use and meet the applicable state water quality standards, the pollutant load reduction goal shall be zero. Such goals and policies shall be implemented through District SWIM plans, through preparation of watershed management plans in other designated priority watersheds and through appropriate regulations.

(c) Local governments shall establish stormwater management programs which are in accordance with the state and District stormwater quality and quantity goals. Local governments may establish a stormwater utility or other dedicated source of funding to implement a local stormwater management program which shall include the development and implementation of a stormwater master plan and provisions, such as an operating permit system, to ensure that stormwater systems are properly operated and maintained.

(d) Any water control district created pursuant to Chapter 298, F.S., or special act, and other special districts as defined in Section 189.403(1), F.S., which have water management powers shall:

1. Be consistent with the applicable local comprehensive plan, adopted under Part II, Chapter 163, F.S., and state and district stormwater quality and quantity goals, for the construction and expansion of water control and related facilities.

2. Operate existing water control and related facilities consistent with applicable state and district stormwater quality and quantity goals. Any modification or alteration of existing water control and related facilities shall be consistent with the applicable local government comprehensive plan and state and district stormwater quality and quantity goals.

(4) Surface Water Management. The following shall apply to the regulation of surface water pursuant to Part IV, Chapter 373, Florida Statutes. (a) The construction and operation of facilities which manage or store surface waters, or other facilities which drain, divert, impound, discharge into, or otherwise impact waters in the state, and the improvements served by such facilities, shall not be harmful to water resources or inconsistent with the objectives of the Department or District.
(b) In determining the harm to water resources and consistency with the objectives of the Department or District, consideration should be given to:
1. The impact of the facilities on:
   a. water quality;
   b. fish and wildlife;
   c. wetlands, floodplains, estuaries, and other environmentally sensitive lands;
   d. reasonable-beneficial uses of water;
   e. recreation;
   f. navigation;
   g. saltwater or pollution intrusion, including any barrier line established pursuant to Section 373.033, F.S.;
   h. minimum flows and levels established pursuant to Section 373.042, F.S.; and
   i. other factors relating to the public health, safety, and welfare;
2. Whether the facilities meet applicable design or performance standards;
3. Whether adequate provisions exist for the continued satisfactory operation and maintenance of the facilities; and
4. The ability of the facilities and related improvements to avoid increased damage to off-site property, water resources, natural systems or the public caused by:
   a. floodplain development, encroachment or other alteration;
   b. retardance, acceleration or diversion of flowing water;
   c. reduction of natural water storage areas;
   d. facility failure; or
   e. other actions adversely affecting off-site water flows or levels.
   (a) When a stormwater management system complies with rules establishing the design and performance criteria for stormwater management systems, there shall be a rebuttable presumption that such systems will comply with state water quality standards. The Department and the Districts, pursuant to Section 373.418, F.S., shall adopt rules that specify design and performance criteria for new stormwater management systems which:
1. Shall be designed to achieve at least 80 percent reduction of the average annual load of pollutants that would cause or contribute to violations of state water quality standards.
2. Shall be designed to achieve at least 95 percent reduction of the average annual load of pollutants that would cause or contribute to violations of state water quality standards in Outstanding Florida Waters.
3. The minimum treatment levels specified in subparagraphs 1. and 2. above may be replaced by basin specific design and performance criteria adopted by a District in order to achieve the pollutant load reduction goals established in paragraph (c).
(b) Erosion and sediment control plans detailing appropriate methods to retain sediment on-site shall be required for land disturbing activities.
(c) The pollutant loading from older stormwater management systems shall be reduced as necessary to restore or maintain the beneficial uses of waters. The Districts shall establish pollutant load reduction goals and adopt them as part of a SWIM plan, other watershed management plan, or District-wide or basin specific rules.
(d) Watershed specific stormwater pollutant load reduction goals shall be developed for older stormwater management systems on a priority basis as follows:
1. The Districts shall include in adopted SWIM Plans numeric estimates of the level of pollutant load reduction goals anticipated to result from planned corrective actions included in the plan.
   a. For SWIM water bodies with plans originally adopted before January 1, 1992, these estimates shall be established before December 31, 1994.
   b. For SWIM water bodies with plans originally adopted after January 1, 1992, these estimates shall be established within three years of the plan's original adoption date.
2. Each District shall develop water body specific pollutant load reduction goals for non-SWIM water bodies on a priority basis according to a schedule provided in the District Water Management Plan. The list of water bodies and the schedule shall be developed by each District, giving priority consideration to water bodies that receive discharges from stormwater management systems that are required to obtain a NPDES municipal stormwater discharge permit.
3. The Districts shall consider economic, environmental, and technical factors in implementing programs to achieve pollutant load reduction goals. These goals shall be considered in local comprehensive plans submitted or updated in accordance with Section 403.0891(3)(a), F.S. Specific Authority 373.026, 373.042, 373.418, 403.061, 403.087 F.S. Law Implemented 163.3161—168.2024, 188, 187, 373.046, 373.048, Part IV of Ch. 373. 403.061, 403.089 F.S. History—New 2-20-91. Formerly 17-40.420, 17-40.432, Amended 7-20-95.

