**LEASE AGREEMENT (SUGAR CANE)**

**BETWEEN**

**SOUTH FLORIDA WATER MANAGEMENT DISTRICT**

**AND**

**UNITED STATES SUGAR CORPORATION**

This **LEASE AGREEMENT** (this "**LEASE**"), is entered into BETWEEN (herein called the "**Parties**" and each a "**Party**"): the SOUTH FLORIDA WATER MANAGEMENT DISTRICT, a public corporation of the State of Florida, with its principal office at 3301 Gun Club Road, West Palm Beach, Florida 33406, and whose mailing address is Post Office 24680, West Palm Beach Florida 33416-4680, as **LESSOR** ("**LESSOR**"); and UNITED STATES SUGAR CORPORATION, a Delaware corporation, **as LESSEE** ("**LESSEE**"), with a mailing address of 111 Ponce DeLeon Avenue, Clewiston, Florida 33440.

WITNESSETH:

**WHEREAS**, the **LESSOR** is an agency of the State of Florida created by the Florida Legislature and given those powers and responsibilities enumerated in Chapter 373, Florida Statutes.

**WHEREAS**, the **LESSOR** is empowered to enter into contracts with public agencies, private corporations or other persons, pursuant to Section 373.083, Florida Statutes.

**WHEREAS**, the **LESSOR** is empowered to lease lands or interests in land, to which the **LESSOR** has acquired title, pursuant to Section 373.093, Florida Statutes.

**WHEREAS, LESSEE**, as seller, and **LESSOR**, as buyer, have entered into that certain Second Amended and Restated Agreement for Sale and Purchase dated as of August *__*, 2010 (the "Agreement for Sale and Purchase") for certain real property located in Hendry and Palm Beach Counties, Florida, as described therein (the "Purchased Premises"). Unless otherwise defined herein, all capitalized terms used in this **LEASE** shall have the meanings assigned to the same in the Agreement for Sale and Purchase.

**WHEREAS**, concurrently herewith and pursuant to the Agreement for Sale and Purchase, **LESSOR** has acquired the Purchased Premises, which includes, among other real property, the real property described in **Exhibit "A"** attached hereto (the "Premises").

**WHEREAS**, pursuant to the Agreement for Sale and Purchase, **LESSOR** has agreed to lease the Premises to **LESSEE** for the Permitted Uses (as defined in **Paragraph 2.B.**) subject to

the terms and conditions set forth herein and **LESSEE** has represented to **LESSOR** that it is qualified in all respects to operate the Premises under the Permitted Uses.

**WHEREAS**, the Governing Board of **LESSOR**, at its 2010, meeting has authorized entering into this **LEASE** with **LESSEE**.

**WHEREAS,** the Board of Directors of **LESSEE,** at its August, 2010, meeting has duly authorized each **LESSEE** entering into this **LEASE** with **LESSOR**.

[*NOTE – IN THE EVENT THAT OPTION PROPERTY IS ACQUIRED BY THE DISTRICT PURSUANT TO THE OPTION, THESE RECITALS MAY BE REVISED TO REFLECT FINANCING STRUCTURE*]

**NOW THEREFORE,** in consideration of the duties, responsibilities, obligations and covenants herein contained to be kept and performed by the **LESSEE**, the **LESSOR** does hereby lease to the **LESSEE** the Premises in accordance with the following terms, conditions, covenants and provisions:

1. **Recitals:** The foregoing recitals are true and correct and are hereby incorporated herein by reference.

2. **Use of Premises:**

A. **LESSOR** and **LESSEE** acknowledge that none of the crops (e.g., sugar cane), crop products or cane stubble are owned by **LESSOR** but shall be continued to be owned by **LESSEE;** provided however that any cane stubble existing on the Premises, as of the Expiration Date (as defined below) shall become the property of **LESSOR** in accordance with Paragraph 22. **LESSEE** may utilize the Premises solely for the Permitted Uses in accordance with the terms, conditions, covenants and provisions of this **LEASE. LESSEE** will not use or permit any use or entry upon the Premises for any other purpose. **LESSEE's** use of the Premises for the Permitted Uses shall be in accordance with the Best Management Practices (as defined below) and consistent with the industry standards. The Premises, including the improvements located thereon are being leased in their "AS IS", "WHERE IS" and "WITH ALL FAULTS" condition. **LESSEE** has examined the Premises to its complete and total satisfaction and is familiar with the condition thereof, and accepts the same in their present condition. **LESSOR** has made no representations or warranties to **LESSEE** respecting the condition of the Premises. **LESSEE** has had an adequate opportunity to investigate the zoning of the Premises and is satisfied that it can use the Premises in the manner required by this paragraph. **LESSOR** makes no warranty or representation as to the use or potential use to which the Premises may be put.

B. For the purposes of this **LEASE,** the term "Permitted Uses" shall mean the following: (a) all agricultural operations on the Premises, (b) **LESSEE's** historical business of planting, cultivating, farming, growing, harvesting, storing, fertilizing, transporting and removing sugar cane; (c) all uses incidental or related to the uses described in clause (b) above, including, without limitation, (i) the planting, cultivating, farming, growing, harvesting, fertilizing, removing, using and selling of appropriate rotation crops and related nursery operations, (ii) the operation of existing railroads adjacent to the Premises and (iii) preexisting residential uses; (d) rock mining as otherwise has been conducted by **LESSEE** solely for use on

the Premises (and not for sale to any third party) in connection with its business operations; (e) tenant farming operations; (f) any other historical business operations of **LESSEE** related or ancillary to the agricultural business operations described in clause (b) above or other agreements or leases that are in existence as of the Commencement Date; and (g) any other uses not otherwise described herein for which **LESSEE** obtains **LESSOR's** prior written approval, which approval may be withheld in **LESSOR's** sole and absolute discretion.

C. During the Lease Term, **LESSEE** shall maintain its current level of security for the Premises.

D. Furthermore, **LESSEE** shall control and eradicate to the extent practicable, and shall prevent infestation of, Category I and Category II exotic/invasive pest plants and Class I & II prohibited aquatic plants as described on **Schedule "1"** and **Schedule "2"** attached hereto and made a part hereof ("Exotic Pest Plants"). The sale of any Exotic Pest Plants is strictly prohibited and shall be sufficient cause for immediate termination of this **LEASE. LESSEE** agrees that its use and occupancy of the Premises shall result in the land being managed and maintained in accordance with applicable Best Management Practices, provided, however, that in no event shall such Best Management Practices or the terms of this **LEASE** require **LESSEE** to remove Exotic Pest Plants from the Premises to the extent such removal is not consistent with past practices of **LESSEE** on the Premises.

E. **LESSEE** shall neither hunt, trap or capture any wildlife upon the Premises nor allow others to do so; provided, however, **LESSEE** through its principals, contractors and employees may control nuisance wildlife in compliance with all state laws.

F. Prescribed burning on the Premises may be done by **LESSEE** provided that each such prescribed burning shall: (a)(i) have been requested by **LESSEE** in writing, (ii) be approved by **LESSOR** in writing, and (iii) be managed by a state approved burn manager; or (b) be conducted without **LESSOR's** consent or notification, so long as such controlled burning is regulated under the Division of Forestry's burning program, including the programs for sugar cane burning, agricultural container burning, etc. **LESSEE** shall not otherwise knowingly or deliberately set or cause to be set any fire or fires on the Premises.

G. There shall be no fertilization of the Premises, except for fertilization that is in compliance with the applicable Best Management Practices. Additionally there shall be no alterations, improvements or modifications of rangelands, wetlands, swamps or pastures of the Premises (including but not limited to mowing, chopping, disking, plowing, ditching, or digging water holes), other than (i) as is common in the industry, consistent with **LESSEE**'s past practices and specifically allowed in the Best Management Practices, or (ii) is otherwise consented to in writing by **LESSOR**, which consent may be withheld in **LESSOR's** sole and absolute discretion. **LESSEE** shall not cut or remove any standing green or fallen timber from the Premises, other than in the ordinary course of **LESSEE**'s business consistent with past practices. **LESSEE** shall not, for any purpose, drive nails, spikes or staples into or otherwise deface or mar any tree on the Premises.

H. The application of herbicides, pesticides, or agricultural chemicals with respect to the Premises, shall comply with the applicable Best Management Practices and shall be limited to those chemicals specified therein.

I. Intentionally Deleted.

J. **LESSEE** shall adhere to all management practices described in **Schedule "3"** attached hereto and made a part hereof with respect to the Premises ("Best Management Practices").

K. **LESSEE** shall at all times during the Lease Term continuously commence and continue all applicable planting and cultivation of the sugar cane crops, as and to the extent typically performed by **LESSEE** in **LESSEE**'s ordinary course of business consistent with past practices and in accordance with the Best Management Practices; provided, however, **LESSEE** is not obligated to continue planting or applicable cultivation with respect thereto after June 30, 2014.

L. So long as **LESSEE** is not in Default under **Paragraphs 7(A)(1), (2) (solely with respect to the failure to pay real estate taxes as required in this LEASE), 3 or 4,** **LESSEE** shall have the right to collect and retain all rents derived from the Premises (inclusive of rents paid during the Lease Term under leases that were in effect prior to the Commencement Date); provided, however that: (i) any such rents collected by **LESSOR** during any period of Default shall be applied to any unpaid amounts due hereunder; (ii) **LESSOR** shall provide written notice to **LESSEE** revoking the license described in **Paragraph 2.M** below at the same time as it provides notice to the tenants directing such rents to be paid directly to **LESSOR**; and (iii) in the event that **LESSEE** has cured any such Default, **LESSEE** shall again have the right to receive such rents, whereupon **LESSOR** shall, by written notice to **LESSEE**, reinstate the license and direct such tenants to deliver their respective rent payments directly to **LESSEE**. **LESSOR** shall, on or before the Commencement Date and thereafter, from time to time, as reasonably requested by **LESSEE**, deliver to each tenant who has a right to occupy the Premises a letter, in form and substance reasonably acceptable to **LESSOR** and **LESSEE**, which directs such tenant to deliver their respective rent payments directly to **LESSEE** during the Lease Term.

M. In addition to the rights granted to **LESSEE** under this **LEASE**, including the provisions set forth in **Paragraph 2.L** above, during the Lease Term, **LESSOR** hereby grants to **LESSEE** a revocable license (which may only be revoked by **LESSOR** in the event of a Default as described in **Paragraph 2.L** above and shall be reinstated pursuant to the terms of such paragraph) granting to **LESSEE** all rights and interest of **LESSOR** under any leases or contracts that have been assigned to and assumed by **LESSOR** on the Closing Date (collectively, the "Related Contracts"), which shall be deemed to include the right to seek any recourse against the applicable third parties thereunder for failure to perform thereunder. As consideration for the foregoing license, **LESSEE** hereby agrees, during the Lease Term, to timely: (a) pay all sums directly to the appropriate parties under the Related Contracts and any New Agreements (as defined in Paragraph 33.P of this **LEASE**) that become payable and accrue thereunder during the Lease Term; and (b) perform the obligations of **LESSOR** under the Related Contracts and any New Agreements that arise and accrue during the Lease Term. If reasonably requested by **LESSEE**, **LESSOR** agrees to execute authorizations reasonably required to evidence and

effectuate the foregoing. **LESSEE** hereby agrees to promptly give **LESSOR** copies of any default notices given or received by **LESSEE** in connection with the Related Contracts or New Agreements.

N. **LESSEE** shall not at any time during the Lease Term, directly or indirectly, hypothecate, mortgage or pledge any of the Premises or any of **LESSEE**'s right, title or interest under this **LEASE**.

3. **Lease Term:** The **LESSOR** hereby leases the Premises to the **LESSEE** for a lease term commencing [*_____*] (the "Commencement Date"), and terminating (unless earlier terminated pursuant to other provisions of this **LEASE**) at 11:59 p.m. on the next occurring May 1st that follows the seventh (7th) anniversary of the Commencement Date, to wit *_____ (the "Initial Term").

A. Subject to the provisions of **subparagraph C.** below, in the event that **LESSOR** has not exercised the Option under the Agreement for Sale and Purchase to acquire the Entire Option Property (as defined in the Agreement for Sale and Purchase) on or before the expiration of the Initial Term or if **LESSOR** has exercised such Option prior to such expiration and thereafter not acquired the Entire Option Property for reasons other than an Option Default (as defined below), then the Initial Term shall be automatically extended, without the necessity of either Party providing any written notice to the other (unless earlier terminated pursuant to other provisions of this **LEASE**), for an additional three (3) years (the "First Renewal Term") so that the Lease Term (as defined below) for the Premises is extended to 11:59 p.m. on the next occurring May 1st that follows the tenth (10th) anniversary of the Commencement Date, which extension shall be on the same terms and conditions set forth herein, including, without limitation, the Initial Rent (as defined in **Paragraph 5** of this **LEASE**). If **LESSOR** timely exercises the Option for the Entire Option Property and **LESSOR's** acquisition of the Entire Option Property does not occur until after the expiration of the Initial Term, the Initial Term shall be deemed to be extended on the same terms and conditions hereunder, to the extent applicable, until the closing of such acquisition whereupon **subparagraph F** below shall govern. In the event that **LESSOR** has exercised the Option to acquire the Entire Option Property prior to the expiration of the Initial Term and thereafter not acquired the Entire Option Property due to Seller's default beyond all applicable notice and cure periods under the Agreement for Sale and Purchase or the Option Purchase Agreement (as defined in the Agreement for Sale and Purchase) and provided that Buyer is not then in default under either of such agreements beyond all applicable notice and cure periods (such default(s), an "Option Default"), then (x) **LESSOR** will have the right to elect to change the Rent (effective as of the date of the Option Default) to "Fair Market Rent" determined in accordance with Paragraph 5 of this **LEASE**, (y) the Initial Term will not be extended and (z) this **LEASE** will terminate without further notice or action by **LESSOR** on (a) the expiration of the Initial Term or (b) earlier, as to portions of the Premises as harvested, on a block-by-block basis, for **LESSEE's** harvest that occurs during the last harvest year of the Initial Term.

B. Subject to the provisions of **subparagraph C.** below, in the event that the **LESSOR** has not exercised the Option under the Agreement for Sale and Purchase to acquire the Entire Option Property on or before the tenth (10th) anniversary of the Commencement Date) or if **LESSOR** has exercised such Option prior to such expiration and thereafter not acquired the

Entire Option Property for reasons other than an Option Default, then the First Renewal Term shall be automatically extended, without the necessity of either Party providing any written notice to the other (unless earlier terminated pursuant to other provisions of this **LEASE**), for an additional ten (10) years (the "Second Renewal Term"), so that the Lease Term for the Premises is extended to 11:59 p.m. on the next occurring May 1st that follows twentieth (20th) anniversary of the Commencement Date, which extension shall be on the same terms and conditions set forth herein, except that the Initial Rent hereunder shall be adjusted to "Fair Market Rent" as determined in accordance with **Paragraph 5** of this **LEASE**. If **LESSOR** timely exercises the Option for the Entire Option Property and the acquisition of the Entire Option Property does not occur until after the expiration of the First Renewal Term, the First Renewal Term shall be deemed to be extended on the same terms and conditions hereunder, to the extent applicable, until the closing of such acquisition whereupon **subparagraph F** below shall govern. In the event of an Option Default during the First Renewal Term, (x) **LESSOR** will have the right to elect to change the Rent (effective as of the date of the Option Default) to "Fair Market Rent" determined in accordance with Paragraph 5 of this **LEASE**, (y) the First Renewal Term will not be extended and (z) this **LEASE** will terminate without further notice or action by **LESSOR** (a) on the expiration of the First Renewal Term or (b) earlier, as to portions of the Premises as harvested, on a block-by-block basis, for **LESSEE's** harvest that occurs during the last harvest year of the First Renewal Term.

C. If **LESSOR** timely exercises the Option for the Entire Option Property prior to the expiration of the Initial Term or, if applicable, the First Renewal Term and does not acquire the Entire Option Property due to **LESSEE's** failure to obtain Stockholder Approval or **LESSEE's** termination of the Option Purchase Agreement in connection with a Superior Proposal (as defined in the Agreement for Sale and Purchase and as the same is incorporated into the Option Purchase Agreement) (collectively or individually, an "Option Frustration Event"), then (x) **LESSOR** will have the right to elect to change the Rent to "Fair Market Rent" determined in accordance with Paragraph 5 of this **LEASE** (effective as of the date that the last of all of the applicable parties have failed to issue Stockholder Approval or, as applicable, the date of the termination in connection with a Superior Proposal), (y) this Lease shall not be extended beyond the First Renewal Term, subject to the last sentence of this paragraph, except in the event of a termination in connection with a Superior Proposal prior to the expiration of the Initial Term, whereupon this **LEASE** shall not be extended beyond the Initial Term, (z) this **LEASE** will terminate without further notice or action by **LESSOR** (a) on the expiration of the Initial Term or First Renewal Term, as applicable or (b) earlier, as to portions of the Premises as harvested, on a block-by-block basis, for **LESSEE's** harvest that occurs during the last harvest year of the Initial Term or First Renewal Term, as applicable. In the event **LESSOR** initially does not acquire the Entire Option Property due to an Option Frustration Event and thereafter acquires the Entire Option Property in connection with a subsequent and timely re-exercise of the Option therefor, then the term of this **LEASE** shall be deemed to be automatically extended through the Second Renewal Term without the necessity of either Party providing any written notice to the other, whereupon the terms and provisions of **subparagraph F.** and **Paragraph 5.G** below shall apply. In the event **LESSOR** initially does not acquire the Entire Option Property due to an Option Frustration Event and thereafter timely re-exercises the Option for the Entire Option Property, but does not acquire the Entire Option Property for any reason, other than an Option Default or an Option Frustration Event, then the term of this **LEASE** shall be

deemed to be automatically extended through the Second Renewal Term without the necessity of either Party providing any written notice to the other.

D. If **LESSOR** timely exercises the Option for the Initial Option Property, but the same does not occur due to Seller's failure to obtain the Lender Approval (as defined in the Agreement for Sale and Purchase and as the same is incorporated into the Option Purchase Agreement), then this Lease shall continue without affecting any of **LESSOR's** or **LESSEE's** rights and obligations hereunder.

E. The Initial Term, First Renewal Term and Second Renewal Term, as applicable, are herein called the "Lease Term".

F. In the event that **LESSOR** acquires the Initial Option Property or the Entire Option Property, from and after the date of the closing of such acquisition, the Premises and the applicable Option Property shall be governed by the terms of the New Lease (as defined in the Agreement for Sale and Purchase) in accordance with the provisions of the Agreement for Sale and Purchase. If the Initial Option Property or Entire Option Property is not acquired after Buyer has exercised the applicable Option due to Buyer's default under the Agreement for Sale and Purchase or the Option Purchase Agreement after expiration of applicable notice and cure periods, then this **LEASE** shall continue under the terms hereof as if such Option were not exercised.

G. The termination date of this **LEASE** as to any portion(s) of the Premises is herein called the "Expiration Date" solely with respect to such portion of the Premises being terminated, and otherwise refers to the date of expiration or earlier termination of this **LEASE**.

H. Commencing at least two (2) years prior to the expiration of the Second Renewal Term, if any, and provided that a Default by **LESSEE** does not then exist and would not exist with the giving of notice, the lapse of time or both, **LESSOR** and **LESSEE** agree to negotiate in good-faith an extension of the Lease Term with respect to the Premises, if **LESSOR** and **LESSEE** mutually determine such an extension would be mutually beneficial to the Parties, taking into consideration factors such as, impact on the local economy, **LESSOR's** intended use of the Premises and its construction plans and timelines therefor and the amount of sugarcane that is needed to keep the sugar mill owned by **LESSOR** or its successors and assigns economically viable, etc. Each Party shall bear its own costs and expenses and the fees of its consultants, contractors and advisors incurred in connection with any such negotiations. Either Party may terminate and withdraw from any such negotiations at any time in its absolute and sole discretion by notice to the other Party.

4. **Right to Terminate:**

A. Except as otherwise provided in **Paragraph 7.** of this **LEASE**, if either Party fails to fulfill its material obligations under this **LEASE** in a timely and proper manner, the other Party shall have the right to terminate this **LEASE** or exercise other rights and remedies hereunder after giving written notice of default to the applicable Party and an opportunity to cure the same as provided in this **Subparagraph 4.A.** An applicable Party that fails to fulfill its material obligations under this **LEASE** in a timely and proper manner (except as otherwise

provided in **Paragraph 7.** of this **LEASE**) shall have forty-five (45) calendar days from receipt of notice from the other Party to remedy the deficiency. Notwithstanding the foregoing, if such deficiency cannot with due diligence be remedied by the applicable Party within such 45-day period, and if such Party diligently commences to remedy such deficiency within such 45-day period and thereafter prosecutes such remedy with reasonable diligence, the period of time to remedy such deficiency shall be extended to permit a cure period of one hundred and twenty (120) days in the aggregate so long as such Party prosecutes such remedy with reasonable diligence; provided, however that upon request of such Party, the other Party shall, from time to time, consent in writing to an extension of such 120 day period, which consent shall not be unreasonably withheld, so long as the applicable Party is diligently proceeding to cure such deficiency. Such curing Party's request for an extension of time to cure shall be accompanied by a reasonably detailed schedule for completing such cure. A Party shall not be deemed to be in default under the terms of this **LEASE** unless and until a Default (as defined in **Paragraph 7** below) has occurred.

B. **LESSEE** shall have the right, in its sole discretion, to terminate all or portions of this **LEASE** as follows:

(1) From and after January 1, 2011, **LESSEE**, shall have the right to terminate this **LEASE** as to all but not less than all of the Premises by giving a written termination notice to **LESSOR** on or before June 10, 2011 and each June 10th of each calendar year thereafter, which notice shall include a harvest schedule and map describing the dates and sequence for the conduct of the harvest on the Premises, whereupon this **LEASE** shall terminate on May 1st of the next calendar year following such notice. For example, if **LESSEE** gives a termination notice to **LESSOR** on June 4, 2011, then this **LEASE** shall terminate on May 1, 2012 with respect to the Premises.

(2) At any time during the Lease Term, and provided that **LESSEE** has not exercised its right under **subparagraph (3)** with respect to the applicable portion of the Premises, **LESSEE** shall have the right to terminate this **LEASE** as to any portion of the Premises which it intends to leave fallow and as to which it has given a written termination notice to **LESSOR** setting forth a harvest schedule and map describing the dates and sequence for the conduct of the harvest on the terminated lands, which notice shall be given no later than one hundred eighty (180) days prior to the scheduled date of commencement of the harvest of the portion of the Premises to be left fallow pursuant to such notice; provided, however, that such termination may not occur pursuant to this **subparagraph (2)** prior to June 30, 2014. In the event that **LESSEE** terminates this **LEASE** as provided in this **subparagraph (2),** then this **LEASE** shall partially terminate for portions of the Premises as harvested, on a block-by-block basis, or the following May 1st, whichever is earlier.

(3) At any time during the Lease Term, and in addition to **LESSEE**'s termination rights under **subparagraphs (1)** and **(2)**, **LESSEE**, in its sole discretion, shall have the right to terminate this **LEASE** as to any portion of the Premises, or all of the Premises, by giving a written termination notice to **LESSOR** at least one (1) year prior to the actual date of termination therefor, which notice shall include a harvest schedule and map describing the dates and sequence for the conduct of the harvest on the terminated lands (such portions of the Premises as to which the Lease has been terminated shall be referred to herein as the "Released

Premises"); provided, however, that such termination may not occur pursuant to this **subparagraph (3)** prior to June 30, 2014. Notwithstanding the foregoing, in the event that **LESSEE** terminates this **LEASE** as provided in this subparagraph, then this **LEASE** shall partially terminate for portions of the Premises as harvested, on a block-by-block basis, or the following May 1st (i.e., **LESSEE**'s final harvest), whichever is earlier.

C. Intentionally Deleted

D. In the event of a termination of this **LEASE** by **LESSEE** with respect to a portion of the Premises pursuant to **subparagraphs B.(2) and (3).**, (x) **LESSEE** shall be deemed to have a non-exclusive right of access, utility service and drainage (subject to reasonable relocation by **LESSOR**) until the Expiration Date over and across paved or unpaved roadways or pathways, utility/drainage lines and/or areas within the Released Premises as reasonably necessary for **LESSEE** to continue to have access to, utilities and drainage on the remaining portion of the Premises that is then still subject to the terms of this **LEASE** and (y) **LESSOR** shall be deemed to have a non-exclusive right of access, utility service and drainage (subject to reasonable relocation by **LESSEE**) until the Expiration Date over and across paved or unpaved roadways or pathways, utility/drainage lines and/or areas within the remaining Premises subject to this **LEASE** as reasonably necessary for **LESSOR** and its tenants, as applicable, to have access to, utilities and drainage on the Released Premises.

E. In the event that **LESSEE** terminates this **LEASE** in accordance with **subparagraph B** above, then, in such event, **LESSEE** agrees to reasonably cooperate with **LESSOR** and any successor tenants of the Released Premises, including with respect to planting, cultivation and harvesting, in order for such tenants to have access to the Released Premises over the Premises – if such access is the typical method of accessing the Released Premises (upon terms and conditions provided in this **LEASE** for access by private parties) - and to reasonably coordinate such operations with **LESSEE**'s operations on the remaining portion of the Premises.

F. Subject to the notice requirements set forth below, **LESSOR**, in its sole discretion, and without payment or consideration of any kind to **LESSEE** whatsoever, and in addition to **LESSOR's** other termination rights in this **LEASE**, shall have the right to terminate this **LEASE** as follows:

(1) at any time during the Lease Term, this **LEASE** may be terminated as to portion(s) of the Premises in an amount not to exceed ten thousand (10,000) acres in the aggregate (in portions of land which shall be comprised of no less than two thousand (2,000) contiguous acres, except the last portion of Premises so terminated may be less in acreage if the aggregate acreage of prior terminations is greater than 8,000 acres), which are to be used in connection with a South Florida Water Management District ("SFWMD") funded project approved by the Governing Board of SFWMD ("Project") to be constructed on the Premises or in exchange for property necessary for a Project (subject to **subparagraph (6)** below);

(2) in addition to **LESSOR's** rights under subparagraph (1) immediately above, at any time during the Second Renewal Term, this **LEASE** may be terminated as to portion(s) of the Premises in an amount not to exceed ten thousand (10,000) acres in the aggregate (in portions of land which shall be comprised of no less than two thousand

(2,000) contiguous acres, except the last portion of Premises so terminated may be less in acreage if the aggregate acreage of prior terminations is greater than 8,000 acres), which are to be used in connection with a Project to be constructed on the Premises or in exchange for property necessary for a Project (subject to **subparagraph (6)** below);

(3) in the event that **LESSOR** acquires the Entire Option Property pursuant to exercise of the applicable Option under the Agreement for Sale and Purchase or if **LESSOR** has not acquired the Entire Option Property as a result of an Option Default or an Option Frustration Event, then:

(a) from and after **LESSOR's** acquisition of the Entire Option Property or the date of the Option Default or Option Frustration Event, if applicable, **LESSOR** may terminate this **LEASE** as to all or any portion of the Premises or, to the extent acquired by **LESSOR**, the Entire Option Property (in which event the applicable termination shall occur under the New Lease), to be used (i) in connection with a Project to be constructed on the Premises or the Entire Option Property, (ii) in exchange for no more than 2,000 contiguous acres in the acreage located in the approximately 25,000 acre parcel depicted in **Exhibit 4.F.6.** which is necessary for a Project to be constructed within such 25,000 acre parcel, provided, however, that prior to the expiration of the tenth ($10^{th}$) anniversary of the Commencement Date, **LESSOR** may terminate this **LEASE** for such exchanges only as to 1,000 acres or (iii) in exchange for all or any portion of the Premises that is adjacent to the "L-8 Canal" for a Project built primarily to provide water quality treatment for water discharges from the S-5A Basin; and

(b) after the tenth ($10^{th}$) anniversary of the Commencement Date, **LESSOR** may terminate this **LEASE** as to all or any portion of the Premises or, to the extent acquired by **LESSOR**, the Entire Option Property (in which event the applicable termination shall occur under the New Lease), to be used in exchange for property for a Project to be located within the area shown on **Exhibit 4.F.3(b)** – it being agreed by the Parties that if the **LESSOR** constructs multiple Projects within the area known as the "Everglades Agricultural Area" for restoration purposes, then **LESSOR** will, to the extent practicable, schedule the construction of such Projects that require portions of the Premises to be released from this **LEASE** pursuant to the provisions hereof, after the construction of such other Projects;

(4) after the expiration of the Initial Term, this **LEASE** may be terminated as to portion(s) of the Premises identified on **Exhibit 4.F.(4)** (individually or collectively, the "Transition Acres") in connection with a Project on or transfers of all or any portion of the Transition Acres by **LESSOR** to municipalities or other governmental entities (each, a "Governmental Transferee"). Any such transfer shall be made by **LESSOR** to the Governmental Transferee pursuant to the terms of a transfer agreement between **LESSOR** and Governmental Transferee, to which will be attached a form of lease agreement with respect to the applicable portion of the Transition Acres between Governmental Transferee and **LESSEE** reasonably acceptable to both **LESSOR** and **LESSEE**, setting forth the termination of such Transition Acres from this **LEASE** and providing that termination of such lease by Governmental Transferee for reasons other than a default by **LESSEE** thereunder shall be subject to Governmental Transferee providing the termination notices required under **subparagraph (8)** and thereafter under **subparagraph (10)** if **LESSEE** exercises its right under **subparagraph (10)** to continue to lease the Transition Acres to be terminated, in connection

with the Governmental Transferee's use of relevant portion of the Transition Acres for a funded and approved development or other local government project. In no event shall the Governmental Transferee be subject to the **LESSEE**'s ROFR under Paragraph 39 of this **LEASE**.

(5) Intentionally Deleted

(6) Prior to **LESSOR's** acquisition of the Entire Option Property pursuant to the applicable Option, during the Lease Term: (a) **LESSOR** shall be permitted to terminate this **LEASE** for no more than 2,000 contiguous acres in the acreage located in the approximately 25,000 acre parcel depicted in **Exhibit 4.F.6.** in connection with exchanges necessary for a Project to be constructed on the Premises, provided, however, that prior to the expiration of the tenth ($10^{th}$) anniversary of the Commencement Date, **LESSOR** may terminate this **LEASE** for such exchanges only as to 1,000 acres; and (b) **LESSOR** may terminate this **LEASE** as to all or any portion of the Premises that is adjacent to the "L-8 Canal" in exchange for property for a Project built primarily to provide water quality treatment for discharges from the S-5A Basin - provided, however that the portions of the Premises as to which this **LEASE** may be terminated under clauses (a) or (b) are subject to the limitations of (and part of the acreages described in) **subparagraph (1)** and **subparagraph (2)** above.

(7) From and after June 30, 2014 until the Expiration Date, if **LESSEE** (a) has allowed fallow fields to exist on the Premises and (b) has identified in a written notice to **LESSOR** the fields that **LESSEE** intends to abandon (the "Applicable Premises"), **LESSOR** shall have the right, in its sole discretion and in addition to its other termination rights under this **LEASE**, to terminate this **LEASE** with respect to the Applicable Premises upon fifteen (15) days written notice to the **LESSEE** and **LESSEE** shall thereupon vacate the Applicable Premises within fifteen (15) days of such written notice in accordance with **Paragraph 22.** of this **LEASE** or be deemed to be holding over pursuant to **Paragraph 23**. of this **LEASE**. From and after the date of the termination of this **LEASE** for all or any portion of the Applicable Premises as provided in this **Paragraph 4.F.(7),** the annual Rent shall be reduced by the then existing Rent per acre multiplied by the acreage of such released portion of the Premises,

(8) In the case of each of **subparagraphs (1), (2), (3), (4) [in connection with a Project] and (6)** above, in order for a termination to be effective (including any termination for exchanges permitted thereunder), **LESSOR** shall provide written notice of its intention to terminate the **LEASE** with respect to any portion of the Premises, at least two (2) years prior to the May $1^{st}$ on which **LESSOR** intends that such termination be effective (the "First Notice"), and then again at least one (1) year prior to the May $1^{st}$ on which **LESSOR** intends such termination to be effective (the "Second Notice"), whereupon this **LEASE** shall terminate as to such portion(s) of the Premises so noticed on the May $1^{st}$ which is at least two (2) calendar years following the First Notice; it being understood that if **LESSOR** provides a First Notice but does not subsequently send a Second Notice at least one year prior to the May $1^{st}$ termination date specified in the First Notice, then no termination shall occur with respect to such portion of the Premises until **LESSOR** provides a second notice at least one (1) year prior to the May $1^{st}$ on which such termination will be effective and confirming the lands (or portion thereof) designated in the First Notice to be terminated from this **LEASE**.

(9) In the event of any such termination by **LESSOR** pursuant to the above **subparagraphs (1), (2), (3), (4) [in connection with a Project] and (6),** (x) **LESSEE** shall be deemed to have a non-exclusive right of access, utility service and drainage (if necessary)(with provisions for relocation thereof) until the Expiration Date over and across paved or unpaved roadways or pathways, utility/drainage areas and lines within the portions of the Premises so terminated by **LESSOR** as reasonably necessary for **LESSEE** to continue to have access, utilities and drainage for the remaining portion of the Premises that is then still subject to the terms of this **LEASE** and (y) **LESSOR** and its tenants, if any, shall be deemed have the right of access, utility service and drainage (if necessary) (with provisions for relocation thereof) over and across paved or unpaved roadways or pathways, utility/drainage areas and lines within the remaining portion of the Premises subject to this **LEASE** as reasonably necessary for **LESSOR** and its tenants to continue to have access, utilities and drainage for the portions of the Premises so terminated by **LESSOR**.

(10) Notwithstanding the foregoing, **LESSEE**, at **LESSEE**'s risk, may elect, by prior written notification to **LESSOR** provided not less than one hundred (180) days prior to the effective date of any termination by **LESSOR** pursuant to this **Paragraph 4.F.**, to continue farming operations on the portion of the Premises as to which this **LEASE** has been terminated pursuant to **subparagraphs (1), (2), (3), (4) [in connection with a Project] and (6)** above, as applicable, until **LESSOR**, in its sole and absolute discretion: (x) notifies **LESSEE** in writing that such farming operations are incompatible with the construction of the applicable Project and directs **LESSEE** to cease operations on the date set forth in such notice; or (y) in the event that the portions of the Premises being removed from this **LEASE** are being exchanged with property owned by another party for a Project, notifies **LESSEE** in writing that the farming operations of such property owned by such other party are incompatible with the construction of the applicable Project and that such other party has been notified of such in writing and has been directed to vacate its property and that **LESSEE** is directed to cease operations on the date set forth in such notice. If **LESSEE** elects to continue farming operations notwithstanding any termination notice by **LESSOR** pursuant to **subparagraphs (1), (2), (3), (4) [in connection with a Project] and (6),** the **LEASE** Term with respect to such portions of the Premises shall be extended to allow **LESSEE** to continue such farming operations, but will terminate on the earliest of 11:59 p.m. on the next occurring May 1st that follows the twentieth (20th) anniversary of the Commencement Date or upon the occurrence of (x) or (y) above; provided, however, that as consideration for such extension of the Lease Term, the payment and performance terms, conditions and obligations under this **LEASE**, and all rights and remedies hereunder, shall remain in full force and effect with respect to each portion of the Premises **LESSEE** continues to farm pursuant to this **subparagraph (10).** Such extension of the Lease Term shall automatically terminate upon the occurrence of any Default by **LESSEE** under this **LEASE** or the date of set forth in **LESSOR's** termination notice as provided in (x) or (y) above. From and after the date **LESSEE** vacates a portion of the Premises in accordance with any provision of this **LEASE** which permits termination with respect to a portion of the Premises, the annual Rent shall be reduced by the applicable Rent, multiplied by the acreage of the applicable portion of the Premises so terminated. **LESSOR** and **LESSEE** hereby agree to use mutually reasonable efforts in order for **LESSOR** to provide **LESSEE** with as much time as possible when giving its notice to vacate the portion of the Premises so released, as provided in this **subparagraph (10),** it being the intent of the Parties to allow **LESSEE** to harvest as many crops as reasonably practicable

before the farming operation are incompatible with the construction of a Project as determined by **LESSOR** in its absolute and sole discretion.

G. In the event any portion of the Premises is transferred with a reservation of **LESSEE**'s leasehold rights as provided for in this **Paragraph 4, LESSOR** and **LESSEE** agree that they shall record a memorandum of this **LEASE** in the public records of the applicable Counties memorializing the leasehold reservations set forth in this **Paragraph 4** such that each applicable leasehold reservation is binding on such transferee, **LESSOR, LESSEE** and their respective successors and assigns.

5. **Rent**:

A. As consideration for the rights conferred upon **LESSEE** by **LESSOR** pursuant to this **LEASE**, from and after the Commencement Date until the earlier to occur of (i) the expiration of the First Renewal Term; or (ii) the date of **LESSOR's** acquisition of the Entire Option Property under the applicable Option, **LESSEE** shall pay, in advance, to **LESSOR** a quarterly rental in the amount of *_____* representing twenty-five percent (25%) of the One Hundred Fifty and No/100 Dollars ($150.00) per acre multiplied by [_____] gross acres [*NOTE – ACTUAL ACREAGE OF SUGAR CANE PORTION OF PREMISES FROM THE FINAL APPROVED SURVEYS SHALL BE INSERTED AT CLOSING*] (the "Initial Rent") (it being understood and agreed that the Rent due hereunder may change from time to time on a pro-rata basis (based upon acreage) as this **LEASE** is terminated as to portions of the Premises as provided in this **LEASE** for reasons other than a Default). In the event that **LESSOR** has not acquired the Entire Option Property under the applicable Option, for reasons other than an Option Default or the occurrence of an Option Frustration Event, the Initial Rent hereunder shall be adjusted to be the "Fair Market Rent" for the Premises on the next occurring May 1st that follows the tenth (10th), thirteenth (13th), and sixteenth (16th) anniversaries of the Commencement Date, and be determined as follows:

(1) No later than one (1) year prior to the commencement of the Second Renewal Term, **LESSOR** shall provide written notice to **LESSEE** containing an original, signed appraisal dated within thirty (30) days of such notice setting forth the **LESSOR's** proposed fair market rent for the Premises (the "**LESSOR's** Proposed FMR"). The appraisal must comply with the statutorily mandated appraisal standards (to the extent applicable to **LESSOR**) and must have been performed by an appraiser meeting the Appraiser Requirements set forth in **Paragraph 5.A.(4)** ("**LESSOR's** Appraisal").

(2) Within sixty (60) days after receipt of **LESSOR's** Proposed FMR, **LESSEE** shall elect to either: (i) accept **LESSOR's** Proposed FMR as the Fair Market Rent; or (ii) deliver to **LESSOR** an original, signed appraisal setting forth **LESSEE**'s proposed fair market rent for the Premises (the "**LESSEE**'s Proposed FMR"), which appraisal must be performed by an appraiser meeting the Appraiser Requirements set forth in **Paragraph 5.A.(4)** and must be dated within sixty (60) days of **LESSEE**'s receipt of **LESSOR's** Proposed FMR ("**LESSEE**'s Appraisal").

(3) If **LESSEE** elects to obtain **LESSEE**'s Appraisal under **subparagraph A(2)** above, then:

(a) In the event **LESSOR's** Proposed FMR is equal to or more than ninety percent (90%) and less than or equal to one hundred ten percent (110%) of **LESSEE**'s Proposed FMR, then the "Fair Market Rent" shall be deemed to be the average of **LESSOR's** Appraisal and **LESSEE**'s Appraisal (i.e., the sum of both proposed rents divided by two (2)).

(b) In the event **LESSOR's** Proposed FMR is less than ninety percent (90%) of or greater than one hundred ten percent (110%) of **LESSEE**'s Proposed FMR, then within fifteen (15) days after **LESSEE**'s delivery of **LESSEE**'s Appraisal to **LESSOR**, **LESSOR's** appraiser and **LESSEE**'s appraiser must select a third (3rd) appraiser meeting the Appraiser Requirements set forth below (the "Third Appraiser"). The Third Appraiser shall perform its appraisal of its proposed fair market rent for the Premises within sixty (60) days of being selected by **LESSOR's** appraiser and **LESSEE**'s appraiser. Once such appraisal is complete, the average of the two (2) closest appraisals in terms of fair market rent shall be deemed to be the "Fair Market Rent".

(4) Unless otherwise agreed to writing by **LESSOR** and **LESSEE**, each of the appraisers set forth above shall be M.A.I. certified appraisers, having at least ten (10) years experience in appraising the fair market rental value of agricultural property in Palm Beach County, Florida (the "Appraiser Requirements").

(5) **LESSOR** and **LESSEE** shall each be responsible for the fees, costs and expenses of their respective appraiser. The fees, costs and expenses of the Third Appraiser and any mediation to select the same as provided in **subparagraph (6)** below shall be shared equally by **LESSOR** and **LESSEE**.

(6) If **LESSOR's** appraiser and **LESSEE**'s appraiser fail to appoint the Third Appraiser within the time and in the manner prescribed in **subparagraph (3)(b)** above, then **LESSOR** and/or **LESSEE** shall promptly apply to the Palm Beach County office of Mediation, Inc. (or if such company is no longer in business, another mediation company with offices in Palm Beach County) for the appointment of the Third Appraiser. Within five (5) days of receipt of notice from one Party that such mediation application has been filed, each Party shall submit the names of up to three (3) appraisers meeting the Appraisal Requirements for the mediator to select. The mediator shall be instructed by either Party to select the Third Appraiser within ten (10) days after receipt of such names. The failure of a Party to timely submit any names constitutes a waiver of the right to so submit such names and the mediator shall select the Third Appraiser from the list of names that was timely submitted.

The Initial Rent and Fair Market Rent, as may be applicable, shall be referred to individually and collectively, as the "Rent". **LESSEE** agrees to pay Rent to **LESSOR**, without notice, offset, deduction, or set-off. Initial Rent shall be payable (a) on the Commencement Date on a pro-rated basis based on the number of days for the period beginning on the Commencement Date through and including the last day of the calendar quarter in which the Commencement Date falls and (b) on the first day of each calendar quarter (i.e. January 1st, April 1st, July 1st, and October 1st) thereafter, through and including the final calendar quarter of the First Renewal Term, if **LESSOR** does not acquire the Entire Option Property, or the date of closing of the acquisition of the Entire Option Property by **LESSOR**, if **LESSOR** so acquires the

Entire Option Property, together with all applicable sales and use taxes (it being agreed that the Rent due for the last or any interim calendar quarter shall be appropriately adjusted and prorated). After the Fair Market Rent is determined in accordance with **Paragraph 5.A.**, Rent shall be subject to yearly adjustment for each subsequent twelve-month period of the Lease Term in accordance with **subparagraph F** below until the Fair Market Rent determination is again applicable (i.e., on the next occurring May 1st that follows the thirteenth (13th) and sixteenth (16th) anniversaries of the Commencement Date), and shall be payable quarterly in accordance with the schedule, together with all applicable sales and use taxes.

B. In addition, **LESSEE** shall be responsible for payment of any and all Additional Rent (as defined in **Paragraph 5.D.** below) throughout the Lease Term as and when due under the terms of this **LEASE**.

C. All payments of Rent, as well as all other amounts due under this **LEASE** from **LESSEE** to **LESSOR** shall be made to **LESSOR** at the following address:

South Florida Water Management District
Attention:_____
Post Office Box 24680
3301 Gun Club Road
West Palm Beach, Florida 33406

RE: Contract #_____

D. This **LEASE** shall be totally and absolutely net to **LESSOR**. In addition to the Rent and Additional Rent stated above, **LESSEE** shall pay all charges for gas, water, sewer, waste removal, dumpster charges, janitorial services, electricity, telephone, and other utility services used by **LESSEE** in connection with the Premises during the Lease Term and any and all other costs, expenses, taxes or obligations of every kind related to the Premises and the use, operation, occupancy thereof during the Lease Term, including obligations arising under recorded or unrecorded documents encumbering or relating to the Premises, if any (to the extent such recorded or unrecorded documents exist on the day immediately preceding the Commencement Date). Without limiting the foregoing, if any charges, costs, expenses, taxes or other monetary obligations of **LESSEE** under this **LEASE** are not paid by **LESSEE** as and when due, after expiration of all applicable grace and notice periods, **LESSOR**, without limiting any of its other rights and remedies under this **LEASE**, shall have the right, but not the obligation, to pay any of the foregoing, and the amount of the expense or cost of any such obligations so paid by **LESSOR** shall thereupon become due to **LESSOR** from **LESSEE** within five (5) days following **LESSOR's** written demand, together with interest accruing on such amount at the highest rate allowed by law if not paid to **LESSOR** within such five (5) day period, as "Additional Rent".

E. If any Rent due from **LESSEE** to **LESSOR** hereunder is not received by **LESSOR** on or before the date due, then, in addition to all other rights and remedies available to **LESSOR** under this **LEASE**, **LESSOR** at **LESSOR's** sole option may either: (i) charge **LESSEE** a late fee equal to five percent (5%) of the installment of Rent not paid when due; or

(ii) charge interest on the installment of Rent not paid when due at the highest rate allowed by law from the date due until the date received by **LESSOR** in immediately available funds.

F. The yearly adjustment to the Fair Market Rent for the applicable twelve (12) month periods after determination of the Fair Market Rent in accordance with **Paragraph 5.A.** shall be determined, as follows:

The Fair Market Rent shall be adjusted to the extent that the Producer Price Index for "Raw Cane Sugar and Byproducts", as published in the U.S. Department of Labor, Bureau of Labor Statistics, based on a 1982 base year value of 100 ("PPI") for the average of the twelve (12) calendar month period immediately preceding the new twelve (12) calendar month period of the Lease Term ("Comparison Period") differs from the PPI for the corresponding average of the twelve (12) month calendar period that occurs immediately prior to the Comparison Period of the Lease Term ("Base Period"). If the average PPI for the Comparison Period is different from (i.e., more than or less than) the average PPI for the Base Period, then the Rent for the new year shall be changed upward or downward, as appropriate, by the same percentage as the average PPI has changed upward or downward, as appropriate, from the Base Month. Since the monthly PPI that comes out is preliminary and subject to revision four months after original publication, the final determination of the average PPI for the applicable twelve (12) month period will not be made until it is final. The Rent paid for any new twelve (12) month period will be based on the preliminary average PPI and then will be finally adjusted when the PPI becomes final for the applicable period.

As an example of yearly adjustment in year 2, assume that the Fair Market Rent in year 1 is $150/acre and that final average PPI for the 12-month Base Period immediately preceding the 12-month period that represents year 1 is 100 and that the final average PPI for the Comparison Period which is the 12-month period immediately prior to the commencement of year 2 (i.e., which is the 12-month period comprising year 1) is 137. The Rent for year 2 would be adjusted upward by 137-100 = .37 x $150/acre = $55.5/acre. So the new Rent commencing year 2 would be $150/acre + $55.5/acre = $205.5/acre.

As an example of yearly adjustment in year 3, assume that the Rent for year 2 is $205.5/acre as in the preceding example and assume that the final average PPI for the Base Year in year 2 is 147. The Rent for year 3 would be adjusted upward from the Rent for year 2 by 147-137 = 10/137 =.0729 rounded to .073 x $205.5/acre = $15/acre. So the new Rent of year 3 would be $205.5/acre + $15/acre = $220.5/acre.

G. In the event **LESSOR** exercises the Option for the Initial Option Property or Entire Option Property, then at the closing of the acquisition of the Initial Option Property or Entire Option Property, as applicable, the Parties will execute the New Lease in accordance with the terms of the Agreement for Sale and Purchase and thereafter the Premises and the Initial Option Property or Entire Option Property, as applicable, will be governed by the terms of the New Lease.

6. **Real Estate Taxes:**

A. **LESSEE** understands and agrees that upon execution of this **LEASE**, the Premises shall be placed upon the tax rolls of the county in which the Premises is located without state government exempt status, but with any agricultural use exemption that **LESSEE** obtains, provided that **LESSEE** shall be solely responsible for obtaining and maintaining the agricultural exemption. **LESSOR** agrees that it will not take any affirmative action during the Lease Term which removes the agricultural use exemption. **LESSOR** may, in **LESSOR'S** sole and absolute discretion, record a Memorandum of **LEASE**, executed by the **LESSOR**. **LESSEE** shall pay all real property taxes, intangible property taxes and personal property taxes, as well as all assessments, including but not limited to pending, certified, confirmed and ratified special assessment liens, accrued or levied with respect to the Premises or this **LEASE** during the Lease Term. The amount of taxes or assessments will be determined by the county property appraiser. **LESSEE** acknowledges that it shall be liable for such real property taxes, personal property taxes and intangible taxes, and assessments as are applicable for the Premises and this **LEASE** during the period in which this **LEASE** is in effect.

B. **LESSEE** shall pay such taxes and assessments promptly upon receipt of an assessment notice from the taxing authority but no later than their due date, and shall furnish proof of such payment to the **LESSOR's** Division of Procurement and Contract Administration (see **Paragraph 5.B.** above) within 30 days of payment. Any penalties or late fees incurred for failure to pay said taxes and assessments shall be the responsibility of the **LESSEE**.

C. With respect to **LESSEE**'s obligation to pay real estate taxes under this **LEASE**, in the event the assessing authority permits any tax assessments to be paid in installments, **LESSEE** may exercise the option to pay the same in installments and shall pay all such installments that relate to the Lease Term as the same respectively become due and before they become delinquent, and provided that any such assessments which relate to a fiscal period for the taxing authority, part of which period is included in the Lease Term and a part of which is included in a period of time prior to or after the Lease Term, shall be allocated and prorated between **LESSOR** and **LESSEE** as of the Expiration Date of this **LEASE**. Taxes shall be prorated based on the tax for the year of the Expiration Date with due allowance made for exemptions and/or special classifications, if any. If the assessment for the year of the Expiration Date is not available, then taxes will be prorated on the prior year's tax. Any tax proration based on an estimate shall be subsequently readjusted at the request of either Party upon receipt of a tax bill. Upon the Expiration Date, **LESSEE** shall pay all real property taxes accrued with respect to the Premises in accordance with Section 196.295, Florida Statutes, if applicable. The provisions of this **subparagraph** shall survive the Expiration Date.

D. **LESSEE** shall have the right to contest the amount or validity of any real property taxes or any assessment liens ("Tax Claims"), by appropriate legal proceedings in good faith and with due diligence, provided that this shall not be deemed or construed in any way as relieving, modifying or extending **LESSEE**'s covenants to pay or its covenants to cause to be paid any such charges at the time and in the manner provided in this **LEASE** or operate to relieve **LESSEE** from its other obligations hereunder, and shall not cause the sale of the Premises, or any part thereof, to satisfy the same. **LESSOR** agrees to join in any such proceedings if the same is necessary or required by **LESSEE** to legally prosecute such contest of

the validity of such Tax Claims upon the reasonable request of **LESSEE**; provided, however, **LESSOR** will not be required to join in any such proceeding wherein the Tax Claims are imposed by **LESSEE**, provided **LESSOR** does not require its own joinder in connection with such Tax Claims. **LESSEE** shall be entitled to any refund of any Tax Claims and such charges and penalties or interest thereon which have been paid by **LESSEE**. In the event that **LESSEE** fails to pay any Tax Claims when due or fails to diligently prosecute any contest of the same, **LESSOR** may, upon thirty (30) days advance written notice to **LESSEE**, pay such charges together with any interest and penalties and the same shall be repayable by **LESSEE** to **LESSOR** pursuant to **Paragraph 5.C** above; provided that, should **LESSOR** reasonably determine that the giving of such notice would risk loss to the Premises, or portion thereof, then **LESSOR** shall give such written notice as is appropriate under the circumstances. Nothing herein shall be deemed to limit **LESSOR's** right to file any Tax Claims for any real property taxes or any assessment liens that are imposed for the period after the Expiration Date.

7. **Default; Remedies:**

A. Failure by the **LESSEE** to perform or abide by any material term, provision, covenant, agreement, undertaking or condition of this **LEASE** after the expiration of all applicable grace and notice periods, if any, set forth in this **LEASE**, including **Paragraph 4.A** above, shall constitute a material default (a "Default") of this **LEASE** for which the **LESSOR** may exercise all such rights and remedies as provided at law, in equity or under this **LEASE** (provided, however, that the foregoing materiality standard for the failure to perform or abide by a term, provision, covenant, agreement, undertaking or condition of this **LEASE** shall not apply to any such matter that is already qualified to a materiality standard). Without limiting the foregoing, notwithstanding the notice and cure rights under **Paragraph 4.A** above, the failure of **LESSEE** to comply with any of the following within the cure period, if any, specified for any such breach or failure, shall constitute an immediate Default by **LESSEE** under this **LEASE**:

(1) Failure of **LESSEE** to pay any installment of Rent hereunder when payment is due. Notwithstanding the foregoing, **LESSEE** shall have one (1) five day grace period following written notice of non-payment from **LESSOR** of one installment of Rent in any twelve (12) month period during the Term of this **LEASE**.

(2) Failure of **LESSEE** to pay any Additional Rent or other monetary obligation within five (5) days following **LESSOR's** written demand therefore.

(3) Failure of **LESSEE** to maintain all insurance coverages required hereunder in full force and effect at all times during the Term of this **LEASE**.

(4) Failure of the **LESSEE** to replenish the Security Deposit in accordance with **Paragraph 33.B.** of this **LEASE**.

B. Upon the occurrence of a Default under this **LEASE**, **LESSOR** shall have the right, with or without notice or demand, to exercise all such rights and remedies granted or available under this **LEASE**, the laws of the State of Florida, federal law and/or common law (including, without limitation, the right to terminate this **LEASE**) without limiting any of the other remedies that **LESSOR** may have under this **LEASE**.

C. Mediation: In the event a dispute arises which the Parties cannot resolve between themselves, the Parties shall have the option to submit to non-binding mediation. The mediator or mediators shall be impartial, shall be selected by the Parties, and the cost of the mediation shall be borne equally by the Parties. The mediation process shall be confidential to the extent permitted by law.

8. Notices: All notices to the **LESSEE** under this **LEASE** shall be in writing and sent by certified mail return receipt requested, any form of overnight mail delivery or hand delivery to:

| | |
|---|---|
| If to **LESSEE**: | c/o United States Sugar Corporation<br>111 Ponce de Leon Avenue<br>Clewiston, Florida 33440<br>Attention: Malcolm S. (Bubba) Wade, Jr. and<br>Edward Almeida, Esq.<br>Fax (863) 902-2120 |
| With a copy to: | Gunster, Yoakley & Stewart, P.A.<br>Attorneys At Law<br>Las Olas Centre<br>450 East Las Olas Boulevard, Suite 1400<br>Fort Lauderdale, FL 33301-4206<br>Attention: Daniel M. Mackler, Esq. and<br>Danielle DeVito Hurley, Esq.<br>Fax: (954) 523-1722 |
| If to **LESSOR**: | South Florida Water Management District<br>3301 Gun Club Road<br>West Palm Beach, Florida 33406<br>Attention: Executive Director and General Counsel<br>Telefax: (561) 681-6233 |
| With a copy to: | Chairman of the Governing Board<br>South Florida Water Management District<br>3301 Gun Club Road<br>West Palm Beach, Florida 33406<br>Attention: Executive Director<br>Telefax: (561) 681-6233 |
| With a copy to: | Florida Department of Environmental Protection<br>3900 Commonwealth Boulevard, M.S. 49<br>Tallahassee, FL 32399<br>Attention: Secretary<br>Telefax: 850-245-2021 |

All notices required by this **LEASE**, provided they are addressed as set forth above, shall be considered delivered: (i) on the date delivered if by hand delivery, (ii) on the date upon which

the return receipt is signed or delivery is refused or the notice is designated by the postal authorities as not deliverable, as the case may be, if mailed by certified mail return receipt requested and (iii) one day after such notice is deposited with any form of overnight mail service for next day delivery. Either Party may change its address by providing prior written notice to the other of any change of address.

9. **Relationship between Parties:** Nothing contained in this **LEASE** shall be construed to create the relationship of principal and agent, partnership, joint venture or any other relationship between the Parties hereto other than the relationship of **LESSOR** and **LESSEE**.

10. **Assignment and Subletting:**

A. The **LESSEE** shall not assign, delegate or otherwise transfer all or any part of its rights and obligations as set forth in this **LEASE** collectively ("Assignment") or sublease all or any portion of the Premises ("Sublease") without the prior written consent of the **LESSOR** in each instance, which consent may be withheld by **LESSOR** in **LESSOR's** sole and absolute discretion; provided, however, that notwithstanding the foregoing, **LESSOR's** consent to an Assignment shall not be unreasonably withheld so long as **LESSEE** complies with **subparagraph C.** below. Any Assignment made by **LESSEE** without the prior written consent of **LESSOR** shall be void and of no force or effect.

B. In the event **LESSOR** does permit an Assignment by **LESSEE**, then the assignee shall automatically be deemed to have assumed all duties, responsibilities and obligations of **LESSEE** under this **LEASE** from and after the effective date of the Assignment (including, without limitation, the funding of the Security Deposit Fund pursuant to **Paragraph 33.B.** below) and the **LESSEE** shall, upon such Assignment, be automatically released of its duties, responsibilities or obligations under this **LEASE** from and after the effective date of the Assignment; provided, however, that **LESSEE** shall not be released with respect to any of the representation, warranties, duties, responsibilities, liabilities or obligations under this **LEASE** for matters or conditions arising, occurring or existing prior to the effective date of any Assignment. Any sale or other transfer of at least a fifty percent (50%) majority interest of the voting stock of **LESSEE** if **LESSEE** is a corporation (including by way of merger or consolidation), or any sale or other transfer of at least fifty percent (50%) of the general partnership interest in the event **LESSEE** is a general partnership or limited partnership, shall constitute an Assignment for purposes of this **LEASE**.

C. If **LESSEE** shall desire **LESSOR's** consent to any Assignment, **LESSEE** shall notify **LESSOR**, which notice shall include: (i) the name and address of the proposed assignee; (ii) the proposed effective date (which shall not be less than 45 nor more than 180 days after **LESSEE**'s notice); (iii) reasonable evidence that the proposed assignee has the financial ability to perform its obligations under this **LEASE**; and (iv) reasonable evidence that the proposed assignee is experienced in the operation of the Premises for agricultural operations, and such other information as **LESSOR** may reasonably require. In the event that **LESSOR** does not provide written notice of its approval or disapproval of a proposed Assignment within thirty (30) days after receipt of written request from **LESSEE**, then such Assignment shall be deemed to be approved by **LESSOR**.

D. Notwithstanding anything herein to the contrary, **LESSEE** shall have the right to assign its rights under this **LEASE** to an affiliate or subsidiary of **LESSEE** (i.e., an entity in which at least one of the entities comprising **LESSEE** owns more than a 50% voting interest or otherwise effectively controls the same) or to any Person(s) that acquires all or substantially all of the assets of **LESSEE** related to the sugar cane business and operations, without **LESSOR's** consent, provided, however, **LESSEE** agrees to give **LESSOR** a copy of the fully executed assignment and assumption of this **LEASE** evidencing such transfer and **LESSEE** shall not be released from its obligations hereunder.

E. Notwithstanding anything to the contrary contained in this **LEASE**, including this **Paragraph 10.**, **LESSEE** shall have the right to enter into licenses or Subleases for other parties to use all or portions of the Premises for agricultural crop production without **LESSOR's** consent to the extent the same are entered into in the ordinary course of **LESSEE**'s business consistent with past practices and such licensee or sublessee agrees to comply with Best Management Practices, all of which shall be subordinate to **LESSOR's** interest in the Premises.

F. Notwithstanding anything to the contrary contained in this **LEASE**, upon the Expiration Date, **LESSEE** shall assign to **LESSOR** all permits obtained by **LESSEE** in connection with the Premises to the extent such permits are assignable. To the extent that any licenses or permits that are required for the operation of the Permitted Uses have been assigned to **LESSOR** prior to or during the Lease Term, then **LESSOR** shall take such actions as are reasonably requested by **LESSEE** in order to maintain such licenses and permits in full force and effect during the Lease Term.

11. **Permits and Approvals:**

A. The **LESSEE** shall obtain all federal, state, local, and other governmental approvals and permits necessary for the occupancy, use, maintenance and operation of the Premises, as well as all necessary private authorizations and permits prior to the Commencement Date and shall maintain same throughout the Lease Term. Within five (5) days of demand by **LESSOR** to **LESSEE**, **LESSEE** shall provide and/or make available to **LESSOR** copies of all permits and authorizations that **LESSEE** is required to obtain pursuant to the provisions of this **LEASE**.

B. The **LESSEE** shall also obtain, and maintain throughout the term of this **LEASE**, any and all applicable **LESSOR (South Florida Water Management District)** permits, including but not limited to **LESSOR** Right of Way Permits and Consumptive Use Permits, as well as permits required by any of the Counties, if applicable. **LESSEE** acknowledges that there is no guarantee that **LESSEE** will receive any permits.

C. The **LESSEE** shall be responsible for compliance with all permit terms and conditions applicable to the Premises, including but not limited to those terms and conditions required by Environmental Resource Permits, Consumptive Use Permits, Surface Water Management Permits, Wetlands Resource Management Permits, Works of the District Permits, and Right of Way Permits issued by **LESSOR** with respect to the Premises. **LESSEE** further acknowledges that **LESSEE**'s responsibility for compliance with all permit terms and conditions applicable to the Premises, shall include, but not be limited to, operating and maintaining the

surface water management system and mitigation areas on the Premises in accordance with all permit requirements.

12. **Compliance with Laws, Rules, Regulations and Restrictions:** **LESSEE** shall comply with, and be the responsible entity for remedying all violations of, all applicable federal, state, local and **LESSOR** laws, ordinances, rules and regulations, permits, and private restrictions, applicable to the Premises and **LESSEE**'s operations conducted thereon and occupancy thereof, as well as **LESSEE**'s performance of this **LEASE**. **LESSOR** undertakes no duty to ensure such compliance. All rules and regulations under Chapter 373, Florida Statutes pertaining to the Premises remain in full force and effect.

13. **Indemnification:** For good and valuable consideration, the adequacy and receipt of which is hereby acknowledged, the **LESSEE** shall defend, indemnify, save, and hold the **LESSOR** harmless from and against any and all claims, suits, judgments, loss, damage and liability incurred by **LESSOR**, including but not limited to reasonable attorney's fees and costs incurred by **LESSOR**, ("Loss") which arise(s) directly, indirectly or proximately as a result of **LESSEE**'s or its officers', employees', contractors' or agents' use or occupation of the Premises, its operations conducted on the Premises, or from the performance or non-performance of any term, condition, covenant, obligation or provision of this **LEASE** by **LESSEE**, even if such Loss is caused by negligence on the part of **LESSOR**, but not **LESSOR's** or its officers' or employees' gross negligence or willful misconduct. **LESSEE** acknowledges that it is solely responsible for compliance with the terms of this **LEASE**. **LESSOR** shall have the absolute right to choose its own legal counsel in connection with all matters indemnified for and defended against herein and to the extent that **LESSEE** is providing such defense, **LESSEE** shall have the right, to the fullest extent permitted by law, to assert any defenses that are available to **LESSOR** in such matter.

14. **LESSEE's Property at Risk:** All of **LESSEE**'s personal property, equipment and fixtures located upon the Premises shall be at the sole risk of **LESSEE** and **LESSOR** shall not be liable under any circumstances for any damage thereto or theft thereof. In addition, **LESSOR** shall not be liable or responsible for any damage or loss to property or injury or death to persons occurring on or adjacent to the Premises resulting from any cause, including but not limited to, defect in or lack of repairs to the improvements located on the Premises, unless the same is caused by **LESSOR's** gross negligence or willful misconduct.

15. **Attorney's Fees:** In any litigation arising out of this Agreement, the prevailing Party shall be entitled to recover reasonable attorney's fees and costs from the other Party.

16. **Insurance:**

A. **Types of Insurance**. To the extent applicable and unless otherwise agreed to in writing by the **LESSOR**, including, without limitation, to the extent provided in **Schedule "4"**, **LESSEE** shall procure and maintain throughout the Lease Term at **LESSEE**'s sole cost and expense the following types of insurance with deductibles acceptable to **LESSOR** but in no event greater than $100,000 (unless otherwise agreed to herein and other than with respect to windstorm, which deductible shall not exceed 5% of the total insurable value):

(1) **Worker's Compensation Insurance.** If applicable, **LESSEE** shall provide workers' compensation subject to statutory limits and employers liability in the amount of ONE MILLION AND 00/100 DOLLARS ($1,000,000).

(2) **Liability Insurance.** (A) Comprehensive General Liability Insurance relating to the Premises and its improvements and appurtenances, which shall include, but not be limited to, Premises and Operations, Independent Contractors, Products and Completed Operations and Contractual Liability. Coverage shall be no more restrictive than the latest edition of the Commercial General Liability policies of the Insurance Services Office (ISO). This policy shall provide coverage for death, bodily injury, personal injury, and property damage that could arise directly, indirectly or proximately from the performance of this **LEASE**. The minimum limits of coverage shall be $1,000,000 per occurrence and $2,000,000 in the annual aggregate for Bodily Injury Liability and Property Damage Liability and (B) Umbrella liability insurance containing minimum limits of Fifty Million and No/100 Dollars ($50,000,000.00) for the Premises and shall follow form to the underlying General Liability. The limits of liability insurance shall in no way limit or diminish **LESSEE**'s liability under **Paragraph 13** hereof.

(3) Business Automobile Liability Insurance. Business Automobile Liability Insurance protecting **LESSEE** which shall have minimum limits of $5,000,000 per occurrence, Combined Single Limit for Bodily Injury Liability and Property Damage Liability. This shall be an "any-auto" type of policy including owned, hired, non-owned and employee non-ownership coverage.

(4) Casualty Insurance. Property insurance insuring against loss or damage customarily included under so called "all risk" or "special form" policies covering fire, lightning, vandalism, and malicious mischief, and including loss caused by any type of windstorm or hail (including Named Storms) on all Improvements and Personalty. To the extent commercially available, coverage must also include Certified Acts of Terrorism per the current Terrorism Risk Insurance Reauthorization Act of 2007 or any subsequent act, reauthorization or extension thereof. Said Property coverage on the Improvements shall (A) be in an amount equal to one hundred percent (100%) of the full replacement cost with a waiver of depreciation; and (B) contain an agreed amount endorsement with respect to the Property waiving all co-insurance provisions or to be written on a no co-insurance form.

(5) **Environmental Impairment Insurance.** Environmental Impairment Insurance with limits and in form and substance acceptable to **LESSOR**, in its sole and absolute discretion, with a maximum deductible of $250,000 and a policy term extending through the Expiration Date of this LEASE. Said policy must provide coverage for on-site clean-up and third-party claims for unknown pre-existing conditions & new conditions. Coverage must also include business interruption on an actual loss sustained basis and coverage for natural resource damage. Coverage must include above ground storage tanks and any other equipment with a risk of causing environmental impairment.. Acquisition of this insurance shall in no way limit or diminish **LESSEE**'s liability under **Paragraph 19** hereof.

B. **Proof of Insurance.** **LESSEE** shall provide **LESSOR** with current insurance certificates or proof of self-insurance (for Worker's Compensation Insurance)

evidencing all insurance required pursuant to this **LEASE** as proof of insurance prior to the Commencement Date and each year, upon renewal, thereafter. Upon request, **LESSEE** shall provide **LESSOR** with complete copies of the policies. All insurance required under this **LEASE** shall be written on a financially sound company acceptable to **LESSOR** with a rating of "A VIII" or better with AM Best or "A" or better with S&P and shall name **LESSOR** as loss payee and as additional insured as their interests may appear as applicable and shall contain a waiver of subrogation in favor of **LESSOR**.

C. **Notice of Insurance Cancellation.** **LESSEE** shall notify **LESSOR** at least fifteen (15) days prior to cancellation or modification of any insurance required by this **LEASE**. Insurance required under **Paragraphs 16.A. (1) (2), (3), (4), and (5)** above of this **LEASE** shall contain a provision that it may not be cancelled or modified until thirty (30) days after written notice to **LESSOR**. In the event **LESSEE** fails to obtain and keep any insurance required hereunder in full force and effect, **LESSOR** may at its option obtain such policies and **LESSEE** shall pay to **LESSOR** the premiums therefore, together with interest at the maximum rate allowed by law, upon demand as "Additional Rent". Without limiting the foregoing, **LESSEE**'s failure to obtain, pay for and keep any insurance required hereunder in full force and effect and unmodified (unless **LESSEE** has obtained **LESSOR's** prior written consent for any such modification) shall constitute an Event of Default under this **LEASE**.

D. **Subcontractor Insurance.** It shall be the responsibility of **LESSEE** to ensure that all subcontractors are adequately insured or covered under its policies.

E. **Business Interruption Insurance & Crop Insurance for Loss of Revenue/Yield.** To the extent applicable and unless otherwise agreed to in writing by the **LESSOR** (A) Business Interruption insurance (1) covering all risks required to be covered by the insurance provided for in subparagraph (A)(4) above and (2) on an actual loss sustained basis for the period of restoration in an amount equal to one hundred percent (100%) of the projected gross revenues from the operation of the Premises for a period of at least eighteen (18) months after the date of casualty and (3) containing an additional extended period of indemnity endorsement which provides that after the physical loss to the Property has been repaired, the continued loss of income will be insured until such income either returns to the same level it was at prior to the loss or twelve 12 months, whichever first occurs, and notwithstanding that the policy may expire prior to the end of such period. In no event shall the period of indemnification, including the extended period of indemnity, be less than thirty (30) months. The amount of such business income insurance shall be determined prior to the date hereof and at least once each year thereafter based on **LESSEE**'s reasonable estimate of the gross revenues from the Property for the succeeding twenty-four (24) month period; and (B) Crop Insurance providing revenue protection or coverage against yield losses Except in the case of a monetary Default under this Agreement or as otherwise set forth in this Agreement, however, in no event shall **LESSOR** have any claim to any business interruption insurance that **LESSEE** may procure (or proceeds thereof).

F. **Casualty.** Notwithstanding anything to the contrary in this **LEASE**, in the event of a casualty, **LESSEE** shall be obligated to restore the Premises.

(1) Notwithstanding the foregoing, in the event of a loss or damage to all or any portion of the Premises due to fire or other casualty that causes seventy-five percent (75%) or more of the Premises to be destroyed or damaged during the Lease Term, then **LESSEE** shall have the option to restore such loss or damage, by electing to do so in a written notice to **LESSOR** within thirty (30) days after such loss or damage.

(2) In the event that **LESSEE** elects to restore such loss or damage pursuant to **subparagraph 16.F.(1)** above, then **LESSEE** and **LESSOR** shall endorse any checks received so that the insurance proceeds can be paid into a bank account controlled by a mutually and reasonably acceptable third party escrow agent that will disburse the insurance proceeds to **LESSEE** from time to time as restoration progresses in order for **LESSEE** to timely pay all invoices related to same in accordance with the terms of a mutually and reasonably agreed upon escrow agreement, with any excess or surplus following completion of restoration to be paid to **LESSEE**. To the extent of any loss or damage to the Premises less than or equal to $500,000, **LESSOR's** consent shall not be required for the type, plans or manner of such restoration; provided, however, that prior to commencement of the restoration **LESSEE** shall provide **LESSOR** with a description of the restoration process, an evaluation of the proposed restoration that demonstrates that the same production capacity (if applicable) that was actually achieved prior to such loss or damage will be met after the restoration is complete. No later than forty–five (45) days after completion of the restoration, **LESSEE** shall notify **LESSOR** in writing of such completion and shall provide a certificate from the licensed engineer and/or architect that was engaged by **LESSEE** in connection with the restoration or, if none, a licensed engineer and/or architect that is reasonably acceptable to both parties, which certification (i) identifies the loss or damage to the Premises, (ii) identifies the nature and the amount of costs incurred by **LESSEE** in restoring the loss or damage, (iii) states that the restoration costs incurred were reasonable to perform the restoration in accordance with all applicable laws, and (iv) if applicable, states that the restoration work is substantially complete and that the restored facility is at least comparable in production capacity to that which was actually achieved immediately prior to the casualty loss or damage.

(3) In the event that **LESSEE** does not restore such loss or damage as provided above, then insurance proceeds for the property damage shall be paid by **LESSEE**'s insurer to **LESSOR** with all other recoveries being paid to **LESSEE**.

(4) Notwithstanding anything contained in this **LEASE** to the contrary, to the extent of any loss or damage to the Premises less than or equal to $500,000, **LESSEE** shall have the exclusive right to settle and adjust any claim with its insurance company, at its sole cost and expense, regarding the amount to be paid for any loss or damage under insurance as to which **LESSOR** is named as an additional insured and/or loss payee without **LESSOR's** participation or consent (except that **LESSOR** shall cooperate in executing any documents/assignments relating to such settlement or adjustment, upon **LESSEE**'s request); otherwise, to the extent of any loss or damage to the Premises greater than $500,000, **LESSOR** shall have the right (i) to participate with **LESSEE** in the adjustment, collection and compromise of any and all claims under all Property insurance policies and (ii) during any Event of Default, to execute and deliver on behalf of **LESSEE** all necessary proofs of loss, receipts, vouchers and releases required by the insurers. If **LESSEE** does not restore any loss or damage to the Premises as provided in **subparagraph 16.F.(1)** above, then **LESSOR** shall have the exclusive

right to settle and adjust any claims with the insurance company, at its sole cost and expense, for insurance proceeds for property damage under insurance as to which **LESSOR** is named as an additional insured and/or loss payee without **LESSEE**'s participation or consent (except that **LESSEE** shall cooperate in executing any documents/assignments relating to such settlement or adjustment, upon **LESSOR's** request). Except in the case of a monetary Default under this Agreement or as otherwise set forth in this Agreement, however, in no event shall **LESSOR** have any claims or rights with respect to any business interruption or business income insurance proceeds which are payable under any insurance maintained by **LESSEE**.

(5) In the event of a loss or damage to all or any portion of the Premises due to fire or other casualty during the Lease Term, no abatement of rent will occur.

17. Notice to **LESSOR** Concerning Specific Acts: The **LESSEE** agrees to immediately report any incidence of the following to the **LESSOR**:

A. Fire (other than controlled burning permitted pursuant to the terms of this **LEASE**)

B. Death or injury resulting in potential death or permanent disability.

C. Poaching and trespassing

D. Any hazard, condition or situation that is reasonably likely to (i) become a material liability to the **LESSOR**, or (ii) materially damage the Premises or improvements on the Premises of the **LESSOR**.

E. Any activity observed by **LESSEE** on the Premises that **LESSEE** should reasonably know is a violation of rules and regulations promulgated by the **LESSOR**, the Florida Fish and Wildlife Conservation Commission or any other State or local agency.

F. Any written notice of any violation of applicable Federal, State or local laws received by **LESSEE** from the applicable governmental authority.

G. Disposition of pollutants or contaminants per **Paragraph 18** hereof.

18. **Hazardous Materials and Pollutants:**

A. For purposes of this **LEASE**:

(1) "Pollutant" shall mean any hazardous or toxic substance, chemical, material, or waste of any kind, petroleum, petroleum product or by-product, contaminant or pollutant as defined or regulated by Environmental Laws.

(2) "Disposal" shall mean Pollution as defined in § 376.301(37) of the Florida Statutes Annotated (provided that for purposes of this **Paragraph 18.A(2),** "pollutants" in § 376.301(37) shall mean Pollutants as defined in **Paragraph 18.A(1)** of this **LEASE**) and the release, storage, use, handling, discharge or disposal of Pollutants.

(3) "Environmental Laws" shall mean any applicable federal, state or local laws, statutes, ordinances, rules, regulations or other governmental restrictions.

B. During the Lease Term, **LESSOR** shall have the right to cause the Premises to be monitored in accordance with the Best Management Practices to be developed by mutual agreement by **LESSOR** and **LESSEE**.

C. Prior to the Commencement Date, **LESSOR** has performed Buyer's Environmental Assessment pursuant to the Agreement for Sale and Purchase and performed sampling in those areas of the Premises where **LESSOR** identified concerns regarding the likely presence of Pollutants. Pursuant to the Agreement for Sale and Purchase, **LESSOR** has agreed to perform certain responsibilities for the Remediation of the Pollutants Identified in the Buyer's Environmental Assessment. **LESSEE** and **LESSOR** have no responsibility or liability under the terms of this **LEASE** for the Remediation of the Disposal of Pollutants Identified in Buyer's Environmental Assessment and such Disposal of Pollutants that occurred prior to the Commencement Date.

D. **LESSEE** shall not cause or permit the Disposal of any Pollutants upon the Premises, or upon adjacent lands, during the Lease Term, which violates Environmental Laws. Any Disposal of a Pollutant, whether caused by **LESSEE** or any other third party, in violation of Environmental Laws shall be reported to **LESSOR** immediately upon the knowledge thereof by **LESSEE**.

E. Within ninety (90) days, or such longer time as is reasonably necessary, of delivery of notice from **LESSOR** to **LESSEE**, and except as otherwise provided in **subparagraph C.** above, **LESSEE** shall be solely responsible, at **LESSEE**'s sole cost and expense, for commencing and thereafter performing, or causing to be performed, any and all assessments, cleanup and monitoring (collectively, "Remediation") of all Pollutants disposed of or otherwise discovered on the Premises or emanating from the Premises to adjacent lands, in violation of Environmental Laws, as a result of use or occupation of the Premises or surrounding lands by **LESSEE**, its agents, licensees, invitees, subcontractors or employees during the Lease Term (provided, however, that the foregoing shall not in any way limit any liability, obligations or rights of **LESSEE** or **LESSOR**, to the extent independently arising under the Agreement for Sale and Purchase, as modified and amended). In the event Remediation is necessary as required in the previous sentence, then **LESSEE** shall furnish to **LESSOR** within a reasonable period of time written proof from the appropriate local, state and/or federal agency with jurisdiction over the Remediation that the Remediation has been satisfactorily completed in full compliance with all Environmental Laws.

F. **LESSEE** understands and acknowledges **LESSOR's** intended use of the Premises as an everglades restoration project (hereinafter referred to as "**LESSOR's** Intended Use") and that it is imperative that **LESSEE**'s use of chemicals be monitored in accordance with the Best Management Practices to prevent the release of chemicals in concentrations that may have adverse impacts which jeopardize **LESSOR's** Intended Use, including, but not limited to, adverse impacts to human health or fish and wildlife. Material non-compliance with the Best Management Practices by **LESSEE** its agents, licensees, invitees, subcontractors or employees

during the Lease Term, after expiration of applicable grace and notice periods, shall constitute a Default under this **LEASE**.

G. For good and valuable consideration, the adequacy and receipt of which are hereby acknowledged, **LESSEE** shall indemnify; defend and hold harmless **LESSOR**, from and against any and all claims, suits, judgments, loss, damage, and liability which may be incurred by **LESSOR**, including but not limited to **LESSOR's** reasonable attorney's fees and costs, which arises directly, indirectly or proximately as a result of the Disposal of any Pollutants which violate Environmental Laws and are caused by **LESSEE**, its agents, licensees, invitees, subcontractors or employees with respect to the Premises during the Lease Term. This responsibility shall continue to be in effect for any Disposal of Pollutants in violation of Environmental Laws for which **LESSOR** provides written notice to **LESSEE** on or before the third anniversary of the Expiration Date.

H. While this Paragraph 18 establishes contractual liability for **LESSEE** regarding Disposal of Pollutants on the Premises as provided herein, it does not alter or diminish any statutory or common law liability of **LESSEE** for such Disposal of Pollutants, except to the extent provided in **subparagraph C** above.

I. The provisions of this **Paragraph 18** shall survive for three years after the Expiration Date.

19. **Discrimination:** The **LESSEE** shall ensure that no person shall, on the grounds of race, color, creed, national origin, handicap, or sex, be excluded from participation in, denied the benefits of, or otherwise be subjected to discrimination in any activity under this **LEASE**. The **LESSEE** shall take all measures necessary to effectuate these assurances.

20. **Publicity:** Prior to engaging in any discussions with the news media pertaining to this **LEASE**, the **LESSEE** shall notify the **LESSOR's** Office of Communications and obtain **LESSOR's** prior written consent, which may be given electronically. This includes news releases, media requests for interviews, feature articles, fact sheets, or similar promotional materials.

21. **Affidavit Regarding Ability to Enter into LEASE with State Agency:** The **LESSEE**, by its execution of this **LEASE**, acknowledges and attests that neither it, nor any of its suppliers, subcontractors, or consultants who shall perform work which is intended to benefit the **LESSOR** is a convicted vendor or, if the **LESSEE** or any affiliate of the **LESSEE** has been convicted of a public entity crime, a period longer than 36 months has passed since that person was placed on the convicted vendor list. The **LESSEE** further understands and accepts that this **LEASE** shall be either voidable by the **LESSOR**, in the event there is any misrepresentation or lack of compliance with the mandates of Section 287.133, F.S. The **LESSOR**, in the event of such termination, shall not incur any liability to the **LESSEE** for any work or materials furnished.

22. **Vacation of Premises:** Upon the expiration or termination of this **LEASE** as to any portion of the Premises, the **LESSEE** shall promptly vacate and surrender the Premises or applicable portion of the Premises to **LESSOR**. The **LESSEE** shall remove all personal

property of the **LESSEE** and shall restore such vacated portion of the Premises to its original condition existing as of the Commencement Date of this **LEASE**, subject to reasonable wear and tear, casualty not subject to restoration pursuant to **Paragraph 16.F** and property taken by condemnation pursuant to **Paragraph 36,** within a period not to exceed five (5) calendar days from the Expiration Date. Notwithstanding anything in this **LEASE** to the contrary, **LESSEE**, at its sole cost and expense, shall clean up and remove all abandoned personal property (including but not limited to mobile home trailers), refuse, garbage, junk, rubbish, solid waste, trash and debris from the portion of the Premises so vacated and shall deliver the portion of the Premises so vacated with cane stubble thereon to the extent the same exists from the then last harvest and, except as provided in **Paragraph 2.K** above, **LESSEE** is not obligated to replant any harvested crops or to disk any portion of the Premises after any harvest by **LESSEE**.

23. **Holding Over:** Any holding over without **LESSOR** consent shall constitute a Default by **LESSEE** and entitle **LESSOR** to reenter the Premises and collect monthly rent equal to 150% of the Rent at such time, together with the Additional Rent.

24. **Insolvency or Bankruptcy**: The appointment of a receiver to take possession of all or substantially all of the assets of **LESSEE**, or an assignment of **LESSEE** for the benefit of creditors, or any action taken or suffered by **LESSEE** under any insolvency, bankruptcy, reorganization or other debtor relief proceedings, whether now existing or hereafter amended or enacted, shall at **LESSOR's** option constitute a breach of this **LEASE** by **LESSEE**. Upon the happening of any such event or at any time thereafter, this **LEASE** shall terminate five (5) days after written notice of termination from **LESSOR** to **LESSEE**. In no event shall this **LEASE** be assigned or assignable by operation of law or by voluntary or involuntary bankruptcy proceedings or otherwise and in no event shall this **LEASE** or any rights or privileges hereunder be an asset of **LESSEE** under any bankruptcy, insolvency, reorganization or other debtor relief proceedings.

25. **Sale by LESSOR**: Notwithstanding anything contained in this **LEASE** to the contrary, in the event of a sale or conveyance by **LESSOR** of the Premises or any portion thereof or in the event of an assignment of this **LEASE** by **LESSOR**, any such assignment, sale or conveyance shall automatically operate to release **LESSOR** from any future liability upon any of the terms, provisions, covenants or conditions, express or implied, herein contained in favor of **LESSEE**, provided that the purchaser of the Premises or assignee of this **LEASE** executes a non-disturbance agreement in favor of **LESSEE** and agrees to be bound by the terms of this **LEASE** and in such event **LESSEE** agrees to look solely to the successor in interest of **LESSOR** in and to this **LEASE**. This **LEASE** shall not be affected by any such sale, and **LESSEE** agrees to attorn to the purchaser or assignee.

26. **Estoppel Confirmation:** **LESSEE** and **LESSOR** shall, within seven (7) days after written request of the other Party, execute an estoppel letter regarding the status of this **LEASE** which may be relied upon by any lender, mortgagee or purchaser of the Premises or the Crops and any assignee of either Party's interest in this **LEASE**. Such estoppel letter shall confirm the terms, conditions and provisions of this **LEASE**; that this **LEASE** is in full force and effect; that this **LEASE** is unmodified, or if modified, the provisions of any modifications; that neither **LESSOR** nor **LESSEE** is in default of any of the terms, conditions or provisions of this **LEASE**; that **LESSEE** has no offsets, counterclaims or defenses to the payment of any Rent

or Additional Rent; that **LESSEE** has no options to renew or purchase, and any other statements which **LESSOR** or **LESSEE** reasonably requests. In the event **LESSEE** or **LESSOR** fails to comply with any of the foregoing, such failure to comply shall automatically be deemed a confirmation by such Party that all items contained in the estoppel letter requested by the other Party are true and correct and any lender, mortgagee or purchaser of the Premises or the Crops, and any assignee of **LESSOR's** interest in this **LEASE** may rely on such confirmation.

27. **Capital Improvements and Alterations:**

A. **LESSEE** shall not make any alterations, additions or improvements, whether capital, internal or external, (collectively, "Alterations") in, on or to the Premises or any part thereof without the prior written consent of **LESSOR**, which consent may be withheld in **LESSOR's** sole and absolute discretion.

B. Any Alterations to the Premises, except for **LESSEE**'s movable furniture and equipment, shall immediately become **LESSOR's** property and, at the end of the Lease Term, shall remain on the Premises without compensation to **LESSEE**; provided, however, that any such movable furniture and equipment, otherwise belonging to **LESSEE**, but remaining on the Premises at the expiration or other termination of this **LEASE** shall also become the property of **LESSOR**.

C. In the event **LESSOR** consents to the making of any Alterations by **LESSEE**, the same shall be made by **LESSEE**, at **LESSEE**'s sole cost and expense, in accordance with the plans and specifications previously approved in writing by **LESSOR**. **LESSEE** shall comply with all applicable laws, including but not limited to Construction Lien Law of the State of Florida, ordinances, regulations, building codes, and obtain all required permits, inspections, and certificates as may be required by all governmental agencies having jurisdiction thereof.

28. **Liens:**

A. **LESSEE** shall keep the Premises free from any liens, including, but not limited to mechanic's liens, arising out of any work performed, materials furnished or obligations incurred by **LESSEE**.

B. The **LESSEE** herein shall not have any authority to incur liens for labor or material on the **LESSOR's** interest in the Premises and all persons contracting with the **LESSEE** for the destruction or removal of any building or for the erection, installation alteration, or repair of any building or other improvements on the Premises and all materialmen, contractors, mechanics and laborers, are hereby charged with notice that they must look to the **LESSEE** and to the **LESSEE**'s interest only in the Premises to secure the payment of any bill for work done or material furnished during the rental period created by this **LEASE**.

C. In the event that **LESSEE** shall not, within twenty (20) days following the imposition of any such lien, cause the same to be released of record by payment or posting of a property bond, **LESSOR** shall have, in addition to all other remedies provided herein and by law, the right, but not the obligation, to cause the same to be released by such means as it shall deem proper, including payment of the claim giving rise to such lien. All such sums paid by

**LESSOR**, including, but not limited to reasonable attorney's fees and expenses incurred by it in connection therewith, together with interest at the maximum rate allowed by law, shall be considered Additional Rent and shall be payable to **LESSOR** by **LESSEE** on demand.

D. **LESSOR** shall have the right at all times to record in the public records or post and keep posted on the Premises any notice permitted or required by law, or which **LESSOR** shall deem proper, for the protection of **LESSOR**, the Premises, the improvements located thereon and any other Party having an interest therein, from mechanic's and materialmen's liens, and **LESSEE** shall give to **LESSOR** at least thirty (30) days prior notice of commencement of any construction on the Premises.

E. Pursuant to Sections 713.01(21) and 713.10, the interest of **LESSOR** in the Premises and the improvements located thereon shall not be subject to liens for improvements made by **LESSEE** and such liability is expressly prohibited.

F. Notwithstanding anything to the contrary contained in this **LEASE**, **LESSEE** may from time to time, in its ordinary course of business, grant to certain lenders selected by **LESSEE** and its affiliates (the "Lenders") a lien on and security interest in all assets and personal property located on the Premises and owned by **LESSEE**, including, but not limited to, all crops (e.g., citrus and sugar cane), crop products, inventory, goods, machinery and equipment owned by **LESSEE** (but expressly excluding **LESSEE**'s right, title and interest in, to or under this **LEASE**) ("**LESSEE**'s Property") as collateral security for the repayment of any indebtedness to the Lenders and all amendments, modifications and renewals thereof (the "Indebtedness"). The Lenders may, in connection with any foreclosure or other similar action relating to the **LESSEE**'s Property, enter upon the Premises (or permit their representatives to do so on their behalf) in order to implement an action for default, foreclosure and/or any other remedy that Lenders may have against **LESSEE** and/or **LESSEE**'s Property under the terms and conditions of the Indebtedness without liability to **LESSOR**, to the extent any of **LESSEE**'s Property is located on the Premises. The Lender's rights with respect to access to the Premises and the crops thereon shall be strictly limited to the then current harvest season, subject to Lenders exercise of due care in connection with such access. **LESSOR** hereby agrees that any security interest, lien, claim or other similar right, including, without limitation, rights of levy or distraint for rent and **LESSOR's** statutory lien rights that **LESSOR** may have in or on **LESSEE**'s Property, whether arising by agreement or by law, are hereby subordinate to the liens and/or security interests in favor of the Lenders which secure the Indebtedness, whether currently existing or arising in the future. Nothing contained herein shall be construed to grant or permit a lien upon or security interest in any of **LESSOR's** assets or **LESSEE**'s right, title or interest in, to or under this **LEASE**. **LESSOR** agrees to accept timely performance on the part of any of the Lenders or their agents or representatives as though performed by **LESSEE** to cure any default or condition for termination (although the Lenders shall have no obligation to do so) to the extent such cure is completed within the applicable cure period **LESSEE** has to cure any such default under this **LEASE**. Subject to compliance with the terms and conditions of this **Paragraph 28.F.**, the foregoing subordination shall be automatic and self-effective without the necessity to execute any further documentation evidencing the same; however, without limiting the effectiveness of such subordination, **LESSOR** agrees to promptly execute any additional documents reasonably required by the Lenders to evidence **LESSOR's** subordination of its lien rights described herein. Notwithstanding anything in this **LEASE** to the contrary, **LESSEE**

hereby agrees that any Loss incurred by **LESSOR** due to bodily injury or property damage in connection with: (i) the Indebtedness; (ii) actions by any of the Lenders; (iii) any subordination by **LESSOR** set forth herein; or (iv) any other matters contained in this **Paragraph 28.F.**, all shall fall under the indemnification provisions in favor of **LESSOR** set forth in **Paragraph 13.** above.

29. Repair: **LESSEE** covenants and agrees that **LESSEE** shall maintain the Premises (which excludes the crops) in its original condition existing as of the Commencement Date of this **LEASE**, subject to reasonable wear and tear, casualty pursuant to **Paragraph 16.F** and condemnation pursuant to **Paragraph 36**. **LESSEE** shall, at **LESSEE**'s expense, maintain and preserve the Premises in the state of condition and repair as required in the immediately preceding sentence and make all necessary repairs to the Premises and all improvements, fixtures and equipment located thereon, if any, including but not limited to repairs to all interior, exterior, roof and structural portions of the Premises, all culverts, all pumps and pumping stations, all paved surfaces, windows, landscaping and all electrical, plumbing, HVAC and other machinery located on the Premises consistent with repair standard set forth in this paragraph. Subject to the other provisions of this **LEASE** that may provide to the contrary, including **Paragraph 16.F, Paragraph 35** and **Paragraph 36. LESSEE** shall be responsible for all such repairs and maintenance whether caused by acts of **LESSEE**, its agents, servants, employees, customers, guests, licensees or by acts of third parties, governmental regulations, acts of God, casualties, or any other reason.

30. Existing Interests in Premises: Pursuant to Section 373.099, Florida Statutes, **LESSOR** does not warrant or represent that it has title to the Premises. **LESSEE**'s occupancy of the Premises shall be subject to the rights of others existing as of the day immediately preceding the Commencement Date of this **LEASE** which are set forth in easements, restrictions, reservations, all matters of public record and all other encumbrances affecting the Premises as of the day immediately preceding the Commencement Date of this **LEASE**.

31. **LESSOR Inspection, Ingress and Egress:**

A. The right of entry is hereby reserved by the **LESSOR**, for itself and its officers, agents, employees, contractors, subcontractors, and assigns, to enter upon and travel through and across the Premises for the purposes of: inspections, maintenance, and for any lawful purpose including, but not limited to, inspecting the Premises to ensure the **LESSEE**'s performance of its obligations under this **LEASE**; sampling and monitoring the **LESSEE**'s use of chemicals and pesticides on the Premises; performing environmental remediation or performing any work or repairs, which the **LESSOR** may determine is necessary by reason of the **LESSEE**'s default under the terms of this **LEASE**; exhibiting the Premises for lease, sale or mortgage financing; conducting inspections, investigations, soil borings, surface and groundwater sampling, monitoring, and any other testing, sampling, or other investigation necessary to support the engineering design and/or any other analyses associated with the future use of the Premises. The **LESSEE** shall have no claim for damages of any character on account thereof against the **LESSOR** or any officer, agent, or assign thereof to the extent provided in this **LEASE**.

B. **LESSOR** agrees that from the Commencement Date through the Expiration Date, all officers, employees, contractors and agents of **LESSOR** shall have at all reasonable times upon reasonable advance notice to Edward Almeida, Esq., Vice President of Legal Affairs at (863) 902-2120 the right to enter upon the Premises for the purposes set forth in **subparagraph A** above; provided however that: (a) any contractors or agents of **LESSOR** shall first provide a certificate of insurance evidencing that such contractor or agent carries commercial general liability insurance in an amount not less than $1,000,000 combined single limit per occurrence for bodily injury, personal injury and property damage liability, which certificate shall name **LESSEE** as an additional insured thereunder; and (b) all such inspections, investigations and examinations by **LESSOR** or **LESSOR's** officers, employees and accredited agents shall be conducted in such a manner so as (i) not to cause any lien or claim of lien to exist against the Premises, (ii) not to unreasonably interfere with the operation of **LESSEE** or its business or its tenants and occupants; and (iii) at all times to comply with all of **LESSEE**'s or its tenants' safety standards and requirements.

C. **LESSOR** agrees to be responsible for: (x) any property damage that arises out of or is caused by **LESSOR** or its officers, employees, contractors and agents while such persons are acting within the proper scope of conducting inspections of, or accessing, the Premises, provided that with respect to any damaged sugarcane crop, **LESSEE**'s exclusive remedy shall be limited to compensation from **LESSOR** in the amount of $2,400 per acre of damaged sugarcane crop, subject to proration where the damage is less than a full acre, (y) to the extent found legally responsible, any property damage that arises out of or is caused by **LESSOR's** gross negligence or willful misconduct, or its officers, employees, contractors and agents, while acting outside the proper scope of conducting inspections of, or accessing, the Premises (e.g., negligence); and (z) to the extent found legally responsible, any personal injury arising from **LESSOR's** or its officers', employees', contractors' and agents' inspections of or access to the Premises (but the foregoing shall only be applicable to **LESSOR** only as to its gross negligence or willful misconduct). **LESSOR** shall promptly restore, if applicable, any property damage described above. For the purposes hereof, the term "to the extent found legally responsible" shall be deemed to mean "to the extent that **LESSOR** has the legal authority to agree to be responsible for the acts of its officers, employees, contractors and agents". **LESSEE** acknowledges that **LESSOR** has not made any representation or warranty to **LESSOR** as to, nor has **LESSOR** waived any right to claim that it does not have, legal authority to agree to the provisions of this **Paragraph 31.** The provisions of this **Paragraph 31** shall survive the Expiration Date or any termination of this Agreement for a period of one (1) year.

32. **Miscellaneous Provisions:**

A. **Invalidity of LEASE Provision:** Should any term or provision of this **LEASE** be held, to any extent, invalid or unenforceable, as against any person, entity or circumstance during the term hereof, by force of any statute, law, or ruling of any forum of competent jurisdiction, such invalidity shall not affect any other term or provision of this **LEASE**, to the extent that the **LEASE** shall remain operable, enforceable and in full force and effect to the extent permitted by law.

B. **Inconsistencies:** In the event any provisions of this **LEASE** shall conflict, or appear to conflict, the **LEASE**, including all exhibits, attachments and all documents

specifically incorporated by reference, shall be interpreted as a whole to resolve any inconsistency.

C. **Governing Law and Venue:** The laws of the State of Florida shall govern all aspects of this **LEASE**. In the event it is necessary for either Party to initiate legal action regarding this **LEASE**, venue shall be in the Fifteenth Judicial Circuit for claims under state law and the Southern District of Florida for any claims which are justiciable in federal court.

D. **Amendment:** This **LEASE** may be amended only with the prior written approval of **LESSOR** and **LESSEE**.

E. **Waiver:** Failures or waivers to enforce any covenant, condition, or provision of this **LEASE** by the Parties, their successors and assigns shall not operate as a discharge of or invalidate such covenant, condition, or provision, or impair the enforcement rights of the Parties, their successors and assigns nor shall it be construed as a waiver or relinquishment for the future enforcement of any such covenant, condition or right but the same shall remain in full force and effect. Furthermore, the acceptance of Rent, any Additional Rent or a partial payment of same by **LESSOR** shall not constitute a waiver of any preceding breach by **LESSEE** of any provision of this **LEASE** nor a waiver of the right to receive full payment of Rent or Additional Rent.

F. **Final Agreement:** This **LEASE** states the entire understanding between the Parties with respect to the use and occupancy of the Premises after the Commencement Date and supersedes any written or oral representations, statements, negotiations, or agreements to the contrary. The **LESSEE** recognizes that any representations, statements or negotiations made by **LESSOR'S** staff do not suffice to legally bind the **LESSOR** in a contractual relationship unless they have been reduced to writing, authorized, and signed by an authorized representative of **LESSOR**. This **LEASE** shall bind the Parties, their assigns, and successors in interest.

G. **Time of the Essence:** Time is of the essence with respect to every term, condition and provision of this **LEASE**.

H. **Survival:** The provisions of **Paragraphs 13, 18, 22 and 23** shall survive the expiration or termination of this **LEASE**. In addition, any covenants, provisions or conditions set forth in this **LEASE** which by their terms bind **LESSEE**, **LESSOR** or both **LESSOR** and **LESSEE** after the expiration or termination of this **LEASE**, shall survive the expiration or termination of this **LEASE** for a period of two (2) years, except for the provisions of **Paragraph 18,** which shall survive as and to the extent provided therein.

I. Prohibition Against Recording: **LESSEE** shall not record this **LEASE** or any portion or any reference thereto without the prior written consent of **LESSOR**, which consent may be withheld by **LESSOR** in **LESSOR's** sole and absolute discretion. In the event **LESSEE** violates any of the foregoing, this **LEASE** shall terminate at **LESSOR's** option or **LESSOR** may declare a Default hereunder and pursue any and all of its remedies provided in this **LEASE**.

J. **WAIVER OF JURY TRIAL. AS INDUCEMENT TO BOTH PARTIES AGREEING TO ENTER INTO THIS AGREEMENT, LESSOR AND LESSEE HEREBY WAIVE TRIAL BY JURY IN ANY ACTION OR PROCEEDING BROUGHT BY EITHER PARTY AGAINST THE OTHER PARTY PERTAINING TO ANY MATTER WHATSOEVER ARISING OUT OF OR IN ANY WAY CONNECTED WITH THIS LEASE. EACH OF THE PARTIES CERTIFIES THAT NO REPRESENTATIVE, AGENT OR ATTORNEY OF THE OTHER PARTY HAS REPRESENTED, EXPRESSLY OR OTHERWISE, THAT SUCH OTHER PARTY WOULD NOT, IN THE EVENT OF LITIGATION, SEEK TO ENFORCE THE FOREGOING WAIVER AND ACKNOWLEDGES THAT IT AND THE OTHER PARTIES HAVE BEEN INDUCED TO ENTER INTO THIS LEASE BY, AMONG OTHER THINGS, THE ACTUAL WAIVERS AND CERTIFICATIONS OF THIS SUBPARAGRAPH J.**

33. **Special Clauses:**

A. **Radon Gas:** Radon is a naturally occurring radioactive gas that, when it has accumulated in a building in sufficient quantities, may present health risks to persons who are exposed to it over time. Levels of radon that exceed federal and state guidelines have been found in buildings in Florida. Additional information regarding radon and radon testing may be obtained from your county public health unit.

B. **Security Deposit:**

(1) On the Commencement Date and until the **LESSEE** has assigned all of its interest under this **LEASE** pursuant to an Assignment permitted hereunder, the Security Deposit Fund and the Escrow Agreement (as defined below) shall refer to, respectively, the "General Escrow Fund" and the "General Escrow Agreement" (as such terms are defined in the Agreement for Sale and Purchase). Upon an Assignment permitted hereunder, **LESSEE** shall fund an escrow as a security deposit in the amount of FOUR HUNDRED EIGHTY-EIGHT THOUSAND TWO HUNDRED AND NO/100 DOLLARS ($488,200.00) to secure the performance of all of **LESSEE**'s obligations under this **LEASE** (the "Security Deposit Fund") which, at **LESSEE**'s option, shall be in the form of cash (a "Cash Escrow") held by an escrow agent mutually acceptable to **LESSEE** and **LESSOR** ("Escrow Agent") pursuant to an escrow agreement in form attached hereto as **Schedule "5"** ("Escrow Agreement"), or a Letter of Credit (as defined in **subparagraph 33.B.(2).** below). Upon the funding of such Security Deposit Fund by the assignee, **LESSOR** shall have no further rights or claims upon or with respect to the General Escrow Fund or General Escrow Agreement for matters related to the **LEASE**.

(2) Letter of Credit. In the event **LESSEE** elects to post a letter of credit pursuant to **subparagraph 33.B.(1).** above for the Security Deposit Fund ("Letter of Credit"), it shall: (a) be in the form of an irrevocable commercial letter of credit in form attached hereto as **Schedule "6"** with a term of at least twelve (12) months, (b) be issued by **LESSEE's** lender under **LESSEE's** revolving credit facility (subject to **LESSOR's** approval of such lender at the time of Closing), naming Escrow Agent as beneficiary, pursuant to the Escrow Agreement; (c) provide for Draws (as defined and set forth below) by Escrow Agent; and (d) have an "evergreen" clause and be renewed automatically each year by the issuing bank, unless the bank gives written notice to the beneficiary at least thirty (30) days prior to the expiration date of the

then existing Letter of Credit that the bank elects that it not be renewed. In the event the Letter of Credit is not timely renewed and **LESSEE** has not replaced the same within ten (10) business days prior to the expiration thereof, then Escrow Agent may draw upon the same and hold the proceeds pursuant to the terms of the Escrow Agreement. Each Letter of Credit shall be assignable or transferable to any **LESSOR** Credit Provider (in connection with any collateral assignment thereof) or any transferees, successors or assigns of **LESSOR** that becomes landlord under this **LEASE**. For the purposes of this **LEASE**, the term "Credit Provider" shall be deemed to mean **LESSOR's** lender/financing trustee/credit enhancer/underwriter.

(3) Draws Upon Cash Escrow and Letter of Credit. The Escrow Agreement shall provide that the Escrow Agent may only draw upon a Letter of Credit or Cash Escrow in favor of **LESSOR** (a "Draw") in the event: (a) an agreement has been executed by **LESSEE** and **LESSOR** agreeing upon the reason for, and amount of, the Draw; or (b) **LESSOR** delivers written notice to Escrow Agent of any monetary Default by **LESSEE** under the **LEASE**; or (c) all appeal periods have expired following a final order by a court of law rendering a monetary judgment against **LESSEE** in favor of **LESSOR**. Upon each such Draw request, Escrow Agent shall promptly release the Draw to **LESSOR**.

(4) Replenishing of Cash Escrow or Letter of Credit during the Term. **LESSEE** shall be required to replenish the Security Deposit Fund during the Lease Term in the event any Draws are made against the Security Deposit Fund in accordance with this **Paragraph 33.B.** within fifteen (15) days of such depletion. Any failure by **LESSEE** to replenish the Security Deposit Fund within fifteen (15) days of such depletion shall constitute a Default under this **LEASE**.

(5) Release of Cash Escrow and Letter of Credit Following Expiration Date. The Escrow Agreement for the Security Deposit Fund shall provide that Escrow Agent shall continue to hold the Security Deposit Fund until three (3) years after the later of (i) the final Expiration Date of this **LEASE** or (ii) the final expiration date of any other lease to which the Escrow Agreement is applicable (the "Scheduled Release Date"), provided that any claims must be made within the applicable survival period as provided under this **LEASE**, provided, however, that if there are any pending claims relating to any portion of such deposit on such Scheduled Release Date, then Escrow Agent shall continue to hold a portion of such deposit in accordance with the Escrow Agreement in the reasonably estimated amount necessary to satisfy such claim(s) until such claim(s) is resolved, and shall release the remaining amount of such deposit to **LESSEE**.

C. **Site Investigation: LESSEE** is responsible for examining the Premises and satisfying itself as to the general and local conditions, particularly water level conditions that are likely to impact **LESSEE**'s operation and those conditions bearing upon the availability of water, electric power, communication and road and access facilities. Failure on the part of **LESSEE** to acquaint itself with all available information pertaining to the Premises will not relieve **LESSEE** from the responsibility of furnishing the required facilities and services and for compliance with the terms and conditions of this **LEASE**. **LESSOR** assumes no responsibility or obligation to provide any roads or other facilities of whatever nature or for any understanding or representation made by any of its officers or agents during or prior to final execution of this

**LEASE** unless these provisions expressly provide for the furnishing of such facilities and such understanding or representation is specifically stated in this **LEASE**.

D. **Prohibited Activities: LESSEE** may perform maintenance of personal property, including but not limited to changing oil or fluids and servicing filters, on the Premises and store any fuel, or store or utilize any fuel tanks (whether empty or containing fuel or other hazardous substances), fuel trailers, hoses or any other fueling mechanisms on the Premises as reasonably necessary for normal business operations; provided, however, that any maintenance and fuel storage or handling on the Premises shall comply with Environmental Law and the applicable Best Management Practices and **LESSEE** shall remove all fuel trailers, hoses, tanks or other fueling mechanisms from the Premises that are owned by **LESSEE** prior to the expiration or termination of this **LEASE**.

E. **Water Levels: LESSEE** hereby waives any and all claims on the part of the **LESSEE**, which may arise or be incident to regulation of water levels associated with the Premises by the **LESSOR** and/or the U.S. Army Corps of Engineers, so long as such regulation is in accordance with the rules and regulations applicable thereto.

F. **Navigation: LESSEE** shall not do or cause to be done anything whereby the full and free use by the public of the water areas of and surrounding the Premises will suffer unreasonable interference. This condition does not apply to temporary dockage and/or mooring facilities that may be provided by **LESSEE** pursuant to and in accordance with the provisions of this **LEASE**.

G. **Compliance with Minimum Wage Law:** The **LESSEE** shall comply with the Fair Labor Standards Act, 29 USCS 201, et seq. The Act is the minimum wage law. Its requirement that the **LESSEE** pay "not less" than the rates so determined presupposes the possibility that the **LESSEE** may have to pay higher rates.

H. **Additional Requirements:**

(1) **LESSEE** shall not install or permit to be installed pit or vault latrines.

(2) **LESSEE** will allow the discharge of firearms on the Premises only as permitted by Florida law and consistent with the exercise of reasonable care and prudence, and **LESSEE** will not display or permit others to display firearms in a reckless manner.

(3) **LESSEE** shall not discharge nor permit others to discharge sewage effluent into the water areas of and surrounding the Premises provided, however, that **LESSOR** acknowledges and accepts the presence of currently existing septic systems on the Premises to the extent such systems are in compliance with applicable law.

(4) **LESSEE** shall not engage in any business activity on the Premises not expressly authorized in this **LEASE** unless otherwise authorized in writing by **LESSOR**.

(5) Except for the Permitted Uses (as to which no consent of **LESSOR** is required), **LESSEE**: shall not permit or suffer any nuisance on the Premises or the commission

of waste thereon; shall not conduct mining operations or drill for oil or gas upon the Premises; shall not remove sand, gravel, or kindred substance from the ground; or shall not, in any manner, substantially change the contour or condition of the Premises unless prior approval is granted in writing by **LESSOR**, which approval may be withheld in **LESSOR's** sole discretion.

(6) **LESSEE** will use the Premises and all rights and privileges herein granted to the extent needed in carrying out the true intent and purpose of this **LEASE**.

(7) **LESSEE** shall cooperate with **LESSOR**, its employees, agents, and assigns in carrying out the intent and purposes of this **LEASE**.

I. **Safety:**

(1) It is the **LESSEE**'s sole duty to provide safe and healthful working conditions to its employees on and about the Premises. The **LESSOR** assumes no duty for supervision of the **LESSEE**.

(2) The **LESSEE** shall provide first aid services and medical care to its employees. The **LESSOR** assumes no duty with regard to the supervision of the **LESSEE**.

(3) The **LESSEE** shall develop and maintain an effective fire protection and prevention program and good housekeeping practices on the Premises throughout the Lease Term.

(4) The **LESSOR** may order that the **LESSEE** halt operations under this **LEASE** if a condition of immediate danger to the public and/or **LESSOR's** employees, equipment or property exists. This provision shall not shift responsibility or risk of loss for injuries or damage sustained from the **LESSEE** to the **LESSOR**, and the **LESSEE** shall remain solely responsible for compliance with all safety requirements and for the safety of all persons and property on the Premises.

(5) The **LESSEE** shall instruct employees required to handle or use toxic materials or other harmful substances regarding their safe handling and use, including instruction on the potential hazards, personal hygiene and required personal protective measures.

(6) The **LESSEE** shall comply with the standards and regulations set forth by the Occupational Safety and Health Administration (OSHA), the Florida Department of Labor and Employment Security and all other appropriate federal, state, local or District safety and health standards.

(7) The **LESSEE** shall take the necessary precautions to protect customers and other members of the public that may be on or near the Premises from harm due to the operations of the **LESSEE**.

J. **Advertising and Commercial Activity:** There shall be absolutely no advertising, either visual or audio, placed on or conducted on the Premises except for names and logos appearing on **LESSEE**'S vehicles, gates or as otherwise may be existing on the date of this **LEASE**.

K. **Lead Based Paint Disclosure:** See Lead Based Paint Disclosure attached hereto and made a part hereof as **Schedule "7"**, if applicable.

L. **Inspection Rights:** The **LESSEE** shall maintain records and the **LESSOR** shall have inspection and audit rights as follows:

(1) **Maintenance of Records:** Subject to confidentiality agreements with third parties and the designation of certain records as "trade secret" documents under Florida law, **LESSEE** shall maintain all financial and non-financial records and reports related to the Premises or this **LEASE**, including but not limited to, records related to the application of pesticides and fertilizers. Such records shall be maintained and made available for inspection for a period of five (5) years from completing performance and receiving final payment under this **LEASE**.

(2) **Examination of Records:** Subject to confidentiality agreements with third parties and the designation of certain records as "trade secret" documents under Florida law, **LESSOR** or its designated agent shall have the right to examine in accordance with generally accepted governmental auditing standards all records related to the Premises or directly or indirectly related to this **LEASE**. Such examination may be made at any time during the Lease Term and through and including five (5) years from the date of final payment under this **LEASE** and upon reasonable notice, time and place.

(3) Records that pertain to the Premises or this **LEASE**: Notwithstanding the provisions of **subparagraph (1)** and **subparagraph (2)** above, in no event shall **LESSEE** be obligated to maintain or provide any financial or accounting information (e.g., pro-formas, tax returns, production reports, financial statements, appraisals, etc) or other information that pertains to **LESSEE**'s business operations or assets other than the Premises, provided that **LESSEE** agrees to maintain and, upon request, provide reports showing the acreage of sugar cane planted, the tons of sugar cane harvested from such planted acreage, and the "sucrose % cane" of such harvested acreage, in order to facilitate land exchanges or dispositions related to surplus portions of the Premises by **LESSOR**, subject to the trade secret protocol established by **LESSEE**.

(4) With respect to any such information made available to **LESSOR** pursuant to this **subparagraph L.** that is proprietary or "Trade Secret" (as defined under Section 812.081, Florida Statutes), **LESSOR** shall follow the trade secret protocol established by **LESSOR** and **LESSEE**.

(5) Extended Availability of Records for Legal Disputes: In the event that the **LESSOR** should become involved in a legal dispute with a third party arising from performance under this **LEASE**, the **LESSEE** shall extend the period of maintenance for all records relating to the **LEASE** until the final disposition of the legal dispute, and all such records shall be made readily available to the **LESSOR**.

M. **Public Access:** The **LESSEE** shall allow public access to all **LEASE** related documents in accordance with the provisions of Chapter 119, Florida Statutes, subject to all applicable exemptions and only as and to the extent Chapter 119 is actually applicable to

**LESSEE** (it being agreed that this **subparagraph M.** is not an admission or agreement by **LESSEE** that Chapter 119 is applicable thereto). Should the **LESSEE** assert any exemptions to the requirements of Chapter 119 and related Statutes, the burden of establishing such exemption, by way of injunctive or other relief as provided by law, shall by upon the **LESSEE**.

N. **Cooperation:** From the Commencement Date hereof through the Expiration Date, **LESSEE** shall cooperate in good faith with **LESSOR's** Credit Providers to provide information related to the Premises (and not the **LESSEE**'s business or other assets) and necessary for the original issuance or refinancing of the Certificates of Participation, so long as such Credit Providers execute and deliver to **LESSEE** a confidentiality agreement reasonably acceptable to **LESSEE**. **LESSOR** shall be responsible for any and all actual, out-of-pocket costs and expenses incurred by **LESSEE** in providing the information pursuant to this subparagraph (e.g., copying fees, but not including attorneys' fees incurred by **LESSEE** in connection with such requests).

O. **Intentionally Deleted**

P. **Operations Contracts:** To the extent that **LESSEE** may, at any time, desire to enter into any contract, license, sublease or other agreement in connection with **LESSEE**'s operations which is not terminable without penalty upon thirty (30) days notice and is binding on the Premises or **LESSOR** after the Expiration Date, then **LESSEE** shall give a copy of such agreement to **LESSOR**. If **LESSOR** consents at its sole and absolute discretion to **LESSEE**'s execution of such contract, license, sublease or other agreement, then, to the extent that the term thereof extends beyond the Expiration Date, **LESSOR** shall be deemed to have agreed to assume the provisions of such contract, license, sublease or other agreement from and after the date thereof (each, a "New Agreement"). Even though the foregoing assumption shall be automatic and self-effective without the necessity to execute any further documentation evidencing the same, **LESSOR** agrees to promptly execute any additional documents reasonably required by **LESSEE** to evidence **LESSOR's** assumption of such contract, license, sublease or other agreement described in this Paragraph. In the event that **LESSEE** submits a contract, license, sublease or other agreement to **LESSOR** for its approval pursuant to this Paragraph and, unless **LESSOR** advises **LESSEE** in writing within forty-five (45) days after receipt thereof that **LESSOR** has not approved such contract, license, sublease or other agreement, then the same shall be deemed to be approved thereby.

34. **Covenant of Quiet Enjoyment.** Provided that **LESSEE** faithfully performs all duties of **LESSEE** hereunder and complies with all term and conditions of this **LEASE**, **LESSEE** shall not be disturbed by **LESSOR** in its quiet enjoyment of the Premises, subject to the terms, conditions and provisions of this **LEASE**.

35. **Act of God.** In the event that trees or sugar cane crops or any other crops located on the Premises are damaged or destroyed due to any hailstorm, tornado, hurricane, flood, fire, or other act of god or any strike, civil disturbance or act of war or terrorism or due to diseases or parasites, neither **LESSOR** nor **LESSEE** shall have any responsibility or obligation to repair or replace such trees, sugar or other crops or to compensate each other or any other Party for the loss thereof.

36. **Condemnation:** Notwithstanding anything to the contrary contained in this **LEASE**, the following shall apply in the event of a taking, condemnation, or transfer in lieu thereof, of the whole or part of the Premises.

A. Total Taking. In the event the entire Premises is taken or condemned, or transferred or purchased in lieu thereof, by any governmental authority or other entity with the power of condemnation, this **LEASE** shall automatically terminate upon transfer of title. Rent payments shall then be apportioned to the date of such taking or transfer of title. Except for any separate award applicable solely to **LESSEE**'s business, **LESSEE** shall not be entitled to an apportionment of any award or payment applicable to the Premises, all of which shall be paid to **LESSOR**. Notwithstanding the foregoing, in the event that **LESSOR** is entitled to possession of the Premises after transfer of title, this **LEASE** shall continue during such extended possession pursuant to the terms hereof.

B. Partial Taking. In the event of a taking or condemnation of only a portion of the Premises or any other portion of the Premises is taken or condemned, or transferred or purchased in lieu thereof, by any governmental authority or other entity with the power of condemnation and such taking (i) in **LESSOR's** reasonable determination reduces the value of the Premises by fifty percent (50%) or more, (ii) in **LESSEE**'s reasonable determination, renders the Premises uneconomically feasible to operate or (iii) prevents, and would prevent after reasonable repair and reconstruction efforts by **LESSEE**, use of the Premises for its Permitted Uses under applicable law or regulations (including without limitation with respect to required access), then either **LESSOR** or **LESSEE** may terminate this **LEASE** effective upon the date of such taking or transfer of title. If neither **LESSOR** or **LESSEE** terminate this **LEASE** in such event, or in the event of a lesser taking or condemnation, then this **LEASE** shall continue with respect to all portions of the Premises or personalty not taken, condemned, sold, or transferred and, as applicable, the Rent due under this **LEASE** shall be equitably adjusted, if applicable, to account for the loss of the portion of the Premises taken. **LESSEE** shall not be entitled to an apportionment of any award or payment applicable to the Premises, all of which shall be paid to **LESSOR**.

C. **Condemnation Awards; Damages.** The Parties hereto agree to cooperate in applying for and in prosecuting any claim for any taking regarding the Premises or any portion thereof and further agree that condemnation awards or damages shall be allocated as follows:

(1) **LESSOR** shall be entitled to the entire award for the condemned Premises or any portion thereof and **LESSEE** shall have no rights to an apportionment of such an award or payment, provided, that, if applicable, **LESSOR** shall make portions of the award available for restoration purposes.

(2) **LESSEE** shall be entitled to make any available separate claim and recover any award thereon for any damages to **LESSEE**'s business operations under any available legal remedy, including but not limited to a claim for business damages, that may be allowable under applicable law. **LESSOR** shall have no rights to an apportionment of such an award or payment.

D. **Non-Affected Premises.** Notwithstanding any other provision of this **Paragraph 36,** any compensation for a temporary taking shall be payable to **LESSEE** without participation by **LESSOR**, except to the proportionate extent such temporary taking extends beyond the end of the Lease Term, and there shall be no abatement of Rent as a result of any temporary taking affecting any of the Premises.

37. **Joint and Several Liability:** The entities constituting **LESSEE** shall be jointly and severally liable for all obligations of **LESSEE** under this **LEASE**. A failure or default by any of the entities constituting **LESSEE** shall be deemed a failure or default by all of such **LESSEE** entities.

38. **Subordination and Nondisturbance:**

A. Subordination. Subject to the provisions of **subparagraph F.** below, this **LEASE** shall be subject and subordinate to any mortgage, deed of trust, trust indenture, assignment of leases or rents or both, or other instrument evidencing a security interest, which may now or hereafter affect any portion of the Premises, or be created as security for the repayment of any loan or any advance made pursuant to such an instrument or in connection with any sale-leaseback or other form of financing transaction and all renewals, extensions, supplements, consolidations, and other amendments, modifications, and replacements of any of the foregoing instruments ("Mortgage"), and to any ground lease or underlying lease of the Premises or any portion of the Premises whether presently or hereafter existing and all renewals, extensions, supplements, amendments, modifications, and replacements of any of such leases ("Superior Lease"). **LESSEE** shall, at the request of any successor-in-interest to **LESSOR** claiming by, through, or under any Mortgage or Superior Lease, attorn to such person or entity as described below. The foregoing provisions of this **subparagraph A.** shall be self-operative and no further instrument of subordination shall be required to make the interest of any lessor under a Superior Lease (a "Superior Lessor") or any mortgagee, trustee or other holder of or beneficiary under a Mortgage (a "Mortgagee") superior to the interest of **LESSEE** hereunder; provided, however, **LESSEE** shall execute and deliver promptly any certificate or instrument, in recordable form, that **LESSOR**, any Superior Lessor or Mortgagee may reasonably request in confirmation of such subordination.

B. **Rights of Superior Lessor or Mortgagee.** Any Superior Lessor or Mortgagee may elect that this **LEASE** shall have priority over the Superior Lease or Mortgage that it holds and, upon notification to **LESSOR** by such Superior Lessor or Mortgagee, this **LEASE** shall be deemed to have priority over such Superior Lease or Mortgage, whether this **LEASE** is dated prior to or subsequent to the date of such Superior Lease or Mortgage.

C. **Attornment.** If at any time prior to the expiration of the term of this **LEASE**, any Superior Lease shall terminate or be terminated by reason of a default by **LESSOR** as tenant thereunder or any Mortgagee comes into possession of the Premises or the estate created by any Superior Lease by receiver or otherwise, **LESSEE** shall, at the election and upon the demand of any owner of the Premises, or of the Superior Lessor, or of any Mortgagee-in-possession of the Premises, attorn, from time to time, to any such owner, Superior Lessor or Mortgagee, or any person or entity acquiring the interest of **LESSOR** as a result of any such termination, or as a result of a foreclosure of the Mortgage or the granting of a deed in lieu of

foreclosure, upon the then terms and conditions of this **LEASE**, for the remainder of the term. In addition, in no event shall any such owner, Superior Lessor or Mortgagee, or any person or entity acquiring the interest of **LESSOR** be bound by (i) any payment of Rent or Additional Rent for more than one (1) rental payment in advance, or (ii) any security deposit or the like not actually received by such successor, or (iii) any amendment or modification in this **LEASE** made without the consent of the applicable Superior Lessor or Mortgagee, or (iv) any construction obligation, free rent (other than as provided in this **LEASE**), or other **LESSOR** concession (other than as provided in this **LEASE**), payment obligation or monetary allowance (other than as provided in this **LEASE**), or (v) any set-off, counterclaim, or the like otherwise available against any prior landlord (including **LESSOR**), or (vi) any act or omission of any prior landlord (including **LESSOR**.

D. **Rights Accruing Automatically.** The provisions of this Paragraph shall inure to the benefit of any such successor-in-interest to **LESSOR**, shall apply and shall be self-operative upon any such demand, and no further instrument shall be required to give effect to such provisions. **LESSEE**, however, upon demand of any such successor-in-interest to **LESSOR**, shall execute, from time to time, instruments in confirmation of the foregoing provisions of this Paragraph, reasonably satisfactory to any such successor-in-interest to **LESSOR**, acknowledging such attornment and setting forth the terms and conditions of its tenancy.

E. **Limitation on Rights of Tenant.** As long as any Superior Lease or Mortgage shall exist, **LESSEE** shall not seek to terminate this **LEASE** by reason of any act or omission of **LESSOR** until **LESSEE** shall have given written notice of such act or omission to all Superior Lessors and Mortgagees at such addresses as shall have been furnished to **LESSEE** by such Superior Lessors and Mortgagees and, if any such Superior Lessor or Mortgagee, as the case may be, shall have notified **LESSEE** within ten (10) business days following receipt of such notice of its intention to remedy such act or omission, until a reasonable period of time shall have elapsed following the giving of such notice (but not to exceed sixty (60) days), during which period such Superior Lessors and Mortgagees shall have the right, but not the obligation, to remedy such act or omission. The foregoing shall not, however, be deemed to impose upon **LESSOR** any obligations not otherwise expressly set forth in this **LEASE**.

F. **SNDA.** Notwithstanding anything to the contrary contained in this Paragraph, **LESSOR** shall obtain on the Commencement Date and thereafter shall maintain for the benefit of **LESSEE**, a Subordination, Non-Disturbance and Attornment Agreement ("SNDA") from each and every Mortgagee and Superior Lessor to which this **LEASE** shall be subordinate, such SNDA to be in a commercially reasonable form and content for any financing or refinancing relating to the Premises, including the original issuance or refinancing of the Certificates of Participation reasonably acceptable to **LESSEE** and the applicable Mortgagee and Superior Lessor. The subordination of this **LEASE** by **LESSEE** provided in **subparagraph A.** hereof is conditioned upon and subject to the execution and delivery of the SNDA described herein, which shall allow **LESSEE** to remain in possession of the Premises provided that a Default has not then occurred, subject to the terms and conditions of this **LEASE** and the SNDA as negotiated and agreed among **LESSEE**, the applicable Mortgagee and Superior Lessor.

39. **Right of First Refusal:**

A. Offer to Lease Premises. As to any proposed or solicited agricultural leases for all or any portion of the Premises which the **LESSOR** intends to accept or enter into (the "Proposed Lease") that would provide for commencement within one (1) year following the Expiration Date (the "ROFR Period"), so long as no Default then exists under this **LEASE**, the **LESSOR** shall deliver a copy of such Proposed Lease to **LESSEE** and **LESSEE** shall have a right of first refusal ("ROFR") to lease the Premises from **LESSOR** on terms and conditions not less favorable to the **LESSOR** than those set forth in the Proposed Lease. The ROFR shall not apply to any proposed or solicited leases that are for uses other than agricultural uses.

B. Exercise of Right. If the **LESSEE** desires to lease the applicable portion of the Premises from **LESSOR** on the terms and conditions set forth in any Proposed Lease, **LESSEE** shall deliver a written notice of its election to the **LESSOR** within forty (40) Calendar Days of the date of receipt of the copy of the Proposed Lease by **LESSEE**.

C. Termination of the Right of First Refusal. The ROFR shall expire, terminate and be of no further force and effect on the earliest of (i) the one year anniversary of the Expiration Date, (ii) the Expiration Date if the **LEASE** is terminated as a result of a Default by **LESSEE**, (iii) the date **LESSEE** fails to timely deliver its election as prescribed in **Paragraph 39.B** above or (iv) the date **LESSEE** fails to enter into a lease agreement consistent with the terms and conditions set forth in the Proposed Lease after electing to do so.

[REMAINDER OF PAGE INTENTIONALLY BLANK – SIGNATURE PAGE(S) FOLLOW]

The Parties or their duly authorized representatives hereby execute this **LEASE** on the date written below by each Party's signature.

**LESSOR:**

SOUTH FLORIDA WATER MANAGEMENT DISTRICT, BY ITS GOVERNING BOARD

Witness: _____ By: _____
Name: _____
As its: _____

Witness _____ Date of Execution _____

STATE OF _____

COUNTY OF _____

The foregoing instrument was acknowledged before me this _____ day of _____, 200_ by _____ of the South Florida Water Management District, a public corporation of the State of Florida, on behalf of the corporation, who is personally known to me.

_____
Notary Public

_____
Print

My Commission Expires: _____

**LESSEE**:

UNITED STATES SUGAR CORPORATION,
a Delaware corporation

Witness: _____

By: _____
Name: _____
As its: _____

Witness _____

Date of Execution _____

STATE OF _____

COUNTY OF _____

The foregoing instrument was acknowledged before me this _____ day of _____, 200_ by _____, the _____ of United States Sugar Corporation, a Delaware corporation, on behalf of the corporation who is personally known to me or has produced _____ as identification.

_____
Notary Public

_____
Print

My Commission Expires: _____

## LIST OF SCHEDULES AND EXHIBITS

| | |
|---|---|
| EXHIBIT "A" | Description of Premises |
| EXHIBIT "4.F.(3)(b)" | Exchange Area |
| EXHIBIT "4.F.(4)" | Transition Acres |
| EXHIBIT "4.F.(6)" | Description of Certain Acreage |
| SCHEDULE "1" (¶2.D) | Category I and Category II Exotic/Invasive Pest Plants |
| SCHEDULE "2" (¶2.D) | Class I and Class II Prohibited Aquatic Plants |
| SCHEDULE "3" (¶2. ) | Best Management Practices |
| SCHEDULE "4" (¶16.A) | Insurance Provisions |
| SCHEDULE "5" (¶33.B.1) | Escrow Agreement |
| SCHEDULE "6" (¶33.B.2) | Form of Letter of Credit |
| SCHEDULE "7" (¶33.K) | Lead Based Paint Disclosure |

**EXHIBIT "A"**

Description of Premises

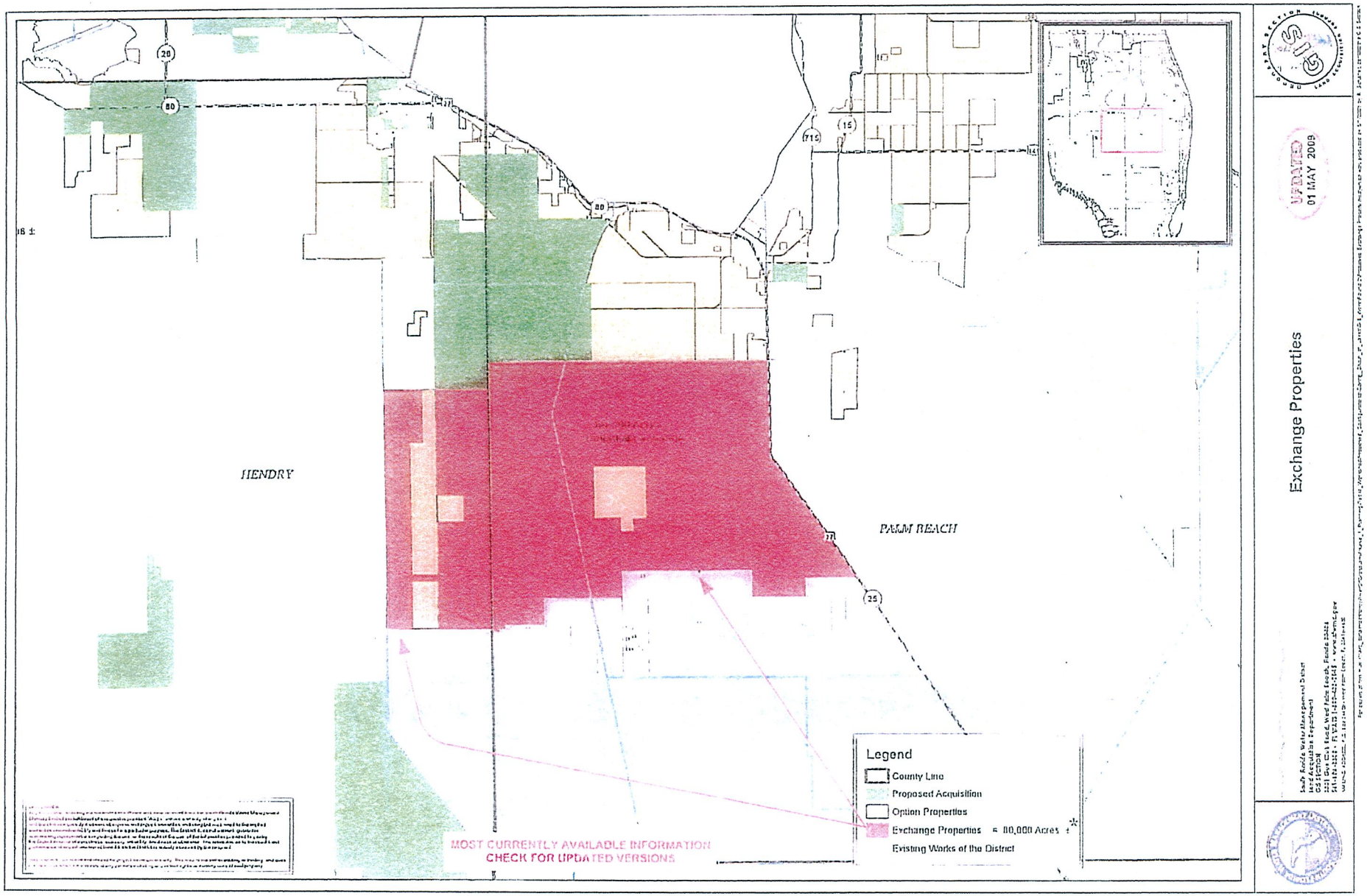
(LEGAL DESCRIPTION TO BE ATTACHED AT CLOSING)

**EXHIBIT 4.F.(3)(B)**

Exchange Area

[PROPERTY OWNED BY OTHERS SOUTH OF SWEET SPOT]

# EXHIBIT 4.F.(3)(b) -- EXCHANGE AREA



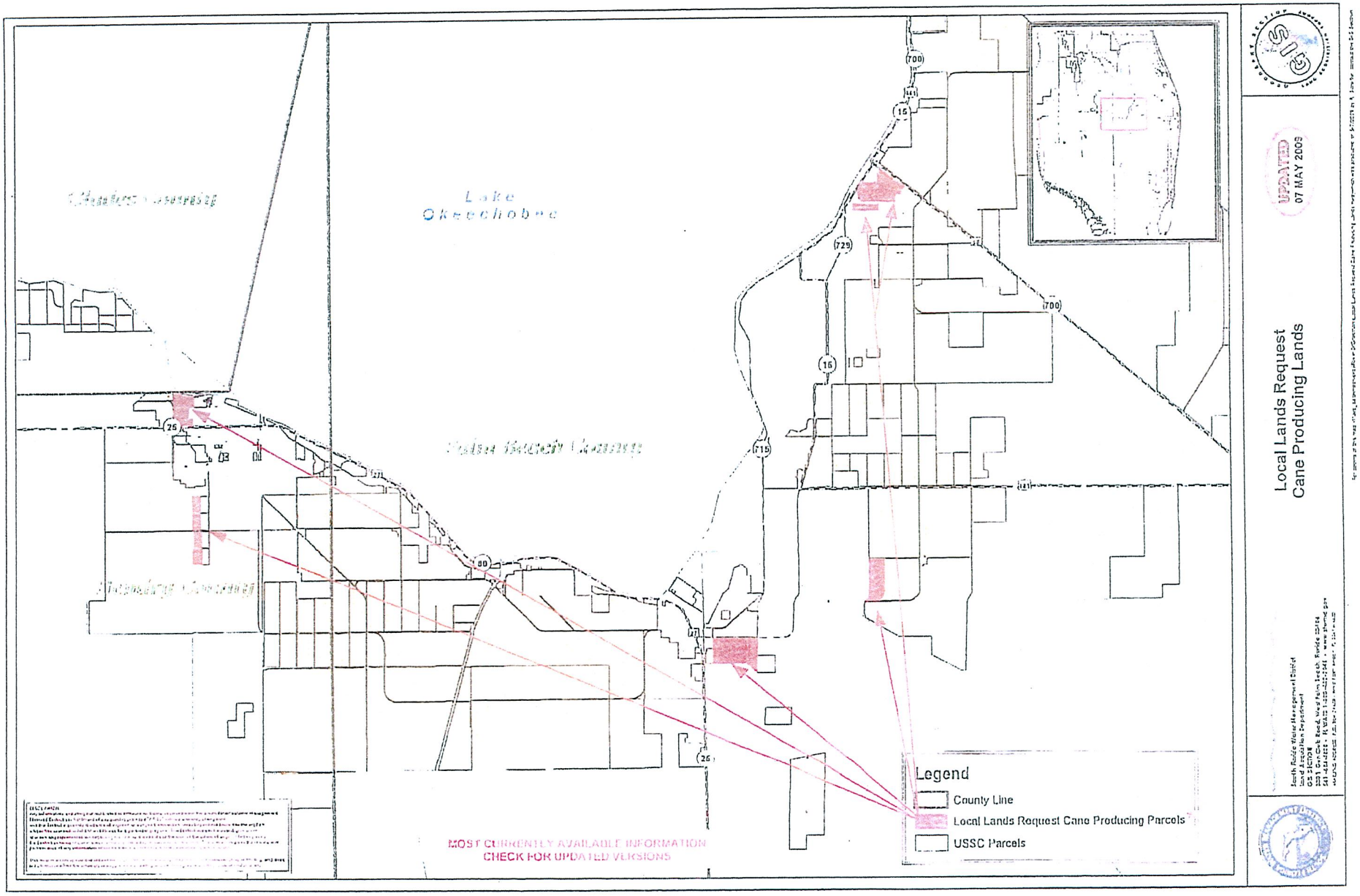

* Exchange Area

**EXHIBIT 4.F.(4)**

Transition Acres

[THERE ARE NO TRANSITION ACRES APPLICABLE TO THIS LEASE. THE TRANSITION ACRES SHOWN IN THE SKETCH ATTACHED HERETO SHALL ONLY BE APPLICABLE TO THIS LEASE AS AND TO THE EXTENT ACQUIRED AS A RESULT OF THE EXERCISE OF THE OPTION]

# EXHIBIT 4.F.(4) – TRANSITION ACRES



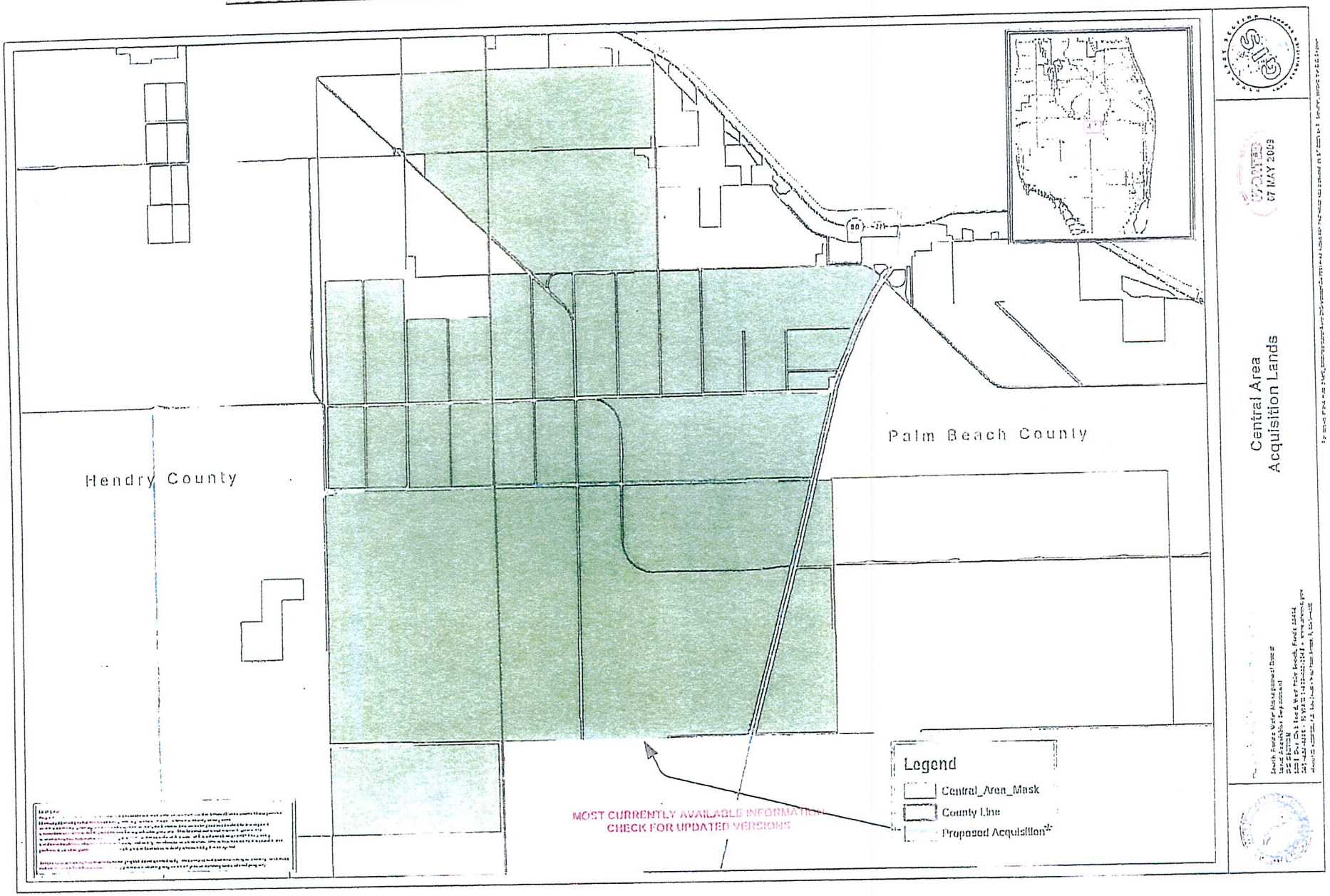

* Transition Acres

**EXHIBIT 4.F.(6)**

Description of Certain Acreage

[SWEET SPOT]

# EXHIBIT 4.F.(6) -- DESCRIPTION OF CERTAIN ACREAGE




* Description of Certain Acreage

## SCHEDULE "1"

Category I and Category II Exotic/Invasive Pest Plants

# SCHEDULE 1

# EXOTIC/INVASIVE PLANTS

South Florida Water Management District
3301 Gun Club Road
West Palm Beach, Florida 33406

January 12, 2009

*Prepared by*

URS Corporation
7800 Congress Avenue, Suite 200
Boca Raton, Florida 33487

## Category I Invasive Plant Species List

| Scientific Name | Common Name | Gov. List | Reg. Dist. |
|---|---|---|---|
| *Abrus precatorius* | rosary pea | N | C, S |
| *Acacia auriculiformis* | earleaf acacia | | C, S |
| *Albizia julibrissin* | mimosa, silk tree | | N, C |
| *Albizia lebbeck* | woman's tongue | | C, S |
| *Ardisia crenata* (=*A. crenulata* misapplied) | coral ardisia | | N, C, S |
| *Ardisia elliptica* (=*A. humilis* misapplied) | shoebutton ardisia | N | C, S |
| *Asparagus aethiopicus* (=*A. sprengeri; A. densiflorus* misapplied) | asparagus-fern | | N, C, S |
| *Bauhinia variegata* | orchid tree | | C, S |
| *Bischofia javanica* | bishopwood | | C, S |
| *Calophyllum antillanum* (=*C. calaba* and *C. inophyllum* misapplied) | santa maria (names "mast wood", "Alexandrian laurel" used in cultivation) | | S |
| *Casuarina equisetifolia* | Australian-pine, beach sheoak | P, N | N, C, S |
| *Casuarina glauca* | suckering Australian-pine, gray sheoak | P, N | C, S |
| *Cinnamomum camphora* | camphor tree | | N, C, S |
| *Colocasia esculenta* | wild taro | | N, C, S |
| *Colubrina asiatica* | latherleaf | N | S |
| *Cupaniopsis anacardioides* | carrotwood | N | C, S |
| *Dioscorea alata* | winged yam | N | N, C, S |
| *Dioscorea bulbifera* | air-potato | N | N, C, S |
| *Eichhornia crassipes* | water-hyacinth | P | N, C, S |
| *Eugenia uniflora* | Surinam cherry | | C, S |
| *Ficus microcarpa* (*F. nitida* and *F. retusa* var. *nitida* misapplied) | laurel fig | | C, S |
| *Hydrilla verticillata* | hydrilla | P, U | N, C, S |
| *Hygrophila polysperma* | green hygro | P, U | N, C, S |
| *Hymenachne amplexicaulis* | West Indian marsh grass | | C, S |
| *Imperata cylindrica* (*I. brasiliensis* misapplied) | cogon grass | N, U | N, C, S |
| *Ipomoea aquatica* | waterspinach | P, U | C |
| *Jasminum dichotomum* | Gold Coast jasmine | | C,S |
| *Jasminum fluminense* | Brazilian jasmine | | C, S |
| *Lantana camara* | lantana, shrub verbena | | N, C, S |
| *Ligustrum lucidum* | glossy privet | | N, C |

| | | | |
|---|---|---|---|
| *Ligustrum sinense* | Chinese privet, hedge privet | | N, C, S |
| *Lonicera japonica* | Japanese honeysuckle | | N, C, S |
| *Ludwigia peruviana* | Peruvian primrosewillow | | N, C, S |
| *Lygodium japonicum* | Japanese climbing fern | N | N, C, S |
| *Lygodium microphyllum* | Old World climbing fern | N | C, S |
| *Macfadyena unguis-cati* | cat's claw vine | | N, C, S |
| *Manilkara zapota* | sapodilla | | S |
| *Melaleuca quinquenervia* | melaleuca, paper bark | P, N, U | C, S |
| *Mimosa pigra* | catclaw mimosa | P, N, U | C, S |
| *Nandina domestica* | nandina, heavenly bamboo | | N, C |
| *Nephrolepis cordifolia* | sword fern | | N, C, S |
| *Nephrolepis multiflora* | Asian sword fern | | C, S |
| *Neyraudia reynaudiana* | Burma reed, cane grass | N | S |
| *Paederia cruddasiana* | sewer vine, onion vine | N | S |
| *Paederia foetida* | skunk vine | N | N, C, S |
| *Panicum repens* | torpedo grass | | N, C, S |
| *Pennisetum purpureum* | Napier grass | | N, C, S |
| *Pistia stratiotes* | waterlettuce | P | N, C, S |
| *Psidium cattleianum (=P. littorale)* | strawberry guava | | C, S |
| *Psidium guajava* | guava | | C, S |
| *Pueraria montana* var. *lobata (=P. lobata)* | kudzu | N | N, C, S |
| *Rhodomyrtus tomentosa* | downy rose-myrtle | N | C, S |
| *Rhynchelytrum repens (=Melinis repens)* | Natal grass | | N, C, S |
| *Ruellia tweediana (= R. brittoniana , R. coerulea)* | Mexican petunia | | N, C, S |
| *Sapium sebiferum (=Triadica sebifera)* | popcorn tree, Chinese tallow tree | N | N, C, S |
| *Scaevola taccada (=Scaevola sericea, S. frutescens)* | scaevola, half-flower, beach naupaka | N | C, S |
| *Schefflera actinophylla (=Brassaia actinophylla)* | schefflera, Queensland umbrella tree | | C, S |
| *Schinus terebinthifolius* | Brazilian pepper | P, N | N, C, S |
| *Senna pendula* var. *glabrata (=Cassia coluteoides)* | climbing cassia, Christmas cassia, Christmas senna | | C, S |
| *Solanum tampicense (=S. houstonii)* | wetland nightshade, aquatic soda apple | N, U | C, S |
| *Solanum viarum* | tropical soda apple | N, U | N, C, S |
| *Syngonium podophyllum* | arrowhead vine | | N, C, S |
| *Syzygium cumini* | jambolan plum, Java plum | | C, S |
| *Tectaria incisa* | incised halberd fern | | S |

| | | | |
|---|---|---|---|
| *Thespesia populnea* | seaside mahoe | | C, S |
| *Tradescantia fluminensis* | white-flowered wandering jew | | N, C |
| *Urochloa mutica* (= *Brachiaria mutica*) | Para grass | | C, S |

## Category II Invasive Plant Species List

| Scientific Name | Common Name | Gov. List | Reg. Dist. |
|---|---|---|---|
| *Adenanthera pavonina* | red sandalwood | | S |
| *Agave sisalana* | sisal hemp | | C, S |
| *Aleurites fordii (=Vernicia fordii)* | tung oil tree | | N, C |
| *Alstonia macrophylla* | devil tree | | S |
| *Alternanthera philoxeroides* | alligator weed | P | N, C, S |
| *Antigonon leptopus* | coral vine | | N, C, S |
| *Aristolochia littoralis* | calico flower | | N, C, S |
| *Asystasia gangetica* | Ganges primrose | | C, S |
| *Begonia cucullata* | wax begonia | | N, C, S |
| *Blechum pyramidatum* | green shrimp plant, Browne's blechum | | N, C, S |
| *Broussonetia papyrifera* | paper mulberry | | N, C, S |
| *Callisia fragrans* | inch plant, spironema | | C, S |
| *Casuarina cunninghamiana* | river sheoak, Australian-pine | P | C, S |
| *Cecropia palmata* | trumpet tree | | S |
| *Cestrum diurnum* | day jessamine | | C, S |
| *Chamaedorea seifrizii* | bamboo palm | | S |
| *Clematis terniflora* | Japanese clematis | | N, C |
| *Cryptostegia madagascariensis* | rubber vine | | C, S |
| *Cyperus involucratus* (*C. alternifolius* misapplied) | umbrella plant | | C, S |
| *Cyperus prolifer* | dwarf papyrus | | C, S |
| *Dalbergia sissoo* | Indian rosewood, sissoo | | C, S |
| *Elaeagnus pungens* | silverthorn, thorny olive | | N, C |
| *Epipremnum pinnatum* cv. 'Aureum' | pothos | | C, S |
| *Ficus altissima* | false banyan, council tree | | S |
| *Flacourtia indica* | governor's plum | | S |
| *Hemarthria altissima* | limpo grass | | C, S |
| *Hibiscus tiliaceus (=Talipariti tiliaceum)* | mahoe, sea hibiscus | | C, S |
| *Ipomoea fistulosa (=I. carnea* ssp. *fistulosa)* | shrub morning-glory | P | C, S |
| *Jasminum sambac* | Arabian jasmine | | S |
| *Kalanchoe pinnata* | life plant | | C, S |
| *Koelreuteria elegans* ssp. *formosana (=K. formosana; K. paniculata* misapplied) | flamegold tree | | C, S |
| *Leucaena leucocephala* | lead tree | N | N, C, S |
| *Limnophila sessiliflora* | Asian marshweed | P, U | N, C, S |

| | | | |
|---|---|---|---|
| *Livistona chinensis* | Chinese fan palm | | C, S |
| *Melia azedarach* | Chinaberry | | N, C, S |
| *Melinis minutiflora* | Molassesgrass | | C,S |
| *Merremia tuberosa* | wood-rose | | S |
| *Murraya paniculata* | orange-jessamine | | S |
| *Myriophyllum spicatum* | Eurasian water-milfoil | P | N, C, S |
| *Nymphoides cristata* | snowflake | | C, S |
| *Panicum maximum* | Guinea grass | | N, C, S |
| *Passiflora biflora* | two-flowered passion vine | | S |
| *Pennisetum setaceum* | green fountain grass | | S |
| *Phoenix reclinata* | Senegal date palm | | C, S |
| *Phyllostachys aurea* | golden bamboo | | N, C |
| *Pittosporum pentandrum* | Philippine pittosporum, Taiwanese cheesewood | | S |
| *Pteris vittata* | Chinese brake fern | | N, C, S |
| *Ptychosperma elegans* | solitaire palm | | S |
| *Rhoeo spathacea* (see *Tradescantia spathacea*) | | | |
| *Ricinus communis* | castor bean | | N, C, S |
| *Rotala rotundifolia* | roundleaf toothcup, dwarf Rotala | | S |
| *Sansevieria hyacinthoides* | bowstring hemp | | C, S |
| *Scleria lacustris* | Wright's nutrush | | C, S |
| *Sesbania punicea* | purple sesban, rattlebox | | N, C, S |
| *Solanum diphyllum* | two-leaf nightshade | | N, C, S |
| *Solanum jamaicense* | Jamaica nightshade | | C |
| *Solanum torvum* | susumber, turkey berry | N, U | N, C, S |
| *Sphagneticola trilobata* (=*Wedelia trilobata*) | wedelia | | N, C, S |
| *Stachytarpheta cayennensis* (=*S. urticifolia*) | nettle-leaf porterweed | | S |
| *Syagrus romanzoffiana* (=*Arecastrum romanzoffianum*) | queen palm | | C, S |
| *Syzygium jambos* | rose-apple | | C, S |
| *Terminalia catappa* | tropical-almond | | C, S |
| *Terminalia muelleri* | Australian-almond | | C, S |
| *Tradescantia spathacea* (=*Rhoeo spathacea*, *Rhoeo discolor*) | oyster plant | | S |
| *Tribulus cistoides* | puncture vine, burr-nut | | N, C, S |
| *Urena lobata* | Caesar's weed | | N, C, S |
| *Vitex trifolia* | simple-leaf chaste tree | | C, S |
| *Washingtonia robusta* | Washington fan palm | | C, S |
| *Wedelia* (see *Sphagneticola* above) | | | |

| | | | |
|---|---|---|---|
| *Wisteria sinensis* | Chinese wisteria | | N, C |
| *Xanthosoma sagittifolium* | malanga, elephant ear | | N, C, S |

## SCHEDULE "2"

Class I and Class II Prohibited Aquatic Plants

# SCHEDULE 2

# PROHIBITED AQUATIC PLANTS

South Florida Water Management District
3301 Gun Club Road
West Palm Beach, Florida 33406

January 12, 2009

*Prepared by*
URS
URS Corporation
7800 Congress Avenue, Suite 200
Boca Raton, Florida 33487

## CLASS I PROHIBITED AQUATIC PLANTS

*Alternanthera philoxeroides* - alligatorweed, green lead plant
*Casuarina* spp. - Australian Pine
*Crassula helmsii* - swamp stone crop
*Eichhornia spp.* - waterhyacinth
*Hydrilla verticillata* - hydrilla, Florida elodea,
*Ipomoea aquatica* - water spinach
*Ipomoea fistulosa*
*Lagarosiphon* spp. - African elodea
*Limnocharis flava* - Sawah flowing rush
*Lythrum salicari* - purple loosestrife
*Melaleuca quinquenervia* - melaleuca
*Mimosa pigra* - giant sensitive plant, cat's claw
*Monochoria hastata*
*Monochoria vaginalis*
*Myriophyllum spicatum* - Eurasian watermilfoil
*Nechamandra alternifolia*
*Oryza rufipogon* - wild red rice
*Pontederia rotundifolia* - tropical pickerelweed
*Salvinia* spp. (excluding S. minima)
*Schinus terebinthifolius* -Brazilian pepper
*Sparganium erectum* - exotic burreed
*Stratiotes aloides* - water-aloe, soldier plant
*Trapa* spp. - water chestnut
*Vossia cuspidata* - hippo grass

## CLASS II PROHIBITED AQUATIC PLANTS

*Hygrophila polysperma* - hygro
*Limnophila sessiliflora* - ambulia
*Pistia stratiotes* - water lettuce

## SCHEDULE "3"

Best Management Practices

A) Prior to Lessor's acquisition of the Initial Option Property or the Entire Option Property pursuant to the applicable Option, the term "Best Management Practices" as used in this Lease shall be deemed to mean the best management practices set forth in the permits issued by Lessor (in its governmental capacity with respect to the Premises), in accordance with Rules 40E-61 or 63, as applicable, of the Florida Administrative Code, or any successor or replacement rule thereof, provided, however, that nothing herein shall be deemed to prohibit or affect Lessee's ability to challenge the same.