62-40.450 Flood Protection. Flood protection shall be implemented within the context of other interrelated water management responsibilities. Florida will continue to be dependent on some structural water control facilities constructed in the past, and new structural facilities may sometimes be unavoidable in addressing existing and future flooding or other water-related problems. The Department and the Districts shall promote nonstructural flood protection strategies.

1. Flood Protection Responsibilities
   (a) Local governments have the primary responsibility for regulating land use, enforcing construction criteria for flood prone areas, establishing local stormwater management levels of service, constructing and maintaining local flood control facilities, and otherwise preventing flood damages to new and existing development.
(b) District flood protection responsibilities relate primarily to serving regional water conveyance and storage needs. Districts have the authority to plan, construct, and operate water control facilities, as well as regulate discharges into works of the District or facilities controlled by the District.

(c) Rules adopted under Part IV of Chapter 373, F.S., shall require that appropriate precautions be taken to protect public health and safety in the event of failure of any water control structures, such as pumps and levees.

(d) Department and District programs shall discourage siting of incompatible public facilities in floodplains and flood prone areas wherever possible. Where no feasible alternative exists to siting an incompatible public facility in a floodplain or flood prone area, the facility shall be designed to minimize flood damage risks and adverse impacts on natural flood detention and conveyance capabilities.

(e) Each District shall clearly define in its District Water Management Plan, in basin specific plans, or rules, the District’s responsibilities related to flood emergencies, including its mechanisms for coordinating with emergency response agencies.

(2) District Facilities

(a) District water control facilities shall be operated and maintained in accordance with established plans or schedules.

(b) Districts shall assess the design characteristics and operational practices of existing District water control facilities to ascertain opportunities for minimizing adverse impacts on water resources and associated natural systems. Where feasible, facility design modifications or operational changes shall be implemented to enhance natural systems or fulfill other water management responsibilities.

(c) Rules adopted under Part IV of Chapter 373, F.S., shall require that appropriate precautions be taken to protect public health and safety in the event of failure of any water control structures, such as pumps and levees.

(2) District Facilities

(a) District water control facilities shall be operated and maintained in accordance with established plans or schedules.

(b) Districts shall assess the design characteristics and operational practices of existing District water control facilities to ascertain opportunities for minimizing adverse impacts on water resources and associated natural systems. Where feasible, facility design modifications or operational changes shall be implemented to enhance natural systems or fulfill other water management responsibilities.

5.16.047 Floodplain Protection.

(1) The Department and the Districts shall provide leadership to protect and enhance the beneficial values of floodplains. This shall include active coordination with local governments, special districts, and related programs of federal agencies, the Department of Community Affairs, and the Department of Health and Rehabilitative Services. Nothing in this section is intended to diminish the Department’s and District’s responsibilities regarding flood protection.

(a) The Department and the Districts shall pursue development of adequate floodplain protection information, including:

1. District determination of flood levels for priority floodplains. At a minimum, this shall include the 10-year flood level, with other flood levels to be determined where needed for watershed-specific management purposes. Districts are encouraged to determine the 10-year flood level for the purpose of assisting the Department of Health and Rehabilitative Services to regulate septic tanks in floodplains pursuant to Section 10D-6.0471, F.A.C.

2. Identification of floodplains with valuable natural systems for potential acquisition.

3. Identification of floodplain areas having potential for restoration of natural flow regimes.

(b) The Department and the Districts shall develop jointly a comprehensive system of coordinated planning, management, and acquisition to protect and, where feasible, enhance floodplain functions and associated natural systems in floodplains. This system shall include implementation of policies and programs to:

1. Acquire and maintain valuable natural systems in floodplains.

2. Protect the natural water storage and water conveyance capabilities of floodplains.

3. Where feasible, enhance or restore natural flow regimes of rivers and watercourses that have been altered for water control purposes.

(c) District regulatory programs shall minimize incompatible activities in floodplains. For regulated floodplains, each District, at a minimum, shall ensure that such activities:

1. Will not result in significant adverse effects on surface and ground water levels and surface water flows.

2. Will not result in significant adverse impacts to existing surface water storage and conveyance capabilities of the floodplain.

3. Will not result in significant adverse impacts to the operation of District facilities.

4. Will assure that any surface water management facilities associated with the proposed activity will be capable of being effectively operated and maintained.

5. Will not cause violations of water quality standards in receiving waters.

6. Will not otherwise be harmful to water resources.

(2) Each District shall provide to local governments and water control districts available information regarding floodplain delineation and floodplain functions and associated natural systems, and assist in developing effective measures to manage floodplains consistently with this Chapter.