B) After Lessor's acquisition of the Initial Option Property or the Entire Option Property pursuant to the applicable Option, the term "Best Management Practices" as used in this Lease shall be deemed to mean the following:

i) If the Initial Option Property is acquired pursuant to the Option, then Schedule 3.1-A, attached hereto and entitled "Best Management Practices Plan for Total Phosphorous and Total Nitrogen" and Schedule 3.2-A attached hereto and entitled "Best Management Practices Sugar Cane Production" shall be applicable to both the Premises and the Initial Option Property.

ii) If the Entire Option Property is acquired pursuant to the Option, then Schedule 3.1-B attached hereto (as Exhibit D to Schedule 3.1-A) and entitled "Best Management Practices Plan for Total Phosphorous and Total Nitrogen" and Schedule 3.2-B attached hereto and entitled "Best Management Practices Sugar Cane Production" shall be applicable to both the Premises and the Entire Option Property.

## SCHEDULE 3.1-A

[Best Management Practices Plan for Total Phosphorous and Total Nitrogen]

## Schedule 3.1-A: REPLACE THE FIRST PARAGRAPH ON PAGE 1 WITH THE FOLLOWING:

The South Florida Water Management District ("District") and the United States Sugar Corporation, SBG Farms, Inc., and Southern Gardens Grove Corporation (collectively "USSC") have entered into a Second Amended and Restated Agreement for Sale and Purchase, dated August 12, 2010, ("Second Amendment") pursuant to which the District will acquire approximately 26,791 acres of farmland owned by USSC with an option to buy approximately 46,022 acres ("Initial Option") and/or an option to buy approximately 153,209 acres (which includes the Initial Option lands, unless the Initial Option has already been exercised) ("Entire Option"). The District will lease land (referred to in this Schedule as "farming units" or "purchased lands") to USSC pursuant to the terms of the Second Amendment. This **Schedule 3.1-A** applies to such leased land as provided on the first page of Schedule 3.

# SCHEDULE 3.1-A

# BEST MANAGEMENT PRACTICES PLAN FOR TOTAL PHOSPHORUS AND TOTAL NITROGEN

South Florida Water Management District
3301 Gun Club Road
West Palm Beach, Florida 33406

May 11, 2009

# BEST MANAGEMENT PRACTICES PLAN FOR TOTAL PHOSPHORUS AND TOTAL NITROGEN

The South Florida Water Management District (SFWMD) and United States Sugar Corporation SBG Farms Inc., and Southern Gardens Grove Corporation (collectively "USSC") have entered into an Amended & Restated Agreement for Sale & Purchase dated May 2009 pursuant to which the District will acquire approximately 73,000 acres of farmland owned by USSC with an option to buy the remaining approximate 107,000 acres of farmland at a future date. With regard to the approximately 73,000 acres of farmland, the District will lease that land (referred to in this Schedule as "farming units" or "purchased lands") to USSC subject to the terms of the Amended & Restated Agreement for Sale & Purchase dated May 2009 and the related Lease Agreement dated May 2009. In the event that the SFWMD exercises the option and subsequently acquires the remaining USSC lands, this schedule (**Schedule 3.1-A**) becomes null and void and **Exhibit D Schedule 3.1-B** applies to all of the USSC acres then being leased from the SFWMD.

As set forth below, and in addition to the requirements set forth in the Best Management Practices Plan for Sugar Cane Production and Vegetable Farming (Schedule 3.2) and Best Management Practices (BMP) Plan for Citrus (Schedule 3.3), USSC as lessee shall implement source controls for reducing total phosphorus (TP) in discharges for all land uses and shall monitor flow volume and nutrient concentrations at discharge points from the property as identified in Exhibit A and as detailed in a District-approved Discharge Monitoring Plan and BMP Plan. In addition to currently monitored discharge points from purchased lands, this schedule identifies locations of new monitored locations in **Exhibit A** that will be considered in the District approved plan. Consistent with the Everglades Forever Act, "Best management practice" or "BMP" means a practice or combination of practices determined by the District, in cooperation with the Florida Department of Environmental Protection, based on research, field-testing, and expert review, to be the most effective and practicable, including economic and technological considerations, on-farm means of improving water quality in agricultural discharges to a level that balances water quality improvements and agricultural productivity.

The lessee shall obtain a permit from the District, or agree to the modification of existing permits, in accordance with Chapter 40E-63, F.A.C., and/or Chapter 40E-61, F.A.C., as applicable, to implement an approved BMP Plan and Discharge Monitoring Plan. The BMP Plan shall consider the BMPs and equivalent points ("points") as defined by Section 1.4 of the Best Management Practices Plan for Sugar Cane Production and Vegetable Farming (Schedule 3.2) and Best Management Practices Plan for Citrus (Schedule 3.3), as set forth below.

Attached as **Exhibit B Tables 1, 2, and 3** are the long-term historical FWMCs and UALs, target loads and concentrations, initial BMP point requirements, and other data for the purchased lands. If any inconsistencies exist between the language in **Exhibit B** and **Schedule 3.1-A** regarding performance measures, compliance methods, monitoring, initial BMP point requirements, or any other data contained in **Exhibit B Tables 1, 2, and 3**, then **Exhibit B** shall prevail.

## (1) BMP PLANS AND PERMITS

### (a) BMP Point Requirements

1. EAA Farms -- All farming units within the EAA that have long-term historical 3-year flow weighted mean concentration (FWMC) or unit area loads (UALs) that exceed a 200 ppb total phosphorus concentration or 1.2 pounds per acre phosphorus unit area load will also implement

BMP Plans with 35 points. All other farming units in the EAA that have long-term historical 3-year FWMC or UALs that are below 200 ppb and 1.2 pounds per acre (lbs/acre) will continue to maintain those historical levels in accordance with the Statistical Performance Assessment Method and continue to implement BMP Plans with 25 points. Farming units, their long-term historical FWMCs and UALs, and BMP point requirements are identified in Exhibit B.

2. Farms outside of the EAA -- Farming units in areas outside the EAA will implement BMP Plans with 35 points. Existing BMP plans already undergoing implementation in accordance with other statutory authorizations for agricultural non-point source control efforts, such as BMP plans authorized by the Florida Department of Agriculture and Consumer Services under a Notice of Intent ("NOI"), shall be evaluated for the equivalency points associated with a 35 point BMP plan. If a 35 point equivalency is evident, then a 35 point BMP plan will be considered as already implemented under this agreement.

**(b) Requirements for BMP Plans, Permits, and Water Quality Monitoring** -- BMP Plans will be required to have adequate water management, nutrient management, and sediment and erosion control BMPs. For those areas that fall inside the jurisdictional boundaries of Chapter 40E-61 and where a General Permit was previously granted by rule or formal District action, it will be necessary for the lessee to obtain an Individual Permit meeting the BMP and discharge requirements of this Schedule. For those areas outside the jurisdictional boundaries of Chapter 40E-63 and 40E-61, F.A.C., the lessee shall follow the same permitting process described under Chapter 40E-63, F.A.C., to obtain a staff report/permit that will become the exhibit to an executed consent agreement between the lessee and the District including a BMP Plan with 35 points (as defined above) and a Discharge Monitoring Plan contemplated by this Schedule. In cases where the lessee is a co-permittee with others, a separate permit may be used to approve the lessee's BMP and Discharge Monitoring Plans. Permit applications shall be submitted within 30 days of closing to obtain approval of BMP Plans, Discharge Monitoring Plans, and USSC Demonstration Project Scopes of Work.

1. For Basin IDs not already subject to BMP plans approved by the District, in order to begin BMP implementation immediately, the BMP Plan shall be implemented within 90 days after written approval by the District and the Discharge Monitoring Plan shall be implemented no more than 180 days from the closing of the purchase and sale agreement (regardless of whether a final permit or consent agreement has been issued). A proposed BMP and Discharge Monitoring Plan requires justification and must receive District approval for any timeframe that will take longer than these timelines to implement.

2. Regardless of the type of permit/approval obtained for the BMP Plan and Discharge Monitoring Plan (40E-63 WOD, 40E-61 WOD, consent agreement), the lessee shall monitor daily during discharge for total phosphorus in surface water discharges from the Basin ID at District-approved monitoring points and in accordance with monitoring requirements described in Chapter 40E-63, F.A.C., in order to obtain flow-weighted mean concentrations and calibrated flow measurements. Total nitrogen (TN) shall be monitored only if a TN numeric criterion or TMDL is adopted, or a TN limitation is made part of a NPDES permit requirement with respect to the following regions: the EAA, Water Conservation Areas, Lake Okeechobee or the Caloosahatchee River. Such monitoring shall be restricted to the Basin ID(s) that discharge to the applicable area. Data shall be reported to the District in electronic format within the time frame prescribed in the permit/approval issued by the District. The District will evaluate the data on an annual water year basis as set forth below.

3. USSC will have the right to install its own internal monitoring within a sub-basin and substitute this data in place of the sub-basin monitoring for the purpose of evaluating water quality in accordance with this Schedule.

## (2) WATER QUALITY PERFORMANCE ASSESSMENTS

The intent of the parties is to assure that there is no degradation of performance in the Basin IDs that have historically performed below 200 ppb phosphorus and 1.2 lbs/acre, and to achieve a net improvement in those Basin IDs not achieving 200 ppb and 1.2 lbs/ac. The parties recognize that variability exists in discharge data and have developed a statistical methodology to be used in this section as a tool in evaluating the Basin ID performance. It is recognized that this methodology is not a prediction tool but rather a tool to be used as an initial indicator of Basin ID performance and to be used in conjunction with additional evaluation. By virtue of the statistics utilized, the method will indicate excursions (e.g., false positives) which may or may not be actual indications of degradation, and, as a result, additional evaluation is appropriate to determine if a Basin ID is truly showing adverse performance or whether the results are due to other reasonable factors outside the control of the Lessee, including but not limited to hurricane effects, droughts, high phosphorus concentrations in Lake Okeechobee irrigation water, and other factors observed in other regional performance. Exhibit C shows an example of how the tool can indicate excursions when in fact an evaluation of reasonable factors may show adverse performance in years due to these factors.

**(a) Establishing Performance Measures** -- Establishing the performance measures for USSC farms was based on historical water quality levels determined from either farm level monitoring data (if available), or in the absence of farm level data, the monitoring data from the sub-basin in which the USSC Basin IDs are located. The available farm level monitoring data are representative of the discharges from a "Basin ID" which is a hydrological discharge unit identified in a BMP permit issued under Rule 40E-63 (F.A.C.).

1. For each USSC Basin ID or sub-basin (when applicable), an average value was established for both a 3-year moving flow-weighted mean TP concentration (FWMC) and 3-year moving average Unit Area Load (UAL) based on a ten year historical (long-term) period of record (see **Exhibit B, Table 1**). Based on these averages, performance measures were established for each "Basin ID" or sub-basin depending on whether the averages were below or above 200 ppb or 1.2 lbs/acre. The performance measure was therefore set based on the following criteria:

   a. a flow-weighted mean TP concentration of 200 ppb, or the historical average 3-yr flow weighted mean discharge TP concentration, determined from the 10-year period of historical record, if lower and

   b. a Unit Area Load (UAL) of 1.2 pounds/acre, or the historical average 3-yr moving average UAL determined from the 10-year period of historical record, if lower.

2. Farms (within Basin IDs or sub-basins) that historically show achievement of levels lower than 200 ppb and 1.2 pounds per acre, shall maintain the historical flow weighted mean concentrations and unit area loads (see **Exhibit B, Table 1**) as performance measures in order to prevent water quality "backsliding".

3. For USSC farms within sub-basins not having Basin IDs, those farms will be grouped into Basin IDs (to be assigned) and the monitoring data representative of those Basin IDs will be aggregated for consistency to facilitate a comparison with the performance measures that were established based on sub-basin water quality levels.

4. An annual performance assessment will be conducted for each Water Year (May 1st – April 30th) and will consist of:

a. Calculating a 3-yr moving average TP flow-weighted mean concentration (FWMC) and 3-yr moving average TP UAL for each year based on the current water year and previous two water years of observed data. The 3-yr moving average TP FWMC will be calculated as the sum total of the TP load (kilograms) divided by the sum total Flow (acre-feet) for the Water Year assessment period, and multiplied by a conversion factor to obtain a flow-weighted mean TP concentration for the overall three Water Year period. The 3-yr moving average TP UAL will be calculated as the average of the three Water Years during the assessment period.

b. Applying a statistical assessment method (described in Section 2.b) to determine if performance measures are being achieved.

**(b) Statistical Performance Measure Assessment Method** -- In order to assess progress with meeting performance measures, the assessment methodology in this section is grouped into two categories based on whether the Basin ID performance measure is to: 1) maintain historical water quality levels (FWMC and UAL) for Basin IDs historically below 200 ppb and 1.2 lb/acre, or 2) achieve progress toward meeting the performance measures of 200 ppb and 1.2 lbs/ acres for those Basin IDs that were historically above these levels. For Basin IDs required to maintain their historical levels, a variability component is incorporated into the assessment method. For those Basin IDs that have historical water quality levels above 200 ppb or 1.2 lbs/acre, a "Net Improvement" methodology is incorporated into the assessment method. The methodology is set forth as follows and is explicitly described in the spreadsheet included in the electronic file attached as **Exhibit C**, which includes a description of historical variability.

1. *Establishing Variability Factors – For Basin IDs with Historical Water Quality Below the 200 ppb and 1.2 lbs/acre Performance Measures.*

a. TP Limits for both TP Concentration and UAL were established for each Basin ID or sub-basin based on the natural variability exhibited by Basin ID discharges. Limits were calculated at the 90% confidence level using the following equation and are presented in **Table 1 (Exhibit B)**:

$$L_{90\%} = m + s\, t_{90\%,df}$$

where, $L_{90\%}$ = annual limit at the 90% confidence level
m = average 3-yr cumulative flow-weighted mean TP concentration (and UAL) during the 10-yr period of record
s = standard deviation of the average 3-yr cumulative flow-weighted mean TP concentration (and UAL) during the 10-yr period of record
$t_{90\%,df}$ = 1-tailed t statistic at 90% confidence level and with df degrees of freedom
df = N – 1
N = number of 3-yr average values

b. An overall excursion frequency was determined based on a comparison of each Basin ID or sub-basin to the criteria below. Applying the below criteria to the ten year historical record of 3-year moving averages of all Basin IDs or sub-basins in this category yielded an overall excursion frequency due to normal variability of 17%. Excursion frequency is defined as the total number of excursions divided by the total number of USSC Basin IDs and sub-basins; if any one or more of the criteria below is not met for a Basin ID or an

aggregated basin (in case additional basin IDs are created within one existing sub-basin), it is considered a single excursion.

i. At least one in three successive years the 3-yr moving average TP concentration shall to be at or below the 3-yr Target concentration (identified in **Table 1, Exhibit B**).
ii. At least one in three successive years the 3-yr moving average TP UAL shall to be at or below the 3-yr Target UAL (identified in **Table 1, Exhibit B**).
iii. The 3-yr moving average TP concentration shall be at or below the TP Limit concentration (identified in **Table 1, Exhibit B**).
iv. The 3-yr moving average UAL shall be at or below the TP Limit UAL (identified in **Table 1, Exhibit B**).

2. *Establishing "Net Improvement" Factors – For Basin IDs with Historical Water Quality Above the 200 ppb or 1.2 lbs/acre Performance Measures.*

a. The performance measure for those Basin IDs with historical TP discharges above the 200 ppb or 1.2 lbs/acre thresholds is to achieve these performance measures or otherwise demonstrate a meaningful net improvement in TP performance. In some Basin ID cases, achieving these performances measures (200 ppb and 1.2 lbs/acre) may require very little in the way of reductions (i.e. going from an average historical level of 225 ppb to an average target of 200 ppb). In other Basin ID cases, the reductions would need to be much greater (i.e. going from an average historical level of 386 ppb to an average target of 200 ppb). Therefore, it would be expected that discharges from some Basin IDs will be reduced sufficiently to achieve the 200 ppb and 1.2 lb/acre performance measures, while others discharges may not.

b. At the present time, there is no guidance for establishing with certainty a quantitative TP performance measure associated with increasing the BMPs from 25 points to 35 points, an increase of 40%. Hence, for the purpose of establishing a meaningful net improvement performance measure, it is necessary to make an assumption, and it was therefore assumed that the 40% increase in BMP points will potentially achieve a 20% performance improvement over the period of three years. By limiting the assumed performance improvement (20%) to one-half of the relative BMP point increase (i.e. 40%), this assumption acknowledges the diminishing returns associated with BMP water quality improvements.

c. In some of these Basin IDs, the historical TP concentration was below the 200 ppb threshold, indicating the UAL is the parameter that needs to be reduced towards the 1.2 pounds per acre threshold. In other Basin IDs, the historical UAL was below the 1.2 pounds per acre threshold, and for those Basin IDs it was the TP concentration that needs to be reduced towards the 200 ppb threshold. A summary of the more restrictive TP parameter, and the estimate of a "*20% Performance Improvement*" is identified in **Table 2 of Exhibit B**. In recognition of the uncertainty in the expected performance and variability, a deviation of 50% (the "*Upper Performance Limit*") of the TP improvement from historical levels will be applied during the annual assessment.

(c) **Annual Performance Assessment** -- For the water year ending April 30, the District will perform an annual assessment of the TP discharges from each USSC Basin ID based on observed monitoring data submitted by USSC. In cases where new Basin IDs are assigned within sub-basins, the observed monitoring data for the Basin IDs within each sub-basin will be aggregated for evaluation. If the aggregate result shows that performance measures are not being met, an evaluation of each Basin ID

will be conducted to ascertain if additional water quality improvement activities will be necessary on all Basin IDs within the sub-basin or for a particular individual Basin ID only. The following describes the assessment steps for Basin IDs required to either maintain historical water quality (for those Basin IDs below 200 ppb and 1.2 lbs/acre) with a variability component, or achieve a "Net Improvement" (for those Basin IDs above 200 ppb or 1.2 lbs/acre).

1. ***All Basin IDs*** -- An annual assessment will be conducted for each Basin ID for each water year (May 1st – April 30th). The 3-yr moving average TP flow-weighted mean concentration and 3-yr moving average TP unit area loading (UAL) will be calculated each year for each Basin ID or sub-basin as applicable.

2. *Basin IDs with Historical Water Quality – Below the 200 ppb and 1.2 lbs/acre Performance Measures (see **Figure 1 in Exhibit B** for flow chart of this process)*

   a. Of the total USSC Basin IDs and sub-basins, the overall excursion frequency will be calculated each water year for each Basin ID based on the criteria outlined in Section 2.b. To maintain consistency in calculating the overall excursion rate, new Basin IDs assigned within sub-basins will be treated (through aggregation of the observed monitoring data) as one area.

   b. If the overall excursion frequency is greater than 17%, then each Basin ID that contributed to the overall excursion will be deemed to not achieve their performance measures, unless the USSC submits an Assessment Report identifying valid Basin ID-specific factors outside USSC control (described in Section 2.e) that contributed to the higher than expected excursion frequency.

   c. If the overall excursion frequency is less than or equal to 17%, the excursion frequency expected due to normal variability, then all USSC Basin IDs will be deemed to have achieved the performance measures, with the exception of Basin IDs determined by the District to have excessive TP levels as described below.

   d. Regardless of the results of the excursion frequency assessment, discharges from individual Basin IDs will be assessed for excessive TP levels each water year. The 95% Confidence Limits in **Tables 1 and 2 (Exhibit B)** reflect an upper bound above the TP Targets, as defined by the variability exhibited in the 10-yr calibration period. If an individual Basin ID discharge exceeds the 95% confidence limit TP concentration or UAL, then the Basin ID will be deemed to not achieve their performance measure, unless the USSC submits an Assessment Report identifying valid Basin ID-specific factors outside USSC control (described in Section 2.e) that contributed to the excessive TP levels. Assessment Report requirements are outlined in Section 2.d.

   e. The annual performance assessment will not be conducted in water years when rainfall in the sub-basin, where the farming units are located, exceeds the maximum annual sub-basin rainfall or is below the minimum that occurred during the 10-yr calibration period (see **Table 3, Exhibit B**). If a year is excluded based upon this criterion, results from adjacent years will be treated as consecutive in assessing performance.

3. *Basin IDs with Historical Water Quality -- Above the 200 ppb or 1.2 lbs/acre Performance Measures (see **Figure 2 in Exhibit B** for flow chart of this process).*

a. Only one TP parameter will be assessed against the net improvement performance measure, as identified in **Table 2 of Exhibit B**. In recognition of the uncertainty in the expected performance and variability, a deviation of 50% of the TP improvement from historical levels will be applied, and this is referred to as the "*Upper Performance Limit*".

b. If the calculated 3-yr moving TP value is above the limit of the respective performance measure, the Basin ID will be deemed to not achieve its "Net Improvement" performance measure, unless the USSC submits an Assessment Report identifying valid Basin ID-specific factors outside USSC control (described in Section 2.e) that contributed to the levels of TP in the discharge.

c. The annual performance assessment will not be conducted in water years when rainfall in the sub-basin, where the farming units are located, exceeds the maximum annual sub-basin rainfall or is less than the minimum annual sub-basin rainfall that occurred during the 10-yr calibration period (see **Table 3, Exhibit B**). If a year is excluded based upon this criterion, results from adjacent years will be treated as consecutive in assessing performance.

d. Once a Basin ID achieves the "*20% Performance Improvement*" measure in **Table 2 of Exhibit B**, that Basin ID will be assessed in future years based on the new performance measure in accordance with Section 2.c.2 above. The limit would be established in accordance with Section 2.b.1. with the additional need to re-scale the historical data to the "20% Performance Improvement" as the new long-term performance measure.

4. *Annual Performance Assessment Timelines.*

a. By May 1 of each year, the District will provide a preliminary draft status of the current Water Year's TP performance assessment for each Basin ID.

b. By August 1 of each year, the District will provide a status report of the previous Water Year's TP performance assessment for each Basin ID.

**(d) USSC Assessment Report Requirements** -- the Assessment Report submitted by USSC will be subject to the following:

1. The USSC Assessment Report shall be submitted by November 1. Within 30 days of receipt of the Assessment Report, the District will notify USSC of the final determination of their findings.

2. If the District determines that the USSC Assessment Report reasonably explains why the USSC discharges did not achieve the performance measures set forth above, then no additional water quality improvement activities will be required for that Water Year.

3. If the District determines that the USSC Assessment Report does not reasonably explain why the USSC discharges did not achieve the performance measures set forth above, then USSC will submit a permit application to modify the existing BMP implementation plan to either increase the BMPs to 35 points, optimize an existing 35 point plan, or implement a USSC demonstration project, as applicable. All of these are to be permitted and implemented by April 30 (the end of the Water Year in which the USSC Assessment Report is submitted as conditioned in Section 2.d.1).

4. The Assessment Report may include evaluation of data, factors and analysis of the Maximum Performance Achievable as defined below, and shall be considered by the District in the determination of whether or not the performance measures have been achieved.

(e) **Factors Outside USSC Control** -- In the event that discharges from USSC Basin IDs do not achieve the performance measures as defined above, USSC will prepare and transmit an Assessment Report identifying valid factors outside USSC control as described below. The Assessment Report shall identify Basin IDs that contributed to not achieving the specified performance measures. The District will determine if the factors identified in the Assessment Report are valid. If the District determines that the Assessment Report provides valid justification, the District shall exclude the Basin ID from being required to implement additional water quality improvement activities for that Water Year. Examples of factors include, but are not limited to, those identified below:

1. *Extreme Hydrologic Events.* The presence of extreme hydrological (e.g. hurricanes or droughts) events may be identified by USSC in their Assessment Report. The multi-year (i.e., residual) effects of these extreme events may be cited as a specific factor influencing performance.

2. *Above or Below Average Rainfall.* The potential for the unit area load (UAL) of a Basin ID to be influenced by above average or below average rainfall may be evaluated by the Lessee as a factor for not achieving the UAL or the concentration targets and may be identified by USSC in their Assessment Report.

3. *Rainfall Runoff Relationship.* The potential for the UAL of a Basin ID or concentration to be explained by the sub-basin rainfall/TP load relationship or other regional relationship may be evaluated by the Lessee as a factor for not achieving the UAL or concentration and may be identified by USSC in their Assessment Report.

4. *Emergency Conditions.* Discharges will be allowed in accordance with the emergency provisions of Chapter 373, F.S.

5. *High Lake Stages.* For the Ch 298 Districts, L-8 and S-4 sub-basins, additional seepage may be induced by high stages of Lake Okeechobee. Recognizing this factor, Lake Okeechobee stage can be compared to the maximum annual average stage that occurred during the 10-yr calibration period (SFWMD DBKEY 15611; **Table 3, Exhibit B**). For the Ch. 298 Districts, the 10-yr period covered WY1999-2008, with an observed maximum annual average stage of 15.6 ft NGVD. For the L-8 sub-basin, the 10-yr period covered WY1996-2005, with an observed maximum annual average stage of 16.3 ft NGVD. For the S-4 sub-basins, the 10-yr period covered WY1998-2007, with an observed maximum annual average stage of 15.7 ft NGVD.

6. *TP Concentration of Lake Okeechobee Deliveries.* Basin ID discharges may be influenced by TP concentrations in Lake Okeechobee deliveries used for irrigation. The Assessment Report may provide an evaluation showing that a correlation exists between irrigation water quality data (for each Basin ID not meeting the performance measure for consideration) and Lake Okeechobee releases such that the releases are a contributing factor influencing Basin ID performance.

7. *Random & Historical Variation.* The Lessee may report any statistical uncertainty in the methodology using acceptable scientific methods In recognition of the statistical uncertainty associated with the derivation of the TP Limits, the Lessee will evaluate the potential for

statistical, data measurement or other error including the cumulative Type I errors, the effect of rounding the UAL to two decimal places, historical Joint Exceedance Frequencies for Basin IDs as identified in Tables 2 and 3, and the historical exceedance frequencies for individual 3-year averages that ranged from 9% to 41%. Random variation may also include sampling and analyses variations.

8. ***Other Factors.*** Unavoidable legal barriers or restraints, including those arising from actions or regulations not under the control of USSC.

(f) A Basin ID will be required to implement additional water quality improvement activities subject to the requirements of this Schedule if the District determines, after consideration of USSC's Assessment Report, that established performance measures are not being achieved in accordance with the annual performance assessment method described above.

## (3) IMPLEMENTION OF WQ IMPROVEMENT ACTIVITIES

It is the intent of this section and Section 4 to describe the process of implementing water quality improvement activities if the performance measures identified in **Exhibit B** are not achieved. Most of the USSC farms have existing BMPs in place. The Parties recognize that there is uncertainty as to the effectiveness of additional BMPs, and that there are diminishing returns on implementing additional BMPs. Many factors contribute to this uncertainty, including TP cycling in the aquatic systems, TP transport issues, inherent background TP levels, Lake Okeechobee concentrations and loads and human interaction effects that might obscure or negate the effects towards achieving further farm level TP load reductions. Through additional on-farm studies, demonstration projects and development programs, at some point in the future the Parties may find that additional BMP implementation is not technically or economically feasible. This point is referred to as the Maximum Performance Achievable (MPA).

Existing data demonstrate that BMPs in the EAA are capable of sustaining a basin-wide long-term average reduction in TP loads of 50%, and that at some point in the future, further efforts towards increasing the reduction may not be technically or economically feasible. BMP research and applications recognize that the majority of the reductions in TP loading at the farm level are due to changes in water management schemes that reduce volumes and concentrations of water actively pumped off-farm in rainfall events, sediment controls or fertilizer controls.

For the purpose of this document, new or additional water quality improvement activities refers to BMP implementation or other nutrient reduction activities that are not already occurring on the property pursuant to a pre-existing BMP plan or permit. Nothing herein prohibits a change in BMPs already implemented provided sufficient justification is submitted to and approved by the SFWMD (e.g. an existing BMP is in conflict with an optimization BMP as it is demonstrated to be ineffective or cost prohibitive). For Basin IDs required to implement new or additional water quality improvement activities (new BMP Plan, BMP optimization plan or participation in a USSC Demonstration Project), or establish new or additional monitoring, evaluation for achievement of performance measures will occur in the year following the third full Water Year after the District-established deadline for implementation of the approved BMP Plan and Discharge Monitoring Plan, and annually thereafter, as set forth in applicable permit or consent agreement. (Stated differently, whenever a new water quality improvement BMP plan is required as a result of not achieving the Performance Measures, the third annual performance assessment following the implementation deadline[1] will be used for the next performance assessment.) This will allow for a 3-year response time prior to any future implementation of additional water quality

[1] The District may grant an extension of the implementation deadline due to factors outside the control of USSC.

improvement activities. Annual evaluations for achievement of performance measures will begin immediately for those Basin IDs that are already required to implement the appropriate BMP levels and monitoring requirements.

In the event Performance Measures are not maintained or achieved 3 full water years after implementation, the Lessee shall implement the following remedial measures. For Basin IDs implementing BMP Plans with only 25 BMP points, the BMP Plan and permit shall be modified to include a total of 35 BMP points and implemented in accordance with the procedures and timelines set forth above. For Basin IDs that do not achieve the performance measures and already have permits to implement BMP Plans with 35 BMP points, the Lessee shall work cooperatively with the District to develop a BMP Optimization and Water Quality Improvement Plan, discussed below, that optimizes the BMP plan in order to achieve the performance measures. Additional BMP points or water quality improvement plans shall be approved by the District and incorporated into the applicable permit/consent agreement and shall comply with the requirements described below.

A Basin ID must meet the Performance Measures as described above regardless of the status of the EAA basin-level or farm-level compliance under Chapter 40E-63, or other compliance requirements under Chapter 40E-61. On lands with more stringent nutrient reduction and monitoring requirements than under this Schedule, the more stringent requirements, related to the existing permitted BMP plan, discharge monitoring plan, and compliance requirements, shall apply (e.g., C-139 Annex ERP, previous Consent Agreements). All BMP Plans are also incorporated by reference into the Lease Agreement between the District and lessee.

### (4) BMP OPTIMIZATION AND WATER QUALITY IMPROVEMENT PLANS

If, despite the implementation of a BMP Plan based on 35 BMP points, a Basin ID does not meet the Performance Measures defined in **Exhibit B**, the Lessee shall implement a District-approved BMP optimization plan or a District-approved USSC Demonstration Project, as described below. The Lessee shall submit to the District a permit application for either the BMP optimization plan or the USSC Demonstration Project in accordance with the schedule in Section 2(d). Full implementation of a District approved BMP optimization plan and/or USSC Demonstration Project shall be completed by the deadline established in the approved plan.

- *(a) BMP Optimization Plans* -- Optimization and water quality improvement plans shall be based on Basin ID specific site assessments of existing site conditions (e.g., soils, crops, etc.), operation techniques, farming activities, and BMPs. Proposed optimization plans shall include consideration of two sediment controls and one water management BMP. The purchase of partial Basin IDs shall also be considered in determining the efficacy or necessity of a BMP Optimization Plan. Indicated below are examples of BMP optimization activities; items 1, 2, and 3 must be considered in the lessee's proposal. If these are not possible to implement, other activities may be proposed as long as it is demonstrated that they are optimization activities resulting in new or improved BMP implementation activities. The activities are not limited to those listed below. These examples were developed based on findings by the UF-IFAS in BMP technical datasheets and the Final Report on Everglades Agricultural Area BMPs for Reducing Particulate Phosphorus Transport (June 2005) to the FDEP. If the lessee proposes other optimization efforts, they must be substantiated by technical information such as District demonstration project and UF/IFAS research results or other scientifically defensible data that is mutually agreed to by the parties. All optimization efforts will require detailed documentation for verification of implementation.

    1. Install weed retention booms in the main canal at an optimal distance from the main discharge structure to ensure water quality benefits in discharges. UF/IFAS literature suggests

greater than 300 m (984 ft) upstream of the main pump stations; however, this distance may be modified based on site specific conditions.

2. Mechanically remove accumulated floating aquatic vegetation, initially every six months until a site-specific schedule is established for optimal water quality results. Removed vegetation shall be placed away from any canals or ditches in a manner and at a location that will prevent reintroduction to the canals. The extent or distance of the vegetation removal activities from the main discharge structure shall be determined based on site specific conditions. There must be a technical basis to demonstrate the proposed distance is optimal for water quality improvements at the discharge structure. Schedule removal of aquatic vegetation when no immediate need for pumping is expected because physical removal will cause dislodging of detritus from the roots.

3. Determine the lowest pump velocity that meets the farm specific water management needs in addition to optimizing canal velocities targeted at minimizing transport of sediments downstream through the discharge structure during normal operation. Establish the associated canal water levels, cross sectional dimensions, and/or pump speeds to maintain that velocity and for record keeping purposes.

4. Use 5-foot vegetated buffers and berms along all ditches. Native grass or other unfertilized grasses (e.g. Bahia) should be used.

5. Measure canal sediment accumulation in the canal and sump upstream of the discharge structure, every six months initially until a site-specific schedule is established for optimal water quality results from localized canal cleaning. Determine the maximum sediment accumulation that is permissible to prevent sediment transport during pumping events based on established canal velocities. Based on these results, establish a sediment canal cleaning schedule more stringent than the historical schedule. All cleaning should take place prior to the rainy season (March) when pumping will be more frequent, and prior to the growing and hurricane season (August), when lower canal levels may need to be attained. If canal levels are lowered to facilitate canal cleaning, there shall be no off site discharges. If lowering water levels in a canal prior to sediment removal is necessary, use internal/portable pumps or gravity drainage to direct this water to fallow farms.

6. Do not pump offsite during or immediately after sediment removal is complete. Wait 24 hours or until turbidity levels return to normal conditions.

7. Start and stop pump controls must be set at elevations to prevent pump cycling and suspension of sediments. Extend pump period cycling to a minimum of eight hours or provide the basis for the optimal settings, if different.

8. Provide water management such that there is no direct discharge of rice and fallow-flooded field drainage. Retain or use for internal irrigation.
9. For vegetable crops, improve irrigation practices using soil moisture measurements to determine irrigation needs (amount and timing).
10. Optimization of vegetable nutrient application rates and control application methods (mulched beds).

*(b) USSC Demonstration Projects* – For Basin IDs not achieving Performance Measures, USSC may conduct a District-approved demonstration project evaluating the efficacy of a BMP optimization project described above. The project scope will be approved by permit modification, which shall include an independent technical review.

*(c) Maximum Performance Achievable* -- If after BMP optimization or demonstration projects have been completed to a level such that the District finds that no further optimization activities are feasible, a Basin ID continues to not achieve the Performance Measures, the Basin ID shall be evaluated to determine if it has optimized to the maximum extent practicable for the review period based on the latest technical information available. The District will determine the MPA for a Basin ID based on data provided by USSC, IFAS or obtained through District Demonstration and Research Projects. The MPA for a Basin ID shall also consider the magnitude of the water quality benefits (in discharges from the Basin ID as well as at the STA outflow) associated with any additional activities and the diminishing returns for those efforts. The MPA is Basin ID specific and is dependent on the current levels of P in discharges as well as other factors in the Basin ID. The MPA will be based on BMP implementation and other site specific variables, and that reductions beyond this point may be cost prohibitive or technically infeasible. The MPA is based on the latest technical information available for the review period. All of the activities contributing to the MPA shall continue to be implemented unless permit modifications are approved. In the future, if additional water quality improvement measures become feasible, then an MPA can be revised.

## (5) DISTRICT DEMONSTRATION AND RESEARCH PROJECTS

The Lessee shall allow the District access to all leased farms in order to conduct research, related projects, and associated monitoring designed to improve the efficacy of agricultural BMPs. The District will provide written notice and a copy of the project scope at least 120 days prior to initiation of the project.

USSC will contribute in-kind services over the period of the lease, not to exceed a value of $1.2 million, to facilitate the USSC Demonstration Project and the District's demonstration and research projects. The USSC in-kind services shall be calculated in accordance with the most recent cost guidelines (see http://www.economics.nrcs.usda.gov/cost/nrcscost.html) published by the United States Department of Agriculture - Natural Resources Conservation Service (USDA-NRCS), and USSC shall submit an annual report summarizing its in-kind services. The in-kind services shall include, but not be limited to:

- Assigning a USSC point of contact for demonstration projects to be responsible for the logistics and scheduling of associated activities on the farm, notifying the District of any field constraints or deviations, providing technical insight, participating in meetings, reviewing project documents, and coordinating with the District or its contractors.
- Providing man-hours and equipment to perform on-farm labor, including but not limited to, activities such as canal vegetation and sediment removal, earthwork, land preparation, planting and harvesting of crops in research plots, soil and water sample collection.
- Laboratory services to process and analyze any soil samples resulting from the analysis.
- Scientists and engineers to assist with project design, results review, and interpretation.
- Pump operation, pump operator time, flow measurement equipment, and associated expenses (e.g., fuel, maintenance) during field tests (e.g., to test slow pump velocities and effect on phosphorus loading).
- Maintaining canal management levels at the elevations required by the field tests.
- Set up and operation of water quality autosamplers for shorter composite periods than those allowed by permits.
- Installation and operation of additional water quality autosamplers at locations internal to the farm.
- Providing all project water quality and flow data from these monitoring sites to the District at a frequency described in the scope.

- The costs of collection, processing, and reporting for the laboratory analyses including those at greater frequencies as described by the project scope.
- Recording data on field logs as described by the scope of the project.
- Providing farms and labor for aquatic vegetation disposal or incorporation into soils.
- Removing vegetation to allow access to project sites (e.g., to discharge points from surface water impoundments).
- Seeding and maintenance of vegetation on berms and buffers.
- Cleaning of ditches and sumps at the frequencies required by the demonstration project.
- Making operational modifications to facilitate testing of recirculation and retention or drain down waters from fallow flooded or rice fields (e.g., via operation of weirs and risers and portable pumps).

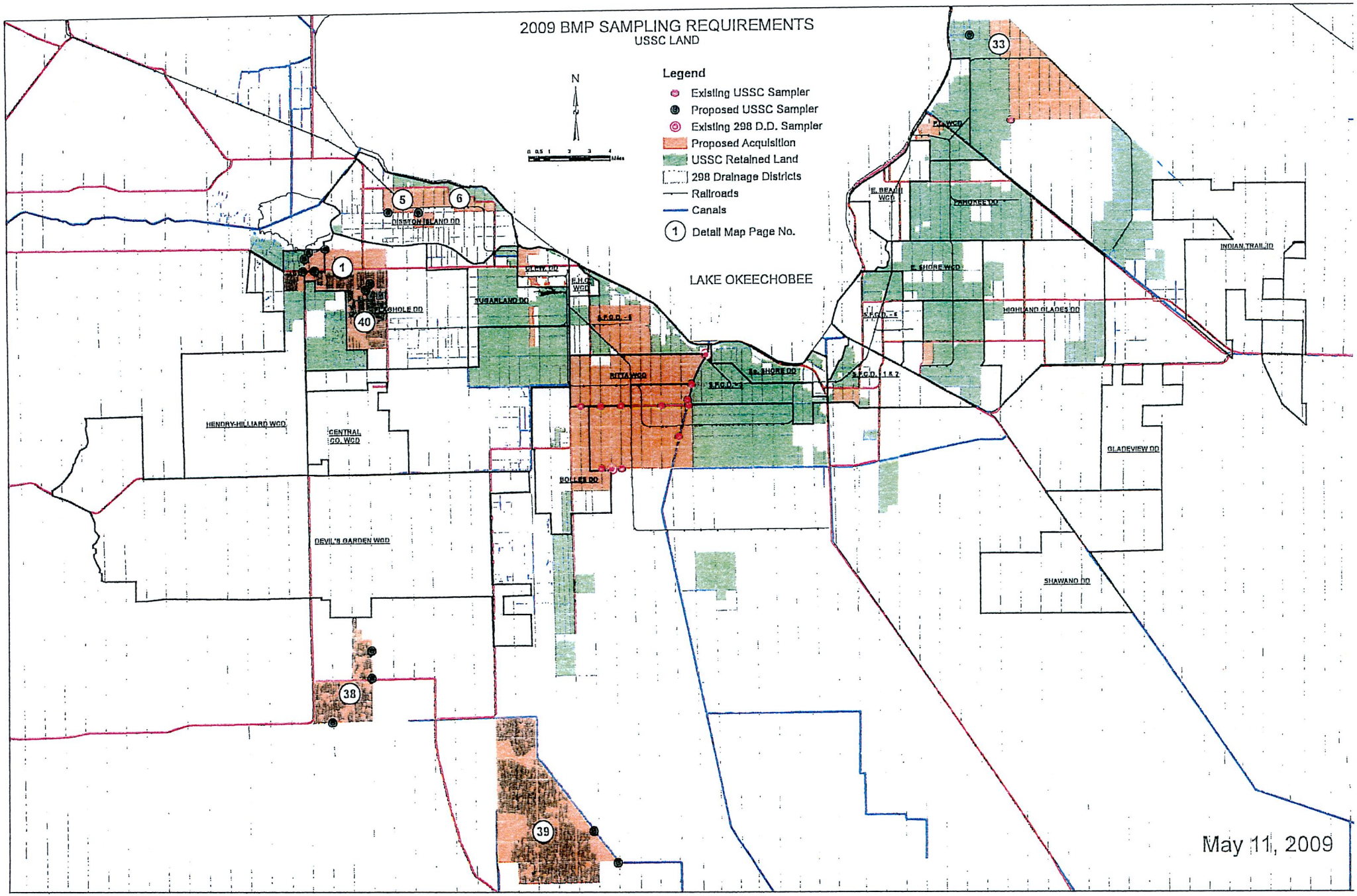
## (6) DISPUTE RESOLUTION PROCESS

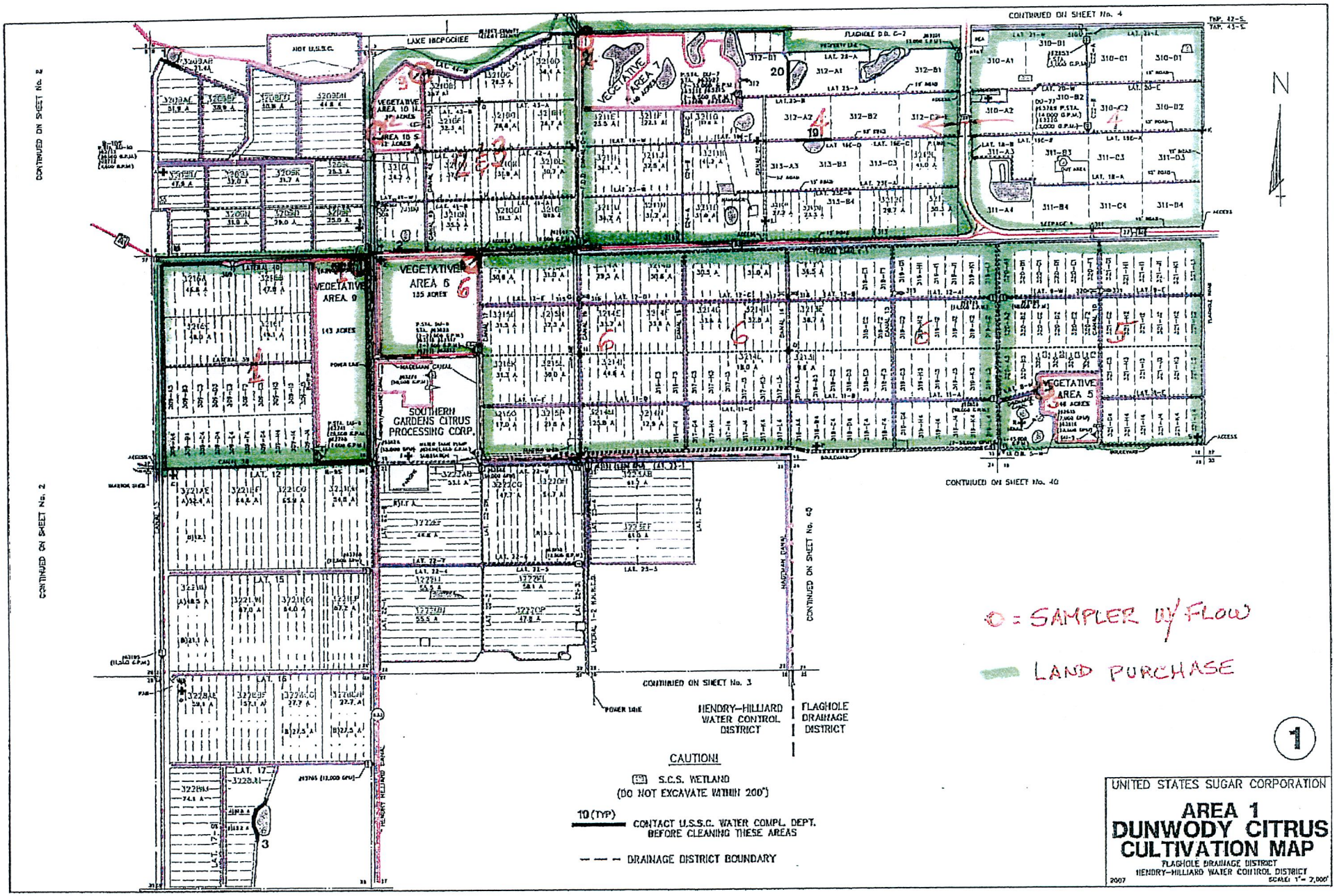
Disputes regarding compliance with Schedule 3.1 shall be governed by Section 7 of the Lease.

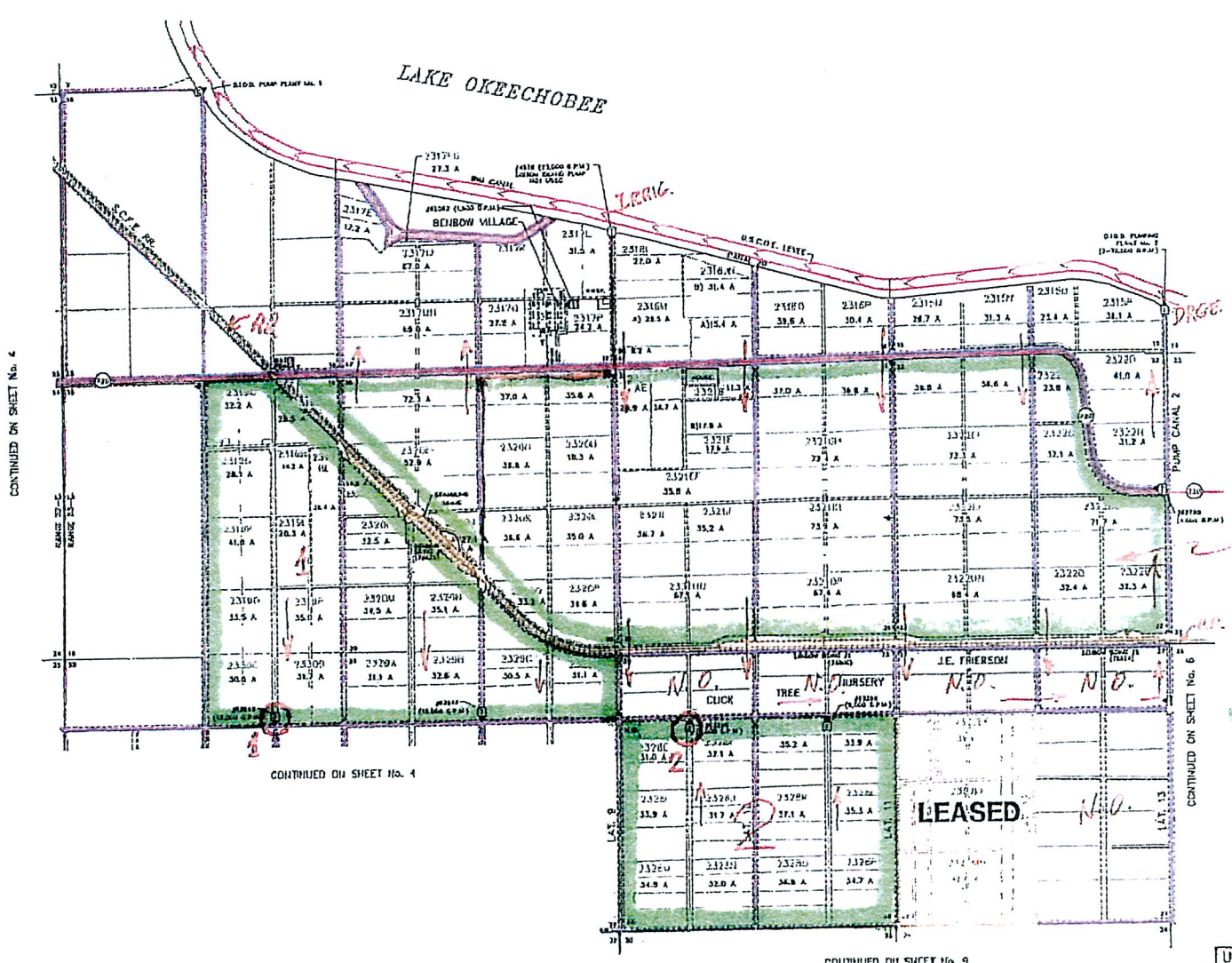
## (7) AGREEMENT BY THE LESSEE AND THE DISTRICT

This schedule 3.1-A is a negotiated BMP plan as part of the Amended & Restated Agreement for Sale and Purchase dated May 2009 between the parties. By entering into such agreement the lessee does not necessarily agree that the additional BMPs will result in reductions in STA discharge, enhanced STA performance or that additional BMPs will enhance on-farm performance. Furthermore, if the purchase and sale transaction is not consummated for any reason this BMP plan becomes null and void and the lessee does not give up any right to negotiate a different BMP approach in the future nor to give up the right to contest any proposed BMPs or BMP compliance methodology in any administrative hearing or court of law.

EXHIBIT A TO SCHEDULE 3.1-A


2009 BMP SAMPLING REQUIREMENTS
USSC LAND
N
Legend
Existing USSC Sampler
Proposed USSC Sampler
Existing 298 D.D. Sampler
Proposed Acquisition
USSC Retained Land
298 Drainage Districts
Railroads
Canals
1 Detail Map Page No.
LAKE OKEECHOBEE
DISSTON ISLAND DD
SUGARLAND DD
BRIGHTON WCD
HENDRY-HILLIARD WCD
CENTRAL CO. WCD
DEVIL'S GARDEN WCD
ROLLER DD
S. SHORE DD
E. SHORE WCD
HIGHLAND GLADES DD
GLADEVIEW DD
INDIAN TRAIL ID
SHAWANO DD
May 11, 2009


CONTINUED ON SHEET No. 4
CONTINUED ON SHEET No. 2
CONTINUED ON SHEET No. 40
CONTINUED ON SHEET No. 3
CONTINUED ON SHEET No. 45
LAKE ISTOKPOGA
VEGETATIVE AREA 7
VEGETATIVE AREA 10
AREA 10 S.
VEGETATIVE AREA 9
VEGETATIVE AREA 6
VEGETATIVE AREA 5
SOUTHERN GARDENS CITRUS PROCESSING CORP.
FLAGHOLE D.D. C-2
HENDRY-HILLIARD WATER CONTROL DISTRICT
FLAGHOLE DRAINAGE DISTRICT
POWER LINE
N
= SAMPLER W/ FLOW
= LAND PURCHASE
CAUTION!
S.C.S. WETLAND
(DO NOT EXCAVATE WITHIN 200')
10 (TYP)
CONTACT U.S.S.C. WATER COMPL. DEPT. BEFORE CLEANING THESE AREAS
DRAINAGE DISTRICT BOUNDARY
1
UNITED STATES SUGAR CORPORATION
AREA 1
DUNWODY CITRUS
CULTIVATION MAP
FLAGHOLE DRAINAGE DISTRICT
HENDRY-HILLIARD WATER CONTROL DISTRICT
2007
SCALE 1" = 2,000'




5

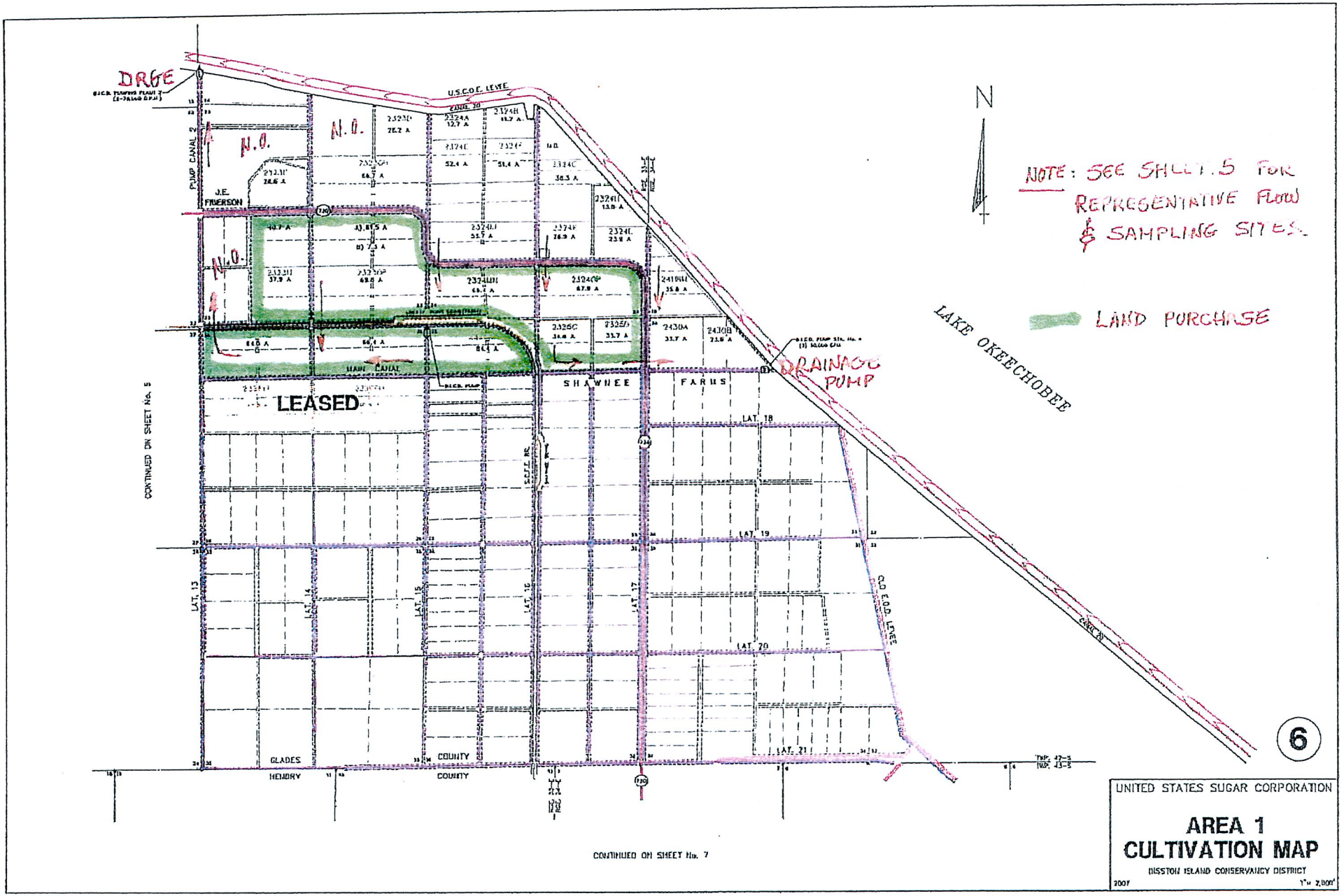
UNITED STATES SUGAR CORPORATION

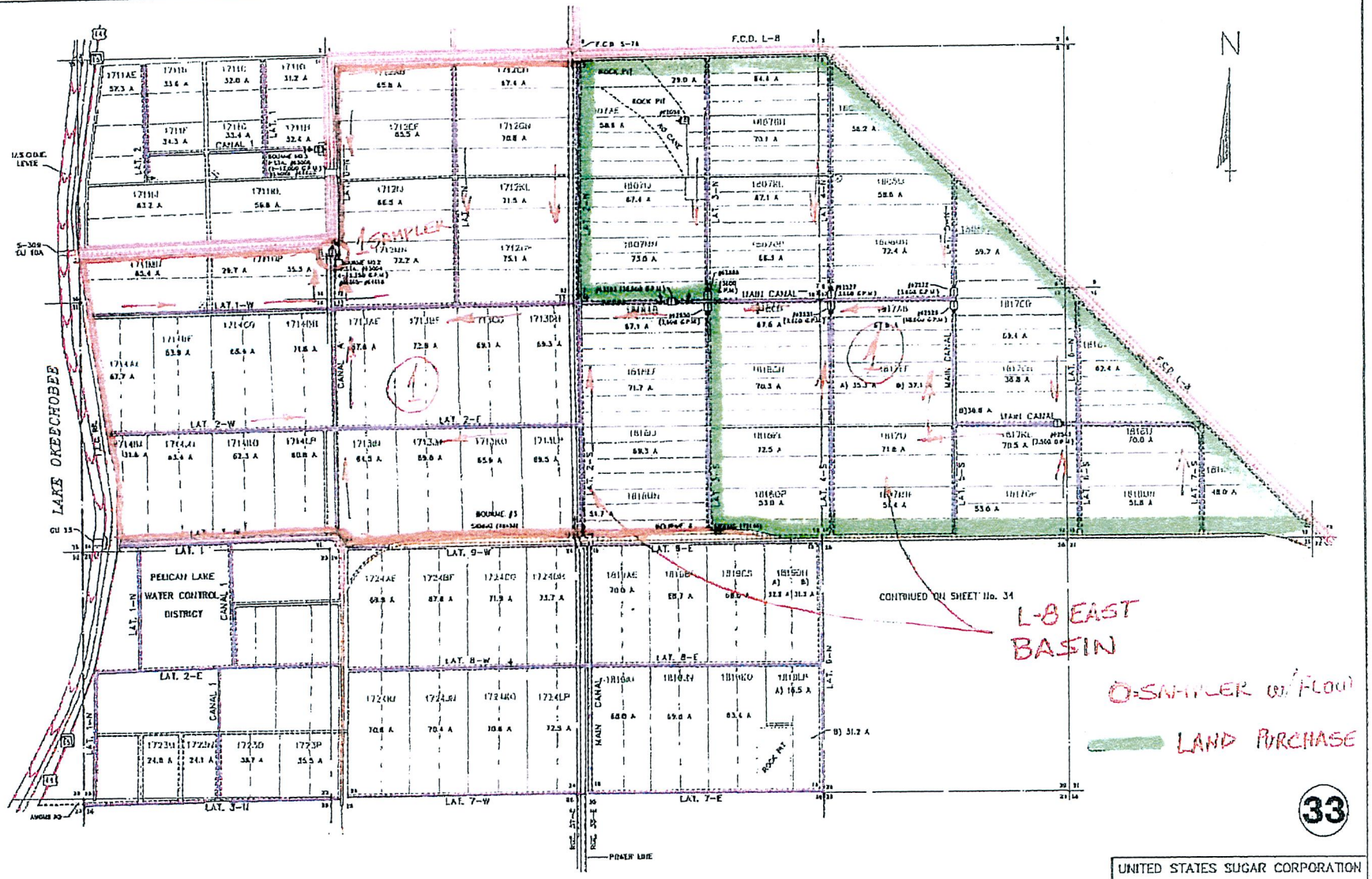
# AREA 1 CULTIVATION MAP

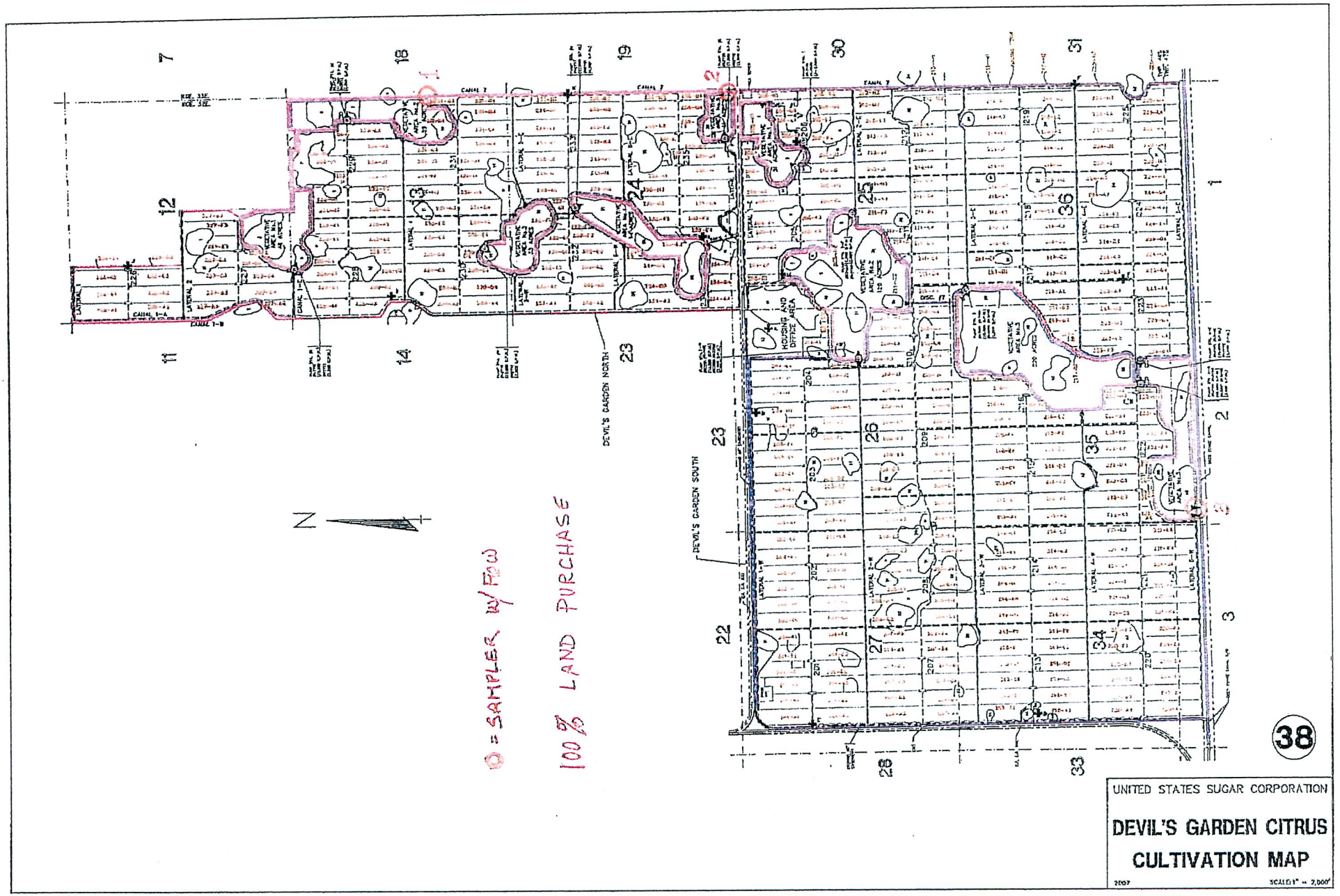
OSSTON ISLAND CONSERVANCY DISTRICT

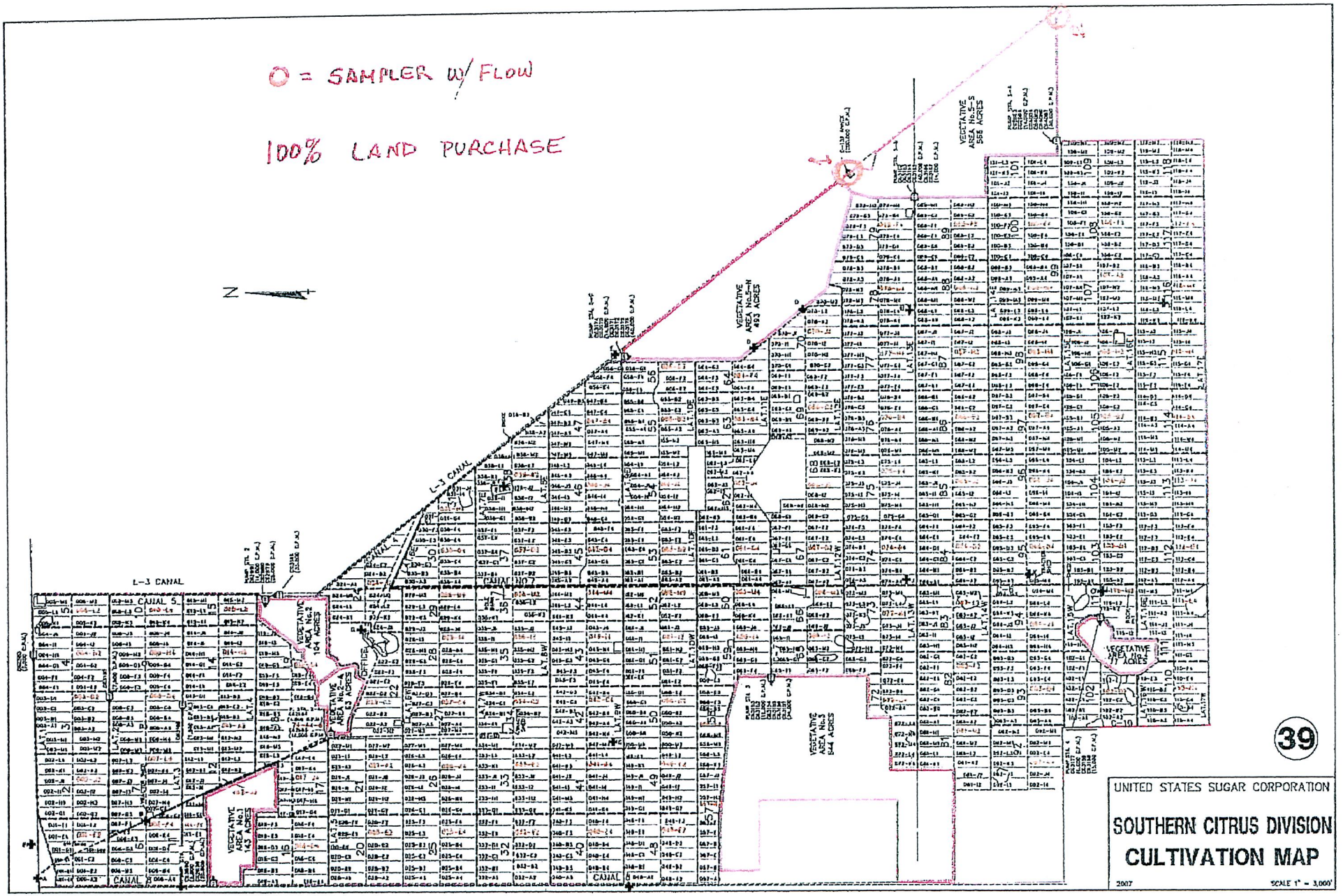
2007

SCALE: 1" = 2,000'

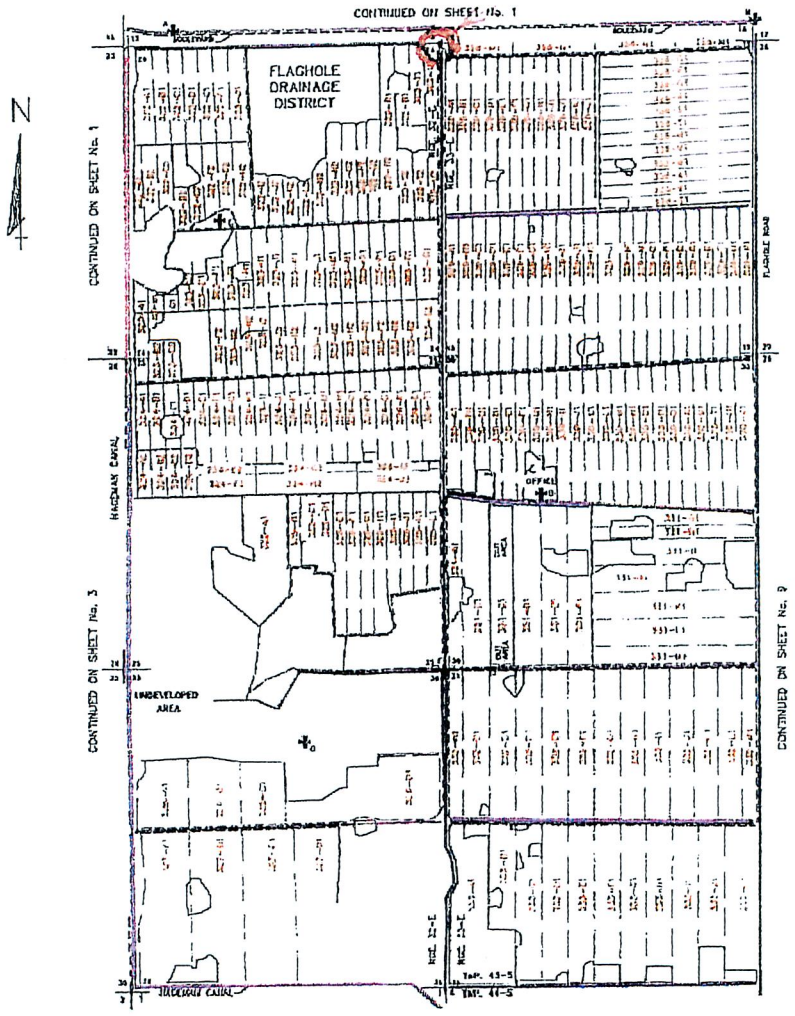

DRGE
U.S.C.O.E. LEVEE
PUMP CANAL 2
N.O.
N.O.
N.O.
J.E. FRIERSON
LEASED
MAIN CANAL
SHAWNEE
FARUS
DRAINAGE PUMP
LAKE OKEECHOBEE
LAT. 18
LAT. 19
LAT. 20
LAT. 21
LAT. 13
LAT. 14
LAT. 15
LAT. 16
LAT. 17
OLD E.A.D. LEVEE
SCOTT DR.
GLADES
COUNTY
HENDRY
COUNTY
CONTINUED ON SHEET No. 5
CONTINUED ON SHEET No. 7
N
NOTE: SEE SHEET 5 FOR REPRESENTATIVE FLOW & SAMPLING SITES.
LAND PURCHASE
6
UNITED STATES SUGAR CORPORATION
AREA 1
CULTIVATION MAP
OKEECHOBEE ISLAND CONSERVANCY DISTRICT
2007
1" = 2,000'


N
F.C.D. L-8
F.C.D. S-71
LAKE OKEECHOBEE
U.S. DIKE LEVEE
S-308 CU 10A
CU 33
MAIN CANAL
CANAL 1
CANAL 2
LAT. 1-W
LAT. 2-W
LAT. 2-E
LAT. 1-N
LAT. 1-S
LAT. 3-W
LAT. 3-E
LAT. 4-W
LAT. 4-E
LAT. 5-W
LAT. 5-E
LAT. 6-N
LAT. 7-W
LAT. 7-E
LAT. 8-W
LAT. 8-E
LAT. 9-W
PELICAN LAKE WATER CONTROL DISTRICT
SPRINKLER
ROCK PIT
POWER LINE
CONTINUED ON SHEET No. 34
CONTINUED ON SHEET No. 32
L-8 EAST BASIN
SPRINKLER w/FLOOD
LAND PURCHASE
33
UNITED STATES SUGAR CORPORATION
AREA 4
CULTIVATION MAP
2007
SCALE: 1" = 2,000'


DEVIL'S GARDEN NORTH
DEVIL'S GARDEN SOUTH
HOUSING AND OFFICE AREA
N
= SAMPLER W/ FOW
100% LAND PURCHASE
38
UNITED STATES SUGAR CORPORATION
DEVIL'S GARDEN CITRUS
CULTIVATION MAP
2007
SCALE: 1" = 2,000'


○ = SAMPLER w/ FLOW
100% LAND PURCHASE
N
L-3 CANAL
CANAL 5
CANAL 6
CANAL 7
VEGETATIVE AREA No.1-A 104 ACRES
VEGETATIVE AREA No.2-A 143 ACRES
VEGETATIVE AREA No.3 594 ACRES
VEGETATIVE AREA No.4-N 493 ACRES
VEGETATIVE AREA No.5-S 556 ACRES
VEGETATIVE AREA No.6 97 ACRES
OFFICE
39
UNITED STATES SUGAR CORPORATION
SOUTHERN CITRUS DIVISION
CULTIVATION MAP
2007
SCALE 1" = 3,000'

ALCOMA CITRUS - SAMPLER w/ FLOW




100% PURCHASE

40

UNITED STATES SUGAR CORPORATION

# ALCOMA CITRUS CULTIVATION MAP

FLAGHOLE DRAINAGE DISTRICT

2007 SCALE: 1" = 2,000'

# EXHIBIT B TO SCHEDULE 3.1-A

# Table 1. Summary of USSC Sub-basin Discharges.
# (Historical Water Quality, 3-yr Targets and Limits, BMP Points and Associated Acreages)

| UAID | Basin ID | Total WY08 Area acres | USSC Ownership Area acres | Purchased Area acres | Percent of Purchased Land in Basin | Historical Average 3-yr Discharges WY1999-2008 unless otherwise noted TP Conc ppb | Flow AF | TP Load kg | UAL #/ac | TP Targets 3-yr TP Conc ppb | 3-yr UAL #/ac | Begin BMP Points | Existing TP Level Above Target? | First WQ Assess. Year (WY) | 90% Conf. Level TP Limits 3-yr TP Conc ppb | 3-yr UAL #/ac | 90% Conf. Level Joint Exceed. Freq. Conc | UAL | Both | 95% Conf. Level Annual Limit TP Conc ppb | Annual Limit UAL #/ac |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ***S-5A Sub-basin*** | | | | | | | | | | | | | | | | | | | | | |
| 186 | 50-018-02 | 6,594 | 6,594 | 6,594 | 100% | 154 | 20,109 | 3,830 | 1.3 | 200* | 1.2* | 35 | Yes | 2013 | N.I. | N.I. | N.I. | N.I. | N.I. | N.I. | N.I. |
| ***S-8 Sub-basin*** | | | | | | | | | | | | | | | | | | | | | |
| 012 | 26-010-02 | 9,961 | 2,830 | 1,918 | 19% | 185 | 19,424 | 4,442 | 1.0 | 185 | 1.0 | 25** | No | 2010 | 265 | 1.5 | 0% | 0% | 0% | 292 | 1.7 |
| 014 | 50-018-06 | 1,255 | 1,255 | 1,255 | 100% | 135 | 2,714 | 450 | 0.8 | 135 | 0.8 | 25 | No | 2010 | 176 | 1.3 | 0% | 17% | 17% | 190 | 1.4 |
| 015 | 50-018-04 | 1,913 | 1,913 | 1,913 | 100% | 88 | 4,738 | 516 | 0.6 | 88 | 0.6 | 25 | No | 2010 | 98 | 0.9 | 17% | 17% | 33% | 102 | 1.0 |
| 016 | 50-018-05 | 1,827 | 1,827 | 1,827 | 100% | 270 | 4,658 | 1,551 | 1.9 | 200* | 1.2* | 35 | Yes | 2013 | N.I. | N.I. | N.I. | N.I. | N.I. | N.I. | N.I. |
| 017 | 50-018-22 | 4,481 | 4,481 | 4,481 | 100% | 126 | 12,100 | 1,878 | 0.9 | 126 | 0.9 | 25 | No | 2010 | 148 | 1.3 | 17% | 17% | 17% | 156 | 1.4 |
| 019 | 50-018-09 | 1,737 | 1,737 | 1,737 | 100% | 134 | 5,642 | 933 | 1.2 | 134 | 1.2 | 25 | No | 2010 | 152 | 1.8 | 17% | 17% | 17% | 158 | 2.1 |
| 020 | 50-008-01 | 7,261 | 6,944 | 6,944 | 96% | 87 | 10,736 | 1,157 | 0.4 | 87 | 0.4 | 25 | No | 2010 | 106 | 0.5 | 17% | 0% | 17% | 112 | 0.6 |
| 054 | 50-018-23 | 2,946 | 2,946 | 1,046 | 36% | 104 | 10,832 | 1,394 | 1.0 | 104 | 1.0 | 25** | No | 2010 | 134 | 1.6 | 17% | 17% | 17% | 144 | 1.8 |
| ***Total EAA Basin*** | | ***37,976*** | ***30,527*** | ***27,715*** | ***73%*** | ***144*** | ***90,954*** | ***16,151*** | ***0.9*** | | | | | | | | 12% | 12% | 17% | | |
| **SFCD** | 50-010-06 | 10,487 | 7,889 | 3,992 | 38% | 114 | 27,604 | 3,898 | 0.8 | 114 | 0.8 | 25** | No | 2010 | 129 | 1.1 | 17% | 0% | 17% | 133 | 1.2 |
| **L-8 Sub-basin** | | 3,955 | 3,955 | 2,055 | 52% | TBD | TBD | TBD | TBD | TBD | TBD | 35 | TBD | *** | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| **C-139 Sub-basin** | | 169,500 | 5,438 | 5,438 | 3% | TBD | TBD | TBD | TBD | TBD | TBD | 35 | TBD | *** | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| **C-139 Ann. Sub-basin** | | 17,841 | 17,841 | 17,841 | 100% | 100 | 42,946 | 5,274 | 0.7 | 100 | 0.7 | 35 | No | 2013 | 112 | 0.8 | 17% | 0% | 17% | 116 | 0.8 |
| These targets and limits may be amended pursant to the permit authorizing operation of the C-139 Annnex Pump Station | | | | | | | | | | | | | | | | | | | | | |
| **S-4 West Sub-basin** | | 22,102 | 9,342 | 3,540 | 16% | TBD | TBD | TBD | TBD | TBD | TBD | 35 | TBD | *** | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| **Hendry-Hilliard WCD** | | 35,836 | 6,076 | 1,264 | 4% | 265 | 74,596 | 24,384 | 1.5 | 200 | 1.2 | 35**** | Yes | 2013 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| (Estimated from TP concentration and UAL from entire S-4 West Sub-basin.) | | | | | | | | | | | | | | | | | | | | | |
| **Flaghole DD** | | 24,044 | 8,387 | 8,387 | 35% | TBD | TBD | TBD | TBD | TBD | TBD | 35 | TBD | *** | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| ***Total non-EAA*** | | | | | | ***187*** | ***145,146*** | ***33,555*** | ***1.2*** | | | | | | | | 17% | 0% | 17% | | |
| **Total Discharges** | | | | | | ***171*** | ***236,100*** | ***49,706*** | ***1.1*** | | | | | | | | 13% | 9% | 17% | | |
| **Local Transition Lands** | | 2,658 | | | | | | | | | | | | | Existing 40E-63 and/or 40E-61, F.A.C. requirements** | | | | | | |

Notes: * For those parcels showing "200*" and "1.2*" as the Targets, the performance goal is to continue improving performance until the maximum performance achievable has been demonstrated, or 200/1.2 has been achieved.

** Purchased lands will continue to implement existing BMP requirements with no additional requirements under this Schedule 3.1.A other than to submitt a performance assessment report (including evaluating on-going farming practices), if applicable.

*** Baseline conditions will be established after 3 years of monitoring. If the initial 3-year average is greater than 200 ppb or 1.2 lbs/ac then the basin will be subject to optimization in accordance with Sections (4) and (5) of Schedule 3.1.A., and Net Improvement for future assessments.
If the initial 3-year average is less than 200 ppb and 1.2 lbs/ac then the basin will be subject to maintaining existing conditions.

**** Purchased lands will continue to implement existing BMP requirements with no additional requirements under this Schedule 3.1.A other than to implement monitoring, report monitoring results, and submitt a performance assessment report (including evaluating on-going farming practices), if the 3-yr average is greater than 200 ppb or 1.2 pounds/acre.

N.I. = Net Improvement
TBD = To Be Determined
N/A = Not Applicable

**Exhibit B to Schedule 3.1-A May 13, 2009**

**Table 2. Initial Net Improvement Performance Measures for Basin IDs With Historical Discharges Above 200 ppb or 1.2 lb/acre**

| UAID | Basin ID | More Restrictive Parameter | Unit | Historical Value | 20% Performance Improvement | Upper Performance Limit |
|---|---|---|---|---|---|---|
| S-5A Sub-basin | | | | | | |
| 186 | 50-018-02 | UAL | lbs/acre | 1.3 | 1.2 | 1.2 |
| S-8 Sub-basin | | | | | | |
| 016 | 50-018-05 | UAL | lbs/acre | 1.9 | 1.5 | 1.7 |

Notes:
1) UAL – TP Unit Area Load (lbs/acre)
2) TP – Flow-weighted mean TP concentration (ppb)

# Exhibit B to Schedule 3.1-A May 13, 2009

## Table 3. Annual Basin Rainfall and Maximum Value; values in inches per year.

| Basin | WY1999 | WY2000 | WY2001 | WY2002 | WY2003 | WY2004 | WY2005 | WY2006 | WY2007 | WY2008 | Max | Rainfall Station |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S-5A | 42.22 | 60.12 | 37.60 | 52.09 | 50.27 | 50.17 | 56.66 | 42.93 | 37.33 | 44.18 | 60.12 | Rule 40E-63 |
| S-6 | 41.88 | 54.32 | 35.09 | 54.37 | 46.04 | 46.37 | 50.26 | 44.32 | 39.04 | 53.27 | 54.37 | Rule 40E-63 |
| S-7 | 41.43 | 59.04 | 38.21 | 49.51 | 44.19 | 43.91 | 44.87 | 51.96 | 40.40 | 50.38 | 59.04 | Rule 40E-63 |
| S-8 | 45.49 | 56.57 | 37.04 | 43.69 | 44.19 | 46.12 | 49.11 | 56.42 | 35.22 | 44.09 | 56.57 | Rule 40E-63 |
| EBWCD | 26.49 | 37.37 | 21.48 | 25.51 | 33.63 | 33.32 | 39.36 | 29.29 | 24.83 | 47.14 | 47.14 | DBKEYs 5962, 16191, 5835 |
| ESWCD | 26.17 | 40.48 | 28.11 | 30.24 | 37.36 | 31.77 | 44.23 | 38.67 | 25.36 | 47.80 | 47.80 | DBKEYs 16191, 5835 |
| SSDD | 42.93 | 51.33 | 37.02 | 43.67 | 36.15 | 43.36 | 51.52 | 58.43 | 30.06 | 36.74 | 58.43 | DBKEYs 15199, 15198 |
| SFCD | 48.73 | 55.68 | 27.68 | 33.99 | 44.11 | 45.85 | 66.17 | 64.19 | 37.71 | 38.12 | 66.17 | DBKEYs 15198, 5965, 16696 |
| L-8 (WY96-05) | 53.69 | 39.75 | 40.90 | 28.22 | 47.43 | 27.05 | 35.44 | 33.02 | 35.09 | 49.24 | 53.69 | S-352 (DBKEY 16693) |
| C-139 | 51.92 | 54.46 | 35.70 | 54.23 | 55.40 | 49.90 | 50.68 | 54.86 | 36.85 | 41.95 | 55.40 | Rule 40E-63 |
| C-139 Annex | 42.45 | 58.46 | 42.39 | 48.85 | 52.54 | 53.96 | 51.14 | 59.73 | 50.70 | 49.11 | 59.73 | DBKEYs 16224, 16606, 15685 |
| S-4 East (WY98-07) | 50.10 | 46.60 | 60.30 | 27.10 | 49.90 | 46.60 | 47.90 | 61.40 | 63.00 | 36.60 | 63.00 | Clewiston F.S. (DBKEY 16696) |
| S-4 West (WY98-07) | 50.10 | 46.60 | 60.30 | 27.10 | 49.90 | 46.60 | 47.90 | 61.40 | 63.00 | 36.60 | 63.00 | Clewiston F.S. (DBKEY 16696) |
| Other C-43 | 50.10 | 46.60 | 60.30 | 27.10 | 49.90 | 46.60 | 47.90 | 61.40 | 63.00 | 36.60 | 63.00 | Clewiston F.S. (DBKEY 16696) |

**EXHIBIT C TO SCHEDULE 3.1-A**

**[THIS EXHIBIT IS IN ELECTRONIC FORMAT – SEE ENCLOSED COMPUTER DISK IN THE POCKET ATTACHED HERETO.]**

# EXHIBIT D TO SCHEDULE 3.1-A

## Schedule 3.1-B: REPLACE THE FIRST PARAGRAPH ON PAGE 1 WITH THE FOLLOWING:

The South Florida Water Management District ("District") and the United States Sugar Corporation, SBG Farms, Inc., and Southern Gardens Grove Corporation (collectively "USSC") have entered into a Second Amended and Restated Agreement for Sale and Purchase, dated August 12, 2010, ("Second Amendment") pursuant to which the District will acquire approximately 26,791 acres of farmland owned by USSC with an option to buy approximately 46,022 acres ("Initial Option") and/or an option to buy approximately 153,209 acres (which includes the Initial Option lands, unless the Initial Option has already been exercised) ("Entire Option"). The District will lease land (referred to in this Schedule as "farming units" or "purchased lands") to USSC pursuant to the terms of the Second Amendment. This **Schedule 3.1B** applies to such leased land as provided on the first page of Schedule 3.

# EXHIBIT D
# SCHEDULE 3.1-B

# BEST MANAGEMENT PRACTICES PLAN FOR TOTAL PHOSPHORUS AND TOTAL NITROGEN

South Florida Water Management District
3301 Gun Club Road
West Palm Beach, Florida 33406

May 11, 2009

# BEST MANAGEMENT PRACTICES PLAN FOR TOTAL PHOSPHORUS AND TOTAL NITROGEN

If the South Florida Water Management District (SFWMD) exercises its option and subsequently acquires approximately 107,000 acres of Unites States Sugar Corporation's (USSC) remaining property, it is the intent of the parties to implement this Schedule 3.1-B on all of the then property leased by USSC from the SFWMD. However, the Parties recognize that if there have been substantial changes in the EAA, C-139 or other basins' BMP regulatory requirements, then the parties agree in good faith to review and incorporate the amendments necessary to adequately reflect the new requirements in this Schedule 3.1-B.

As set forth below, and in addition to the requirements set forth in the Best Management Practices Plan for Sugar Cane Production and Vegetable Farming (Schedule 3.2) and Best Management Practices (BMP) Plan for Citrus (Schedule 3.3), the lessee shall implement source controls for reducing total phosphorus (TP) in discharges for all land uses and shall monitor flow volume and nutrient concentrations at discharge points from the property as identified in Exhibit A and as detailed in a District-approved Discharge Monitoring Plan and BMP Plan. Consistent with the Everglades Forever Act, "Best management practice" or "BMP" means a practice or combination of practices determined by the District, in cooperation with the Florida Department of Environmental Protection, based on research, field-testing, and expert review, to be the most effective and practicable, including economic and technological considerations, on-farm means of improving water quality in agricultural discharges to a level that balances water quality improvements and agricultural productivity.

The lessee shall obtain a permit from the District, or agree to the modification of existing permits, in accordance with Chapter 40E-63, F.A.C., and/or Chapter 40E-61, F.A.C., as applicable, to implement an approved BMP Plan and Discharge Monitoring Plan. The BMP Plan shall consider the BMPs and equivalent points ("points") as defined by Section 1.4 of the Best Management Practices Plan for Sugar Cane Production and Vegetable Farming (Schedule 3.2) and Best Management Practices Plan for Citrus (Schedule 3.3), as set forth below.

## (1) BMP PLANS AND PERMITS

### (a) BMP Point Requirements

1. EAA Farms -- All farming units within the S-5A Basin shall implement BMP Plans with 35 points. Farming units outside of the S-5A Basin that have long-term historical 3-year flow weighted mean concentration (FWMC) or unit area loads (UALs) that exceed a 200 ppb total phosphorus concentration or 1.2 pounds per acre phosphorus unit area load will also implement BMP Plans with 35 points. All other farming units in the EAA that have long-term historical 3-year FWMC or UALs that are below 200 ppb and 1.2 pounds per acre (lbs/acre) will continue to maintain those historical levels in accordance with the Statistical Performance Assessment Method and continue to implement BMP Plans with 25 points. Farming units, their long-term historical FWMCs and UALs, and BMP point requirements are identified in Exhibit B.

2. Farms outside of the EAA -- Farming units in areas outside the EAA will implement BMP Plans with 35 points.

**(b) Requirements for BMP Plans, Permits, and Water Quality Monitoring** -- BMP Plans will be required to have adequate water management, nutrient management, and sediment and erosion control BMPs. For those areas that fall inside the jurisdictional boundaries of Chapter 40E-61 and where a General Permit was previously granted by rule or formal District action, it will be necessary for the lessee to obtain an Individual Permit meeting the BMP and discharge requirements of this Schedule.

For those areas outside the jurisdictional boundaries of Chapter 40E-63 and 40E-61, F.A.C., the lessee shall follow the same permitting process described under Chapter 40E-63, F.A.C., to obtain a staff report/permit that will become the exhibit to an executed consent agreement between the lessee and the District including a BMP Plan with 35 points (as defined above) and a Discharge Monitoring Plan contemplated by this Schedule. In cases where the lessee is a co-permittee with others, a separate permit may be used to approve the lessee's BMP and Discharge Monitoring Plans. Permit applications shall be submitted within 30 days of closing to obtain approval of BMP Plans, Discharge Monitoring Plans, and USSC Demonstration Project Scopes of Work.

1. For Basin IDs not already subject to BMP plans approved by the District, in order to begin BMP implementation immediately, the BMP Plan shall be implemented within 90 days after written approval by the District and the Discharge Monitoring Plan shall be implemented no more than 180 days from the closing of the purchase and sale agreement (regardless of whether a final permit or consent agreement has been issued). A proposed BMP and Discharge Monitoring Plan requires justification and must receive District approval for any timeframe that will take longer than these timelines to implement.

2. Regardless of the type of permit/approval obtained for the BMP Plan and Discharge Monitoring Plan (40E-63 WOD, 40E-61 WOD, consent agreement), the lessee shall monitor daily during discharge for total phosphorus in surface water discharges from the Basin ID at District-approved monitoring points and in accordance with monitoring requirements described in Chapter 40E-63, F.A.C., in order to obtain flow-weighted mean concentrations and calibrated flow measurements. Total nitrogen (TN) shall be monitored only if a TN numeric criterion or TMDL is adopted, or a TN limitation is made part of a NPDES permit requirement with respect to the following regions: the EAA, Water Conservation Areas, Lake Okeechobee or the Caloosahatchee River. Such monitoring shall be restricted to the Basin ID(s) that discharge to the applicable area. Data shall be reported to the District in electronic format within the time frame prescribed in the permit/approval issued by the District. The District will evaluate the data on an annual water year basis as set forth below.

3. USSC will have the right to install its own internal monitoring within a sub-basin and substitute this data in place of the sub-basin monitoring for the purpose of evaluating water quality in accordance with this Schedule.

## (2) WATER QUALITY PERFORMANCE ASSESSMENTS

The intent of the parties is to assure that there is no degradation of performance in the Basin IDs that have historically performed below 200 ppb phosphorus and 1.2 lbs/acre, and to achieve a net improvement in those Basin IDs not achieving 200 ppb and 1.2 lbs/ac. The parties recognize that variability exists in discharge data and have developed a statistical methodology to be used in this section as a tool in evaluating the Basin ID performance. It is recognized that this methodology is not a prediction tool but rather a tool to be used as an initial indicator of Basin ID performance and to be used in conjunction with additional evaluation. By virtue of the statistics utilized, the method will indicate excursions (e.g., false positives) which may or may not be actual indications of degradation, and, as a result, additional evaluation is appropriate to determine if a Basin ID is truly showing adverse performance or whether the results are due to other reasonable factors outside the control of the Lessee, including but not limited to hurricane effects, droughts, high phosphorus concentrations in Lake Okeechobee irrigation water, and other factors observed in other regional performance. Exhibit C shows an example of how the tool can indicate excursions when in fact an evaluation of reasonable factors may show adverse performance in years due to these factors.

**(a) Establishing Performance Measures** – Establishing the performance measures for USSC farms was based on historical water quality levels determined from either farm level monitoring data (if available), or in the absence of farm level data, the monitoring data from the sub-basin in which the USSC Basin IDs are located. The available farm level monitoring data are representative of the discharges from a "Basin ID" which is a hydrological discharge unit identified in a BMP permit issued under Rule 40E-63 (F.A.C.).

1. For each USSC Basin ID or sub-basin (when applicable), an average value was established for both a 3-year moving flow-weighted mean TP concentration (FWMC) and 3-year moving average Unit Area Load (UAL) based on a ten year historical (long-term) period of record (see **Exhibit B, Tables 1 and 2**). Based on these averages, performance measures were established for each "Basin ID" or sub-basin depending on whether the averages were below or above 200 ppb or 1.2 lbs/acre. The performance measure was therefore set based on the following criteria:

   a. a flow-weighted mean TP concentration of 200 ppb, or the historical average 3-yr flow weighted mean discharge TP concentration, determined from the 10-year period of historical record, if lower and

   b. a Unit Area Load (UAL) of 1.2 pounds/acre, or the historical average 3-yr moving average UAL determined from the 10-year period of historical record, if lower.

2. Farms (within Basin IDs or sub-basins) that historically show achievement of levels lower than 200 ppb and 1.2 pounds per acre, shall maintain the historical flow weighted mean concentrations and unit area loads (see **Exhibit B, Tables 1 and 2**) as performance measures in order to prevent water quality "backsliding".

3. For USSC farms within sub-basins not having Basin IDs, those farms will be grouped into Basin IDs (to be assigned) and the monitoring data representative of those Basin IDs will be aggregated for consistency to facilitate a comparison with the performance measures that were established based on sub-basin water quality levels.

4. An annual performance assessment will be conducted for each Water Year (May 1st – April 30th) and will consist of:

   a. Calculating a 3-yr moving average TP flow-weighted mean concentration (FWMC) and 3-yr moving average TP UAL for each year based on the current water year and previous two water years of observed data. The 3-yr moving average TP FWMC will be calculated as the sum total of the TP load (kilograms) divided by the sum total Flow (acre-feet) for the Water Year assessment period, and multiplied by a conversion factor to obtain a flow-weighted mean TP concentration for the overall three Water Year period. The 3-yr moving average TP UAL will be calculated as the average of the three Water Years during the assessment period.

   b. Applying a statistical assessment method (described in Section 2.b) to determine if performance measures are being achieved.

**(b) Statistical Performance Measure Assessment Method** -- In order to assess progress with meeting performance measures, the assessment methodology in this section is grouped into two categories based on whether the Basin ID performance measure is to: 1) maintain historical water quality levels (FWMC and UAL) for Basin IDs historically below 200 ppb and 1.2 lb/acre, or 2) achieve progress toward meeting the performance measures of 200 ppb and 1.2 lbs/ acres for those Basin IDs that were historically above these levels. For Basin IDs required to maintain their historical levels, a variability component is incorporated into the assessment method. For those Basin IDs that have historical water quality levels above 200 ppb or 1.2 lbs/acre, a "Net Improvement" methodology

is incorporated into the assessment method. The methodology is set forth as follows and is explicitly described in the spreadsheet included in the electronic file attached as **Exhibit C**, which includes a description of historical variability.

1. *Establishing Variability Factors – For Basin IDs with Historical Water Quality Below the 200 ppb and 1.2 lbs/acre Performance Measures.*

a. TP Limits for both TP Concentration and UAL were established for each Basin ID or sub-basin based on the natural variability exhibited by Basin ID discharges. Limits were calculated at the 90% confidence level using the following equation and are presented in **Tables 1 and 2 (Exhibit B)**:

$$L_{90\%} = m + s\, t_{90\%,df}$$

where, $L_{90\%}$ = annual limit at the 90% confidence level
m = average 3-yr cumulative flow-weighted mean TP concentration (and UAL) during the 10-yr period of record
s = standard deviation of the average 3-yr cumulative flow-weighted mean TP concentration (and UAL) during the 10-yr period of record
$t_{90\%,df}$ = 1-tailed t statistic at 90% confidence level and with df degrees of freedom
df = N – 1
N = number of 3-yr average values

b. An overall excursion frequency was determined based on a comparison of each Basin ID or sub-basin to the criteria below. Applying the below criteria to the ten year historical record of 3-year moving averages of all Basin IDs or sub-basins in this category yielded an overall excursion frequency due to normal variability of 15%. Excursion frequency is defined as the total number of excursions divided by the total number of USSC Basin IDs and sub-basins; if any one or more of the criteria below is not met for a Basin ID or an aggregated basin (in case additional basin IDs are created within one existing sub-basin), it is considered a single excursion.

i. At least one in three successive years the 3-yr moving average TP concentration shall to be at or below the 3-yr Target concentration (identified in **Tables 1 and 2, Exhibit B**).
ii. At least one in three successive years the 3-yr moving average TP UAL shall to be at or below the 3-yr Target UAL (identified in **Tables 1 and 2, Exhibit B**).
iii. The 3-yr moving average TP concentration shall be at or below the TP Limit concentration (identified in **Tables 1 and 2, Exhibit B**).
iv. The 3-yr moving average UAL shall be at or below the TP Limit UAL (identified in **Tables 1 and 2, Exhibit B**).

2. *Establishing "Net Improvement" Factors – For Basin IDs with Historical Water Quality Above the 200 ppb or 1.2 lbs/acre Performance Measures.*

a. The performance measure for those Basin IDs with historical TP discharges above the 200 ppb or 1.2 lbs/acre thresholds is to achieve these performance measures or otherwise demonstrate a meaningful net improvement in TP performance. In some Basin ID cases, achieving these performances measures (200 ppb and 1.2 lbs/acre) may require very little in the way of reductions (i.e. going from an average historical level of 225 ppb to an

average target of 200 ppb). In other Basin ID cases, the reductions would need to be much greater (i.e. going from an average historical level of 386 ppb to an average target of 200 ppb). Therefore, it would be expected that discharges from some Basin IDs will be reduced sufficiently to achieve the 200 ppb and 1.2 lb/acre performance measures, while others discharges may not.

b. At the present time, there is no guidance for establishing with certainty a quantitative TP performance measure associated with increasing the BMPs from 25 points to 35 points, an increase of 40%. Hence, for the purpose of establishing a meaningful net improvement performance measure, it is necessary to make an assumption, and it was therefore assumed that the 40% increase in BMP points will potentially achieve a 20% performance improvement over the period of three years. By limiting the assumed performance improvement (20%) to one-half of the relative BMP point increase (i.e. 40%), this assumption acknowledges the diminishing returns associated with BMP water quality improvements.

c. In some of these Basin IDs, the historical TP concentration was below the 200 ppb threshold, indicating the UAL is the parameter that needs to be reduced towards the 1.2 pounds per acre threshold. In other Basin IDs, the historical UAL was below the 1.2 pounds per acre threshold, and for those Basin IDs it was the TP concentration that needs to be reduced towards the 200 ppb threshold. A summary of the more restrictive TP parameter, and the estimate of a "*20% Performance Improvement*" is identified in **Table 3 of Exhibit B.** In recognition of the uncertainty in the expected performance and variability, a deviation of 50% (the "*Upper Performance Limit*") of the TP improvement from historical levels will be applied during the annual assessment.

(c) **Annual Performance Assessment** -- For the water year ending April 30, the District will perform an annual assessment of the TP discharges from each USSC Basin ID based on observed monitoring data submitted by USSC. In cases where new Basin IDs are assigned within sub-basins, the observed monitoring data for the Basin IDs within each sub-basin will be aggregated for evaluation. If the aggregate result shows that performance measures are not being met, an evaluation of each Basin ID will be conducted to ascertain if additional water quality improvement activities will be necessary on all Basin IDs within the sub-basin or for a particular individual Basin ID only. The following describes the assessment steps for Basin IDs required to either maintain historical water quality (for those Basin IDs below 200 ppb and 1.2 lbs/acre) with a variability component, or achieve a "Net Improvement" (for those Basin IDs above 200 ppb or 1.2 lbs/acre).

1. *All Basin IDs* -- An annual assessment will be conducted for each Basin ID for each water year (May 1st – April 30th). For the EAA sub-basins, farming units identified by their Basin ID numbers in **Table 1 (Exhibit B)**, will be evaluated. For the following non-EAA sub-basins, the cumulative discharge from USSC Basin IDs will be evaluated within each individual sub-basin: C-139, L-8, S-4 East, S-4 West, C-43, EBWCD, ESWCD, SSDD, SFCD, and C-139 Annex. In the event that additional Basin IDs are not created for USSC farming units in the EBWCD, ESWCD, SSDD, SFCD, and C-139 Annex, the sub-basin as a whole will be evaluated. The 3-yr moving average TP flow-weighted mean concentration and 3-yr moving average TP unit area loading (UAL) will be calculated each year for each Basin ID or sub-basin as applicable.

2. *Basin IDs with Historical Water Quality -- Below the 200 ppb and 1.2 lbs/acre Performance Measures (see Figure 1 in Exhibit B for flow chart of this process)*

a. Of the total USSC Basin IDs and sub-basins, the overall excursion frequency will be calculated each water year for each Basin ID based on the criteria outlined in Section 2.b. To maintain consistency in calculating the overall excursion rate, new Basin IDs assigned within sub-basins will be treated (through aggregation of the observed monitoring data) as one area.

b. If the overall excursion frequency is greater than 15%, then each Basin ID that contributed to the overall excursion will be deemed to not achieve their performance measures, unless the USSC submits an Assessment Report identifying valid Basin ID-specific factors outside USSC control (described in Section 2.e) that contributed to the higher than expected excursion frequency.

c. If the overall excursion frequency is less than or equal to 15%, the excursion frequency expected due to normal variability, then all USSC Basin IDs will be deemed to have achieved the performance measures, with the exception of Basin IDs determined by the District to have excessive TP levels as described below.

d. Regardless of the results of the excursion frequency assessment, discharges from individual Basin IDs will be assessed for excessive TP levels each water year. The 95% Confidence Limits in **Tables 1 and 2 (Exhibit B)** reflect an upper bound above the TP Targets, as defined by the variability exhibited in the 10-yr calibration period. If an individual Basin ID discharge exceeds the 95% confidence limit TP concentration or UAL, then the Basin ID will be deemed to not achieve their performance measure, unless the USSC submits an Assessment Report identifying valid Basin ID-specific factors outside USSC control (described in Section 2.e) that contributed to the excessive TP levels. Assessment Report requirements are outlined in Section 2.d.

e. The annual performance assessment will not be conducted in water years when rainfall in the sub-basin, where the farming units are located, exceeds the maximum annual sub-basin rainfall or is below the minimum that occurred during the 10-yr calibration period (see **Table 4, Exhibit B**). If a year is excluded based upon this criterion, results from adjacent years will be treated as consecutive in assessing performance.

3. *Basin IDs with Historical Water Quality -- Above the 200 ppb or 1.2 lbs/acre Performance Measures (see Figure 2 in Exhibit B for flow chart of this process).*

a. Only one TP parameter will be assessed against the net improvement performance measure, as identified in **Table 3 of Exhibit B**. In recognition of the uncertainty in the expected performance and variability, a deviation of 50% of the TP improvement from historical levels will be applied, and this is referred to as the "*Upper Performance Limit*".

b. If the calculated 3-yr moving TP value is above the limit of the respective performance measure, the Basin ID will be deemed to not achieve its "Net Improvement" performance measure, unless the USSC submits an Assessment Report identifying valid Basin ID-specific factors outside USSC control (described in Section 2.e) that contributed to the levels of TP in the discharge.

c. The annual performance assessment will not be conducted in water years when rainfall in the sub-basin, where the farming units are located, exceeds the maximum annual sub-basin rainfall or is less than the minimum annual sub-basin rainfall that occurred during the 10-yr calibration period (see **Table 4, Exhibit B**). If a year is excluded based upon

this criterion, results from adjacent years will be treated as consecutive in assessing performance.

d. Once a Basin ID achieves the "*20% Performance Improvement*" measure in **Table 3 of Exhibit B**, that Basin ID will be assessed in future years based on the new performance measure in accordance with Section 2.c.2 above. The limit would be established in accordance with Section 2.b.1. with the additional need to re-scale the historical data to the "20% Performance Improvement" as the new long-term performance measure.

4. *Annual Performance Assessment Timelines.*

a. By May 1 of each year, the District will provide a preliminary draft status of the current Water Year's TP performance assessment for each Basin ID.

b. By August 1 of each year, the District will provide a status report of the previous Water Year's TP performance assessment for each Basin ID.

**(d) USSC Assessment Report Requirements** -- the Assessment Report submitted by USSC will be subject to the following:

1. The USSC Assessment Report shall be submitted by November 1. Within 30 days of receipt of the Assessment Report, the District will notify USSC of the final determination of their findings.

2. If the District determines that the USSC Assessment Report reasonably explains why the USSC discharges did not achieve the performance measures set forth above, then no additional water quality improvement activities will be required for that Water Year.

3. If the District determines that the USSC Assessment Report does not reasonably explain why the USSC discharges did not achieve the performance measures set forth above, then USSC will submit a permit application to modify the existing BMP implementation plan to either increase the BMPs to 35 points, optimize an existing 35 point plan, or implement a USSC demonstration project, as applicable. All of these are to be permitted and implemented by April 30 (the end of the Water Year in which the USSC Assessment Report is submitted as conditioned in Section 2.d.1).

4. The Assessment Report may include evaluation of data, factors and analysis of the Maximum Performance Achievable as defined below, and shall be considered by the District in the determination of whether or not the performance measures have been achieved.

**(e) Factors Outside USSC Control** -- In the event that discharges from USSC Basin IDs do not achieve the performance measures as defined above, USSC will prepare and transmit an Assessment Report identifying valid factors outside USSC control as described below. The Assessment Report shall identify Basin IDs that contributed to not achieving the specified performance measures. The District will determine if the factors identified in the Assessment Report are valid. If the District determines that the Assessment Report provides valid justification, the District shall exclude the Basin ID from being required to implement additional water quality improvement activities for that Water Year. Examples of factors include, but are not limited to, those identified below:

1. *Extreme Hydrologic Events.* The presence of extreme hydrological (e.g. hurricanes or droughts) events may be identified by USSC in their Assessment Report. The multi-year (i.e., residual) effects of these extreme events may be cited as a specific factor influencing performance.

2. *Above or Below Average Rainfall.* The potential for the unit area load (UAL) of a Basin ID to be influenced by above average or below average rainfall may be evaluated by the Lessee as a factor for not achieving the UAL or the concentration targets and may be identified by USSC in their Assessment Report.

3. *Rainfall Runoff Relationship.* The potential for the UAL of a Basin ID or concentration to be explained by the sub-basin rainfall/TP load relationship or other regional relationship may be evaluated by the Lessee as a factor for not achieving the UAL or concentration and may be identified by USSC in their Assessment Report.

4. *Emergency Conditions.* Discharges will be allowed in accordance with the emergency provisions of Chapter 373, F.S.

5. *High Lake Stages.* For the Ch 298 Districts, L-8 and S-4 sub-basins, additional seepage may be induced by high stages of Lake Okeechobee. Recognizing this factor, Lake Okeechobee stage can be compared to the maximum annual average stage that occurred during the 10-yr calibration period (SFWMD DBKEY 15611; **Table 4, Exhibit B**). For the Ch. 298 Districts, the 10-yr period covered WY1999-2008, with an observed maximum annual average stage of 15.6 ft NGVD. For the L-8 sub-basin, the 10-yr period covered WY1996-2005, with an observed maximum annual average stage of 16.3 ft NGVD. For the S-4 sub-basins, the 10-yr period covered WY1998-2007, with an observed maximum annual average stage of 15.7 ft NGVD.

6. *TP Concentration of Lake Okeechobee Deliveries.* Basin ID discharges may be influenced by TP concentrations in Lake Okeechobee deliveries used for irrigation. The Assessment Report may provide an evaluation showing that a correlation exists between irrigation water quality data (for each Basin ID not meeting the performance measure for consideration) and Lake Okeechobee releases such that the releases are a contributing factor influencing Basin ID performance.

7. *Random & Historical Variation.* The Lessee may report any statistical uncertainty in the methodology using acceptable scientific methods In recognition of the statistical uncertainty associated with the derivation of the TP Limits, the Lessee will evaluate the potential for statistical, data measurement or other error including the cumulative Type I errors, the effect of rounding the UAL to two decimal places, historical Joint Exceedance Frequencies for Basin IDs as identified in Tables 2 and 3, and the historical exceedance frequencies for individual 3-year averages that ranged from 9% to 41%. Random variation may also include sampling and analyses variations.

8. *Other Factors.* Unavoidable legal barriers or restraints, including those arising from actions or regulations not under the control of USSC.

(f) A Basin ID will be required to implement additional water quality improvement activities subject to the requirements of this Schedule if the District determines, after consideration of USSC's Assessment Report, that established performance measures are not being achieved in accordance with the annual performance assessment method described above.

## (3) IMPLEMENTION OF WQ IMPROVEMENT ACTIVITIES

It is the intent of this section and Section 4 to describe the process of implementing water quality improvement activities if the performance measures in the preceding section are not achieved. Most of the USSC farms have existing BMPs in place. The Parties recognize that there is uncertainty as to the effectiveness of additional BMPs, and that there are diminishing returns on implementing additional BMPs. Many factors contribute to this uncertainty, including TP cycling in the aquatic systems, TP transport issues, inherent background TP levels, Lake Okeechobee concentrations and loads and human interaction effects that might obscure or negate the effects towards achieving further farm level TP load reductions. Through additional on-farm studies, demonstration projects and development programs, at some point in the future the Parties may find that additional BMP implementation is not technically or economically feasible. This point is referred to as the Maximum Performance Achievable (MPA).

Existing data demonstrate that BMPs in the EAA are capable of sustaining a basin-wide long-term average reduction in TP loads of 50%, and that at some point in the future, further efforts towards increasing the reduction may not be technically or economically feasible. BMP research and applications recognize that the majority of the reductions in TP loading at the farm level are due to changes in water management schemes that reduce volumes and concentrations of water actively pumped off-farm in rainfall events, sediment controls or fertilizer controls.

For Basin IDs required to implement water quality improvement activities (new BMP Plan, BMP optimization plan or participation in a USSC Demonstration Project), evaluation for achievement of performance measures will occur in the year following the third full Water Year after the District-established deadline for implementation of the approved BMP Plan and Discharge Monitoring Plan, and annually thereafter, as set forth in applicable permit or consent agreement. (Stated differently, whenever a new water quality improvement BMP plan is required as a result of not achieving the Performance Measures, the third annual performance assessment following the implementation deadline[1] will be used for the next performance assessment.) This will allow for a 3-year response time prior to any future implementation of additional water quality improvement activities. Annual evaluations for achievement of performance measures will begin immediately for those Basin IDs that are already required to implement the appropriate BMP levels and monitoring requirements.

In the event Performance Measures are not maintained or achieved 3 full water years after implementation, the Lessee shall implement the following remedial measures. For Basin IDs implementing BMP Plans with only 25 BMP points, the BMP Plan and permit shall be modified to include a total of 35 BMP points and implemented in accordance with the procedures and timelines set forth above. For Basin IDs that do not achieve the performance measures and already have permits to implement BMP Plans with 35 BMP points, the Lessee shall work cooperatively with the District to develop a BMP Optimization and Water Quality Improvement Plan, discussed below, that optimizes the BMP plan in order to achieve the performance measures. Additional BMP points or water quality improvement plans shall be approved by the District and incorporated into the applicable permit/consent agreement and shall comply with the requirements described below.

A Basin ID must meet the Performance Measures as described above regardless of the status of the EAA basin-level or farm-level compliance under Chapter 40E-63, or other compliance requirements under Chapter 40E-61. On lands with more stringent nutrient reduction and monitoring requirements than under this Schedule, the more stringent requirements, related to the existing permitted BMP plan, discharge monitoring plan, and compliance requirements, shall apply (e.g., C-139 Annex ERP, previous Consent

[1] The District may grant an extension of the implementation deadline due to factors outside the control of USSC.

Agreements). All BMP Plans are also incorporated by reference into the Lease Agreement between the District and lessee.

## (4) BMP OPTIMIZATION AND WATER QUALITY IMPROVEMENT PLANS

If, despite the implementation of a BMP Plan based on 35 BMP points, a Basin ID does not meet the Performance Measures defined in this Schedule, the Lessee shall implement a District-approved BMP optimization plan or a District-approved USSC Demonstration Project, as described below. The Lessee shall submit to the District a permit application for either the BMP optimization plan or the USSC Demonstration Project in accordance with the schedule in Section 2(d). Full implementation of a District approved BMP optimization plan and/or USSC Demonstration Project shall be completed by the deadline established in the approved plan.

*(a) BMP Optimization Plans* -- Optimization and water quality improvement plans shall be based on Basin ID specific site assessments of existing site conditions (e.g., soils, crops, etc.), operation techniques, farming activities, and BMPs. Proposed optimization plans shall include consideration of two sediment controls and one water management BMP. Indicated below are examples of BMP optimization activities; items 1, 2, and 3 must be considered in the lessee's proposal. If these are not possible to implement, other activities may be proposed as long as it is demonstrated that they are optimization activities resulting in new or improved BMP implementation activities. The activities are not limited to those listed below. These examples were developed based on findings by the UF-IFAS in BMP technical datasheets and the Final Report on Everglades Agricultural Area BMPs for Reducing Particulate Phosphorus Transport (June 2005) to the FDEP. If the lessee proposes other optimization efforts, they must be substantiated by technical information such as District demonstration project and UF/IFAS research results or other scientifically defensible data that is mutually agreed to by the parties. All optimization efforts will require detailed documentation for verification of implementation.

1. Install weed retention booms in the main canal at an optimal distance from the main discharge structure to ensure water quality benefits in discharges. UF/IFAS literature suggests greater than 300 m (984 ft) upstream of the main pump stations; however, this distance may be modified based on site specific conditions.

2. Mechanically remove accumulated floating aquatic vegetation, initially every six months until a site-specific schedule is established for optimal water quality results. Removed vegetation shall be placed away from any canals or ditches in a manner and at a location that will prevent reintroduction to the canals. The extent or distance of the vegetation removal activities from the main discharge structure shall be determined based on site specific conditions. There must be a technical basis to demonstrate the proposed distance is optimal for water quality improvements at the discharge structure. Schedule removal of aquatic vegetation when no immediate need for pumping is expected because physical removal will cause dislodging of detritus from the roots.

3. Determine the lowest pump velocity that meets the farm specific water management needs in addition to optimizing canal velocities targeted at minimizing transport of sediments downstream through the discharge structure during normal operation. Establish the associated canal water levels, cross sectional dimensions, and/or pump speeds to maintain that velocity and for record keeping purposes.

4. Use 5-foot vegetated buffers and berms along all ditches. Native grass or other unfertilized grasses (e.g. Bahia) should be used.

5. Measure canal sediment accumulation in the canal and sump upstream of the discharge structure, every six months initially until a site-specific schedule is established for optimal water quality results from localized canal cleaning. Determine the maximum sediment accumulation that is permissible to prevent sediment transport during pumping events based on established canal velocities. Based on these results, establish a sediment canal cleaning schedule more stringent than the historical schedule. All cleaning should take place prior to the rainy season (March) when pumping will be more frequent, and prior to the growing and hurricane season (August), when lower canal levels may need to be attained. If canal levels are lowered to facilitate canal cleaning, there shall be no off site discharges. If lowering water levels in a canal prior to sediment removal is necessary, use internal/portable pumps or gravity drainage to direct this water to fallow farms.

6. Do not pump offsite during or immediately after sediment removal is complete. Wait 24 hours or until turbidity levels return to normal conditions.

7. Start and stop pump controls must be set at elevations to prevent pump cycling and suspension of sediments. Extend pump period cycling to a minimum of eight hours or provide the basis for the optimal settings, if different.

8. Provide water management such that there is no direct discharge of rice and fallow-flooded field drainage. Retain or use for internal irrigation.
9. For vegetable crops, improve irrigation practices using soil moisture measurements to determine irrigation needs (amount and timing).
10. Optimization of vegetable nutrient application rates and control application methods (mulched beds).

*(b) USSC Demonstration Projects* -- For Basin IDs not achieving Performance Measures, USSC may conduct a District-approved demonstration project evaluating the efficacy of a BMP optimization project described above. The project scope will be approved by permit modification, which shall include an independent technical review.

*(c) Maximum Performance Achievable* -- If after BMP optimization or demonstration projects have been completed to a level such that the District finds that no further optimization activities are feasible, a Basin ID continues to not achieve the Performance Measures, the Basin ID shall be evaluated to determine if it has optimized to the maximum extent practicable for the review period based on the latest technical information available. The District will determine the MPA for a Basin ID based on data provided by USSC, IFAS or obtained through District Demonstration and Research Projects. The MPA for a Basin ID shall also consider the magnitude of the water quality benefits (in discharges from the Basin ID as well as at the STA outflow) associated with any additional activities and the diminishing returns for those efforts. The MPA is Basin ID specific and is dependent on the current levels of P in discharges as well as other factors in the Basin ID. The MPA will be based on BMP implementation and other site specific variables, and that reductions beyond this point may be cost prohibitive or technically infeasible. The MPA is based on the latest technical information available for the review period. All of the activities contributing to the MPA shall continue to be implemented unless permit modifications are approved. In the future, if additional water quality improvement measures become feasible, then an MPA can be revised.

## (5) DISTRICT DEMONSTRATION AND RESEARCH PROJECTS

The Lessee shall allow the District access to all leased farms in order to conduct research, related projects, and associated monitoring designed to improve the efficacy of agricultural BMPs. The District will provide written notice and a copy of the project scope at least 120 days prior to initiation of the project.

USSC will contribute in-kind services over the period of the lease, not to exceed a value of $3 million, to facilitate the USSC Demonstration Project and the District's demonstration and research projects. The USSC in-kind services shall be calculated in accordance with the most recent cost guidelines (see http://www.economics.nrcs.usda.gov/cost/nrcscost.html) published by the United States Department of Agriculture - Natural Resources Conservation Service (USDA-NRCS), and USSC shall submit an annual report summarizing its in-kind services. The in-kind services shall include, but not be limited to:

- Assigning a USSC point of contact for demonstration projects to be responsible for the logistics and scheduling of associated activities on the farm, notifying the District of any field constraints or deviations, providing technical insight, participating in meetings, reviewing project documents, and coordinating with the District or its contractors.
- Providing man-hours and equipment to perform on-farm labor, including but not limited to, activities such as canal vegetation and sediment removal, earthwork, land preparation, planting and harvesting of crops in research plots, soil and water sample collection.
- Laboratory services to process and analyze any soil samples resulting from the analysis.
- Scientists and engineers to assist with project design, results review, and interpretation.
- Pump operation, pump operator time, flow measurement equipment, and associated expenses (e.g., fuel, maintenance) during field tests (e.g., to test slow pump velocities and effect on phosphorus loading).
- Maintaining canal management levels at the elevations required by the field tests.
- Set up and operation of water quality autosamplers for shorter composite periods than those allowed by permits.
- Installation and operation of additional water quality autosamplers at locations internal to the farm.
- Providing all project water quality and flow data from these monitoring sites to the District at a frequency described in the scope.
- The costs of collection, processing, and reporting for the laboratory analyses including those at greater frequencies as described by the project scope.
- Recording data on field logs as described by the scope of the project.
- Providing farms and labor for aquatic vegetation disposal or incorporation into soils.
- Removing vegetation to allow access to project sites (e.g., to discharge points from surface water impoundments).
- Seeding and maintenance of vegetation on berms and buffers.
- Cleaning of ditches and sumps at the frequencies required by the demonstration project.
- Making operational modifications to facilitate testing of recirculation and retention or drain down waters from fallow flooded or rice fields (e.g., via operation of weirs and risers and portable pumps).

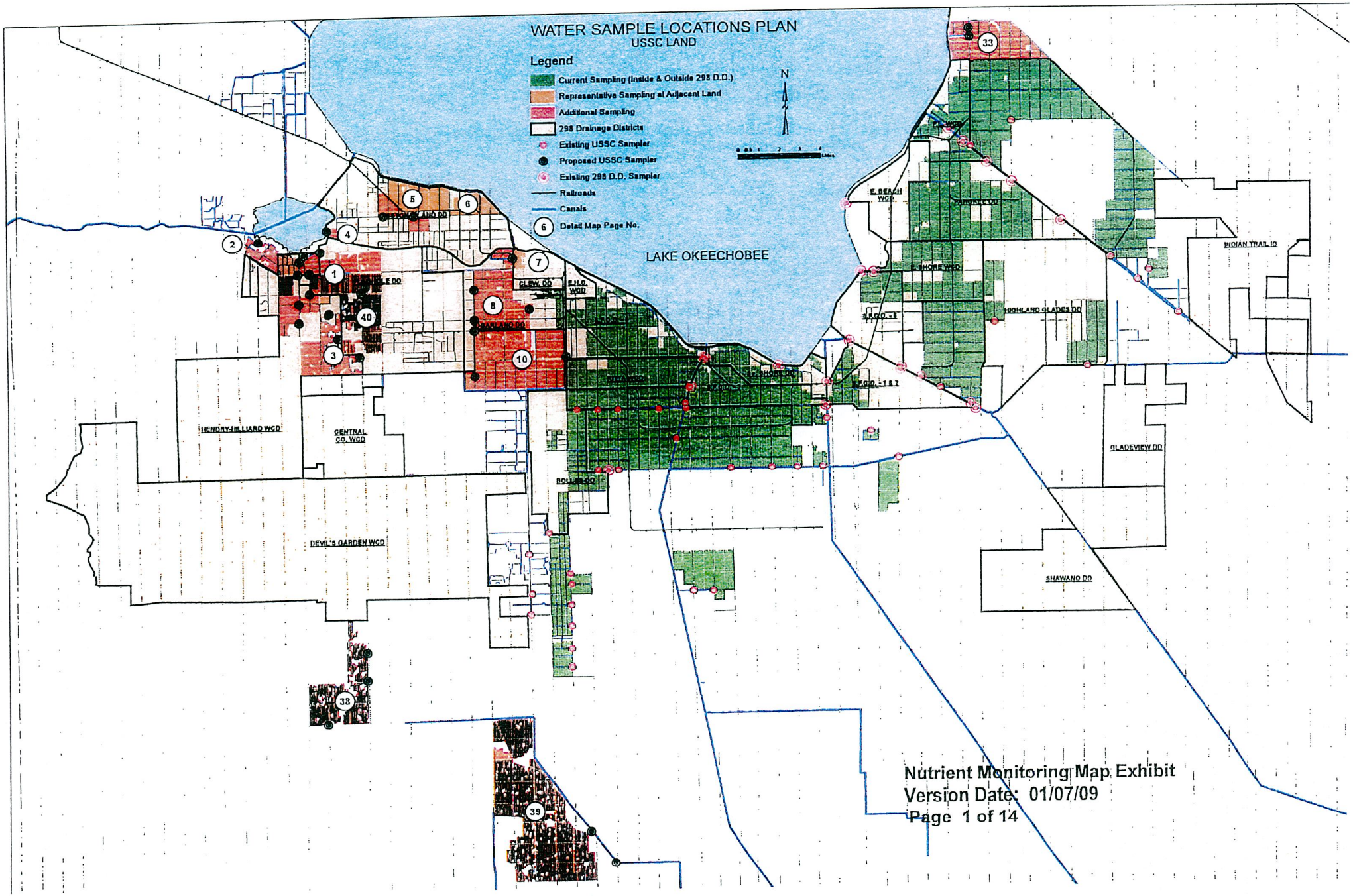
## (6) DISPUTE RESOLUTION PROCESS

Disputes regarding compliance with Schedule 3.1 shall be governed by Section 7 of the Lease.

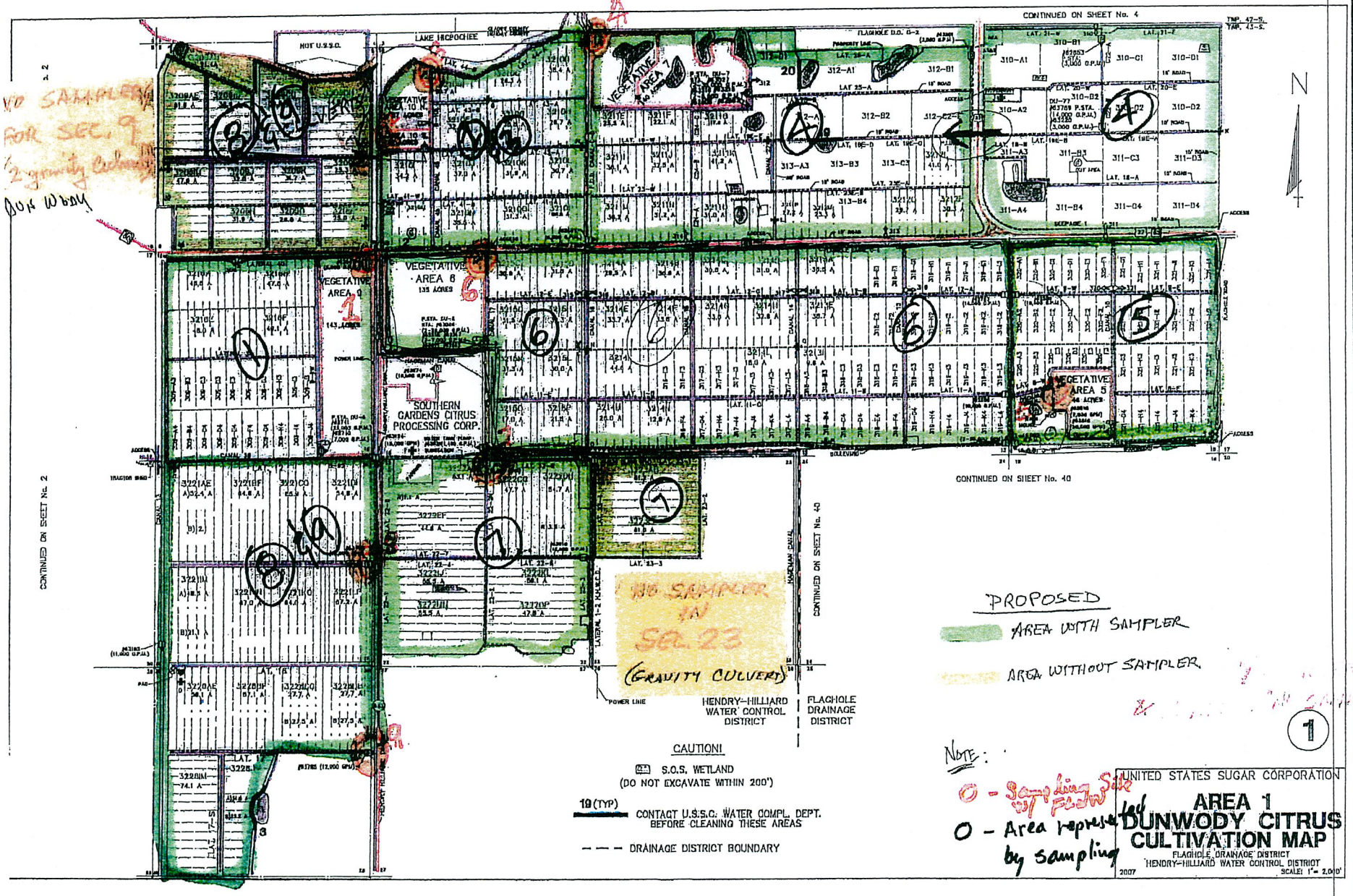
## (7) AGREEMENT BY THE LESSEE AND THE DISTRICT

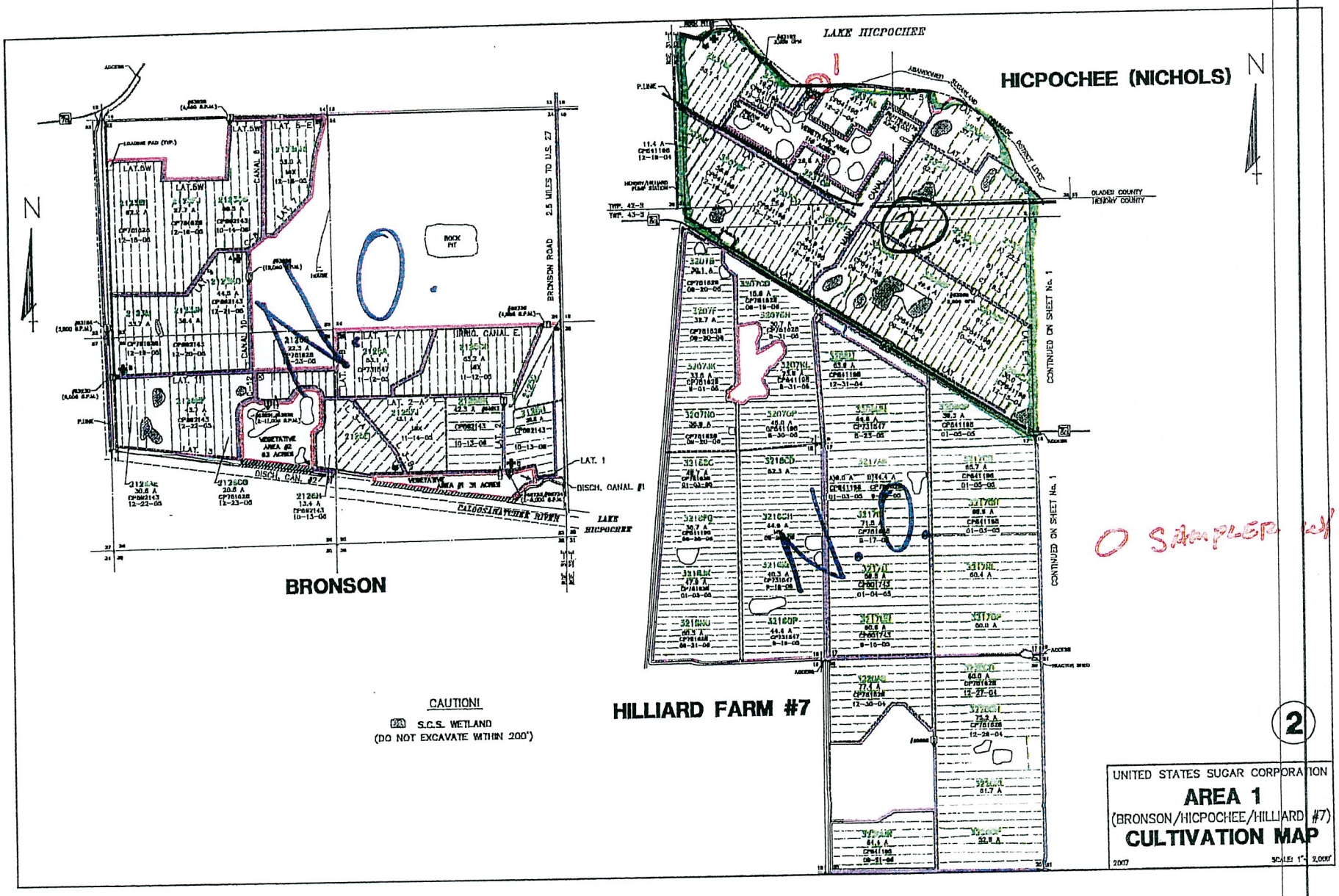
This Schedule 3.1-B is a negotiated BMP plan as part of the Amended & Restated Agreement for Sale and Purchase dated May 2009 between the parties. By entering into such agreement the lessee does not necessarily agree that the additional BMPs will result in reductions in STA discharge, enhanced STA performance or that additional BMPs will enhance on-farm performance. Furthermore, if the purchase and sale transaction is not consummated for any reason this BMP plan becomes null and void and the lessee does not give up any right to negotiate a different BMP approach in the future nor to give up the right to contest any proposed BMPs or BMP compliance methodology in any administrative hearing or court of law.

# EXHIBIT A TO SCHEDULE 3.1-B

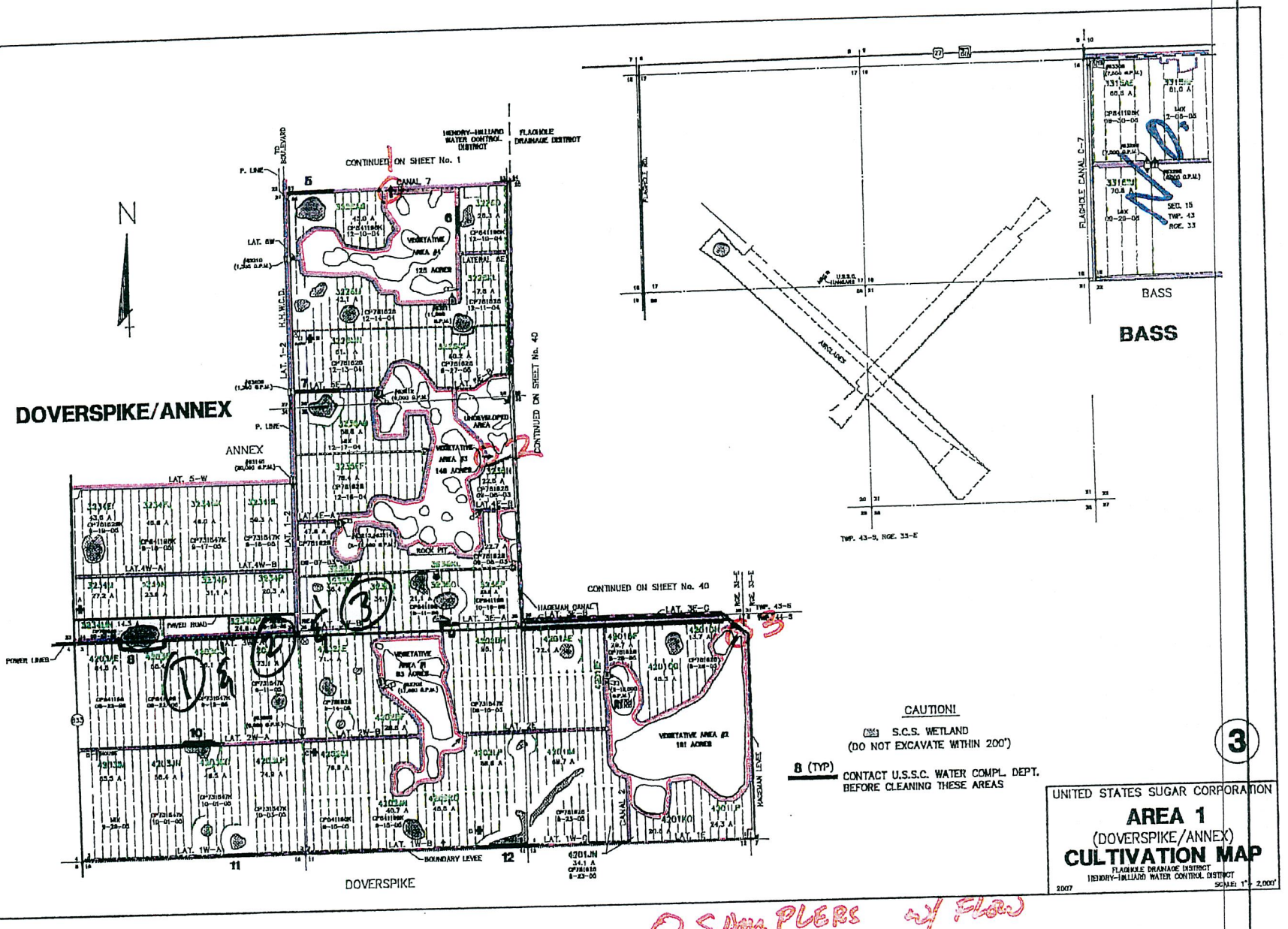



Nutrient Monitoring Map Exhibit
Version Date: 01/07/09
Page 1 of 14

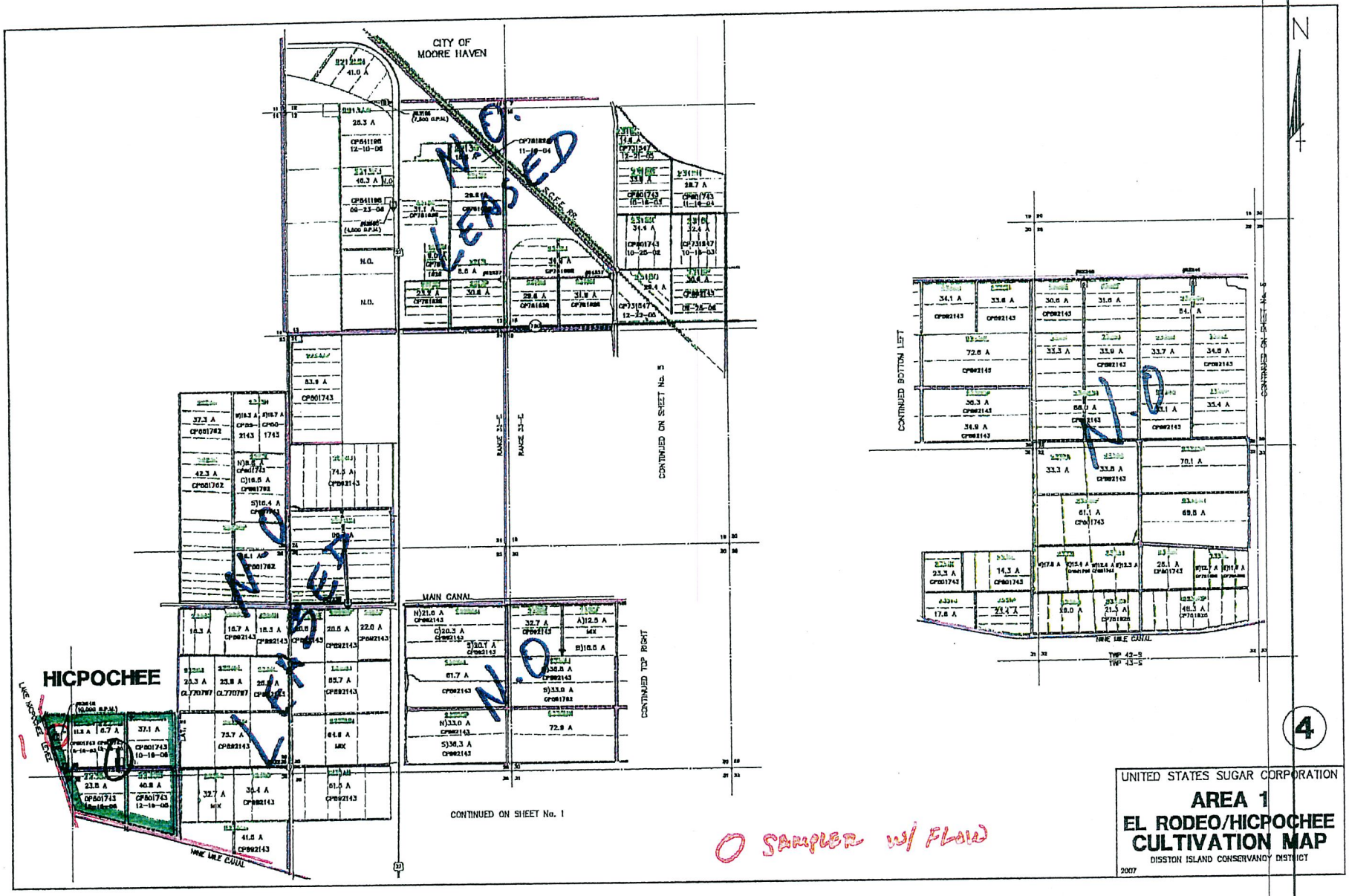

CONTINUED ON SHEET No. 4
LAKE HICPOCHEE
VEGETATIVE AREA 7
VEGETATIVE AREA 1
VEGETATIVE AREA 6
135 ACRES
VEGETATIVE AREA 5
SOUTHERN GARDENS CITRUS PROCESSING CORP.
CONTINUED ON SHEET No. 40
CONTINUED ON SHEET No. 2
CONTINUED ON SHEET No. 3
NO SAMPLER IN SEC. 23 (GRAVITY CULVERT)
HENDRY-HILLIARD WATER CONTROL DISTRICT
FLAGHOLE DRAINAGE DISTRICT
CAUTION!
S.O.S. WETLAND
(DO NOT EXCAVATE WITHIN 200')
19 (TYP)
CONTACT U.S.S.C. WATER COMPL. DEPT. BEFORE CLEANING THESE AREAS
DRAINAGE DISTRICT BOUNDARY
PROPOSED
AREA WITH SAMPLER
AREA WITHOUT SAMPLER
NOTE:
O - Sampling Site
O - Area represented by sampling
UNITED STATES SUGAR CORPORATION
AREA 1
DUNWODY CITRUS CULTIVATION MAP
FLAGHOLE DRAINAGE DISTRICT
HENDRY-HILLIARD WATER CONTROL DISTRICT
2007
SCALE: 1" = 2,000'



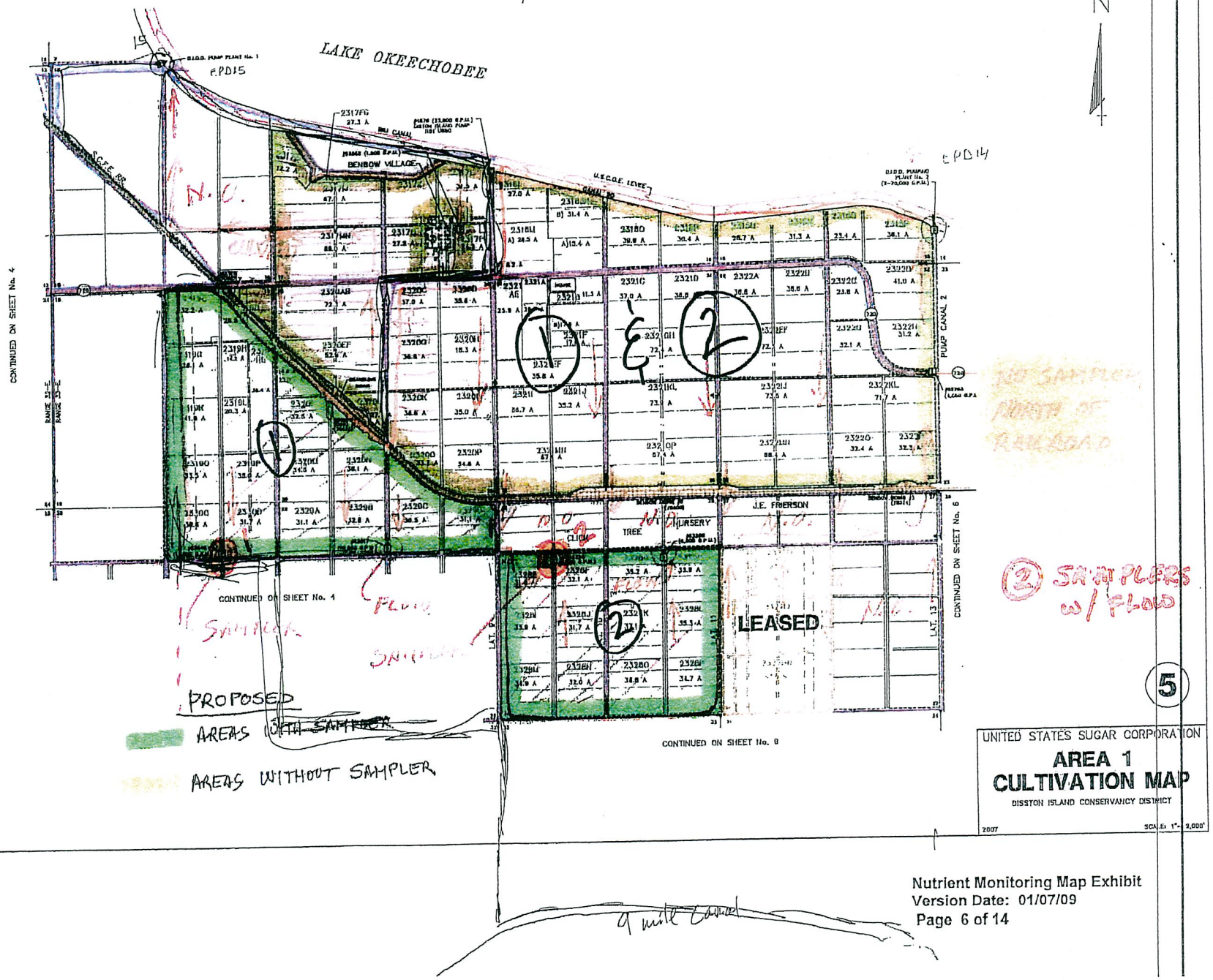

O Sampler w/ Flow

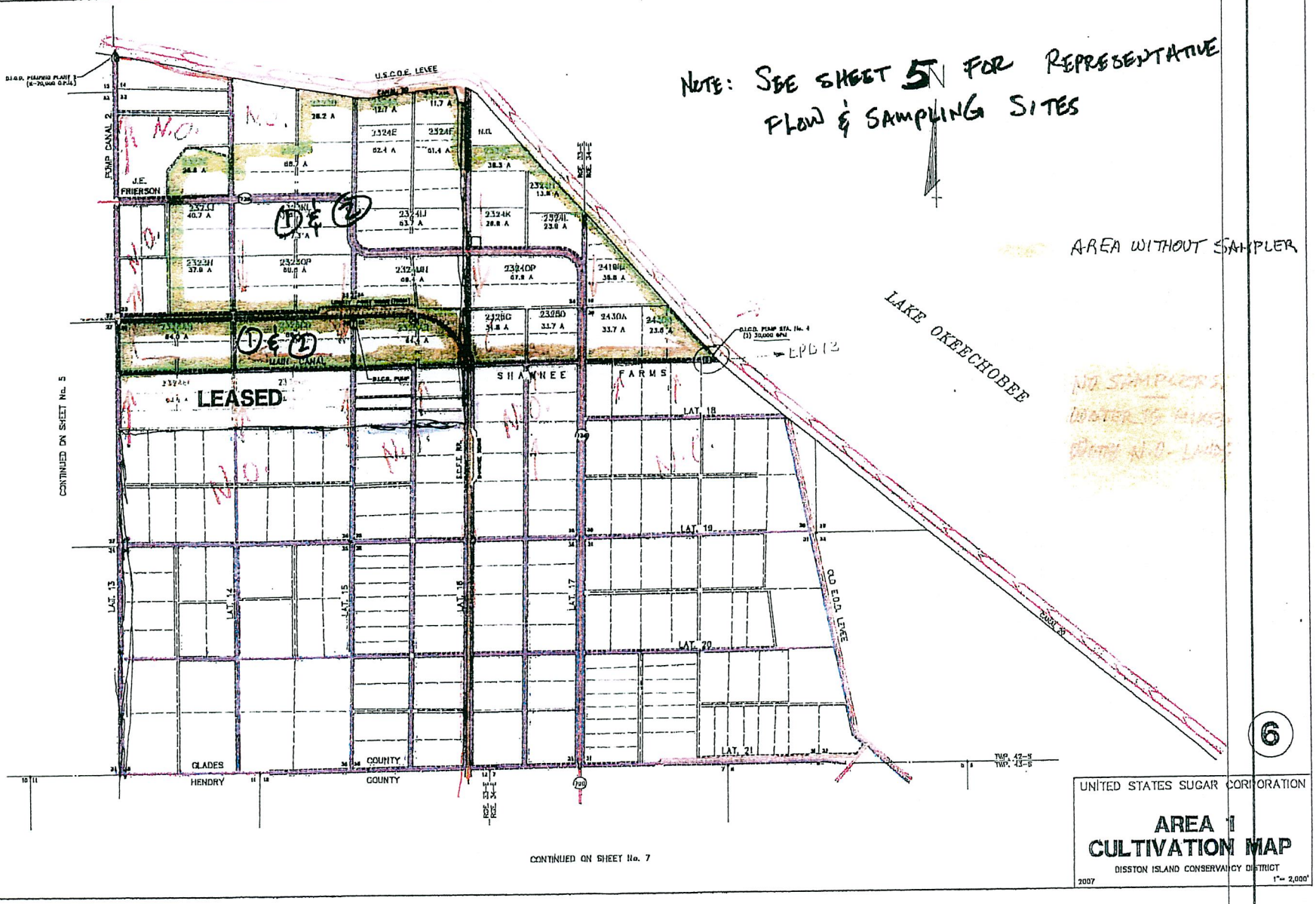


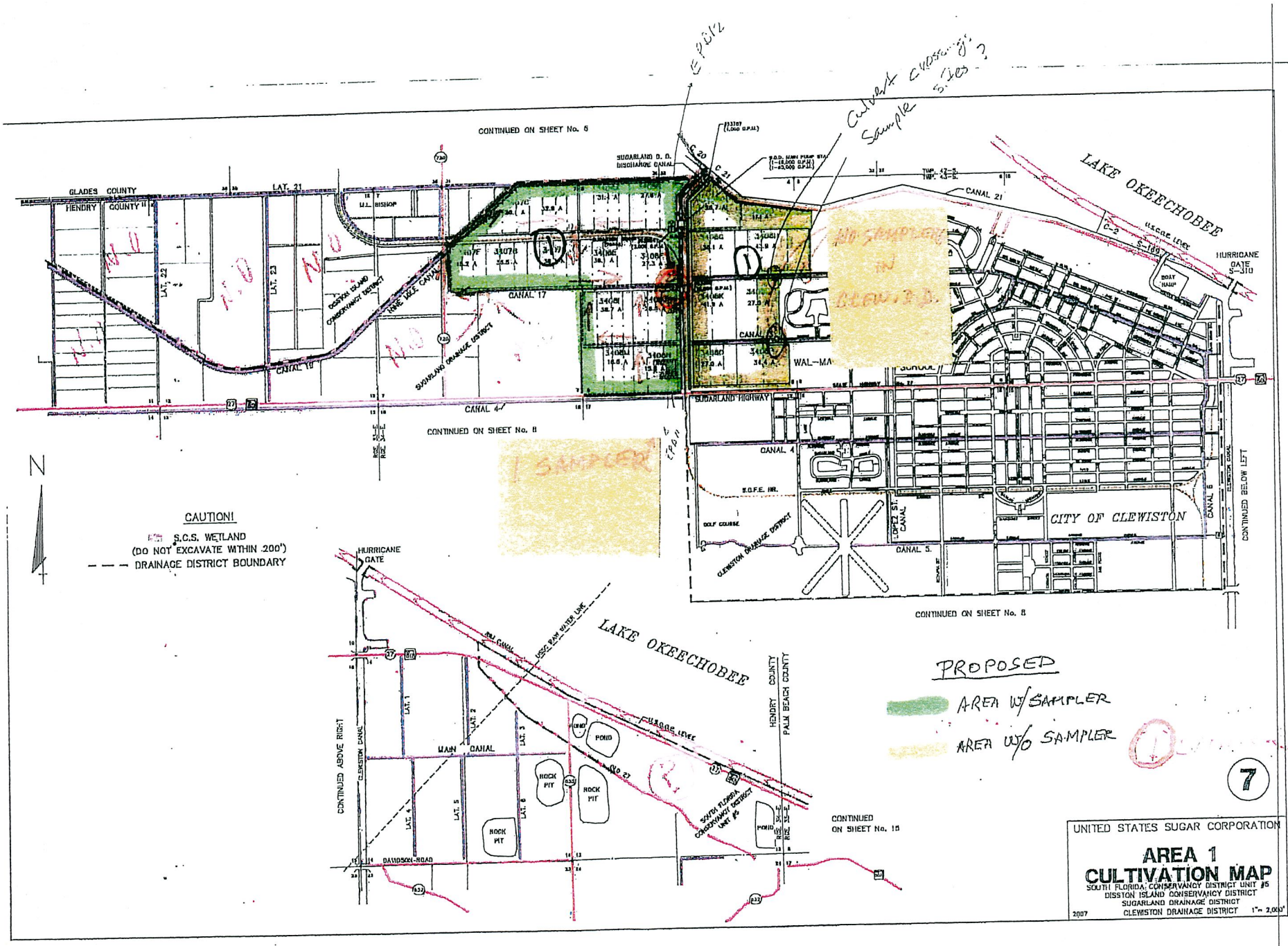

Nutrient Monitoring Map Exhibit
Version Date: 01/07/09



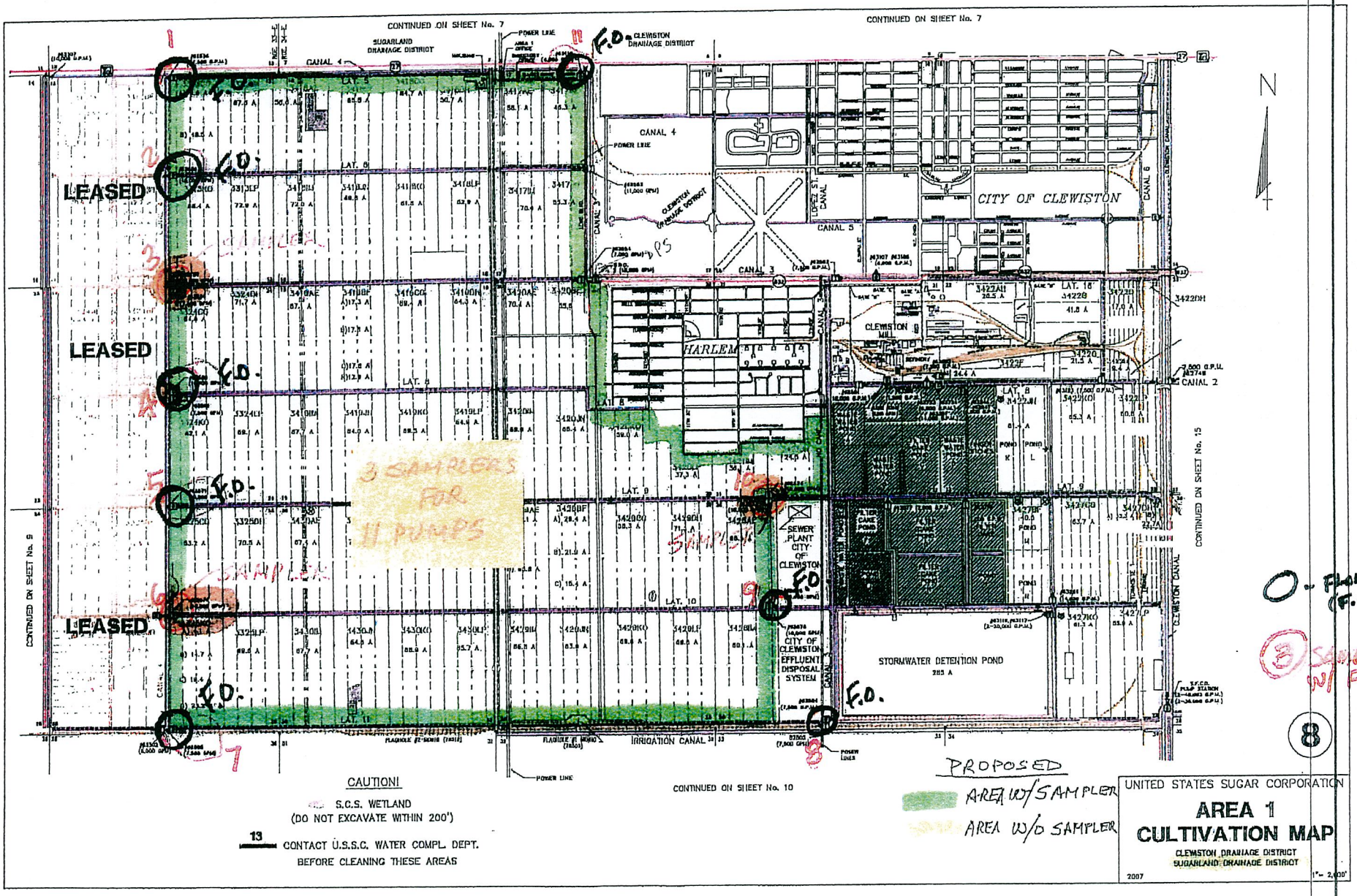

Nutrient Monitoring Map Exhibit
Version Date: 01/07/09


LAKE OKEECHOBEE
EPD15
EPD14
BENBOW VILLAGE
U.S.C.O.E. LEVEE
PUMP CANAL 2
CONTINUED ON SHEET No. 4
CONTINUED ON SHEET No. 6
CONTINUED ON SHEET No. 8
J.E. FRIERSON
NURSERY
TREE
CLICK
LEASED
PROPOSED
AREAS WITH SAMPLER
AREAS WITHOUT SAMPLER
(2) SAMPLERS W/ FLOW
UNITED STATES SUGAR CORPORATION
AREA 1
CULTIVATION MAP
DISSTON ISLAND CONSERVANCY DISTRICT
2007
SCALE 1" = 2,000'
5