(1) As part of SWIM Plans or basin-specific management plans, programs, or rules, the Districts are encouraged to implement protection measures as appropriate to enhance or preserve surface water resources. Protection measures shall be based on scientific evaluations of particular surface waters and the need for enhancement or preservation of these surface water resources.

(2) In determining if basin-specific rules should be adopted to establish protection areas, due consideration shall be given to surface waters with the following special designations:

(a) an Outstanding Florida Water;
(b) an Aquatic Preserve;
(c) an Area of Critical State Concern, or
(d) an area subject to Chapter 380 Resource Management Plans adopted by rule by the Administration Commission, when the plans for an area include waters that are particularly identified as needing additional protection, which provisions are not inconsistent with applicable rules adopted for the management of such areas by the Department and the Governor and Cabinet.

Specific Authority 373.026(10), 373.043, 403.061(33) FS, Law Implemented 373.016(2), 373.026, 373.036(2), 373.0391, 373.042, 373.175, 373.223(3), 373.4135, 373.414, 373.418, 373.431, 373.471(11), 403.061(34), 403.061(35) FS, Ch. 93-213, sec. 2, Laws of Florida. History—New 7-20-95.


(1) In establishing minimum flows and levels pursuant to Section 373.042, consideration shall be given to the protection of water resources, natural seasonal fluctuations in water flows or levels, and environmental values associated with coastal, estuarine, aquatic, and wetlands ecology, including:

(a) Recreation in and on the water;
(b) Fish and wildlife habitats and the passage of fish;
(c) Estuarine resources;
(d) Transfer of detrital material;
(e) Maintenance of freshwater storage and supply;
(f) Aesthetic and scenic attributes;
(g) Filtration and absorption of nutrients and other pollutants;
(h) Sediment loads;
(i) Water quality; and
(j) Navigation.

(2) Established minimum flows and levels shall be protected where relevant to:

(a) The construction and operation of water resource projects;
(b) The issuance of permits pursuant to Part II, Part IV, and Section 373.086, Florida Statutes; and
(c) The declaration of a water shortage pursuant to Section 373.175 or Section 373.246, Florida Statutes.

(3) Each water management district shall advise the Secretary by January 1, 1995 of the date by which each District shall establish minimum flows and levels for surface waterbodies within the District. Priority shall be given to establishment of minimum flows and levels on waters which are located within:

(a) an Outstanding Florida Water;
(b) an Aquatic Preserve;
(c) an Area of Critical State Concern; or
(d) an area subject to Chapter 380 Resource Management Plans adopted by rule by the Administration Commission, when the plans for an area include waters that are particularly identified as needing additional protection, which provisions are not inconsistent with applicable rules adopted for the management of such areas by the Department and the Governor and Cabinet.

Specific Authority 373.026, 373.043, 403.061(33) FS, Law Implemented 373.016, 373.114(1), 373.414, 373.418, 373.431, 403.061(35) FS. History—New 7-20-95.

PART V WATER PROGRAM DEVELOPMENT

62-40.510 Florida Water Plan.

(1) The Department shall formulate an integrated, coordinated Florida Water Plan for the management of Florida’s water resources. The scope of the plan shall include the State Water Use Plan and all other water-related activities of the Department and the Districts. It shall give due consideration to the factors in Section 373.036(2), F.S.

(2) The Florida Water Plan shall be developed in coordination with District Water Management Plans and include, at a minimum:

(a) Department overview, including a discussion of the interrelationships of Department and District programs;
(b) Water management goals and responsibilities, including the following areas of responsibilities:
1. water supply protection and management,
2. flood protection and management,
3. water quality protection and management, and
4. natural systems protection and management;
(c) Statewide water management implementation strategies for each area of responsibility;
(d) Intergovernmental coordination, including the Department’s processes for general supervision of the water management districts;
(e) Procedures for plan development, including public participation;

Specific Authority 373.026, 373.043, 403.061(33) FS, Law Implemented 373.016, 373.026, 373.036(2), 373.086, 373.175, 373.223, 373.246, 373.413 FS. History—New 5-5-91, Formerly 17-40.31, Amended 1-2-88, Formerly 17-40.080, 17-40.405, Formerly 17-40.473, Amended 7-20-95.
(f) Methods for assessing program effectiveness and the Department's progress toward implementation of the Plan;
(g) Linkages to Department rulemaking, budgeting, program development, and legislative proposals;
(h) Strategies to identify the amount and sources of supplemental funding to implement the programs identified in Chapter 373, District Water Management Plans, this Chapter, and any delegated programs;
(i) Chapter 62-40, F.A.C., State Water Policy;
(j) Appropriate sections of the District Water Management Plans;
(k) State water quality standards.

(3) The Florida Water Plan shall be developed expeditiously and may be phased. It shall be completed by November 1, 1993.

(4) At a minimum, the Florida Water Plan shall be updated every five years after the initial plan development. Annual status reports on the Plan shall also be prepared by the Department.

62-40.520 District Water Management Plans

(1) As required by Section 373.036(4), F.S., a long range comprehensive water management plan shall be prepared by each District which is consistent with the provisions of this Chapter and Section 373.036, Florida Statutes. District Water Management Plans are comprehensive guides to the Districts in carrying out all their water resource management responsibilities, including water supply, flood protection, water quality management, and protection of natural systems. The plans shall provide general directions and strategies for District activities, programs, and rules. They will be implemented by a schedule of specific actions of the District, which may include program development, water resource projects, land acquisition, funding, technical assistance, facility operations, and rule development.

(2) The District Plan shall include an assessment of water needs and sources for the next 20 years. The District Plan shall identify specific geographical areas that have water resource problems which have become critical or are anticipated to become critical within the next 20 years to be called water resource caution areas. Identification of water resource caution areas needed for imposition of reuse requirements pursuant to Rule 62-40.416, F.A.C., may be accomplished before publication of the complete District Plan.

(3) Based on economic, environmental, and technical analyses, a course of remedial or preventive action shall be specified for each current and anticipated future problem.

(4) Remedial or preventive measures may include, but are not limited to, water resource projects; water resources restoration projects pursuant to Section 403.0613, Florida Statutes; purchase of lands; conservation of water; reuse of reclaimed water; enforcement of Department or District rules; and actions taken by local government pursuant to a local government comprehensive plan, local ordinance, or zoning regulation.

(5) District Plans shall also provide for identifying areas where collection of data, water resource investigations, water resource projects, or the implementation of regulatory programs are necessary to prevent water resource problems from becoming critical.

(6) District plans shall address, at a minimum, the following subjects:
(a) District overview;
(b) Water management goals;
(c) Water management responsibilities, including:
1. Water supply protection and management, to include needs and sources, source protection, and a schedule for recharge mapping and recharge area designation;
2. Flood protection and floodplain management. This shall include the District's strategies and priorities for managing facilities and floodplains, and a schedule for District mapping of floodplains;
3. Water quality protection and management for both surface water and ground water. This shall include the District's strategies, priorities, and schedules to develop pollutant load reduction goals; and
4. Natural systems protection and management. This shall include a schedule for establishing minimum flows and levels for a priority selection of surface waters and ground waters in the District, considering ground water availability and surface water availability, and a schedule for establishing protection areas for surface waters in the District, where appropriate.
(d) For each water management responsibility, the following shall be included:
1. Resource assessments, including identification of regionally significant water resource issues and problems, and determinations of the need for ground water basin resource availability inventories in various portions of the District;
2. Evaluation of options;
3. Water management policies for identified issues and problems;
4. Implementation strategies for each issue and problem, including tasks, schedules, responsible entities, and measurable benchmarks.
(e) Integrated plan, describing how the water problems of each county in the District are identified and addressed;
(f) Intergovernmental coordination, including measures to implement the plan through coordination with the plans and programs of local, regional, and federal agencies and governments; and
(g) Procedures for plan development, including definitions and public participation.

(7) District Plans shall be developed expeditiously and may be phased. All District Plans shall be accepted by the Governing Board no later than November 1, 1994. A District Water Management Plan shall be prepared by each District which is consistent with the provisions of this Chapter and Section 373.036, Florida Statutes. This plan shall be submitted to the Department of Environmental Protection no later than November 1, 1994.

62-40.416 (5, 6)
Management Plan is intended to be a planning document and is not self-executing.
(8) At a minimum, District Plans shall be updated and progress assessed every five years after the initial plan development. Each District shall include in the Plan a procedure for evaluation of the District’s progress towards implementing the Plan. Such procedure shall occur at least annually and a copy of the evaluation shall be provided to the Department each year by November 15 for review and comment.

(9) Plan development shall include adequate opportunity for participation by the public and governments. The Districts shall initiate public workshops not least four months before Plan acceptance by the Governing Board. At the workshops, a preliminary list of schedules to be included in the Plan shall be presented.


(1) After acceptance by the District Governing Board, District Water Management Plans shall be submitted to the Department.
(2) Within sixty days after receipt of a Plan for review, the Department shall review each Plan for consistency with this Chapter and recommend any changes to the Governing Board.
(3) After consideration of the comments and recommendations of the Department, the Governing Board shall, within sixty days, either incorporate the recommended changes into the Plan or state in the Plan, with specificity, the reasons for not making changes.
(4) Plan amendments shall follow the same process as for initial Plan acceptance.

Specific Authority 373.026(10), 373.043 FS. Law Implemented 373.026(7), 373.036(4), 373.114 FS. History—New 7-20-95.

62-40.540 Water Data.
(1) All local governments, water management districts, and state agencies are directed by Section 373.026(2), F.S., to cooperate with the Department in making available to the Department such scientific or factual data as they may possess. The Department shall prescribe the format and ensure the quality control for all water quality data collected or submitted.
(2) The Department is the state’s lead water quality monitoring agency and central repository for surface water and ground water information. The Department shall coordinate Department, District, state agency, and local government water quality monitoring activities to improve data and reduce costs.
(3) The U.S. Environmental Protection Agency water quality data base (STORET) shall be the central repository of the state’s water quality data.