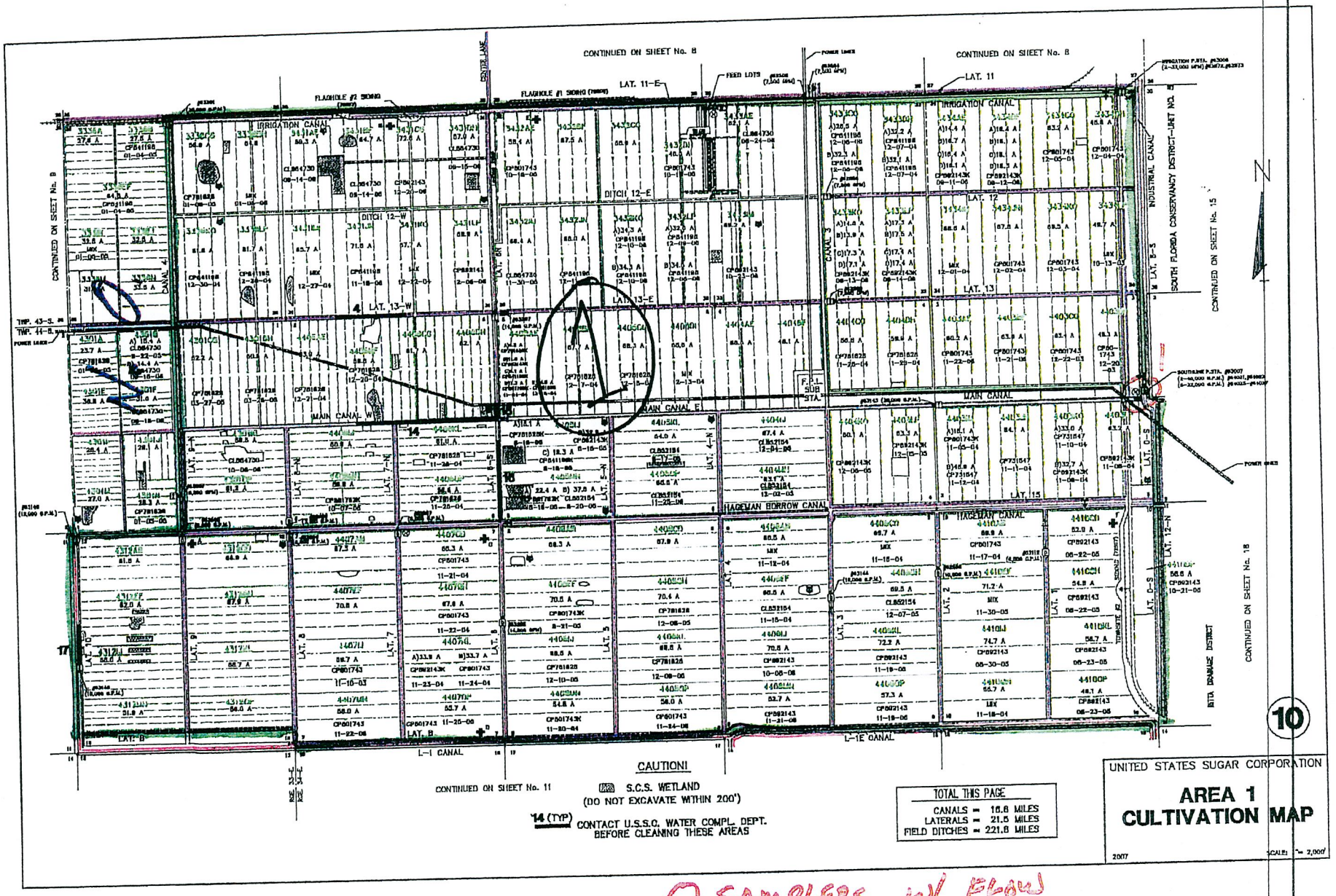

NOTE: SEE SHEET 5N FOR REPRESENTATIVE FLOW & SAMPLING SITES
AREA WITHOUT SAMPLER
LAKE OKEECHOBEE
U.S.C.O.E. LEVEE
PUMP CANAL 2
J.E. FRIERSON
LEASED
SHAWNEE FARMS
LAT. 18
LAT. 19
LAT. 20
LAT. 21
LAT. 13
LAT. 14
LAT. 15
LAT. 16
LAT. 17
CO. F.D.R. LEVEE
GLADES COUNTY
HENDRY COUNTY
CONTINUED ON SHEET No. 5
CONTINUED ON SHEET No. 7
UNITED STATES SUGAR CORPORATION
AREA 1
CULTIVATION MAP
DISSTON ISLAND CONSERVANCY DISTRICT
2007
1"= 2,000'
6




Nutrient Monitoring Map Exhibit
Version Date: 01/07/09

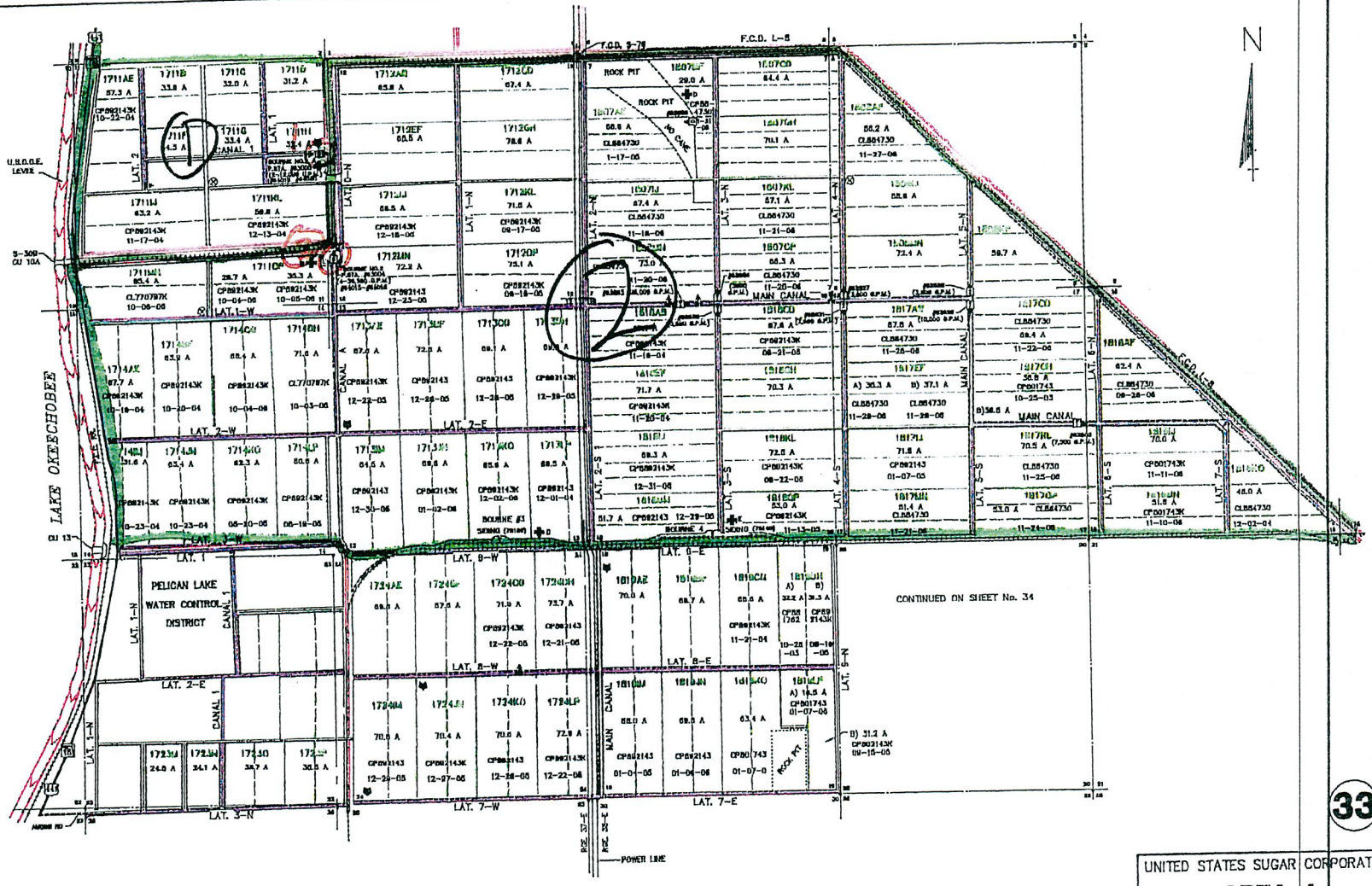



Nutrient Monitoring Map Exhibit
Version Date: 01/07/09



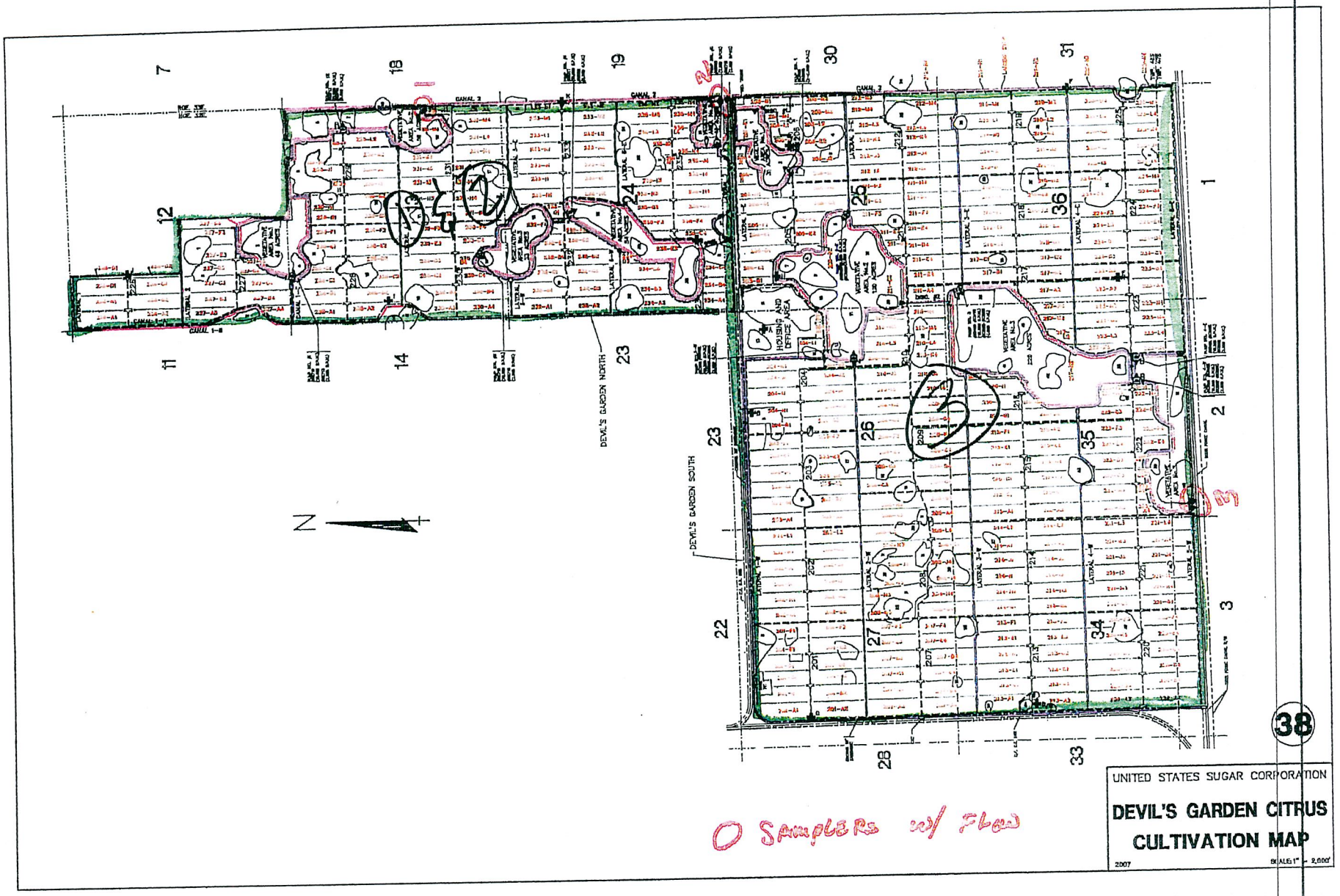

O SAMPLERS w/ FLOW

Nutrient Monitoring Map Exhibit
Version Date: 01/07/09
Page 10 of 14

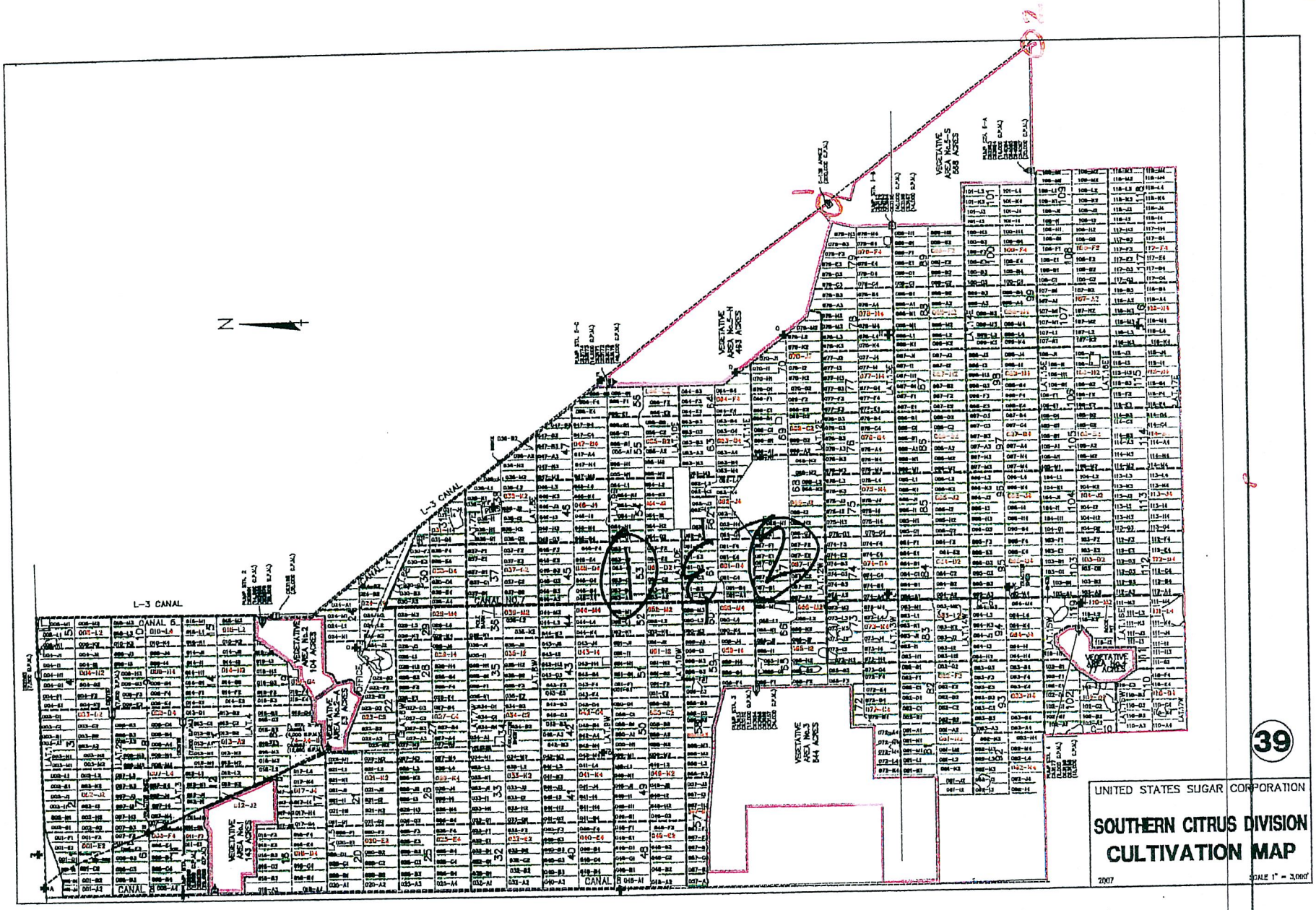



O Samplers w/ Flow

Nutrient Monitoring Map Exhibit
Version Date: 01/07/09



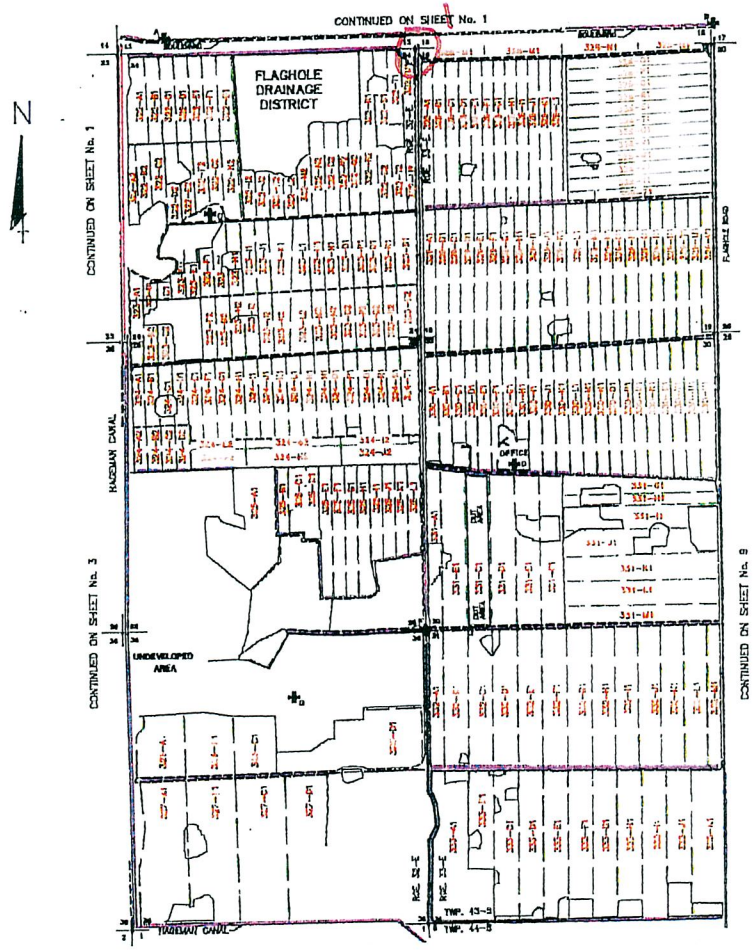

Nutrient Monitoring Map Exhibit
Version Date: 01/07/09




0 Samplers w/ plan

Nutrient Monitoring Map Exhibit
Version Date: 01/07/09

## ALCOMA CITRUS




O SAMPLER w/ FLAG

40

UNITED STATES SUGAR CORPORATION

**ALCOMA CITRUS CULTIVATION MAP**

FLAGHOLE DRAINAGE DISTRICT

2007

SCALE: 1" = 2,000'

EXHIBIT B TO SCHEDULE 3.1-B

# Exhibit B to Schedule 3.1-B - March 3, 2009

## Table 1. Summary of EAA USSC Sub-basin Discharges. (Historic Water Quality, 3-yr Targets and Limits, BMP Points and Associated Acreages)

| UAID | Basin ID | Total WY'08 Area acres | Historical Average 3-yr Discharges WY1999-2008 unless otherwise noted TP Conc ppb | Flow AF | TP Load kg | UAL #/ac | TP Targets 3-yr TP Conc ppb | 3-yr UAL #/ac | Begin BMP Points | Existing TP Level Above Target? | First WQ Assess. Year | 90% Conf. Level TP Limits 3-yr TP Conc ppb | 3-yr UAL #/ac | 90% Conf. Level Joint Exceed. Freq. Conc | UAL | Both | 95% Conf. Level Annual Limit TP Conc ppb | Annual Limit UAL #/ac |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *S-5A Sub-basin* | | | | | | | | | | | | | | | | | | |
| 132 | 50-061-15 | 6,760 | 133 | 10,993 | 1,798 | 0.6 | 133 | 0.6 | 35 | No | WY2013 | 181 | 0.9 | 0% | 0% | 0% | 198 | 1.1 |
| 165 | 50-002-02 | 9,285 | 189 | 17,892 | 4,172 | 1.0 | 189 | 1.0 | 35 | No | WY2013 | 218 | 1.2 | 33% | 0% | 33% | 228 | 1.2 |
| 166 | 50-002-01 | 5,656 | 203 | 13,042 | 3,275 | 1.3 | 200* | 1.2* | 35 | Yes | WY2013 | N.I. | N.I. | N.I. | N.I. | N.I. | N.I. | N.I. |
| 168 | 50-015-02 | 2,554 | 294 | 3,510 | 1,272 | 1.1 | 200* | 1.2* | 35 | Yes | WY2013 | N.I. | N.I. | N.I. | N.I. | N.I. | N.I. | N.I. |
| 177 | 50-061-17 | 1,598 | 386 | 7,758 | 3,694 | 5.1 | 200* | 1.2* | 35 | Yes | WY2013 | N.I. | N.I. | N.I. | N.I. | N.I. | N.I. | N.I. |
| 179 | 50-018-03 | 9,062 | 126 | 26,487 | 4,132 | 1.0 | 126 | 1.0 | 35 | No | WY2013 | 136 | 1.2 | 17% | 0% | 17% | 139 | 1.2 |
| 186 | 50-018-02 | 6,594 | 154 | 20,109 | 3,830 | 1.3 | 200* | 1.2* | 35 | Yes | WY2013 | N.I. | N.I. | N.I. | N.I. | N.I. | N.I. | N.I. |
| 187 | 50-018-01 | 5,902 | 191 | 13,853 | 3,263 | 1.2 | 200* | 1.2* | 35 | Yes | WY2013 | N.I. | N.I. | N.I. | N.I. | N.I. | N.I. | N.I. |
| 188 | 50-015-01 | 3,276 | 214 | 6,877 | 1,815 | 1.2 | 200* | 1.2* | 35 | Yes | WY2013 | N.I. | N.I. | N.I. | N.I. | N.I. | N.I. | N.I. |
| *Sub-basin Sub-total* | | *50,689* | *183* | *120,521* | *27,248* | *1.2* | | | | | | | | 17% | 0% | 17% | | |
| | | *Total USSC acreage in sub-basin* | | | *40,445* | *Acreage @ 35 Points* | | *40,445* | | | | | | | | | | |
| | | | | | | *Acreage @ 25 Points* | | *0* | | | | | | | | | | |
| *S-6 Sub-basin* | | | | | | | | | | | | | | | | | | |
| 102 | 50-010-02 | 5,327 | 175 | 19,814 | 4,272 | 1.8 | 200* | 1.2* | 35 | Yes | WY2013 | N.I. | N.I. | N.I. | N.I. | N.I. | N.I. | N.I. |
| 145 | 50-018-10 | 8,254 | 159 | 19,517 | 3,828 | 1.0 | 159 | 1.0 | 25 | No | WY2010 | 202 | 1.5 | 0% | 0% | 0% | 216 | 1.6 |
| 148 | 50-010-04 | 7,159 | 179 | 25,872 | 5,716 | 1.8 | 200* | 1.2* | 35 | Yes | WY2013 | N.I. | N.I. | N.I. | N.I. | N.I. | N.I. | N.I. |
| 159 | 50-018-11 | 1,871 | 191 | 7,949 | 1,875 | 2.2 | 200* | 1.2* | 35 | Yes | WY2013 | N.I. | N.I. | N.I. | N.I. | N.I. | N.I. | N.I. |
| *Sub-basin Sub-total* | | *22,612* | *174* | *73,152* | *15,691* | *1.5* | | | | | | | | 0% | 0% | 0% | | |
| | | *Total USSC acreage in sub-basin* | | | *13,496* | *Acreage @ 35 Points* | | *8,569* | | | | | | | | | | |
| | | | | | | *Acreage @ 25 Points* | | *4,927* | | | | | | | | | | |
| *S-7 Sub-basin* | | | | | | | | | | | | | | | | | | |
| 044 | 50-018-20 | 381 | 175 | 1,965 | 425 | 2.5 | 200* | 1.2* | 35 | Yes | WY2013 | N.I. | N.I. | N.I. | N.I. | N.I. | N.I. | N.I. |
| 046 | 50-018-19 | 314 | 183 | 3,542 | 801 | 5.6 | 200* | 1.2* | 35 | Yes | WY2013 | N.I. | N.I. | N.I. | N.I. | N.I. | N.I. | N.I. |
| 051 | 50-018-18 | 358 | 122 | 1,670 | 250 | 1.5 | 200* | 1.2* | 35 | Yes | WY2013 | N.I. | N.I. | N.I. | N.I. | N.I. | N.I. | N.I. |
| 052 | 50-018-25 | 3,808 | 177 | 8,994 | 1,967 | 1.1 | 177 | 1.1 | 25 | No | WY2010 | 204 | 1.4 | 0% | 0% | 0% | 213 | 1.5 |
| 076 | 50-061-03 | 3,434 | 78 | 9,302 | 895 | 0.6 | 78 | 0.6 | 25 | No | WY2010 | 98 | 0.7 | 17% | 0% | 17% | 105 | 0.7 |
| 095 | 50-018-16 | 240 | 112 | 1,385 | 191 | 1.8 | 200* | 1.2* | 35 | Yes | WY2013 | N.I. | N.I. | N.I. | N.I. | N.I. | N.I. | N.I. |
| *Sub-basin Sub-total* | | *8,535* | *137* | *26,857* | *4,530* | *1.2* | | | | | | | | 8% | 0% | 8% | | |
| | | *Total USSC acreage in sub-basin* | | | *6,813* | *Acreage @ 35 Points* | | *1,032* | | | | | | | | | | |
| | | | | | | *Acreage @ 25 Points* | | *5,781* | | | | | | | | | | |
| *S-8 Sub-basin* | | | | | | | | | | | | | | | | | | |
| 005 | 50-018-07 | 1,117 | 268 | 2,295 | 758 | 1.5 | 200* | 1.2* | 35 | Yes | WY2013 | N.I. | N.I. | N.I. | N.I. | N.I. | N.I. | N.I. |
| 006 | 50-018-08 | 3,209 | 130 | 6,938 | 1,112 | 0.8 | 130 | 0.8 | 25 | No | WY2010 | 200 | 1.4 | 17% | 17% | 17% | 224 | 1.7 |
| 012 | 26-010-02 | 9,961 | 185 | 19,424 | 4,442 | 1.0 | 185 | 1.0 | 25 | No | WY2010 | 265 | 1.5 | 0% | 0% | 0% | 292 | 1.7 |
| 014 | 50-018-06 | 1,255 | 135 | 2,714 | 450 | 0.8 | 135 | 0.8 | 25 | No | WY2010 | 176 | 1.3 | 0% | 17% | 17% | 190 | 1.4 |
| 015 | 50-018-04 | 1,913 | 88 | 4,738 | 516 | 0.6 | 88 | 0.6 | 25 | No | WY2010 | 98 | 0.9 | 17% | 17% | 33% | 102 | 1.0 |
| 016 | 50-018-05 | 1,827 | 270 | 4,658 | 1,551 | 1.9 | 200* | 1.2* | 35 | Yes | WY2013 | N.I. | N.I. | N.I. | N.I. | N.I. | N.I. | N.I. |
| 017 | 50-018-22 | 4,481 | 126 | 12,100 | 1,878 | 0.9 | 126 | 0.9 | 25 | No | WY2010 | 148 | 1.3 | 17% | 17% | 17% | 156 | 1.4 |
| 019 | 50-018-09 | 1,737 | 134 | 5,642 | 933 | 1.2 | 134 | 1.2 | 25 | No | WY2010 | 152 | 1.8 | 17% | 17% | 17% | 158 | 2.1 |
| 020 | 50-008-01 | 7,261 | 87 | 10,736 | 1,157 | 0.4 | 87 | 0.4 | 25 | No | WY2010 | 106 | 0.5 | 17% | 0% | 17% | 112 | 0.6 |
| 022 | 50-061-22 | 3,739 | 122 | 6,181 | 931 | 0.5 | 122 | 0.5 | 25 | No | WY2010 | 130 | 1.0 | 0% | 0% | 0% | 134 | 1.3 |
| 027 | 50-061-10 | 25,062 | 55 | 50,125 | 3,407 | 0.3 | 55 | 0.3 | 25 | No | WY2010 | 71 | 0.4 | 0% | 0% | 0% | 76 | 0.4 |
| 053 | 50-018-24 | 3,800 | 97 | 11,894 | 1,419 | 0.8 | 97 | 0.8 | 25 | No | WY2010 | 112 | 1.2 | 17% | 17% | 17% | 117 | 1.3 |
| 054 | 50-018-23 | 2,946 | 104 | 10,832 | 1,394 | 1.0 | 104 | 1.0 | 25 | No | WY2010 | 134 | 1.6 | 17% | 17% | 17% | 144 | 1.8 |
| 055 | 50-010-03 | 5,826 | 108 | 15,567 | 2,083 | 0.8 | 108 | 0.8 | 25 | No | WY2010 | 140 | 1.1 | 0% | 0% | 0% | 150 | 1.3 |
| 193 | 50-010-05 | 2,111 | 76 | 3,032 | 284 | 0.3 | 76 | 0.3 | 25 | No | WY2010 | 98 | 0.5 | 17% | 0% | 17% | 106 | 0.5 |
| 202 | 50-011-06 | 638 | 155 | 1,177 | 226 | 0.8 | 155 | 0.8 | 25 | No | WY2010 | 213 | 1.4 | 33% | 17% | 33% | 233 | 1.6 |
| *Sub-basin Sub-total* | | *76,885* | *109* | *168,052* | *22,540* | *0.6* | | | | | | | | 12% | 10% | 14% | | |
| | | *Total USSC acreage in sub-basin* | | | *55,194* | *Acreage @ 35 Points* | | *2,114* | | | | | | | | | | |
| | | | | | | *Acreage @ 25 Points* | | *53,080* | | | | | | | | | | |
| *Total EAA Basin* | | *158,721* | *146* | *388,583* | *70,009* | *1.0* | | | | | | | | 12% | 7% | 13% | | |
| | | *Total USSC acreage in sub-basin* | | | *115,948* | *Acreage @ 35 Points* | | *52,160* | | | | | | | | | | |
| | | | | | | *Acreage @ 25 Points* | | *63,788* | | | | | | | | | | |

Notes: * For those parcels showing "200*" and "1.2*" as the Targets, the performance goal is to continue improving performance until the maximum performance achievable has been demonstrated, or 200/1.2 has been achieved.

N.I. = Net Improvement  Basin ID 076 is leased by Duda Farms from USSC, and is not subject to the performance assessment provisions of Schedule 4.1.

## Table 2. Summary of All Other USSC Basin Discharges. (Historic Water Quality, 3-yr Targets and Limits, BMP Points and Associated Acreages)

| UAID | Basin ID | Total WY08 Area acres | Historical Average 3-yr Discharges WY1999-2008 unless otherwise noted TP Conc ppb | Flow AF | TP Load kg | UAL #/ac | TP Targets 3-yr TP Conc ppb | 3-yr UAL #/ac | Begin BMP Points | Existing TP Level Above Target? | First WQ Assess. Year | 90% Conf. Level TP Limits 3-yr TP Conc ppb | 3-yr UAL #/ac | 90% Conf. Level Joint Exceed. Freq. Conc | UAL | Both |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EBWCD Sub-basin | | 6,574 | 440 | 19,624 | 10,652 | 3.6 | 200* | 1.2* | 35 | Yes | WY2013 | N.I. | N.I. | N.I. | N.I. | N.I. |
| | | *Total USSC acreage in basin* | | | *55* | *Acreage @ 35 Points* | | *55* | | | | | | | | |
| ESWCD Sub-basin | | 8,324 | 128 | 14,905 | 2,344 | 0.6 | 128 | 0.6 | 25 | No | WY2010 | 200 | 0.9 | 17% | 17% | 17% |
| | | *Total USSC acreage in basin* | | | *5,287* | *Acreage @ 25 Points* | | *5,287* | | | | | | | | |
| SSDD Sub-basin | | 4,049 | 114 | 11,497 | 1,622 | 0.9 | 114 | 0.9 | 25 | No | WY2010 | 139 | 1.3 | 17% | 33% | 33% |
| | | *Total USSC acreage in basin* | | | *2,868* | *Acreage @ 25 Points* | | *2,868* | | | | | | | | |
| SFCD Sub-basin | | 11,080 | 114 | 27,604 | 3,898 | 0.8 | 114 | 0.8 | 25 | No | WY2010 | 129 | 1.0 | 17% | 0% | 17% |
| | | *Total USSC acreage in basin* | | | *7,940* | *Acreage @ 25 Points* | | *7,940* | | | | | | | | |
| L-8 Sub-basin | | 5,058 | 249 | 11,156 | 3,430 | 1.5 | 200* | 1.2* | 35 | Yes | WY2013 | N.I. | N.I. | N.I. | N.I. | N.I. |
| WY1996-2005 | | *Total USSC acreage in basin* | | | *5,058* | *Acreage @ 35 Points* | | *5,058* | | | | | | | | |
| C-139 Sub-basin | | 169,500 | 252 | 178,678 | 55,563 | 0.7 | 200* | 1.2* | 35 | Yes | WY2013 | N.I. | N.I. | N.I. | N.I. | N.I. |
| | | *Total USSC acreage in basin* | | | *5,439* | *Acreage @ 35 Points* | | *5,439* | | | | | | | | |
| C-139 Ann. Sub-basin | | 17,841 | 100 | 42,946 | 5,274 | 0.7 | 100 | 0.7 | 35 | No | WY2013 | 112 | 0.8 | 17% | 0% | 17% |
| | | *Total USSC acreage in basin* | | | *17,841* | *Acreage @ 35 Points* | | *17,841* | | | | | | | | |
| S-4 East Sub-basin | | 19,917 | 255 | 43,886 | 13,818 | 1.5 | 200* | 1.2* | 35 | Yes | WY2013 | N.I. | N.I. | N.I. | N.I. | N.I. |
| WY1998-2007 | | *Total USSC acreage in basin* | | | *11,481* | *Acreage @ 35 Points* | | *11,481* | | | | | | | | |
| S-4 West Sub-basin | | 21,576 | 265 | 46,623 | 15,245 | 1.6 | 200* | 1.2* | 35 | Yes | WY2013 | N.I. | N.I. | N.I. | N.I. | N.I. |
| WY1998-2007 | | *Total USSC acreage in basin* | | | *6,990* | *Acreage @ 35 Points* | | *6,990* | | | | | | | | |
| Other runoff to C-43 | | 23,900 | 265 | 51,645 | 16,887 | 1.6 | 200* | 1.2* | 35 | Yes | WY2013 | N.I. | N.I. | | | |
| *Conc & UAL set equal to S-4 West* | | *Total USSC acreage in basin* | | | *8,131* | *Acreage @ 35 Points* | | *8,131* | | | | | | | | |
| *Total non-EAA* | | *287,819* | *233* | *448,564* | *128,733* | *1.0* | | | | | | | | 17% | 13% | 21% |
| | | *Total USSC acreage in sub-basin* | | | *71,090* | *Acreage @ 35 Points* | | *54,995* | | | | | | | | |
| | | | | | | *Acreage @ 25 Points* | | *16,095* | | | | | | | | |
| Total Discharges | | *446,540* | *192* | *837,146* | *198,742* | *1.0* | | | | | | | | 13% | 8% | 15% |
| | | | *Total USSC acreage* | | *187,039* | *Acreage @ 35 Points* | | *107,155* | | | | | | | | |
| | | | | | | *Acreage @ 25 Points* | | *79,884* | | | | | | | | |

Notes: * For those parcels showing "200*" and "1.2*" as the Targets, the performance goal is to continue improving performance until the maximum performance achievable has been demonstrated, or 200/1.2 has been achieved.

N.I. = Net Improvement

**Table 3. Initial Net Improvement Performance Measures for Basin IDs With Historical Discharges Above 200 ppb or 1.2 lb/acre**

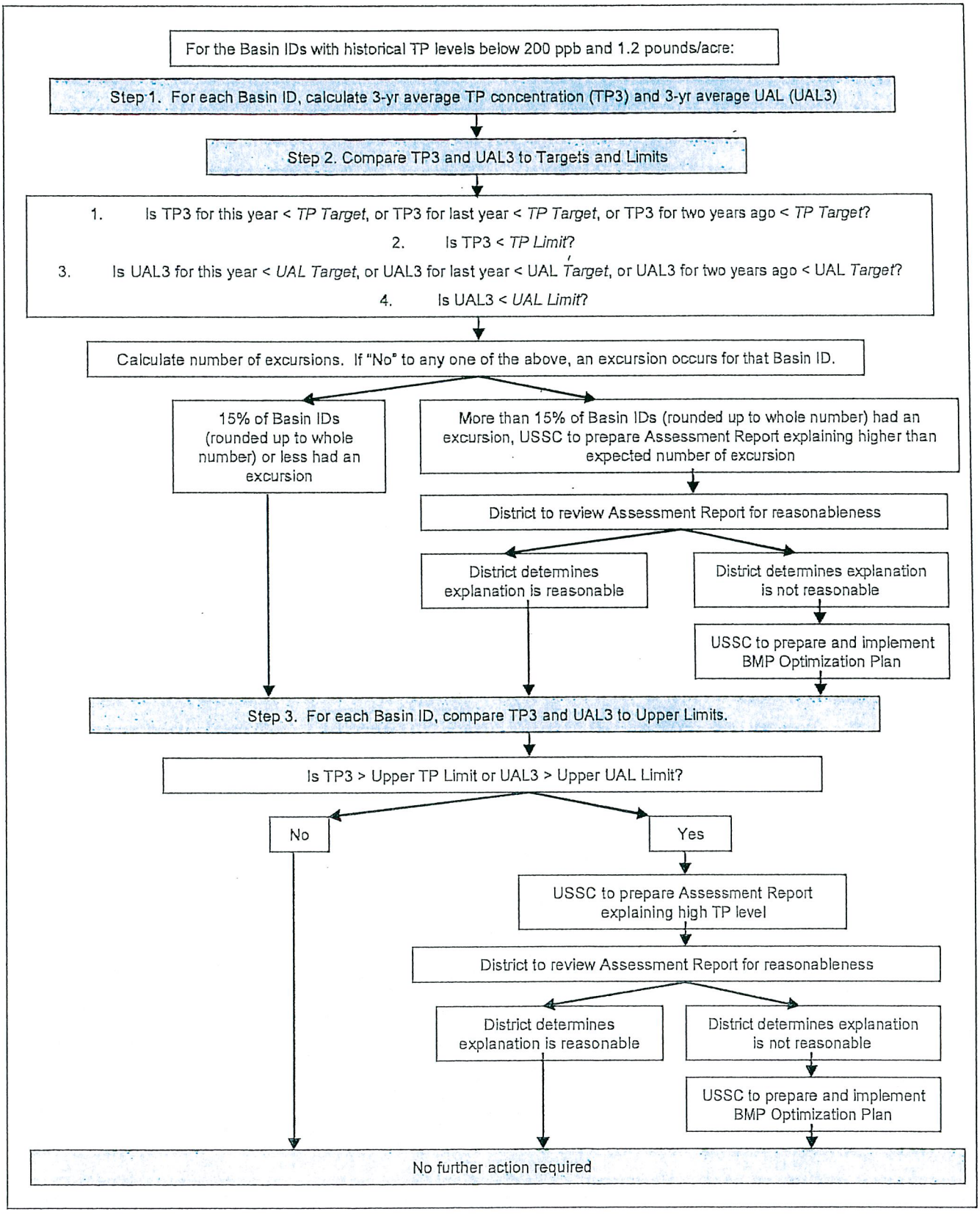
| UAID | Basin ID | More Restrictive Parameter | Unit | Historical Value | 20% Performance Improvement | Upper Performance Limit |
|---|---|---|---|---|---|---|
| S-5A Sub-basin | | | | | | |
| 166 | 50-002-01 | UAL | lbs/acre | 1.3 | 1.2 | 1.2 |
| 168 | 50-015-02 | TP | ppb | 294 | 235 | 264 |
| 177 | 50-061-17 | UAL | lbs/acre | 5.1 | 4.1 | 4.6 |
| 186 | 50-018-02 | UAL | lbs/acre | 1.3 | 1.2 | 1.2 |
| 187 | 50-018-01 | UAL | lbs/acre | 1.2 | 1.2 | 1.2 |
| 188 | 50-015-01 | TP | ppb | 214 | 200 | 207 |
| S-6 Sub-basin | | | | | | |
| 102 | 50-010-02 | UAL | lbs/acre | 1.8 | 1.4 | 1.6 |
| 148 | 50-010-04 | UAL | lbs/acre | 1.8 | 1.4 | 1.6 |
| 159 | 50-018-11 | UAL | lbs/acre | 2.2 | 1.8 | 2.0 |
| S-7 Sub-basin | | | | | | |
| 044 | 50-018-20 | UAL | lbs/acre | 2.5 | 2.0 | 2.2 |
| 046 | 50-018-19 | UAL | lbs/acre | 5.6 | 4.5 | 5.1 |
| 051 | 50-018-18 | UAL | lbs/acre | 1.5 | 1.2 | 1.4 |
| 095 | 50-018-16 | UAL | lbs/acre | 1.8 | 1.4 | 1.6 |
| S-8 Sub-basin | | | | | | |
| 005 | 50-018-07 | TP | ppb | 268 | 214 | 241 |
| 016 | 50-018-05 | TP | ppb | 270 | 216 | 243 |
| | | | | | | |
| EBWCD Sub-basin | | UAL | lbs/acre | 3.6 | 2.9 | 3.2 |
| | | | | | | |
| L-8 Sub-basin | | TP | ppb | 249 | 200 | 225 |
| | | | | | | |
| C-139 Sub-basin | | TP | ppb | 252 | 202 | 227 |
| | | | | | | |
| S-4 East Sub-basin | | TP | ppb | 255 | 204 | 230 |
| | | | | | | |
| S-4 West Sub-basin | | TP | ppb | 265 | 212 | 239 |

Note:
1) UAL – TP Unit Area Load (lbs/acre)
2) TP – Flow-weighted mean TP concentration (ppb)

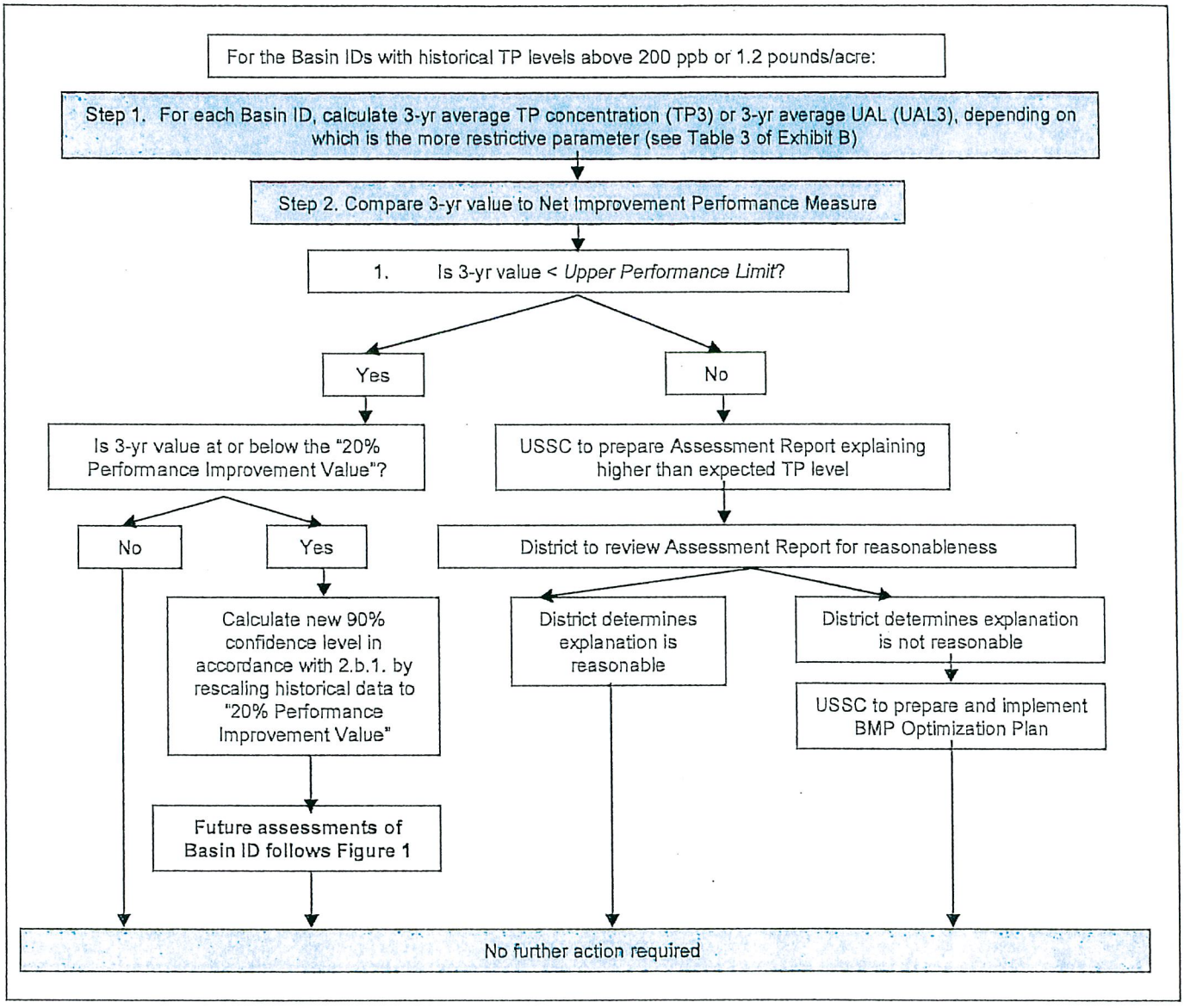
## Table 4. Annual Basin Rainfall and Maximum Value; values in inches per year.

| Basin | WY1999 | WY2000 | WY2001 | WY2002 | WY2003 | WY2004 | WY2005 | WY2006 | WY2007 | WY2008 | Max | Rainfall Station |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S-5A | 42.22 | 60.12 | 37.60 | 52.09 | 50.27 | 50.17 | 56.66 | 42.93 | 37.33 | 44.18 | 60.12 | Rule 40E-63 |
| S-6 | 41.88 | 54.32 | 35.09 | 54.37 | 46.04 | 46.37 | 50.26 | 44.32 | 39.04 | 53.27 | 54.37 | Rule 40E-63 |
| S-7 | 41.43 | 59.04 | 38.21 | 49.51 | 44.19 | 43.91 | 44.87 | 51.96 | 40.40 | 50.38 | 59.04 | Rule 40E-63 |
| S-8 | 45.49 | 56.57 | 37.04 | 43.69 | 44.19 | 46.12 | 49.11 | 56.42 | 35.22 | 44.09 | 56.57 | Rule 40E-63 |
| EBWCD | 26.49 | 37.37 | 21.48 | 25.51 | 33.63 | 33.32 | 39.36 | 29.29 | 24.83 | 47.14 | 47.14 | DBKEYs 5962, 16191, 5835 |
| ESWCD | 26.17 | 40.48 | 28.11 | 30.24 | 37.36 | 31.77 | 44.23 | 38.67 | 25.36 | 47.80 | 47.80 | DBKEYs 16191, 5835 |
| SSDD | 42.93 | 51.33 | 37.02 | 43.67 | 36.15 | 43.36 | 51.52 | 58.43 | 30.06 | 36.74 | 58.43 | DBKEYs 15199, 15198 |
| SFCD | 48.73 | 55.68 | 27.68 | 33.99 | 44.11 | 45.85 | 66.17 | 64.19 | 37.71 | 38.12 | 66.17 | DBKEYs 15198, 5965, 16696 |
| L-8 (WY96-05) | 53.69 | 39.75 | 40.90 | 28.22 | 47.43 | 27.05 | 35.44 | 33.02 | 35.09 | 49.24 | 53.69 | S-352 (DBKEY 16693) |
| C-139 | 51.92 | 54.46 | 35.70 | 54.23 | 55.40 | 49.90 | 50.68 | 54.86 | 36.85 | 41.95 | 55.40 | Rule 40E-63 |
| C-139 Annex | 42.45 | 58.46 | 42.39 | 48.85 | 52.54 | 53.96 | 51.14 | 59.73 | 50.70 | 49.11 | 59.73 | DBKEYs 16224, 16606, 15685 |
| S-4 East (WY98-07) | 50.10 | 46.60 | 60.30 | 27.10 | 49.90 | 46.60 | 47.90 | 61.40 | 63.00 | 36.60 | 63.00 | Clewiston F.S. (DBKEY 16696) |
| S-4 West (WY98-07) | 50.10 | 46.60 | 60.30 | 27.10 | 49.90 | 46.60 | 47.90 | 61.40 | 63.00 | 36.60 | 63.00 | Clewiston F.S. (DBKEY 16696) |
| Other C-43 | 50.10 | 46.60 | 60.30 | 27.10 | 49.90 | 46.60 | 47.90 | 61.40 | 63.00 | 36.60 | 63.00 | Clewiston F.S. (DBKEY 16696) |

## Figure 1. Flow Chart for Annual Performance Assessment of USSC Basin IDs With Historical Discharges Below 200 ppb and 1.2 lb/acre



## Figure 2. Flow Chart for Annual Performance Assessment of USSC Basin IDs With Historical Discharges Above 200 ppb or 1.2 lb/acre



## EXHIBIT C TO SCHEDULE 3.1-B

**[THIS EXHIBIT IS IN ELECTRONIC FORMAT – SEE ENCLOSED COMPUTER DISK IN THE POCKET ATTACHED HERETO.]**

# SCHEDULE 3.2-A

[Best Management Practices Plan Sugar Cane Production]

Schedule 3.2- A: REPLACE THE FIRST PARAGRAPH ON PAGE 1 WITH THE FOLLOWING:

The South Florida Water Management District ("District") and the United States Sugar Corporation, SBG Farms, Inc., and Southern Gardens Grove Corporation (collectively "USSC") have entered into a Second Amended and Restated Agreement for Sale and Purchase, dated August 12, 2010, ("Second Amendment") pursuant to which the District will acquire approximately 26,791 acres of farmland owned by USSC with an option to buy approximately 46,022 acres ("Initial Option") and/or an option to buy approximately 153,209 acres (which includes the Initial Option lands, unless the Initial Option has already been exercised) ("Entire Option"). The District will lease land (referred to in this Schedule as "farming units" or "purchased lands") to USSC pursuant to the terms of the Second Amendment. This **Schedule 3.2-A** applies to such leased land as provided on the first page of Schedule 3.

# SCHEDULE 3.2-A

# DRAFT REPORT
# BEST MANAGEMENT PRACTICES PLAN
# SUGAR CANE PRODUCTION

## UNITED STATES SUGAR CORPORATION
## PALM BEACH, HENDRY, AND GLADES COUNTIES, FLORIDA

*Prepared for*

South Florida Water Management District
3301 Gun Club Road
West Palm Beach, Florida 33406

May 8, 2009

*Prepared by*

URS Corporation
7800 Congress Avenue, Suite 200
Boca Raton, Florida 33487

URS

May 8, 2009

Mr. Robert Taylor
Lead Environmental Engineering Specialist
Land Management and Land Acquisition Division
South Florida Water Management District
3301 Gun Club Road
West Palm Beach, Florida 33406

Subject: **Environmental Best Management Practices Plan-Sugar Cane Production**
**United States Sugar Corporation**
**Palm Beach, Hendry, and Glades Counties**
**State of Florida**
Job # 38617-027

Dear Mr. Taylor,

URS Corporation (URS) is pleased to present this Environmental Best management Practices (BMP) Plan for the United States Sugar Corporation (USSC) sugar cane production properties in Palm Beach, Hendry, and Glades Counties, Florida.

It is URS' understanding that as the property owner, the South Florida Water Management District (District) desires to have in place a set of general environmental BMP's for the sugar cane operations that are designed to maintain/protect water quality in accordance with the State's water quality standards, maintain the soil and water quality at the site which will not prohibit the District from using property as a water attenuation reservoir in the near future, and that will concurrently allow for continued economically-viable agricultural production on the site. This BMP plan is designed to meet these expectations by providing guidance to the USSC property on environmental preventative measures to be proactively implemented.

Sincerely,
URS Corporation

Edward A. Leding, P.G.
Project Manager

Timothy B. DeBord
Vice President
URS Jacksonville

## TABLE OF CONTENTS

SECTION PAGE



### List of Figures



### List of Tables

**List of Appendices**

## 1.0 OVERVIEW

## 1.1 BACKGROUND

The South Florida Water Management District (District) has acquired approximately 72,500 acres of the United States Sugar Corporation (USSC) properties in Palm Beach, Hendry, and Glades Counties, Florida for future restoration purposes such as water storage reservoirs and wetlands. **Figure 1** illustrates the USSC properties. Of the 72,500 acres, an estimated 40,500 acres is used for the cultivation of sugar cane. **Figure 2** illustrates the tracts of land in eastern Glades, eastern Hendry, and Palm Beach Counties that are utilized for the cultivation of sugar cane. Additionally, portions of the 40,500 acres are subleased each year for the cultivation of vegetables. The vegetables that are typically grown are corn, beans, and watermelons. This Environmental Best Management Practices (BMP) Plan shall be implemented by future tenants of the District that engage in sugar cane and vegetable production on portions of the acquired properties.

During the interim period (from acquisition to construction/land conversion), the District intends to utilize the property for continued agricultural operations primarily for the cultivation of sugar cane. In general, this BMP requirements document is not regulatory or enforcement based (as opposed to any existing or future permit that may contain BMP requirements); however, failure of a tenant to implement this BMP Plan will constitute a breach of the tenant's lease with the District. BMPs are production systems and management strategies scientifically shown to minimize adverse water quality and other environmental impacts of sugar cane production. BMPs can be defined as those operational procedures designed to achieve greatest agronomic efficiency in food and fiber production, while limiting the off-site effects of agricultural operations and maintaining an economically viable farming operation. All BMPs must protect the environment and be economically viable. A small percentage of the 40,500 acres, an estimated 2% to 4%, is used for vegetable growing as part of the sugar cane crop rotation. These acres are subleased to independent farmers who grow the vegetables. In the event that USSC plans to sub-lease large portions/substantial additional acres for vegetables or other crops not associated with the typical crop rotation, the District must be notified prior to leasing the acreage. It will be the District's lessee's responsibility to insure that its sub-tenant complies with the BMP Plan.

There are several sources of research that have been used to develop BMPs for sugar cane production in Florida. Primary sources include the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS), University of Florida/Institute of Food and Agricultural Sciences (IFAS), Environmental Protection Agency (EPA), Florida Department of Environmental Protection (FDEP), and Florida Department of Agriculture and Consumer Services (FDACS). This document cites pertinent documentation from these sources that may guide the implementation, evaluation, verification and validation of each BMP.

The proposed acquisition areas have been cultivated since the 1920s. Initially vegetables were cultivated. Beginning in the 1930s, the predominant crop was sugar cane. Maintenance buildings with chemical storage areas are strategically spaced throughout the acquisition areas, as well as diesel powered pump stations and re-fueling areas. A railway system located throughout the properties is used to transport the sugar cane to the mills. Rail sidings, which are used to load the harvested sugar cane onto rail cars, are strategically placed along the railway system. Agrochemical application is conducted using mobile

equipment and also applied aerially, and the agrochemicals are stored in designated areas at the maintenance buildings. For tracts that are leased for vegetable cultivation, the agrochemicals are stored off-site and transported to the vegetable growing are on an as-need basis. USSG property personnel indicated there have been no central burn pits and the paper, boxes and cartons generated as part of the farming operations were burned in many small areas throughout the properties. Agricultural air strips are located on several properties.

## 1.2 ENVIRONMENTAL SITE ASSESSMENT (ESA)

Phase I and Phase II Environmental Site Assessment (ESA) activities were conducted on the property in August and September 2008 by Professional Services Inc. (PSI). Identified areas of potential point sources associated with the sugar cane operation are primarily:

- Chemical Storage and/or Maintenance Areas
- Airplane Landing Strips
- Equipment Staging Areas
- Diesel Powered Pump Stations
- Fuel Storage / Re-Fueling Areas

Section 2.0 provides descriptions of a variety of environmental BMPs as part of the sugar cane and vegetable operations. Although all BMPs are important with the need for diligent on-going implementation, particular attention needs to be addressed to the following:

- Pump Stations
- Chemical Storage Areas
- Copper Based Nutrients

Given below is a summary of the observations made during the Phase I ESA, as well as the results of the Phase II ESA at the above referenced areas/issues and URS' recommendations to address the issues.

- Diesel powered pump stations with aboveground storage tanks (ASTs) used to store diesel fuel were observed on the properties. The pump stations are used to control water in the cultivated fields. Soil staining and/or petroleum impacted soils were identified at most of the pump stations. **URS recommends implementing preventative measures for petroleum spills and diesel AST leaks. This should include repairing any leaks and use of absorbent material when leaks and/or spills occur. URS also recommends that site inspections be routinely conducted when the pump station(s) are in operation to verify the pump stations are being properly maintained and in compliance.**

- Chemical and equipment storage areas were observed on the properties. Areas of petroleum and agrochemical stained soil and stressed vegetation were observed at numerous chemical and equipment storage areas. **URS recommends improving housekeeping at the storage areas. This should include proper handling and storage of agrochemicals and use of absorbent at the equipment storage areas. URS also recommends monthly site inspections to verify the storage areas are being properly maintained.**

- During the Phase I ESA, PSI identified copper based nutrients from the USSC pesticide application records. Due to these copper based nutrients, PSI analyzed for copper in the sugar cane cultivation areas during the Phase II ESA. PSI divided the sugar cane cultivation area into 40-acre grids and sampled approximately 20% of these 40-acre grids that were historically and currently cultivated with sugar cane. An eight point composite sample was collected from each grid with each aliquot representing approximately 5-acres. All aliquots were collected from a depth of 0 to 6-inches bls using a stainless steel sample barrel. The Phase II ESA sampling identified areas of elevated copper in the sugar cane cultivation areas copper above the Service provisional Snail Kite threshold level of 85 milligrams per kilogram (mg/kg).

- Based on the PSI Phase II ESA sampling results, URS identified 17, 40-acre grids within the purchase area with copper concentrations ranging from 70 mg/kg to 85 mg/kg, and 96, 40-acre grids within the purchase area with copper concentrations above 85 mg/kg. The current rates of application and amounts of copper based nutrients that have been applied on the USSC property were reviewed. Utilizing this information, a mass balance equation was developed in order to determine if additional acreage would be impacted by copper based on the current application activities. URS determined that copper could potentially increase in the soils, per application, at a rate of 2.08 mg/kg per acre. Based on this application rate, and the fact that the property is leased through 2016, four, 40-acre grids have the potential to accumulate copper above the Service's interim value for copper of 85 mg/kg during the lease agreement. However, most of the four, 40-acre grids are located adjacent to soils with copper concentrations exceeding 85 mg/kg and/or are co-located with historically applied agrochemicals (organochlorine pesticides) that are targeted for abatement. **The current nutrient application regiment is acceptable over most areas. Based on the Phase II findings on elevated copper concentrations, no copper should be applied on the 3,840 acres. URS recommends sampling select areas within the cultivated fields every year in order to monitor the copper concentrations in the soil. Section 3 gives details of the sampling and compliance plan. In the event that USSC plans to increase the applications rate of the copper based nutrients, URS recommends that USSC discuss the application increase with the District prior to implementing.**

## 1.3 OBJECTIVE

Given below are sets of guidelines and requirements proposed for the day-to-day sugar cane farming operations:

- Continued economically-viable sugar cane operations on the properties that is agreeable for implementation by the lessee/tenant during the interim use,
- Maintain/protect water quality in accordance with the State's water quality standards; prevent exceedances of applicable State soil or groundwater Cleanup Target Levels (CTLs) as set forth in Tables 1 and 2 of 62-777, F.A.C.; and implement such measures as necessary to maintain existing levels of pollutants and not interfere with District's intent to use the premises as a future water resource project.
- Comply with State regulations that are applicable to the sugar cane operations that result in conditions that will maintain the soil and water quality at the site which will not prohibit the District from using the property as a water attenuation project area at the end of the interim use period.

- Comply with permits/consent agreements issued by the District approving the site specific BMP plan for Water Management, Nutrient Management and Fertilizing, and Erosion/Sediment Control and the Discharge Monitoring Plan for nutrients (phosphorus and nitrogen).

A list of agrochemicals currently used was provided to the District. The chemical usage list is included in *Section 2.6.1 Acceptable Agrochemicals and No Application Periods*. In the event that changes are made to the agrochemical list, a revised list should be provided to the District and should consist of a detailed specific agrochemical and pesticide product list, to include the quantity used, rates of application, and an evaluation of crop areas for effectiveness of the pesticides.

The U.S. Fish and Wildlife Service (Service) document titled "Derivation of No Application Periods for Interim Use Pesticides" defines the no application period as *the period of time prior to the conversion of the agricultural land to conservation purposes (i.e. flooding to create wetlands) during which a particular pesticide hazardous to fish and/or wildlife should not be applied, in order to allow adequate time for breakdown of pesticide residues before use of the land by the Service trust resources. This period of time was defined as five times the median half-life, representing 97 percent degradation.* A copy of this document is included in **Appendix A.**

## 1.4 STANDARDIZED BMP CHECKLIST

The District's intent is to ensure consistency of BMP implementation and future verifications on two levels:

1. Consistent BMP verification for each visit to the USSC properties; and,
2. Consistent BMP verification for site visits to similar land use operations.

In some cases, previously developed District and USSC BMP plans were earlier generation versions focused on addressing specific issue areas (i.e., phosphorous control) while possibly not addressing additional areas of the District's potential concern (i.e., petroleum management, chemical usage). In addition, there may be supplementary areas of common good management practices, such as general site condition housekeeping, that are to be included in all BMP site verifications.

An example of the Standardized *BMP Site Verification Findings Summary* checklist is provided in **Appendix B,** as a supplement to any previously developed site-specific BMP Plan. The checklist is intended to serve as an additional guide to prepare for BMP site verification by the District representatives. The checklist attempts to identify BMP verification aspects which will require field observations and verification aspects which will consist of records review.

The following matrix and equivalent points table provides a *quick-glance* summary of the BMPs established for the agricultural operation. Further discussion of each BMP and key points to assist with advance preparation of BMP site verification are provided in **Section 2.**

## Best Management Practices Checklist

## United States Sugar Corporation
## Palm Beach, Hendry, and Glades Counties
## State of Florida

| BMP Group/BMP Name | Site Verification | | Training & Communications |
|---|---|---|---|
| | Observations | Records | |
| **GENERAL** | | | |
| • *Education-Employee Training*<br>• *Overall Operations 'Housekeeping'* | ✓ | ✓ | ✓ |
| **EXOTIC VEGETATION CONTROL** | | | |
| Upland Exotic Vegetation Control<br>• *Control and eradicate to the extent practicable Category I and II exotic/invasive pest plants* | ✓ | | ✓ |
| Aquatic Exotic Vegetation Control<br>• *Control and eradicate to the extent practicable Class I and II prohibited aquatic plants* | ✓ | | ✓ |
| **EARTHWORK** | | | |
| No unpermitted earthwork, excluding ditch and routine maintenance. All non-routine maintenance requires contacting the District for approval. | ✓ | ✓ | ✓ |
| **PESTICIDE & HERBICIDE MANAGEMENT** | | | |
| Allowable agrochemical list and *No Application Period* | | ✓ | ✓ |
| Pesticide & Herbicide Management<br>• *Pesticide record keeping*<br>• *Read and understand label*<br>• *Pesticide storage* | | ✓ | ✓ |
| Pesticide & Herbicide Application Optimization<br>• *Integrated pest management*<br>• *Application timing*<br>• *Customized applications*<br>• *Maintain soil pH in optimum range*<br>• *Pesticide selection* | ✓ | | ✓ |
| Pesticide & Herbicide Handling and Placement<br>• *Reduce spray drift*<br>• *Equipment calibration and maintenance*<br>• *Pesticide spill management*<br>• *Pesticide application equipment wash water*<br>• *Prevent backflow to water sources*<br>• *Mixing and loading activity locations*<br>• *Pesticide container management*<br>• *Excess pesticide mixture*<br>• *Excess formulation (raw product)* | ✓ | | ✓ |
| **COPPER** | | | |
| Minimize Use of Copper | ✓ | ✓ | ✓ |
| **PETROLEUM & HAZARDOUS WASTE MANEGEMENT** | | | |
| Gasoline and Diesel Fuel Storage & Containment<br>• *Site equipment*<br>• *Fuel delivery* | ✓ | | ✓ |

| BMP Group/BMP Name | Site Verification | | Training & Communications |
|---|---|---|---|
| | Observations | Records | |
| Farm Equipment Cleaning and Maintenance<br>• *General equipment cleaning*<br>• *Solvents and degreasers*<br>• *Paint*<br>• *Used oil, coolant and lead-acid batteries* | ✓ | | ✓ |

## Nutrient (Phosphorus and Nitrogen) Load Reduction Best Management Practices
## BMP Description and Equivalent Points Reference Table

As provided in **Schedule 3.1**, a separate District-approved BMP Plan is required for each land use or crop for nutrient (phosphorus and nitrogen) load reduction. BMP Plans shall be implemented across the entire farm acreage (drainage area) with individual BMPs consistently implemented during the water year across each land use (crop) area, including temporary, rotational, and cover crops (e.g., corn, watermelons, vegetables) The BMP Plans shall include BMPs from the following categories: water management, nutrient control practices, and particulate matter and sediment controls. Nutrient control practices at a minimum shall include spill prevention, soil testing, and fertilizer application control. The table below provides an array of Nutrient BMPs available for selection by operators. However, operators may propose other Nutrient BMPs to meet the minimum required BMP equivalent points for review and approval by the District.

| BMP | PTS | DESCRIPTION |
|---|---|---|
| **NUTRIENT CONTROL PRACTICES** | | MINIMIZES THE MOVEMENT OF NUTRIENTS OFF-SITE BY ENSURING RECOMMENDED APPLICATION RATES AND CONTROLLED PLACEMENT OF APPLICATION |
| Nutrient Application Control | 2 ½ | Uniform and controlled boundary application of nutrients with a minimum 4' setback from canals with no overlapping application for each application method (e.g. banding at the root zone or side-dressing, pneumatic controlled-edge application such as AIRMAX); fertilization through low volume irrigation system applied at root zone (fertigation); controlled placement by fertilization under plastic near root. |
| Nutrient Spill Prevention | 2 ½ | Formal spill prevention protocols (storage, handling, transfer, and education/instruction). |
| Manage Successive Vegetable Planting to Minimize Phosphorous (P) | 2 ½ | Avoid successive planting of vegetables or other crops having high P needs to avoid P build up in soils. Includes successive planting with no successive P application. |
| Recommended Nutrient Application based on Plant Tissue Analysis | 2 ½<br><br>5 | Avoid excess application of P by determining plant nutrient requirements for adjustments during next growing season (crop specific).<br><br>Pastures with Bahiagrass – Plant tissue analysis along with soil test is required to make nutrient application recommendation. |
| Recommended Nutrient Application based on Soil Testing | 5 | Avoid excess nutrient application by determining P requirements of soil and follow standard recommendations for application rates (crop specific). |
| Split Nutrient Application | 5 | More efficient plant uptake of P by applying small portions of total recommended P at various times during the growing season. Not to exceed total recommendation based on soil test. |

| | | |
|---|---|---|
| Slow Release P Fertilizer | 5 | Avoid flushing excess P from soil by using specially treated fertilizer that releases P to the plant over time. |
| Reduce P Fertilization | 5 | Reduce the P application rate by at least 30% below standard recommendations based on soil tests and development of site –specific (optimized) recommendations or application methods. Provide basis for reduction credit. |
| No Nutrients Imported Via Direct Land Application | 20 | No Application of P, in any form, to the soil for amendments or plant nutrients. (Native and Semi-improved Range can claim this BMP and still apply fertilizer at maintenance, or less than optimum production levels, as a grass supplement every 6-8 years.) |
| No Nutrients Imported Indirectly Through Cattle Feed | 15 | No P import to the basin through cattle feed (note: only native range can use mineral supplements or molasses and still meet this BMP) |
| Nutrient Management Plan | 5 - 25 | Managing the amount, source, placement, form, and timing of the application of nutrients on lands with cattle operations. See Rule 40E-63.402 (2) |

| BMP | PTS | DESCRIPTION |
|---|---|---|
| **WATER MANAGEMENT PRACTICES** | | MINIMIZES THE QUANTITY OF OFF-SITE DISCHARGES WHICH CARRY NUTRIENTS DOWNSTREAM |
| ½ Inch Detained<br>1 Inch Detained | 5<br>10 | Delayed discharge (based on measuring daily rain events using a rain gage). |
| Improvements to Water Management System Infrastructure to Further Increase Water Quality Treatment by Delayed or Minimized Discharge | 5 | Recirculation of water inside farm boundaries to improve WQ prior to off-site discharge, includes: fallow field flood water with no direct discharge (instead allow to "drain" via evapotranspiration, seepage, use as irrigation water); or Increasing water detention using properly constructed canal berms. |
| Low Volume Irrigation | 5 | Use of low volume irrigation methods, e.g. drip irrigation, microjet irrigation. |
| Approved and Operational Surface Water Reservoir (Fully Certified)* | 20 | Properly permitted, constructed and maintained storage system meeting specified Environmental Resource Permit (ERP) Basis of Review criteria (version in effect at the time of permitting or in effect at the time of permit modification for modified systems). |
| Temporary Holding Pond | 15 | Temporary agricultural activities (as described in Chapter 40E-400, FAC.) with a properly constructed and permitted temporary holding pond. |
| Overland Sheet Flow Over Entire Property | 15 | No drainage improvements made to property so that property drains through overland sheet flow, or drainage improvements such as ditches have been removed to restore overland sheet flow drainage to the property. |
| No Point Discharge of Surface Water | 15 | Voluntarily disabling of drainage or implementation of other permanent means to prevent point discharge. |
| Tailwater Recovery System | 10 | A planned irrigation system in which facilities have been installed and the system is operated to collect, store, and transport irrigation tailwater and/or rainfall runoff that would have been discharged offsite without the system. |
| Precision Irrigation Scheduling | 10 | Combination of soil-moisture measuring equipment, specialized irrigation decision tools (e.g. computer software), and/or remote sensing tools to ascertain real-time crop needs to maximize irrigation system performance and to develop precise irrigation scheduling (time, location and amount). |

*Surface water reservoir certification refers to a construction completion certification by a Florida licensed Professional Engineer as required in Chapter 40E-4, F.A.C., using Form 0881A for projects permitted after October 3, 1995, and Form 0881B for projects permitted prior to October 3, 1995, or the current certification requirements of Chapter 40E-4, F.A.C. (except where not required by existing permits).

| BMP | PTS | DESCRIPTION |
|---|---|---|
| PARTICULATE MATTER AND SEDIMENT CONTROLS | | MINIMIZES THE MOVEMENT OF P, IN PARTICULATE MATTER AND SEDIMENTS, OFF-SITE BY CONTROLLING THE AMOUNT OF ERODED SOIL AND PLANT MATTER IN DISCHARGE |
| Any 2<br><br>Any 4<br><br>Any 6<br><br>Any 8 | 2 ½<br><br>5<br><br>10<br><br>15 | • erosion control by leveling fields<br>• reduce soil erosion using grassed swales and field ditch connections to laterals<br>• minimize sediment transport with slow velocity in main canal near discharge structure<br>• minimize sediment transport into canals by constructing ditch bank berms<br>• minimize sediment build-up through a canal cleaning program<br>• reduce sediments transported offsite by using field ditch drainage sumps<br>• minimize sediment transport with slow field ditch drainage near pumps/structure<br>• reduce sediments transported offsite by maintaining a sediment sump/trap upstream of drainage structure<br>• reduce sediment transport through the use of grassed waterways<br>• reduce sediment transport through the use of filter strips or riparian buffers adjacent to waterways. No P is applied to these areas.<br>• reduce sediments transported offsite by raising culvert bottoms above all ditch bottoms to minimize sediment transport<br>• reduce sediments transported offsite by stabilizing soil through infrastructure improvements at canal/ditch intersections (e.g. flexible plastic pipe, polymer treatment)<br>• maintain sustainable forage growth on pasture to reduce soil erosion/range seedings<br>• reduce soil erosion with constructed ditch bank stabilization<br>• reduce soil erosion with cover crops (not fertilized)<br>• maintain vegetative cover in upland areas to reduce soil erosion<br>• reduce soil erosion with vegetation on ditch banks<br>• minimize P from plants by aquatic weed control (P source) at main discharge locations<br>• reduce debris and aquatic plants (P source) leaving the site by using barriers at discharge locations |

| BMP | PTS | DESCRIPTION |
|---|---|---|
| **PARTICULATE MATTER AND SEDIMENT CONTROLS FOR PASTURE MANAGEMENT** | | MINIMIZES NUTRIENTS IN DISCHARGES THROUGH ON SITE OPERATION AND MANAGEMENT PRACTICES |
| | 2 ½ | • restricted placement of stored feed and feeders to reduce "hot spots" near drainage ditches |
| | 2 ½ | • restricted placement of cowpens to reduce "hot spots" near drainage ditches |
| | 2 ½ | • restricted placement of water to reduce "hot spots" near drainage ditches |
| | 2 ½ | • provide shade structures to prevent cattle in waterways |
| | 5 | • low cattle density (1 head/2 acres, non-irrigated pasture) |
| | 10 | • restrict cattle from waterways through fencing of canals in a manner that protects water quality |

# 2.0 BMP PLAN ELEMENTS AND SITE VERIFICATION GUIDELINES

## 2.1 GENERAL

### 2.1.1 Education - Employee Training

The singularly most important part of a BMP plan is the communication, education, and training of employees who will be responsible for its continual implementation on a daily basis.