All appropriate water quality data collected by the Department, Districts, local governments, and state agencies shall be placed in the STORET system within one year of collection.
(4) The Department’s biennial state water quality assessment (the "305(b) Report") shall be the state’s general guide to water quality assessment and should be used as the basis for assessments unless more recent, more accurate, or more detailed information is available.
(5) Appropriate monitoring of water quality and water withdrawal shall be required of permittees.
(6) The Districts shall implement a strategy for measuring, estimating, and reporting withdrawal and use of water by months and calendar years. Thresholds for measurement requirements and reporting applicable to permittees shall be established and adopted by rule.
(7) The Department and the Districts shall coordinate in the development and implementation of a standardized computerized statewide data base and methodology to track activities authorized by environmental resource permits in wetlands and waters of the state. The data base will be designed to provide for the rapid exchange of information between the Department and the Districts. The Department will serve as the central repository for environmental resource permit data and shall specify the data base organization and electronic format in which the data are to be provided by the Districts.

Specific Authority 373.026, 373.043, 403.061(4), FS. Law Implemented 373.026(2) FS. History—New 7-20-95.

PART VI WATER PROGRAM ADMINISTRATION AND EVALUATION

62-40.610 Review and Application.
(1) This Chapter shall be reviewed periodically, but in no case less frequently than once every four years. Revisions, if any, shall be adopted by rule.
(2) Within 12 months after adoption or revision of this Chapter, the Districts shall have revised their rules and reviewed their programs to be consistent with the provisions contained herein.
(3) District rules adopted after this Chapter takes effect shall be reviewed by the Department for consistency with this Chapter.
(4) At the request of the Department, each District shall initiate rulemaking pursuant to Chapter 120, Florida Statutes, to consider changes the Department determines to be necessary to assure consistency with this Chapter. The Department shall be made a party to the proceeding.
(5) District water policies may be adopted which are consistent with this Chapter, but which take into account differing regional water resource characteristics and needs.
(6) A District shall initiate rulemaking or program review to consider implementation of programs pursuant to Sections 373.013, 373.042, 373.106, Part II, Part III, or Part IV of Chapter 373, Florida Statutes, where the Department or District determines that present or projected
conditions of water shortages, saltwater intrusion, flooding, drainage, or other water resource problems, prevent or threaten to prevent the achievement of reasonable-beneficial uses, the protection of fish and wildlife, or the attainment of other water policy directives.

(7) The Department and Districts shall assist other governmental entities in the development of plans, ordinances, or other programs to promote consistency with this Chapter and District water management plans.

ATTACHMENT B

CONCEPT for RATE MITIGATION CREDIT
ATTACHMENT B

Concept for Rate Mitigation Credit

Maximum credit will be given to those who attenuate the flow from developed sites for the 100-year, 24-hour storm so that the pre-developed peak flow is not exceeded. Many facilities will fall short of obtaining this maximum credit. However, since some attenuation is provided for lesser storms, some credit is available.

The credit assigned should not be based on relative rainfall depths or peak runoff rates, but rather the detention volume which would be required to attenuate the flow. The following analysis is based on a typical ESU of 2,165 square feet of impervious area. Additionally, the mean pervious area, 6,864 square feet, is included to represent an actual development.

The analysis assumes a hypothetical 160-acre site in a natural (woods/grass) state underlain by Type “B” soils with Antecedent Moisture Condition II. Peak flows for the 10-year, 25-year and 100-year, 24-hour storms are then determined. These are the respective allowable discharges for the developed condition.

This hypothetical site is developed into approximately 772 ESUs. Retention volume for pollution abatement is determined to be 6.6 acre-feet. The following figure shows how retention volume is depicted on the site’s post-development inflow hydrograph. This volume of 6.6 acre-feet is the same regardless of the design storm analyzed.

All of the area beneath the inflow hydrograph after the retention volume is filled represents the total outflow volume. A hypothetical outflow hydrograph is simply a straight line connecting the time at which outflow can begin to occur to the allowable discharge on the receding limb of the inflow hydrograph. The area below the inflow hydrograph and above the hypothetical outflow hydrograph excluding retention is the attenuation volume.
For the 100-year storm, the attenuation volume is determined to be 37.6 acre-feet. For the 10-year and 25-year storms, the volumes are 25.2 and 28.5 acre-feet, respectively. Therefore, the rate mitigation factor for attenuating the 10-year storm is:

\[
\frac{25.2 \text{ acre-feet}}{37.6 \text{ acre-feet}} \times 100 = 67\%
\]

The rate mitigation factor for attenuating the 25-year storm is:

\[
\frac{28.5 \text{ acre-feet}}{37.6 \text{ acre-feet}} \times 100 = 76\%
\]
Hydrograph for Rate Mitigation Curve Development