In the event that obvious and excessive impacts are visibly detected during periodic site visits conducted by the District, a more comprehensive site-specific sampling plan that would depend on the magnitude of the impact should be developed under the direction of the District and applicable regulatory agencies. Many BMPs are good common sense practices which ultimately can produce a cost savings to the site operations, as well as, proactively preventing adverse water quality impacts. An integral part of the employee training should include an overview of the reasons for implementing BMPs as described earlier.

Implementation requirements include:

- Proper training of field operators responsible for handling, loading, and operating fertilizer and chemical application machinery and proper maintenance of field equipment can minimize the potential for misapplication of agriculture related chemicals.
- Training sessions can be formal or informal.
  - Once per year group meetings should be conducted to cover all the BMP topics: overall good housekeeping, water management, fertilizer (nutrient) controls, chemical handing and application, fuel, and equipment maintenance.
  - Frequent (weekly or bi-weekly) reminder sessions keep a more continual message with staff. Frequent meetings can be informal "start-of-day" 15-minute reminders with a different reminder topic referenced each session.
- The transfer of the information received during the required continuing education (such as spray applicator licensing) to the individual chemical application staff is essential.
- A standardized checklist of discussion points could be developed and utilized to ensure all staff are aware of the iimportance of proper handling and application of fertilizers and chemicals.
- Special efforts should be taken to ensure that non-English speaking field personnel understand proper handling, loading, and operating techniques.
- Record keeping of employee BMP training/communications can include maintaining an Employee Training Checklist such as example provided.

### 2.1.2 Good Housekeeping

Property infrastructure should be kept in an overall good and repaired condition. Any solid waste, trash and/or discarded equipment should be stored in appropriate areas pending offsite disposal. Equipment and facilities should be kept in a relatively neat and orderly fashion. Fence lines, gates, and signage should be kept in good and repaired condition.

Implementation requirements include:

- BMP implementation is verified by visual observations.

## 2.2 WATER MANAGEMENT

### 2.2.1 Minimize Property Over Drainage and Maximize Irrigation Efficiency

Potential movement of water quality constituents originating from fertilizers and agrochemicals is substantially related to irrigation and drainage water management. Irrigation mostly affects the movement of water soluble agrochemicals while drainage mostly affects the movement of chemicals absorbed on soil particles. The primary management objective is to minimize the over drainage of the property by the active control of the site water table.

Implementation requirements include:

- Site verification will include meetings with operation managers to understand property water management approach and visual observation of structures and tools used to assist with water management decisions. Observations will include:
  - Real-time weather monitoring to proactive manage or limit drainage and/or irrigation events.
  - Water management achieved through water control structures such as designed culvert sizes and openings or culverts with flashboard risers.
  - For off-site discharge, on/off control elevations shall be established to initiate and stop draining or pumping. USSC currently has on/off controls on structures that discharge into offsite canals.
  - Partition property into hydrologic blocks to allow for internal water management (as opposed to one location to downstream point) whenever possible.
  - Installed water level indicators (e.g., float wells, staff gauges) can provide a visual indicator of actual water table levels. U.S. Sugar has a water table monitoring system that is in compliance.
  - Daily operation and maintenance must be properly recorded on field logs ensuring that on/off control elevations are met for pumps discharging off site and to surface water impoundments if these elevations are established by the surface water or environmental resource permits. Field log data shall include water table elevations at pump start and stop times, and pump rpms. Daily rainfall data shall be collected at representative locations within the farm to ensure that the on/off control elevations are current with the runoff detention requirements established by the permit.
  - Site verification will include meetings with Tenant/Lessee to review property water management approach, records, and field observation of structures and tools used to assist with water management decisions.

## 2.3 NUTRIENT MANAGEMENT (FERTILIZING)

At a minimum, the nutrient management BMPs in the District-approved plan shall include spill prevention, soil testing, and fertilizer application control specific to phosphorus and nitrogen. Phosphorus fertilizer shall be applied at the root zone. Phosphorus application later in the growing season not applied at the root zone will require justification.

### 2.3.1 Nutrient Application Optimization

Fertilizers can be a significant source of adverse downstream water quality impacts contributing to algal blooms and stimulate growth of noxious plants in receiving water bodies. A comprehensive approach to optimize the amount of nutrients needed for proper vegetation health and productivity while at the same time having a proactive consciousness to minimize the risk to inadvertent potential off-site transport of nutrients is essential. Listed below are the various nutrient application BMP optimization efforts that can be identified in the site-specific BMP Plan:

- Maintain soil pH in optimum range
- Utilize Organic material soil amendments that have water quality benefits
- Appropriate use of other nutrient sources (i.e. non-commercially produced sludge, chicken manure, mill mud, wood chips, bagasse, molasses, etc) and formulations to prevent increased phosphorous and nitrogen loads in discharges off site
- Split fertilizer applications

Implementation requirements include:

- Site verification will include discussion with operation managers to understand the agricultural operation nutrient application optimization approach.
- Records must be available and reviewed to reinforce the implementation tools used to assist with nutrient management decisions. Records shall identify:
  - Areas tested
  - Testing methodology (soil)
  - Test results
  - Application recommendations
  - Application methods (fertigation, soil broadcast, topical spray, aerial, etc.)
  - Actual mixture/application rate applied
- Where actual fertilizer formula or quantity varies from soil test recommendations, notation shall be made to explain the logic for the variations.

All nutrient sampling conducted to insure compliance with the Nutrient Management Plan will be conducted by USSC.

Select soil and groundwater samples will be collected and analyzed for phosphorous and/or total nitrogen. The total nitrogen data will monitored over a 2 to 3 year period and be used to develop a baseline and determine what the background concentrations of total nitrogen are for the USSC properties. Based on the background levels as determined by this sampling, if total nitrogen levels increase over the establish background levels, then USSC and the District will review the application of nitrogen based nutrients.

### 2.3.2 Nutrient Handling and Placement

Fertilizers can be a significant source of adverse downstream water quality impacts contributing to algal blooms and stimulate growth of noxious plants in receiving water bodies. Proper storage of fertilizers is essential to prevent inadvertent transport of these materials to off-site waterways. Formal practices and protocols shall be established as to the handling and placement of fertilizer, storage and disposal of fertilizer containers, and fertilizer transfer on-site. Fertilizer spills shall be cleaned-up immediately. Listed below are the nutrient handling and placement BMPs for the USSC properties.

- Phosphorus fertilizer shall be applied at the root zone. Phosphorus application not applied at the root zone will require justification.
- Other fertilizers are applied by fertigation, banded, broadcast, topical spray, aerial, etc.
- Nutrients are to be applied only when necessary
- Proper Fertilizer storage (see below)
- Equipment calibration and maintenance must be timely and documented
- Appropriate Fertilizer loading sites (see below)
- Apply materials to target areas without overlapping application of fertilizer
- Avoid high leaching-potential situations
- Promptly recover spilled fertilizer
- Use backflow prevention devices
- Alternate loading operation sites

Implementation requirements include:

- Site verification will include discussion with operation managers to understand the agricultural operation nutrient handling and placement strategies. In addition, site inspections will be made to observe the following items:
  - Always store fertilizer in an area that is protected from rainfall and away from nearby ground and surface water and separately from solvents, fuels, and pesticides since many fertilizers are oxidants and can accelerate a fire.
  - Storage of dry bulk materials on a concrete or asphalt pad may be acceptable if the pad is adequately protected from rainfall and from water flowing across the pad.
  - Permanent liquid fertilizer tanks stored on impermeable surface curbed surfaces, and within secondary containment structures.
  - Bulk fertilizer transports and field loading located away from canal and ditches. Diligent care with plastic tarps and/or immediate clean-up (shovel) of dry material has been

shown to be effective.

- Random locations of field load fertilizer operations on site to prevent a buildup of nutrients in one location.
- Clean up spilled material immediately.
- Collected material may be applied as fertilizer.
- Collect dry material by shovel, vacuum, loader or wash down area to a containment basin specially designed to permit recovery and application of the wash water to the crop.
- Discharge of cleanup wash water to ditches or canals is strictly prohibited.

## 2.4 EXOTIC VEGETATION CONTROL

### 2.4.1 Upland Exotic Vegetation Control

The intent of this BMP is to control and eradicate to the extent practical, and prevent the infestation of Category I and Category II exotic/invasive pest plants and to minimize impacts on water quality. In particular for water quality, chemical control of mature aquatic vegetation may result in large amounts of labile particulate phosphorus levels from farms. Timing and selection of methods for aquatic vegetation control shall prevent generation of particulate phosphorus due to inappropriate aquatic vegetation control methods and disposal. Glyphosate based herbicide Rodeo may be spot applied on the aquatic vegetation, followed by removal of the dead vegetation. Excessive amounts of Rodeo application are not allowed.

Multiple control methods may employed to implement this BMP including:

- Physical control
- Biological control
- Chemical control

Implementation requirements include:

- Site verification will include discussion with operation managers to understand the agricultural operation upland exotic vegetation management approach.
- Site manager will maintain a simple map showing the general areas where exotic/invasive vegetation eradication activities are conducted on an annual basis.
- Visual observations will be conducted to verify exotic/invasive vegetation is being reasonably controlled.

### 2.4.2 Aquatic Exotic Vegetation Control

The intent of this BMP is to control and eradicate to the extent practicable, and prevent the infestation of Class I and Class II prohibited aquatic plants. Multiple control methods may be employed to implement this BMP including:

- Physical control

- Biological control
- Chemical control

Implementation requirements include:

- Site verification will include discussion with operation managers to understand the agricultural operation upland aquatic exotic vegetation management approach.
- Site manager will maintain a simple map showing the general areas where exotic/invasive aquatic vegetation eradication activities are conducted on an as need basis.
- Visual observations will be conducted to verify no or a minimal amount of prohibited aquatic plants are present.

## 2.5 EROSION/SEDIMENT CONTROL

It is estimated that approximately 50-75% of the nutrient and chemicals discharged in stormwater runoff are associated with particulates (muck particles, dirt, dust, plant vegetation, etc.). The minimization and prevention of erosion and particulate/muck/dirt transport from blocks, fields, ditches, and canals to drainage pump stations or discharge culverts can have a substantial positive effect in preventing the off-site transport of nutrients and chemicals that can cause adverse downstream water quality problems.

Implementation requirements include:

- Records will be kept identifying description and location of the erosion/sediment control BMPs and all the maintenance and operations conducted through the year to sustain the BMP's effectiveness.

A minimum of four (4) erosion/sediment control BMPs from the equivalent points reference table above will be implemented and maintained consistently throughout the site at all times.

## 2.6 PESTICIDE AND HERBICIDE MANAGEMENT

### 2.6.1 Allowable Agrochemical List and No Application Period

The presence of agrochemicals (particularly persistent pesticides) should be minimized so as to not cause adverse impacts to anticipated flora and fauna. As current landowner, the District must ensure that all application of agrochemicals on-site is conducted in accordance with all applicable laws and regulations.

The following **Chemical Application Restrictions** matrix must be followed. This matrix is based on the U.S. Fish and Wildlife Service's "Derivation of No Application Periods." A copy of the document is included in **Appendix A**. The agrochemical list should be reviewed annually for the effectiveness of the applied chemical, changes in regulations regarding specific pesticides, and changes in the management and use of the pesticides must be followed. The experimental use of pesticides and herbicides is prohibited. All agrochemicals must be applied in strict accordance to label instructions and restrictions.

Additionally, USSC will provide the District a quarterly report of agrochemicals in use on the sugar cane production parcels.

### 2.6.1.1 CHEMICAL APPLICATION RESTRICTIONS

The following are lists of chemicals provided by USSC that are used for sugar cane cultivation and vegetable farming. The following agrochemicals have the potential to be used subject to the restrictions noted below. *Chemicals not specifically listed below may be evaluated on a case by case basis and added to the appropriate category below. For chemicals with no analytical test method and identified as a potential environmental risk, the chemical manufacturer will be contacted to obtain the chemical standard. The District will then contract a Florida based laboratory to develop an analytical test method for the chemicals.

**SUGAR CANE**

A. May be used at any time but only according to label restrictions:

| | | |
|---|---|---|
| 1,2-propylene glycol | Polyacrylamide | Xylene |
| 2,4-Dichlorophenoxyacetic Acid (*Unison*) | Hydroxy carboxylic acid and/or Polyacrylic acid (*Quest*) | Water and nonionic emulsifiers (*Foambuster*) |
| Ethylbenzene | Polyalkyleneoxide (*Kinetic*) | Plant nutrients (*Tracite*) |
| Glyphosate (*Roundup, Touchdown*) | Nonionic Colloidal water (*Strike Zone*) | Naphthalene |
| Magnesium Sulfate (*Dyna*) | Quartz | |
| Paraffin based mineral oil and/or XXX (*Crop Oil*) | Sodium salt (*Asulam*) | |
| Petroleum solvent | Urea (*Urea*) | |
| Phosphatidycholine (*L1700*) | Surfactant | |

B. Must be discontinued at least 3 months prior to flooding:

| | | |
|---|---|---|
| 2-Butoxyethanol (*Dynamic*) | Methanol (*Asulox*) | Mepiquat (*Reign*) |
| Azoxystrobin (*Azoxystrobin*) | Mesotrione (*Callisto*) | |

C. Must be discontinued at least 6 months prior to flooding:

| | | |
|---|---|---|
| Ethoprop (*Mocap*) | Pyraclostrobin (*Headline*) | Pyrimethanil (*Vision*) |
| Halosulfuron-methyl (*Sempra, Yukon*) | Phorate (*Thimet*) | Propylene Glycol and/or Carbofuran (*Furadan*) |
| Propylene Glycol and/or Chlorothalonil (*Quadris*) | Pendimethalin | Diphacinone (*Ramikk Brown*) |

D. Must be discontinued at least 1 year prior to flooding:

| | | |
|---|---|---|
| Atrazine (*Atrazine*) | Ethylene dichloride (*Prowl*) | Esfenvalerate (*Asana*) |
| Clomazone (*Command*) | Metconazole (*Caramba*) | |

E. Must be discontinued at least 2 years prior to flooding:

| | | |
|---|---|---|
| Ametryn (*Evik*) | Trifloxysulfuron-sodium (*Envoke*) | Cyproconazole (*Cyproconazole*) |
| Fluquinconazole (*Jockey*) | | |

F. Not allowed:
USSC does not apply any chemicals to the sugar cane that are not allowed.

****VEGETABLES – Beans, Watermelon, and Sweet Corn**

A. May be used at any time but only according to label restrictions:

| | | |
|---|---|---|
| Azadirachtin (*Aza-Direct & Azatin XL*) | Glyphosate (*Roundup, Durango, Touchdown, and Glyphomax*) | Bacillus subtillus strain QST 713 (*Serenade ASO, Serenade Max, Sonata, and Rhapsody*) |
| Bacillus thuringiensis subspecies (*Agree WG, Biobit HP, Crymax, Deliver, DiPel DF, Javelin WG, Lepinox, and Xentari DF*) | Sulfur (*Kumulus DF, Micro Sulf, Micronized Gold, Microthiol Disperss, Sulfur 90W, Thiolux Jet, and Wettable Sulfur*) | Beauveria bassiana (*BotaniGard 22WP*) |
| Carfentrazone (*Aim*) | Neem Oil (*Trilogy*) | |
| EPTC (*Eptam*) | Hydrogen dioxide (*Oxidate*) | |
| Pelargonic Acid (*Scythe*) | Potassium phosphite (*Fosphite, Prophyt, and Topaz*) | |

B. Must be discontinued at least 3 months prior to flooding:

| | |
|---|---|
| Buprofezin (*Courier 40SC*) | Spinosad (*Entrust and SpinTor 2SC*) |
| Dimethoate (*Dimethoate 4EC*) | Trifloxystrobin (*Flint 50WP*) |
| Oxydemeton-methyl (*MSR Spray Concentrate*) | Azoxystrobin (*Amistar 80DF, Heritage, and Quadris*) |
| Pyrethrin (*Pyrellin EC*) | S-Methoprene (*Extinguish*) |
| Pyriproxyfen (*Esteem Ant Bait and Knack IGR*) | |

C. Must be discontinued at least 6 months prior to flooding:

| | | |
|---|---|---|
| Bentazon (*Basagran*) | Dicofol (*Kelthane 50WSP*) | Methyl parathion (Penncap-M) |
| Carbaryl (*Sevin 80S*) | Ethoprop (*Mocap 15G*) | Permethrin (*Ambush 25W and Pounce 25W*) |
| Cyfluthrin (*Baythroid 2*) | Halosulfuron-methyl (*Sandea*) | Phorate (*Thimet 20G*) |
| Cyhalothrin (*Proaxis Insecticide*) | Imidacloprid (*Admire 2F*) | Pendimethalin (*Prowl*) |
| Diazinon (*Diazinon 4E*) | Methomyl (*Lannate LV and Lannate SP*) | Chlorothalonil (*Applause 720, Bravo, Choloronil 720, Echo, Equus, and Ridomil Gold Bravo*) |
| Pyraclostrobin (*Cabrio 20EG*) | | |

D. Must be discontinued at least 1 year prior to flooding:

| | | |
|---|---|---|
| Dichloropropene (*Telone II*) | Esfenvalerate (*Asana XL*) | S-Metolachlor (*Dual Magnum*) |
| Endosulfan (*Endosulfan 3EC*) | Myclobutanil (*Nova 40W*) | |

E. Must be discontinued at least 2 years prior to flooding:

| | | |
|---|---|---|
| Bifenthrin (*Capture 2EC*) | Mefenoxam (*Ridomil Gold 4EC, Ridomil Gold SL, and Ultra Flourish*) | Boscalid (*Pristine 38WG*) |
| Cyromazine (*Trigard*) | Methoxyfenozide (*Intrepid 2F*) | |

F. Not allowed:

| |
|---|
| Paraquat (*Gramoxone Inteon*) |

G. Period of discontinuation will be based on the rates of application and copper concentrations in the cultivated fields:

| |
|---|
| Copper Hydroxide (*Champ*) |

H. Restricted Pending Further Evaluation (District is currently evaluating the long term affects of the chemical application):

| | |
|---|---|
| Thiophanate-methyl (*Topsin M WSB and Thiophanate-methyl*) | Fludioxonil (*Maxim 4FS*) |

* Any pesticide, regardless of the above categories, that is shown to be present in the soil, at or above the site specific cleanup target levels, may require additional restrictions, including reductions in use or the complete elimination of its use. These situations will be evaluated on a case-by-case basis.

### 2.6.2 Copper Compounds

Copper is an essential element required for the successful and economical growing of sugar cane. It is typically applied to the soil surface as a granular additive to fertilizer. The Phase II ESA identified 96, 40-acre grids, or 3,840 acres with elevated copper levels in the cultivated fields above the Service provisional Snail Kite threshold level of 85 mg/kg. Based on the Phase II findings on elevated copper concentrations, no additional copper should be applied on the 3,840 acres. In the event that copper is not bio-available, as verified by additional soil testing, USSC will work with the District to develop a copper nutrient application that will benefit the production of sugar cane and limit the residual copper levels in the soils as much as practical. **Table 1** displays the field identification numbers for copper concentrations above 85 mg/kg.

URS reviewed the current rates of application and amounts of copper based nutrients applied on the USSC property. Utilizing this information, a mass balance equation was developed in order to determine if additional acreage would be impacted by copper based on the current application activities. URS determined that copper could potentially increase in the soils, per application, at a rate of 2.08 mg/kg per acre. Based on this application rate, and the fact that the property is leased through 2016, four, 40-acre

grids have the potential to accumulate copper above the Service's interim value for copper of 85 mg/kg during the lease agreement.

During this interim use period, soil samples should be collected for previous sampled areas within the cultivated fields to confirm that residual copper concentrations are not accumulating in the soil. In the event that elevated copper concentrations are detected, then the tenant must implement measures to prevent further increases. A subsequent determination of a 20 percent or greater increase, based on the methodology in **Section 3.0**, below, will constitute a breach of the tenant's lease.

If the sampling conducted in the subsequent year again indicates elevated copper above the 85 mg/kg the District and USSC will work together to develop a copper application that will limit the residual copper levels in the soils as much as practical.

### 2.6.3 Pesticide and Herbicide Management

Florida pesticide law requires certified applicators to keep records of all restricted use pesticides (RUP). The federal worker protection standard (WPS) requires employers to inform employees of all pesticides applied.

- Pesticide record keeping
- Read and understand label
- Pesticide storage

Implementation requirements include:

- Site verification will include discussion with operation managers to understand the agricultural operation pesticide management approach. In addition, example records should be available and reviewed to reinforce the implementation tools used to assist with pesticide management decisions.
- Required records must be made available upon request to FDACS, USDA authorized representatives, and licensed health care professionals.
- Proper pesticide storage is important for (a) personnel safety and (b) as a preventative spill measure. Visual observations will ensure the following procedures are in place:
  - Storage structures should keep pesticides secure (locked) and isolated from the surrounding environment.
  - Pesticides need to be stored in their original containers.
  - Pesticides should not be stored near burning material, hot work (welding, grinding), or in shop area.
  - No smoking is allowed in pesticide storage areas.
  - Store personal protective equipment where it is easily accessible in the event of an emergency, but not in the pesticide storage area.
  - Maintain a current written inventory and the Material Safety Data Sheets (MSDS) for the chemicals used in the operation. Do not store this information in the pesticide storage room

itself.

- Large chemical quantities should not be stored for long periods of time. Adopt the "first in – first out" principle, using the oldest products first to ensure that the product shelf life does not expire.
- Containers need to be arranged so that labels are clearly visible; make sure labels are legible; refasten loose labels.
- Dry bags should be raised on plastic pallets to ensure that they do not get wet. Do not store liquid material above dry materials.
- Flammable pesticides should be stored separately from non-flammable pesticides.
- Segregated herbicides, insecticides, and fungicides to prevent cross-contamination and minimize potential for misapplication.
- Shelving should be made of plastic or reinforced metal. Metal shelving painted (unless stainless steel) to avoid corrosion. No wood shelving because it may absorb spilled pesticide materials.

### 2.6.4 Pesticide and Herbicide Application Optimization

Management of the types and amounts of pesticides applied in or on the soil or on plant foliage is important so the exact problem identified is being addressed and minimize the impacts to surface and ground water. Even pesticides designed for rapid breakdown in the environment can persist for years if present in high concentrations. Worst-case results can be contamination of drinking water; fish kills and other impacts to nontarget organisms; and administrative fines and legal remedies. The most obvious method to reduce the risk from pesticides is to use them only when necessary.

- Integrated pest management
- Application timing
- Customized applications
- Maintain soil pH in optimum range
- Pesticide selection

Implementation requirements include:

- Integrated Pest Management (IPM) is a philosophy of management pests that aims to reduce farm expenses, conserve energy, and protect the environment. IPM is a broad, interdisciplinary approach using a variety of methods to systematically control pests which adversely affect people and agriculture. Basic steps include:
  1) Identify key pests/vegetation and beneficial organisms and the factors affecting their populations.
  2) Select preventative cultural practices to minimize pests/vegetation and enhance biological controls (e.g. soil prep, crop rotation, resistant varieties, modified irrigation dates, cover

crops, augmenting beneficials, etc.).

3) Use trained 'scouts' to monitor pest/vegetation populations to determine if or when an emergency control tactic might be needed.

4) Predict economic losses and risks so that the cost of various treatments can be compared to the potential losses to be incurred.

5) Decide the best course and carry out the corrective actions.

6) Continue to monitor pest/vegetation populations to evaluate results of the decision and the effectiveness of correction actions. Use this information when making similar decisions in the future.

USSC currently has an IPM program in place and the policy has been implemented.

- Always follow pesticide/herbicide label instructions. However, pesticide and herbicide recommendations can change frequently. Registrations may be canceled or added at any time. Recommended rates or products that were valid at the start of the growing season may change. For pesticides/herbicides that are not generally used on the property, check with the local Extension agent for the most recent recommendations, or access the computer based Florida Agriculture Information Retrieval System (FAIRS).
- Base pesticide/herbicide selection on characteristics such as soil, geology, depth to water table, proximity to surface water, topography and climate, so that the potential for pollution of surface water and ground water is minimized.
- Consider the effect of a pesticide/herbicide application on any beneficial organism that may be present.

Federal and State Chemical Hazard Information contacts and telephone numbers are given in **Appendix C.**

### 2.6.5 Pesticide and Herbicide Handling and Placement

Routine maintenance, good repair, and calibration of pesticide application equipment will minimize the unintended over (or under) application of chemicals. Correct measurement will keep the operation in compliance with the label, reduce risks to applicators, operation staff, and the environment, and may save money. Locate mixing and loading operations well away from groundwater wells and surface water ditches, laterals and canals where runoff may carry inadvertently transport spilled chemicals. Proper cleaning and disposal of "empty" pesticide containers is just as important as proper application of the chemicals. Listed below are the various required pesticide handling and placement BMPs.

- Reduce spray drift
- Equipment calibration & maintenance
- Pesticide spill management
- Pesticide application equipment wash water
- Prevent backflow to water sources

- Mixing and loading activity locations
- Pesticide container management
- Excess pesticide mixture
- Excess formulation (raw product)

Implementation requirements include:

- Site verification will include discussion with operation managers to understand the agricultural operation pesticide handling and placement approach. In addition, site inspections will be made to observe the following items:

*Permanent Locations*

- A permanently located mixing and loading facility should be designed to provide a place where high-potential spill activities can be performed over an impermeable surface (such as sealed concrete) for easy cleaning and permits the recovery of spilled materials.
- USSC currently does not have a permanent mixing and loading facility. Should USSC elect to construct a permanent mixing and loading facility, the facility must be in compliance with IFAS standards.
- The mix/load facility should be located close to the chemical storage building.
- Permanent areas should have a roof with a substantial overhang on all sides to protect against windblown rainfall.

*Temporary Locations*

- Pesticide loading activities should be conducted at random locations in the field lessens the chance of buildup of spilled material at any one place. This will reduce the chance of adversely affecting the natural organisms which biologically degrade pesticides.

*Nurse Tanks*

- Use of clean water only in nurse tanks transported to the field to fill the sprayer is encouraged. Never introduce pesticides into a nurse tank.
- Inject pesticides into the transfer line or add them to the spray rig during filling.
- Pesticides may be introduced by conventional pouring, or pumped by a closed system, depending on label requirements and container type.
- Always use a check valve to prevent backflow of pesticides into the clean mix water.

*Container Disposal*

- No bags, boxes, and Group I pesticide containers may be burned on-site.
- Keep the rinsed containers in a clean area, out of the weather, or in large plastic bags for disposal or recycling to protect the containers from collecting rainwater.

URS has reviewed the USSC portable mix-load operations and the system is in compliance with IFAS.

## 2.7 COPPER

Copper has several necessary and beneficial uses within an active agricultural operation including use as fungicides and soil nutrients, and as a canal and ditch aquatic vegetation management tool. Recently, the topic of residual levels of copper in soils of tracts which are intended for conversion to water reservoir areas has had renewed discussion. The District has reported that some analyses and data extrapolations suggest that elevated copper levels have the potential to move through the aquatic food chain and bio-accumulate in the tissue of apple snails. The apple snail is the primary diet of the Snail Kite. It has been reported to the District that it is theorized that elevated copper levels can potentially result in underweight Snail Kite chicks. Since the Snail Kite is listed as an Endangered Species, and the potential for this bird to forage in the future reservoirs, the minimization of the risk for elevated copper levels is desired by the District. Extreme diligence is needed to minimize the amount of copper applied.

Implementation requirements include:

- Site verification will include discussion with operation managers to understand the agricultural operation copper application (if any) optimization approach.
- Records should be available and reviewed to reinforce the implementation tools used to assist with copper management decisions. Records should identify:
  - Locations (e.g. cultivated field, ditch and canal) where copper was applied
  - Time of application
  - Application mixture/application rate applied

## 2.8 PETROLEUM AND HAZARDOUS WASTE MANAGEMENT

### 2.8.1 Gasoline and Diesel Fuel Storage and Containment

The first line of management is to minimize the possibility of inadvertent petroleum product discharge and the need for clean-up and disposal. Stationary fuel storage tanks should be in compliance with FDEP storage tank regulations (Chapter 62-761, FAC for underground storage tanks (USTs) and Chapter 62-762, FAC for aboveground storage tanks (ASTs)). In the event of a discharge or spill, emergency response and chemical hazard information and telephone numbers are given in **Appendix C**.

Implementation requirements include:

- Site verification will include discussion with operation managers to understand the agricultural operation petroleum storage and containment management approach. In addition site inspections will be made to observe the following items:

*Site Equipment*

- Placement of permanent fuel pumps on concrete or asphalt surfaces away from groundwater wells and surface water ditches, laterals and canals where runoff may carry inadvertently transport spilled product.
- ASTs with volumes of 550 gallons or larger must be registered and located within secondary

containment systems unless of double-wall construction.

- Visual inspections should be conducted on a least a monthly basis of the storage tanks and hoses to ensure the system is free from leakage from tank seams, connections, and fittings.

*Fuel delivery*

- Require delivery driver to report to facility manager upon arrival prior to loading or unloading.
- Agricultural operation employee should verify available tank capacity prior to product transfer.
- Agricultural operation employee should remain onsite during delivery to monitor product transfer.
- Clean-up equipment and/or materials should be located nearby if needed for immediate spill containment and clean up (boom, granular absorbent, etc.).

### 2.8.2 Equipment Cleaning and Maintenance

(Does not include pesticide application equipment) The same level of preventive measures should be taken to minimize adverse sediment/water quality impacts from the cleaning of equipment as with fertilizer and agrochemical handling and application. Other than preventative maintenance and emergency repair of machinery and equipment conducted on site, maintenance should be conducted in a centralized area a safe distance from the closest well-head or surface water ditch, lateral, and canal. It is recommended that equipment maintenance be limited to minor or emergency repairs. Activities such as engine or mechanical repair, which generate a waste or waste by-product, are not recommended to be conducted in the fields but at designated maintenance areas.

Implementation requirements include:

- Site verification will include discussion with operation managers to understand the agricultural operation hazardous waste management approach. In addition, site inspections will be made to observe the following items:

*General Equipment Maintenance*

- Where possible, it is recommended to use compressed air to remove clippings and dust from machinery. This is less harmful to the equipment's hydraulic seals, eliminates wash water, and produces dry material that is easy to handle.
- For regular field equipment wash down (other than pesticide application equipment, and not with degreaser or solvents), allow wash water to flow to a grassed retention area, swale, or sod fields as irrigation water. Do not allow wash water to flow directly to surface water ditch, lateral, or canal.
- Minimize the use of detergents and use only biodegradable, non-phosphate type. The amount of water used to clean equipment can be minimized by using spray nozzles that generate high pressure streams and low volumes.

- If equipment is to be intensively washed, conduct over a concrete or asphalt pad that allows the water to be collected. Wash water can contain soaps, fertilizer residues, solids, and lubricating oil residues. Collected wash water can be handled through a recycling system, treatment system, off-site disposal at an industrial wastewater treatment facility, or use the wash water for field irrigation.

*Solvents and Degreasers*

- It is the intention that all major repairs and maintenance activities that would potentially require the use of solvents and degreasers be conducted on-site at designated maintenance areas. In the event that such activities occur on-site, the operator will follow the guidelines below:
  - Whenever practical, replace solvent baths with recirculating aqueous washing units.
  - Soap and water or other aqueous cleaners are often as effective as solvent-based cleaners.
  - Store solvents and degreasers in lockable metal cabinets in an area away from ignition sources (e.g. welding areas, grinders) and provide adequate ventilation.
  - Always wear the appropriate protective personal equipment, especially eye protection, when working with or handling solvents.
  - Solvent wash basins that drain into recovery drums can be provided by private firms contracted to pick-up and recycle or properly dispose of the drum content.
  - Never mix used oil and other liquid material with the used solvents.
- Records must be maintained of pick-up and quantities disposed.

*Paint*

- The use of power sprayers for painting equipment on-site requires the appropriate precautions to be taken not to impact soil or groundwater. The painting of equipment with solvent based paint by power sprayers is prohibited and must be conducted off-site.
- Touch-up and manual painting may be conducted on a limited basis.
- Care should be taken not to spill material onto soil or into surface water bodies.

*Used Oil, Coolant, and Lead-Acid Batteries*

- Collect used oil and oil filters in separate marked containers and recycle.
- Oil filters should be drained and taken to the same place as the used oil, or to a hazardous waste collection site.
- Coolant/Antifreeze must be recycled or disposed as a hazardous waste. Do not mix used oil with used coolant or sludge from solvents.
- Lead-acid storage batteries are classified as hazardous wastes unless they are recycled. Store batteries on an impervious surface and preferably under cover until delivery to an authorized recycling facility.

All used oil, coolant, and lead-acid batteries are stored in containers in accordance with FDEP rules until being transported offsite for disposal by a licensed contractor.

## 3.0 SAMPLING AND COMPLIANCE PLAN (SUGARCANE AREAS)

## 3.1 VERIFICATION SAMPLING

Cultivated area sampling will be conducted by the District on an annual basis. Soil samples shall be collected from the cultivated area at randomly selected locations based on the grid pattern and numbering system used in the Phase I/II ESA. The BMP annual sampling event will randomly select a number of those grids sampled during the Phase I/II ESA. Based on the Phase I/II ESA findings and review of the chemicals list provided by USSC, the sampling activities by the District will involve grids, which are identified by USSC as being fallow. The grids generally comprise 40-acres fields. Within each field, at equally spaced locations, eight (8) close-composite discrete samples from the top 6-inches of the soil will be collected and combined into a single composite sample. The composite samples will then be analyzed for a number of parameters of concern.

The number of grids to be sampled are determined according to the *a priori* statistical procedure recommended by the United States Environmental Protection Agency (EPA, 1989, Section 6). This procedure is based on commonly used, well-established statistical hypothesis testing processes, in which, collected data during each year is compared to the baseline dataset in order to detect the presence of any statistically significant difference (EPA, 2000). For determination of the sample size, EPA (1989) suggests a null hypothesis that is equivalent to the condition, under which the baseline and subsequent datasets display statistically significant differences. Conversely, the alternative hypothesis corresponds to a condition, under which the baseline and subsequent datasets are devoid of any statistically significant difference. Each year, upon collection of one round of post-baseline samples, the compiled baseline and subsequent datasets are statistically compared to assess whether further investigations are warranted. The components of the proposed statistical process are described in the following sections.

### 3.1.1 Determining Number of Baseline Grids

EPA (1989, Section 6.3.2) provides a quantifiable measure for determining an adequate sample size. The sample size is driven by three factors: (a) the chosen decision errors, (b) the variability of the potential contaminants of concern, and (c) the desired resolution, *i.e.*, the difference between the baseline and subsequent datasets that needs to be detected at the chosen confidence. The resulting equation is

$$n = \frac{(z_{1-\alpha} + z_{1-\beta})^2 s^2}{\Delta^2}$$

where,

$n$ = number of grids to be sampled each year

$\alpha$ = the false positive rate, Type I error, or the significance (tolerable error for missing an actual difference between the baseline and subsequent datasets)

$1-\alpha$ = the confidence (probability of correctly identifying a significant change)

$\beta$ = the false negative rate, or Type II error (tolerable error for incorrectly declaring a difference between the baseline and subsequent datasets)

$1-\beta$ = the test power (probability of correctly identifying the absence of no difference)

$z_{1-\alpha}$, $z_{1-\beta}$= the confidence and power normal deviates

$s^2$ = standard deviation of parameter of concern

$\Delta$ = The minimum difference between the mean concentrations of the baseline and subsequent datasets to be detected at the chosen confidence

Samples collected at the selected grids within the purchase area during the Phase I/II ESA conducted on the USSC property by PSI in August and September 2008 shall be used as the baseline for comparison to future sampling results. Among parameters of concern, arsenic, copper and selenium have been analyzed extensively during Phase I/II ESA. The reported concentrations of these analytes based on composite samples from 40-acre sugarcane fields are used in order to compute their corresponding mean and standard deviation, as listed in **Table 2**. This table also displays the number of samples based on the chosen decision errors. In these calculations, the desired minimum difference is set as 20% of the computed mean concentrations. Among the parameters of concern, currently available baseline copper data indicate the highest sample size, which is selected to ensure the conservative nature of the proposed BMP annual sampling plan. This results in 109 grids to be randomly selected for baseline and sampling purposes as part of the BMP efforts, as highlighted in **Table 2**.

### 3.1.2 Baseline/Subsequent Datasets Statistical Comparisons

Annual BMP sampling will be conducted, at field locations with the same GPS coordinates measured during the initial sampling and at a time mutually agreed upon by the parties so as to minimize damage to field crops, to ensure consistency with the original Phase I/II ESA results. Upon completion of each annual BMP sampling round, the analytic results of parameters of concern will be compared to those compiled in the baseline and previous BMP datasets. For this purpose, a series of comprehensive statistical two-sample tests will be conducted. Pursuant to DON (2002), as listed on **Table 3**, two difference hypotheses will be assessed, including:

(a) Area-wide differences between the baseline and subsequent datasets: This hypothesis corresponds to a condition, under which the baseline concentrations are consistently different from the subsequent concentrations. Consequently, the statistical tests will be conducted through comparison of mean (parametric) and median (non-parametric) concentrations.

(b) Localized differences between the baseline and subsequent datasets: This hypothesis corresponds to a condition, under which only the elevated baseline and subsequent

concentrations are different. Consequently, the statistical tests will be conducted through comparison of higher concentrations or exceedance ratios in each dataset.

The procedural aspects for the selection and implementation of the cited tests in **Table 3** are described in details in DON (2002, Chapter 4). Appropriate statistical comparisons, including parametric t-tests, non-parametric Wilcoxon Rank Sum test, and non-parametric Slippage tests, will be conducted annually. Depending on the statistical characteristics of the subsequent datasets, additional test may be performed. In the case of detection of a statistically significant increase at 5% significance, when the increase in mean or median concentrations is greater than 20%, among subsequent measured concentrations with respect to the baseline concentrations, additional investigations and actions, as set forth below, will be pursued.

The specific objectives of additional investigations are: (a) to determine whether the detected increase in post-baseline concentrations are real, and not numeric artifacts caused by the variability of individual samples results, and (b) if real, to determine whether the detected increases in post-baseline concentrations are due to practices by the tenant. For this purpose, additional investigations will be initiated, including a review of laboratory QA/QC results and information provided by the tenant concerning its chemical use practices during the period of interest. If increase in mean concentrations is attributed to few outlier samples among post-baseline data, locations associated with these outliers will be re-sampled to ensure the validity of the original results. The cost of additional investigations shall be the responsibility of the party requesting it.

If the District determines that a detected increase in mean or median concentrations in excess of 20% is a numeric artifact caused by the variability of individual samples, or attributed to historic conditions, no further action with regards to the tenant's lease will be pursued. On the other hand, if the increase in mean or median concentrations in excess of 20% is deemed to have been caused by other factors, the District will notify the tenant in writing of its determination and its basis, and the tenant will be requested to implement those measures, if any, that the tenant considers appropriate to prevent further increases in concentrations, including but not limited to additional sampling or best management practices.

If a statistically significant increase in concentrations is detected during a subsequent consecutive year and determined by the District to not be a numeric artifact or caused by variability of individual samples, the tenant shall work cooperatively with the District to develop a more comprehensive BMP plan to reduce or eliminate further increases. The new BMP plan shall be approved by the District, implemented by the tenant, and incorporated into the lease and, in the case of a subtenant, its sublease. In the event a subsequent consecutive sampling event results in a third, consecutive statistically significant increase, the District, in consultation with the tenant, shall review the tenant's standard farming practices, which review should include an assessment of the practices in terms of potential risk to future aquatic ecosystems or

human health. If it is determined that the increase in concentrations may cause significant risk to future ecosystems that may be constructed in the area or human health to workers or occupants, the tenant will implement changes to its standard practices prescribed by the District, after joint consultation with the tenant, to reduce the potential for such risk. Failure to implement this review within the prescribed schedule will be considered a default of the tenant's lease.

### 3.1.3 Summary of BMP Sample Plan

Table 4 lists BMP sample plan inside and outside of sugarcane cultivation areas, as well as the current list of parameters of concern. Given the fact that for a number of parameters of concern, there are currently no baseline dataset available, the sample size computations will be repeated after the first round of BMP periodic sampling, which may result in applicable modifications of this BMP plan to address elevated parameters of concern covering parts or the entire extent of the investigated areas. Future changes in subsequent rounds of BMP may include further division of the investigated areas into more homogenous subareas for the purposes of sampling and statistical comparisons. Such changes may require additional sampling to accommodate the delineated subareas. Furthermore, in the event that obvious and excessive impacts are visibly detected during periodic site visits conducted by the District, a more comprehensive site-specific sampling plan that would depend on the magnitude of the impact should be developed under the direction of the District and applicable regulatory agencies. A list of potential parameters to be analyzed for is given below.

- EPA Method 8141 (organophosphorus pesticides)
- EPA Method 8151 (chlorinated herbicides)
- EPA Method 6010/7471 (copper)
- FL-PRO Method (total residual petroleum hydrocarbons)
- EPA Method 8100 (polynuclear aromatic hydrocarbons)
- EPA Method 8020 (volatile organic hydrocarbons)
- Metconazole and pyraclostrobin

# TABLES

TABLE 1
U.S. SUGAR CORPORATION
SUGAR CANE COPPER CONCENTRATIONS ABOVE 85 mg/kg - FIELD IDENTIFICATION
Job No. 38617-027

| Tract Number | Map | Block/Field # | Agricultural Product | Acres |
|---|---|---|---|---|
| SC-100-161 | 5 | 2319P | Sugar Cane | 80 |
| SC-100-162 | 5 | 2322EF | Sugar Cane | 80 |
| SC-100-060 | 15 | 3436BF | Sugar Cane | 80 |
| | 15 | 3425MN | Sugar Cane | 80 |
| SC-100-079 | 15 | 3531D | Sugar Cane | 80 |
| SC-100-080 | 17 | 4504OP | Sugar Cane | 80 |
| | 17 | 4515CD | Sugar Cane | 80 |
| | 17 | 4515GH | Sugar Cane | 80 |
| | 17 | 4515KL | Sugar Cane | 80 |
| | 17 | 4515JN | Sugar Cane | 80 |
| | 17 | 4515O | Sugar Cane | 80 |
| | 17 | 4515IM | Sugar Cane | 80 |
| | 17 | 4516LP | Sugar Cane | 80 |
| | 17 | 4516GH | Sugar Cane | 80 |
| | 17 | 4516KO | Sugar Cane | 80 |
| | 17 | 4516IM | Sugar Cane | 80 |
| | 17 | 4516JN | Sugar Cane | 80 |
| | 17 | 4517KL | Sugar Cane | 80 |
| | 17 | 4517OP | Sugar Cane | 80 |
| SC-100-140 | 17 | 4518CD | Sugar Cane | 80 |
| | 17 | 4518GH | Sugar Cane | 80 |
| | 17 | 4518KL | Sugar Cane | 80 |
| | 17 | 4518OP | Sugar Cane | 80 |
| | 19 | 4519BF | Sugar Cane | 80 |
| | 19 | 4519CG | Sugar Cane | 80 |
| | 19 | 4519DH | Sugar Cane | 80 |
| | 19 | 4519JN | Sugar Cane | 80 |
| | 19 | 4519KO | Sugar Cane | 80 |
| | 19 | 4519LP | Sugar Cane | 80 |
| | 19 | 4520IJ | Sugar Cane | 80 |
| | 19 | 4530AE | Sugar Cane | 80 |
| | 19 | 4530BF | Sugar Cane | 80 |
| | 19 | 4530CG | Sugar Cane | 80 |
| | 19 | 4530DH | Sugar Cane | 80 |
| | 19 | 4530IM | Sugar Cane | 80 |
| | 19 | 4530JN | Sugar Cane | 80 |
| | 19 | 4530KO | Sugar Cane | 80 |
| | 19 | 4530LP | Sugar Cane | 80 |
| | 19 | 4531AE | Sugar Cane | 80 |
| | 19 | 4531BF | Sugar Cane | 80 |
| | 19 | 4531CG | Sugar Cane | 80 |
| | 19 | 4531DH | Sugar Cane | 80 |
| | 19 | 4531IM | Sugar Cane | 80 |
| | 19 | 4531JN | Sugar Cane | 80 |
| | 19 | 4531KO | Sugar Cane | 80 |
| | 19 | 4531LP | Sugar Cane | 80 |
| SC-100-084 | 19 | 4528KL | Sugar Cane | 80 |
| | 19 | 4532OP | Sugar Cane | 80 |

NOTE: Each Block/Field # contains 80 acres which was tested as two (2) 40-acre grids

Table 2. Statistical Determination of the Number of Baseline Grids

| Decision Parameters | Selected Value | Normal Variate | |
|---|---|---|---|
| Significance = alpha | 5% | $z_{1\text{-alpha}}$ = | 1.64 |
| Power = 1 - beta | 80% | $z_{1\text{-beta}}$ = | 0.84 |
| Delta as % of Baseline Mean | 20% | | |

| Chemical-Specific Parameters | Arsenic (mg/kg) | Copper (mg/kg) | Selenium (mg/kg) | Atrazine (ug/kg) |
|---|---|---|---|---|
| Desired Resolution | 1.17 | 12.4 | 0.37 | 9.10 |
| Baseline Mean* | 5.87 | 62.0 | 1.86 | 45.49 |
| Baseline Standard Deviation* | 3.44 | 51.9 | 1.33 | 37.99 |
| n (Number of Samples) | 54 | 109 | 80 | 108 |

*Computed based on Phase 2 Sugarcane 40-acre Composite (SC) Data

** 4 outlier results are excluded.

Table 3. Statistical Comparative Tests

| Difference Hypothesis | Test | Comparison | Type |
|---|---|---|---|
| Area-wide Difference | Wilcoxon Rank Sum (WRS) | Median | Non-parametric |
| | Gehan | Median | Non-parametric |
| | Student's two-sample t-test | Mean | Parametric |
| | Satterthwaite t-test | Mean | Parametric |
| Localized Difference | Slippage | High concentrations | Non-parametric |
| | Quantile | High concentrations | Non-parametric |
| | Two-sample test of proportions | Percent of measurements above a given cutoff | Non-parmetric |

Table 4. Summary of Sample Plan

| Areas | Number of Samples | | Parameters* |
|---|---|---|---|
| Sugar Cane Cultivation Area | 109 composite samples | Annually (40-acre eight point composite soil sample using close composite methodology– top 6'') | Arsenic, Copper, Selenium<br>Clomazone<br>Pendimethalin<br>Analytical test method will be developed for fungicides Caramba and Headline by Florida based laboratory. |
| Pump Stations | No Sample | If no staining / stressed or disturbed vegetation. | |
| | 0 sample<br><br>1 each site | If impacts observed (five point composite soil sample -- top 6'') | EPA Method 602<br>EPA Method 610<br>FL-PRO |
| Chemical and Equipment Storage Areas | No Sample | If no staining / stressed or disturbed vegetation | |
| | 1 each site | If impacts observed (five point composite soil sample -- top 6'') | EPA Method 602<br>EPA Method 610<br>FL-PRO<br>Arsenic, Copper, Selenium<br>Clomazone<br>Pendimethalin<br>8151<br>Analytical test method will be developed for fungicides Caramba and Headline by Florida based laboratory. |

**Parameter Descriptions*

EPA Method 602 (purgeable aromatics)
EPA Method 610 (polynuclear aromatic hydrocarbons)
FL-PRO (total residual petroleum hydrocarbons)
Total Arsenic
Copper by EPA Method 6010/7471
Selenium
Clomazone by EPA Method 8141
Pendimethalin by EPA Method 8081
EPA Method 8151 (chlorinated herbicides)

### 3.1.4 References

Department of the Navy (DON). "Guidance for Environmental Background Analysis. Volume I: Soil." NFESC. User's Guide. UG-2049-ENV. April 2002.

U.S. Environmental Protection Agency (EPA). "Methods for Evaluating the Attainment of Cleanup Standards. Vol. 1: Soils and Solid Media." Office of Policy, Planning, and Evaluation. Washington, D. C. EPA 230/02-89-042. 1989

United States Environmental Protection Agency (EPA). "Data Quality Objectives Process for Hazardous Waste Site Investigations. EPA QA/G-4HW Final." EPA/600/R-00/007. January 2000

## 4.0 STANDARDIZED FORM: BMP SITE VERIFICATION FINDINGS SUMMARY

Future BMP site verification visits will be conducted at the request of the District. BMP implementation will be reviewed per the guidelines and 'Implementation Requirements' described for each BMP earlier in this document as well as taking site specific issues and time of year into account. The site verification findings, including a written review of observations, site photographs taken, and a summary of records reviewed, are expected to be provided by the field reviewer in a detailed report. The field verified implementation status of each BMP will be classified in one of three categories:

- Implementation Verified
- Implementation Verified with Comment
- Additional Attention Required

The standardized form for reporting *BMP Site Verification Findings Summary* to be included in the BMP field verification report is included in **Appendix B**.

# APPENDIX A

# Derivation of "No Application Periods" for Interim Use Pesticides


Prepared by:

Robert A. Frakes, Ph.D.
Environmental Contaminants Specialist
South Florida Field Office
Vero Beach, Florida

October 2000

## I. INTRODUCTION

The South Florida Water Management District (SFWMD) is actively acquiring agricultural lands in South Florida in connection with the Everglades Restoration Project. These lands are slated for various water management projects including conversion to water attenuation reservoirs, creation of stormwater treatment areas (STAs) for removal of phosphorus and other nutrients, and restoration of wetlands in areas formerly drained for agriculture. All of these projects will likely attract large numbers of birds and other wildlife. Since all of these areas were, or still are, agricultural areas, they have probably been exposed to heavy pesticide applications for decades and residues of some of those pesticides very likely still remain in the soil. Some of the pesticides used were organochlorine compounds such as toxaphene and DDT, which are now banned due to their extreme persistence in soil and their tendency to bioaccumulate in the food web. Residues of these chemicals in soils at a recent wetland restoration project in Florida (Lake Apopka) have resulted in bird die-offs following flooding of the site.

Following land acquisition for a water management project, there may be a delay of up to five years before completion of the project and actual flooding of the wetland or reservoir occurs. During this "interim use period," the former landowner is usually allowed to lease the property and continue with existing agricultural uses. Because of the risks to fish and wildlife that will be attracted to the site following flooding, questions arise as to what types of pesticides, and in what quantities, should be allowed to be applied to these lands during the interim use period. This document was developed in response to these questions.

Because the U.S. Fish and Wildlife Service (Service) must approve these interim uses of grant lands, it has sought to discover what chemicals are being used in conjunction with the uses. The Service has sought the assistance of the SFWMD in this effort; however, the Service and the SFWMD do not agree as to the necessity for, and the feasibility of, obtaining this information from the former landowner. This issue has delayed the finalization, acceptance and implementation of a mutually agreeable protocol by which the SFWMD can seek, and the Service grant, approval of the interim uses. Until the protocol can be developed, the Service cannot provide formal approval of the uses.

In order to resolve this issue, the Service has developed an alternative to requiring the SFWMD to submit chemical use information. Instead, the protocol itself will contain the following chemical use schedule, which the SFWMD will incorporate the pertinent portions into any leases, reservations, or any other methods of allowing an interim use on lands acquired with grant funds. The schedule identifies chemicals which may be used on grant lands, and the amount of time the use of each chemical must cease prior to the incorporation of the parcel into an Everglades restoration project. The time period for each chemical is based upon that chemical's $T_{1/2}$ value (half-life). Accordingly, regardless of which chemicals had been applied to a specific parcel before it was acquired by the SFWMD with grant funds, the SFWMD will be authorized only to allow the use of certain chemicals for certain amounts of time.

## II. METHODS

Information on persistence and degradation, toxicity, and use of pesticides in Florida was obtained from various internet databases and published references. The publication *Summary of Agricultural Pesticide Usage in Florida: 1995 - 98* (Shahane, 1999) was reviewed to develop a list of pesticides commonly used in South Florida. Data on half-life, degradation rate, and toxicity of these substances were obtained primarily from the Hazardous Substances Data Bank (HSDB), the Environmental Fate Database (EFDB), and the Extension Toxicology Network (EXTOXNET). For many of the chemicals used in Florida, environmental fate has been researched extensively and numerous literature values for half-life and/or degradation rate were available. For some chemicals, only a few values could be located.

Degradation rates of pesticides in soil can vary tremendously depending on soil type, climate, soil pH, moisture content, depth beneath the surface, and other variables. Therefore, the $T_{1/2}$s and degradation rates reported in the literature for the same chemical may vary over a wide range, depending on the conditions in the different studies. No attempt was made to select only those studies most appropriate to conditions in Florida soils. All relevant values for a chemical, including both field and laboratory experiments, were included in the database for that chemical; however, obviously irrelevant studies (such as those using sterile soils) were not included.

Many studies presented calculated soil $T_{1/2}$ values for the chemical being studied, and these values were entered directly into the database for that chemical. Other studies did not calculate $T_{1/2}$ values, but instead presented raw degradation rates. For example, an entry might state that the chemical was 67% degraded in 10 days. For these situations, the $T_{1/2}$ was calculated using the following formula (assuming 1st order kinetics) (Casarett et al., 1996):

$$T_{1/2} = \frac{.693 * t}{2.303(2 - \log(100 - d))}$$

where t = time since application and d = percent degraded.

All $T_{1/2}$ values obtained directly from the online databases and those calculated from raw degradation data were entered into a spreadsheet (see Appendix A). Using all of these data, median and maximum $T_{1/2}$ values were determined for each chemical. In addition, some studies presented persistence times for pesticides, i.e., the length of time required for all of the chemical to be degraded. Although $T_{1/2}$ values could not be calculated from these data, the range of reported persistence was also recorded. Table 1 summarizes all half-life, persistence, and toxicological information considered for each chemical.

The "no application period" is defined as the period of time prior to conversion of the agricultural land to conservation purposes (e.g., flooding to create wetlands) during which a particular pesticide hazardous to fish and/or wildlife should *not* be applied, in order to allow adequate time for breakdown

of pesticide residues before use of the land by Service trust resources. This period of time was defined as 5 times the median half-life, representing 97 percent degradation. Based on this 5 X $T_{1/2}$ value, the pesticide was placed into one of the following no application periods: 3 months, 6 months, 1 year, or 2 years (Table 1). Due to uncertainties of the planning and scheduling process, it was decided that those rare pesticides requiring more than 2 years to break down should not be applied at all.

In those cases where $T_{1/2}$ data were scanty or differed substantially from persistence data, professional judgement was used. Preference was sometimes given to persistence data, particularly in the case of highly toxic compounds. For example, the pesticide disulfoton, which is highly toxic to fish and wildlife, was placed in a 1 year no application category based on the longer persistence of toxic metabolites compared to the parent compound. In this case, use of five times the median half-life of the parent compound would have underestimated the breakdown time to nontoxic products (Table 1).

## III. RECOMMENDATIONS

A. The following pesticides are approved for application during the interim use period with **no restrictions** other than those required by the label:

2,4-D
*Bacillus thuringiensis* (Bt)
copper compounds
dicamba
diquat
diuron
EPTC
fluazifop-p-butyl
glyphosate
metolachlor
metribuzin
norflurazon
potassium salts
sethoxydim
sulfur
simazine

B. The following lists include some of the most commonly used pesticides in South Florida that are thought to be hazardous to fish and wildlife. These chemicals are approved for application during the interim use period with the following restriction: Use of these chemicals should be discontinued for the indicated time period prior to flooding agricultural lands for wetland restoration, creating water retention reservoirs, or any other activity likely to attract fish and wildlife to the site.

Use of the following should be **discontinued at least 3 months** prior to flooding:

acephate
alachlor
diazinon
dimethoate
malathion
methidathion
methyl parathion
oxamyl
trichlorfon

Use of the following should be **discontinued at least 6 months** prior to flooding:

| | |
|---|---|
| aldicarb | ethoprop |
| azinphos-methyl | ethyl parathion |
| carbaryl | permethrin |
| carbofuran | phorate |
| chlorpyrifos | terbufos |

Use of the following should be **discontinued at least 1 year** prior to flooding:

| | |
|---|---|
| atrazine | esfenvalerate |
| cyfluthrin | fenamiphos |
| disulfoton | fonofos |
| endosulfan | |

Use of the following should be **discontinued at least 2 years** prior to flooding:

| | |
|---|---|
| dicofol | trifluralin |

C. Due to their high toxicity and/or extreme persistence in the environment, the following chemicals **should not be applied** during the interim use period to lands being acquired for wetland restoration, water retention, or similar purposes. Interim uses which require these chemicals will not be permitted.

| | |
|---|---|
| benomyl | paraquat |

D. Other pesticides which do not appear on the above lists may come up from time to time. These will be evaluated on a chemical-by-chemical basis and added to the appropriate category above.

E. *Any* pesticide, regardless of the above categories, shown to already be present in soil at or above the appropriate sediment guideline, may require additional restrictions. For example, copper is a metal which does not degrade in the environment and may already be present in some soils (e.g., orchards) at levels above the Florida Department of Environmental Protection's Sediment Quality Assessment Guideline (MacDonald, 1994). In this case, further use of copper compounds during the interim use period would have to be reduced or eliminated altogether. These situations will be evaluated on a case-by-case basis. Add: can't push over SQAGs.

## IV. SOURCES OF INFORMATION

### A. Publications

~~Casarett, L.J., M.O. Amdur and C.D. Klaasen (eds.). 1996. Casarett and Doull's Toxicology: The~~ Basic Science of Poisons, 5th Edition. McGraw Hill.

1997 Farm Chemicals Handbook (Vol. 83). Meister Publishing Co., Willoughby, Ohio.

MacDonald, D.D. 1994. Approach to the Assessment of Sediment Quality in Florida Coastal Waters. Florida Department of Environmental Protection, Office of Water Policy, Tallahassee, Florida.

Milne, G.W.A. 1995. CRC Handbook of Pesticides. CRC Press, Boca Raton, Florida. 402 pp.

Shahane, A.H. 1999. Summary of Agricultural Pesticide Usage in Florida: 1995-98. Florida Department of Agriculture and Consumer Services, Tallahassee, Florida. 111 pp.

B. Online Databases

Environmental Fate Database, Syracuse Research Corporation, Syracuse, New York. http://esc.syrres.com/efdb.htm

Hazardous Substances Data Bank (HSDB), TOXNET, National Library of Medicine, Washington, D.C. http://toxnet.nlm.nih.gov/

Extension Toxicology Network (EXTOXNET), Oregon State University, Corvallis, Oregon. http://ace.orst.edu/info/extoxnet/ -

Table 1. Environmental and Toxicological Characteristics of Pecticides Considered in Establishing the No Application Period.

| Pesticide | No Application | $T_{1/2}$ soil (days) | | Persistence | 5 X $T_{1/2}$ | Class | Bird Kills?[1] | LD50 (rat, oral) | LC50 (fish) |
|---|---|---|---|---|---|---|---|---|---|
| | Period | median | max | | (months) | | | mg/kg | mg/l |
| acephate | 3 mo. | 3 | 14 | | 0.5 | OP | YES | 866 - 945 | >1000 |
| alachlor | 3 mo. | 14 | 133 | 6 wk - >1 yr | 2.3 | acetanilide | | 930 - 1350 | (3.7) |
| aldicarb | 6 mo. | 19 | 990 | 1 - 15 d | 3.2 | carbamate | YES | 1 | 1.5 |
| atrazine | 1 yr. | 63.8 | 1898 | 73 d - 2 yr | 10.6 | triazine | | 1780 | slightly toxic |
| azinphos-methyl | 6 mo. | 37.0 | 484 | | 6.2 | OP | YES | 4.4 - 16 | 0.003 |
| benomyl | Do Not Apply | 270 | 360 | 15 d - 4 wk | 45.0 | carbamate | | >10,000 | .006 - 14 |
| carbaryl | 6 mo. | 25.5 | 379.4 | 40 d | 4.3 | carbamate | | 246 - 283 | 28 |
| carbofuran | 6 mo. | 29 | 334.2 | 56 d - 14.5 mo | 4.8 | carbamate | YES | 8 | 0.24 |
| chlorpyrifos | 6 mo. | 22.6 | 84 | | 3.8 | OP | YES | 96 - 270 | 0.18 |
| cyfluthrin | 1 yr. | 56.0 | 63.0 | | 9.3 | pyrethroid | | | .00068 - .022 |
| diazinon | 3 mo. | 11.5 | 35 | 3 - 14 wk | 1.9 | OP | YES | 1250 | toxic |
| dicofol | 2 yr. | 60 | | >1 yr | 10.0 | OC | | 570 - 595 | 0.12 - 0.37 |
| dimethoate | 3 mo. | 11 | 122 | | 1.8 | OP | YES | 235 | 30.2 |
| disulfoton | 1 yr. | 5.6 | 70.0 | 56 d - 2 yr | 0.9 | OP | YES | 1.9 - 12.5 | 0.038 |
| endosulfan | 1 yr. | 40.5 | 150 | 10 - 160 d | 6.7 | OC | YES | 18 - 160 | 0.001 |
| esfenvalerate | 1 yr. | 52.5 | 90 | | 8.8 | pyrethroid | | 458 | .0002 - .001 |
| ethoprop | 6 mo. | 19.5 | 84 | | 3.3 | OP | YES | 61.5 | |
| ethyl parathion | 6 mo. | 22 | 2957.2 | 20 d - >16 yr | 3.7 | OP | YES | 2 | 1.5 |
| fenamiphos | 1 yr. | 43.5 | 470.2 | 92 d | 7.3 | OP | YES | 2 - 19 | 0.11 - 9.6 |
| fonofos | 1 yr. | 42.5 | 93.3 | | 7.1 | OP | YES | 8 - 17.5 | 0.05 |
| malathion | 3 mo. | 1.7 | 6.0 | | 0.3 | OP | | 5500 | 200 |
| methamidophos | 3 mo. | 4.8 | 12.0 | | 0.8 | OP | YES | 16 - 21 | 25 - 100 |
| methidathion | 3 mo. | 7.0 | 23.0 | | 1.2 | OP | | 25 - 54 | .002 - .014 |
| methyl parathion | 3 mo. | 15.0 | 915.6 | 3 - 5 mo. | 2.5 | OP | YES | 6 - 50 | 1.9 - 8.9 |
| oxamyl | 3 mo. | 12.5 | 50 | | 2.1 | carbamate | YES | 5.4 | 4.2 - 17.5 |
| paraquat | Do Not Apply | 1000 | 2409 | | 166.7 | bipyridyl | | 150 | 13 - 32 |
| permethrin | 6 mo. | 34 | 38 | | 5.7 | pyrethroid | | 430 - 4000 | .0018 - .0054 |
| phorate | 6 mo. | 23.3 | 167.6 | 2 wk - 4.5 mo | 3.9 | OP | YES | 2 - 4 | 0.002 |
| propargite (omite) | [redacted] | | | | | ?? | | 1480 - 2200 | .031 - .100 |
| terbufos | 6 mo. | 19.5 | 151.8 | | 3.2 | OP | YES | 1.3 - 1.6 | .001 - .39 |
| trichlorfon | 3 mo. | 0.97 | 140 | 8 d - 1.5 mo. | 0.2 | OP | | 450 - 650 | .26 - 2.5 |
| trifluralin | 2 yr. | 88.2 | 405 | 157 d - >40 wk | 14.7 | dinitroanilline | | >10,000 | .02 - 3.4 |

[1]YES in this column indicates pesticides that have caused documented die-offs of migratory birds.

## Appendix A. Reported Soil Half-Lives (in days) for South Florida Pesticides.*

| alachlor | aldicarb | atrazine | azinphos-methyl | benomyl | carbaryl | carbofuran | chlorpyrifos | cyfluthrin | diazinon | dicofol | dimethoate | disulfoton | endosulfan |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) |
| 15 | 9.9 | 15 | 5 | 180 | 22 | 26 | 81 | 56 | 7 | 60 | 2.5 | 1 | 32 |
| 7 | 23 | 300 | 484 | 360 | 12 | 110 | 28 | 63 | 14 | | 4 | 4 | 150 |
| 14 | 990 | 1898 | 21 | | 25.5 | 14 | 84 | Calc. $T_{1/2}$ | 35 | | 122 | 7 | 39 |
| 4 | 7 | 53 | 68 | | 8 | 28 | 7 | 42.1 | 11.5 | | 7 | 56 | 42 |
| 49 | 12 | 113 | 10 | | 12 | 60 | 18 | | 6.3 | | 11 | 70 | Calc. $T_{1/2}$ |
| 7.8 | 23 | 28 | 30 | | Calc. $T_{1/2}$ | 75 | 11.5 | | | | 29 | Calc. $T_{1/2}$ | 42.0 |
| Calc. $T_{1/2}$ | 2 | 181 | Calc. $T_{1/2}$ | | 379.4 | 30 | 25.1 | | | | 36 | 4.3 | 24.2 |
| 133.3 | 15 | 115 | 44.0 | | 195.2 | 60 | 8.7 | | | | Calc. $T_{1/2}$ | 3.1 | |
| | 54 | 48 | 51.3 | | 51.7 | 28 | Calc. $T_{1/2}$ | | | | 6.6 | 10.5 | |
| | 20 | 357 | | | 43.8 | 43 | 20.1 | | | | 53.1 | | |
| | 46 | 78 | | | | 53 | 30.0 | | | | | | |
| | 18 | 20 | | | | 8 | | | | | | | |
| | 154 | 58 | | | | 10 | | | | | | | |
| | 60 | 67 | | | | 14 | | | | | | | |
| | 9 | Calc. $T_{1/2}$ | | | | 73 | | | | | | | |
| | 12 | 84.0 | | | | Calc. $T_{1/2}$ | | | | | | | |
| | 20 | 48.3 | | | | 9.7 | | | | | | | |
| | 361 | 20.0 | | | | 2.8 | | | | | | | |
| | Calc. $T_{1/2}$ | 10.0 | | | | 334.2 | | | | | | | |
| | 8.9 | 48.3 | | | | 113.4 | | | | | | | |
| | 2.0 | 127.5 | | | | 22.6 | | | | | | | |
| | | 56.7 | | | | | | | | | | | |
| | | 26.4 | | | | | | | | | | | |
| | | 134.3 | | | | | | | | | | | |
| | | 279.9 | | | | | | | | | | | |
| | | 149.9 | | | | | | | | | | | |
| | | 36.5 | | | | | | | | | | | |
| | | 89.7 | | | | | | | | | | | |
| | | 23.4 | | | | | | | | | | | |
| | | 92.3 | | | | | | | | | | | |
| | | 60.6 | | | | | | | | | | | |

*Values were taken directly from the literature or calculated from degradation rates.

## Appendix A. Reported Soil Half-Lives (in days) for South Florida Pesticides.*

| esfenvalerate | ethoprop | ethyl parathion | fenamiphos | fonophos | malathion | methamidophos | methidathion | methyl parathion | oxamyl | paraquat | permethrin | phorate |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) |
| 15 | 25 | 7 | 50 | 40 | 1 | 1.9 | 5 | 4 | 11 | 1000 | 30 | 82 |
| 90 | 3 | 11 | 2.1 | 30 | 6 | 4.8 | 7 | 45 | 15 | 2409 | 38 | 2 |
| | 56 | 112 | 4 | 45 | Calc. $T_{1/2}$ | 6.1 | 23 | 10 | 6 | Calc. $T_{1/2}$ | | 6 |
| | 14 | 182 | 11 | 18 | 4.3 | 12 | | 15 | 14 | 268.7 | | 30 |
| | 84 | 22 | Calc. $T_{1/2}$ | 82 | 2.3 | Calc. $T_{1/2}$ | | Calc. $T_{1/2}$ | 4 | | | 69 |
| | 12 | 23 | 13.1 | Calc. $T_{1/2}$ | 1.0 | 2.7 | | 4.3 | 33 | | | Calc. $T_{1/2}$ |
| | 16 | Calc. $T_{1/2}$ | 138.2 | 93.3 | 0.3 | | | 915.6 | 8 | | | 167.6 |
| | 73 | 12.1 | 462.8 | 75.0 | | | | 203.1 | 50 | | | 23.3 |
| | Calc. $T_{1/2}$ | 34.2 | 470.2 | 28.5 | | | | | | | | 7.5 |
| | 23.0 | 2.4 | 43.5 | | | | | | | | | 98.2 |
| | 12.6 | 4.9 | | | | | | | | | | 20.8 |
| | | 16.2 | | | | | | | | | | 1.6 |
| | | 131.5 | | | | | | | | | | |
| | | 20.0 | | | | | | | | | | |
| | | 2957.2 | | | | | | | | | | |
| | | 224.9 | | | | | | | | | | |

*Values were taken directly from the literature or calculated from degradation rates.

Appendix A. Reported Soil Half-Lives (in days) for South Florida Pesticides.*

| terbufos | trichlorfon | trifluralin |
|---|---|---|
| Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) |
| 5 | 1.1 | 38 |
| 22 | 140 | 61 |
| 16.9 | 0.6 | 211 |
| 86.6 | 0.8 | 405 |
| 12.8 | | Calc. $T_{1/2}$ |
| 66.5 | | 66.7 |
| 10 | | 109.8 |
| 4.5 | | |
| Calc. $T_{1/2}$ | | |
| 22.5 | | |
| 12.1 | | |
| 151.8 | | |
| 97.8 | | |

*Values were taken directly from the literature or calculated from degradation rates.

Appendix B. Half-life Calculation Worksheet.

| Atrazine | Lit. $T_{1/2}$ | units | $T_{1/2}$ (days) | % degraded | time | units | Calc. $T_{1/2}$ | $T_{1/2}$ (days) |
|---|---|---|---|---|---|---|---|---|
| | 0.5 | mo | 15 | 50 | 12 | wk | 12.0 | 84.0 |
| | 10 | mo | 300 | 70 | 12 | wk | 6.9 | 48.3 |
| | 5.2 | yr | 1898 | 50 | 20 | d | 20.0 | 20.0 |
| | 53 | d | 53 | 75 | 20 | d | 10.0 | 10.0 |
| | 113 | d | 113 | 70 | 12 | wk | 6.9 | 48.3 |
| | 28 | d | 28 | 29 | 9 | wk | 18.2 | 127.5 |
| | 181 | d | 181 | 60 | 75 | d | 56.7 | 56.7 |
| | 115 | d | 115 | 86 | 75 | d | 26.4 | 26.4 |
| | 48 | d | 48 | 71 | 8 | mo | 4.5 | 134.3 |
| | 357 | d | 357 | 13.8 | 60 | d | 279.9 | 279.9 |
| | 78 | d | 78 | 75 | 10 | mo | 5.0 | 149.9 |
| | 20 | d | 20 | 85 | 100 | d | 36.5 | 36.5 |
| | 58 | d | 58 | 90 | 298 | d | 89.7 | 89.7 |
| | 67 | d | 67 | 93 | 3 | mo | 0.8 | 23.4 |
| | | | | 86 | 262 | d | 92.3 | 92.3 |
| | | | | 95 | 262 | d | 60.6 | 60.6 |

| Trichlorfon | Lit. $T_{1/2}$ | units | $T_{1/2}$ (days) |
|---|---|---|---|
| | 1.1 | d | 1.1 |
| | 140 | d | 140 |
| | 14 | hr | 0.6 |
| | 20 | hr | 0.8 |

| Aldicarb | $K_{el}$ | units | Calc. $T_{1/2}$ |
|---|---|---|---|
| | 0.078 | $d^{-1}$ | 8.9 |
| | 0.35 | $d^{-1}$ | 2.0 |

| Phorate | Lit. $T_{1/2}$ | units | % degraded | time | units | Calc. $T_{1/2}$ |
|---|---|---|---|---|---|---|
| | 82 | d | 18 | 48 | d | 167.6 |
| | 2 | d | 76 | 48 | d | 23.3 |
| | 6 | d | 90 | 25 | d | 7.5 |
| | 30 | d | 47 | 90 | d | 98.2 |
| | 69 | d | 95 | 90 | d | 20.8 |
| | | | 95 | 7 | d | 1.6 |

| Carbaryl | Lit. $T_{1/2}$ | units | % degraded | time | units | Calc. $T_{1/2}$ | $T_{1/2}$ (days) |
|---|---|---|---|---|---|---|---|
| | 22 | d | 12 | 10 | wk | 54.2 | 379.4 |
| | 12 | d | 22 | 10 | wk | 27.9 | 195.2 |
| | 25.5 | d | 80 | 120 | d | 51.7 | 51.7 |
| | 8 | d | 85 | 120 | d | 43.8 | 43.8 |
| | 12 | d | | | | | |

| Methyl Parathion | Lit. $T_{1/2}$ | units | % degraded | time | units | Calc. $T_{1/2}$ | $T_{1/2}$ (days) |
|---|---|---|---|---|---|---|---|
| | 4 | d | 99.5 | 33 | d | 4.3 | 4.3 |
| | 45 | d | 64 | 45 | mo | 30.5 | 915.6 |
| | 10 | d | 99 | 45 | mo | 6.8 | 203.1 |
| | 15 | d | | | | | |

Appendix B. Half-life Calculation Worksheet.

| Alachlor | % degraded | time | units | Calc. $T_{1/2}$ | $T_{1/2}$ (days) |
|---|---|---|---|---|---|
| | 85 | 1 | yr | 0.4 | 133.3 |

| Carbofuran | % degraded | time | units | Calc. $T_{1/2}$ | $T_{1/2}$ (days) |
|---|---|---|---|---|---|
| | 95 | 42 | d | 9.7 | 9.7 |
| | 97 | 14 | d | 2.8 | 2.8 |
| | 7 | 5 | wk | 47.7 | 334.2 |
| | 60 | 5 | mo | 3.8 | 113.4 |
| | 99 | 5 | mo | 0.8 | 22.6 |

| Chlorpyrifos | % degraded | time | units | Calc. $T_{1/2}$ | $T_{1/2}$ (days) |
|---|---|---|---|---|---|
| | 62 | 4 | wk | 2.9 | 20.1 |
| | 50 | 30 | d | 30.0 | 30.0 |

| Cyfluthrin | % degraded | time | units | Calc. $T_{1/2}$ | $T_{1/2}$ (days) |
|---|---|---|---|---|---|
| | 90 | 140 | d | 42.1 | 42.1 |

| Dimethoate | % degraded | time | units | Calc. $T_{1/2}$ | $T_{1/2}$ (days) |
|---|---|---|---|---|---|
| | 77 | 2 | wk | 0.9 | 6.6 |
| | 98 | 10 | mo | 1.8 | 53.1 |

| Disulfoton | % degraded | time | units | Calc. $T_{1/2}$ | $T_{1/2}$ (days) |
|---|---|---|---|---|---|
| | 68 | 1 | wk | 0.6 | 4.3 |
| | 79 | 1 | wk | 0.4 | 3.1 |
| | 90 | 5 | wk | 1.5 | 10.5 |

| Endosulfan | % degraded | time | units | Calc. $T_{1/2}$ | $T_{1/2}$ (days) |
|---|---|---|---|---|---|
| | 50 | 42 | d | 42.0 | 42.0 |
| | 70 | 42 | d | 24.2 | 24.2 |

| Ethoprop | % degraded | time | units | Calc. $T_{1/2}$ | $T_{1/2}$ (days) |
|---|---|---|---|---|---|
| | 19 | 1 | wk | 3.3 | 23.0 |
| | 32 | 1 | wk | 1.8 | 12.6 |

| Ethyl parathion | % degraded | time | units | Calc. $T_{1/2}$ | $T_{1/2}$ (days) |
|---|---|---|---|---|---|
| | 96 | 8 | wk | 1.7 | 12.1 |
| | 20 | 11 | d | 34.2 | 34.2 |
| | 96 | 11 | d | 2.4 | 2.4 |
| | 95 | 3 | wk | 0.7 | 4.9 |
| | 95 | 10 | wk | 2.3 | 16.2 |
| | 10 | 20 | d | 131.5 | 131.5 |
| | 50 | 20 | d | 20.0 | 20.0 |
| | 3 | 130 | d | 2957.2 | 2957.2 |
| | 33 | 130 | d | 224.9 | 224.9 |

Appendix B. Half-life Calculation Worksheet.

| Fonophos | % degraded | time | units | Calc. $T_{1/2}$ | $T_{1/2}$ (days) |
|---|---|---|---|---|---|
| | 59 | 4 | mo | 3.1 | 93.3 |
| | 67 | 4 | mo | 2.5 | 75.0 |
| | 64 | 6 | wk | 4.1 | 28.5 |

| Malathion | % degraded | time | units | Calc. $T_{1/2}$ | $T_{1/2}$ (days) |
|---|---|---|---|---|---|
| | 80 | 10 | d | 4.3 | 4.3 |
| | 95 | 10 | d | 2.3 | 2.3 |
| | 50 | 24 | hr | 24.0 | 1.0 |
| | 90 | 24 | hr | 7.2 | 0.3 |

| Paraquat | % degraded | time | units | Calc. $T_{1/2}$ | $T_{1/2}$ (days) |
|---|---|---|---|---|---|
| | 13 | 54 | d | 268.7 | 268.7 |

| Terbufos | % degraded | time | units | Calc. $T_{1/2}$ | $T_{1/2}$ (days) |
|---|---|---|---|---|---|
| | 35 | 14 | d | 22.5 | 22.5 |
| | 80 | 28 | d | 12.1 | 12.1 |
| | 12 | 4 | wk | 21.7 | 151.8 |
| | 18 | 4 | wk | 14.0 | 97.8 |

| Trifluralin | % degraded | time | units | Calc. $T_{1/2}$ | $T_{1/2}$ (days) |
|---|---|---|---|---|---|
| | 85 | 0.5 | yr | 0.18 | 66.7 |
| | 90 | 1 | yr | 0.30 | 109.8 |

| Fenamiphos | % degraded | time | units | Calc. $T_{1/2}$ | $T_{1/2}$ (days) |
|---|---|---|---|---|---|
| | 94.6 | 55 | d | 13.1 | 13.1 |
| | 24.1 | 55 | d | 138.2 | 138.2 |
| | 9 | 63 | d | 462.8 | 462.8 |
| | 9.8 | 70 | d | 470.2 | 470.2 |
| | 67.2 | 70 | d | 43.5 | 43.5 |

| Azinphos-methyl | % degraded | time | units | Calc. $T_{1/2}$ | $T_{1/2}$ (days) |
|---|---|---|---|---|---|
| | 50 | 44 | d | 44.0 | 44.0 |
| | 93 | 197 | d | 51.3 | 51.3 |

| Methamidophos | % degraded | time | units | Calc. $T_{1/2}$ | $T_{1/2}$ (days) |
|---|---|---|---|---|---|
| | 92 | 10 | d | 2.7 | 2.7 |

# APPENDIX B

# APPENDIX B
# SITE VERIFICATION CHECKLIST

United States Sugar Corporation
Palm Beach, Hendry, and Glades Counties
State of Florida

## *Best Management Practices (BMP) Site Verification Checklist*

Tract No.:
SFWMD Representative(s):
Property Representative(s):
Inspection Date:

| BMP | Description/Comment | Implementation Verified | Additional Attention Required |
|---|---|---|---|
| **Property Use and Structures** | | | |
| | | | |
| **Housekeeping** | | | |
| General Site - | | | |
| Storage Areas - | | | |
| Additional Observations - | | | |
| **Employee Training** | | | |
| Schedule - | | | |
| Topics - | | | |

| | |
|---|---|
| Additional Observations - | |

| Hazardous Material/ Chemical Use | | | |
|---|---|---|---|
| Chemicals Used - | | | |
| Application Type - | | | |
| Application Schedule - | | | |
| Material Records - | | | |
| Additional Observations: | | | |

| Petroleum Products | | | |
|---|---|---|---|
| Product Use - | | | |
| Pump Station(s) - | | | |
| Storage Location(s) - | | | |
| Additional Observations: | | | |

| Chemical Storage | | | |
|---|---|---|---|
| Storage Location - | | | |
| Building/Area Type - | | | |
| Pump Station(s) - | | | |

| | | | |
|---|---|---|---|
| Additional Observations: | | | |
| **Mixing & Loading Areas** | | | |
| Area Description - | | | |
| Area Observations - | | | |
| Additional Observations: | | | |
| **Waste Storage and Disposal** | | | |
| Waste Types - | | | |
| Storage Location - | | | |
| Waste Disposal - | | | |
| Waste Disposal Records - | | | |
| Additional Observations: | | | |
| **Water Management** | | | |
| Observations - | | | |
| Water Mgmt Controls - | | | |
| Weather Monitoring - | | | |
| Additional Observations: | | | |
| **Erosion/Sediment Controls** | | | |
| Erosion Controls - | | | |

| | | | |
|---|---|---|---|
| Sediment Controls - | | | |
| Additional Observations: | | | |
| **Exotic Vegetation Management** | | | |
| Observations - | | | |
| Physical Controls - | | | |
| Biological Controls - | | | |
| Chemical Controls - | | | |
| Additional Observations: | | | |
| **General Field Notes** | | | |

Notes:

N/A - Not Applicable

# APPENDIX C

## APPENDIX C
## EMERGENCY RESPONSE and CHEMICAL HAZARD INFORMATION PHONE NUMBERS

**Emergency Reporting**
For Ambulance, Fire, or Police **Dial 911**

**State Warning Point** 24hrs. Toll Free 1-800-320-0519
(Department of Community Affairs, or (850) 413-9911
Division of Emergency Management)

**National Response Center** 24hrs. Toll Free 1-800-424-8802
(Federal law requires that anyone who releases into the environment a reportable quantity of a hazardous substance [including oil when water is or may be affected] or a material identified as a marine pollutant, must immediately notify the NRC).