- Flow (cfs)
- Time (hours)
- Retention Volume
- Attenuation Volume
- Outflow Volume
ATTACHMENT C

DEVELOPMENT / MITIGATION SCENARIOS
ATTACHMENT C

Development / Mitigation Scenarios

The following section provides a variety of development/mitigation scenarios:

The percentages being used in this example can vary by watershed. The weighted percentages are:

- Quality = 40%
- Rate = 20%
- Quantity = 40%

The resulting formula is:

\[(\text{Quality Weight})(\text{Percentage}) + (\text{Rate Weight})(\text{Percentage}) + (\text{Quantity Weight})(\text{Percentage}) = \text{Mitigation Credit}\]

\[(40\%)(P_{\text{quality}}) + (20\%)(P_{\text{rate}}) + (40\%)(P_{\text{quantity}}) = \text{Mitigation Credit}\]

**Example 1:** The property owner has a pond that retains one inch of runoff and attenuates the 25-year storm.

\[(40\%)(80\%) + (20\%)(76\%) + (40\%)(37\%) = 62\%\]

**Example 2:** The property owner has a pond that retains one inch of runoff and attenuates the 100-year storm.

\[(40\%)(80\%) + (20\%)(100\%) + (40\%)(37\%) = 66.8\%\]

**Example 3:** The property owner has a pond that retains 1.5 inches of runoff and attenuates the 25-year storm event.

\[(40\%)(90\%) + (20\%)(76\%) + (40\%)(51\%) = 71.6\%\]
Example 4: The property owner has a wet detention pond which stores 1 inch of rainfall and attenuates the 100-year storm event.

\[(40\%)(80\%) + (20\%)(100\%) + (40\%)(0\%) = 52\%\]

Example 5: The property owner has a wet detention pond which stores 1 inch of rainfall and attenuates the 25-year storm event.

\[(40\%)(80\%) + (20\%)(76\%) + (40\%)(0\%) = 47.2\%\]
ATTACHMENT D

MITIGATION CREDIT APPLICATION
FORM AND PROCEDURES
Credits are given to those individuals who implement stormwater control practices which further the County's stormwater control goals. Orange County has identified three aspects of stormwater control that are important to protect the health, safety and public welfare of its citizens. These goals are related to water quality, peak flow rate attenuation, and water quantity or volume. Each identified objective has been studied in depth to ensure an equitable allocation of mitigation credits to those who control their stormwater runoff. The graphs and tables in the mitigation credit policy literature have been simplified to the maximum extent feasible while still maintaining technical accuracy and financial equitability. The following procedures for obtaining the mitigation credit have been developed to assist applicants with gathering the necessary data. The plan is designed such that a new engineering study will not be needed in most instances.

**Water Quality Credit**

The best information to provide to the County is a previously completed engineering report. This report must include:

1. Total area treated by the stormwater facility is required.

2. Coefficient of imperviousness or acres of pervious and impervious area. If the site-specific coefficient of imperviousness is not available, then a coefficient of imperviousness will be computed from the area information using the following formula:

   \[
   \frac{[\text{Impervious Area} \times (0.9) + \text{Pervious Area} \times (0.2)]}{\text{Impervious Area} + \text{Pervious Area}}
   \]

3. The volume of the retention pond or the detention pond depending on the facility used. Retention volume should be measured from the lowest outflow point to the starting water level before the storm event. The detention volume should be measured from the main weir crest to the starting water level before the storm event or 1.5 feet whichever is lower.

Table 1 and Figure 1 in the Mitigation Credit Policy will be used to compute the credit.

- For Retention Ponds, the horizontal or x-axis number is computed by the following formula:

   \[
   \text{Retention } x \text{ - Axis} = \frac{\text{Retention Volume}}{\text{[(Site Area) \times (Coefficient of Imperviousness)]}}
   \]
For Detention Ponds, the horizontal or x-axis is computed by the following formula:

\[
\text{Detention X - Axis} = \frac{\text{Detention Volume}}{\text{Site Area}}
\]

No Engineering Report Available

If an engineering report is not available, the volume can be manually measured either by the applicant or the applicant’s appointed representative (more than likely a surveyor).

1. Total area treated by the stormwater facility
   a. If the entire parcel is treated by the facility, then the area in the County’s database can be used to compute the area.
   b. If only a portion of the parcel is treated by the facility, then the area may be computed by either outlining the area on an aerial map and planimetering the information or surveying and hand measuring the contributing area.

2. Coefficient of Imperviousness

The impervious and pervious areas of the site are needed. This information can be obtained in the following ways:

   a. The impervious area can be taken from the County’s database. Subtract this impervious area by the total contributing area calculated above, yielding the pervious area. The coefficient of imperviousness will now be computed from the area information using the following formula:

\[
\frac{[\text{Impervious Area} \times (0.9) + \text{Pervious Area} \times (0.2)]}{\text{Impervious Area} + \text{Pervious Area}}
\]

   b. If the applicant believes the County’s database to be in error the applicant may survey and hand measure the impervious areas or use an aerial map and planimeter the desired areas. The formula presented above will be used to compute the actual coefficient of imperviousness.

3. Volume of Retention or Detention Pond

3A. Retention Pond Volume

The volume of the retention pond is to be measured from the lowest outflow point down to the starting water level before the storm event.

   a. The area at the starting or normal water level should be measured by surveying and hand calculations. A typical rectangular pond’s area can be found by measuring the length and width of the pond at the starting
water level. The length and width measurements should then be multiplied, yielding the starting water level area of the pond.

b. The same process described in (a) above should be performed at the lowest point where water begins to flow out of the pond. This area will be called the control level elevation.

c. The vertical distance between the starting water level and the control elevation should be measured using a tape measure.

- The retention volume is then computed using the following formula

\[
\text{Retention Volume} = (\text{Starting Area} + \text{Control Area})/2 \times \text{Depth}
\]

or \((a + b)/2 \times c\)

- Table 1 and Figure 1 in the Mitigation Credit Policy will be used to compute the credit.

- For Retention Ponds, the horizontal or x-axis number is computed by the following formula:

\[
\text{Retention X - Axis} = (\text{Retention Volume})/((\text{Site Area}) \times (\text{Coefficient of Imperviousness}))
\]

3B. Detention Pond Volume

The volume of the detention pond should be measured from the main weir crest to the starting water level before the storm event. The maximum distance allowed is 1.5 feet.

a. The area at the starting or normal water level should be measured by surveying and hand calculations. A typical rectangular pond's area can be found by measuring the length and width of the pond at the starting water level. The length and width measurements should then be multiplied, yielding the starting water level area of the pond.

b. The same proceed described in (a) above should be performed at the main weir crest level. This area will be called the weir crest elevation.

c. The vertical distance between the starting water level and the top of bank elevation should be measured using a tape measure. The maximum allowable height is 1.5 feet.
The detention volume is then computed using the following formula:

\[
\text{Detention Volume} = \frac{(\text{Starting Area} + \text{Top of Bank Area})}{2} \times \text{Depth} \\
\text{or} \quad \frac{(a + b)}{2} \times c
\]

- Table 1 and Figure 1 in the Mitigation Credit Policy will be used to compute the credit.

- For Detention Ponds the horizontal or x-axis is computed by the following formula:

\[
\text{Detention X - Axis} = \frac{(\text{Detention Volume})}{(\text{Site Area})}
\]

NOTE: Area of irregular shaped ponds can be planimetered from aerial maps. The volume computed may be highly inaccurate, especially for smaller ponds.

4. Range Management Practices - Another way to receive quality credit is to demonstrate the incorporation of activities outlined in the Range Management Plan Summary. The point system described therein will be used to award this credit.

Peak Rate Attenuation Rate Credit

The best information to provide to the County is a previously completed engineering report.

1. The design storm event for which peak flow rate attenuation is occurring, such as the 25-year, 24-hour storm or the 10-year, 24-hour storm. This information most come from an engineering report.

2. A second way to receive this credit is to retain a specified storm on site. If no runoff flows offsite during a specific storm event, rate mitigation credit will be given for that storm event. This information preferably should come from an engineering report. However, if a volume of pure retention is four inches over the entire site, credit will be given for attenuating the 25-year storm event.

3. The third way to receive rate credit is to demonstrate the incorporation of activities outlined in the Range Management Plan Summary. The point system described therein will be used to award this credit.

- Table 2 and Figure 2 in the Mitigation Credit Policy literature should then be used to calculate the awarded credit.
It is very difficult to receive this credit without an engineering report. The only consolation is that this credit is weighted less in the calculation of the total credit. Therefore, the overall effects of not having this information is negligible in the total mitigation credit.

Water Quantity or Volume Credit

Water quantity credit is only given when pure retention is occurring. This means that no water ever flows off the site. No bleed down structures exist; all water is either evaporated, percolated or transpirated.

The retention pond volume calculated for water quality is the same number used to calculate the water quantity credit. The retention volume is divided by the contributing area. The number in units of inches over the contributing area, is then taken to Table 3 and Figure 3 to calculate the Water Quantity Mitigation Credit.

Another way to receive quantity credit is to demonstrate the incorporation of activities outlined in the Range Management Plan Summary. The point system described therein will be used to award this credit.
ATTACHMENT E

MITIGATION CREDIT
IMPLEMENTATION PROCEDURES
Credits are given to parcels which improve water quality, reduce peak flow rate, and reduce runoff volume. The following procedures for obtaining the mitigation credit have been developed to assist applicants with gathering the necessary data. The plan is designed so that a new engineering study will not be needed in most instances. The attached form has been prepared to assist in assigning mitigation credit to deserving property owners.