**DEP Emergency Response**, 24 hrs. Toll Free **1-800-342-5367**

### HELP LINE NUMBERS

*Chemical hazard information and regulatory questions*

- **CHEMTREC HOT LINE (Emergency only) 24 hrs** Toll Free 1-800-424-9300
- SARA Title III help line Toll Free 1-800-535-0202
- CERCLA / RCRA help line Toll Free 1-800-424-9346
- Pesticide Container Recycling Program (352) 392-4721
  Pesticide Information Officer at University of Florida

### COUNTY COOPERATIVE EXTENSION OFFICES

| | | |
|---|---|---|
| Pam Beach County | 559 N. Military Trail<br>West Palm Beach, FL 33415 | (561) 233-1700 |
| Hendry County | 1085 Pratt Boulevard<br>Dallas B Townsend Agricultural Center<br>Labelle, FL 33935 | (863) 674-4092 |
| Glades County | 900 US Highway 27<br>SW Moore Haven, FL 33471 | (863) 946-0244 |

### STATE OF FLORIDA AGENCIES

*Florida Department of Agriculture and Consumer Services*

| | |
|---|---|
| Bureau of Pesticides | (850) 487-0532 |
| Bureau of Compliance Monitoring | (850) 488-3314 |
| Division of Agriculture and Environmental Services | (850) 488-3731 |

*Florida Department of Environmental Protection*

| | |
|---|---|
| FDEP Stormwater/Nonpoint Source Management Section (Tallahassee) | (850) 488-3605 |
| FDEP Hazardous Waste Management Section (Tallahassee) | (850) 488-0300 |
| FDEP District offices - West Palm Beach | (561) 681-6800 |

*Florida Fish and Wildlife Conservation Commission*
620 South Meridian Street
Tallahassee, FL 32301
(850) 488-4066 or
(850) 488-4069

*Water Management Districts*
South Florida Water Management District (West Palm Beach)
(561) 686-8800 or
1-800-432-2045

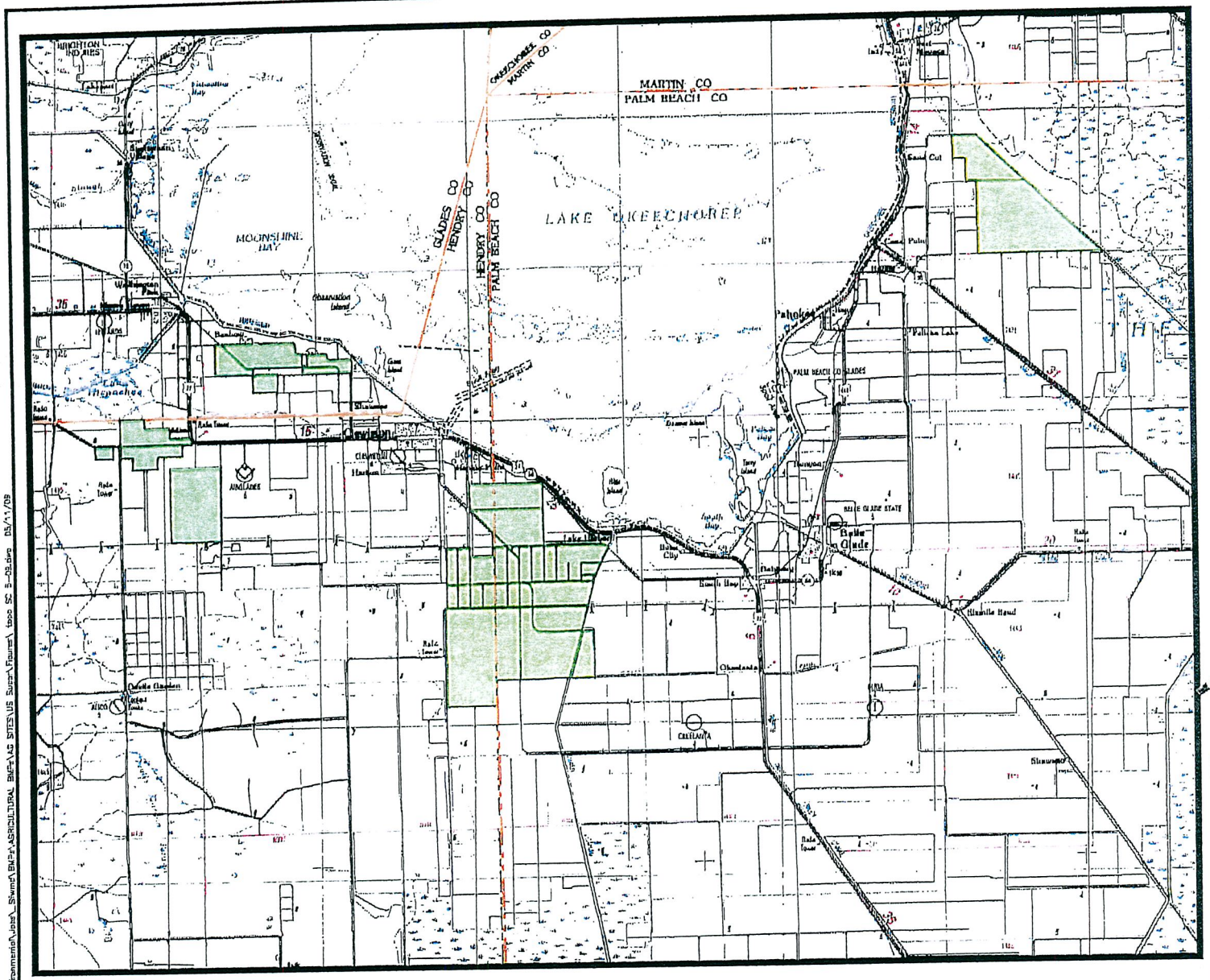
*University of Florida (Gainesville)*
Pesticide Information Office
Agricultural Law Policy Office
(352) 392-4721
(352) 392-1881

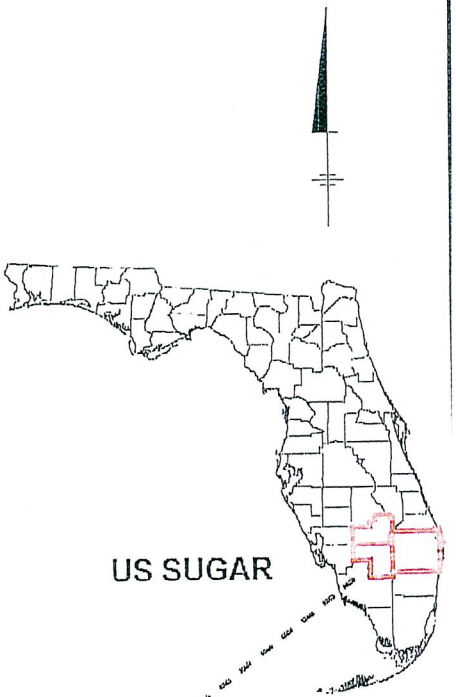
**UNITED STATES AGENCIES**
*EPA National Offices & Numbers*
Office of Water
4604, 401 M Street, SW
Washington, DC 20460
(202)-382-5700
(Provides Information on Clean Water Act and related water pollution regulations)

*Florida Administrator of EPA Pesticide Registration*
Bureau of Pesticides/ Division of Inspection
Dept. of Agriculture and Consumer Services
3125 Conner Blvd., MD-2
Tallahassee, FL 32399-1650
(850) 487-2130

*National Pesticide Telecommunications Network*
Provides information on pesticides and pesticide poisonings.
Operating 24 hours a day, 365 days a year.
1-800-858-7378

FIGURE 1




- PARCELS USED FOR CULTIVATION OF SUGAR CANE

UNITED STATES SUGAR CORPORATION
111 PONCE DE LEON AVENUE
CLEWISTON, FL.

JOB NO.: 38617-027 DATE: SEPTEMBER 2008

# SUGAR CANE PARCEL LOCATION VICINITY MAP

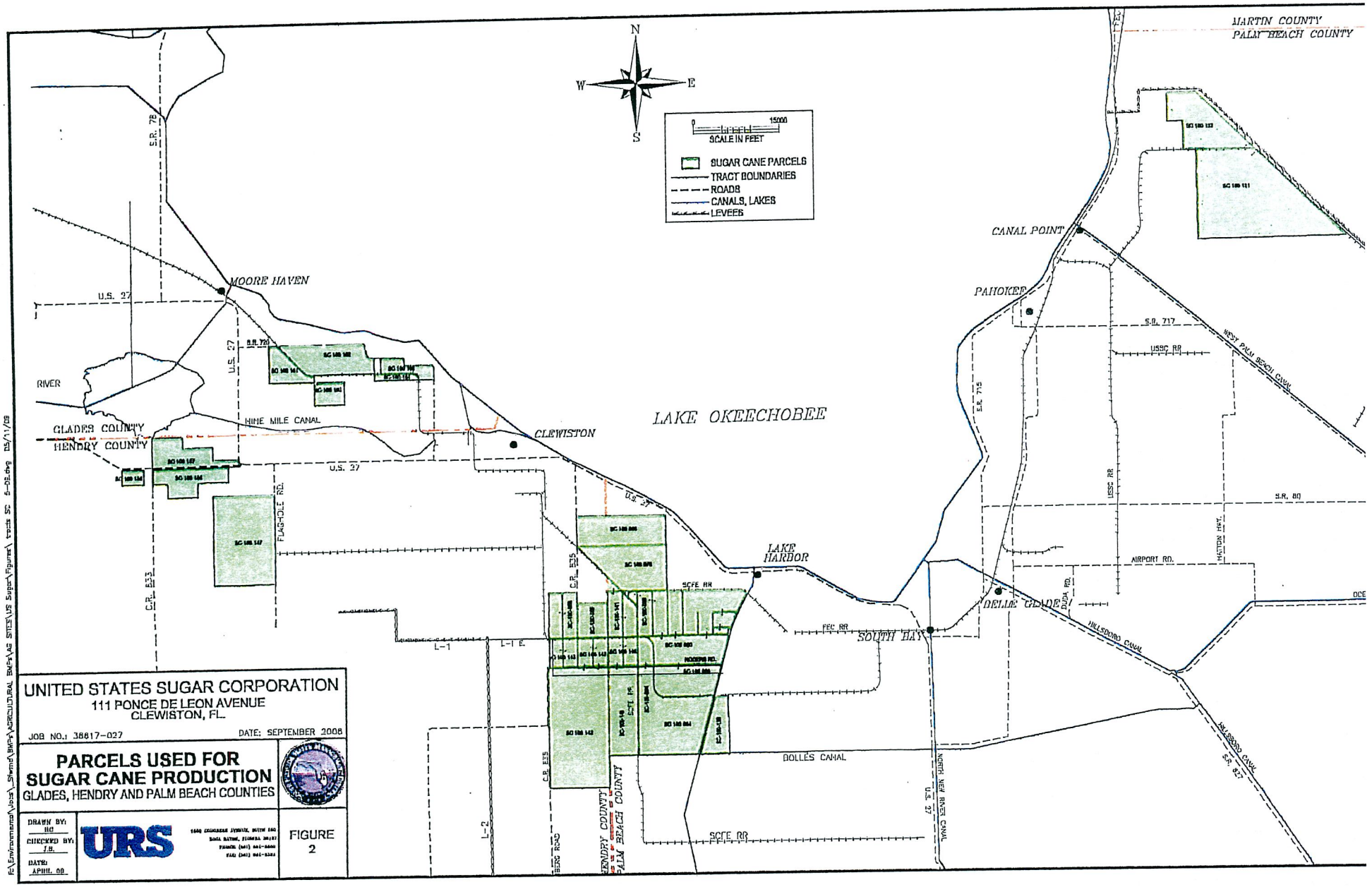
DRAWN BY: NC
CHECKED BY: J.S.
DATE: DEC 08

URS

FIGURE 1

R:\Environmental\Jose_Siwnd BMPs\AGRICULTURAL BMPs\A2 SITES\US Sugar\Figures\ tpop SC 5-08.dwg 05/11/09

FIGURE 2




UNITED STATES SUGAR CORPORATION
111 PONCE DE LEON AVENUE
CLEWISTON, FL.

JOB NO.: 38617-027 DATE: SEPTEMBER 2008

# PARCELS USED FOR SUGAR CANE PRODUCTION

GLADES, HENDRY AND PALM BEACH COUNTIES

DRAWN BY: HG
CHECKED BY: J.S.
DATE: APRIL 09

URS

FIGURE 2

F:\Environmental\Jobs_Shared\BMP\AGRICULTURAL BMPs\AG SITES\US Sugar\Figures\ Fig2a SC 5-05.dwg 05/11/09

## SCHEDULE 3.2-B

[Best Management Practices Plan Sugar Cane Production]

**[ONLY APPLICABLE IF OPTION PROPERTY IS ACQUIRED PURSUANT TO THE OPTION]**

Schedule 3.2-B: REPLACE THE FIRST PARAGRAPH ON PAGE 1 WITH THE FOLLOWING:

The South Florida Water Management District ("District") and the United States Sugar Corporation, SBG Farms, Inc., and Southern Gardens Grove Corporation (collectively "USSC") have entered into a Second Amended and Restated Agreement for Sale and Purchase, dated August 12, 2010, ("Second Amendment") pursuant to which the District will acquire approximately 26,791 acres of farmland owned by USSC with an option to buy approximately 46,022 acres ("Initial Option") and/or an option to buy approximately 153,209 acres (which includes the Initial Option lands, unless the Initial Option has already been exercised) ("Entire Option"). The District will lease land (referred to in this Schedule as "farming units" or "purchased lands") to USSC pursuant to the terms of the Second Amendment. This **Schedule 3.2-B** applies to such leased land as provided on the first page of Schedule 3.

# SCHEDULE 3.2-B

# BEST MANAGEMENT PRACTICES PLAN
# SUGAR CANE PRODUCTION

## UNITED STATES SUGAR CORPORATION
## PALM BEACH, HENDRY, AND GLADES COUNTIES, FLORIDA

*Prepared for*

South Florida Water Management District
3301 Gun Club Road
West Palm Beach, Florida 33406

May 12, 2009

*Prepared by*

URS Corporation
7800 Congress Avenue, Suite 200
Boca Raton, Florida 33487

**URS**

May 12, 2009

Mr. Robert Taylor
Lead Environmental Engineering Specialist
Land Management and Land Acquisition Division
South Florida Water Management District
3301 Gun Club Road
West Palm Beach, Florida 33406

Subject: **Environmental Best Management Practices Plan-Sugar Cane Production**
**United States Sugar Corporation**
**Palm Beach, Hendry, and Glades Counties**
**State of Florida**
Job # 38617-027

Dear Mr. Taylor,

URS Corporation (URS) is pleased to present this Environmental Best management Practices (BMP) Plan for the United States Sugar Corporation (USSC) sugar cane production properties in Palm Beach, Hendry, and Glades Counties, Florida.

It is URS' understanding that as the property owner, the South Florida Water Management District (District) desires to have in place a set of general environmental BMP's for the sugar cane operations that are designed to maintain/protect water quality in accordance with the State's water quality standards, maintain the soil and water quality at the site which will not prohibit the District from using property as a water attenuation reservoir in the near future, and that will concurrently allow for continued economically-viable agricultural production on the site. This BMP plan is designed to meet these expectations by providing guidance to the USSC property on environmental preventative measures to be proactively implemented.

Sincerely,
**URS Corporation**

Edward A. Leding, P.G.
Project Manager

Timothy B. DeBord
Vice President

URS Corporation
7800 Congress Avenue, Suite 200
Boca Raton, Florida 33487
T 561.9946500
F 561.9946524

TABLE OF CONTENTS

SECTION PAGE



## List of Figures



## List of Tables

**List of Appendices**

# 1.0 OVERVIEW

## 1.1 BACKGROUND

The South Florida Water Management District (District) has acquired approximately 180,000 acres of the United States Sugar Corporation (USSC) properties in Palm Beach, Hendry, and Glades Counties, Florida for future restoration purposes such as water storage reservoirs and wetlands. **Figure 1** illustrates the USSC properties. Of the 180,000 acres, an estimated 150,000 acres is used for the cultivation of sugar cane. **Figure 2** illustrates the tracts of land in eastern Glades, eastern Hendry, and Palm Beach Counties that are utilized for the cultivation of sugar cane. Additionally, portions of the 150,000 acres are subleased each year for the cultivation of vegetables. The vegetables that are typically grown are corn, beans, and watermelons. This Environmental Best Management Practices (BMP) Plan shall be implemented by future tenants of the District that engage in sugar cane and vegetable production on portions of the acquired properties.

During the interim period (from acquisition to construction/land conversion), the District intends to utilize the property for continued agricultural operations primarily for the cultivation of sugar cane. In general, this BMP requirements document is not regulatory or enforcement based (as opposed to any existing or future permit that may contain BMP requirements); however, failure of a tenant to implement this BMP Plan will constitute a breach of the tenant's lease with the District. BMPs are production systems and management strategies scientifically shown to minimize adverse water quality and other environmental impacts of sugar cane production. BMPs can be defined as those operational procedures designed to achieve greatest agronomic efficiency in food and fiber production, while limiting the off-site effects of agricultural operations and maintaining an economically viable farming operation. All BMPs must protect the environment and be economically viable. A small percentage of the 150,000 acres, an estimated 2% to 4%, is used for vegetable growing as part of the sugar cane crop rotation. These acres are subleased to independent farmers who grow the vegetables. In the event that USSC plans to sub-lease large portions/substantial additional acres for vegetables or other crops not associated with the typical crop rotation, the District must be notified prior to leasing the acreage. It will be the District's lessee's responsibility to insure that its sub-tenant complies with the BMP Plan.

There are several sources of research that have been used to develop BMPs for sugar cane production in Florida. Primary sources include the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS), University of Florida/Institute of Food and Agricultural Sciences (IFAS), Environmental Protection Agency (EPA), Florida Department of Environmental Protection (FDEP), and Florida Department of Agriculture and Consumer Services (FDACS). This document cites pertinent documentation from these sources that may guide the implementation, evaluation, verification and validation of each BMP.

The proposed acquisition areas have been cultivated since the 1920s. Initially vegetables were cultivated. Beginning in the 1930s, the predominant crop was sugar cane. Maintenance buildings with chemical storage areas are strategically spaced throughout the acquisition areas, as well as diesel powered pump stations and re-fueling areas. A railway system located throughout the properties is used to transport the sugar cane to the mills. Rail sidings, which are used to load the harvested sugar cane onto rail cars, are strategically placed along the railway system. Agrochemical application is conducted using mobile

equipment and also applied aerially, and the agrochemicals are stored in designated areas at the maintenance buildings. For tracts that are leased for vegetable cultivation, the agrochemicals are stored off-site and transported to the vegetable growing are on an as-need basis. USSG property personnel indicated there have been no central burn pits and the paper, boxes and cartons generated as part of the farming operations were burned in many small areas throughout the properties. Agricultural air strips are located on several properties.

## 1.2 ENVIRONMENTAL SITE ASSESSMENT (ESA)

Phase I and Phase II Environmental Site Assessment (ESA) activities were conducted on the property in August and September 2008 by Professional Services Inc. (PSI). Identified areas of potential point sources associated with the sugar cane operation are primarily:

- Chemical Storage and/or Maintenance Areas
- Airplane Landing Strips
- Equipment Staging Areas
- Diesel Powered Pump Stations
- Fuel Storage / Re-Fueling Areas

**Section 2.0** provides descriptions of a variety of environmental BMPs as part of the sugar cane and vegetable operations. Although all BMPs are important with the need for diligent on-going implementation, particular attention needs to be addressed to the following:

- Pump Stations
- Chemical Storage Areas
- Copper Based Nutrients

Given below is a summary of the observations made during the Phase I ESA, as well as the results of the Phase II ESA at the above referenced areas/issues and URS' recommendations to address the issues.

- Diesel powered pump stations with aboveground storage tanks (ASTs) used to store diesel fuel were observed on the properties. The pump stations are used to control water in the cultivated fields. Soil staining and/or petroleum impacted soils were identified at most of the pump stations. **URS recommends implementing preventative measures for petroleum spills and diesel AST leaks. This should include repairing any leaks and use of absorbent material when leaks and/or spills occur. URS also recommends that site inspections be routinely conducted when the pump station (s) are in operation to verify the pump stations are being properly maintained and in compliance.**

- Chemical and equipment storage areas were observed on the properties. Areas of petroleum and agrochemical stained soil and stressed vegetation were observed at numerous chemical and equipment storage areas. **URS recommends improving housekeeping at the storage areas. This should include proper handling and storage of agrochemicals and use of absorbent at the equipment storage areas. URS also recommends monthly site inspections to verify the storage areas are being properly maintained.**

- During the Phase I ESA, PSI identified copper based nutrients from the USSC pesticide application records. Due to these copper based nutrients, PSI analyzed for copper in the sugar cane cultivation areas during the Phase II ESA. PSI divided the sugar cane cultivation area into 40-acre grids and sampled approximately 20% of these 40-acre grids that were historically and currently cultivated with sugar cane. An eight point composite sample was collected from each grid with each aliquot representing approximately 5-acres. All aliquots were collected from a depth of 0 to 6-inches bls using a stainless steel sample barrel. The Phase II ESA sampling identified areas of elevated copper in the sugar cane cultivation areas copper above the Service provisional Snail Kite threshold level of 85 milligrams per kilogram (mg/kg).

- URS identified 105, 40-acre grids with copper concentrations ranging from 70 mg/kg to 85 mg/kg, and 208, 40-acre grids with copper concentrations above 85 mg/kg. The current rates of application and amounts of copper based nutrients were review that have been applied on the USSC property. Utilizing this information, a mass balance equation was developed in order to determine if additional acreage would be impacted by copper based on the current application activities. URS determined that copper could potentially increase in the soils, per application, at a rate of 2.08 mg/kg per acre. Based on this application rate, and the fact that the property is leased through 2016, 12, 40-acre grids have the potential to accumulate copper above the Service's interim value for copper of 85 mg/kg during the lease agreement. However, most of the 12, 40-acre grids are located adjacent to soils with copper concentrations exceeding 85 mg/kg and/or are co-located with historically applied agrochemicals (organochlorine pesticides) that are targeted for abatement. **The current nutrient application regiment is acceptable over most areas. Based on the Phase II findings on elevated copper concentrations, no copper should be applied on the 8,320-acres. URS recommends sampling select areas within the cultivated fields every year in order to monitor the copper concentrations in the soil. Section 3 gives details of the sampling and compliance plan. In the event that USSC plans to increase the applications rate of the copper based nutrients, URS recommends that USSC discuss the application increase with the District prior to implementing.**

## 1.3 OBJECTIVE

Given below are sets of guidelines and requirements proposed for the day-to-day sugar cane farming operations:

- Continued economically-viable sugar cane operations on the properties that is agreeable for implementation by the lessee/tenant during the interim use,

- Maintain/protect water quality in accordance with the State's water quality standards; prevent exceedances of applicable State soil or groundwater Cleanup Target Levels" (CTLs) as set forth in Tables 1 and 2 of 62-777, F.A.C.; and implement such measures as necessary to maintain existing levels of pollutants and not interfere with District's intent to use the premises as a future water resource project.
- Comply with State regulations that are applicable to the sugar cane operations that result in conditions that will maintain the soil and water quality at the site which will not prohibit the District from using the property as a water attenuation project area at the end of the interim use period.
- Comply with permits/consent agreements issued by the District approving the site specific BMP plan for Water Management, Nutrient Management and Fertilizing, and Erosion/Sediment Control and the Discharge Monitoring Plan for nutrients (phosphorus and nitrogen).

A list of agrochemicals currently used was provided to the District. The chemical usage list is included in *Section 2.6.1 Acceptable Agrochemicals and No Application Periods*. In the event that changes are made to the agrochemical list, a revised list should be provided to the District and should consist of a detailed specific agrochemical and pesticide product list, to include the quantity used, rates of application, and an evaluation of crop areas for effectiveness of the pesticides.

The U.S. Fish and Wildlife Service (Service) document titled "Derivation of No Application Periods for Interim Use Pesticides" defines the no application period as *the period of time prior to the conversion of the agricultural land to conservation purposes (i.e. flooding to create wetlands) during which a particular pesticide hazardous to fish and/or wildlife should not be applied, in order to allow adequate time for breakdown of pesticide residues before use of the land by the Service trust resources. This period of time was defined as five times the median half-life, representing 97 percent degradation.* A copy of this document is included in **Appendix A.**

## 1.4 STANDARDIZED BMP CHECKLIST

The District's intent is to ensure consistency of BMP implementation and future verifications on two levels:

1. Consistent BMP verification for each visit to the USSC properties; and,
2. Consistent BMP verification for site visits to similar land use operations.

In some cases, previously developed District and USSC BMP plans were earlier generation versions focused on addressing specific issue areas (i.e., phosphorous control) while possibly not addressing additional areas of the District's potential concern (i.e., petroleum management, chemical usage). In addition, there may be supplementary areas of common good management practices, such as general site condition housekeeping, that are to be included in all BMP site verifications.

An example of the Standardized *BMP Site Verification Findings Summary* checklist is provided in **Appendix B,** as a supplement to any previously developed site-specific BMP Plan. The checklist is

intended to serve as an additional guide to prepare for BMP site verification by the District representatives. The checklist attempts to identify BMP verification aspects which will require field observations and verification aspects which will consist of records review.

The following matrix and equivalent points table provides a *quick-glance* summary of the BMPs established for the agricultural operation. Further discussion of each BMP and key points to assist with advance preparation of BMP site verification are provided in **Section 2.**

## Best Management Practices Checklist

## United States Sugar Corporation
## Palm Beach, Hendry, and Glades Counties
## State of Florida

| BMP Group/BMP Name | Site Verification | | Training & Communications |
|---|---|---|---|
| | Observations | Records | |
| **GENERAL** | | | |
| • *Education-Employee Training*<br>• *Overall Operations 'Housekeeping'* | ✓ | ✓ | ✓ |
| **EXOTIC VEGETATION CONTROL** | | | |
| Upland Exotic Vegetation Control<br>• *Control and eradicate to the extent practicable Category I and II exotic/invasive pest plants* | ✓ | | ✓ |
| Aquatic Exotic Vegetation Control<br>• *Control and eradicate to the extent practicable Class I and II prohibited aquatic plants* | ✓ | | ✓ |
| **EARTHWORK** | | | |
| No unpermitted earthwork, excluding ditch and routine maintenance. All non-routine maintenance requires contacting the District for approval. | ✓ | ✓ | ✓ |
| **PESTICIDE & HERBICIDE MANAGEMENT** | | | |
| Allowable agrochemical list and *No Application Period* | | ✓ | ✓ |
| Pesticide & Herbicide Management<br>• *Pesticide record keeping*<br>• *Read and understand label*<br>• *Pesticide storage* | | ✓ | ✓ |
| Pesticide & Herbicide Application Optimization<br>• *Integrated pest management*<br>• *Application timing*<br>• *Customized applications*<br>• *Maintain soil pH in optimum range*<br>• *Pesticide selection* | ✓ | | ✓ |
| Pesticide & Herbicide Handling and Placement<br>• *Reduce spray drift*<br>• *Equipment calibration and maintenance*<br>• *Pesticide spill management*<br>• *Pesticide application equipment wash water*<br>• *Prevent backflow to water sources*<br>• *Mixing and loading activity locations*<br>• *Pesticide container management*<br>• *Excess pesticide mixture*<br>• *Excess formulation (raw product)* | ✓ | | ✓ |
| **COPPER** | | | |
| Minimize Use of Copper | ✓ | ✓ | ✓ |
| **PETROLEUM & HAZARDOUS WASTE MANEGEMENT** | | | |
| Gasoline and Diesel Fuel Storage & Containment<br>• *Site equipment*<br>• *Fuel delivery* | ✓ | | ✓ |

| BMP Group/BMP Name | Site Verification | | Training & Communications |
|---|---|---|---|
| | Observations | Records | |
| Farm Equipment Cleaning and Maintenance<br>• *General equipment cleaning*<br>• *Solvents and degreasers*<br>• *Paint*<br>• *Used oil, coolant and lead-acid batteries* | ✓ | | ✓ |

## Nutrient (Phosphorus and Nitrogen) Load Reduction Best Management Practices
## BMP Description and Equivalent Points Reference Table

As provided in **Schedule 3.1**, a separate District-approved BMP Plan is required for each land use or crop for nutrient (phosphorus and nitrogen) load reduction. BMP Plans shall be implemented across the entire farm acreage (drainage area) with individual BMPs consistently implemented during the water year across each land use (crop) area, including temporary, rotational, and cover crops (e.g., corn, watermelons, vegetables) The BMP Plans shall include BMPs from the following categories: water management, nutrient control practices, and particulate matter and sediment controls. Nutrient control practices at a minimum shall include spill prevention, soil testing, and fertilizer application control. The table below provides an array of Nutrient BMPs available for selection by operators. However, operators may propose other Nutrient BMPs to meet the minimum required BMP equivalent points for review and approval by the District.

| BMP | PTS | DESCRIPTION |
|---|---|---|
| NUTRIENT CONTROL PRACTICES | | MINIMIZES THE MOVEMENT OF NUTRIENTS OFF-SITE BY ENSURING RECOMMENDED APPLICATION RATES AND CONTROLLED PLACEMENT OF APPLICATION |
| Nutrient Application Control | 2 ½ | Uniform and controlled boundary application of nutrients with a minimum 4' setback from canals with no overlapping application for each application method (e.g. banding at the root zone or side-dressing, pneumatic controlled-edge application such as AIRMAX); fertilization through low volume irrigation system applied at root zone (fertigation); controlled placement by fertilization under plastic near root. |
| Nutrient Spill Prevention | 2 ½ | Formal spill prevention protocols (storage, handling, transfer, and education/instruction). |
| Manage Successive Vegetable Planting to Minimize Phosphorous (P) | 2 ½ | Avoid successive planting of vegetables or other crops having high P needs to avoid P build up in soils. Includes successive planting with no successive P application. |
| Recommended Nutrient Application based on Plant Tissue Analysis | 2 ½<br><br>5 | Avoid excess application of P by determining plant nutrient requirements for adjustments during next growing season (crop specific).<br><br>Pastures with Bahiagrass – Plant tissue analysis along with soil test is required to make nutrient application recommendation. |
| Recommended Nutrient Application based on Soil Testing | 5 | Avoid excess nutrient application by determining P requirements of soil and follow standard recommendations for application rates (crop specific). |
| Split Nutrient Application | 5 | More efficient plant uptake of P by applying small portions of total recommended P at various times during the growing season. Not to exceed total recommendation based on soil test. |
| Slow Release P Fertilizer | 5 | Avoid flushing excess P from soil by using specially treated fertilizer that releases P to the plant over time. |

| | | |
|---|---|---|
| Reduce P Fertilization | 5 | Reduce the P application rate by at least 30% below standard recommendations based on soil tests and development of site – specific (optimized) recommendations or application methods. Provide basis for reduction credit. |
| No Nutrients Imported Via Direct Land Application | 20 | No Application of P, in any form, to the soil for amendments or plant nutrients. (Native and Semi-improved Range can claim this BMP and still apply fertilizer at maintenance, or less than optimum production levels, as a grass supplement every 6-8 years.) |
| No Nutrients Imported Indirectly Through Cattle Feed | 15 | No P import to the basin through cattle feed (note: only native range can use mineral supplements or molasses and still meet this BMP) |
| Nutrient Management Plan | 5 - 25 | Managing the amount, source, placement, form, and timing of the application of nutrients on lands with cattle operations. See Rule 40E-63.402 (2) |

| BMP | PTS | DESCRIPTION |
|---|---|---|
| **WATER MANAGEMENT PRACTICES** | | MINIMIZES THE QUANTITY OF OFF-SITE DISCHARGES WHICH CARRY NUTRIENTS DOWNSTREAM |
| ½ Inch Detained<br>1 Inch Detained | 5<br>10 | Delayed discharge (based on measuring daily rain events using a rain gage). |
| Improvements to Water Management System Infrastructure to Further Increase Water Quality Treatment by Delayed or Minimized Discharge | 5 | Recirculation of water inside farm boundaries to improve WQ prior to off-site discharge, includes: fallow field flood water with no direct discharge (instead allow to "drain" via evapotranspiration, seepage, use as irrigation water); or Increasing water detention using properly constructed canal berms. |
| Low Volume Irrigation | 5 | Use of low volume irrigation methods, e.g. drip irrigation, microjet irrigation. |
| Approved and Operational Surface Water Reservoir (Fully Certified)* | 20 | Properly permitted, constructed and maintained storage system meeting specified Environmental Resource Permit (ERP) Basis of Review criteria (version in effect at the time of permitting or in effect at the time of permit modification for modified systems). |
| Temporary Holding Pond | 15 | Temporary agricultural activities (as described in Chapter 40E-400, FAC.) with a properly constructed and permitted temporary holding pond. |
| Overland Sheet Flow Over Entire Property | 15 | No drainage improvements made to property so that property drains through overland sheet flow, or drainage improvements such as ditches have been removed to restore overland sheet flow drainage to the property. |
| No Point Discharge of Surface Water | 15 | Voluntarily disabling of drainage or implementation of other permanent means to prevent point discharge. |
| Tailwater Recovery System | 10 | A planned irrigation system in which facilities have been installed and the system is operated to collect, store, and transport irrigation tailwater and/or rainfall runoff that would have been discharged offsite without the system. |
| Precision Irrigation Scheduling | 10 | Combination of soil-moisture measuring equipment, specialized irrigation decision tools (e.g. computer software), and/or remote sensing tools to ascertain real-time crop needs to maximize irrigation system performance and to develop precise irrigation scheduling (time, location and amount). |

*Surface water reservoir certification refers to a construction completion certification by a Florida licensed Professional Engineer as required in Chapter 40E-4, F.A.C., using Form 0881A for projects permitted after October 3, 1995, and Form 0881B for projects permitted prior to October 3, 1995, or the current certification requirements of Chapter 40E-4, F.A.C. (except where not required by existing permits).

| BMP | PTS | DESCRIPTION |
|---|---|---|
| PARTICULATE MATTER AND SEDIMENT CONTROLS | | MINIMIZES THE MOVEMENT OF P, IN PARTICULATE MATTER AND SEDIMENTS, OFF-SITE BY CONTROLLING THE AMOUNT OF ERODED SOIL AND PLANT MATTER IN DISCHARGE |
| Any 2<br>Any 4<br>Any 6<br>Any 8 | 2 ½<br>5<br>10<br>15 | • erosion control by leveling fields<br>• reduce soil erosion using grassed swales and field ditch connections to laterals<br>• minimize sediment transport with slow velocity in main canal near discharge structure<br>• minimize sediment transport into canals by constructing ditch bank berms<br>• minimize sediment build-up through a canal cleaning program<br>• reduce sediments transported offsite by using field ditch drainage sumps<br>• minimize sediment transport with slow field ditch drainage near pumps/structure<br>• reduce sediments transported offsite by maintaining a sediment sump/trap upstream of drainage structure<br>• reduce sediment transport through the use of grassed waterways<br>• reduce sediment transport through the use of filter strips or riparian buffers adjacent to waterways. No P is applied to these areas.<br>• reduce sediments transported offsite by raising culvert bottoms above all ditch bottoms to minimize sediment transport<br>• reduce sediments transported offsite by stabilizing soil through infrastructure improvements at canal/ditch intersections (e.g. flexible plastic pipe, polymer treatment)<br>• maintain sustainable forage growth on pasture to reduce soil erosion/range seedings<br>• reduce soil erosion with constructed ditch bank stabilization<br>• reduce soil erosion with cover crops (not fertilized)<br>• maintain vegetative cover in upland areas to reduce soil erosion<br>• reduce soil erosion with vegetation on ditch banks<br>• minimize P from plants by aquatic weed control (P source) at main discharge locations<br>• reduce debris and aquatic plants (P source) leaving the site by using barriers at discharge locations |

| BMP | PTS | DESCRIPTION |
|---|---|---|
| PARTICULATE MATTER AND SEDIMENT CONTROLS FOR PASTURE MANAGEMENT | | MINIMIZES NUTRIENTS IN DISCHARGES THROUGH ON SITE OPERATION AND MANAGEMENT PRACTICES |
| | 2 ½ | • restricted placement of stored feed and feeders to reduce "hot spots" near drainage ditches |
| | 2 ½ | • restricted placement of cowpens to reduce "hot spots" near drainage ditches |
| | 2 ½ | • restricted placement of water to reduce "hot spots" near drainage ditches |
| | 2 ½ | • provide shade structures to prevent cattle in waterways |
| | 5 | • low cattle density (1 head/2 acres, non-irrigated pasture) |
| | 10 | • restrict cattle from waterways through fencing of canals in a manner that protects water quality |

# 2.0 BMP PLAN ELEMENTS AND SITE VERIFICATION GUIDELINES

## 2.1 GENERAL

### 2.1.1 Education - Employee Training

The singularly most important part of a BMP plan is the communication, education, and training of employees who will be responsible for its continual implementation on a daily basis.

In the event that obvious and excessive impacts are visibly detected during periodic site visits conducted by the District, a more comprehensive site-specific sampling plan that would depend on the magnitude of the impact should be developed under the direction of the District and applicable regulatory agencies. Many BMPs are good common sense practices which ultimately can produce a cost savings to the site operations, as well as, proactively preventing adverse water quality impacts. An integral part of the employee training should include an overview of the reasons for implementing BMPs as described earlier.

Implementation requirements include:

- Proper training of field operators responsible for handling, loading, and operating fertilizer and chemical application machinery and proper maintenance of field equipment can minimize the potential for misapplication of agriculture related chemicals.
- Training sessions can be formal or informal.
  - Once per year group meetings should be conducted to cover all the BMP topics: overall good housekeeping, water management, fertilizer (nutrient) controls, chemical handing and application, fuel, and equipment maintenance.
  - Frequent (weekly or bi-weekly) reminder sessions keep a more continual message with staff. Frequent meetings can be informal "start-of-day" 15-minute reminders with a different reminder topic referenced each session.
- The transfer of the information received during the required continuing education (such as spray applicator licensing) to the individual chemical application staff is essential.
- A standardized checklist of discussion points could be developed and utilized to ensure all staff are aware of the importance of proper handling and application of fertilizers and chemicals.
- Special efforts should be taken to ensure that non-English speaking field personnel understand proper handling, loading, and operating techniques.
- Record keeping of employee BMP training/communications can include maintaining an Employee Training Checklist such as example provided.

### 2.1.2 Good Housekeeping

Property infrastructure should be kept in an overall good and repaired condition. Any solid waste, trash and/or discarded equipment should be stored in appropriate areas pending offsite disposal. Equipment and facilities should be kept in a relatively neat and orderly fashion. Fence lines, gates, and signage should be kept in good and repaired condition.

Implementation requirements include:

- BMP implementation is verified by visual observations.

## 2.2 WATER MANAGEMENT

2.2.1 Minimize Property Over Drainage and Maximize Irrigation Efficiency

Potential movement of water quality constituents originating from fertilizers and agrochemicals is substantially related to irrigation and drainage water management. Irrigation mostly affects the movement of water soluble agrochemicals while drainage mostly affects the movement of chemicals absorbed on soil particles. The primary management objective is to minimize the over drainage of the property by the active control of the site water table.

Implementation requirements include:

- Site verification will include meetings with operation managers to understand property water management approach and visual observation of structures and tools used to assist with water management decisions. Observations will include:
  - Real-time weather monitoring to proactive manage or limit drainage and/or irrigation events.
  - Water management achieved through water control structures such as designed culvert sizes and openings or culverts with flashboard risers.
  - For off-site discharge, on/off control elevations shall be established to initiate and stop draining or pumping. USSC currently has on/off controls on structures that discharge into offsite canals.
  - Partition property into hydrologic blocks to allow for internal water management (as opposed to one location to downstream point) whenever possible.
  - Installed water level indicators (e.g., float wells, staff gauges) can provide a visual indicator of actual water table levels. U.S. Sugar has a water table monitoring system that is in compliance.
  - Daily operation and maintenance must be properly recorded on field logs ensuring that on/off control elevations are met for pumps discharging off site and to surface water impoundments if these elevations are established by the surface water or environmental resource permits. Field log data shall include water table elevations at pump start and stop times, and pump rpms. Daily rainfall data shall be collected at representative locations within the farm to ensure that the on/off control elevations are current with the runoff detention requirements established by the permit.
  - Site verification will include meetings with Tenant/Lessee to review property water management approach, records, and field observation of structures and tools used to assist with water management decisions.

## 2.3 NUTRIENT MANAGEMENT (FERTILIZING)

At a minimum, the nutrient management BMPs in the District-approved plan shall include spill prevention, soil testing, and fertilizer application control specific to phosphorus and nitrogen.

Phosphorus fertilizer shall be applied at the root zone. Phosphorus application later in the growing season not applied at the root zone will require justification.

### 2.3.1 Nutrient Application Optimization

Fertilizers can be a significant source of adverse downstream water quality impacts contributing to algal blooms and stimulate growth of noxious plants in receiving water bodies. A comprehensive approach to optimize the amount of nutrients needed for proper vegetation health and productivity while at the same time having a proactive consciousness to minimize the risk to inadvertent potential off-site transport of nutrients is essential. Listed below are the various nutrient application BMP optimization efforts that can be identified in the site-specific BMP Plan:

- Maintain soil pH in optimum range
- Utilize Organic material soil amendments that have water quality benefits
- Appropriate use of other nutrient sources (i.e. non-commercially produced sludge, chicken manure, mill mud, wood chips, bagasse, molasses, etc) and formulations to prevent increased phosphorous and nitrogen loads in discharges off site
- Split fertilizer applications

Implementation requirements include:

- Site verification will include discussion with operation managers to understand the agricultural operation nutrient application optimization approach.
- Records must be available and reviewed to reinforce the implementation tools used to assist with nutrient management decisions. Records shall identify:
  - Areas tested
  - Testing methodology (soil)
  - Test results
  - Application recommendations
  - Application methods (fertigation, soil broadcast, topical spray, aerial, etc.)
  - Actual mixture/application rate applied
- Where actual fertilizer formula or quantity varies from soil test recommendations, notation shall be made to explain the logic for the variations.

All nutrient sampling conducted to insure compliance with the Nutrient Management Plan will be conducted by USSC.

Select soil and groundwater samples will be collected and analyzed for phosphorous and/or total nitrogen. The total nitrogen data will monitored over a 2 to 3 year period and be used to develop a baseline and determine what the background concentrations of total nitrogen are for the USSC properties. Based on the background levels as determined by this sampling, if total nitrogen levels increase over the establish background levels, then USSC and the District will review the application of nitrogen based nutrients.

### 2.3.2 Nutrient Handling and Placement

Fertilizers can be a significant source of adverse downstream water quality impacts contributing to algal blooms and stimulate growth of noxious plants in receiving water bodies. Proper storage of fertilizers is essential to prevent inadvertent transport of these materials to off-site waterways. Formal practices and protocols shall be established as to the handling and placement of fertilizer, storage and disposal of fertilizer containers, and fertilizer transfer on-site. Fertilizer spills shall be cleaned-up immediately. Listed below are the nutrient handling and placement BMPs for the USSC properties.

- Phosphorus fertilizer shall be applied at the root zone. Phosphorus application not applied at the root zone will require justification.
- Other fertilizers are applied by fertigation, banded, broadcast, topical spray, aerial, etc.
- Nutrients are to be applied only when necessary
- Proper Fertilizer storage (see below)
- Equipment calibration and maintenance must be timely and documented
- Appropriate Fertilizer loading sites (see below)
- Apply materials to target areas without overlapping application of fertilizer
- Avoid high leaching-potential situations
- Promptly recover spilled fertilizer
- Use backflow prevention devices
- Alternate loading operation sites

Implementation requirements include:

- Site verification will include discussion with operation managers to understand the agricultural operation nutrient handling and placement strategies. In addition, site inspections will be made to observe the following items:
  - Always store fertilizer in an area that is protected from rainfall and away from nearby ground and surface water and separately from solvents, fuels, and pesticides since many fertilizers are oxidants and can accelerate a fire.
  - Storage of dry bulk materials on a concrete or asphalt pad may be acceptable if the pad is adequately protected from rainfall and from water flowing across the pad.
  - Permanent liquid fertilizer tanks stored on impermeable surface curbed surfaces, and within secondary containment structures.
  - Bulk fertilizer transports and field loading located away from canal and ditches. Diligent care with plastic tarps and/or immediate clean-up (shovel) of dry material has been

shown to be effective.

- Random locations of field load fertilizer operations on site to prevent a buildup of nutrients in one location.
- Clean up spilled material immediately.
- Collected material may be applied as fertilizer.
- Collect dry material by shovel, vacuum, loader or wash down area to a containment basin specially designed to permit recovery and application of the wash water to the crop.
- Discharge of cleanup wash water to ditches or canals is strictly prohibited.

## 2.4 EXOTIC VEGETATION CONTROL

### 2.4.1 Upland Exotic Vegetation Control

The intent of this BMP is to control and eradicate to the extent practical, and prevent the infestation of Category I and Category II exotic/invasive pest plants and to minimize impacts on water quality. In particular for water quality, chemical control of mature aquatic vegetation may result in large amounts of labile particulate phosphorus levels from farms. Timing and selection of methods for aquatic vegetation control shall prevent generation of particulate phosphorus due to inappropriate aquatic vegetation control methods and disposal. Glyphosate based herbicide Rodeo may be spot applied on the aquatic vegetation, followed by removal of the dead vegetation. Excessive amounts of Rodeo application are not allowed.

Multiple control methods may employed to implement this BMP including:

- Physical control
- Biological control
- Chemical control

Implementation requirements include:

- Site verification will include discussion with operation managers to understand the agricultural operation upland exotic vegetation management approach.
- Site manager will maintain a simple map showing the general areas where exotic/invasive vegetation eradication activities are conducted on an annual basis.
- Visual observations will be conducted to verify exotic/invasive vegetation is being reasonably controlled.

### 2.4.2 Aquatic Exotic Vegetation Control

The intent of this BMP is to control and eradicate to the extent practicable, and prevent the infestation of Class I and Class II prohibited aquatic plants. Multiple control methods may be employed to implement this BMP including:

- Physical control
- Biological control
- Chemical control

Implementation requirements include:

- Site verification will include discussion with operation managers to understand the agricultural operation upland aquatic exotic vegetation management approach.
- Site manager will maintain a simple map showing the general areas where exotic/invasive aquatic vegetation eradication activities are conducted on an as need basis.
- Visual observations will be conducted to verify no or a minimal amount of prohibited aquatic plants are present.

## 2.5 EROSION/SEDIMENT CONTROL

It is estimated that approximately 50-75% of the nutrient and chemicals discharged in stormwater runoff are associated with particulates (muck particles, dirt, dust, plant vegetation, etc.). The minimization and prevention of erosion and particulate/muck/dirt transport from blocks, fields, ditches, and canals to drainage pump stations or discharge culverts can have a substantial positive effect in preventing the off-site transport of nutrients and chemicals that can cause adverse downstream water quality problems.

Implementation requirements include:

- Records will be kept identifying description and location of the erosion/sediment control BMPs and all the maintenance and operations conducted through the year to sustain the BMP's effectiveness.

A minimum of four (4) erosion/sediment control BMPs from the equivalent points reference table above will be implemented and maintained consistently throughout the site at all times.

## 2.6 PESTICIDE AND HERBICIDE MANAGEMENT

### 2.6.1 Allowable Agrochemical List and No Application Period

The presence of agrochemicals (particularly persistent pesticides) should be minimized so as to not cause adverse impacts to anticipated flora and fauna. As current landowner, the District must ensure that all application of agrochemicals on-site is conducted in accordance with all applicable laws and regulations.

The following **Chemical Application Restrictions** matrix must be followed. This matrix is based on the U.S. Fish and Wildlife Service's "Derivation of No Application Periods". A copy of the document is included in **Appendix A**. The agrochemical list should be reviewed annually for the effectiveness of the applied chemical, changes in regulations regarding specific pesticides, and changes in the management and use of the pesticides must be followed. The experimental use of pesticides and herbicides is prohibited. All agrochemicals must be applied in strict accordance to label instructions and restrictions.

Additionally, USSC will provide the District a quarterly report of agrochemicals in use on the sugar cane production parcels.

### 2.6.1.1 CHEMICAL APPLICATION RESTRICTIONS

The following are lists of chemicals provided by USSC that are used for sugar cane cultivation and vegetable farming. The following agrochemicals have the potential to be used subject to the restrictions noted below. *Chemicals not specifically listed below may be evaluated on a case by case basis and added to the appropriate category below. For chemicals with no analytical test method and identified as a potential environmental risk, the chemical manufacturer will be contacted to obtain the chemical standard. The District will then contract a Florida based laboratory to develop an analytical test method for the chemicals.

**SUGAR CANE**

A. May be used at any time but only according to label restrictions:

1,2-propylene glycol
2,4-Dichlorophenoxyacetic Acid (*Unison)*
Ethylbenzene
Glyphosate (*Roundup, Touchdown)*
Magnesium Sulfate (*Dyna*)
Paraffin based mineral oil and/or XXX (*Crop Oil*)
Petroleum solvent
Phosphatidycholine (*L1700*)
Polyacrylamide
Hydroxy carboxylic acid and/or Polyacrylic acid (*Quest*)
Polyalkyleneoxide (*Kinetic*)
Nonionic Colloidal water (*Strike Zone*)
Quartz
Sodium salt (*Asulam*)
Urea (*Urea*)
Surfactant
Xylene
Water and nonionic emulsifiers (*Foambuster*)
Plant nutrients (*Tracite*)

B. Must be discontinued at least 3 months prior to flooding:

2-Butoxyethanol (*Dynamic*)
Azoxystrobin (*Azoxystrobin*)
Methanol (*Asulox)*
Mesotrione (Callisto)
Mepiquat (*Reign*)

C. Must be discontinued at least 6 months prior to flooding:

Ethoprop (*Mocap*)
Halosulfuron-methyl (*Sempra, Yukon*)
Propylene Glycol and/or Chlorothalonil (*Quadris*)
Pyraclostrobin and/or Naphthalene (*Headline*)
Phorate (*Thimet*)
Pendimethalin
Pyrimethanil (*Vision*)
Propylene Glycol and/or Carbofuran (*Furadan*)
Diphacinone (*Ramikk Brown*)

D. Must be discontinued at least 1 year prior to flooding:

Atrazine (*Atrazine*)
Clomazone (*Command*)
Ethylene dichloride (*Prowl*)
Metconazole (*Caramba*)
Esfenvalerate (*Asana*)

E. Must be discontinued at least 2 years prior to flooding:

Ametryn (*Evik*)
Trifloxysulfuron-sodium (*Envoke*)
Cyproconazole (*Cyproconazole*)

Fluquinconazole
(*Jockey*)

F. Not allowed:
USSC does not apply any chemicals to the sugar cane that are not allowed.

****VEGETABLES – Beans, Watermelon, and Sweet Corn**

A. May be used at any time but only according to label restrictions:

Azadirachtin (*Aza-Direct & Azatin XL*)

Bacillus thuringiensis subspecies (*Agree WG, Biobit HP, Crymax, Deliver, DiPel DF, Javelin WG, Lepinox, and Xentari DF*)

Carfentrazone (*Aim*)
Copper hydroxide (*Mankocide 61DF, Copper 70W, Champ DP, and Basic Copper 53*)
EPTC (*Eptam*)

Glyphosate (*Roundup, Durango, Touchdown, and Glyphomax*)

Sulfur (*Kumulus DF, Micro Sulf, Micronized Gold, Microthiol Disperss, Sulfur 90W, Thiolux Jet, and Wettable Sulfur*)
Neem Oil (*Trilogy*)
Hydrogen dioxide (*Oxidate*)

Potassium phosphite (*Fosphite, Prophyt, and Topaz*)

Bacillus subtillus strain QST 713 (*Serenade ASO, Serenade Max, Sonata, and Rhapsody*)
Beauveria bassiana (*BotaniGard 22WP*)

Pelargonic Acid (*Scythe*)

B. Must be discontinued at least 3 months prior to flooding:

Buprofezin (*Courier 40SC*)

Dimethoate (*Dimethoate 4EC)*

Oxydemeton-methyl (*MSR Spray Concentrate*)

Pyrethrin (*Pyrellin EC*)
Pyriproxyfen (*Esteem Ant Bait and Knack IGR*)

Spinosad (*Entrust and SpinTor 2SC*)
Trifloxystrobin (*Flint 50WP*)
Azoxystrobin (*Amistar 80DF, Heritage, and Quadris*)
S-Methoprene (*Extinguish*)

C. Must be discontinued at least 6 months prior to flooding:

Bentazon (*Basagran*)

Carbaryl (*Sevin 80S*)

Cyfluthrin (*Baythroid 2*)
Cyhalothrin (*Proaxis Insecticide*)

Dicofol (*Kelthane 50WSP*)

Ethoprop (*Mocap 15G*)

Halosulfuron-methyl (*Sandea*)
Imidacloprid (*Admire 2F*)

Methyl parathion (Penncap-M)
Permethrin (*Ambush 25W and Pounce 25W*)
Phorate (*Thimet 20G*)
Pendimethalin (*Prowl*)

| | | |
|---|---|---|
| Diazinon (*Diazinon 4E*) | Methomyl (*Lannate LV and Lannate SP*) | Chlorothalonil (*Applause 720, Bravo, Choloronil 720, Echo, Equus, and Ridomil Gold Bravo*) |
| Pyraclostrobin (*Cabrio 20EG*) | | |

D. Must be discontinued at least 1 year prior to flooding:

| | | |
|---|---|---|
| Dichloropropene (*Telone II*) | Esfenvalerate (*Asana XL*) | S-Metolachlor (*Dual Magnum*) |
| Endosulfan (*Endosulfan 3EC*) | Myclobutanil (*Nova 40W*) | |

E. Must be discontinued at least 2 years prior to flooding:

| | | |
|---|---|---|
| Bifenthrin (*Capture 2EC*) | Mefenoxam (*Ridomil Gold 4EC, Ridomil Gold SL, and Ultra Flourish*) | Boscalid (*Pristine 38WG*) |
| Cyromazine (*Trigard*) | Methoxyfenozide (*Intrepid 2F*) | |

F. Not allowed:

Paraquat (*Gramoxone Inteon*)

G. Restricted Pending Further Evaluation (District is currently evaluating the long term affects of the chemical application):

| | |
|---|---|
| Thiophanate-methyl (*Topsin M WSB and Thiophanate-methyl*) | Fludioxonil (*Maxim 4FS*) |

* Any pesticide, regardless of the above categories, that is shown to be present in the soil, at or above the site specific cleanup target levels, may require additional restrictions, including reductions in use or the complete elimination of its use. These situations will be evaluated on a case-by-case basis.

### 2.6.2 Copper Compounds

Copper is an essential element required for the successful and economical growing of sugar cane. It is typically applied to the soil surface as a granular additive to fertilizer. The Phase II ESA identified 208, 40-acre grids, or 8,320-acres with elevated copper levels in the cultivated fields above the Service provisional Snail Kite threshold level of 85 mg/kg. Based on the Phase II findings on elevated copper concentrations, no additional copper should be applied on the 8,320-acres. In the event that copper is not bio-available, as verified by additional soil testing, USSC will work with the District to develop a copper nutrient application that will benefit the production of sugar cane and limit the residual copper levels in the soils as much as practical. **Table 1** displays the field identification numbers for copper concentrations above 85 mg/kg.

URS reviewed the current rates of application and amounts of copper based nutrients applied on the USSC property. Utilizing this information, a mass balance equation was developed in order to determine if additional acreage would be impacted by copper based on the current application activities. URS

determined that copper could potentially increase in the soils, per application, at a rate of 2.08 mg/kg per acre. Based on this application rate, and the fact that the property is leased through 2016, twelve, 40-acre grids have the potential to accumulate copper above the Service's interim value for copper of 85 mg/kg during the lease agreement.

During this interim use period, soil samples should be collected for previous sampled areas within the cultivated fields to confirm that residual copper concentrations are not accumulating in the soil. In the event that elevated copper concentrations are detected, then the tenant must implement measures to prevent further increases. A subsequent determination of a 20 percent or greater increase, based on the methodology in **Section 3.0**, below, will constitute a breach of the tenant's lease.

If the sampling conducted in the subsequent year again indicates elevated copper above the 85 mg/kg the District and USSC will work together to develop a copper application that will limit the residual copper levels in the soils as much as practical.

### 2.6.3 Pesticide and Herbicide Management

Florida pesticide law requires certified applicators to keep records of all restricted use pesticides (RUP). The federal worker protection standard (WPS) requires employers to inform employees of all pesticides applied.

- Pesticide record keeping
- Read and understand label
- Pesticide storage

Implementation requirements include:

- Site verification will include discussion with operation managers to understand the agricultural operation pesticide management approach. In addition, example records should be available and reviewed to reinforce the implementation tools used to assist with pesticide management decisions.
- Required records must be made available upon request to FDACS, USDA authorized representatives, and licensed health care professionals.
- Proper pesticide storage is important for (a) personnel safety and (b) as a preventative spill measure. Visual observations will ensure the following procedures are in place:
  - Storage structures should keep pesticides secure (locked) and isolated from the surrounding environment.
  - Pesticides need to be stored in their original containers.
  - Pesticides should not be stored near burning material, hot work (welding, grinding), or in shop area.
  - No smoking is allowed in pesticide storage areas.
  - Store personal protective equipment where it is easily accessible in the event of an emergency, but not in the pesticide storage area.

- Maintain a current written inventory and the Material Safety Data Sheets (MSDS) for the chemicals used in the operation. Do not store this information in the pesticide storage room itself.
- Large chemical quantities should not be stored for long periods of time. Adopt the "first in – first out" principle, using the oldest products first to ensure that the product shelf life does not expire.
- Containers need to be arranged so that labels are clearly visible; make sure labels are legible; refasten loose labels.
- Dry bags should be raised on plastic pallets to ensure that they do not get wet. Do not store liquid material above dry materials.
- Flammable pesticides should be stored separately from non-flammable pesticides.
- Segregated herbicides, insecticides, and fungicides to prevent cross-contamination and minimize potential for misapplication.
- Shelving should be made of plastic or reinforced metal. Metal shelving painted (unless stainless steel) to avoid corrosion. No wood shelving because it may absorb spilled pesticide materials.

2.6.4 Pesticide and Herbicide Application Optimization

Management of the types and amounts of pesticides applied in or on the soil or on plant foliage is important so the exact problem identified is being addressed and minimize the impacts to surface and ground water. Even pesticides designed for rapid breakdown in the environment can persist for years if present in high concentrations. Worst-case results can be contamination of drinking water; fish kills and other impacts to nontarget organisms; and administrative fines and legal remedies. The most obvious method to reduce the risk from pesticides is to use them only when necessary.

- Integrated pest management
- Application timing
- Customized applications
- Maintain soil pH in optimum range
- Pesticide selection

Implementation requirements include:

- Integrated Pest Management (IPM) is a philosophy of management pests that aims to reduce farm expenses, conserve energy, and protect the environment. IPM is a broad, interdisciplinary approach using a variety of methods to systematically control pests which adversely affect people and agriculture. Basic steps include:

  1) Identify key pests/vegetation and beneficial organisms and the factors affecting their populations.

2) Select preventative cultural practices to minimize pests/vegetation and enhance biological controls (e.g. soil prep, crop rotation, resistant varieties, modified irrigation dates, cover crops, augmenting beneficials, etc.).

3) Use trained 'scouts' to monitor pest/vegetation populations to determine if or when an emergency control tactic might be needed.

4) Predict economic losses and risks so that the cost of various treatments can be compared to the potential losses to be incurred.

5) Decide the best course and carry out the corrective actions.

6) Continue to monitor pest/vegetation populations to evaluate results of the decision and the effectiveness of correction actions. Use this information when making similar decisions in the future.

USSC currently has an IPM program in place and the policy has been implemented.

- Always follow pesticide/herbicide label instructions. However, pesticide and herbicide recommendations can change frequently. Registrations may be canceled or added at any time. Recommended rates or products that were valid at the start of the growing season may change. For pesticides/herbicides that are not generally used on the property, check with the local Extension agent for the most recent recommendations, or access the computer based Florida Agriculture Information Retrieval System (FAIRS).
- Base pesticide/herbicide selection on characteristics such as soil, geology, depth to water table, proximity to surface water, topography and climate, so that the potential for pollution of surface water and ground water is minimized.
- Consider the effect of a pesticide/herbicide application on any beneficial organism that may be present.

Federal and State Chemical Hazard Information contacts and telephone numbers are given in **Appendix C.**

2.6.5 Pesticide and Herbicide Handling and Placement

Routine maintenance, good repair, and calibration of pesticide application equipment will minimize the unintended over (or under) application of chemicals. Correct measurement will keep the operation in compliance with the label, reduce risks to applicators, operation staff, and the environment, and may save money. Locate mixing and loading operations well away from groundwater wells and surface water ditches, laterals and canals where runoff may carry inadvertently transport spilled chemicals. Proper cleaning and disposal of "empty" pesticide containers is just as important as proper application of the chemicals. Listed below are the various required pesticide handling and placement BMPs.

- Reduce spray drift
- Equipment calibration & maintenance
- Pesticide spill management

- Pesticide application equipment wash water
- Prevent backflow to water sources
- Mixing and loading activity locations
- Pesticide container management
- Excess pesticide mixture
- Excess formulation (raw product)

Implementation requirements include:

- Site verification will include discussion with operation managers to understand the agricultural operation pesticide handling and placement approach. In addition site inspections will be made to observe the following items:

*Permanent Locations*

- A permanently located mixing and loading facility should be designed to provide a place where high-potential spill activities can be performed over an impermeable surface (such as sealed concrete) for easy cleaning and permits the recovery of spilled materials.
- USSC currently does not have a permanent mixing and loading facility. Should USSC elect to construct a permanent mixing and loading facility, the facility must be in compliance with IFAS standards.
- The mix/load facility should be located close to the chemical storage building.
- Permanent areas should have a roof with a substantial overhang on all sides to protect against windblown rainfall.

*Temporary Locations*

- Pesticide loading activities should be conducted at random locations in the field lessens the chance of buildup of spilled material at any one place. This will reduce the chance of adversely affecting the natural organisms which biologically degrade pesticides.

*Nurse Tanks*

- Use of clean water only in nurse tanks transported to the field to fill the sprayer is encouraged. Never introduce pesticides into a nurse tank.
- Inject pesticides into the transfer line or add them to the spray rig during filling.
- Pesticides may be introduced by conventional pouring, or pumped by a closed system, depending on label requirements and container type.
- Always use a check valve to prevent backflow of pesticides into the clean mix water.

*Container Disposal*

- No bags, boxes, and Group I pesticide containers may be burned on-site.

- Keep the rinsed containers in a clean area, out of the weather, or in large plastic bags for disposal or recycling to protect the containers from collecting rainwater.

URS has reviewed the USSC portable mix-load operations and the system is in compliance with IFAS.

## 2.7 COPPER

Copper has several necessary and beneficial uses within an active agricultural operation including use as fungicides and soil nutrients, and as a canal and ditch aquatic vegetation management tool. Recently, the topic of residual levels of copper in soils of tracts which are intended for conversion to water reservoir areas has had renewed discussion. The District has reported that some analyses and data extrapolations suggest that elevated copper levels have the potential to move through the aquatic food chain and bio-accumulate in the tissue of apple snails. The apple snail is the primary diet of the Snail Kite. It has been reported to the District that it is theorized that elevated copper levels can potentially result in underweight Snail Kite chicks. Since the Snail Kite is listed as an Endangered Species, and the potential for this bird to forage in the future reservoirs, the minimization of the risk for elevated copper levels is desired by the District. Extreme diligence is needed to minimize the amount of copper applied.

Implementation requirements include:

- Site verification will include discussion with operation managers to understand the agricultural operation copper application (if any) optimization approach.
- Records should be available and reviewed to reinforce the implementation tools used to assist with copper management decisions. Records should identify:
  - Locations (e.g. cultivated field, ditch and canal) where copper was applied
  - Time of application
  - Application mixture/application rate applied

## 2.8 PETROLEUM AND HAZARDOUS WASTE MANAGEMENT

### 2.8.1 Gasoline and Diesel Fuel Storage and Containment

The first line of management is to minimize the possibility of inadvertent petroleum product discharge and the need for clean-up and disposal. Stationary fuel storage tanks should be in compliance with FDEP storage tank regulations (Chapter 62-761, FAC for underground storage tanks (USTs) and Chapter 62-762, FAC for aboveground storage tanks (ASTs)). In the event of a discharge or spill, emergency response and chemical hazard information and telephone numbers are given in **Appendix C**.

Implementation requirements include:

- Site verification will include discussion with operation managers to understand the agricultural operation petroleum storage and containment management approach. In addition site inspections will be made to observe the following items:

*Site Equipment*

- Placement of permanent fuel pumps on concrete or asphalt surfaces away from groundwater wells and surface water ditches, laterals and canals where runoff may carry inadvertently

transport spilled product.

- ASTs with volumes of 550 gallons or larger must be registered and located within secondary containment systems unless of double-wall construction.
- Visual inspections should be conducted on a least a monthly basis of the storage tanks and hoses to ensure the system is free from leakage from tank seams, connections, and fittings.

*Fuel delivery*

- Require delivery driver to report to facility manager upon arrival prior to loading or unloading.
- Agricultural operation employee should verify available tank capacity prior to product transfer.
- Agricultural operation employee should remain onsite during delivery to monitor product transfer.
- Clean-up equipment and/or materials should be located nearby if needed for immediate spill containment and clean up (boom, granular absorbent, etc.).

2.8.2 Equipment Cleaning and Maintenance

(Does not include pesticide application equipment) The same level of preventive measures should be taken to minimize adverse sediment/water quality impacts from the cleaning of equipment as with fertilizer and agrochemical handling and application. Other than preventative maintenance and emergency repair of machinery and equipment conducted on site, maintenance should be conducted in a centralized area a safe distance from the closest well-head or surface water ditch, lateral, and canal. It is recommended that equipment maintenance be limited to minor or emergency repairs. Activities such as engine or mechanical repair, which generate a waste or waste by-product, are not recommended to be conducted in the fields but at designated maintenance areas.

Implementation requirements include:

- Site verification will include discussion with operation managers to understand the agricultural operation hazardous waste management approach. In addition, site inspections will be made to observe the following items:

*General Equipment Maintenance*

- Where possible, it is recommended to use compressed air to remove clippings and dust from machinery. This is less harmful to the equipment's hydraulic seals, eliminates wash water, and produces dry material that is easy to handle.
- For regular field equipment wash down (other than pesticide application equipment, and with not degreaser or solvents), allow wash water to flow to a grassed retention area, swale, or sod fields as irrigation water. Do not allow wash water to flow directly to surface water ditch, lateral, or canal.
- Minimize the use of detergents and use only biodegradable, non-phosphate type. The amount

of water used to clean equipment can be minimized by using spray nozzles that generate high pressure streams and low volumes.

- If equipment is to be intensively washed, conduct over a concrete or asphalt pad that allows the water to be collected. Wash water can contain soaps, fertilizer residues, solids, and lubricating oil residues. Collected wash water can be handled through a recycling system, treatment system, off-site disposal at an industrial wastewater treatment facility, or use the wash water for field irrigation.

*Solvents and Degreasers*

- It is the intention that all major repairs and maintenance activities that would potentially require the use of solvents and degreasers be conducted on-site at designated maintenance areas. In the event that such activities occur on-site, the operator will follow the guidelines below:
  - Whenever practical, replace solvent baths with recirculating aqueous washing units.
  - Soap and water or other aqueous cleaners are often as effective as solvent-based cleaners.
  - Store solvents and degreasers in lockable metal cabinets in an area away from ignition sources (e.g. welding areas, grinders) and provide adequate ventilation.
  - Always wear the appropriate protective personal equipment, especially eye protection, when working with or handling solvents.
  - Solvent wash basins that drain into recovery drums can be provided by private firms contracted to pick-up and recycle or properly dispose of the drum content.
  - Never mix used oil and other liquid material with the used solvents.
- Records must be maintained of pick-up and quantities disposed.

*Paint*

- The use of power sprayers for painting equipment on-site requires the appropriate precautions to be taken not to impact soil or groundwater. The painting of equipment with solvent based paint by power sprayers is prohibited and must be conducted off-site.
- Touch-up and manual painting may be conducted on a limited basis.
- Care should be taken not to spill material onto soil or into surface water bodies.

*Used Oil, Coolant, and Lead-Acid Batteries*

- Collect used oil and oil filters in separate marked containers and recycle.
- Oil filters should be drained and taken to the same place as the used oil, or to a hazardous waste collection site.
- Coolant/Antifreeze must be recycled or disposed as a hazardous waste. Do not mix used oil with used coolant or sludge from solvents.
- Lead-acid storage batteries are classified as hazardous wastes unless they are recycled.

Store batteries on an impervious surface and preferably under cover until delivery to an authorized recycling facility.

All used oil, coolant, and lead-acid batteries are stored in containers in accordance with FDEP rules until being transported offsite for disposal by a licensed contractor.

# 3.0 SAMPLING AND COMPLIANCE PLAN (SUGARCANE AREAS)

## 3.1 VERIFICATION SAMPLING

Cultivated area sampling will be conducted by the District on an annual basis. Soil samples shall be collected from the cultivated area at randomly selected locations based on the grid pattern and numbering system used in the Phase I/II ESA. The BMP annual sampling event will randomly select a number of those grids sampled during the Phase I/II ESA. Based on the Phase I/II ESA findings and review of the chemicals list provided by USSC, the sampling activities by the District will involve grids, which are identified by USSC as being fallow. The grids generally comprise of 40-acres fields. Within each field, at equally spaced locations, eight (8) close-composite discrete samples from the top 6-inches of the soil will be collected and combined into a single composite sample. The composite samples will then be analyzed for a number of parameters of concern.

The number of grids to be sampled are determined according to the *a priori* statistical procedure recommended by the United States Environmental Protection Agency (EPA, 1989, Section 6). This procedure is based on commonly used, well-established statistical hypothesis testing processes, in which, collected data during each year is compared to the baseline dataset in order to detect the presence of any statistically significant difference (EPA, 2000). For determination of the sample size, EPA (1989) suggests a null hypothesis that is equivalent to the condition, under which the baseline and subsequent datasets display statistically significant differences. Conversely, the alternative hypothesis corresponds to a condition, under which the baseline and subsequent datasets are devoid of any statistically significant difference. Each year, upon collection of one round of post-baseline samples, the compiled baseline and subsequent datasets are statistically compared to assess whether further investigations are warranted. The components of the proposed statistical process are described in the following sections.

### 3.1.1 Determining Number of Baseline Grids

EPA (1989, Section 6.3.2) provides a quantifiable measure for determining an adequate sample size. The sample size is driven by three factors: (a) the chosen decision errors, (b) the variability of the potential contaminants of concern, and (c) the desired resolution, *i.e.*, the difference between the baseline and subsequent datasets that needs to be detected at the chosen confidence. The resulting equation is

$$n = \frac{(z_{1-\alpha} + z_{1-\beta})^2 s^2}{\Delta^2}$$

where,

$n$ = number of grids to be sampled each year

$\alpha$ = the false positive rate, Type I error, or the significance (tolerable error for missing an actual difference between the baseline and subsequent datasets)

$1-\alpha$ = the confidence (probability of correctly identifying a significant change)

$\beta$ = the false negative rate, or Type II error (tolerable error for incorrectly declaring a difference between the baseline and subsequent datasets)

$1-\beta$ = the test power (probability of correctly identifying the absence of no difference)

$z_{1-\alpha}$, $z_{1-\beta}$= the confidence and power normal deviates

$s^2$ = standard deviation of parameter of concern

$\Delta$ = The minimum difference between the mean concentrations of the baseline and subsequent datasets to be detected at the chosen confidence

Samples collected at the selected grids during the Phase I/II ESA conducted on the USSC property by PSI in August and September 2008 shall be used as the baseline for comparison to future sampling results. Among parameters of concern, arsenic, copper and selenium have been analyzed extensively during Phase I/II ESA. The reported concentrations of these analytes based on composite samples from 40-acre sugarcane fields are used in order to compute their corresponding mean and standard deviation, as listed in Table 2. This table also displays the number of samples based on the chosen decision errors. In these calculations, the desired minimum difference is set as 20% of the computed mean concentrations. Among the parameters of concern, currently available baseline copper data indicate the highest sample size, which is selected to ensure the conservative nature of the proposed BMP annual sampling plan. This results in 119 grids to be randomly selected for baseline and sampling purposes as part of the BMP efforts, as highlighted in Table 2.

### 3.1.2 Baseline/Subsequent Datasets Statistical Comparisons

Annual BMP sampling will be conducted, at field locations with the same GPS coordinates measured during the initial sampling and at a time mutually agreed upon by the parties so as to minimize damage to field crops, to ensure consistency with the original Phase I/II ESA results. Upon completion of each annual BMP sampling round, the analytic results of parameters of concern will be compared to those compiled in the baseline and previous BMP datasets. For this purpose, a series of comprehensive statistical two-sample tests will be conducted. Pursuant to DON (2002), as listed on Table 3, two difference hypotheses will be assessed, including:

(a) Area-wide differences between the baseline and subsequent datasets: This hypothesis corresponds to a condition, under which the baseline concentrations are consistently different from the subsequent concentrations. Consequently, the statistical tests will be conducted through comparison of mean (parametric) and median (non-parametric) concentrations.

(b) Localized differences between the baseline and subsequent datasets: This hypothesis corresponds to a condition, under which only the elevated baseline and subsequent concentrations are different. Consequently, the statistical tests will be conducted through comparison of higher concentrations or exceedance ratios in each dataset.

The procedural aspects for the selection and implementation of the cited tests in Table 3 are described in details in DON (2002, Chapter 4). Appropriate statistical comparisons, including parametric t-tests, non-parametric Wilcoxon Rank Sum test, and non-parametric Slippage tests, will be conducted annually. Depending on the statistical characteristics of the subsequent datasets, additional test may be performed. In the case of detection of a statistically significant increase at 5% significance, when the increase in mean or median concentrations is greater than 20 percent, among subsequent measured concentrations with respect to the baseline concentrations, additional investigations and actions, as set forth below, will be pursued.

The specific objectives of additional investigations are: (a) to determine whether the detected increase in post-baseline concentrations are real, and not numeric artifacts caused by the variability of individual

samples results, and (b) if real, to determine whether the detected increases in post-baseline concentrations are due to practices by the tenant. For this purpose, additional investigations will be initiated, including a review of laboratory QA/QC results and information provided by the tenant concerning its chemical use practices during the period of interest. If increase in mean concentrations is attributed to few outlier samples among post-baseline data, locations associated with these outliers will be re-sampled to ensure the validity of the original results. The cost of additional investigations shall be the responsibility of the party requesting it.

If the District determines that a detected increase in mean or median concentrations in excess of 20% is a numeric artifact caused by the variability of individual samples, or attributed to historic conditions, no further action with regards to the tenant's lease will be pursued. On the other hand, if the increase in mean or median concentrations in excess of 20% is deemed to have been caused by other factors, the District will notify the tenant in writing of its determination and its basis, and the tenant will be requested to implement those measures, if any, that the tenant considers appropriate to prevent further increases in concentrations, including but not limited to additional sampling or best management practices.

If a statistically significant increase in concentrations is detected during a subsequent consecutive year and determined by the District to not be a numeric artifact or caused by variability of individual samples, the tenant shall work cooperatively with the District to develop a more comprehensive BMP plan to reduce or eliminate further increases. The new BMP plan shall be approved by the District, implemented by the tenant, and incorporated into the lease and, in the case of a subtenant, its sublease. In the event a subsequent consecutive sampling event results in a third, consecutive statistically significant increase, the District, in consultation with the tenant, shall review the tenant's standard farming practices, which review should include an assessment of the practices in terms of potential risk to future aquatic ecosystems or human health. If it is determined that the increase in concentrations may cause significant risk to future ecosystems that may be constructed in the area or human health to workers or occupants, the tenant will implement changes to its standard practices prescribed by the District, after joint consultation with the tenant, to reduce the potential for such risk. Failure to implement this review within the prescribed schedule will be considered a default of the tenant's lease.

### 3.1.3 Summary of BMP Sample Plan

Table 4 lists BMP sample plan inside and outside of sugarcane cultivation areas, as well as the current list of parameters of concern. Given the fact that for a number of parameters of concern, there are currently no baseline dataset available, the sample size computations will be repeated after the first round of BMP periodic sampling, which may result in applicable modifications of this BMP plan to address elevated parameters of concern covering parts or the entire extent of the investigated areas. Future changes in subsequent rounds of BMP may include further division of the investigated areas into more homogenous subareas for the purposes of sampling and statistical comparisons. Such changes may require additional sampling to accommodate the delineated subareas. Furthermore, in the event that obvious and excessive impacts are visibly detected during periodic site visits conducted by the District, a more comprehensive site-specific sampling plan that would depend on the magnitude of the impact should be developed under the direction of the District and applicable regulatory agencies. A list of potential parameters to be analyzed for is given below.

EPA Method 8141 (organophosphorus pesticides)
EPA Method 8151 (chlorinated herbicides)
EPA Method 6010/7471 (copper)
FL-PRO Method (total residual petroleum hydrocarbons)
EPA Method 8100 (polynuclear aromatic hydrocarbons)
EPA Method 8020 (volatile organic hydrocarbons)
Metconazole and pyraclostrobin

# TABLES

TABLE 1
U.S. SUGAR CORPORATION
SUGAR CANE COPPER CONCENTRATIONS ABOVE 85 mg/kg - FIELD IDENTIFICATION
Job No. 38617-027

| Tract Number | Map | Block/Field # | Agricultural Product | Acres |
|---|---|---|---|---|
| SC-100-161 | 5 | 2319P | Sugar Cane | 80 |
| SC-100-162 | 5 | 2322EF | Sugar Cane | 80 |
| SC-100-042 | 8 | 3429DH | Sugar Cane | 80 |
| SC-100-044 | 10 | 3433AE | Sugar Cane | 80 |
| SC-100-060 | 15 | 3425MN | Sugar Cane | 80 |
| SC-100-079 | 15 | 3531D | Sugar Cane | 80 |
| SC-100-080 | 17 | 4504OP | Sugar Cane | 80 |
| | 17 | 4515CD | Sugar Cane | 80 |
| | 17 | 4515JN | Sugar Cane | 80 |
| | 17 | 4515O | Sugar Cane | 80 |
| | 17 | 4516GH | Sugar Cane | 80 |
| | 17 | 4516IM | Sugar Cane | 80 |
| | 17 | 4516KO | Sugar Cane | 80 |
| | 17 | 4517KL | Sugar Cane | 80 |
| SC-100-140 | 17 | 4518CD | Sugar Cane | 80 |
| | 17 | 4518KL | Sugar Cane | 80 |
| | 19 | 4519CG | Sugar Cane | 80 |
| | 19 | 4519DH | Sugar Cane | 80 |
| | 19 | 4519LP | Sugar Cane | 80 |
| | 19 | 4530AE | Sugar Cane | 80 |
| | 19 | 4530BF | Sugar Cane | 80 |
| | 19 | 4530CG | Sugar Cane | 80 |
| | 19 | 4530DH | Sugar Cane | 80 |
| | 19 | 4530IM | Sugar Cane | 80 |
| | 19 | 4530JN | Sugar Cane | 80 |
| | 19 | 4530KO | Sugar Cane | 80 |
| SC-100-084 | 19 | 4528KL | Sugar Cane | 80 |
| | 19 | 4532OP | Sugar Cane | 80 |
| SC-100-095 | 21 | 4619JN | Sugar Cane | 80 |
| | 21 | 4619KO | Sugar Cane | 80 |
| | 21 | 4619LP | Sugar Cane | 80 |
| | 21 | 4621BF | Sugar Cane | 80 |
| | 21 | 4621IM | Sugar Cane | 80 |
| SC-100-096 | 21 | 4525CG | Sugar Cane | 80 |
| | 21 | 4525DH | Sugar Cane | 80 |
| | 21 | 4629IM | Sugar Cane | 80 |
| | 21 | 4629JN | Sugar Cane | 80 |
| | 21 | 4629KO | Sugar Cane | 80 |
| | 21 | 4629LP | Sugar Cane | 80 |
| | 21 | 4630DH | Sugar Cane | 80 |
| | 21 | 4631CG | Sugar Cane | 80 |
| | 21 | 4631DH | Sugar Cane | 80 |
| | 21 | 4631KO | Sugar Cane | 80 |
| | 21 | 4631LP | Sugar Cane | 80 |
| | 21 | 4632AE | Sugar Cane | 80 |
| | 21 | 4632BF | Sugar Cane | 80 |
| | 21 | 4632CG | Sugar Cane | 80 |
| | 21 | 4632DH | Sugar Cane | 80 |

NOTE: Each Block/Field # contains 80 acres which was tested as two (2) 40-acre grids

| Tract Number | Map | Block/Field # | Agricultural Product | Acres |
|---|---|---|---|---|
| SC-100-099 | 21 | 4628AE | Sugar Cane | 80 |
| | 21 | 4628IM | Sugar Cane | 80 |
| | 21 | 4628KO | Sugar Cane | 80 |
| | 21 | 4628LP | Sugar Cane | 80 |
| | 21 | 4633AE | Sugar Cane | 80 |
| | 21 | 4633CG | Sugar Cane | 80 |
| | 21 | 4633DH | Sugar Cane | 80 |
| | 21 | 4633IM | Sugar Cane | 80 |
| | 21 | 4633JN | Sugar Cane | 80 |
| | 21 | 4633KO | Sugar Cane | 80 |
| | 21 | 4633LP | Sugar Cane | 80 |
| | 22 | 4634BF | Sugar Cane | 80 |
| | 22 | 4634IM | Sugar Cane | 80 |
| | 22 | 4634JN | Sugar Cane | 80 |
| SC -100-097 | 22 | 4622IJ | Sugar Cane | 80 |
| SC-100-002 | 23 | 5525CD | Sugar Cane | 80 |
| | 23 | 5525KL | Sugar Cane | 80 |
| | 23 | 5526AB | Sugar Cane | 80 |
| | 23 | 5526EF | Sugar Cane | 80 |
| | 23 | 5535IJ | Sugar Cane | 80 |
| | 27 | 3734CG | Sugar Cane | 80 |
| SC-100-114 | 27 | 3734CG | Sugar Cane | 80 |
| SC -100-115 | 27 | 3736AE | Sugar Cane | 80 |
| | 27 | 3736BF | Sugar Cane | 80 |
| | 27 | 3736DH | Sugar Cane | 80 |
| | 27 | 3736KO | Sugar Cane | 80 |
| | 27 | 3736LP | Sugar Cane | 80 |
| | 27 | 4702CG | Sugar Cane | 80 |
| | 27 | 4712DH | Sugar Cane | 80 |
| SC-100-138 | 27 | 3836GH | Sugar Cane | 80 |
| | 27 | 3836KL | Sugar Cane | 80 |
| SC-100-113 | 28 | 3819EF | Sugar Cane | 80 |
| SC -100-118 | 30 | 2819KL | Sugar Cane | 80 |
| | 30 | 2819OP | Sugar Cane | 80 |
| | 30 | 2820AF | Sugar Cane | 80 |
| | 30 | 2820IJ | Sugar Cane | 80 |
| | 30 | 2820KL | Sugar Cane | 80 |
| | 30 | 2820MN | Sugar Cane | 80 |
| | 30 | 2820OP | Sugar Cane | 80 |
| SC-100-131 | 32 | 1830IM | Sugar Cane | 80 |
| | 32 | 1830JN | Sugar Cane | 80 |
| | 32 | 2702D | Sugar Cane | 80 |
| SC-100-132 | 33 | 1712KL | Sugar Cane | 80 |
| | 33 | 1712MN | Sugar Cane | 80 |
| | 33 | 1712OP | Sugar Cane | 80 |
| | 33 | 1713AE | Sugar Cane | 80 |
| | 33 | 1713BF | Sugar Cane | 80 |
| | 33 | 1713CG | Sugar Cane | 80 |
| | 33 | 1816MN | Sugar Cane | 80 |
| SC-100-134 | 36 | 2836KO | Sugar Cane | 80 |
| | 36 | 2931AE | Sugar Cane | 80 |
| | 36 | 2931IM | Sugar Cane | 80 |
| | 36 | 2931JN | Sugar Cane | 80 |
| | 36 | 3801CG | Sugar Cane | 80 |
| | 36 | 3906AE | Sugar Cane | 80 |
| | 36 | 3906BF | Sugar Cane | 80 |

NOTE: Each Block/Field # contains 80 acres which was tested as two (2) 40-acre grids

Table 2. Statistical Determination of the Number of Baseline Grids

| Decision Parameters | Selected Value | Normal Variate |
|---|---|---|
| Significance = alpha | 5% | $z_{1\text{-alpha}}$ = 1.64 |
| Power = 1 - beta | 80% | $z_{1\text{-beta}}$ = 0.84 |
| Delta as % of Baseline Mean | 20% | |

| Chemical-Specific Parameters | Arsenic (mg/kg) | Copper (mg/kg) | Selenium (mg/kg) | Atrazine (ug/kg)** |
|---|---|---|---|---|
| Desired Resolution | 1.32 | 12.7 | 0.60 | 13.47 |
| Baseline Mean* | 6.61 | 63.7 | 2.98 | 67.33 |
| Baseline Standard Deviation* | 4.49 | 55.6 | 2.33 | 25.65 |
| **n (Number of Samples)** | **72** | **119** | **95** | **23** |

*Computed based on Phase 2 Sugercane 40-acre Composite (SC) Data

**3 outlier results are excluded

Table 3. Statistical Comparative Tests

| Difference Hypothesis | Test | Comparison | Type |
|---|---|---|---|
| Area-wide Difference | Wilcoxon Rank Sum (WRS) | Median | Non-parametric |
| | Gehan | Median | Non-parametric |
| | Student's two-sample t-test | Mean | Parametric |
| | Satterthwaite t-test | Mean | Parametric |
| Localized Difference | Slippage | High concentrations | Non-parametric |
| | Quantile | High concentrations | Non-parametric |
| | Two-sample test of proportions | Percent of measurements above a given cutoff | Non-parmetric |

Table 4. Summary of Sample Plan

| Areas | Number of Samples | | Parameters* |
|---|---|---|---|
| Sugar Cane Cultivation Area | 119 composite samples | Annually (40-acre eight point composite soil sample using close composite methodology– top 6'') | Arsenic, Copper, Selenium<br>Clomazone<br>Pendimethalin<br>Analytical test method will be developed for fungicides Caramba and Headline by Florida based laboratory. |
| Pump Stations | No Sample | If no staining / stressed or disturbed vegetation. | |
| | 0 sample<br><br>1 each site | If impacts observed (five point composite soil sample – top 6'') | EPA Method 602<br>EPA Method 610<br>FL-PRO |
| Chemical and Equipment Storage Areas | No Sample | If no staining / stressed or disturbed vegetation | |
| | 1 each site | If impacts observed (five point composite soil sample – top 6'') | EPA Method 602<br>EPA Method 610<br>FL-PRO<br>Arsenic, Copper, Selenium<br>Clomazone<br>Pendimethalin<br>8151<br>Analytical test method will be developed for fungicides Caramba and Headline by Florida based laboratory. |

**Parameter Descriptions*

EPA Method 602 (purgeable aromatics)
EPA Method 610 (polynuclear aromatic hydrocarbons)
FL-PRO (total residual petroleum hydrocarbons)
Total Arsenic
Copper by EPA Method 6010/7471
Selenium
Clomazone by EPA Method 8141
Pendimethalin by EPA Method 8081
EPA Method 8151 (chlorinated herbicides)

3.1.4 References

Department of the Navy (DON). "Guidance for Environmental Background Analysis. Volume I: Soil." NFESC. User's Guide. UG-2049-ENV. April 2002.

U.S. Environmental Protection Agency (EPA). "Methods for Evaluating the Attainment of Cleanup Standards. Vol. 1: Soils and Solid Media." Office of Policy, Planning, and Evaluation. Washington, D. C. EPA 230/02-89-042. 1989

United States Environmental Protection Agency (EPA). "Data Quality Objectives Process for Hazardous Waste Site Investigations. EPA QA/G-4HW Final." EPA/600/R-00/007. January 2000

## 4.0 STANDARDIZED FORM: BMP SITE VERIFICATION FINDINGS SUMMARY

Future BMP site verification visits will be conducted at the request of the District.. BMP implementation will be reviewed per the guidelines and 'Implementation Requirements' described for each BMP earlier in this document as well as taking site specific issues and time of year into account. The site verification findings, including a written review of observations, site photographs taken, and a summary of records reviewed, are expected to be provided by the field reviewer in a detailed report. The field verified implementation status of each BMP will be classified in one of three categories:

**Implementation Verified**
**Implementation Verified with Comment**
**Additional Attention Required**

The standardized form for reporting *BMP Site Verification Findings Summary* to be included in the BMP field verification report is included in **Appendix B.**

# APPENDIX A

# Derivation of "No Application Periods" for Interim Use Pesticides

Prepared by:

Robert A. Frakes, Ph.D.
Environmental Contaminants Specialist
South Florida Field Office
Vero Beach, Florida

October 2000

## I. INTRODUCTION

The South Florida Water Management District (SFWMD) is actively acquiring agricultural lands in South Florida in connection with the Everglades Restoration Project. These lands are slated for various water management projects including conversion to water attenuation reservoirs, creation of stormwater treatment areas (STAs) for removal of phosphorus and other nutrients, and restoration of wetlands in areas formerly drained for agriculture. All of these projects will likely attract large numbers of birds and other wildlife. Since all of these areas were, or still are, agricultural areas, they have probably been exposed to heavy pesticide applications for decades and residues of some of those pesticides very likely still remain in the soil. Some of the pesticides used were organochlorine compounds such as toxaphene and DDT, which are now banned due to their extreme persistence in soil and their tendency to bioaccumulate in the food web. Residues of these chemicals in soils at a recent wetland restoration project in Florida (Lake Apopka) have resulted in bird die-offs following flooding of the site.

Following land acquisition for a water management project, there may be a delay of up to five years before completion of the project and actual flooding of the wetland or reservoir occurs. During this "interim use period," the former landowner is usually allowed to lease the property and continue with existing agricultural uses. Because of the risks to fish and wildlife that will be attracted to the site following flooding, questions arise as to what types of pesticides, and in what quantities, should be allowed to be applied to these lands during the interim use period. This document was developed in response to these questions.

Because the U.S. Fish and Wildlife Service (Service) must approve these interim uses of grant lands, it has sought to discover what chemicals are being used in conjunction with the uses. The Service has sought the assistance of the SFWMD in this effort; however, the Service and the SFWMD do not agree as to the necessity for, and the feasibility of, obtaining this information from the former landowner. This issue has delayed the finalization, acceptance and implementation of a mutually agreeable protocol by which the SFWMD can seek, and the Service grant, approval of the interim uses. Until the protocol can be developed, the Service cannot provide formal approval of the uses.

In order to resolve this issue, the Service has developed an alternative to requiring the SFWMD to submit chemical use information. Instead, the protocol itself will contain the following chemical use schedule, which the SFWMD will incorporate the pertinent portions into any leases, reservations, or any other methods of allowing an interim use on lands acquired with grant funds. The schedule identifies chemicals which may be used on grant lands, and the amount of time the use of each chemical must cease prior to the incorporation of the parcel into an Everglades restoration project. The time period for each chemical is based upon that chemical's $T_{1/2}$ value (half-life). Accordingly, regardless of which chemicals had been applied to a specific parcel before it was acquired by the SFWMD with grant funds, the SFWMD will be authorized only to allow the use of certain chemicals for certain amounts of time.

## II. METHODS

Information on persistence and degradation, toxicity, and use of pesticides in Florida was obtained from various internet databases and published references. The publication *Summary of Agricultural Pesticide Usage in Florida: 1995 - 98* (Shahane, 1999) was reviewed to develop a list of pesticides commonly used in South Florida. Data on half-life, degradation rate, and toxicity of these substances were obtained primarily from the Hazardous Substances Data Bank (HSDB), the Environmental Fate Database (EFDB), and the Extension Toxicology Network (EXTOXNET). For many of the chemicals used in Florida, environmental fate has been researched extensively and numerous literature values for half-life and/or degradation rate were available. For some chemicals, only a few values could be located.

Degradation rates of pesticides in soil can vary tremendously depending on soil type, climate, soil pH, moisture content, depth beneath the surface, and other variables. Therefore, the $T_{1/2}$s and degradation rates reported in the literature for the same chemical may vary over a wide range, depending on the conditions in the different studies. No attempt was made to select only those studies most appropriate to conditions in Florida soils. All relevant values for a chemical, including both field and laboratory experiments, were included in the database for that chemical; however, obviously irrelevant studies (such as those using sterile soils) were not included.

Many studies presented calculated soil $T_{1/2}$ values for the chemical being studied, and these values were entered directly into the database for that chemical. Other studies did not calculate $T_{1/2}$ values, but instead presented raw degradation rates. For example, an entry might state that the chemical was 67% degraded in 10 days. For these situations, the $T_{1/2}$ was calculated using the following formula (assuming 1st order kinetics) (Casarett et al., 1996):

$$T_{1/2} = \frac{.693 * t}{2.303(2 - \log(100 - d))}$$

where t = time since application and d = percent degraded.

All $T_{1/2}$ values obtained directly from the online databases and those calculated from raw degradation data were entered into a spreadsheet (see Appendix A). Using all of these data, median and maximum $T_{1/2}$ values were determined for each chemical. In addition, some studies presented persistence times for pesticides, i.e., the length of time required for all of the chemical to be degraded. Although $T_{1/2}$ values could not be calculated from these data, the range of reported persistence was also recorded. Table 1 summarizes all half-life, persistence, and toxicological information considered for each chemical.

The "no application period" is defined as the period of time prior to conversion of the agricultural land to conservation purposes (e.g., flooding to create wetlands) during which a particular pesticide hazardous to fish and/or wildlife should *not* be applied, in order to allow adequate time for breakdown

of pesticide residues before use of the land by Service trust resources. This period of time was defined as 5 times the median half-life, representing 97 percent degradation. Based on this 5 X $T_{1/2}$ value, the pesticide was placed into one of the following no application periods: 3 months, 6 months, 1 year, or 2 years (Table 1). Due to uncertainties of the planning and scheduling process, it was decided that those rare pesticides requiring more than 2 years to break down should not be applied at all.

In those cases where $T_{1/2}$ data were scanty or differed substantially from persistence data, professional judgement was used. Preference was sometimes given to persistence data, particularly in the case of highly toxic compounds. For example, the pesticide disulfoton, which is highly toxic to fish and wildlife, was placed in a 1 year no application category based on the longer persistence of toxic metabolites compared to the parent compound. In this case, use of five times the median half-life of the parent compound would have underestimated the breakdown time to nontoxic products (Table 1).

## III. RECOMMENDATIONS

A. The following pesticides are approved for application during the interim use period with **no restrictions** other than those required by the label:

2,4-D
*Bacillus thuringiensis* (Bt)
copper compounds
dicamba
diquat
diuron
EPTC
fluazifop-p-butyl
glyphosate
metolachlor
metribuzin
norflurazon
potassium salts
sethoxydim
sulfur
simazine

B. The following lists include some of the most commonly used pesticides in South Florida that are thought to be hazardous to fish and wildlife. These chemicals are approved for application during the interim use period with the following restriction: Use of these chemicals should be discontinued for the indicated time period prior to flooding agricultural lands for wetland restoration, creating water retention reservoirs, or any other activity likely to attract fish and wildlife to the site.

Use of the following should be **discontinued at least 3 months** prior to flooding:

acephate
alachlor
diazinon
dimethoate
malathion
methidathion
methyl parathion
oxamyl
trichlorfon

Use of the following should be **discontinued at least 6 months** prior to flooding:

| | |
|---|---|
| aldicarb | ethoprop |
| azinphos-methyl | ethyl parathion |
| carbaryl | permethrin |
| carbofuran | phorate |
| chlorpyrifos | terbufos |

Use of the following should be **discontinued at least 1 year** prior to flooding:

| | |
|---|---|
| atrazine | esfenvalerate |
| cyfluthrin | fenamiphos |
| disulfoton | fonofos |
| endosulfan | |

Use of the following should be **discontinued at least 2 years** prior to flooding:

| | |
|---|---|
| dicofol | trifluralin |

C. Due to their high toxicity and/or extreme persistence in the environment, the following chemicals **should not be applied** during the interim use period to lands being acquired for wetland restoration, water retention, or similar purposes. Interim uses which require these chemicals will not be permitted.

| | |
|---|---|
| benomyl | paraquat |

D. Other pesticides which do not appear on the above lists may come up from time to time. These will be evaluated on a chemical-by-chemical basis and added to the appropriate category above.

E. *Any* pesticide, regardless of the above categories, shown to already be present in soil at or above the appropriate sediment guideline, may require additional restrictions. For example, copper is a metal which does not degrade in the environment and may already be present in some soils (e.g., orchards) at levels above the Florida Department of Environmental Protection's Sediment Quality Assessment Guideline (MacDonald, 1994). In this case, further use of copper compounds during the interim use period would have to be reduced or eliminated altogether. These situations will be evaluated on a case-by-case basis. Add: can't push over SQAGs.

## IV. SOURCES OF INFORMATION

### A. Publications

~~Casarett, L.J., M.O. Amdur and C.D. Klaasen (eds.). 1996. Casarett and Doull's Toxicology: The~~ Basic Science of Poisons, 5th Edition. McGraw Hill.

1997 Farm Chemicals Handbook (Vol. 83). Meister Publishing Co., Willoughby, Ohio.

MacDonald, D.D. 1994. Approach to the Assessment of Sediment Quality in Florida Coastal Waters. Florida Department of Environmental Protection, Office of Water Policy, Tallahassee, Florida.

Milne, G.W.A. 1995. CRC Handbook of Pesticides. CRC Press, Boca Raton, Florida. 402 pp.

Shahane, A.H. 1999. Summary of Agricultural Pesticide Usage in Florida: 1995-98. Florida Department of Agriculture and Consumer Services, Tallahassee, Florida. 111 pp.

B. Online Databases

Environmental Fate Database, Syracuse Research Corporation, Syracuse, New York. http://esc.syrres.com/efdb.htm

Hazardous Substances Data Bank (HSDB), TOXNET, National Library of Medicine, Washington, D.C. http://toxnet.nlm.nih.gov/

Extension Toxicology Network (EXTOXNET), Oregon State University, Corvallis, Oregon. http://ace.orst.edu/info/extoxnet/ -

Table 1. Environmental and Toxicological Characteristics of Pecticides Considered in Establishing the No Application Period.

| Pesticide | No Application | $T_{1/2}$ soil (days) | | Persistence | 5 X $T_{1/2}$ | Class | Bird Kills?[1] | LD50 (rat, oral) | LC50 (fish) |
|---|---|---|---|---|---|---|---|---|---|
| | Period | median | max | | (months) | | | mg/kg | mg/l |
| acephate | 3 mo. | 3 | 14 | | 0.5 | OP | YES | 866 - 945 | >1000 |
| alachlor | 3 mo. | 14 | 133 | 6 wk - >1 yr | 2.3 | acetanilide | | 930 - 1350 | (3.7) |
| aldicarb | 6 mo. | 19 | 990 | 1 - 15 d | 3.2 | carbamate | YES | 1 | 1.5 |
| atrazine | 1 yr. | 63.8 | 1898 | 73 d - 2 yr | 10.6 | triazine | | 1780 | slightly toxic |
| azinphos-methyl | 6 mo. | 37.0 | 484 | | 6.2 | OP | YES | 4.4 - 16 | 0.003 |
| benomyl | Do Not Apply | 270 | 360 | 15 d - 4 wk | 45.0 | carbamate | | >10,000 | .006 - 14 |
| carbaryl | 6 mo. | 25.5 | 379.4 | 40 d | 4.3 | carbamate | | 246 - 283 | 28 |
| carbofuran | 6 mo. | 29 | 334.2 | 56 d - 14.5 mo | 4.8 | carbamate | YES | 8 | 0.24 |
| chlorpyrifos | 6 mo. | 22.6 | 84 | | 3.8 | OP | YES | 96 - 270 | 0.18 |
| cyfluthrin | 1 yr. | 56.0 | 63.0 | | 9.3 | pyrethroid | | | .00068 - .022 |
| diazinon | 3 mo. | 11.5 | 35 | 3 - 14 wk | 1.9 | OP | YES | 1250 | toxic |
| dicofol | 2 yr. | 60 | | >1 yr | 10.0 | OC | | 570 - 595 | 0.12 - 0.37 |
| dimethoate | 3 mo. | 11 | 122 | | 1.8 | OP | YES | 235 | 30.2 |
| disulfoton | 1 yr. | 5.6 | 70.0 | 56 d - 2 yr | 0.9 | OP | YES | 1.9 - 12.5 | 0.038 |
| endosulfan | 1 yr. | 40.5 | 150 | 10 - 160 d | 6.7 | OC | YES | 18 - 160 | 0.001 |
| esfenvalerate | 1 yr. | 52.5 | 90 | | 8.8 | pyrethroid | | 458 | .0002 - .001 |
| ethoprop | 6 mo. | 19.5 | 84 | | 3.3 | OP | YES | 61.5 | |
| ethyl parathion | 6 mo. | 22 | 2957.2 | 20 d - >16 yr | 3.7 | OP | YES | 2 | 1.5 |
| fenamiphos | 1 yr. | 43.5 | 470.2 | 92 d | 7.3 | OP | YES | 2 - 19 | 0.11 - 9.6 |
| fonofos | 1 yr. | 42.5 | 93.3 | | 7.1 | OP | YES | 8 - 17.5 | 0.05 |
| malathion | 3 mo. | 1.7 | 6.0 | | 0.3 | OP | | 5500 | 200 |
| methamidophos | 3 mo. | 4.8 | 12.0 | | 0.8 | OP | YES | 16 - 21 | 25 - 100 |
| methidathion | 3 mo. | 7.0 | 23.0 | | 1.2 | OP | | 25 - 54 | .002 - .014 |
| methyl parathion | 3 mo. | 15.0 | 915.6 | 3 - 5 mo. | 2.5 | OP | YES | 6 - 50 | 1.9 - 8.9 |
| oxamyl | 3 mo. | 12.5 | 50 | | 2.1 | carbamate | YES | 5.4 | 4.2 - 17.5 |
| paraquat | Do Not Apply | 1000 | 2409 | | 166.7 | bipyridyl | | 150 | 13 - 32 |
| permethrin | 6 mo. | 34 | 38 | | 5.7 | pyrethroid | | 430 - 4000 | .0018 - .0054 |
| phorate | 6 mo. | 23.3 | 167.6 | 2 wk - 4.5 mo | 3.9 | OP | YES | 2 - 4 | 0.002 |
| propargite (omite) | [redacted] | | | | | ?? | | 1480 - 2200 | .031 - .100 |
| terbufos | 6 mo. | 19.5 | 151.8 | | 3.2 | OP | YES | 1.3 - 1.6 | .001 - .39 |
| trichlorfon | 3 mo. | 0.97 | 140 | 8 d - 1.5 mo. | 0.2 | OP | | 450 - 650 | .26 - 2.5 |
| trifluralin | 2 yr. | 88.2 | 405 | 157 d - >40 wk | 14.7 | dinitroanilline | | >10,000 | .02 - 3.4 |

[1]YES in this column indicates pesticides that have caused documented die-offs of migratory birds.

## Appendix A. Reported Soil Half-Lives (in days) for South Florida Pesticides.*

| alachlor | aldicarb | atrazine | azinphos-methyl | benomyl | carbaryl | carbofuran | chlorpyrifos | cyfluthrin | diazinon | dicofol | dimethoate | disulfoton | endosulfan |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) |
| 15 | 9.9 | 15 | 5 | 180 | 22 | 26 | 81 | 56 | 7 | 60 | 2.5 | 1 | 32 |
| 7 | 23 | 300 | 484 | 360 | 12 | 110 | 28 | 63 | 14 | | 4 | 4 | 150 |
| 14 | 990 | 1898 | 21 | | 25.5 | 14 | 84 | Calc. $T_{1/2}$ | 35 | | 122 | 7 | 39 |
| 4 | 7 | 53 | 68 | | 8 | 28 | 7 | 42.1 | 11.5 | | 7 | 56 | 42 |
| 49 | 12 | 113 | 10 | | 12 | 60 | 18 | | 6.3 | | 11 | 70 | Calc. $T_{1/2}$ |
| 7.8 | 23 | 28 | 30 | | Calc. $T_{1/2}$ | 75 | 11.5 | | | | 29 | Calc. $T_{1/2}$ | 42.0 |
| Calc. $T_{1/2}$ | 2 | 181 | Calc. $T_{1/2}$ | | 379.4 | 30 | 25.1 | | | | 36 | 4.3 | 24.2 |
| 133.3 | 15 | 115 | 44.0 | | 195.2 | 60 | 8.7 | | | | Calc. $T_{1/2}$ | 3.1 | |
| | 54 | 48 | 51.3 | | 51.7 | 28 | Calc. $T_{1/2}$ | | | | 6.6 | 10.5 | |
| | 20 | 357 | | | 43.8 | 43 | 20.1 | | | | 53.1 | | |
| | 46 | 78 | | | | 53 | 30.0 | | | | | | |
| | 18 | 20 | | | | 8 | | | | | | | |
| | 154 | 58 | | | | 10 | | | | | | | |
| | 60 | 67 | | | | 14 | | | | | | | |
| | 9 | Calc. $T_{1/2}$ | | | | 73 | | | | | | | |
| | 12 | 84.0 | | | | Calc. $T_{1/2}$ | | | | | | | |
| | 20 | 48.3 | | | | 9.7 | | | | | | | |
| | 361 | 20.0 | | | | 2.8 | | | | | | | |
| | Calc. $T_{1/2}$ | 10.0 | | | | 334.2 | | | | | | | |
| | 8.9 | 48.3 | | | | 113.4 | | | | | | | |
| | 2.0 | 127.5 | | | | 22.6 | | | | | | | |
| | | 56.7 | | | | | | | | | | | |
| | | 26.4 | | | | | | | | | | | |
| | | 134.3 | | | | | | | | | | | |
| | | 279.9 | | | | | | | | | | | |
| | | 149.9 | | | | | | | | | | | |
| | | 36.5 | | | | | | | | | | | |
| | | 89.7 | | | | | | | | | | | |
| | | 23.4 | | | | | | | | | | | |
| | | 92.3 | | | | | | | | | | | |
| | | 60.6 | | | | | | | | | | | |

*Values were taken directly from the literature or calculated from degradation rates.

## Appendix A. Reported Soil Half-Lives (in days) for South Florida Pesticides.*

| esfenvalerate | ethoprop | ethyl parathion | fenamiphos | fonophos | malathion | methamidophos | methidathion | methyl parathion | oxamyl | paraquat | permethrin | phorate |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) |
| 15 | 25 | 7 | 50 | 40 | 1 | 1.9 | 5 | 4 | 11 | 1000 | 30 | 82 |
| 90 | 3 | 11 | 2.1 | 30 | 6 | 4.8 | 7 | 45 | 15 | 2409 | 38 | 2 |
| | 56 | 112 | 4 | 45 | Calc. $T_{1/2}$ | 6.1 | 23 | 10 | 6 | Calc. $T_{1/2}$ | | 6 |
| | 14 | 182 | 11 | 18 | 4.3 | 12 | | 15 | 14 | 268.7 | | 30 |
| | 84 | 22 | Calc. $T_{1/2}$ | 82 | 2.3 | Calc. $T_{1/2}$ | | Calc. $T_{1/2}$ | 4 | | | 69 |
| | 12 | 23 | 13.1 | Calc. $T_{1/2}$ | 1.0 | 2.7 | | 4.3 | 33 | | | Calc. $T_{1/2}$ |
| | 16 | Calc. $T_{1/2}$ | 138.2 | 93.3 | 0.3 | | | 915.6 | 8 | | | 167.6 |
| | 73 | 12.1 | 462.8 | 75.0 | | | | 203.1 | 50 | | | 23.3 |
| | Calc. $T_{1/2}$ | 34.2 | 470.2 | 28.5 | | | | | | | | 7.5 |
| | 23.0 | 2.4 | 43.5 | | | | | | | | | 98.2 |
| | 12.6 | 4.9 | | | | | | | | | | 20.8 |
| | | 16.2 | | | | | | | | | | 1.6 |
| | | 131.5 | | | | | | | | | | |
| | | 20.0 | | | | | | | | | | |
| | | 2957.2 | | | | | | | | | | |
| | | 224.9 | | | | | | | | | | |

*Values were taken directly from the literature or calculated from degradation rates.

Appendix A. Reported Soil Half-Lives (in days) for South Florida Pesticides.*

| terbufos | trichlorfon | trifluralin |
|---|---|---|
| Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) | Lit. $T_{1/2}$ (d) |
| 5 | 1.1 | 38 |
| 22 | 140 | 61 |
| 16.9 | 0.6 | 211 |
| 86.6 | 0.8 | 405 |
| 12.8 | | Calc. $T_{1/2}$ |
| 66.5 | | 66.7 |
| 10 | | 109.8 |
| 4.5 | | |
| Calc. $T_{1/2}$ | | |
| 22.5 | | |
| 12.1 | | |
| 151.8 | | |
| 97.8 | | |

*Values were taken directly from the literature or calculated from degradation rates.

Appendix B. Half-life Calculation Worksheet.

| Atrazine | Lit. $T_{1/2}$ | units | $T_{1/2}$ (days) | % degraded | time | units | Calc. $T_{1/2}$ | $T_{1/2}$ (days) |
|---|---|---|---|---|---|---|---|---|
| | 0.5 | mo | 15 | 50 | 12 | wk | 12.0 | 84.0 |
| | 10 | mo | 300 | 70 | 12 | wk | 6.9 | 48.3 |
| | 5.2 | yr | 1898 | 50 | 20 | d | 20.0 | 20.0 |
| | 53 | d | 53 | 75 | 20 | d | 10.0 | 10.0 |
| | 113 | d | 113 | 70 | 12 | wk | 6.9 | 48.3 |
| | 28 | d | 28 | 29 | 9 | wk | 18.2 | 127.5 |
| | 181 | d | 181 | 60 | 75 | d | 56.7 | 56.7 |
| | 115 | d | 115 | 86 | 75 | d | 26.4 | 26.4 |
| | 48 | d | 48 | 71 | 8 | mo | 4.5 | 134.3 |
| | 357 | d | 357 | 13.8 | 60 | d | 279.9 | 279.9 |
| | 78 | d | 78 | 75 | 10 | mo | 5.0 | 149.9 |
| | 20 | d | 20 | 85 | 100 | d | 36.5 | 36.5 |
| | 58 | d | 58 | 90 | 298 | d | 89.7 | 89.7 |
| | 67 | d | 67 | 93 | 3 | mo | 0.8 | 23.4 |
| | | | | 86 | 262 | d | 92.3 | 92.3 |
| | | | | 95 | 262 | d | 60.6 | 60.6 |

| Trichlorfon | Lit. $T_{1/2}$ | units | $T_{1/2}$ (days) |
|---|---|---|---|
| | 1.1 | d | 1.1 |
| | 140 | d | 140 |
| | 14 | hr | 0.6 |
| | 20 | hr | 0.8 |

| Aldicarb | $K_{el}$ | units | Calc. $T_{1/2}$ |
|---|---|---|---|
| | 0.078 | $d^{-1}$ | 8.9 |
| | 0.35 | $d^{-1}$ | 2.0 |

| Phorate | Lit. $T_{1/2}$ | units | % degraded | time | units | Calc. $T_{1/2}$ |
|---|---|---|---|---|---|---|
| | 82 | d | 18 | 48 | d | 167.6 |
| | 2 | d | 76 | 48 | d | 23.3 |
| | 6 | d | 90 | 25 | d | 7.5 |
| | 30 | d | 47 | 90 | d | 98.2 |
| | 69 | d | 95 | 90 | d | 20.8 |
| | | | 95 | 7 | d | 1.6 |

| Carbaryl | Lit. $T_{1/2}$ | units | % degraded | time | units | Calc. $T_{1/2}$ | $T_{1/2}$ (days) |
|---|---|---|---|---|---|---|---|
| | 22 | d | 12 | 10 | wk | 54.2 | 379.4 |
| | 12 | d | 22 | 10 | wk | 27.9 | 195.2 |
| | 25.5 | d | 80 | 120 | d | 51.7 | 51.7 |
| | 8 | d | 85 | 120 | d | 43.8 | 43.8 |
| | 12 | d | | | | | |

| Methyl Parathion | Lit. $T_{1/2}$ | units | % degraded | time | units | Calc. $T_{1/2}$ | $T_{1/2}$ (days) |
|---|---|---|---|---|---|---|---|
| | 4 | d | 99.5 | 33 | d | 4.3 | 4.3 |
| | 45 | d | 64 | 45 | mo | 30.5 | 915.6 |
| | 10 | d | 99 | 45 | mo | 6.8 | 203.1 |
| | 15 | d | | | | | |

Appendix B. Half-life Calculation Worksheet.

| Alachlor | % degraded | time | units | Calc. $T_{1/2}$ | $T_{1/2}$ (days) |
|---|---|---|---|---|---|
| | 85 | 1 | yr | 0.4 | 133.3 |

| Carbofuran | % degraded | time | units | Calc. $T_{1/2}$ | $T_{1/2}$ (days) |
|---|---|---|---|---|---|
| | 95 | 42 | d | 9.7 | 9.7 |
| | 97 | 14 | d | 2.8 | 2.8 |
| | 7 | 5 | wk | 47.7 | 334.2 |
| | 60 | 5 | mo | 3.8 | 113.4 |
| | 99 | 5 | mo | 0.8 | 22.6 |

| Chlorpyrifos | % degraded | time | units | Calc. $T_{1/2}$ | $T_{1/2}$ (days) |
|---|---|---|---|---|---|
| | 62 | 4 | wk | 2.9 | 20.1 |
| | 50 | 30 | d | 30.0 | 30.0 |

| Cyfluthrin | % degraded | time | units | Calc. $T_{1/2}$ | $T_{1/2}$ (days) |
|---|---|---|---|---|---|
| | 90 | 140 | d | 42.1 | 42.1 |

| Dimethoate | % degraded | time | units | Calc. $T_{1/2}$ | $T_{1/2}$ (days) |
|---|---|---|---|---|---|
| | 77 | 2 | wk | 0.9 | 6.6 |
| | 98 | 10 | mo | 1.8 | 53.1 |

| Disulfoton | % degraded | time | units | Calc. $T_{1/2}$ | $T_{1/2}$ (days) |
|---|---|---|---|---|---|
| | 68 | 1 | wk | 0.6 | 4.3 |
| | 79 | 1 | wk | 0.4 | 3.1 |
| | 90 | 5 | wk | 1.5 | 10.5 |

| Endosulfan | % degraded | time | units | Calc. $T_{1/2}$ | $T_{1/2}$ (days) |
|---|---|---|---|---|---|
| | 50 | 42 | d | 42.0 | 42.0 |
| | 70 | 42 | d | 24.2 | 24.2 |

| Ethoprop | % degraded | time | units | Calc. $T_{1/2}$ | $T_{1/2}$ (days) |
|---|---|---|---|---|---|
| | 19 | 1 | wk | 3.3 | 23.0 |
| | 32 | 1 | wk | 1.8 | 12.6 |

| Ethyl parathion | % degraded | time | units | Calc. $T_{1/2}$ | $T_{1/2}$ (days) |
|---|---|---|---|---|---|
| | 96 | 8 | wk | 1.7 | 12.1 |
| | 20 | 11 | d | 34.2 | 34.2 |
| | 96 | 11 | d | 2.4 | 2.4 |
| | 95 | 3 | wk | 0.7 | 4.9 |
| | 95 | 10 | wk | 2.3 | 16.2 |
| | 10 | 20 | d | 131.5 | 131.5 |
| | 50 | 20 | d | 20.0 | 20.0 |
| | 3 | 130 | d | 2957.2 | 2957.2 |
| | 33 | 130 | d | 224.9 | 224.9 |

Appendix B. Half-life Calculation Worksheet.

| Fonophos | % degraded | time | units | Calc. $T_{1/2}$ | $T_{1/2}$ (days) |
|---|---|---|---|---|---|
| | 59 | 4 | mo | 3.1 | 93.3 |
| | 67 | 4 | mo | 2.5 | 75.0 |
| | 64 | 6 | wk | 4.1 | 28.5 |

| Malathion | % degraded | time | units | Calc. $T_{1/2}$ | $T_{1/2}$ (days) |
|---|---|---|---|---|---|
| | 80 | 10 | d | 4.3 | 4.3 |
| | 95 | 10 | d | 2.3 | 2.3 |
| | 50 | 24 | hr | 24.0 | 1.0 |
| | 90 | 24 | hr | 7.2 | 0.3 |

| Paraquat | % degraded | time | units | Calc. $T_{1/2}$ | $T_{1/2}$ (days) |
|---|---|---|---|---|---|
| | 13 | 54 | d | 268.7 | 268.7 |

| Terbufos | % degraded | time | units | Calc. $T_{1/2}$ | $T_{1/2}$ (days) |
|---|---|---|---|---|---|
| | 35 | 14 | d | 22.5 | 22.5 |
| | 80 | 28 | d | 12.1 | 12.1 |
| | 12 | 4 | wk | 21.7 | 151.8 |
| | 18 | 4 | wk | 14.0 | 97.8 |

| Trifluralin | % degraded | time | units | Calc. $T_{1/2}$ | $T_{1/2}$ (days) |
|---|---|---|---|---|---|
| | 85 | 0.5 | yr | 0.18 | 66.7 |
| | 90 | 1 | yr | 0.30 | 109.8 |

| Fenamiphos | % degraded | time | units | Calc. $T_{1/2}$ | $T_{1/2}$ (days) |
|---|---|---|---|---|---|
| | 94.6 | 55 | d | 13.1 | 13.1 |
| | 24.1 | 55 | d | 138.2 | 138.2 |
| | 9 | 63 | d | 462.8 | 462.8 |
| | 9.8 | 70 | d | 470.2 | 470.2 |
| | 67.2 | 70 | d | 43.5 | 43.5 |

| Azinphos-methyl | % degraded | time | units | Calc. $T_{1/2}$ | $T_{1/2}$ (days) |
|---|---|---|---|---|---|
| | 50 | 44 | d | 44.0 | 44.0 |
| | 93 | 197 | d | 51.3 | 51.3 |

| Methamidophos | % degraded | time | units | Calc. $T_{1/2}$ | $T_{1/2}$ (days) |
|---|---|---|---|---|---|
| | 92 | 10 | d | 2.7 | 2.7 |

APPENDIX B

APPENDIX B
SITE VERIFICATION CHECKLIST

United States Sugar Corporation
Palm Beach, Hendry, and Glades Counties
State of Florida

## *Best Management Practices (BMP) Site Verification Checklist*

Tract No.:
SFWMD
Representative(s):
Property
Representative(s):
Inspection Date:

| BMP | Description/Comment | Implementation Verified | Additional Attention Required |
|---|---|---|---|
| **Property Use and Structures** | | | |
| **Housekeeping** | | | |
| General Site - | | | |
| Storage Areas - | | | |
| Additional Observations - | | | |
| **Employee Training** | | | |
| Schedule - | | | |
| Topics - | | | |

| | |
|---|---|
| Additional Observations - | |

| Hazardous Material/ Chemical Use | | | |
|---|---|---|---|
| Chemicals Used - | | | |
| Application Type - | | | |
| Application Schedule - | | | |
| Material Records - | | | |
| Additional Observations: | | | |

| Petroleum Products | | | |
|---|---|---|---|
| Product Use - | | | |
| Pump Station(s) - | | | |
| Storage Location(s) - | | | |
| Additional Observations: | | | |

| Chemical Storage | | | |
|---|---|---|---|
| Storage Location - | | | |
| Building/Area Type - | | | |
| Pump Station(s) - | | | |

| | |
|---|---|
| Additional Observations: | |

| Mixing & Loading Areas | | | |
|---|---|---|---|
| Area Description - | | | |
| Area Observations - | | | |
| Additional Observations: | | | |

| Waste Storage and Disposal | | | |
|---|---|---|---|
| Waste Types - | | | |
| Storage Location - | | | |
| Waste Disposal - | | | |
| Waste Disposal Records - | | | |
| Additional Observations: | | | |

| Water Management | | | |
|---|---|---|---|
| Observations - | | | |
| Water Mgmt Controls - | | | |
| Weather Monitoring - | | | |
| Additional Observations: | | | |

| Erosion/Sediment Controls | | | |
|---|---|---|---|
| Erosion Controls - | | | |

| | | | |
|---|---|---|---|
| Sediment Controls - | | | |
| Additional Observations: | | | |
| **Exotic Vegetation Management** | | | |
| Observations - | | | |
| Physical Controls - | | | |
| Biological Controls - | | | |
| Chemical Controls - | | | |
| Additional Observations: | | | |
| **General Field Notes** | | | |

Notes:

N/A - Not Applicable

# APPENDIX C

## APPENDIX C
## EMERGENCY RESPONSE and CHEMICAL HAZARD INFORMATION PHONE NUMBERS

**Emergency Reporting**
For Ambulance, Fire, or Police **Dial 911**

**State Warning Point** 24hrs. Toll Free 1-800-320-0519
(Department of Community Affairs, or (850) 413-9911
Division of Emergency Management)

**National Response Center** 24hrs. Toll Free 1-800-424-8802
(Federal law requires that anyone who releases into the environment a reportable quantity of a hazardous substance [including oil when water is or may be affected] or a material identified as a marine pollutant, must immediately notify the NRC).

**DEP Emergency Response**, 24 hrs. Toll Free **1-800-342-5367**

### HELP LINE NUMBERS

***Chemical hazard information and regulatory questions***

- **CHEMTREC HOT LINE (Emergency only) 24 hrs** Toll Free 1-800-424-9300
- SARA Title III help line Toll Free 1-800-535-0202
- CERCLA / RCRA help line Toll Free 1-800-424-9346
- Pesticide Container Recycling Program 352-392-4721
  Pesticide Information Officer at University of Florida

### COUNTY COOPERATIVE EXTENSION OFFICES

| | | |
|---|---|---|
| Palm Beach County | 559 N. Military Trail<br>West Palm Beach, FL 33415 | (561) 233-1700 |
| Hendry County | 1085 Pratt Boulevard<br>Dallas B Townsend Agricultural Center<br>Labelle, FL 33935 | (863) 674-4092 |
| Glades County | 900 US Highway 27<br>SW Moore Haven, FL 33471 | (863) 946-0244 |

### STATE OF FLORIDA AGENCIES

**Florida Department of Agriculture and Consumer Services**

| | |
|---|---|
| Bureau of Pesticides | (850) 487-0532 |
| Bureau of Compliance Monitoring | (850) 488-3314 |
| Division of Agriculture and Environmental Services | (850) 488-3731 |

***Florida Department of Environmental Protection***

| | |
|---|---|
| FDEP Stormwater/Nonpoint Source Management Section (Tallahassee) | (850) 488-3605 |
| FDEP Hazardous Waste Management Section (Tallahassee) | (850) 488-0300 |

| | |
|---|---|
| FDEP District offices - West Palm Beach | (561) 681-6800 |
| ***Florida Fish and Wildlife Conservation Commission***<br>620 South Meridian Street<br>Tallahassee, FL 32301 | (850) 488-4066 or<br>(850) 488-4069 |
| ***Water Management Districts***<br>South Florida Water Management District (West Palm Beach) | (561) 686-8800 or<br>1-800-432-2045 |
| ***University of Florida (Gainesville)***<br>Pesticide Information Office<br>Agricultural Law Policy Office | (352) 392-4721<br>(352) 392-1881 |

**UNITED STATES AGENCIES**

***EPA National Offices & Numbers***

Office of Water (202)-382-5700
4604, 401 M Street, SW
Washington, DC 20460
(Provides Information on Clean Water Act and related water pollution regulations)

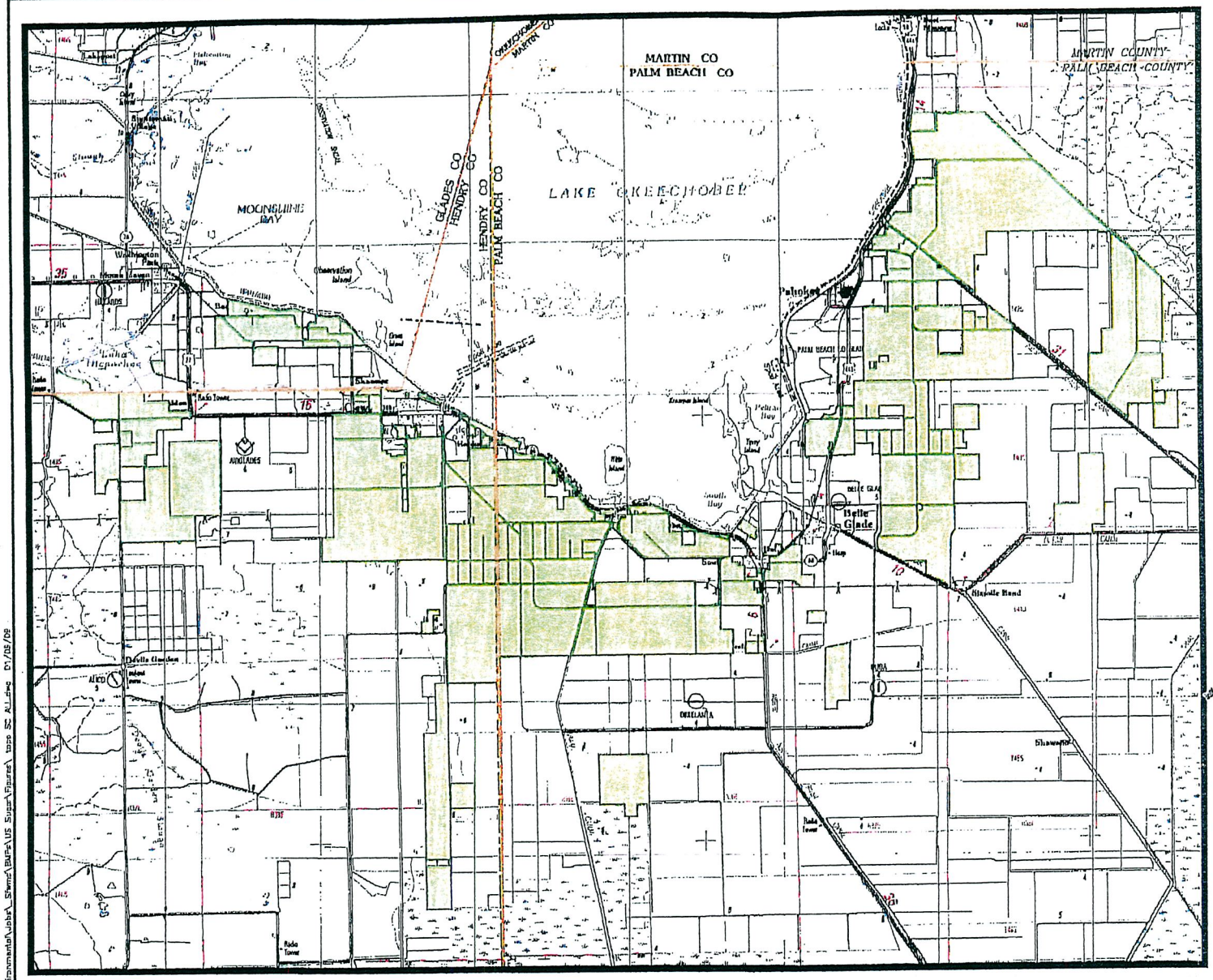
***Florida Administrator of EPA Pesticide Registration***

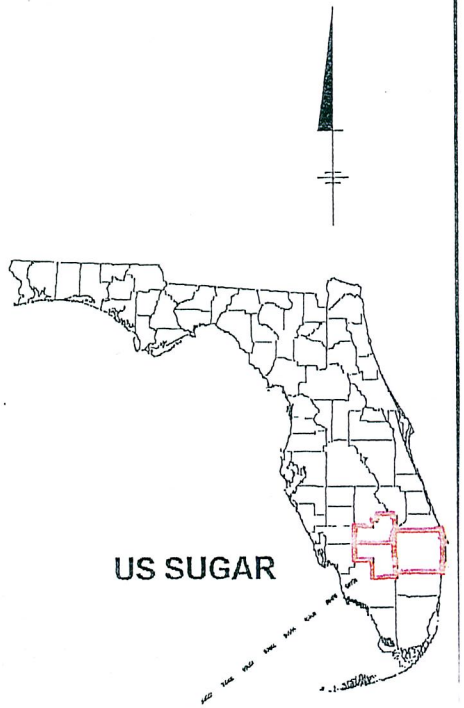
Bureau of Pesticides/ Division of Inspection (850) 487-2130
Dept. of Agriculture and Consumer Services
3125 Conner Blvd., MD-2
Tallahassee, FL 32399-1650

***National Pesticide Telecommunications Network***

Provides information on pesticides and pesticide poisonings. 1-800-858-7378
Operating 24 hours a day, 365 days a year.

FIGURE 1




- PARCELS USED FOR CULTIVATION OF SUGAR CANE

UNITED STATES SUGAR CORPORATION
111 PONCE DE LEON AVENUE
CLEWISTON, FL.

JOB NO.: 38617-027 DATE: SEPTEMBER 2008

# SUGAR CANE PARCEL LOCATION VICINITY MAP

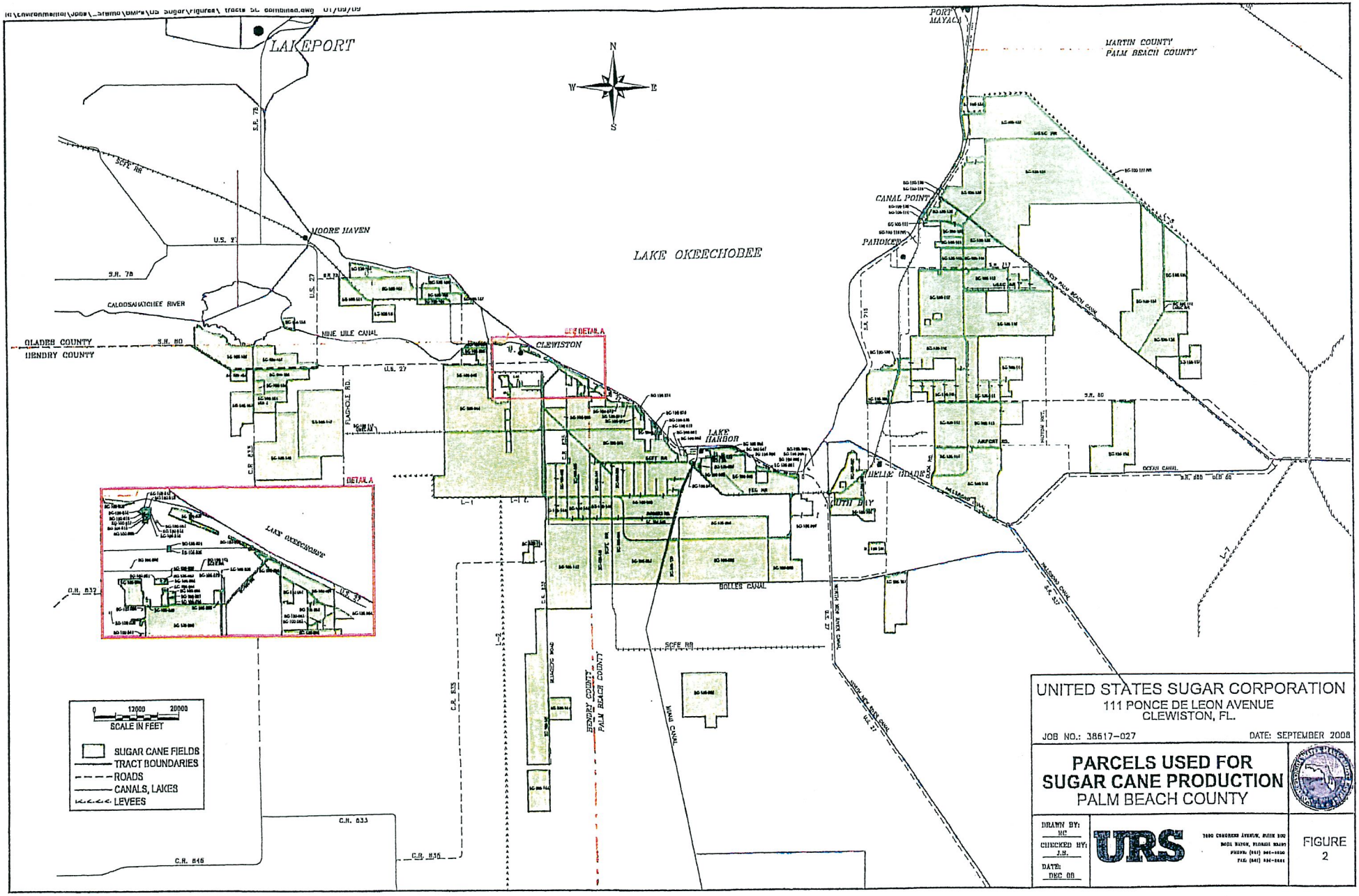
DRAWN BY: HC
CHECKED BY: J.H.
DATE: DEC 08

URS

FIGURE 1

R:\Environmental\Jobs_Sheets\Batts\US Sugar\Figures\ taps SC ALL.dwg 01/05/09

FIGURE 2


LAKEPORT
MOORE HAVEN
LAKE OKEECHOBEE
PORT MAYACA
MARTIN COUNTY
PALM BEACH COUNTY
CANAL POINT
PAHOKEE
CLEWISTON
SEE DETAIL A
DETAIL A
LAKE HARBOR
BELLE GLADE
OLADES COUNTY
HENDRY COUNTY
CALOOSAHATCHEE RIVER
NINE MILE CANAL
WEST PALM BEACH CANAL
OCEAN CANAL
HILLSBORO CANAL
MIAMI CANAL
NORTH NEW RIVER CANAL
BOLLES CANAL
SCFE RR
U.S. 27
S.R. 78
S.R. 80
S.R. 715
S.R. 717
S.R. 717A
S.R. 717B
C.R. 833
C.R. 835
C.R. 836
C.R. 846
HENDRY COUNTY
PALM BEACH COUNTY
0 12000 20000
SCALE IN FEET
SUGAR CANE FIELDS
TRACT BOUNDARIES
ROADS
CANALS, LAKES
LEVEES
UNITED STATES SUGAR CORPORATION
111 PONCE DE LEON AVENUE
CLEWISTON, FL.
JOB NO.: 38617-027
DATE: SEPTEMBER 2008
PARCELS USED FOR
SUGAR CANE PRODUCTION
PALM BEACH COUNTY
DRAWN BY: HC
CHECKED BY: J.H.
DATE: DEC 08
URS
FIGURE
2

## SCHEDULE "4"

Insurance Provisions

In lieu of the insurance requirements set forth in **Paragraph 16** of this LEASE, the following requirements shall apply:

Insurance:

A. LESSEE shall procure and maintain throughout the Lease Term at LESSEE's sole cost and expense the following types of insurance:

(1) **Worker's Compensation Insurance:** LESSOR acknowledges and agrees that, in lieu of providing Worker's Compensation Insurance, LESSEE self-insures for such matters and LESSEE shall not be obligated to provide any evidence of insurance with respect thereto; provided that LESSEE shall be obligated to satisfy all Worker's Compensation requirements under Florida law and shall provide proof of such compliance annually to LESSOR. The Worker's Compensation Insurance policy required by this LEASE shall also include Employer's Liability.

(2) **Liability Insurance**: Comprehensive General Liability Insurance relating to the Premises and its improvements and appurtenances, which shall include, but not be limited to, Premises and Operations; Independent Contractors, Products and Completed Operations and Contractual Liability. This policy shall provide coverage for death, bodily injury, personal injury, and property damage that could arise directly, indirectly or proximately from the performance of this LEASE. The minimum limits of coverage shall be $1,000,000 per occurrence and $2,000,000 in the aggregate for Bodily Injury Liability and Property Damage Liability. The limits of comprehensive general liability insurance shall in no way limit or diminish the LESSEE's liability under **Paragraph 13** hereof and (B) Umbrella liability insurance containing minimum limits of Fifty Million and No/100 Dollars ($50,000,000.00) for the Premises and coverage shall which shall include, but not be limited to, Premises and Operations; Independent Contractors, Products and Completed Operations and Contractual Liability.

(3) **Business Automobile Liability Insurance**: Business Automobile Liability Insurance which shall have minimum limits of $5,000,000 per occurrence, Combined Single Limit for Bodily Injury Liability and Property Damage Liability with a maximum deductible or self-insured retention of $1,000,000. This shall include owned, hired, non-owned and employee non-ownership coverage.

(4) **Casualty Insurance**: Property insurance insuring against loss or damage customarily included under so called "all risk" or "special form" policies which shall include fire and extended coverage insurance including loss caused by any type of windstorm or hail (including Named Storms), on all buildings and structures on the Premises in an amount which will equal the replacement cost of such buildings and structures, with a deductible of up to 5% of the insurable value of the damaged or destroyed real property improvements or personalty.

(5) **Environmental Impairment Insurance**: Environmental Impairment Insurance in an amount of $5,000,000, with a maximum deductible of $250,000 and a policy term which extends through the Expiration Date of the Lease. Said policy must provide coverage for third-party claims for unknown pre-existing conditions & new conditions. Additional insurance coverage must also be provided for all above-ground storage tanks, with limits not less than $1,000,000 per occurrence and $5,000,000 in the aggregate. Acquisition of this insurance shall in no way limit or diminish the **LESSEE**'s liability under **Paragraph 18.F.** hereof.

B. **Proof of Insurance**: The **LESSEE** shall provide the **LESSOR** with insurance certificates for all insurance required pursuant to this **LEASE** as proof of insurance prior to the Commencement Date and each year, upon renewal, thereafter. Upon request, **LESSEE** shall provide **LESSOR** with complete copies of the policies. The **LESSEE** shall, upon request by the **LESSOR**, have its insurance agent provide certified copies of all insurance coverage required by this **LEASE**. Such copies shall be provided within ten (10) days of request or, with respect to any renewal or replacement policies, as soon as such policies are available from the applicable insurer. All insurance required under this **LEASE** shall be written by a financially sound company with a rating of "A VIII" or better with AM Best or a "A" or better with S&P and shall name the **LESSOR** as loss payee and/or as additional insured as their interests may appear (with the exception of Workers Compensation coverage). Said policies (other than worker's compensation) shall contain a waiver of subrogation in favor of the **LESSOR**.

C. **Notice of Insurance Cancellation**: The **LESSEE** shall notify **LESSOR** at least thirty (30) days prior to cancellation or modification of any insurance required by this **LEASE**. Insurance required under **Paragraphs A.(2), (3), (4), and (5)** above of this schedule shall contain a provision that it may not be cancelled until thirty (30) days after written notice to **LESSOR** (with the exception of ten (10) days notice for non-payment of premium). In the event **LESSEE** fails to obtain and keep any insurance required hereunder in full force and effect, **LESSOR** may at its option obtain such policies and **LESSEE** shall pay to **LESSOR** the premiums therefore, together with interest at the maximum rate allowed by law, upon demand as Additional Rent.

D. **Subcontractor Insurance**: It shall be the responsibility of the **LESSEE** to ensure that all subcontractors are adequately insured, including, but not limited to, Workers Compensation coverage.

E. **Self-Insurance.**

(1) Notwithstanding anything in this Schedule to the contrary, so long as **LESSEE** elects to post a letter of credit pursuant to the requirements set forth in **Paragraph 33(B)(2)** in the amount of $1,000,000 (the "Deductible LC"), which shall be accompanied by an escrow agreement substantially in the form of the Escrow Agreement, but conformed to the provisions of this schedule, then, with respect to liability insurance under **Paragraph A(2)** above, **LESSEE** shall have the right to maintain a deductible or self-insured retention in the amount of $1,000,000.

(2) Notwithstanding anything in this Schedule to the contrary, in lieu of the environmental impairment insurance under **Paragraph A(5)** above, **LESSEE** may elect to post a letter of credit pursuant to the requirements set forth in **Paragraph 33(B)(2)** in the amount of $5,000,000 (the "Environmental Impairment LC"), which shall be accompanied by an escrow agreement substantially in the form of the Escrow Agreement, but conformed to the provisions of this schedule.

(3) The Escrow Agent shall have the right to draw on the Deductible LC and/or the Environmental Impairment LC, as applicable, if **LESSOR** is named in an action within the applicable coverage as set forth in **Paragraph A(2)** and **Paragraph A(5)**, above, and **LESSEE**: (i) does not defend the same; or (ii) does defend the same, but does not pay the applicable amounts under a final and unappealable judgment against **LESSOR** which is the responsibility of **LESSEE** under this **LEASE**; whereupon, in the event of clauses (i) or (ii) above, the Escrow Agent can draw on the Deductible LC and/or the Environmental Impairment LC, as applicable. If the Deductible LC and/or the Environmental Impairment LC, as applicable, is drawn upon as set forth above, then a Default shall be deemed to have occurred under this **LEASE**.

F. **Casualty.**

**(1)** In the event of a loss or damage to all or any portion of the Premises due to fire or other casualty during the Lease Term, then **LESSEE** shall have the option of restoring such loss or damage, by electing to do so in a written notice to **LESSOR** within one hundred and twenty (120) days after such loss or damage.

**(2)** In the event that **LESSEE** elects to restore such loss or damage as provided above, then: (i) if the cost of such restoration is determined to be less than or equal to $500,000, then **LESSOR** shall instruct the insurance company that the insurance proceeds for restoration shall be paid directly and solely to **LESSEE**; or if paid jointly to **LESSEE** and **LESSOR**, **LESSOR** shall immediately endorse such check payable to the order of **LESSEE**; or (ii) if the cost of such restoration is determined to be more than $500,000, then **LESSEE** and **LESSOR** shall endorse any checks received so that the insurance proceeds can be paid into a bank account controlled by a mutually and reasonably acceptable third party escrow agent that will disburse the insurance proceeds to **LESSEE** from time to time as restoration progresses in order for **LESSEE** to timely pay all invoices related to same in accordance with the terms of a mutually and reasonably agreed upon escrow agreement, with any excess or surplus following completion of restoration to be paid to **LESSEE**. **LESSOR's** consent shall not be required for the type, plans or manner of such restoration; provided, however, the same shall be completed in accordance with applicable laws.

(3) In the event that **LESSEE** does not elect to restore such loss or damage as provided above, then insurance proceeds for the property damage shall be paid to **LESSOR** with all other recoveries being paid to the **LESSEE.** In such event, **LESSEE** shall also pay to **LESSOR** the amount of any deductible under such insurance or a lesser amount if the reasonably estimated cost to repair or replace such casualty is less than the full amount of the deductible.

(4) Notwithstanding anything contained herein to the contrary, to the extent that **LESSEE** elects to restore any loss or damage to the Premises under subparagraphs (1) and (2) above, **LESSEE** may solely settle and adjust any claim with the insurance company regarding the amount to be paid for any loss or damage under insurance as to which **LESSOR** is named as an additional insured and/or loss payee without **LESSOR's** participation or consent (except that **LESSOR** shall cooperate in executing any documents relating to such settlement or adjustment, upon **LESSEE**'s request); otherwise, if **LESSEE** does not elect to restore any loss or damage to the Premises as provided above, then **LESSOR** shall have the right to settle and adjust any claims with the insurance company for insurance proceeds for property damage under insurance as to which **LESSOR** is named as an additional insured and/or loss payee without **LESSEE**'s participation or consent (except that **LESSEE** shall cooperate in executing any documents relating to such settlement or adjustment, upon **LESSOR's** request). In no event shall **LESSOR** have any claims or rights with respect to any business interruption/loss insurance proceeds which are payable under any insurance maintained by **LESSEE**.

## SCHEDULE "5"

Escrow Agreement

[EXHIBIT 7.A.X TO PURCHASE AGREEMENT TO BE ATTACHED]

## SCHEDULE "6"

Form of Letter of Credit

Irrevocable Standby Letter of Credit No.:
Date Issued:
Beneficiary:
Applicant:
Amount:
Expiry Date:

By order of our client, _____, we hereby establish this irrevocable Letter of Credit No. _____ in your favor for an amount up to but not exceeding the aggregate sum of _____ effective immediately, and expiring at the offices of _____ on _____unless renewed as hereafter provided.

The term "Beneficiary" includes any successor by operation of law of the named Beneficiary including, without limitation, any liquidator, rehabilitator, receiver or conservator.

Funds under this Letter of Credit are available to you against your sight draft(s), drawn on us, bearing the clause "Drawn under Credit No. _____ in the form attached hereto.

This Letter of Credit will be automatically renewed without amendment for a one year period upon the expiration date set forth above and upon each anniversary of such date unless at least sixty (60) days prior to such expiration date, or prior to any anniversary of such date, we notify you in writing by registered mail or courier that we elect not to so renew this Letter of Credit.

Upon receipt of you of our notice of election not to renew this Letter of Credit, you may draw hereunder by your sight draft(s) drawn on us and bearing the clause "Drawn under Credit No. _____".

This Letter of Credit sets forth in full the terms of our undertaking. Such undertaking shall not in any way be modified, amended or amplified by reference to any document or instrument referred to herein or in which this Letter of Credit is referred to or to which this Letter of Credit relates and any such reference shall not be deemed to incorporate herein by reference any document or instrument.

All charges and commissions incurred under this transaction will be for the applicant's account. The drawing amount will be paid in full without any deductions for banking related charges.

We hereby agree with the drawers, endorsers and bona fide holders of drafts drawn under and in compliance with the terms of this Credit that such drafts will be duly honored upon presentation to the drawee. We shall honor drawings under the Letter of Credit, without enquiring whether you have a right as between yourself and our said Customer to make such demand and without recognizing any claim of our said Customer. The obligation of _____ under this Letter of Credit is the individual obligation of _____, and is in no way contingent upon reimbursement with respect thereto.

Except as otherwise expressly stated herein, this Credit is subject to and governed by the Laws of the State of New York and 1993 Revision of the Uniform Customs and Practice for Documentary Credits of the International Chamber of Commerce (Publication No. 500) and, in the event of any conflict, the laws of the State of New York will control. If this Credit expires during an interruption of business as described in Article 17 of Said I.C.C. publication, we agree to effect payment if the Credit is drawn against within 30 days after the resumption of business.

Signing Officer Authorized Signing Officer

## SCHEDULE "7"

Lead Based Paint Disclosure

Lead Warning Statement.

Housing built before 1978 may contain lead-based paint. Lead from paint, paint chips, and dust can pose health hazards if not managed properly. Lead exposure is especially harmful to young children and pregnant women. Before renting pre-1978 housing, lessors must disclose the presence of known lead-based paint and/or lead-based paint hazards in the dwelling. LESSEE must also receive a federally approved pamphlet on lead poisoning prevention. LESSOR hereby advises LESSEE that LESSOR believes that there may be lead-based paint and/or lead-based paint hazards in residential structures that are being leased to LESSEE in this transaction, however, LESSOR has no reports or records pertaining to the same. By execution of this LEASE, LESSEE acknowledges that it has received the pamphlet "Protect Your Family from Lead in Your Home".

**EXHIBIT 19.e-2**

**LEASE FOR CITRUS LANDS**

**[SEE ATTACHED]**