The questionnaire asks for identification and descriptive information. The following discusses the information requested on the sheet in the order in which it is presented. Direct any questions to the Stormwater Management Department (836-7775) unless otherwise noted.

The tax identification number can be obtained from your tax notice or from the Property Appraiser's Office (836-5044).

The entire area of the parcel can be obtained from the tax notice or the Property Appraiser's Office (836-5044).

The area treated by the parcel is normally the same as the entire site area. If different, this information could come from contoured aerial mapping. A pond on the highest part of the property receiving little or no runoff will receive less credit than a pond at the bottom of a hill receiving a larger portion of runoff.

Impervious Area can be obtained from the Property Appraiser's Office (836-5044). It can also be manually measured if you believe the current information is inaccurate. Be sure to check the amount of impervious area the County has on file for your property.

Directly Connected Impervious Area is a fairly technical term that describes the amount of impervious area that would drain directly to a County system without ever draining across grassed areas first. If your property consists of relatively small impervious areas in the middle a larger grassed or wooded areas, it may be worth your time to add this information to the form. Generally, if your property is less than about 25% impervious, and 40% or more of this impervious area drains across grassed or wooded areas, then your stormwater utility fee may be reduced.
An important aspect of the credit policy is the size of ponds or lakes on the property. There are three acceptable ways to compute the volume of the ponds.

A. Manually measure the lake or pond. First, measure at the normal water level or water level before a storm occurs. Second, measure at the point at which water would first begin to flow out of the pond, normally through an orifice, weir or pipe. Third, at the top of the pond. In situations where no control structure exists, the second and third measurements will be equal. The vertical distance between these three locations is also needed.

B. Contoured aerial maps that show the pond in question can also provide the area data. These can be obtained from Orange County (836-7939), Natural Resources Conservation Service (896-0353) (quad sheets, only), St. Johns River Water Management District ((904) 329-4127) or the South Florida Water Management District ((561) 687-6464). The section, township and range are needed to order the map.

C. The volume information can also be provided directly by an engineering report in terms of acre-feet or cubic feet of storage provided.

Rate attenuation credit is extremely difficult to obtain without an engineering report. If a report is not available and you believe that you control the water from a particular storm event, then the County will assign credit on a case-by-case basis. In general, individuals will be required to store large amounts of water on site in order to receive this credit without a report.

In addition to the information requested, the following information would be of assistance: 1) A contoured aerial topographic map of the site; 2) A Building Permit; 3) A Water Management District Permit; and, 4) Pictures showing the direction of water flow.

For additional information, contact:

ORANGE COUNTY STORMWATER MANAGEMENT DEPARTMENT
4200 South John Young Parkway
Orlando, Florida 32839-9205
(407) 836-7775
MITIGATION CREDIT APPLICATION FORM
ORANGE COUNTY, FLORIDA

Name: ___________________________ Date: ___________________

Address: ________________________________________________

City: __________________ State: __________ Zip: __________

Phone Number: ____________________(day) __________________(evening)

Tax Identification Number: (RR-TT-SS-SUBD-PARCE): _________________________

Description of Property (land use, buildings, parking, etc.): ________________________

___________________________________________________________________________

___________________________________________________________________________

Description of Stormwater Facilities (ponds, swales, lakes, etc.): ___________________

___________________________________________________________________________

___________________________________________________________________________

Receiving Water Body (Where does the water go?): ________________________________

___________________________________________________________________________

___________________________________________________________________________

Entire Area of Parcel (acres): _________________________________________________

Area of Parcel treated by Stormwater Facility (acres): _____________________________
Impervious Area including buildings, paved surfaces, sidewalks etc. (Square Feet): ______________

Directly Connected Impervious Area (of the impervious area, how much is draining directly to a county system?) (Square Feet): _______________________(optional)

POND VOLUME - PROVIDE EITHER A, B OR C

A. At normal water level: _______ Pond Length (feet):_______ Pond Width (feet):_______
   At out-flow water level: _______ Pond Length (feet):_______ Pond Width (feet):_______
   At top of pond level: _______ Pond Length (feet):_______ Pond Width (feet):_______
   Vertical distance between normal water level and out-flow water level: ______________________
   Vertical distance between out-flow level and top of pond: ______________________

B. Contoured Aerial Map showing pond(s)

C. Volume from normal water level to out-flow level (acre-feet): ______________
   Volume from out-flow level to top of pond (acre-feet): _______ (From engineering report)

RATE ATTENUATION (CREDIT GIVEN BASED ON ENGINEERING DESIGNS)

Attenuated Design Storm (circle) 10-Year 25-Year 100-Year Unknown Other ______

Mail form and any applicable information to:
STORMWATER MANAGEMENT DEPARTMENT
4200 South John Young Parkway
Orlando, Florida 32839-9205,
Attn: Mitigation Credit Review
Or fax the form to: (407) 836-7770

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